



## Full wwPDB EM Validation Report ⓘ

Jul 7, 2024 – 06:53 pm BST

PDB ID : 7PKR  
EMDB ID : EMD-13478  
Title : Vault structure in primmed conformation  
Authors : Guerra, P.; Gonzalez-Alamos, M.; Llauro, A.; Casanas, A.; Querol-Audi, J.; de Pablo, P.; Verdaguer, N.  
Deposited on : 2021-08-26  
Resolution : 3.80 Å(reported)  
Based on initial model : 4HL8

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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The following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

EMDB validation analysis : 0.0.1.dev92  
MolProbity : 4.02b-467  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.37.1

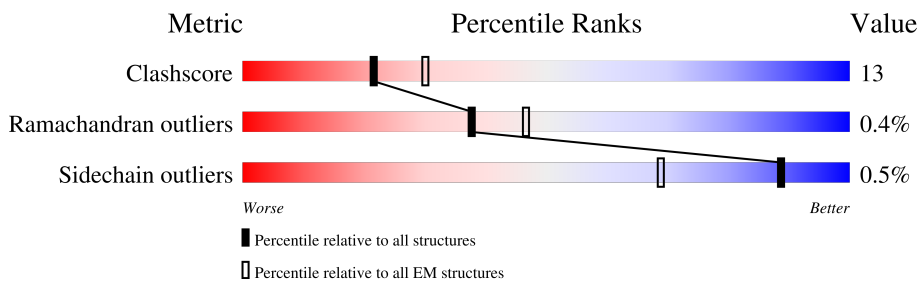
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 3.80 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



| Metric                | Whole archive (#Entries) | EM structures (#Entries) |
|-----------------------|--------------------------|--------------------------|
| Clashscore            | 158937                   | 4297                     |
| Ramachandran outliers | 154571                   | 4023                     |
| Sidechain outliers    | 154315                   | 3826                     |

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ . The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion  $< 40\%$ ). The numeric value is given above the bar.

| Mol | Chain | Length | Quality of chain                                |
|-----|-------|--------|---|
| 1   | A     | 861    | 11% (red), 61% (green), 30% (yellow), 9% (grey) |
| 1   | AA    | 861    | 11% (red), 64% (green), 26% (yellow), 9% (grey) |
| 1   | AB    | 861    | 11% (red), 63% (green), 27% (yellow), 9% (grey) |
| 1   | AC    | 861    | 13% (red), 62% (green), 28% (yellow), 9% (grey) |
| 1   | B     | 861    | 12% (red), 63% (green), 28% (yellow), 9% (grey) |
| 1   | BA    | 861    | 13% (red), 63% (green), 27% (yellow), 9% (grey) |
| 1   | BB    | 861    | 13% (red), 62% (green), 28% (yellow), 9% (grey) |
| 1   | C     | 861    | 13% (red), 61% (green), 29% (yellow), 9% (grey) |

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| Mol | Chain | Length | Quality of chain |     |     |      |
|-----|-------|--------|------------------|-----|-----|------|
| 1   | CA    | 861    | 12%              | 64% | 26% | • 9% |
| 1   | CB    | 861    | 13%              | 62% | 28% | • 9% |
| 1   | D     | 861    | 13%              | 63% | 27% | • 9% |
| 1   | DA    | 861    | 13%              | 64% | 27% | • 9% |
| 1   | DB    | 861    | 11%              | 63% | 27% | • 9% |
| 1   | E     | 861    | 14%              | 62% | 28% | • 9% |
| 1   | EA    | 861    | 11%              | 64% | 26% | • 9% |
| 1   | EB    | 861    | 12%              | 62% | 29% | • 9% |
| 1   | F     | 861    | 12%              | 63% | 28% | • 9% |
| 1   | FA    | 861    | 14%              | 64% | 26% | • 9% |
| 1   | FB    | 861    | 11%              | 62% | 28% | • 9% |
| 1   | G     | 861    | 13%              | 62% | 28% | • 9% |
| 1   | GA    | 861    | 12%              | 63% | 27% | • 9% |
| 1   | GB    | 861    | 13%              | 63% | 27% | • 9% |
| 1   | H     | 861    | 12%              | 60% | 30% | • 9% |
| 1   | HA    | 861    | 13%              | 64% | 27% | • 9% |
| 1   | HB    | 861    | 13%              | 62% | 28% | • 9% |
| 1   | I     | 861    | 13%              | 63% | 28% | • 9% |
| 1   | IA    | 861    | 13%              | 63% | 27% | • 9% |
| 1   | IB    | 861    | 13%              | 60% | 30% | • 9% |
| 1   | J     | 861    | 11%              | 61% | 30% | • 9% |
| 1   | JA    | 861    | 12%              | 64% | 26% | • 9% |
| 1   | JB    | 861    | 14%              | 61% | 29% | • 9% |
| 1   | K     | 861    | 13%              | 63% | 28% | • 9% |
| 1   | KA    | 861    | 13%              | 62% | 29% | • 9% |

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| Mol | Chain | Length | Quality of chain |     |     |    |
|-----|-------|--------|------------------|-----|-----|----|
| 1   | KB    | 861    | 13%              | 63% | 27% | 9% |
| 1   | L     | 861    | 11%              | 64% | 27% | 9% |
| 1   | LA    | 861    | 12%              | 63% | 27% | 9% |
| 1   | LB    | 861    | 13%              | 61% | 29% | 9% |
| 1   | M     | 861    | 13%              | 63% | 27% | 9% |
| 1   | MA    | 861    | 13%              | 62% | 29% | 9% |
| 1   | MB    | 861    | 11%              | 60% | 30% | 9% |
| 1   | N     | 861    | 11%              | 64% | 27% | 9% |
| 1   | NA    | 861    | 12%              | 63% | 27% | 9% |
| 1   | NB    | 861    | 11%              | 62% | 28% | 9% |
| 1   | O     | 861    | 12%              | 62% | 28% | 9% |
| 1   | OA    | 861    | 12%              | 64% | 27% | 9% |
| 1   | OB    | 861    | 11%              | 63% | 27% | 9% |
| 1   | P     | 861    | 11%              | 62% | 28% | 9% |
| 1   | PA    | 861    | 12%              | 64% | 26% | 9% |
| 1   | PB    | 861    | 11%              | 62% | 28% | 9% |
| 1   | Q     | 861    | 12%              | 62% | 29% | 9% |
| 1   | QA    | 861    | 12%              | 63% | 27% | 9% |
| 1   | QB    | 861    | 12%              | 62% | 28% | 9% |
| 1   | R     | 861    | 12%              | 62% | 28% | 9% |
| 1   | RA    | 861    | 12%              | 64% | 26% | 9% |
| 1   | RB    | 861    | 12%              | 63% | 27% | 9% |
| 1   | S     | 861    | 10%              | 64% | 26% | 9% |
| 1   | SA    | 861    | 13%              | 63% | 27% | 9% |
| 1   | SB    | 861    | 12%              | 64% | 26% | 9% |

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| Mol | Chain | Length | Quality of chain |     |     |      |
|-----|-------|--------|------------------|-----|-----|------|
| 1   | T     | 861    | 13%              | 64% | 26% | • 9% |
| 1   | TA    | 861    | 13%              | 63% | 27% | • 9% |
| 1   | TB    | 861    | 14%              | 64% | 26% | • 9% |
| 1   | UA    | 861    | 13%              | 62% | 28% | • 9% |
| 1   | UB    | 861    | 13%              | 60% | 30% | • 9% |
| 1   | V     | 861    | 11%              | 62% | 28% | • 9% |
| 1   | VA    | 861    | 12%              | 64% | 26% | • 9% |
| 1   | VB    | 861    | 14%              | 59% | 31% | • 9% |
| 1   | W     | 861    | 13%              | 64% | 26% | • 9% |
| 1   | WA    | 861    | 13%              | 63% | 27% | • 9% |
| 1   | WB    | 861    | 11%              | 62% | 28% | • 9% |
| 1   | X     | 861    | 12%              | 62% | 29% | • 9% |
| 1   | XA    | 861    | 12%              | 64% | 26% | • 9% |
| 1   | XB    | 861    | 11%              | 63% | 27% | • 9% |
| 1   | Y     | 861    | 12%              | 64% | 26% | • 9% |
| 1   | YA    | 861    | 12%              | 63% | 27% | • 9% |
| 1   | YB    | 861    | 11%              | 62% | 28% | • 9% |
| 1   | Z     | 861    | 13%              | 62% | 28% | • 9% |
| 1   | ZA    | 861    | 13%              | 64% | 26% | • 9% |
| 1   | ZB    | 861    | 12%              | 61% | 29% | • 9% |

## 2 Entry composition [i](#)

There is only 1 type of molecule in this entry. The entry contains 479700 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called Major vault protein.

| Mol | Chain | Residues | Atoms |      |      |      |    | AltConf | Trace |
|-----|-------|----------|-------|------|------|------|----|---------|-------|
|     |       |          | Total | C    | N    | O    | S  |         |       |
| 1   | A     | 782      | 6150  | 3871 | 1100 | 1164 | 15 | 0       | 0     |
| 1   | B     | 782      | 6150  | 3871 | 1100 | 1164 | 15 | 0       | 0     |
| 1   | C     | 782      | 6150  | 3871 | 1100 | 1164 | 15 | 0       | 0     |
| 1   | D     | 782      | 6150  | 3871 | 1100 | 1164 | 15 | 0       | 0     |
| 1   | E     | 782      | 6150  | 3871 | 1100 | 1164 | 15 | 0       | 0     |
| 1   | F     | 782      | 6150  | 3871 | 1100 | 1164 | 15 | 0       | 0     |
| 1   | G     | 782      | 6150  | 3871 | 1100 | 1164 | 15 | 0       | 0     |
| 1   | H     | 782      | 6150  | 3871 | 1100 | 1164 | 15 | 0       | 0     |
| 1   | I     | 782      | 6150  | 3871 | 1100 | 1164 | 15 | 0       | 0     |
| 1   | J     | 782      | 6150  | 3871 | 1100 | 1164 | 15 | 0       | 0     |
| 1   | K     | 782      | 6150  | 3871 | 1100 | 1164 | 15 | 0       | 0     |
| 1   | L     | 782      | 6150  | 3871 | 1100 | 1164 | 15 | 0       | 0     |
| 1   | M     | 782      | 6150  | 3871 | 1100 | 1164 | 15 | 0       | 0     |
| 1   | N     | 782      | 6150  | 3871 | 1100 | 1164 | 15 | 0       | 0     |
| 1   | O     | 782      | 6150  | 3871 | 1100 | 1164 | 15 | 0       | 0     |
| 1   | P     | 782      | 6150  | 3871 | 1100 | 1164 | 15 | 0       | 0     |
| 1   | Q     | 782      | 6150  | 3871 | 1100 | 1164 | 15 | 0       | 0     |

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| Mol | Chain | Residues | Atoms |      |      |      |    | AltConf | Trace |
|-----|-------|----------|-------|------|------|------|----|---------|-------|
| 1   | R     | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | S     | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | T     | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | V     | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | W     | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | X     | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | Y     | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | Z     | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | AA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | BA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | CA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | DA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | EA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | FA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | GA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | HA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | IA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | JA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | KA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | LA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | MA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |

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| Mol | Chain | Residues | Atoms |      |      |      |    | AltConf | Trace |
|-----|-------|----------|-------|------|------|------|----|---------|-------|
| 1   | NA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | OA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | PA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | QA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | RA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | SA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | TA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | UA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | VA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | WA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | XA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | YA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | ZA    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | AB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | BB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | CB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | DB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | EB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | FB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | GB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | HB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |

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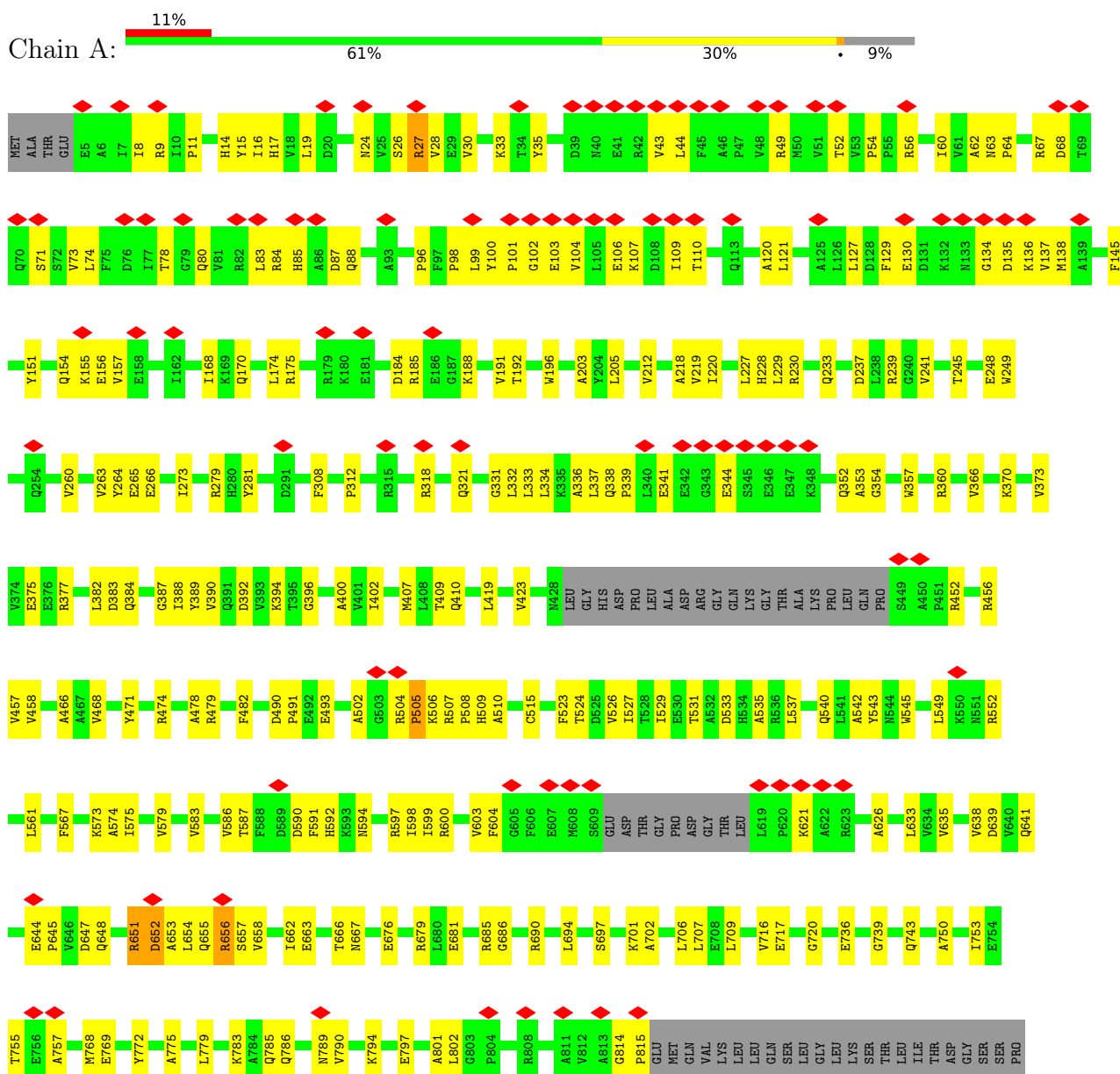
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| Mol | Chain | Residues | Atoms |      |      |      |    | AltConf | Trace |
|-----|-------|----------|-------|------|------|------|----|---------|-------|
| 1   | IB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | JB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | KB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | LB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | MB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | NB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | OB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | PB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | QB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | RB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | SB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | TB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | UB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | VB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | WB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | XB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | YB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | ZB    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |
| 1   | AC    | 782      | Total | C    | N    | O    | S  | 0       | 0     |
|     |       |          | 6150  | 3871 | 1100 | 1164 | 15 |         |       |

### 3 Residue-property plots

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

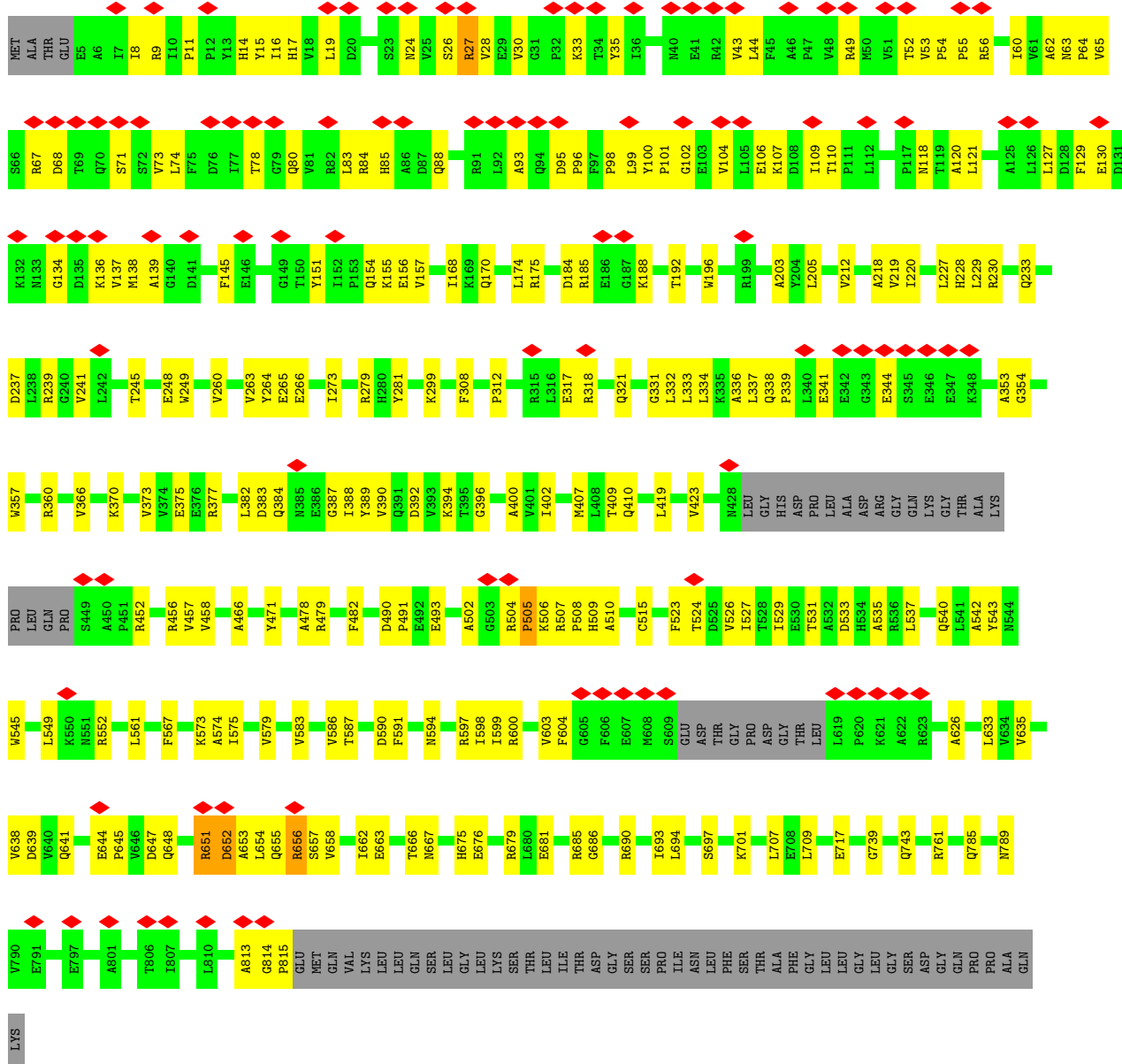
#### • Molecule 1: Major vault protein



ILE  
ASN  
LEU  
THR  
PHE  
SER  
THR  
ALA  
PHE  
GLY  
LEU  
LEU  
GLY  
LEU  
GLY  
SER  
SER  
ASP  
GLY  
GLN  
PRO  
PRO  
ALA  
GLN  
LYS

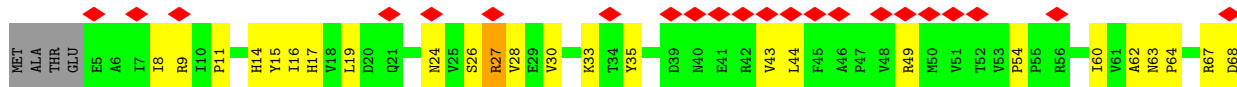
## ● Molecule 1: Major vault protein

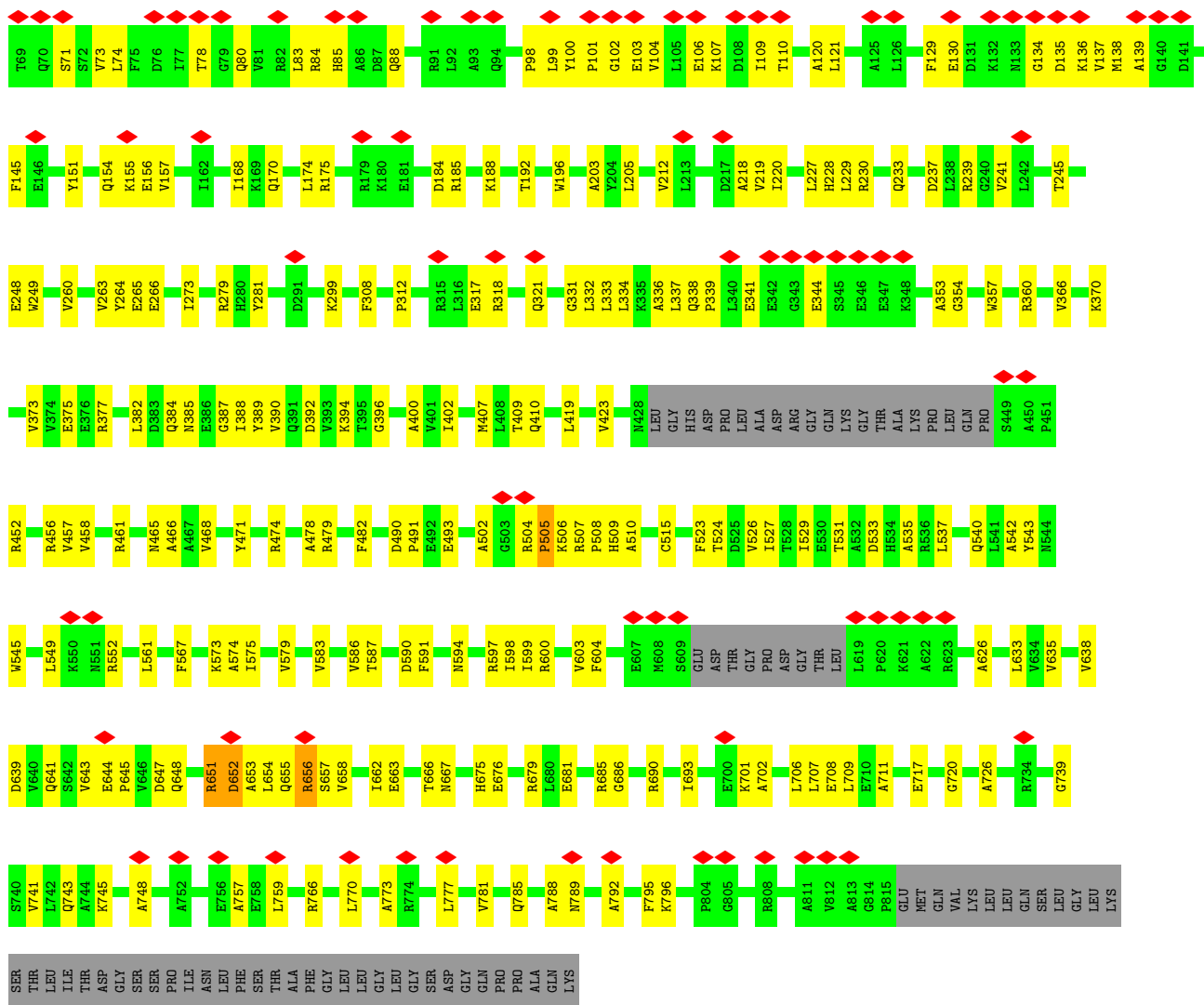
Chain B: 12% 63% 28% 9%



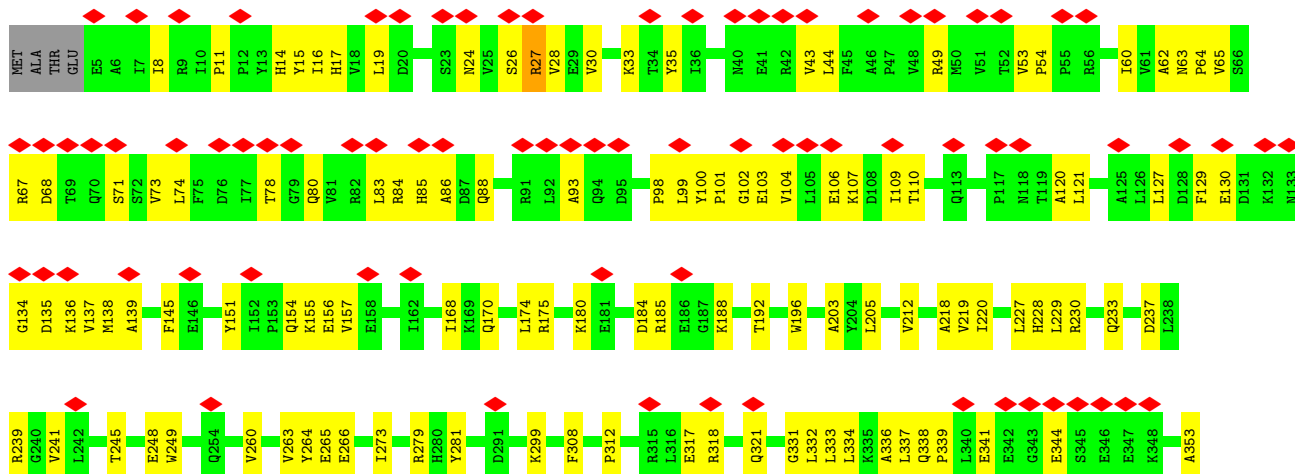
## ● Molecule 1: Major vault protein

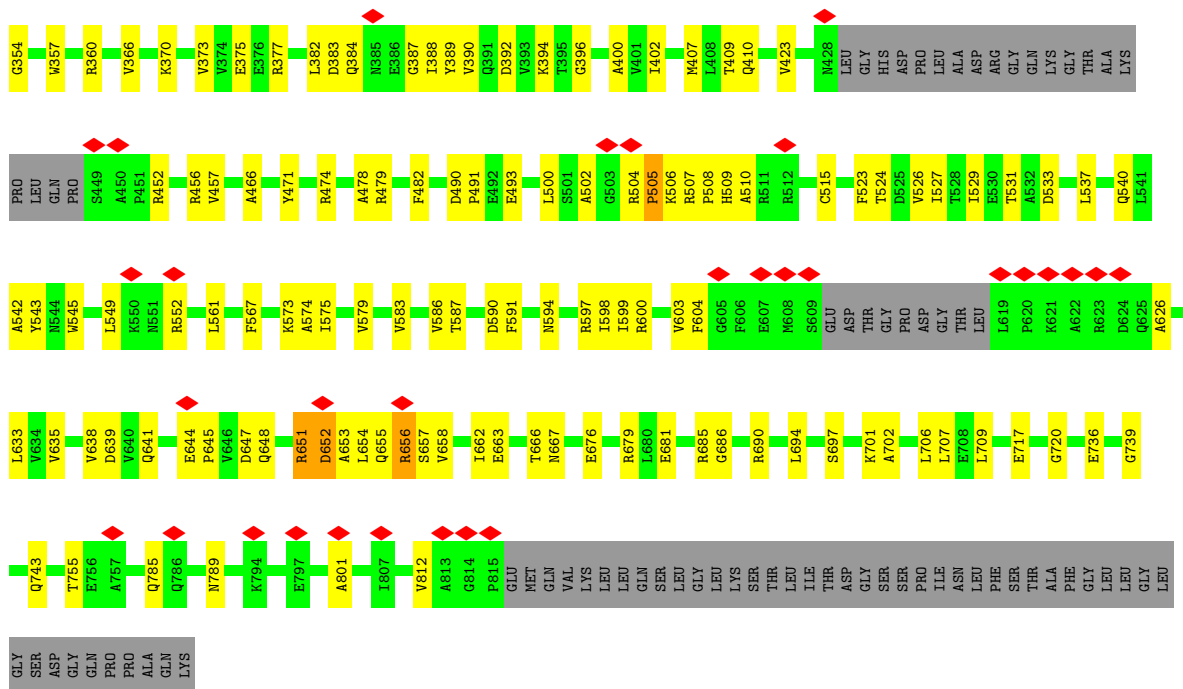
Chain C: 13% 61% 29% 9%



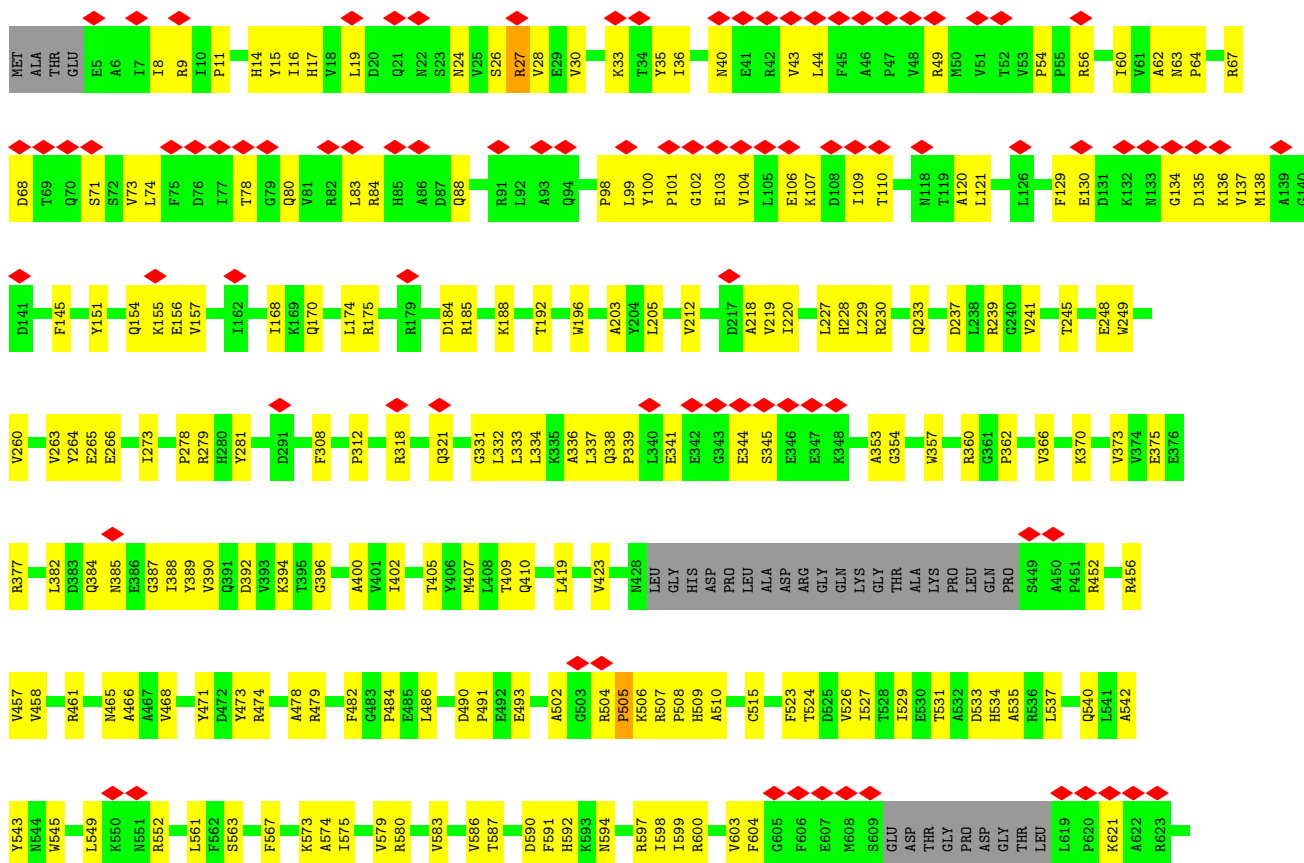


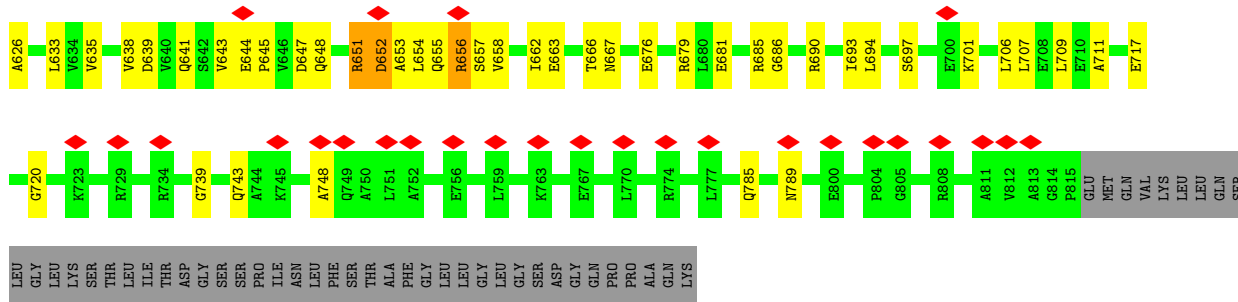
• Molecule 1: Major vault protein



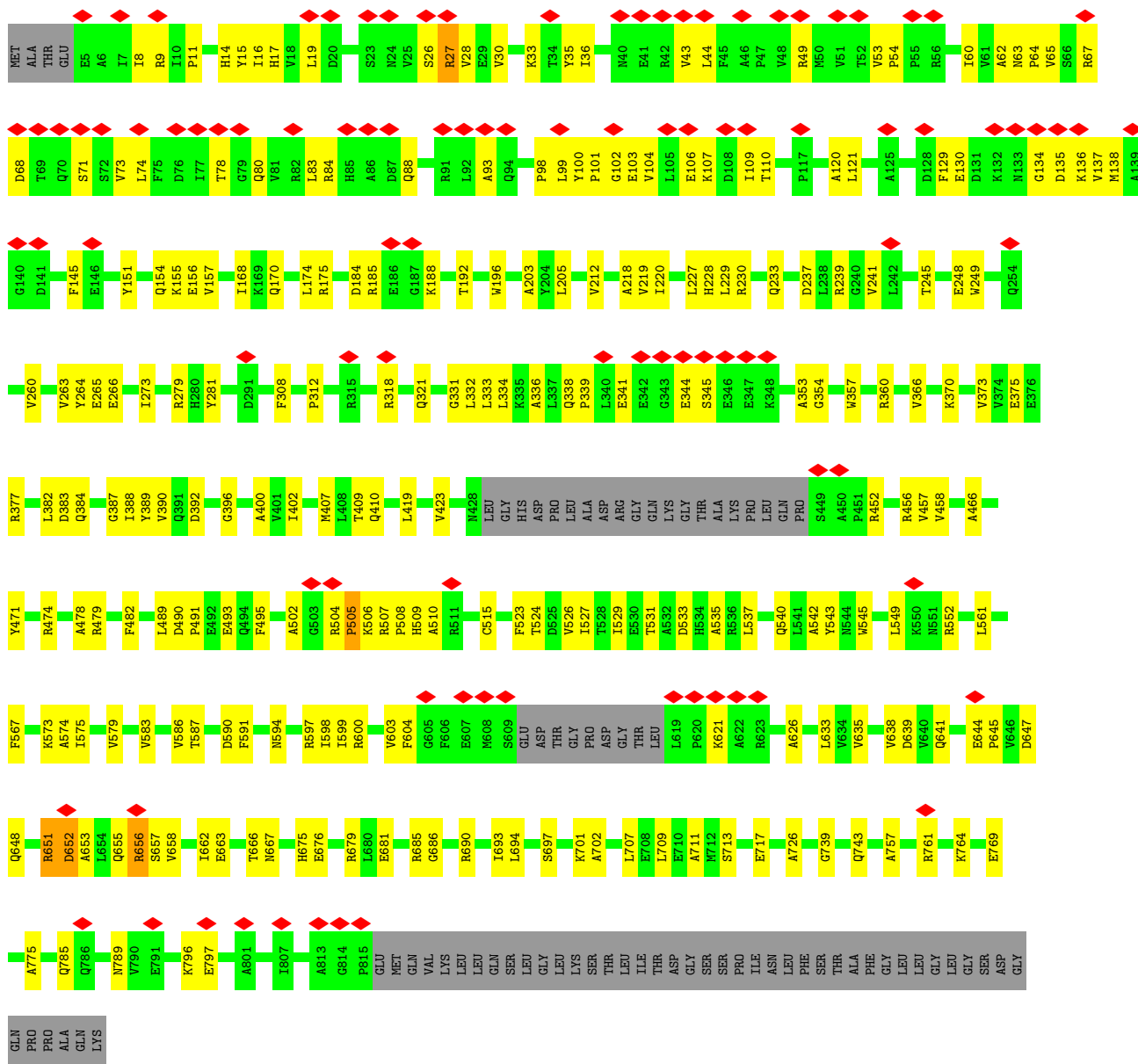


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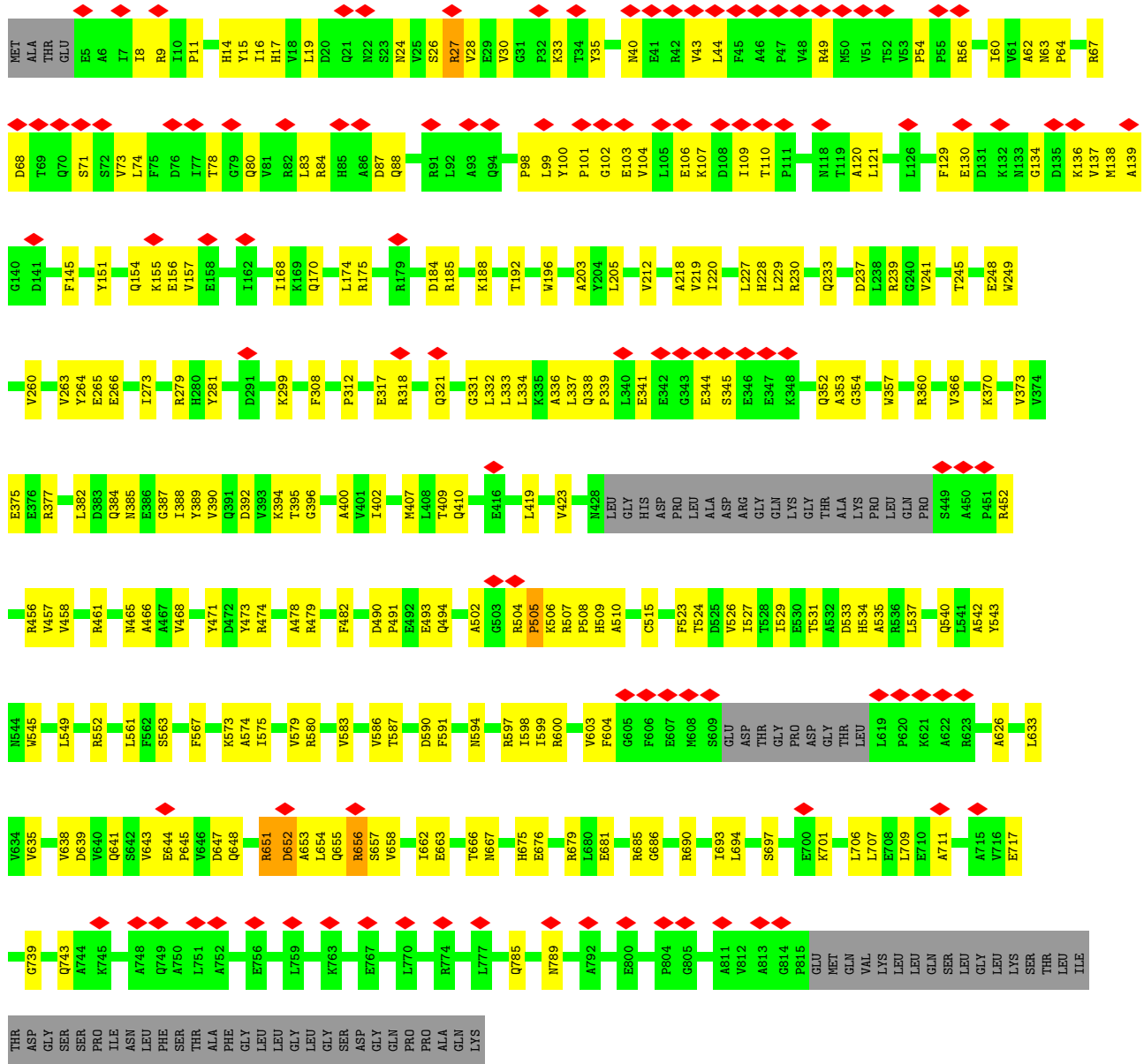




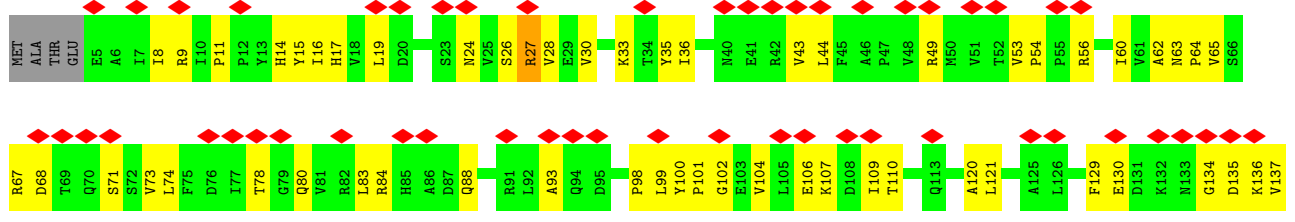
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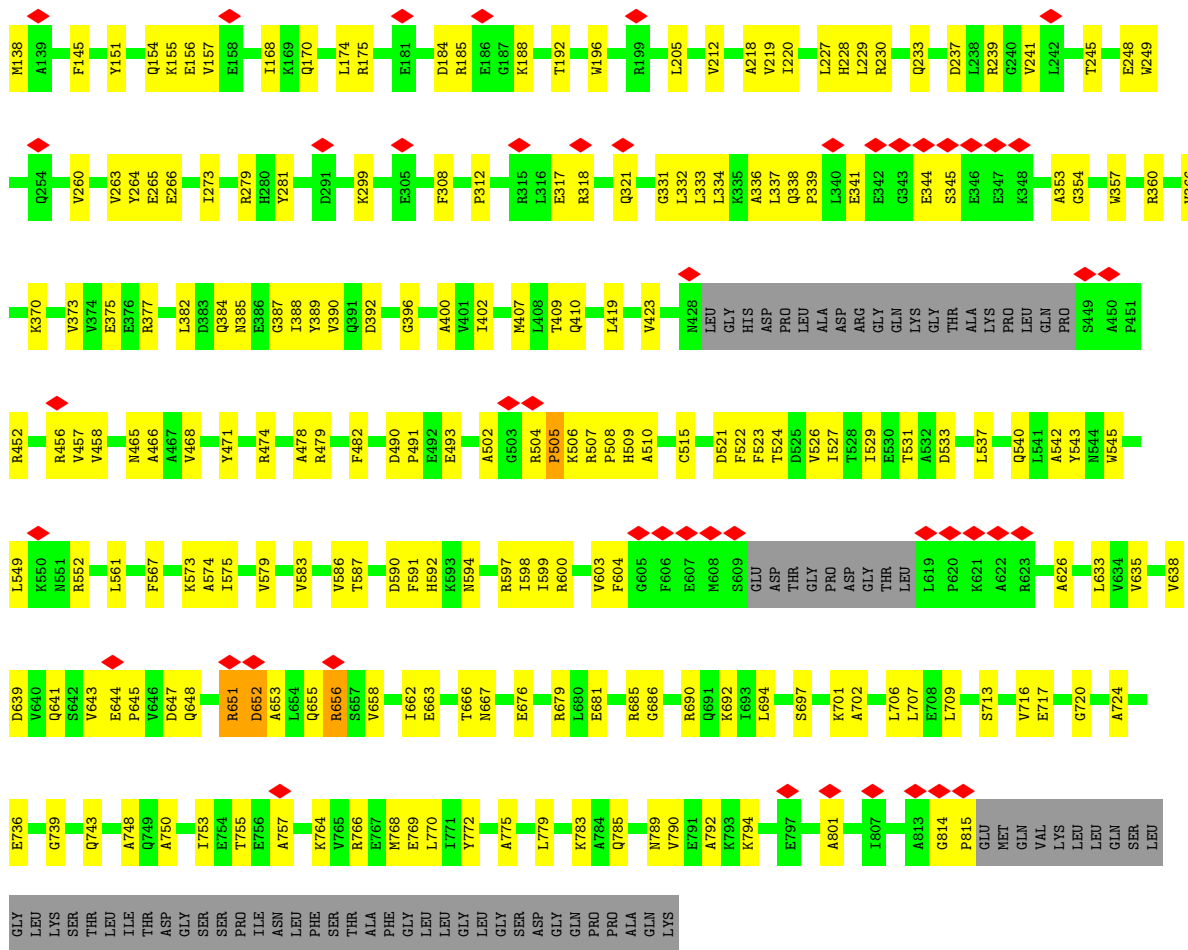


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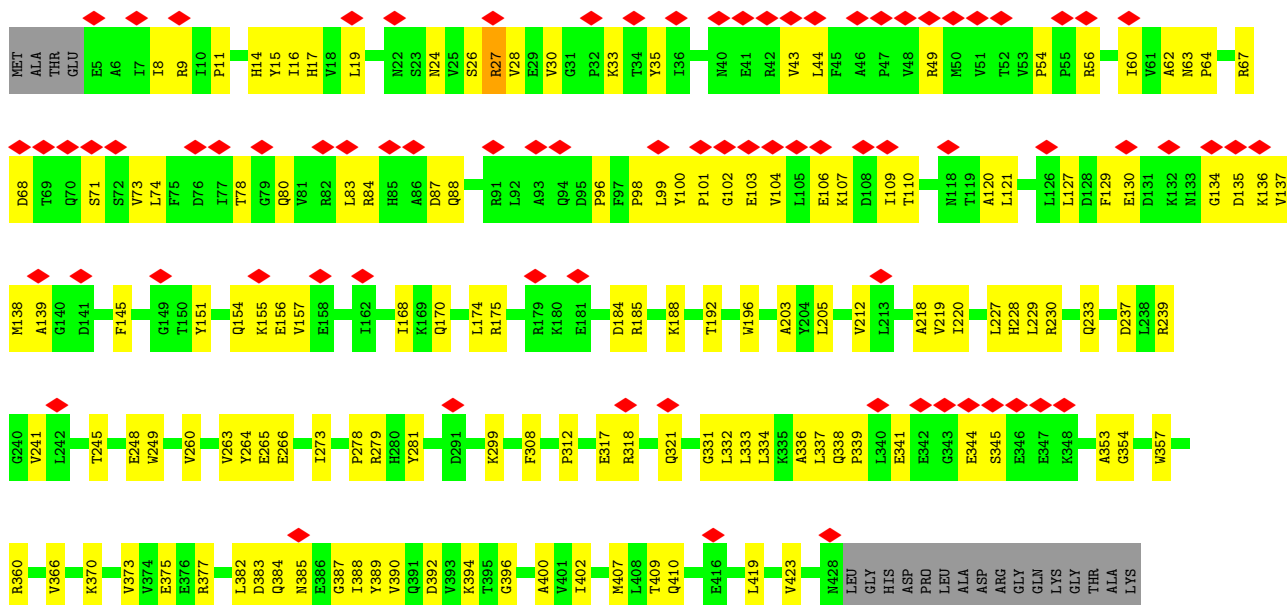


- Molecule 1: Major vault protein

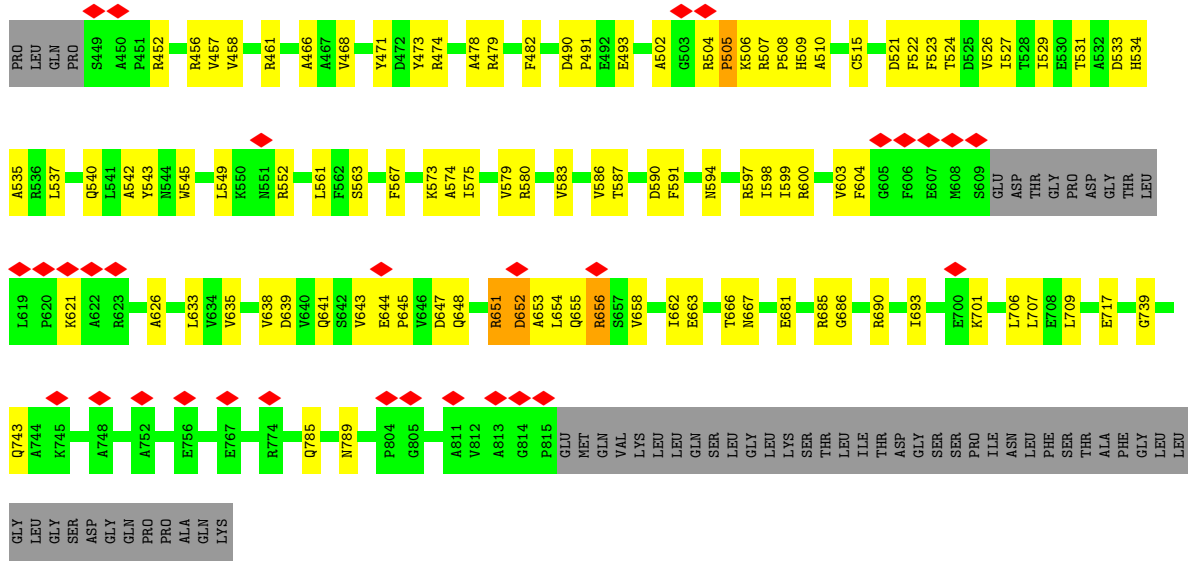




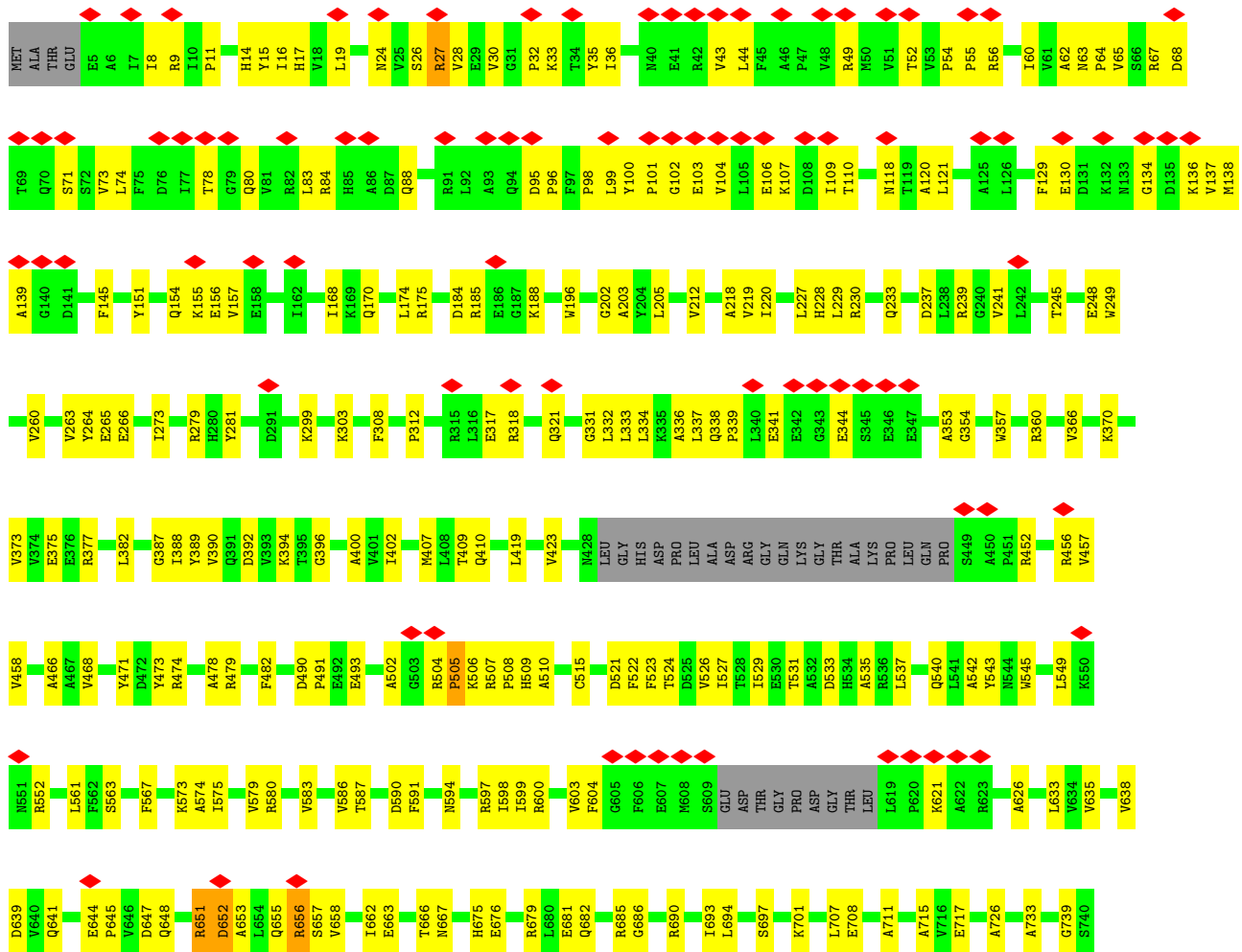
● Molecule 1: Major vault protein

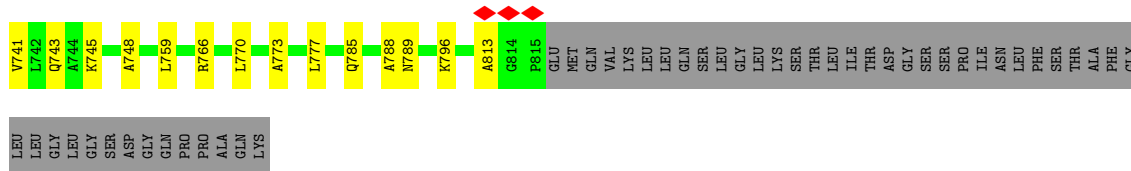




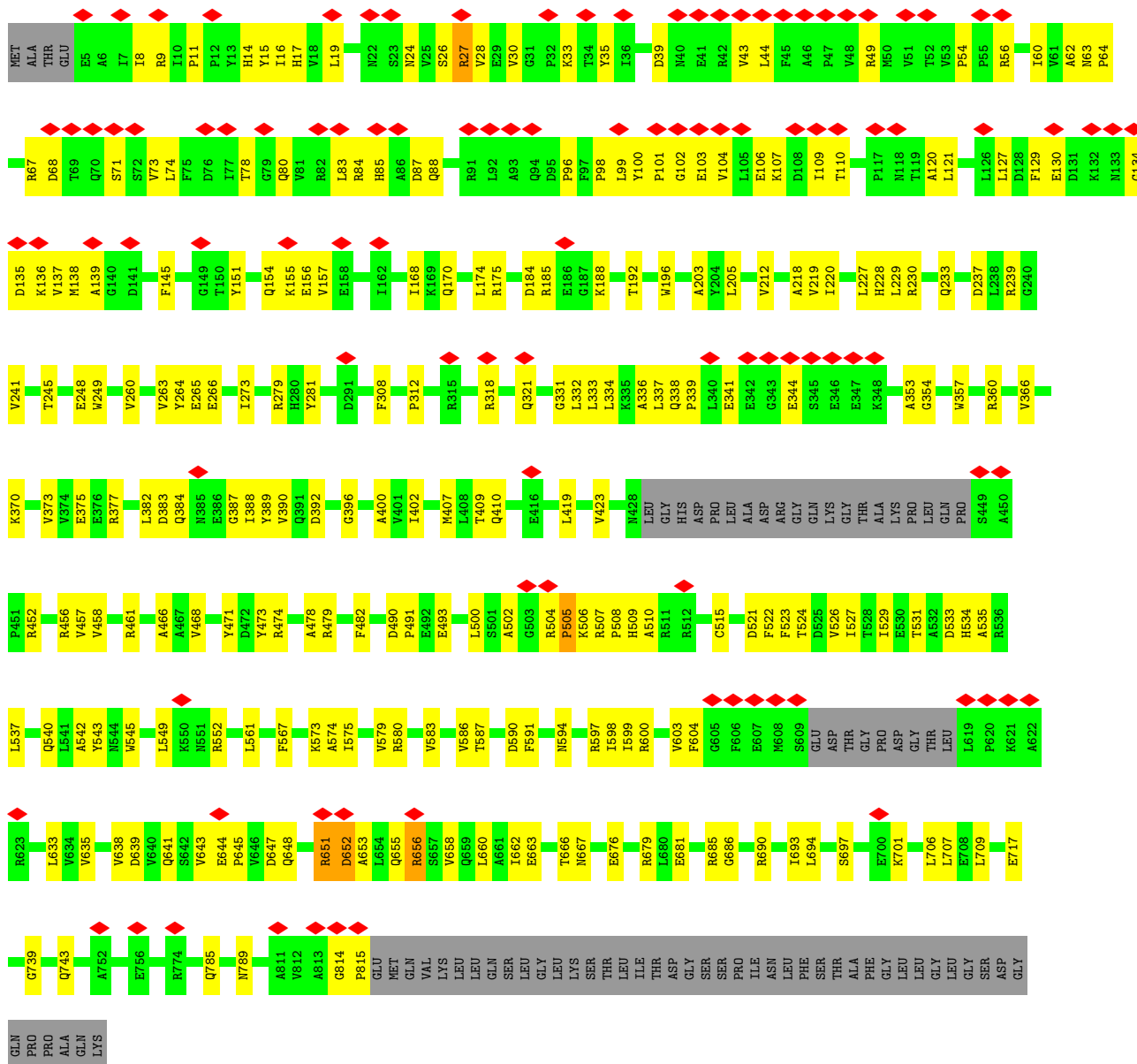


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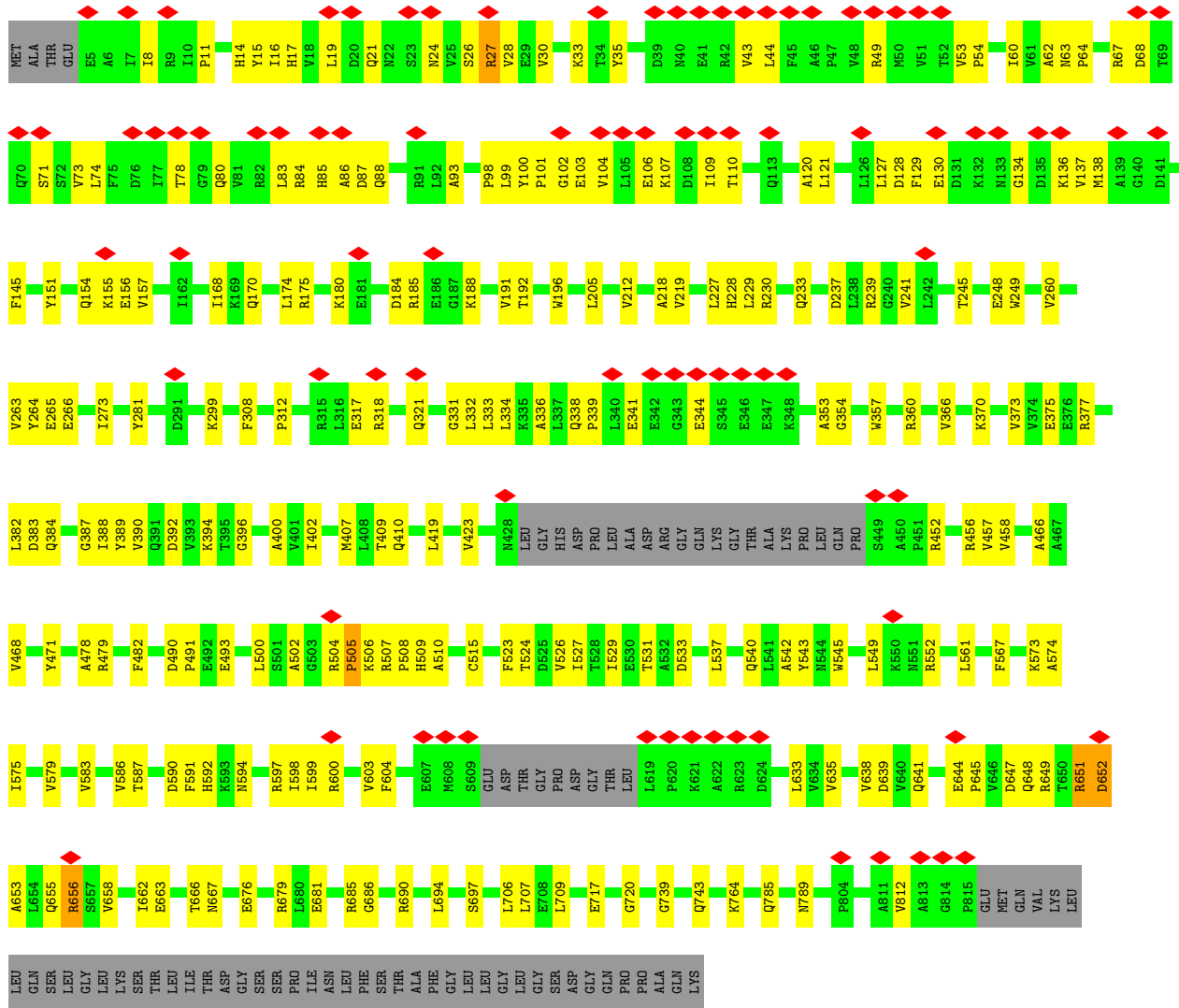


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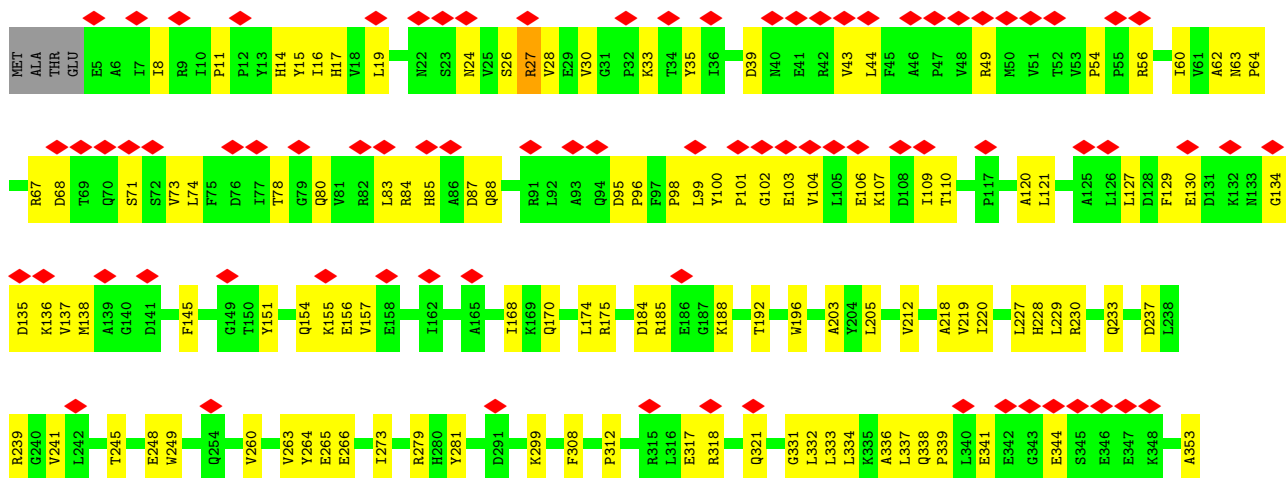


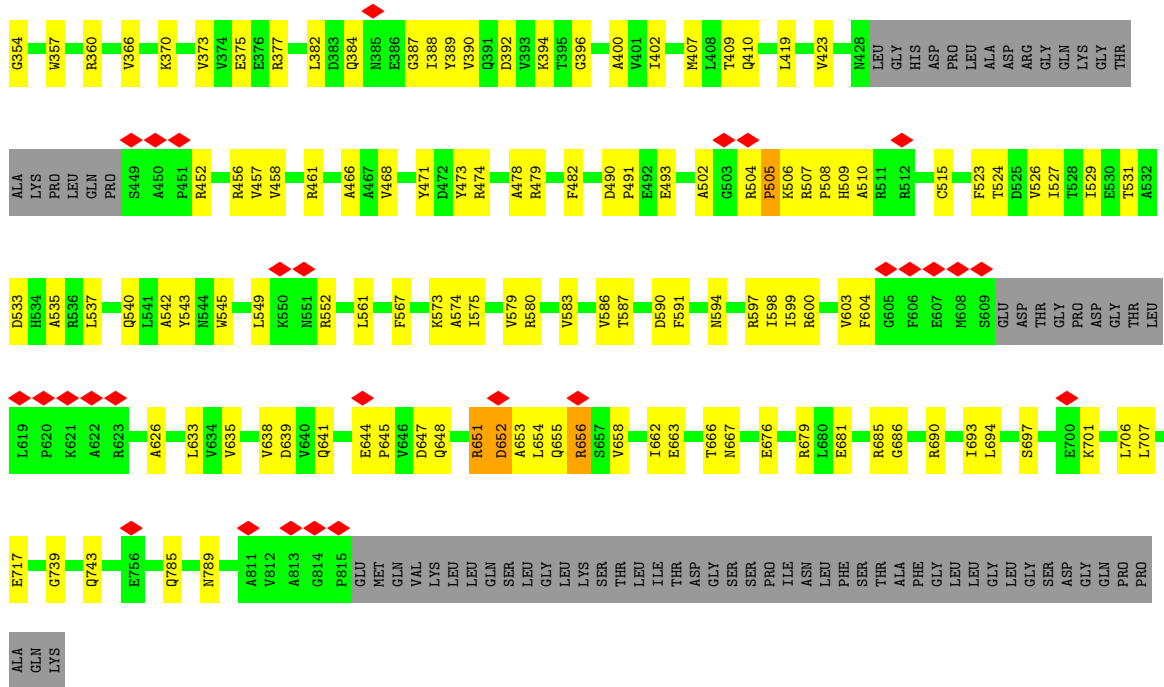
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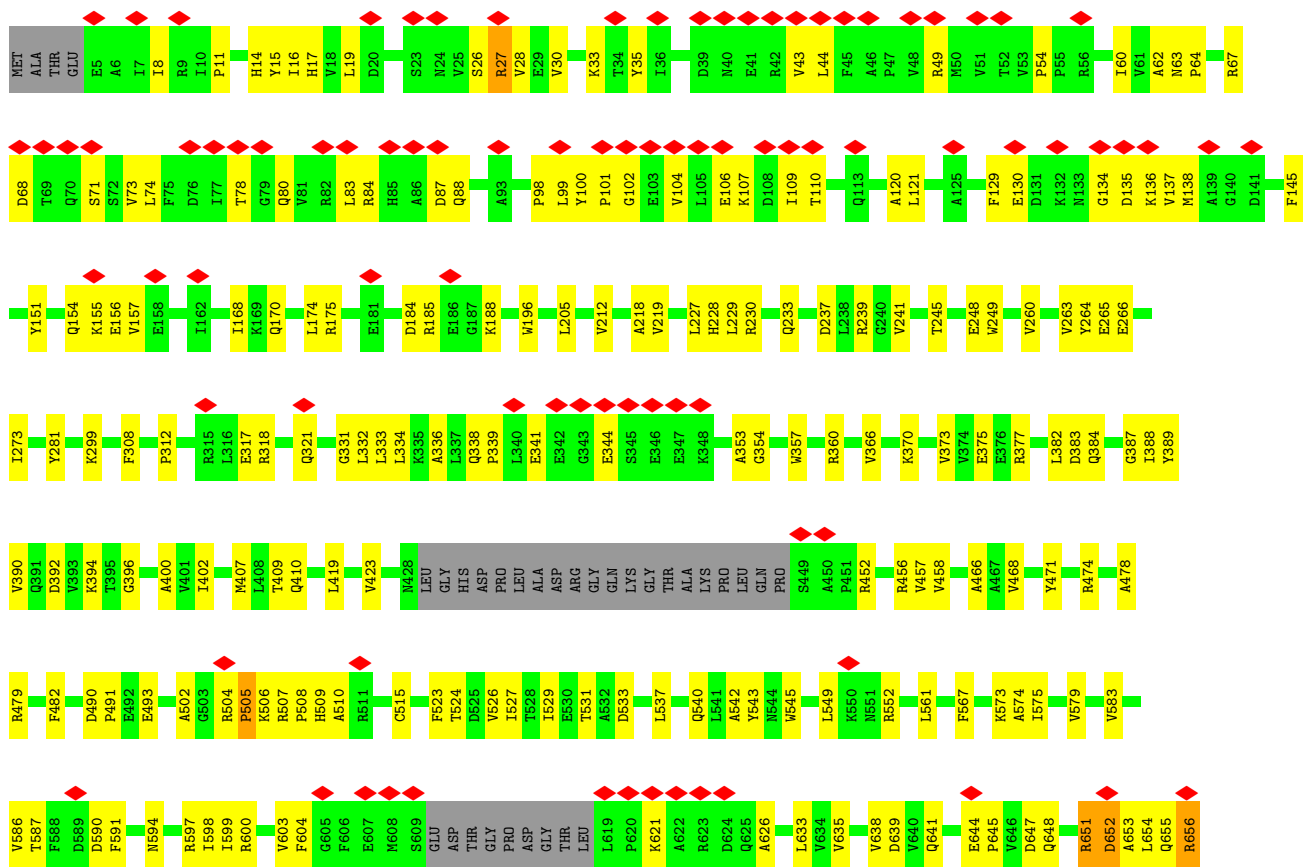


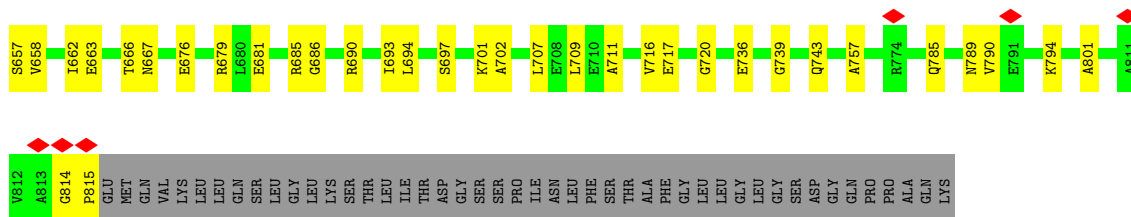
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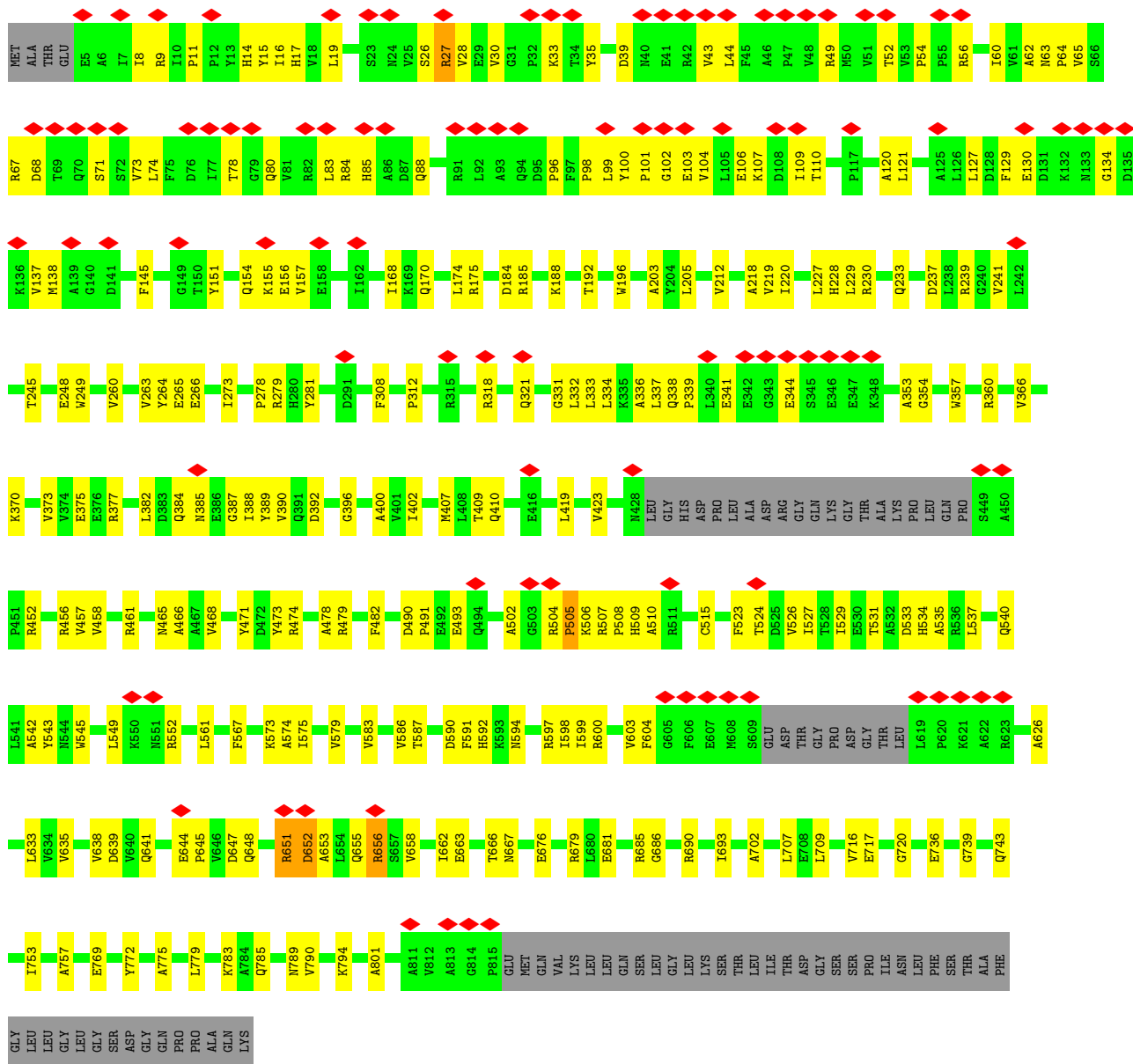


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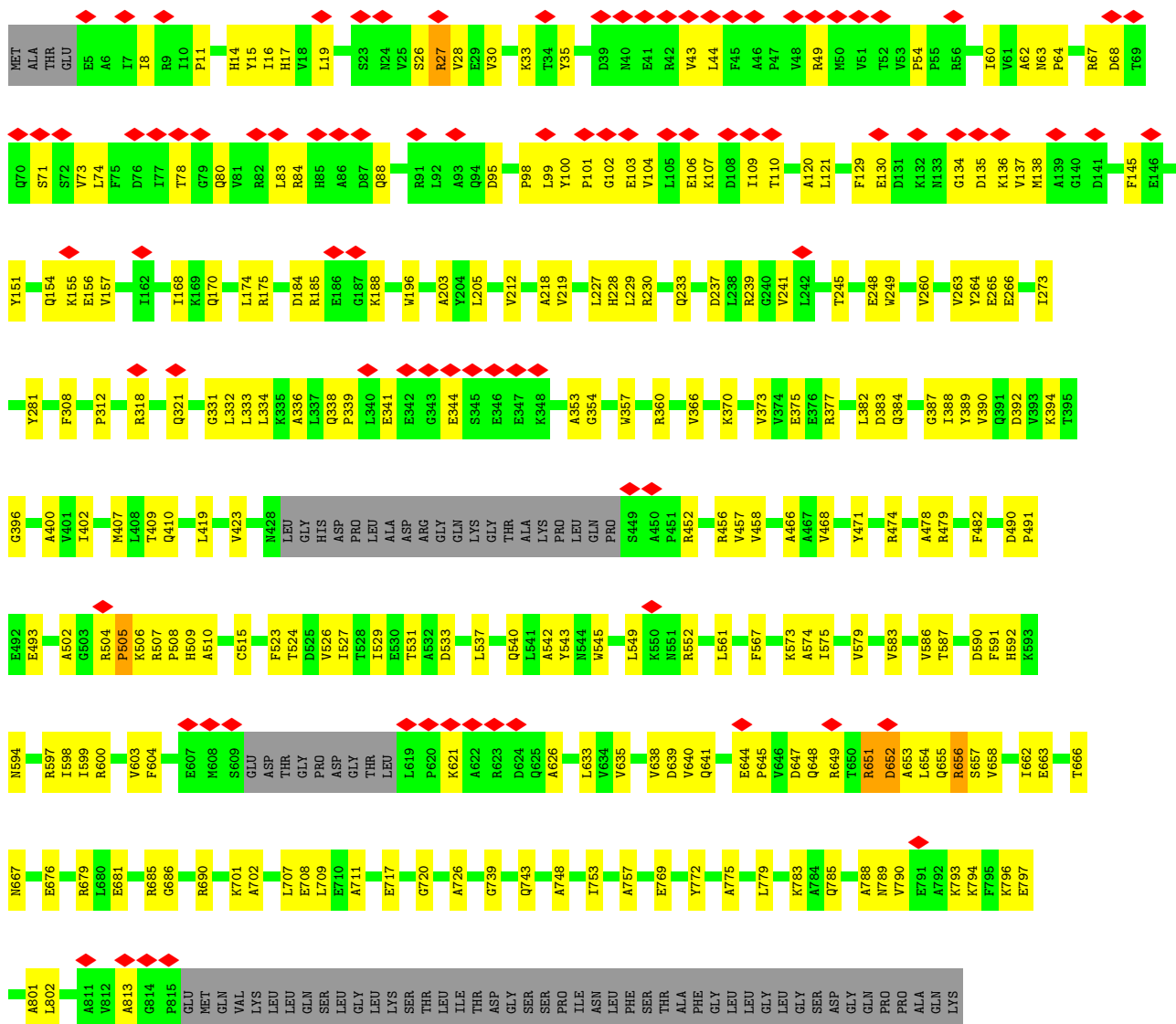


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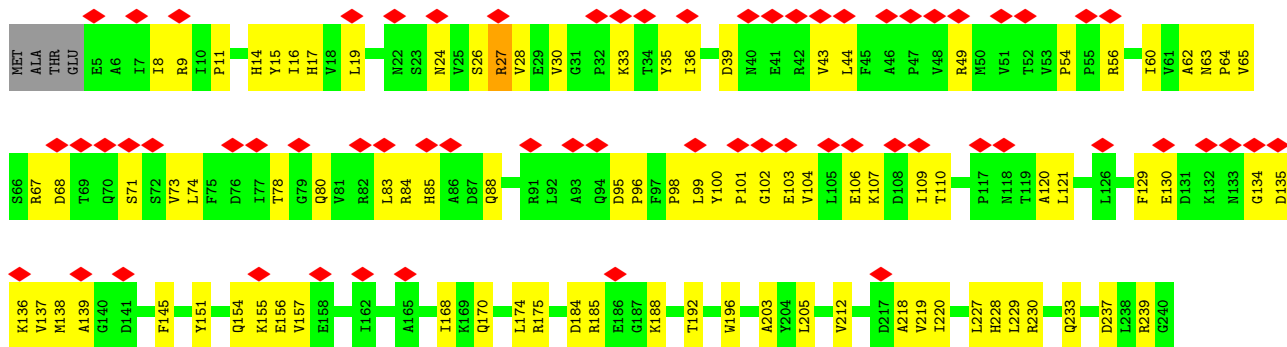


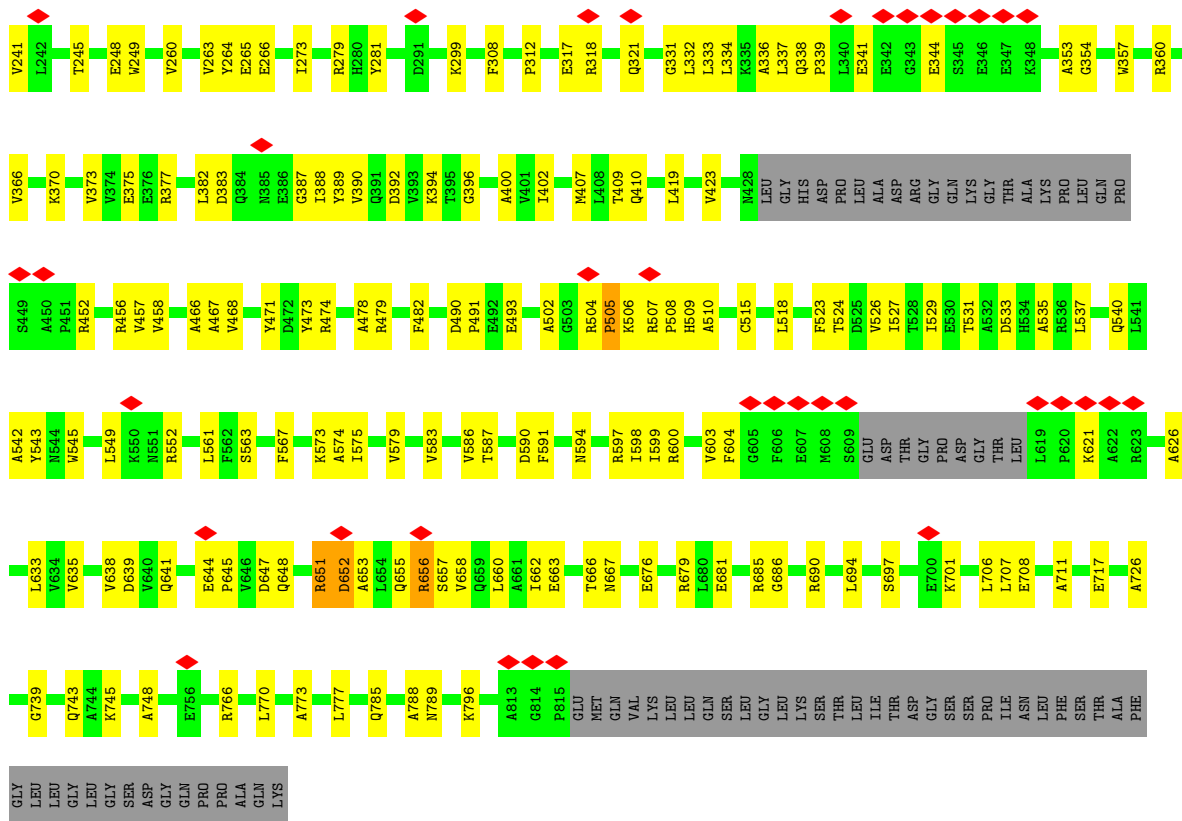
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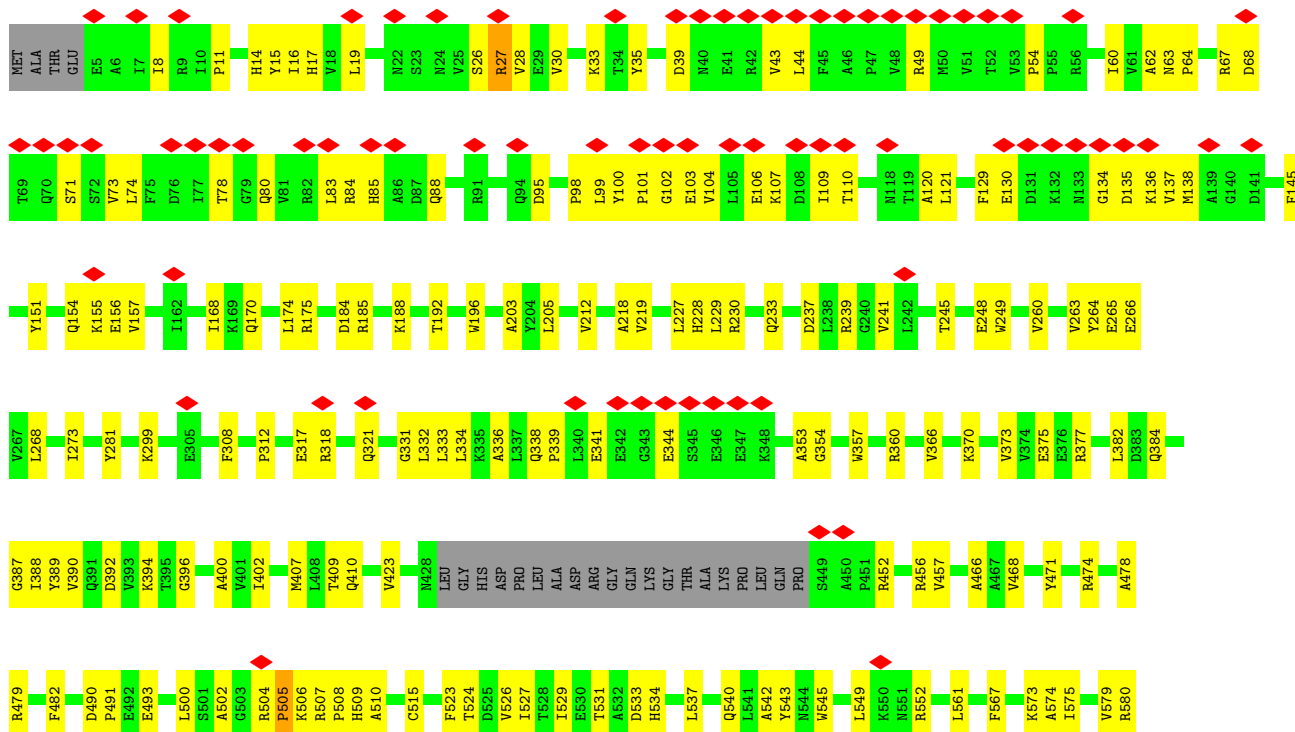


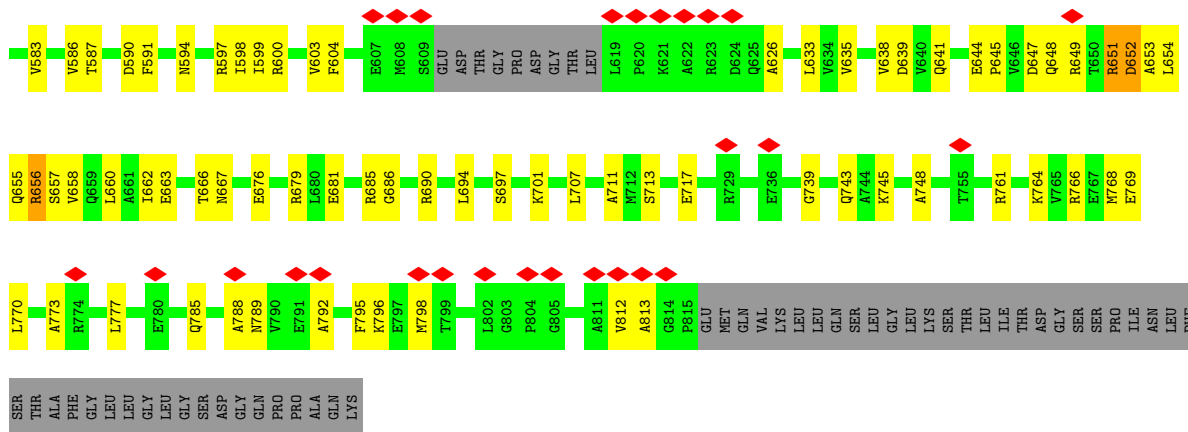
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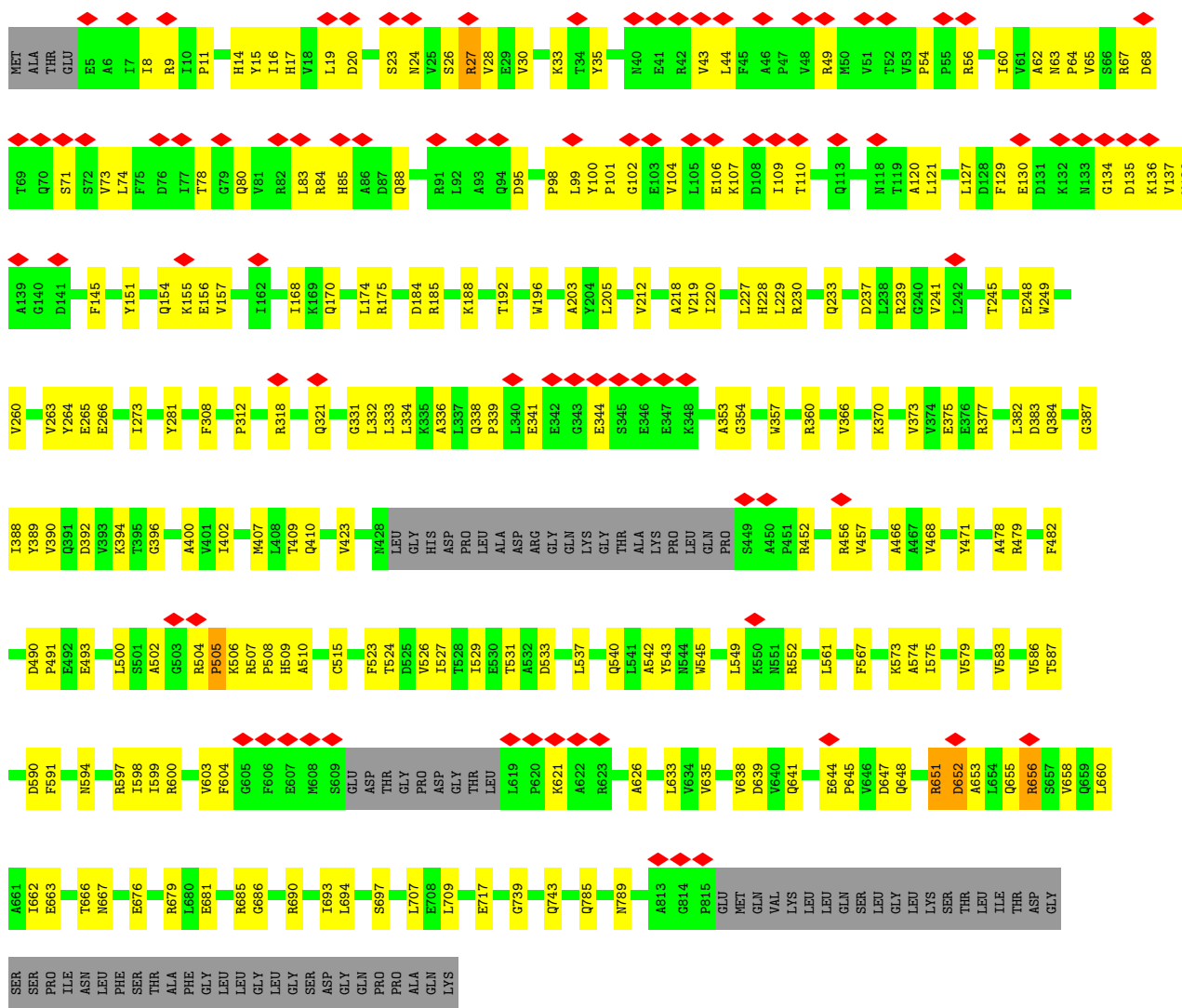


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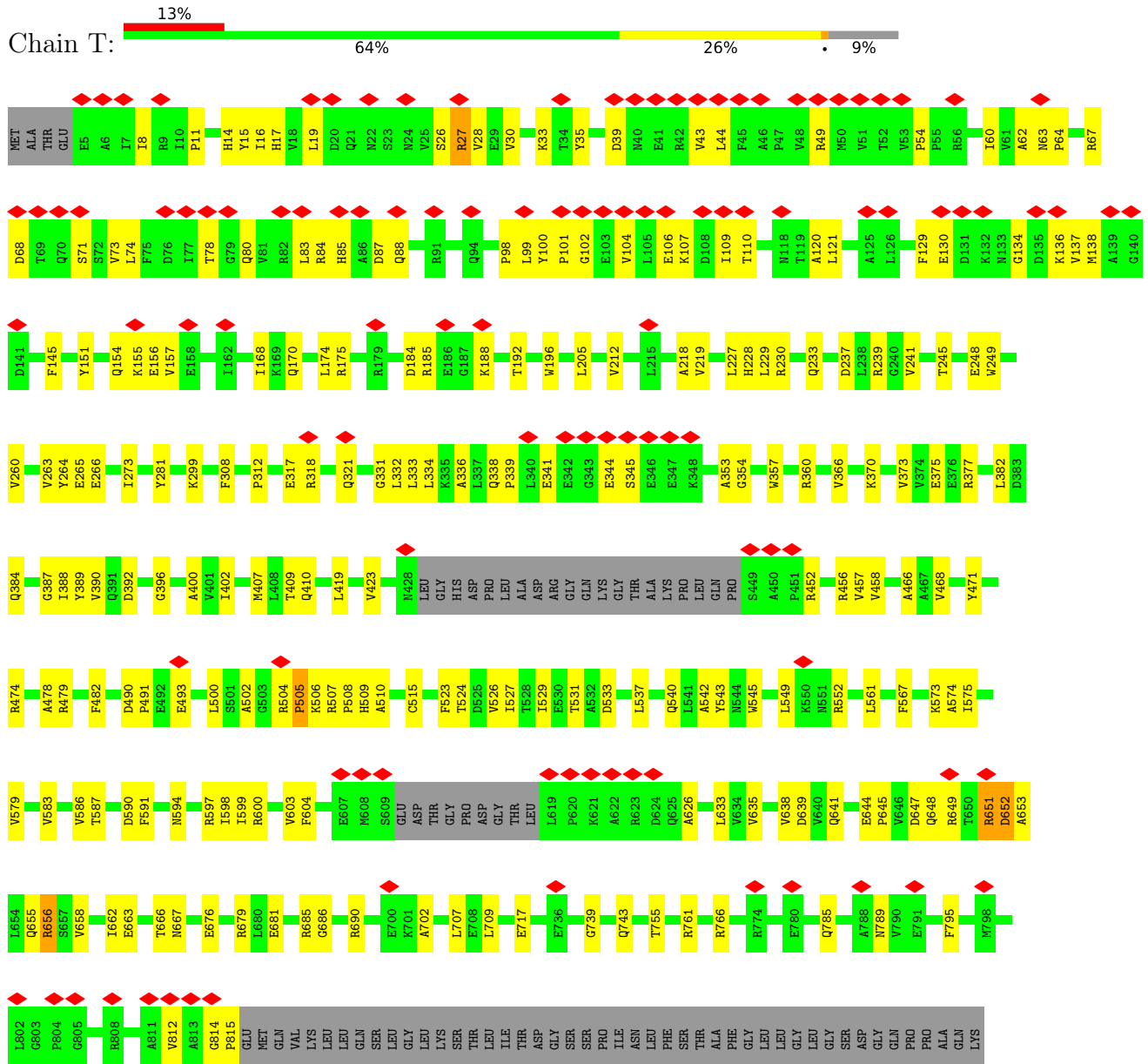


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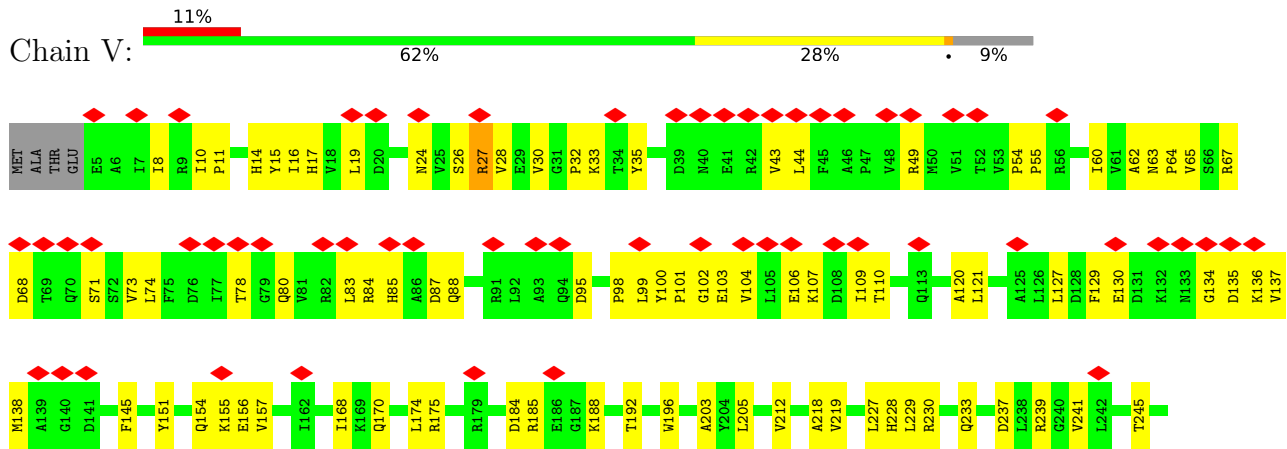


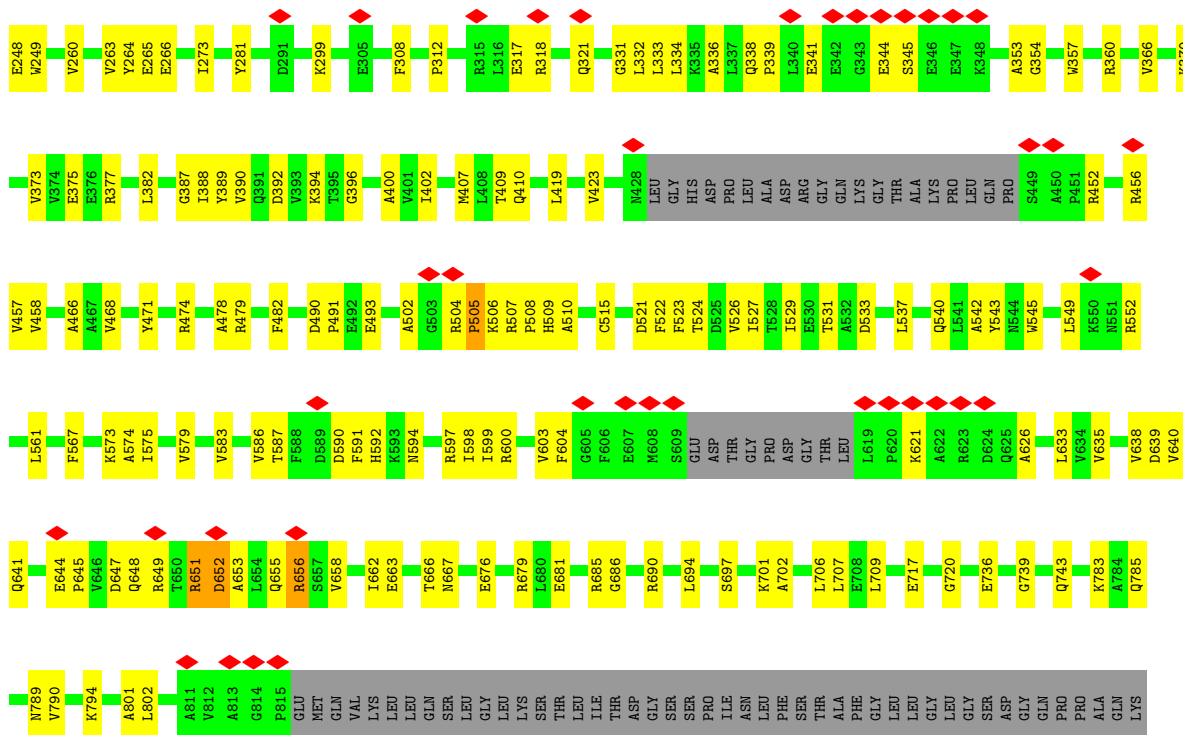
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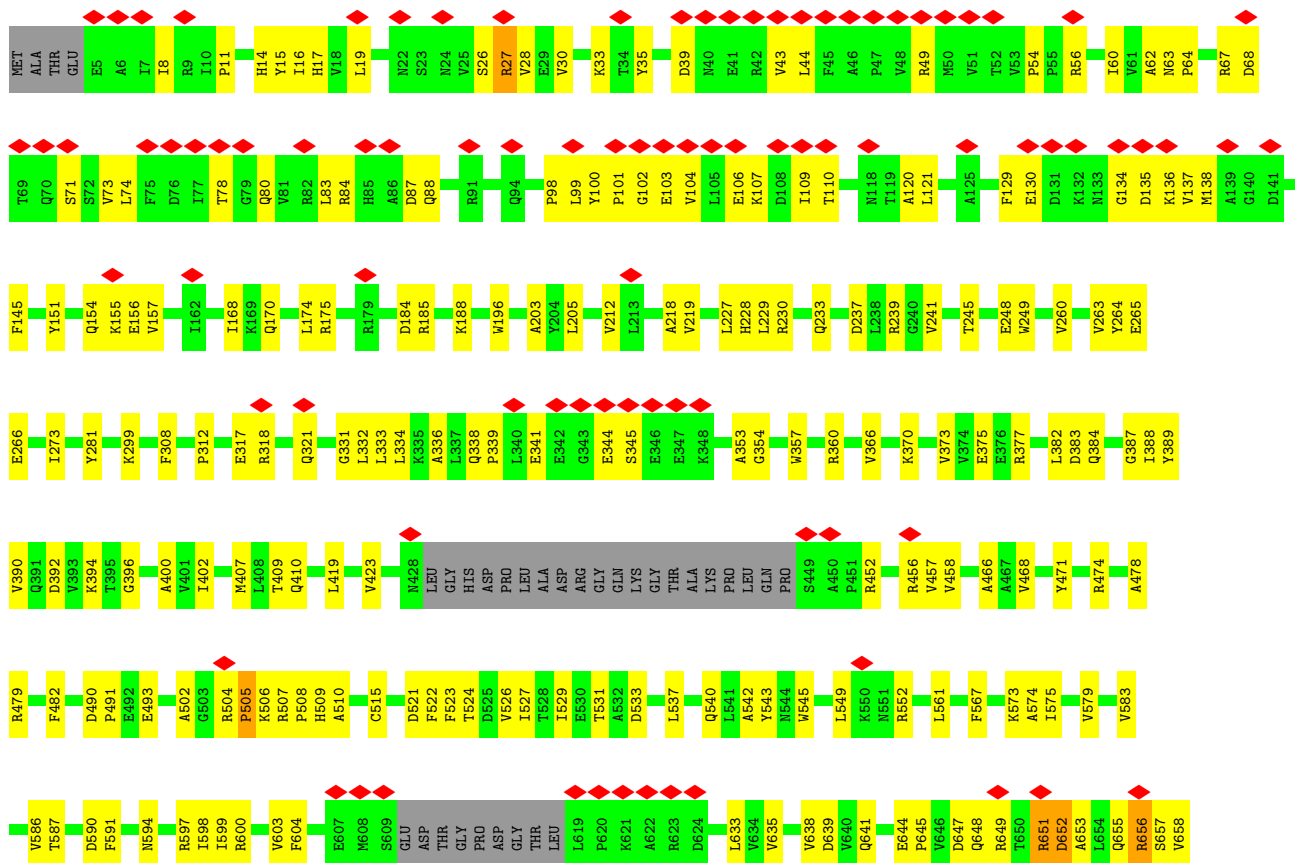


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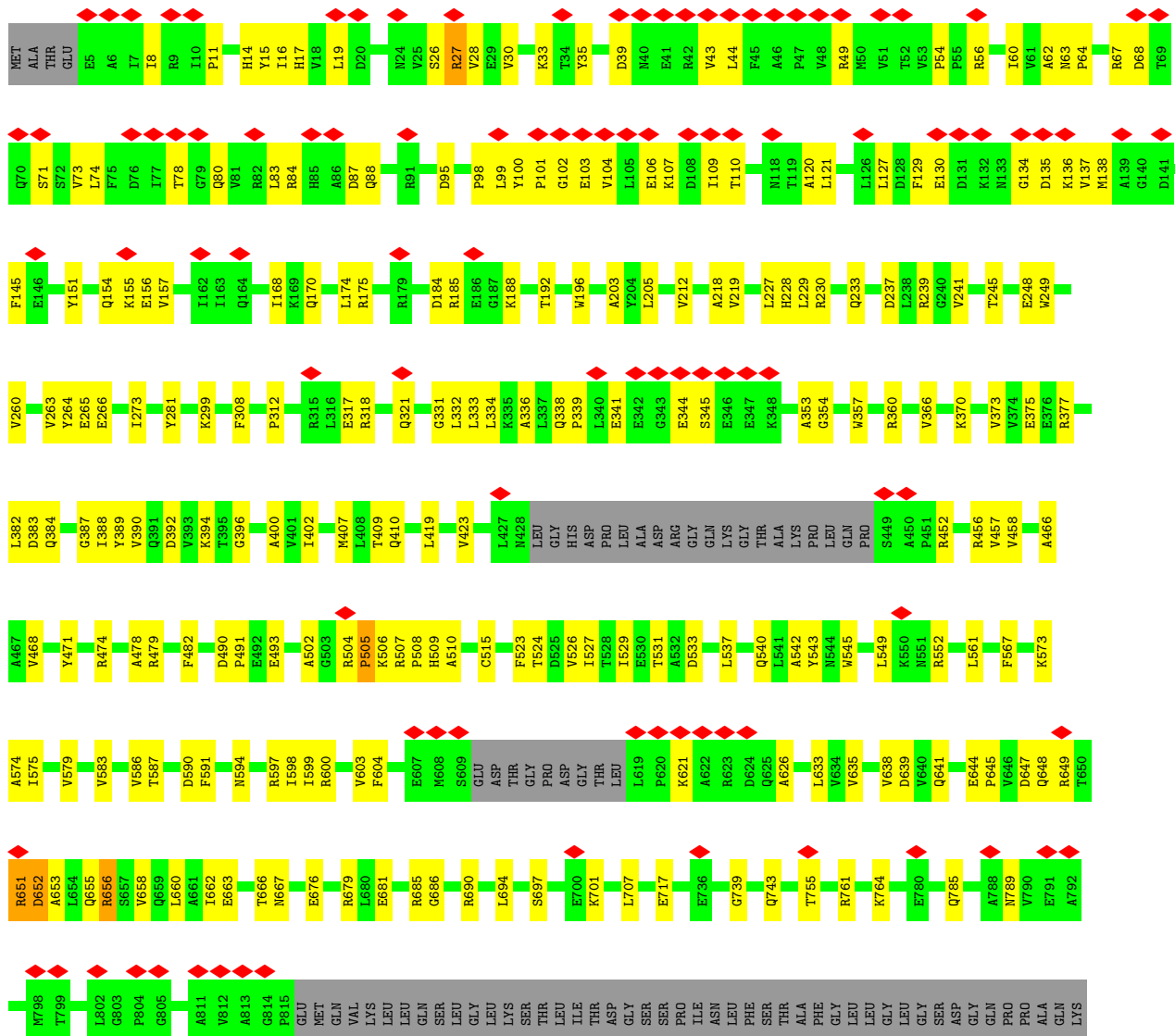




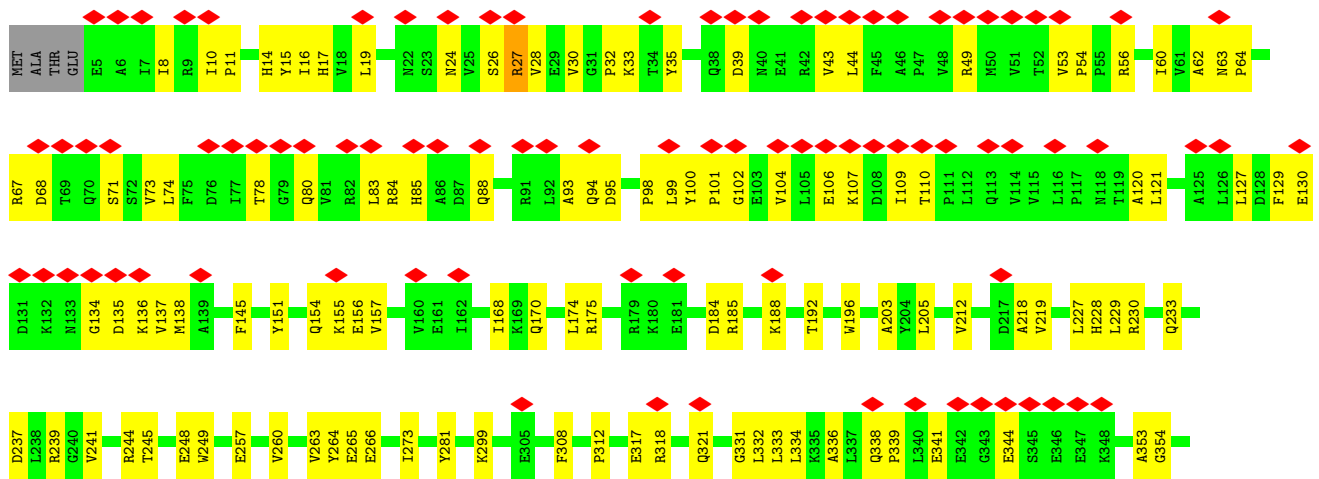
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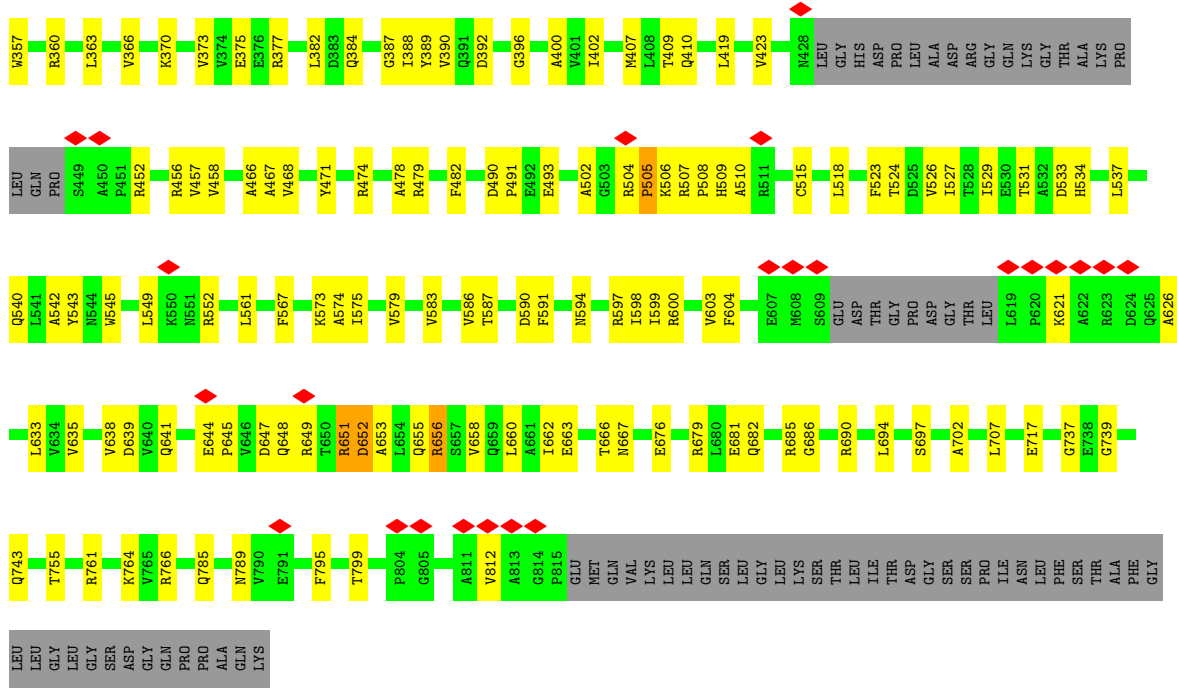




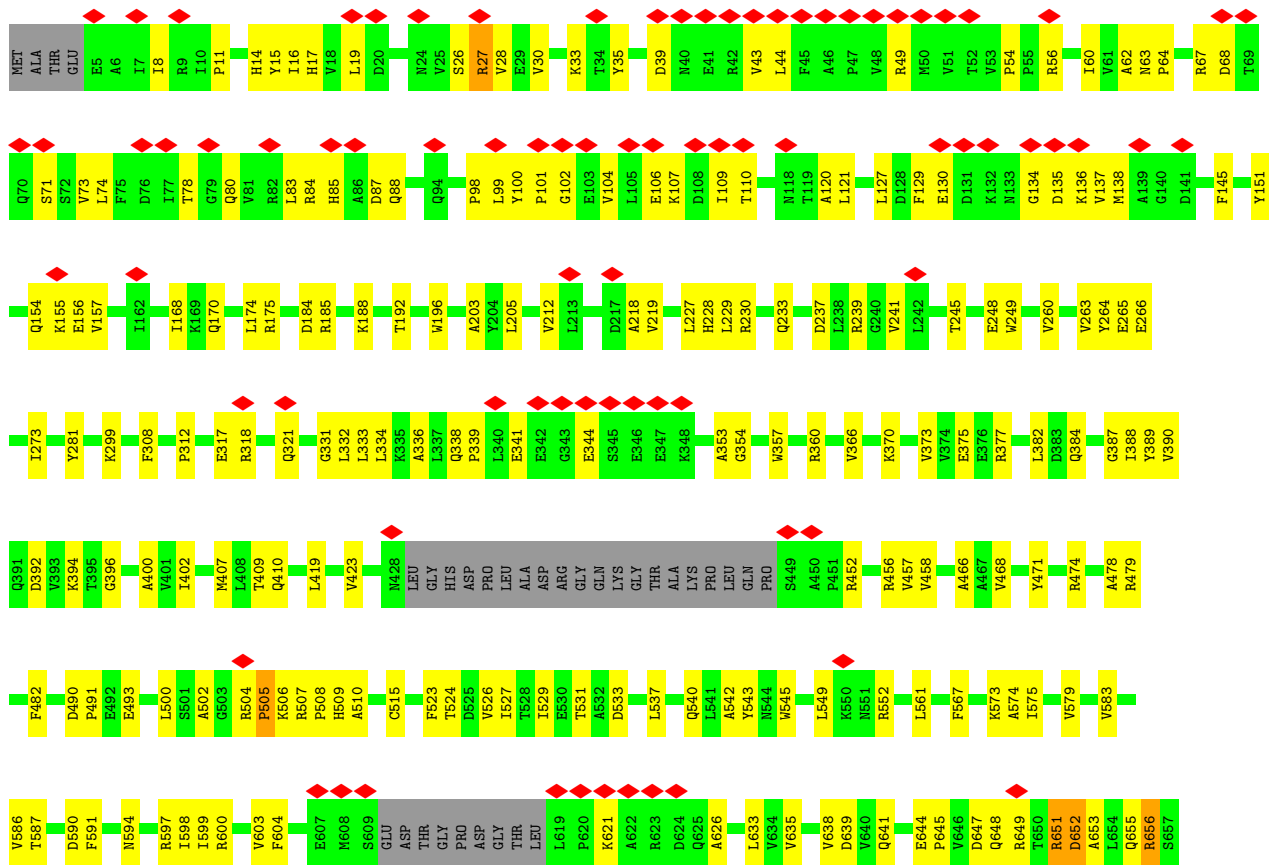


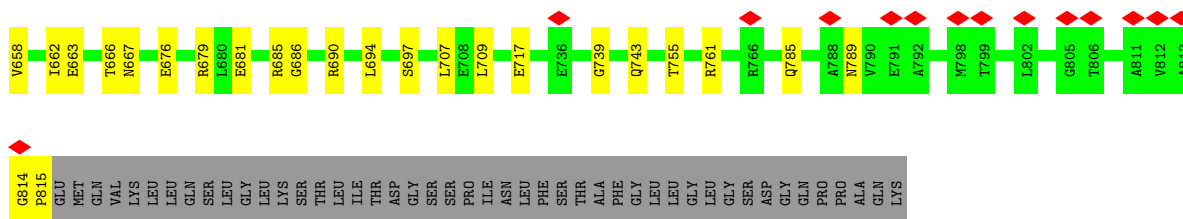
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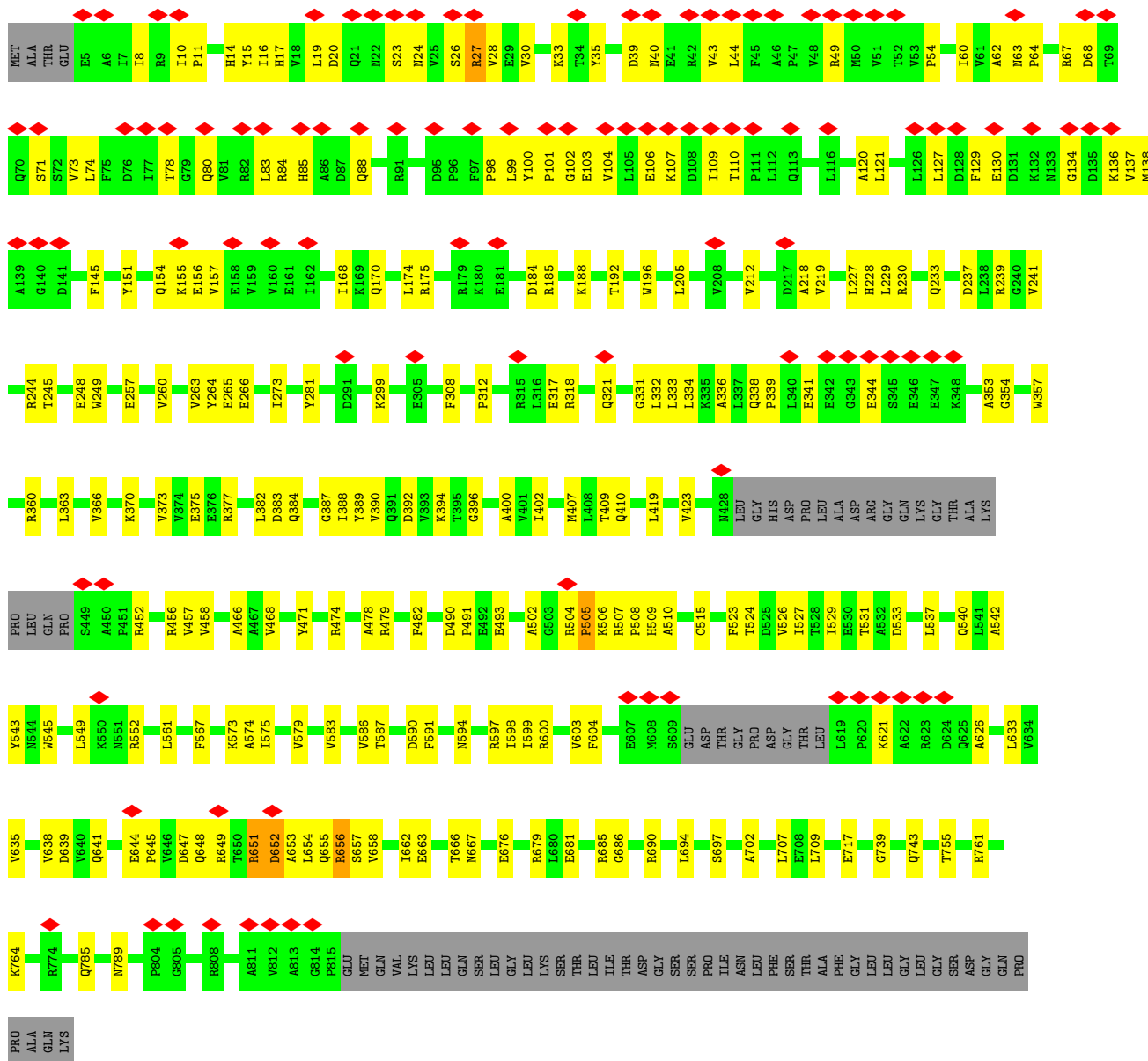


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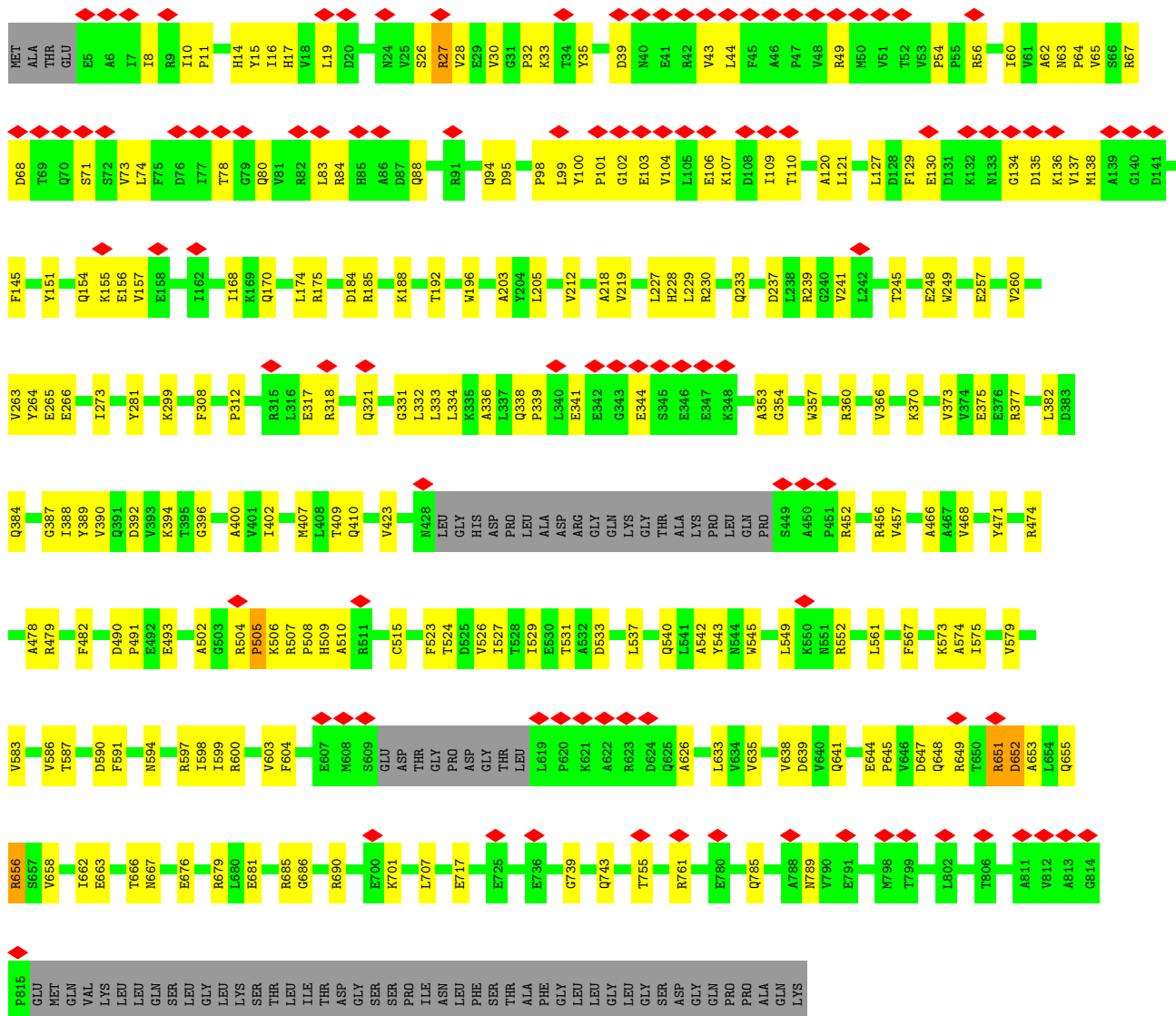


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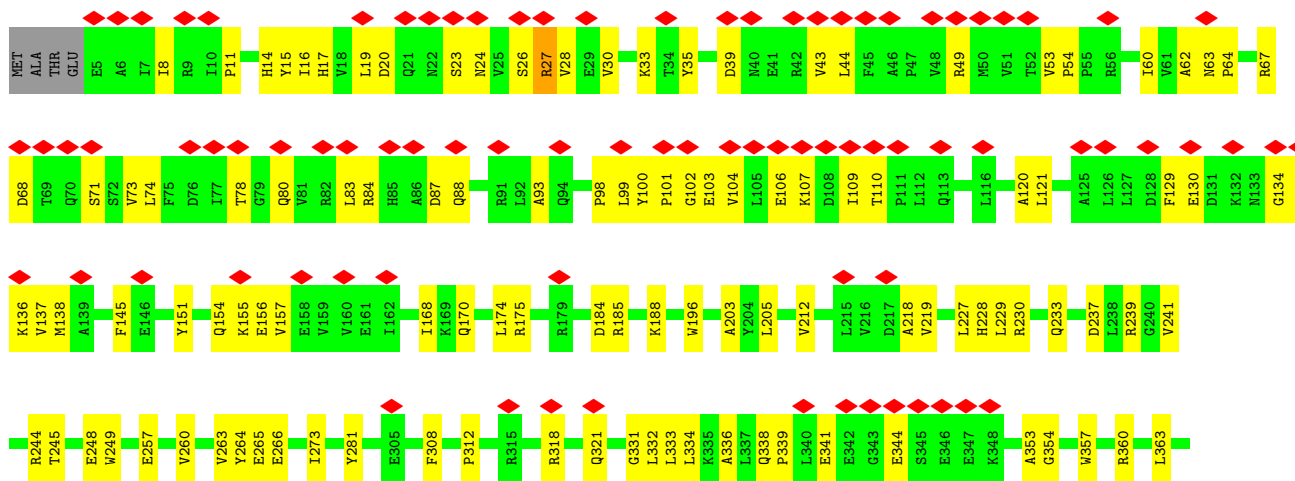


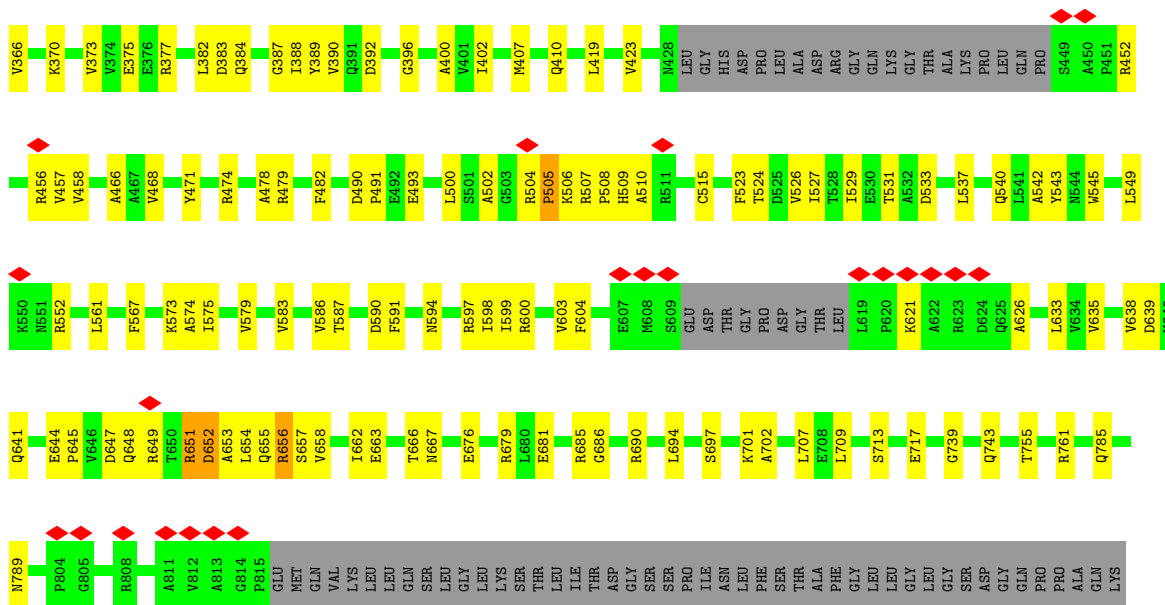
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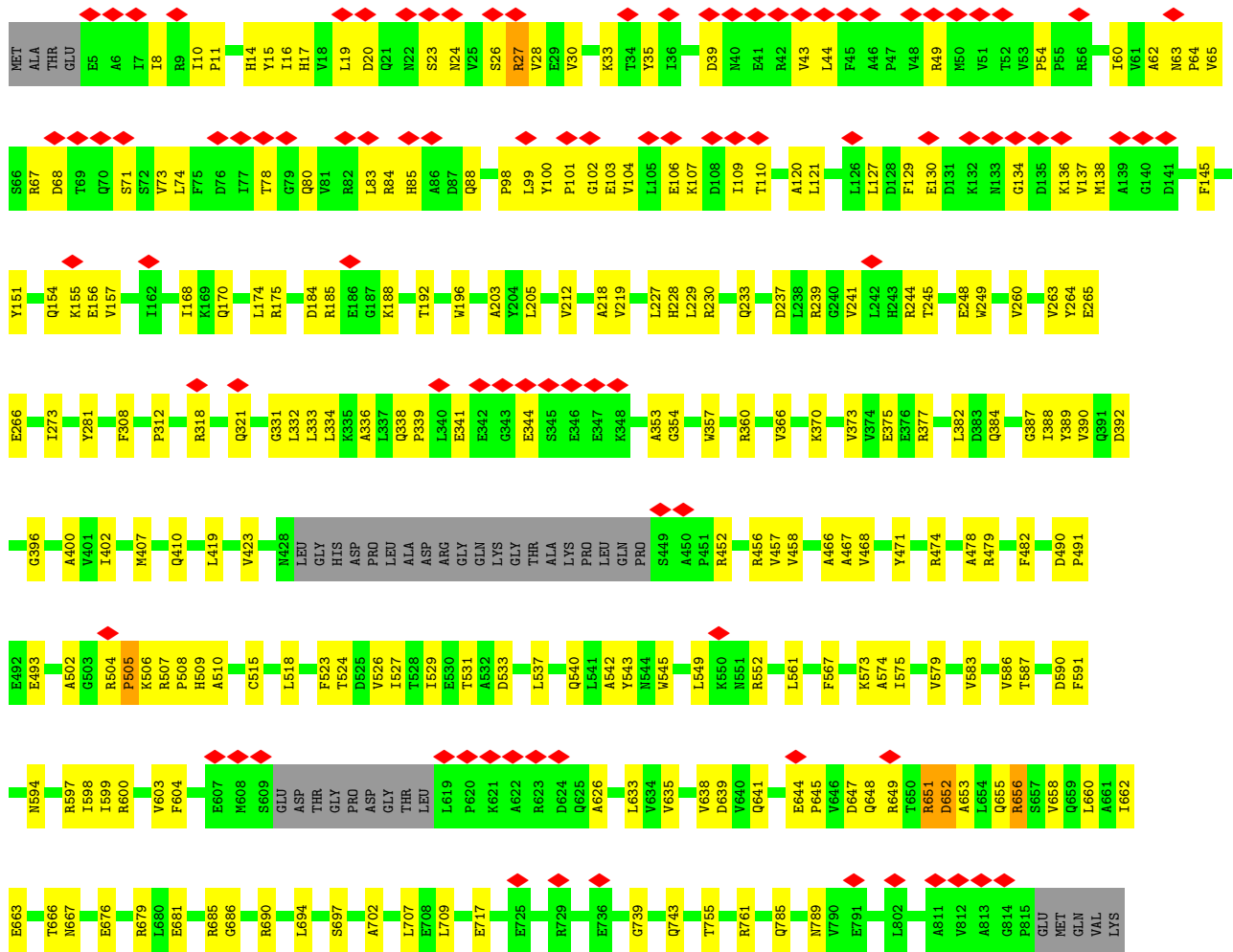


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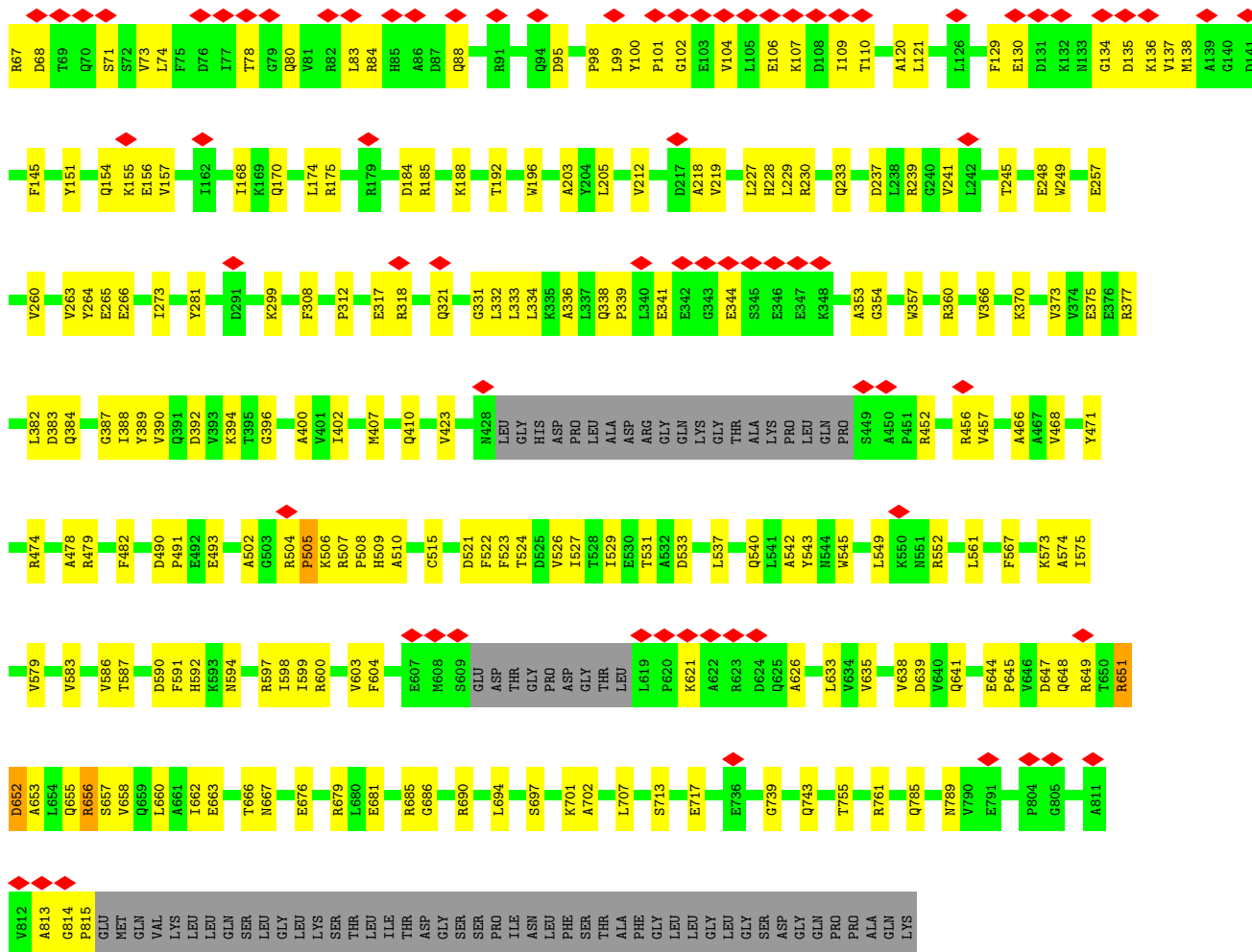


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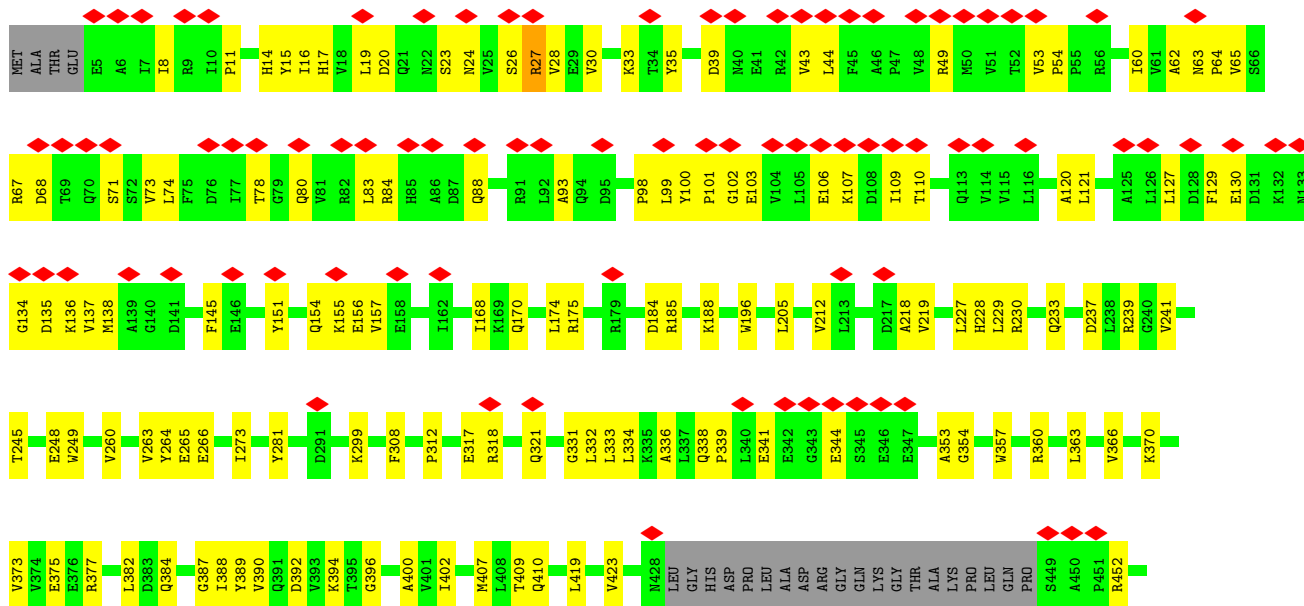


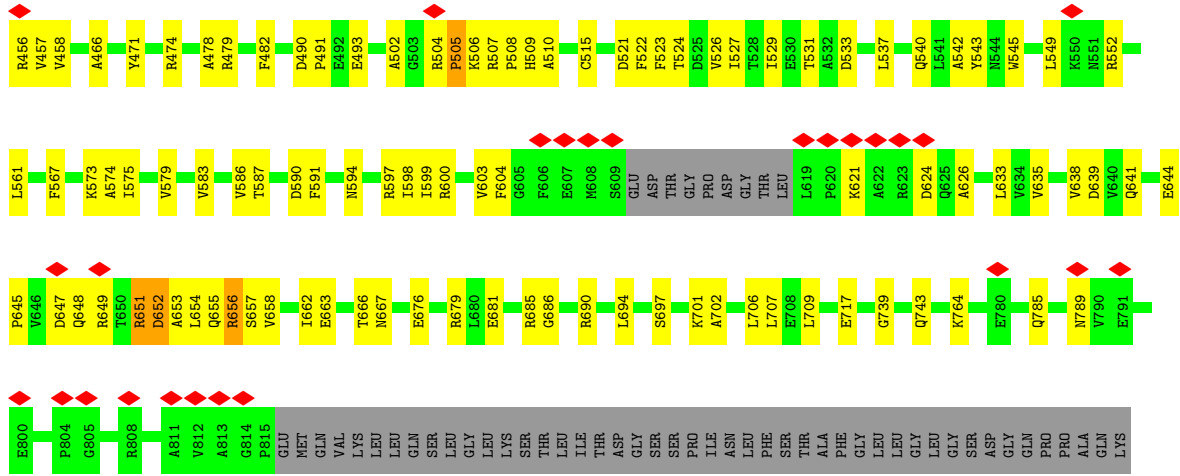




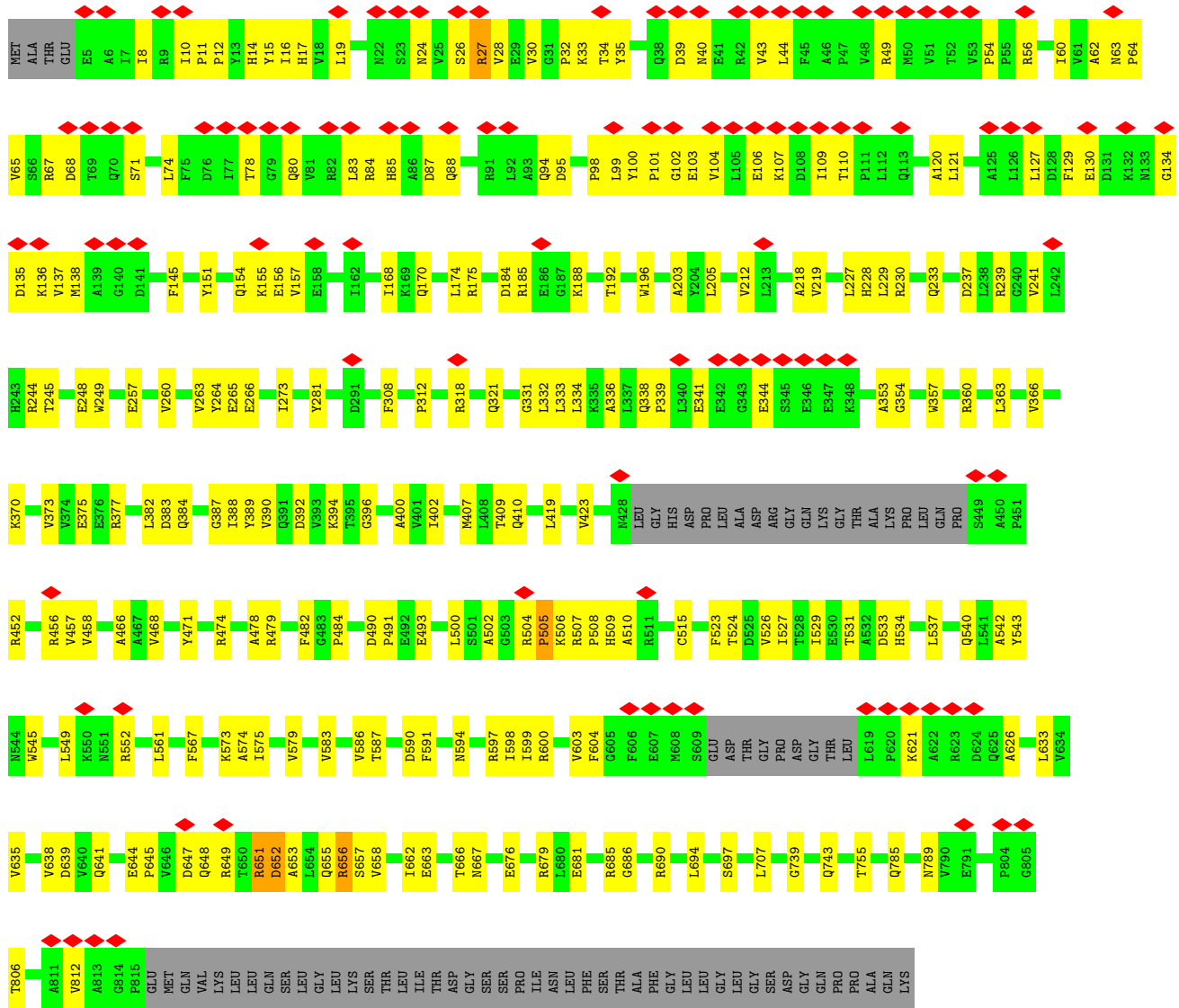


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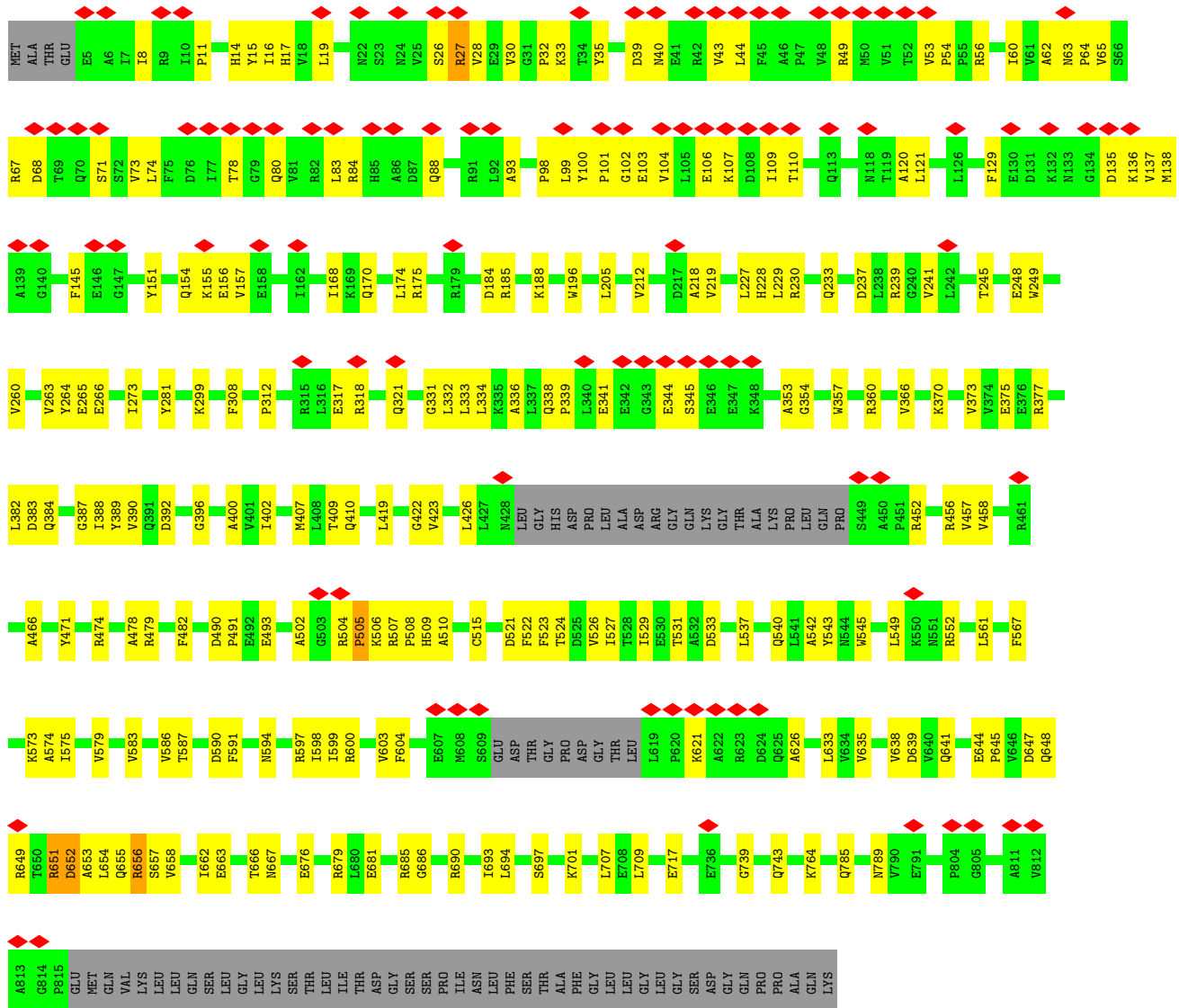




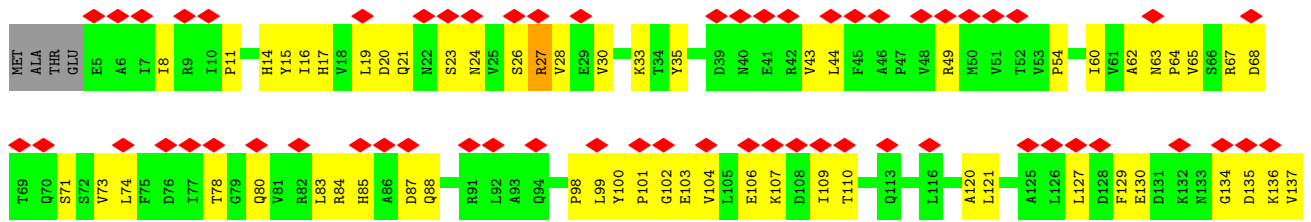
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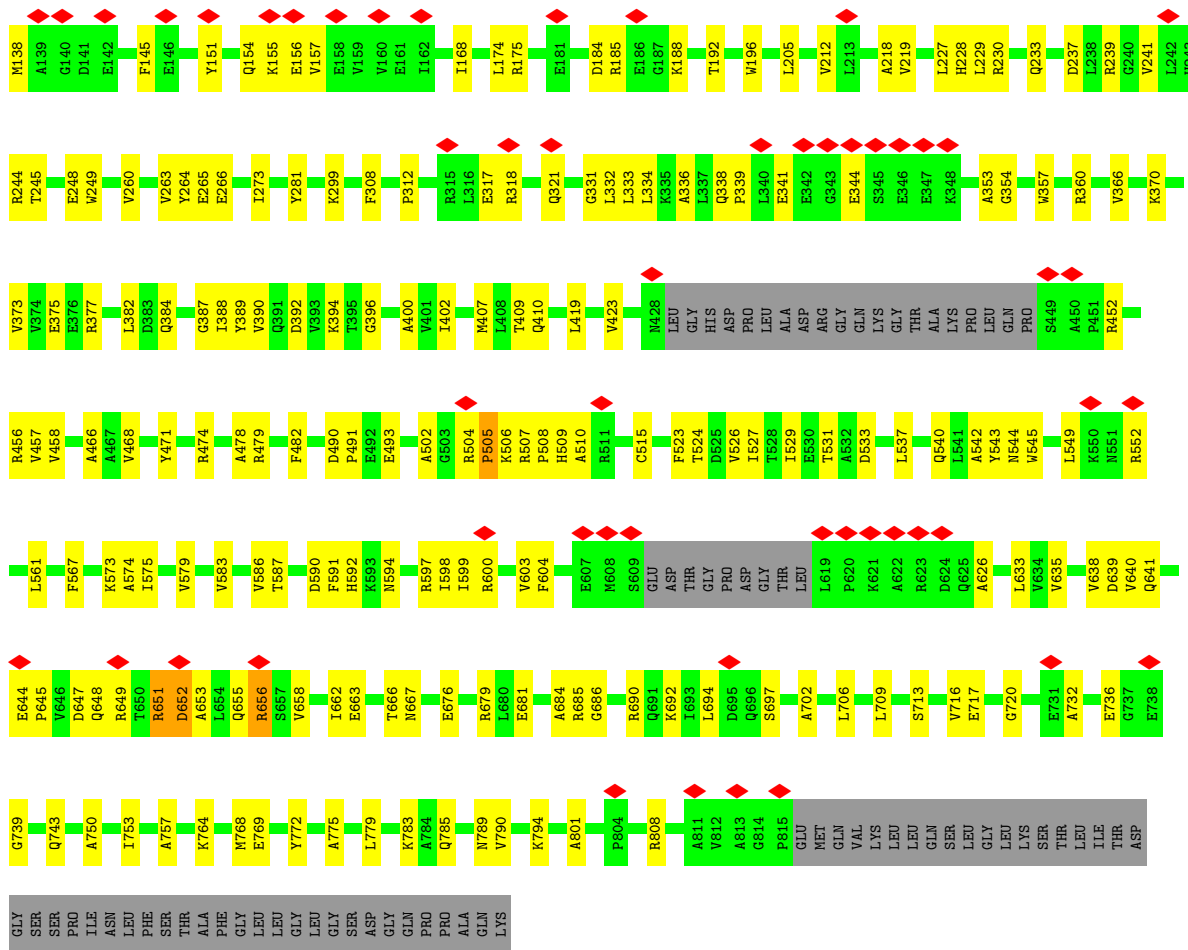


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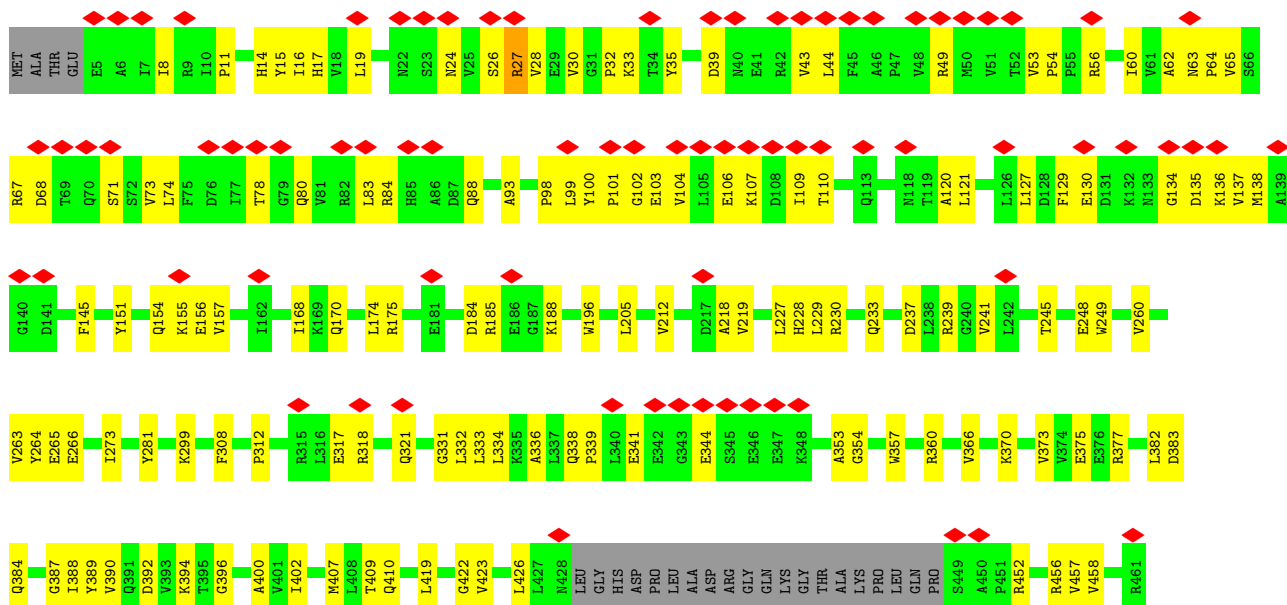


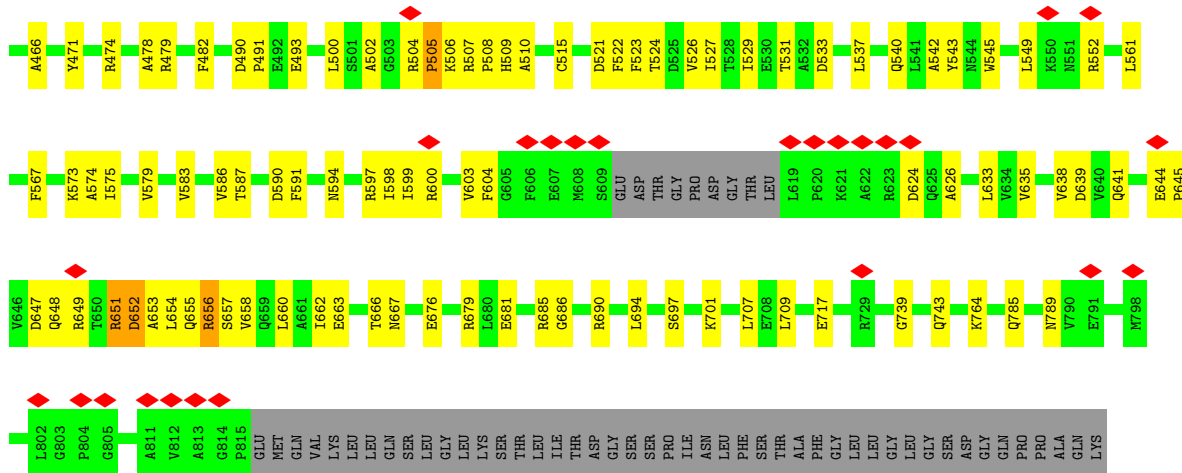
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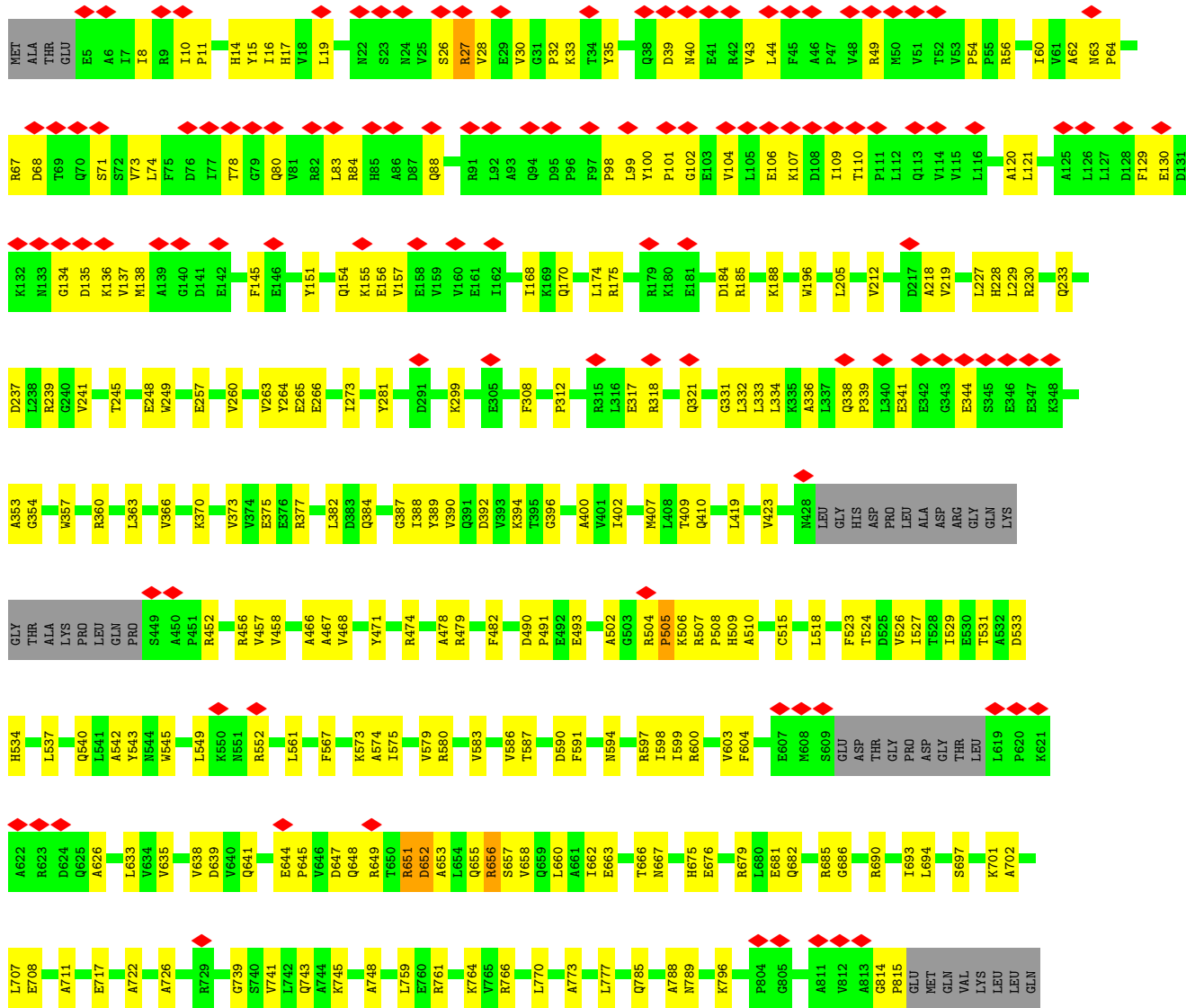


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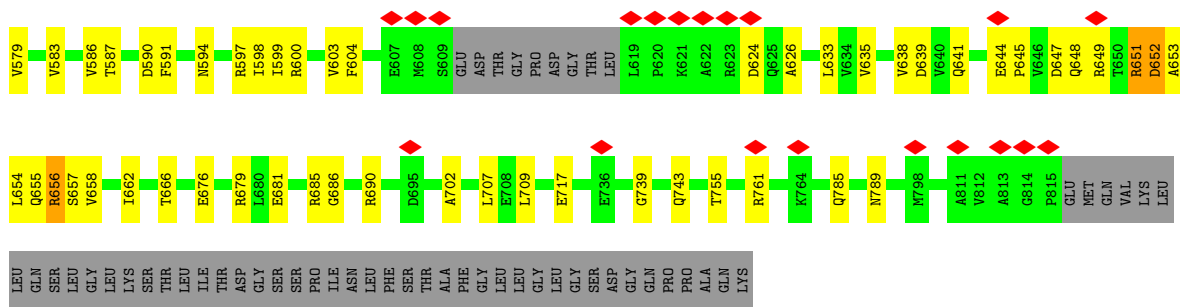
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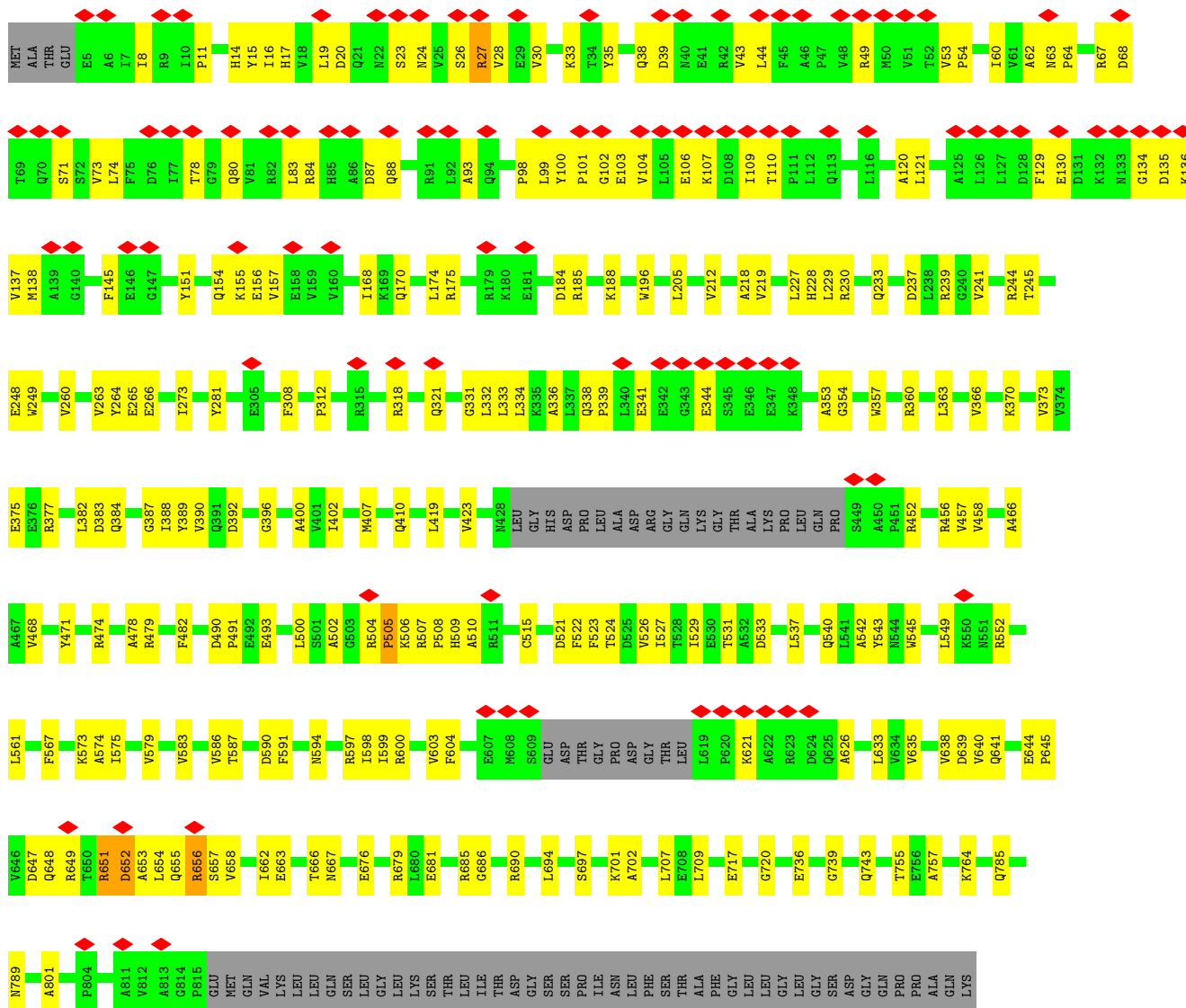






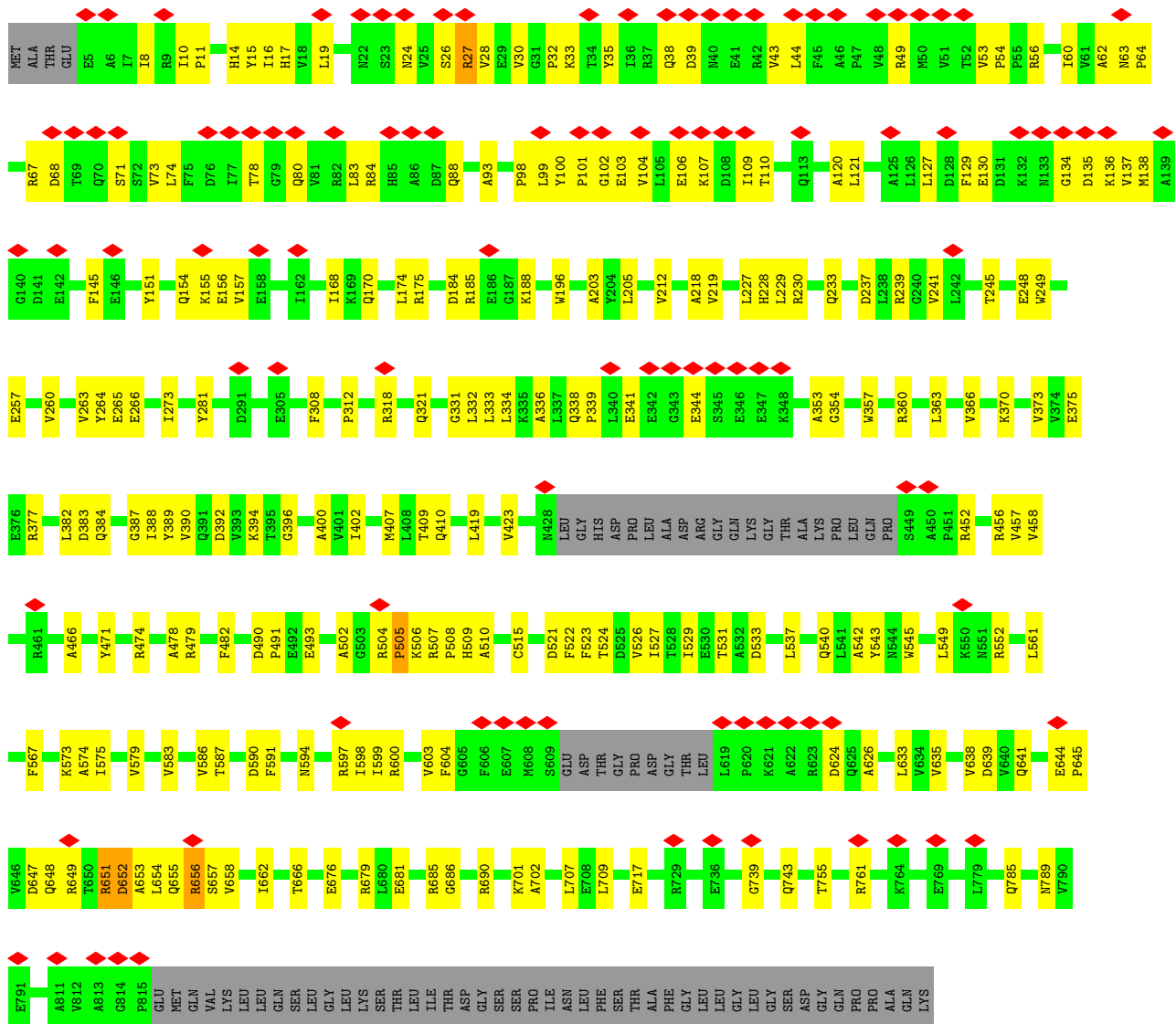


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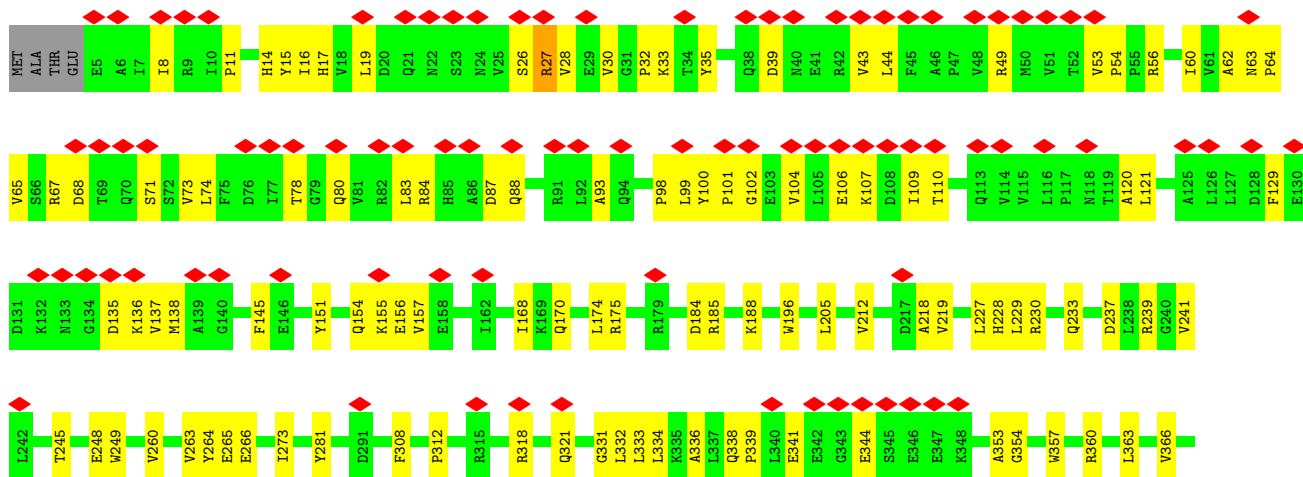


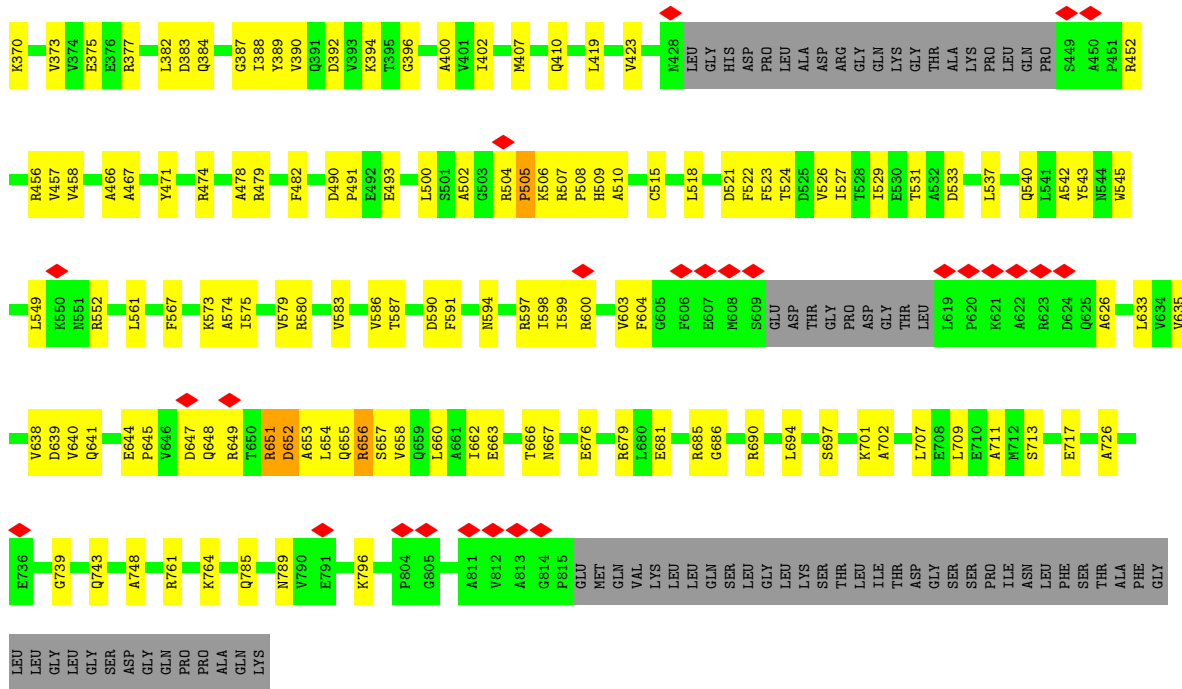
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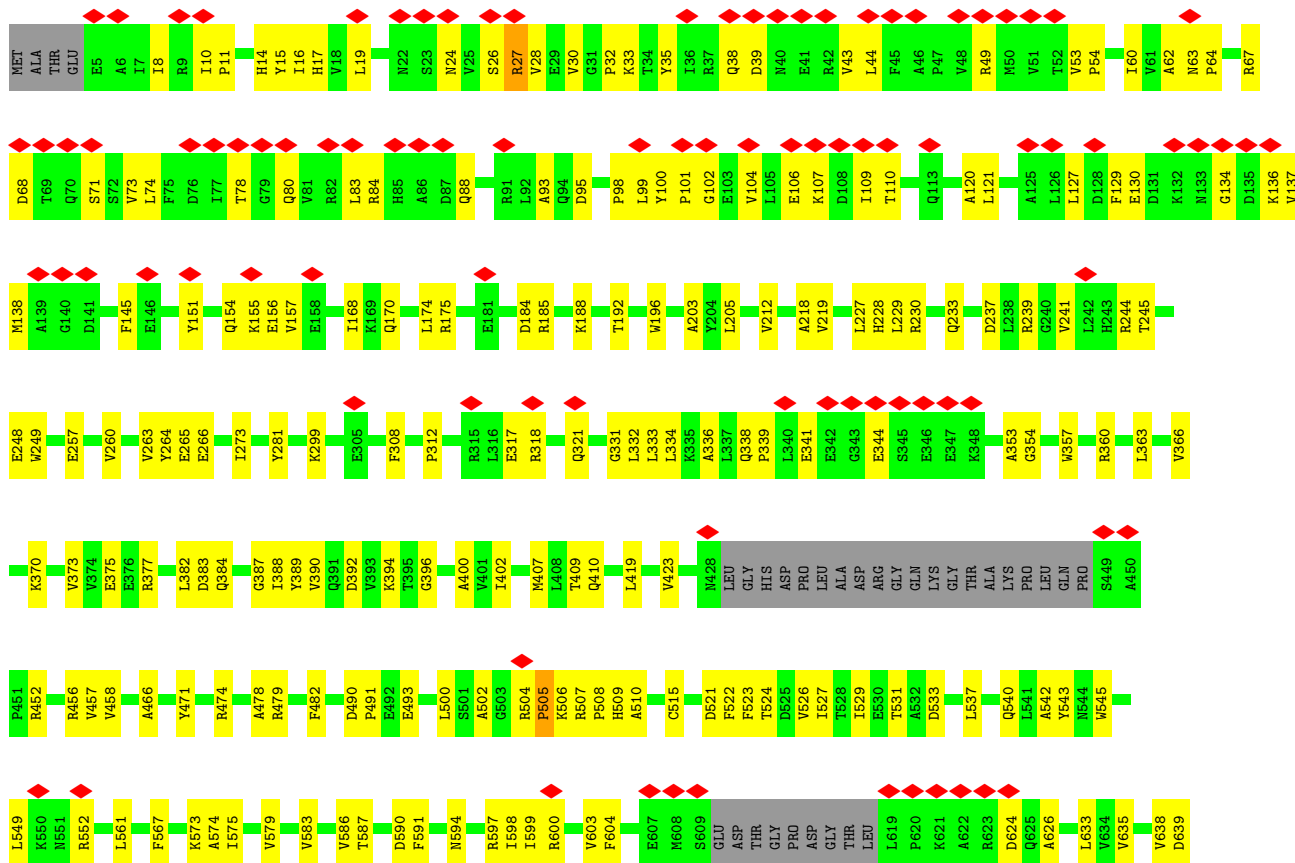


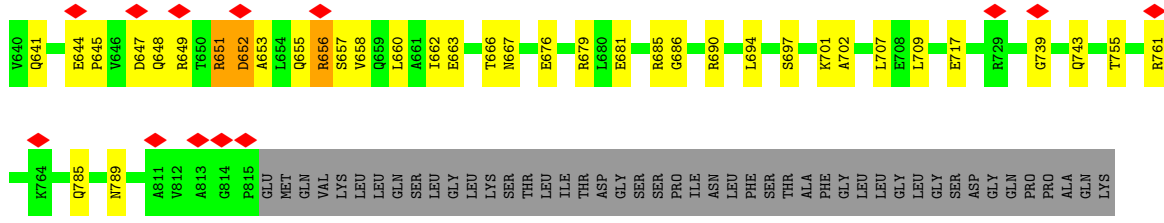
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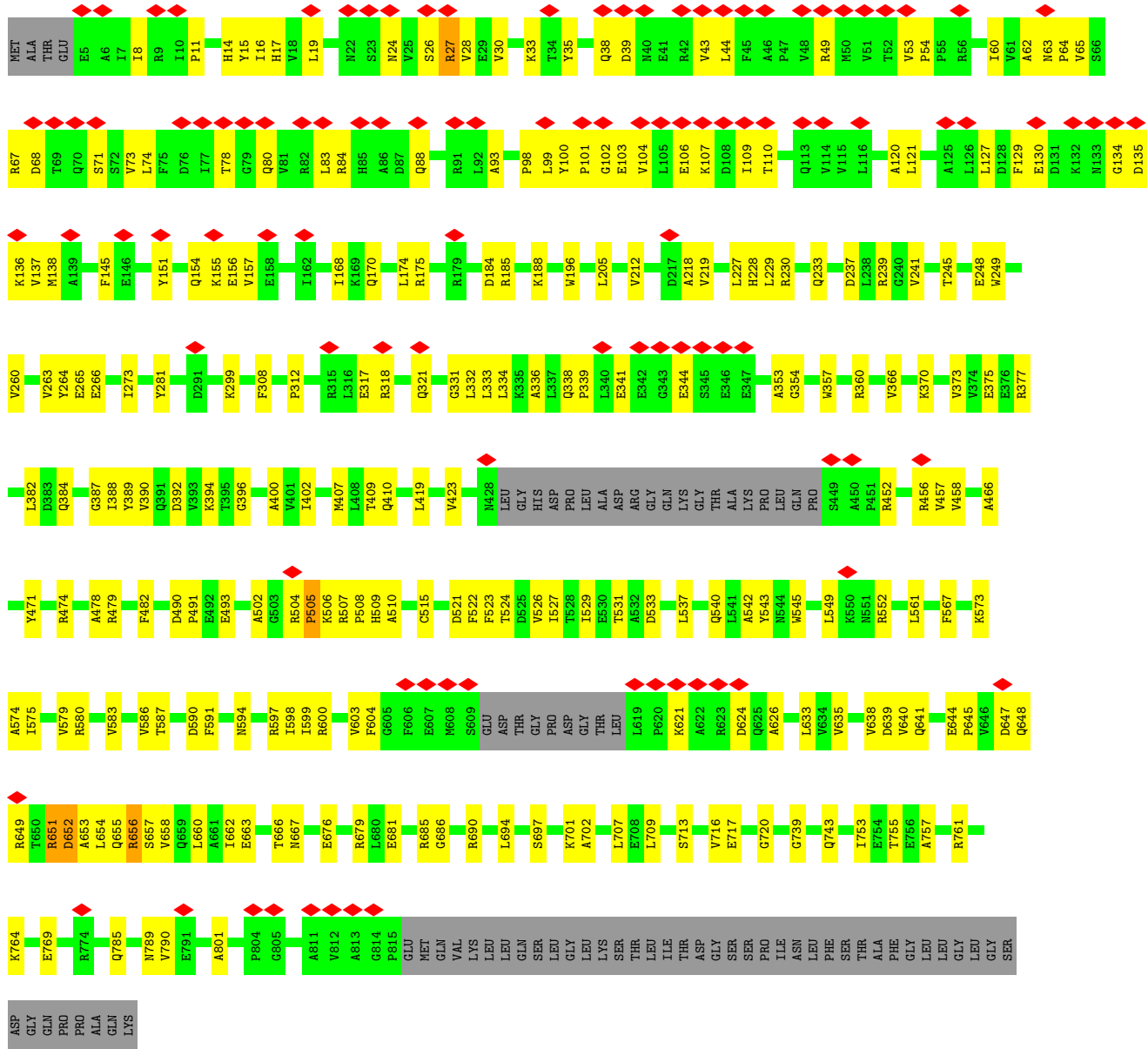


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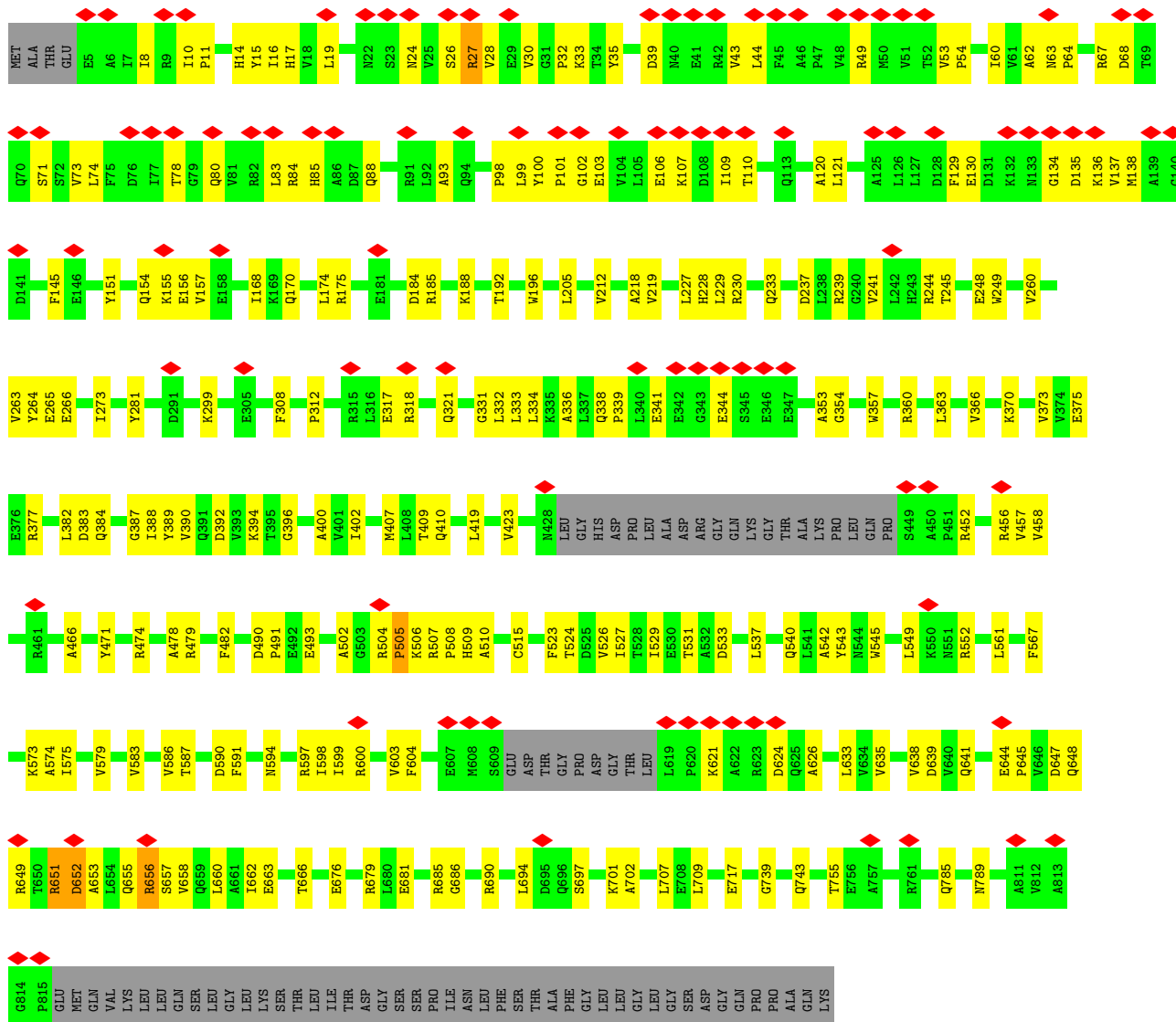


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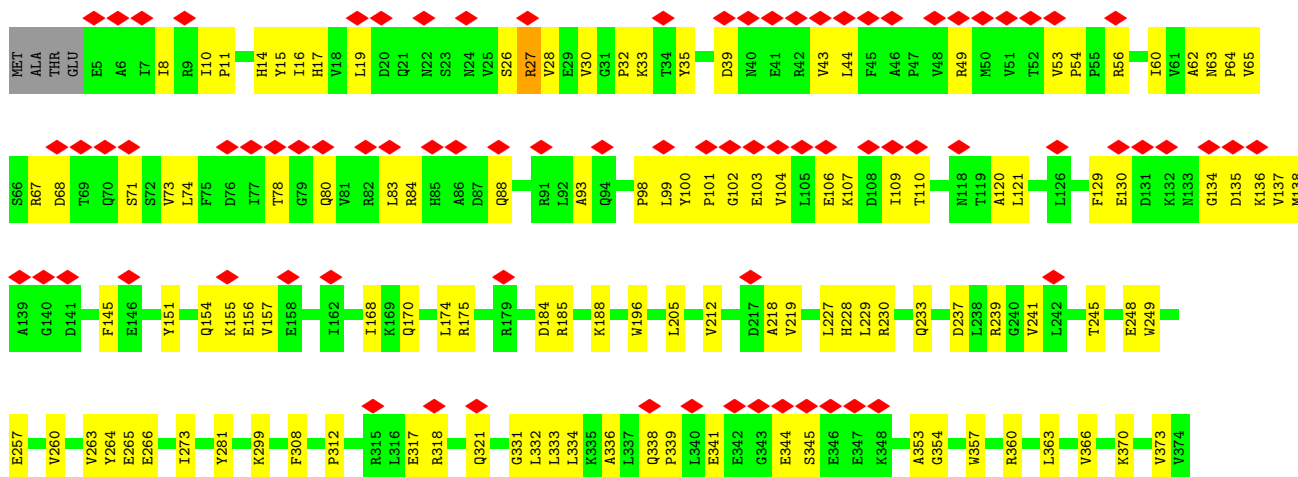


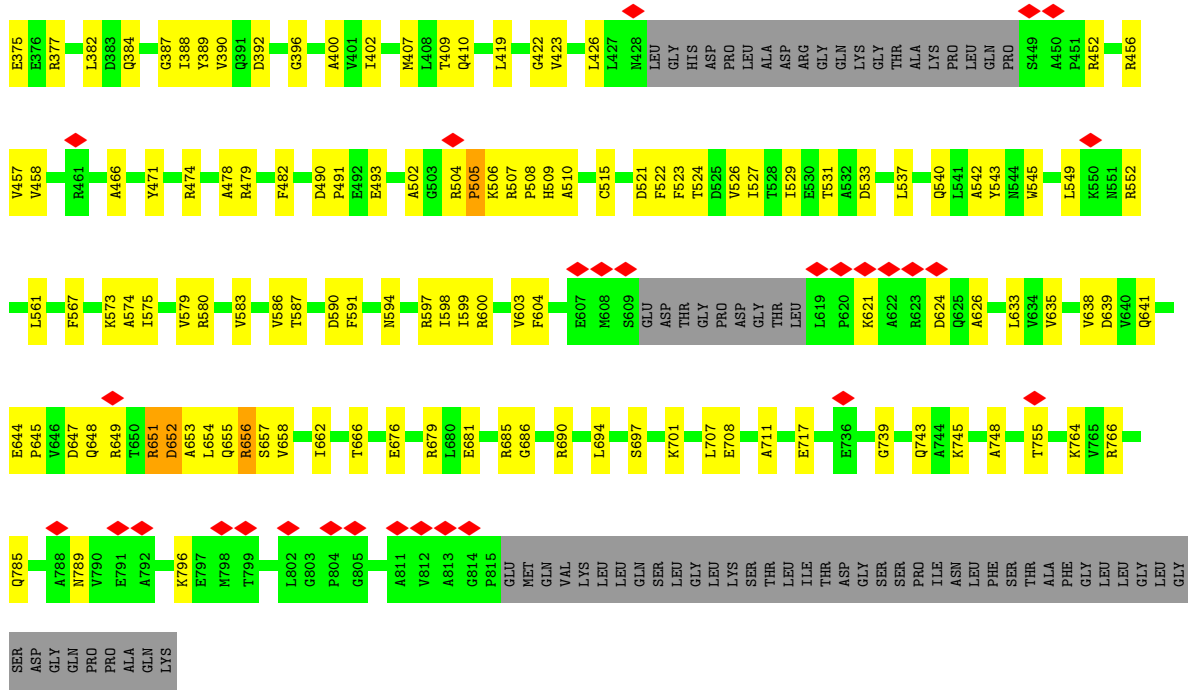
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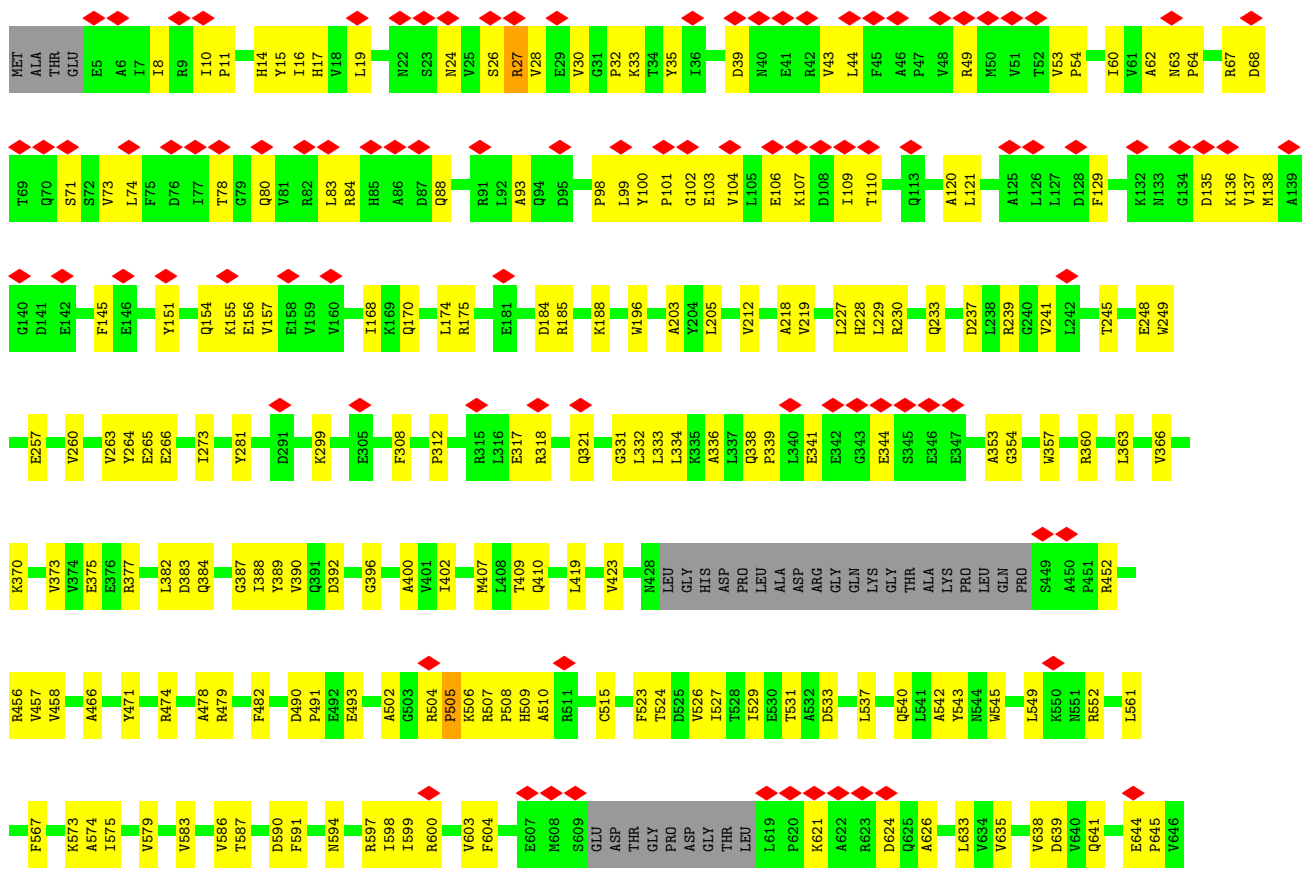


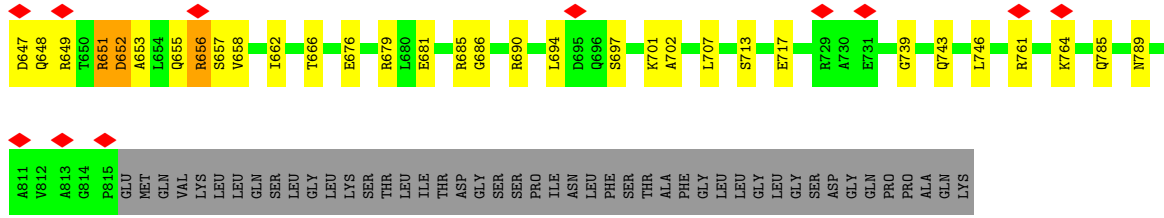
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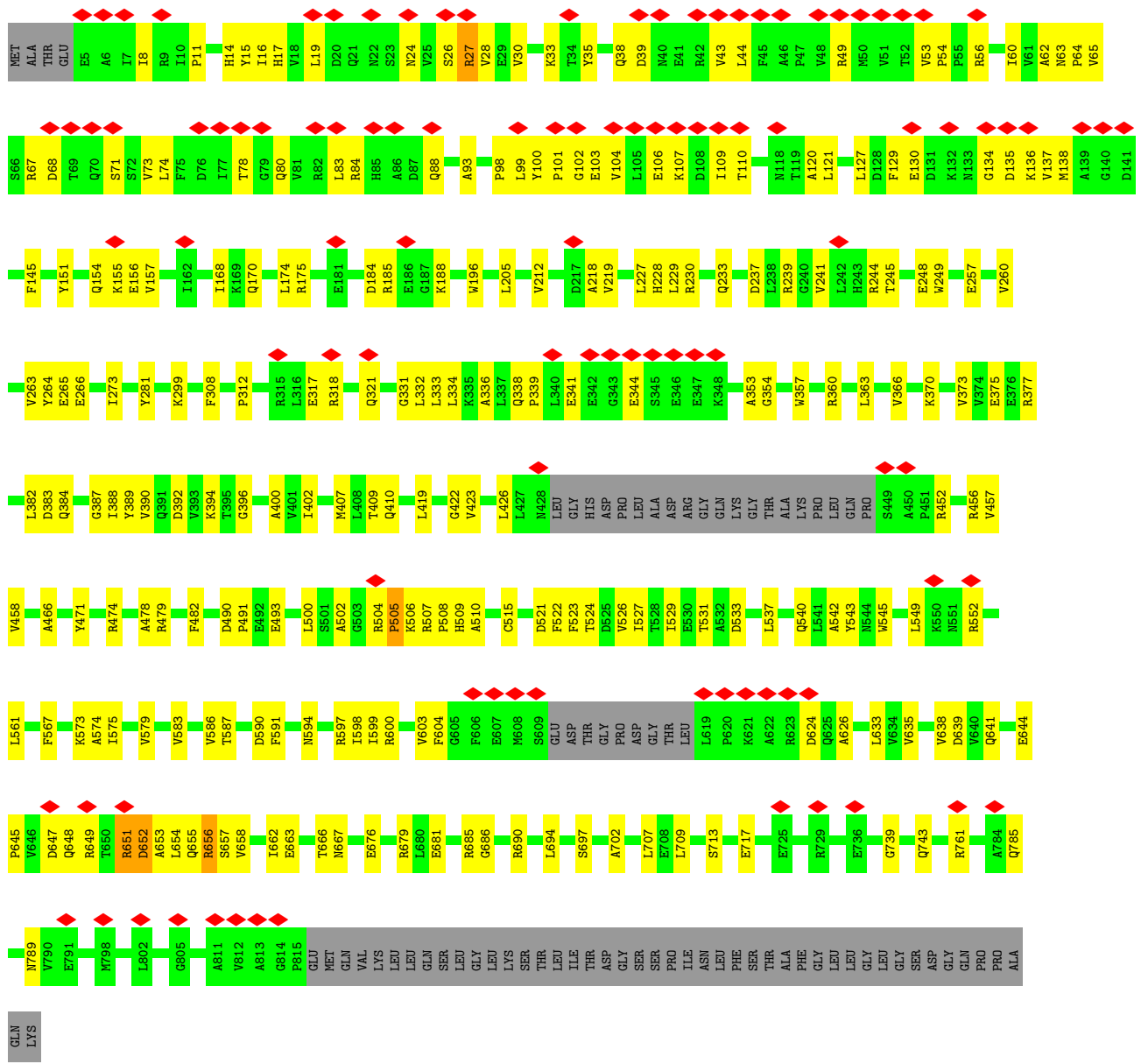


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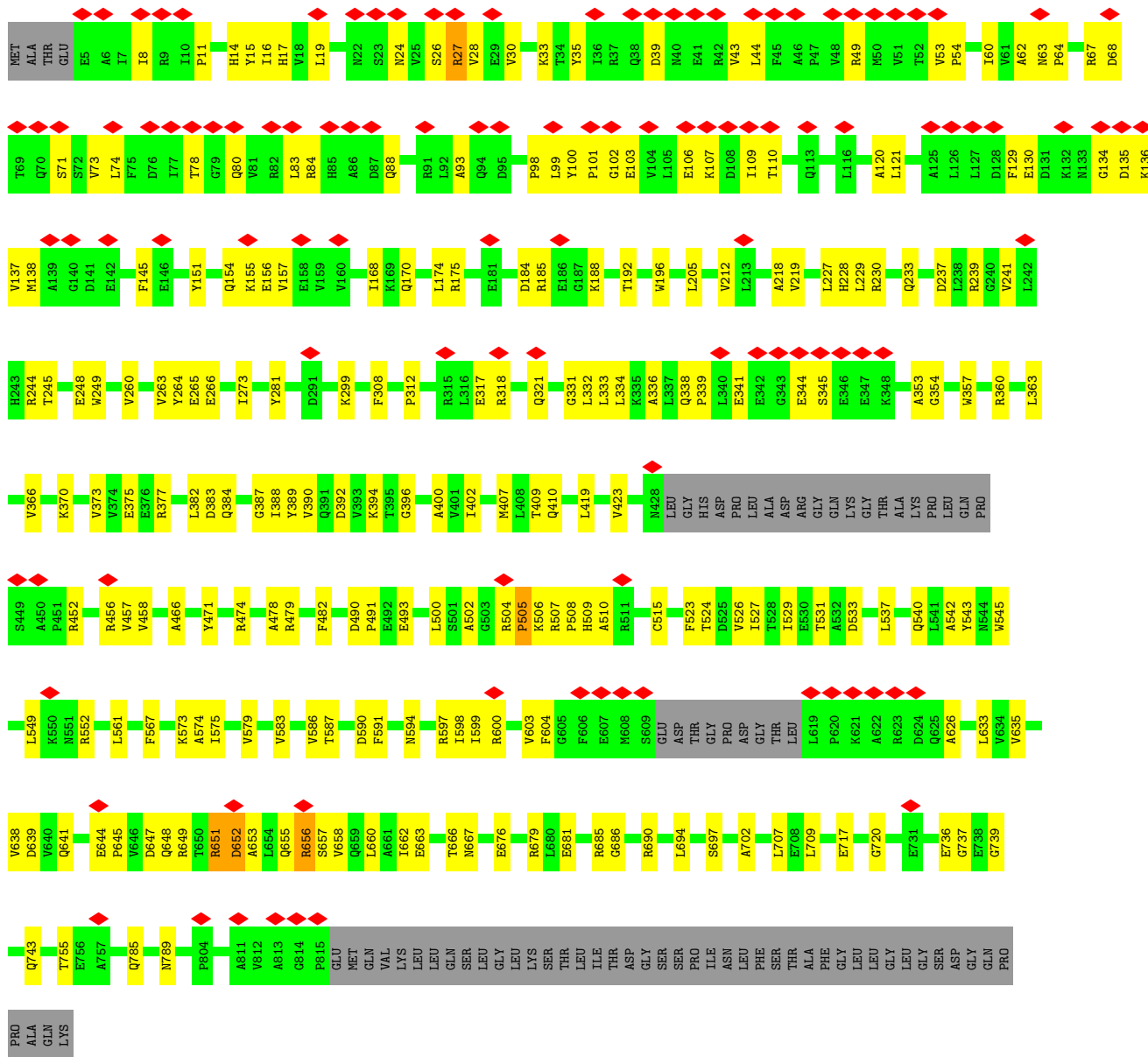


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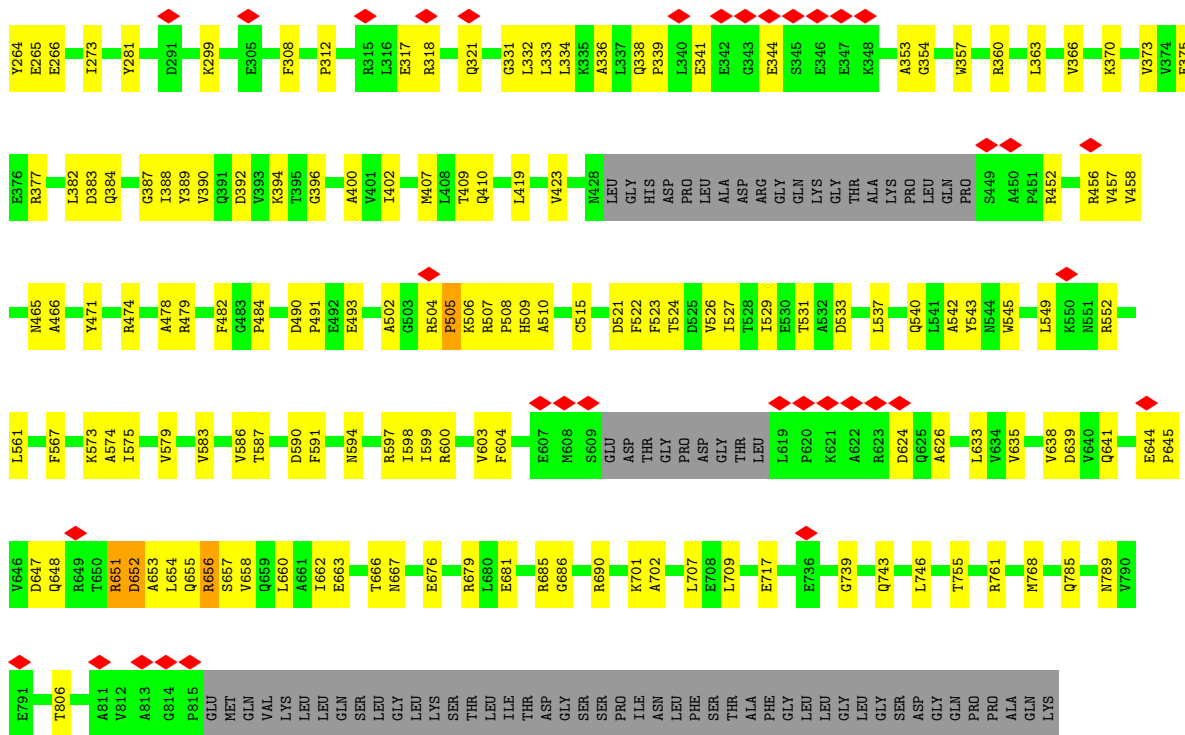




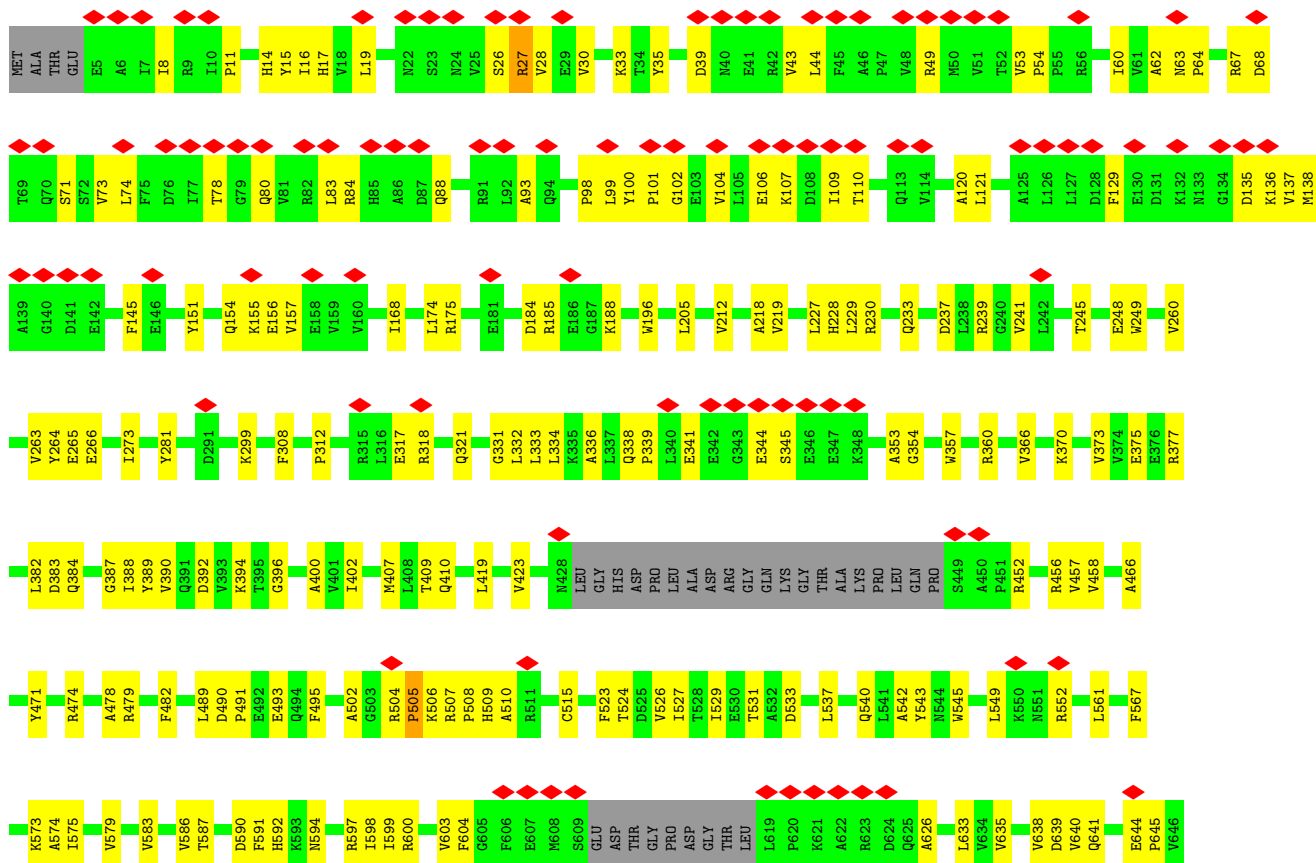
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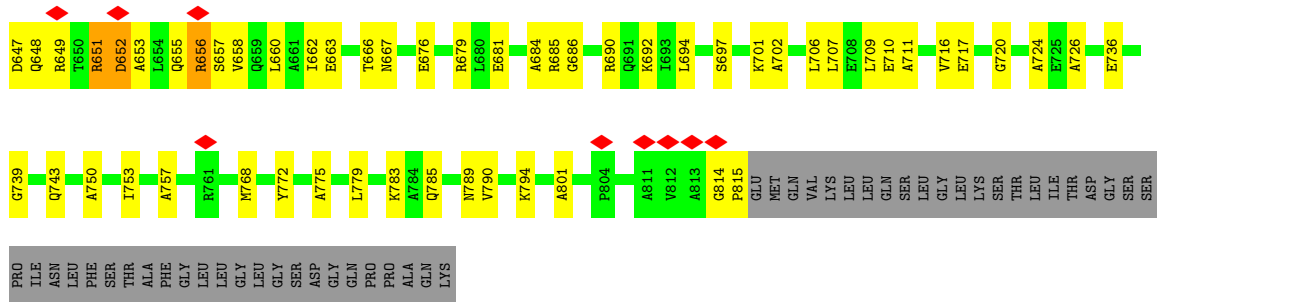




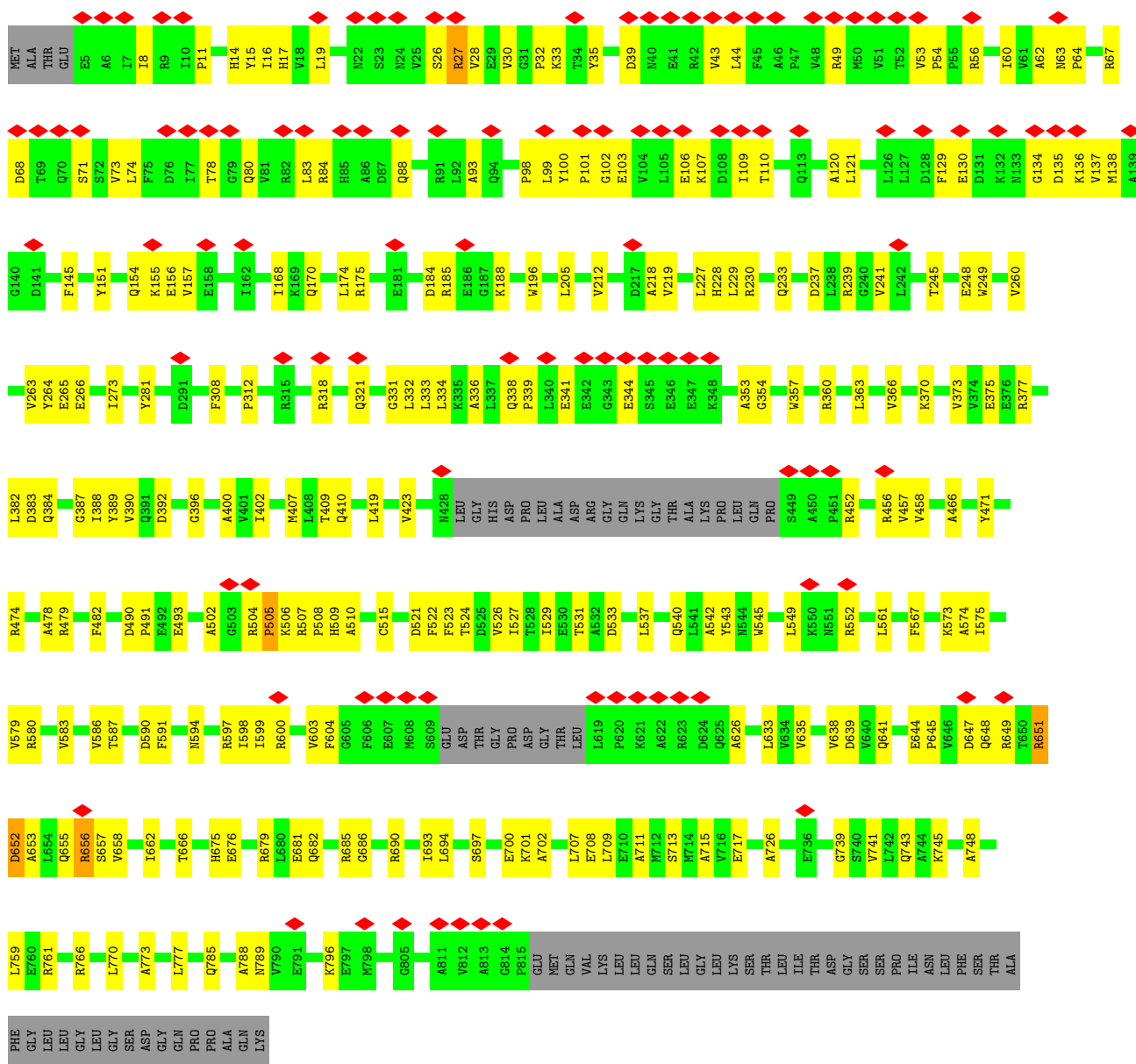


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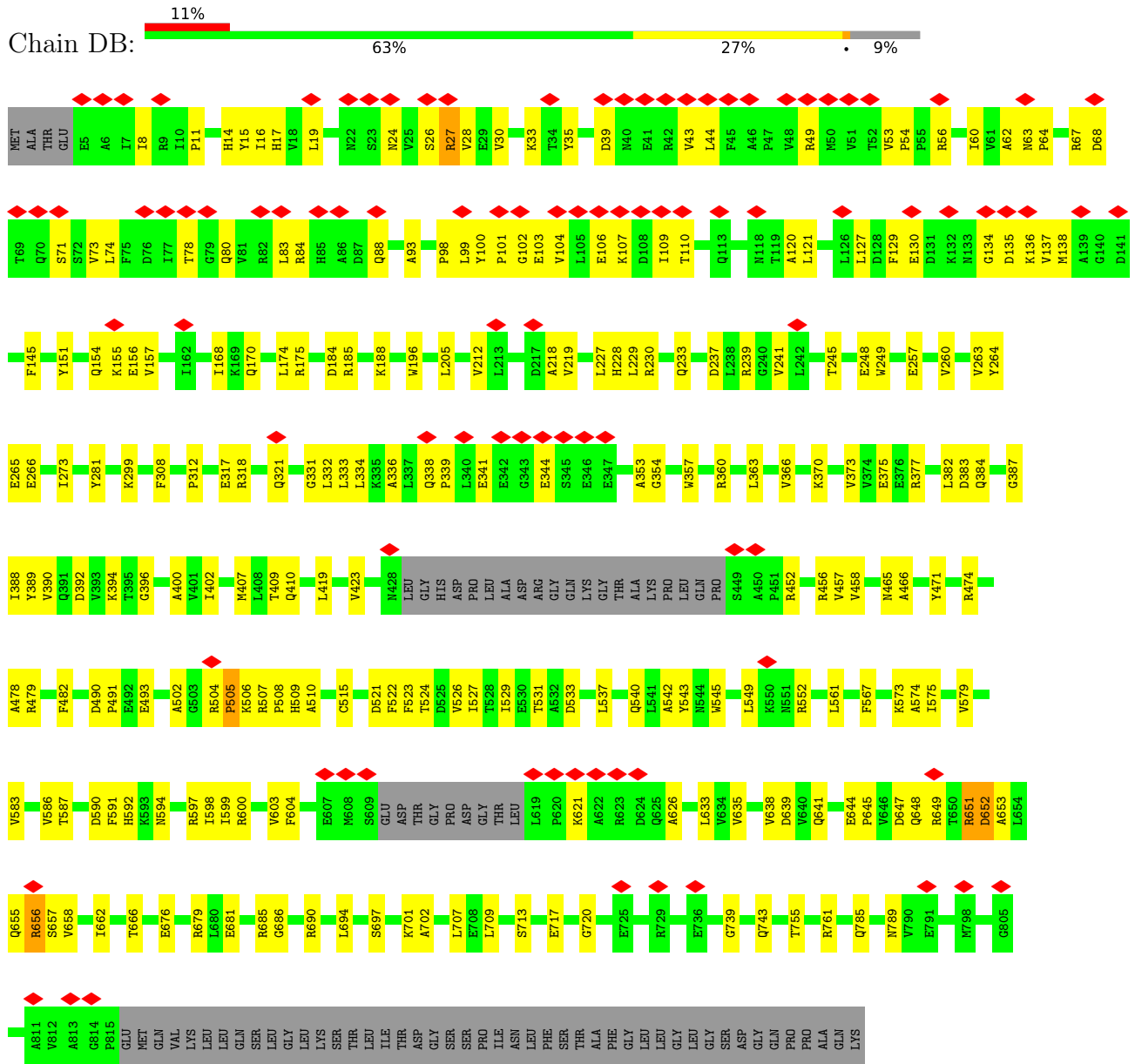




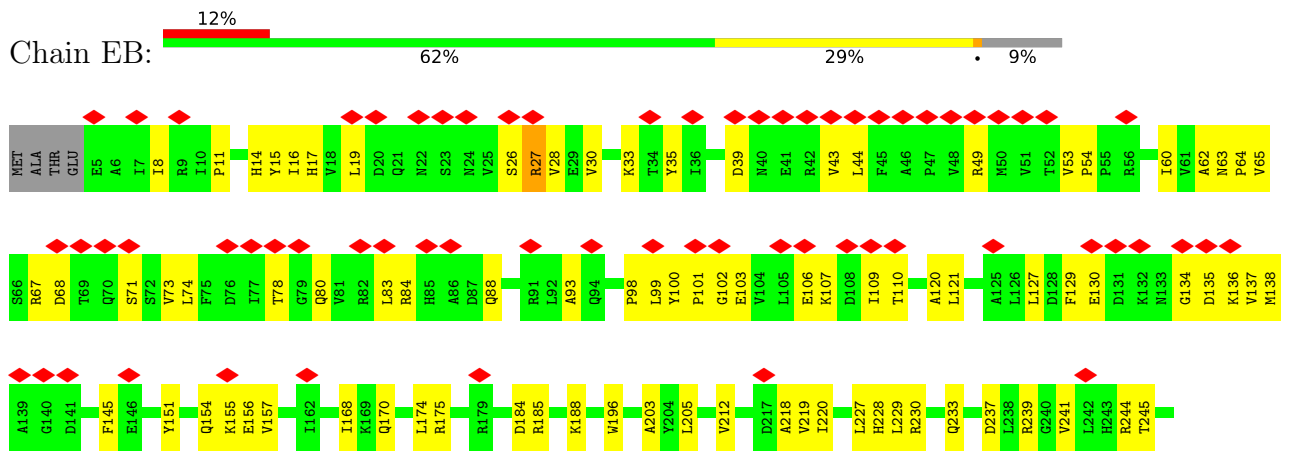
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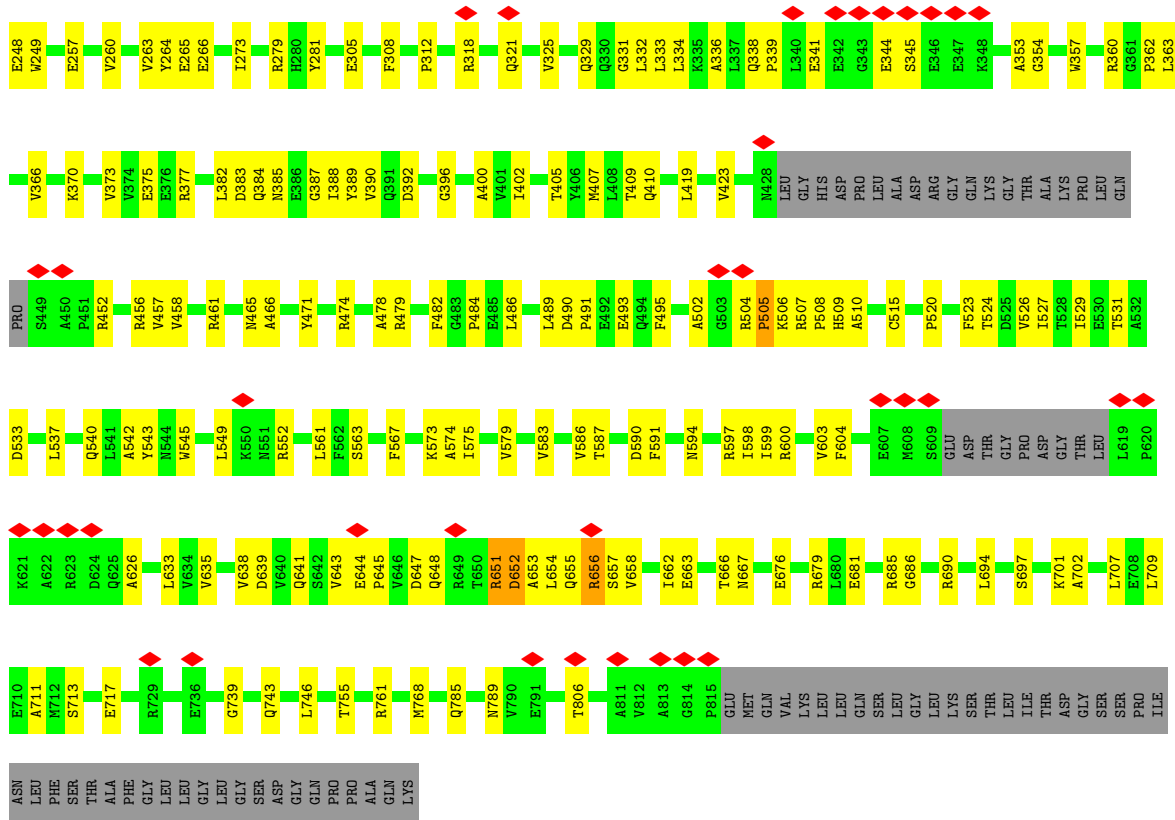


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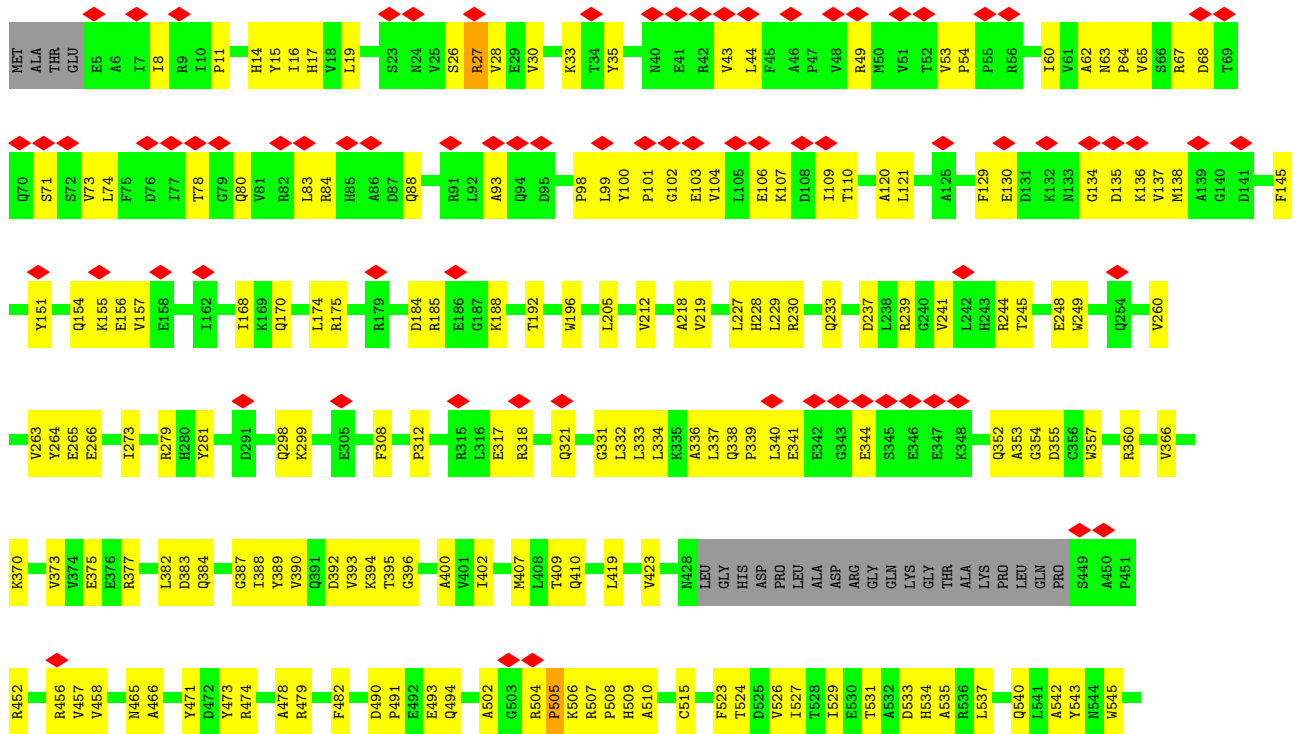


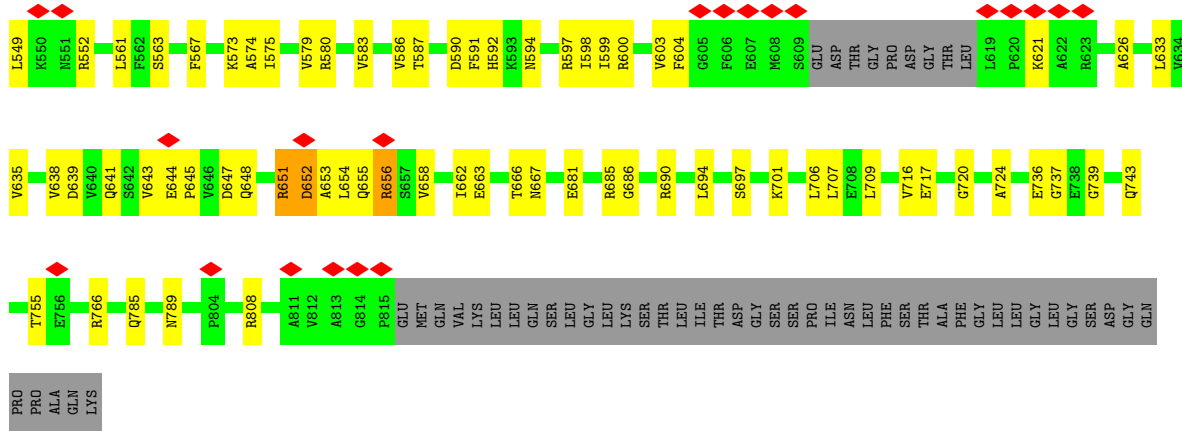
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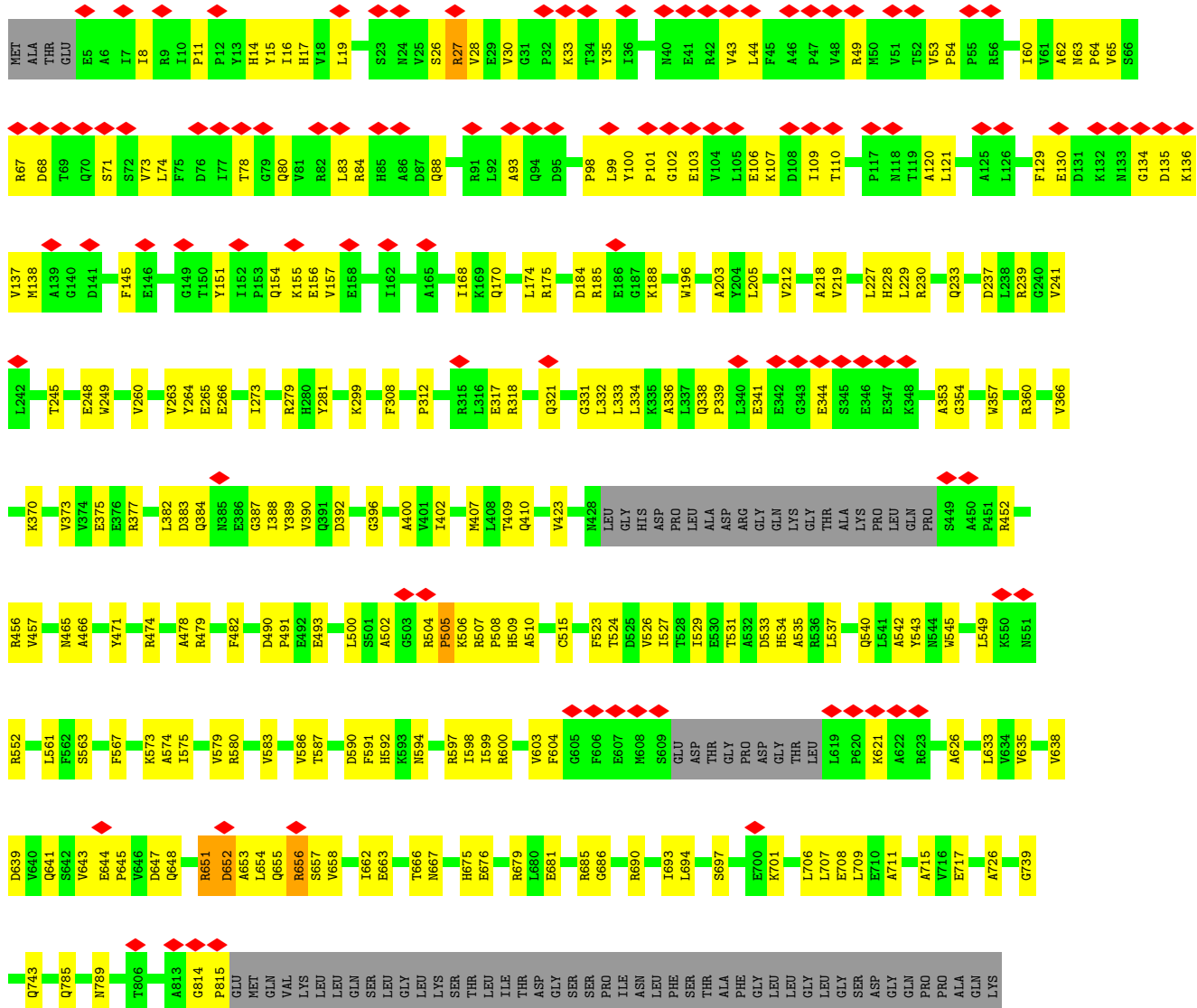


Molecule 1: Major vault protein

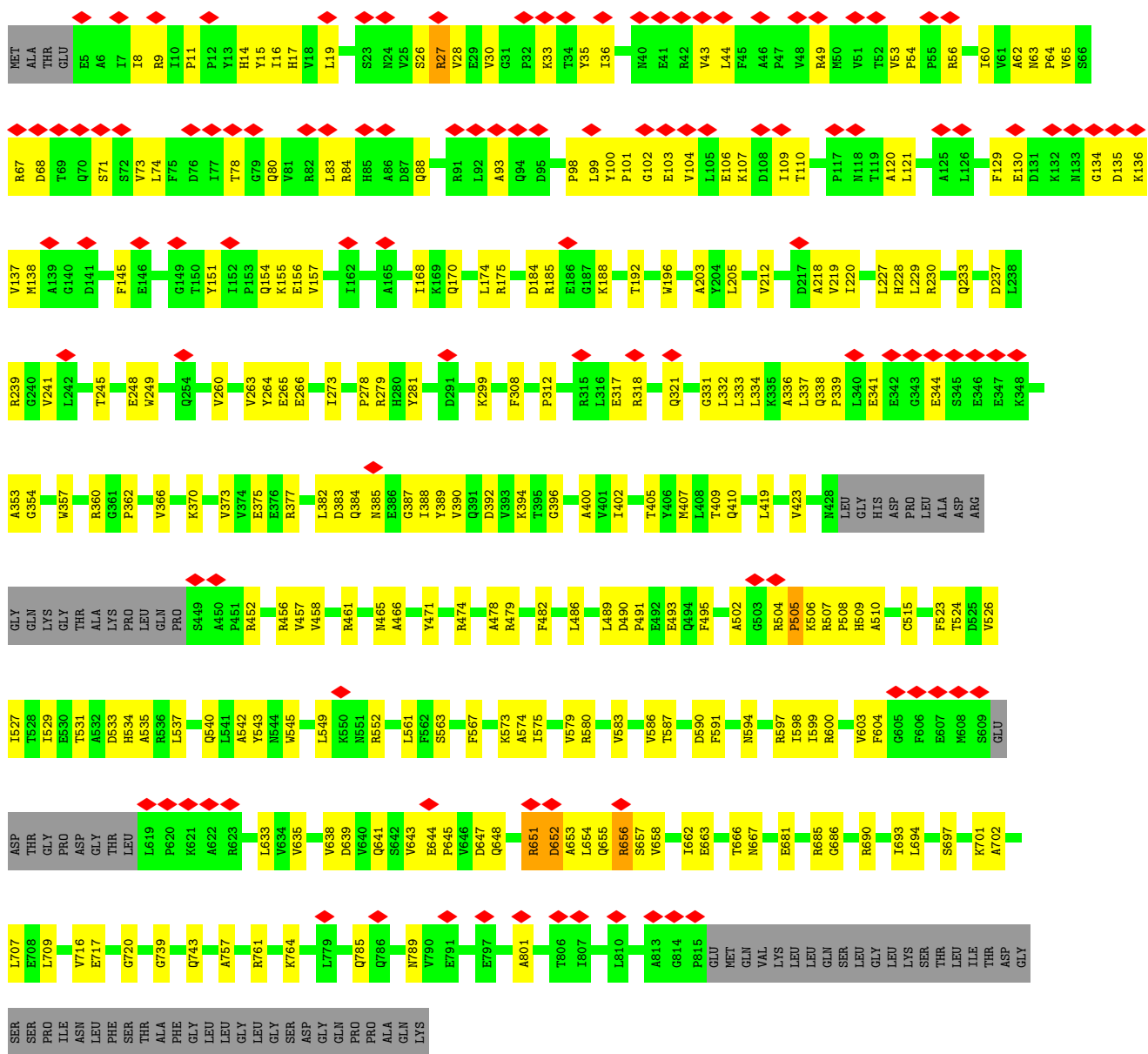




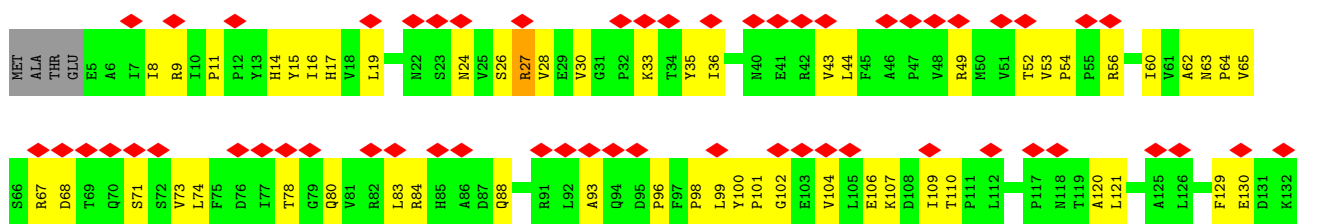
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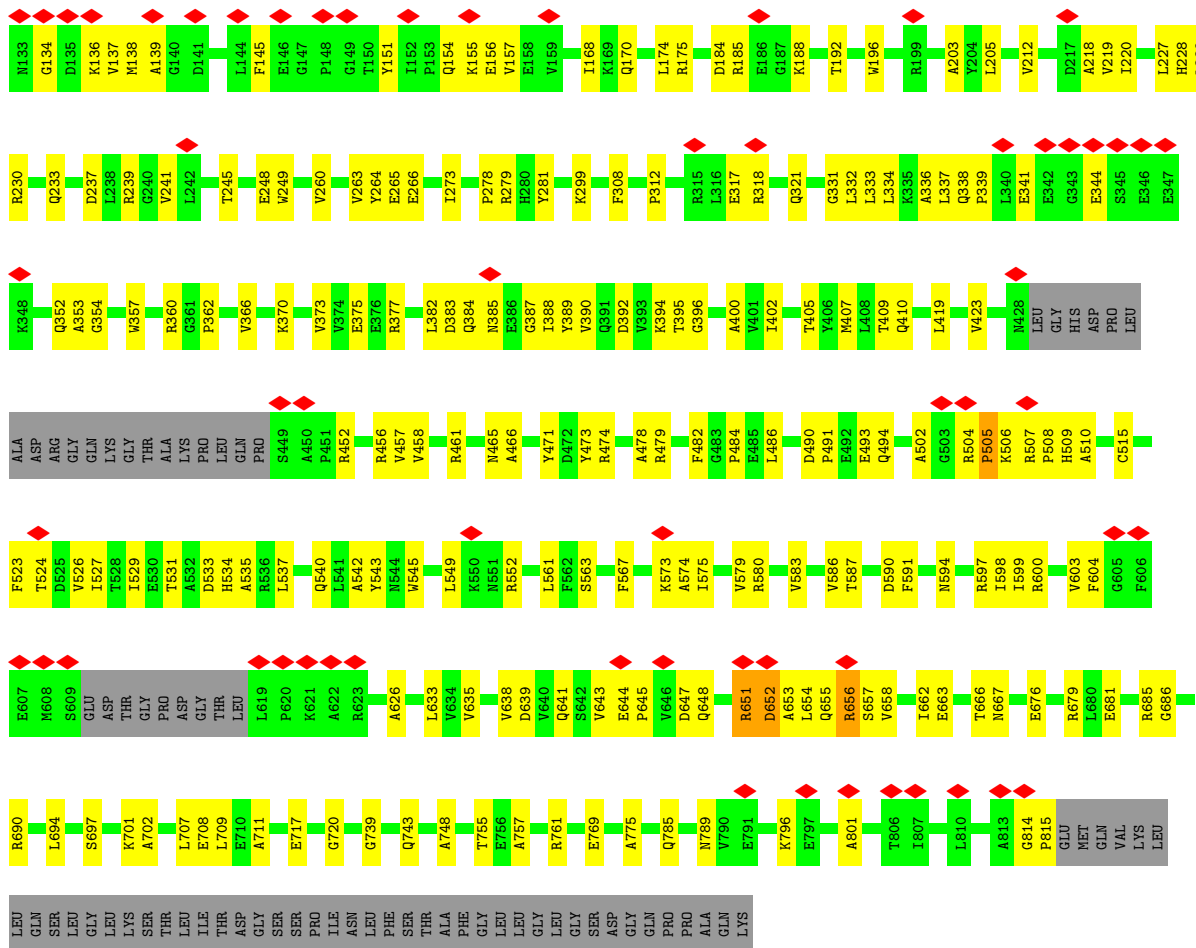


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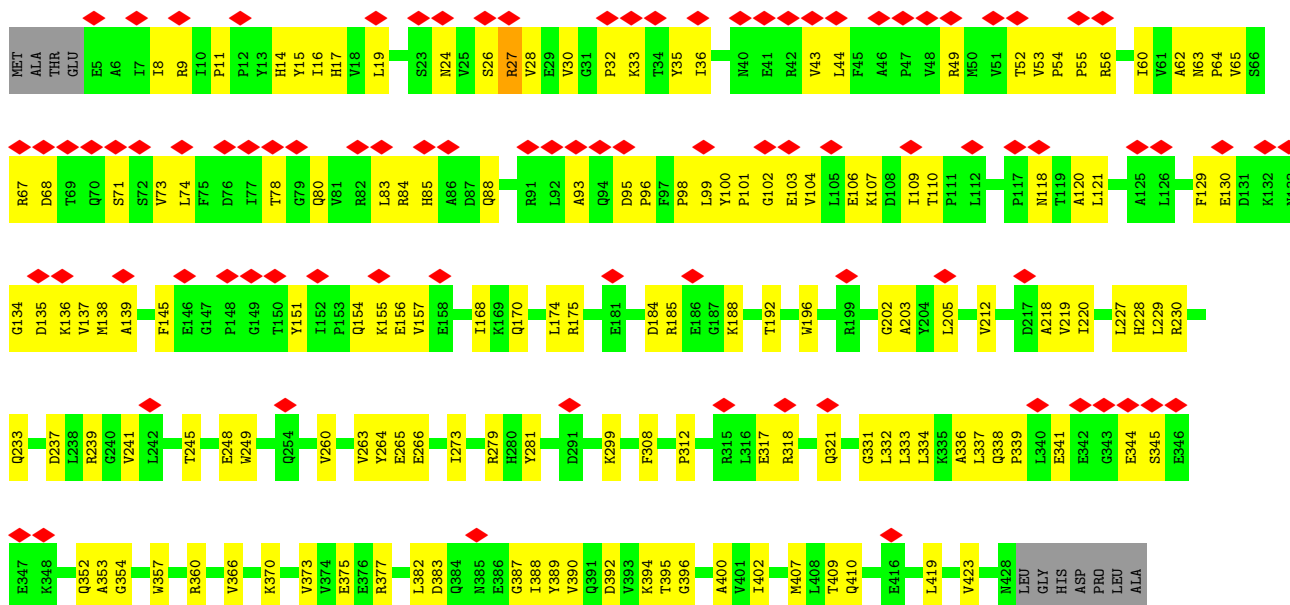


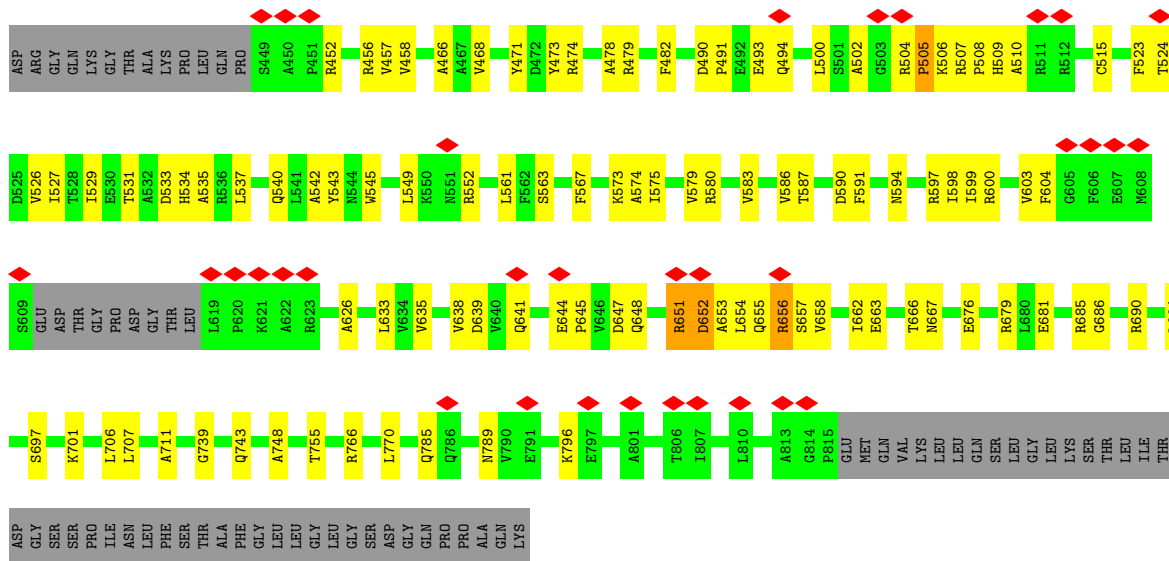
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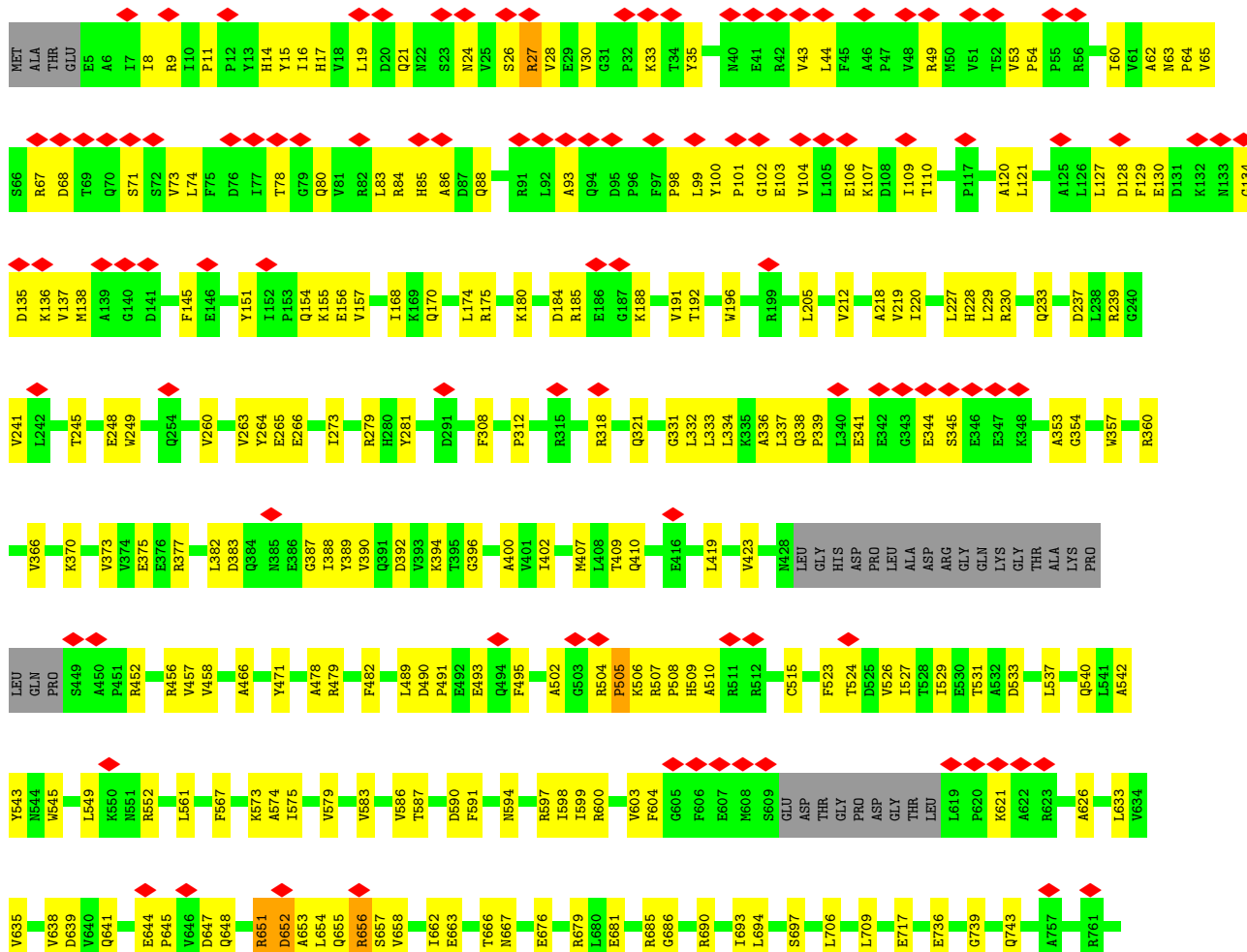


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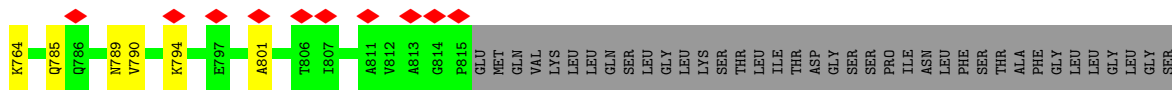




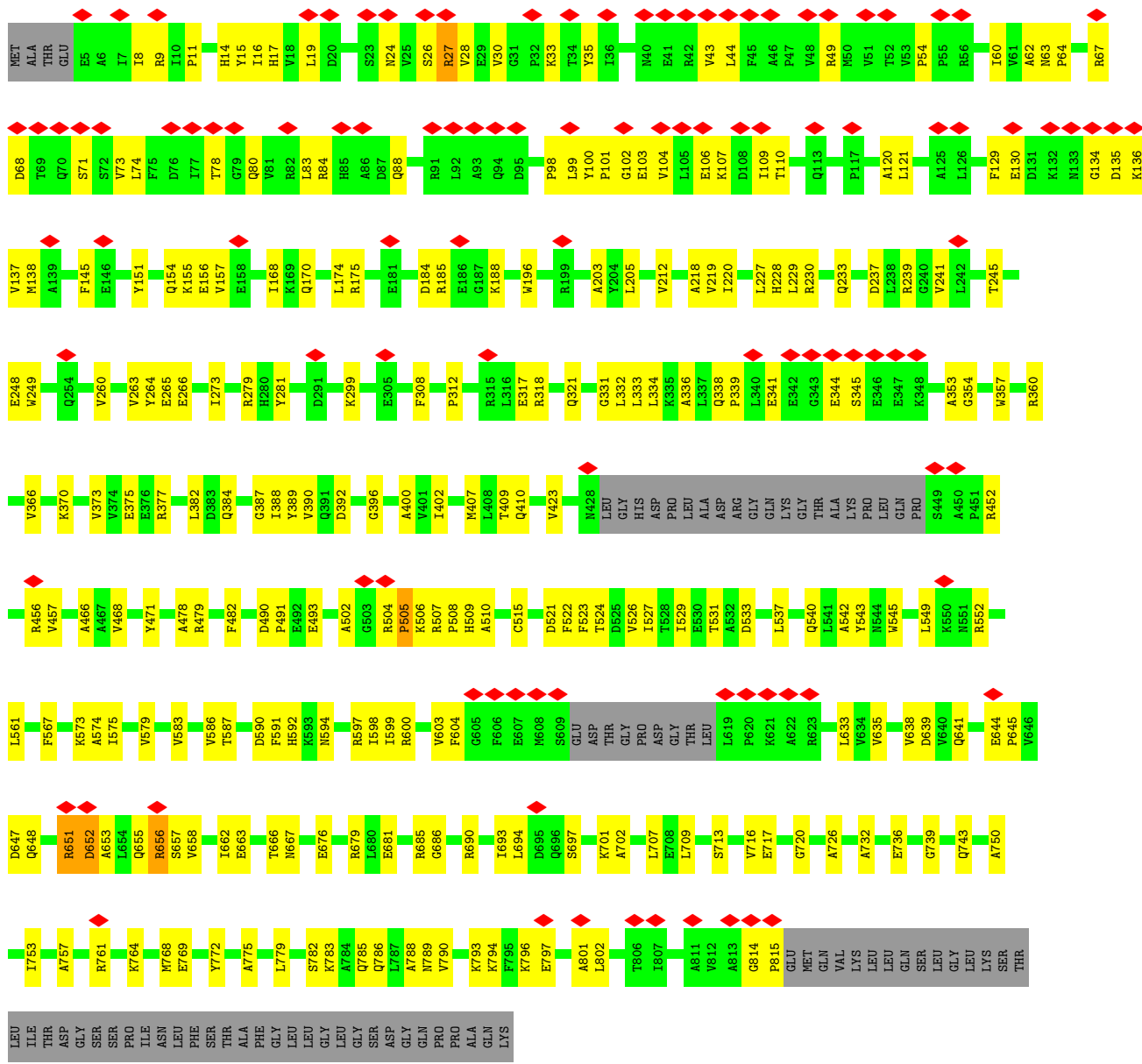
• Molecule 1: Major vault protein





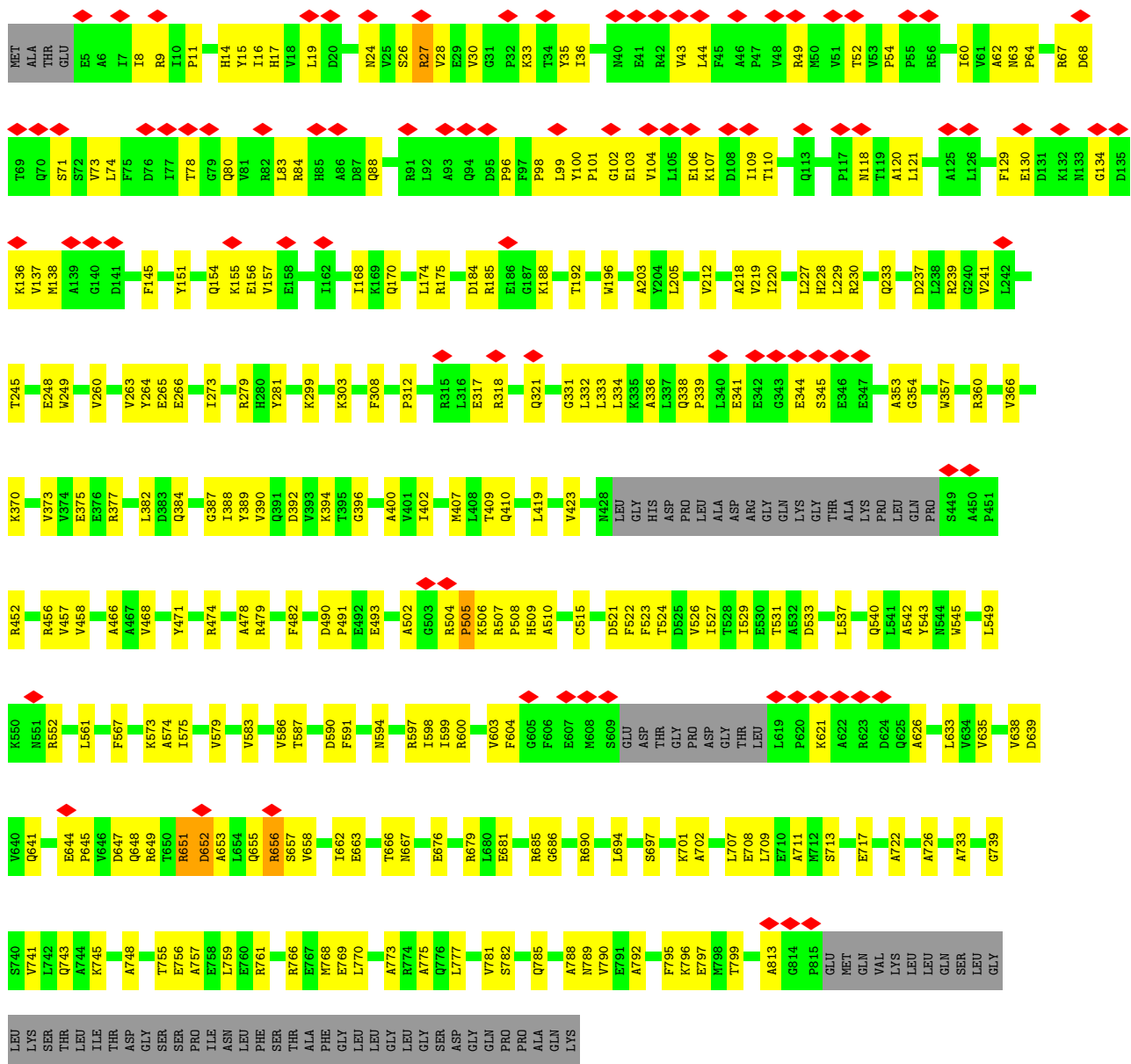


● Molecule 1: Major vault protein

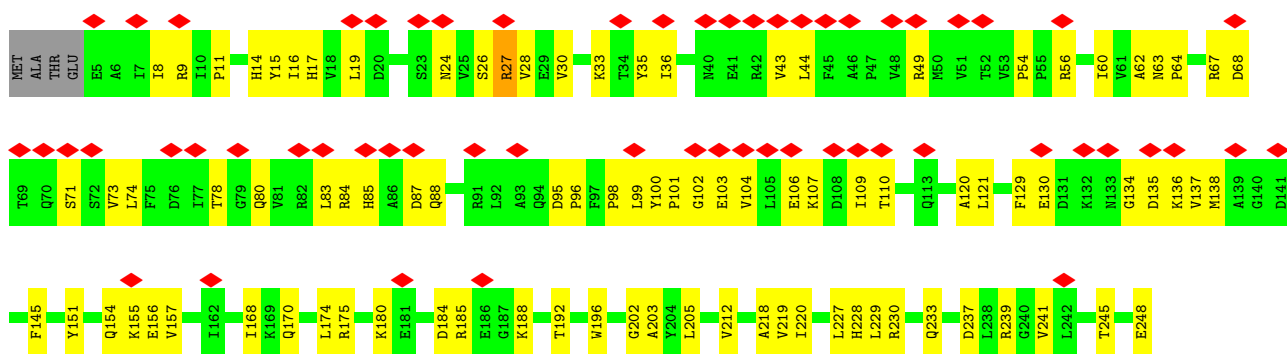


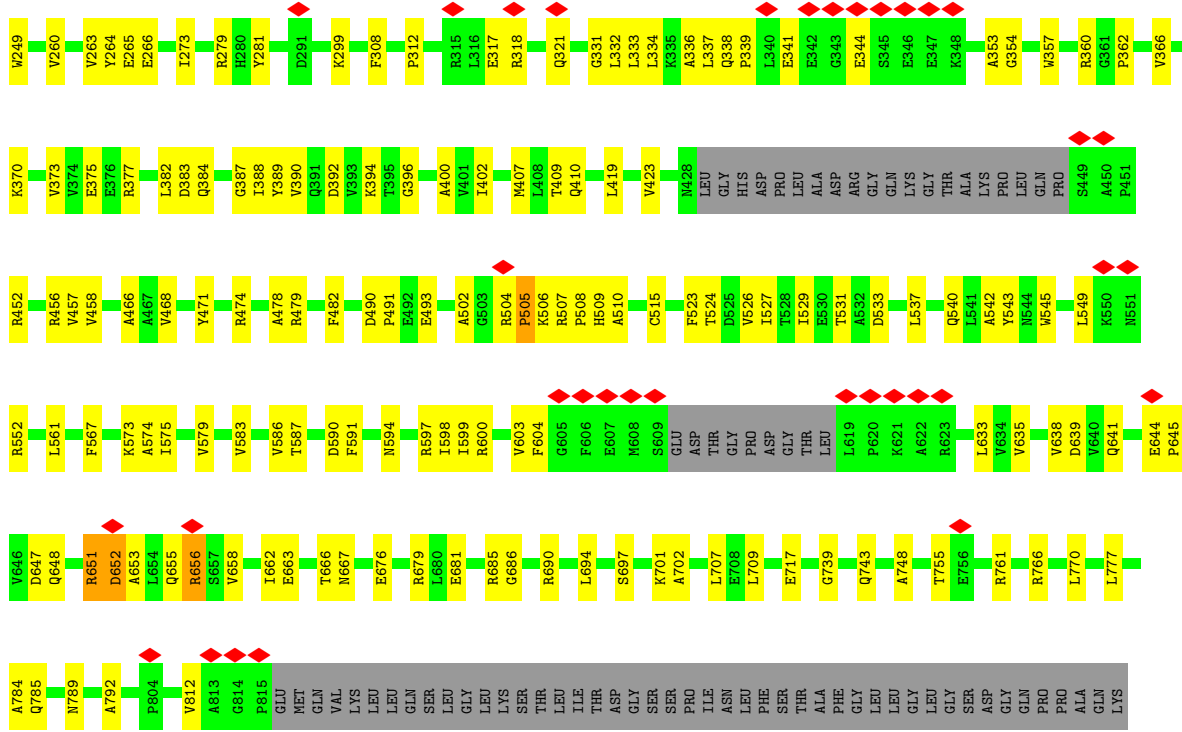
● Molecule 1: Major vault protein



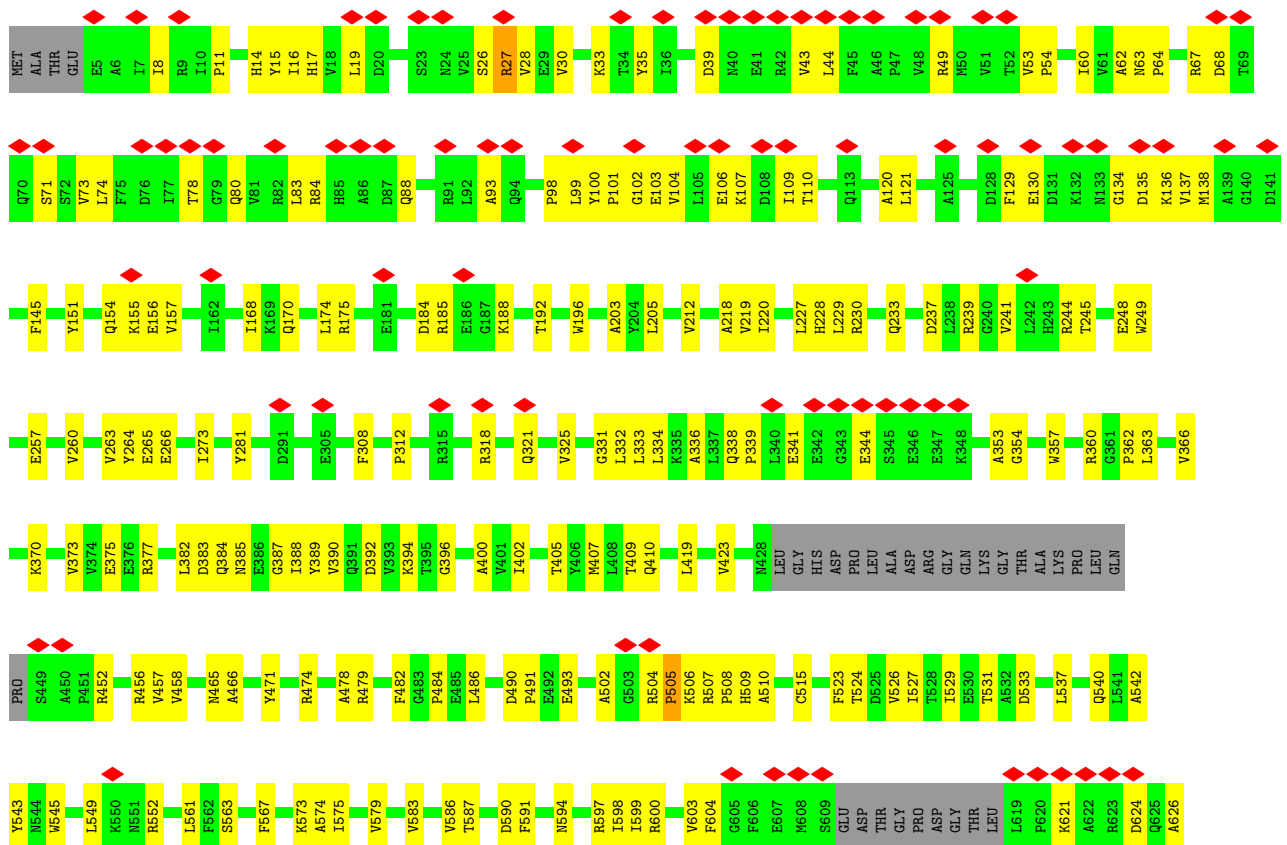


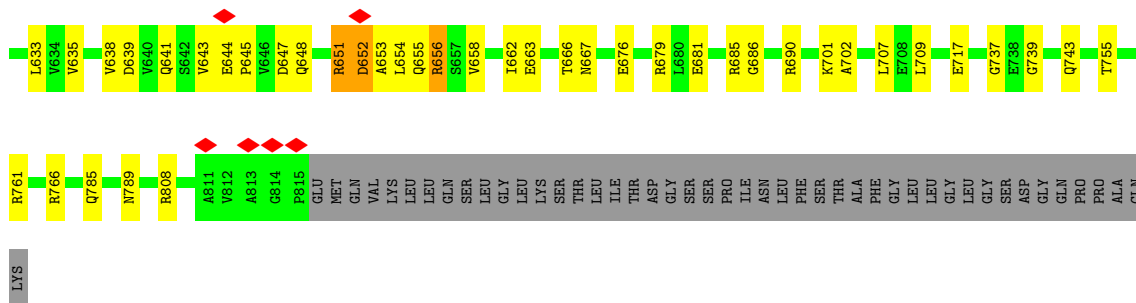
• Molecule 1: Major vault protein



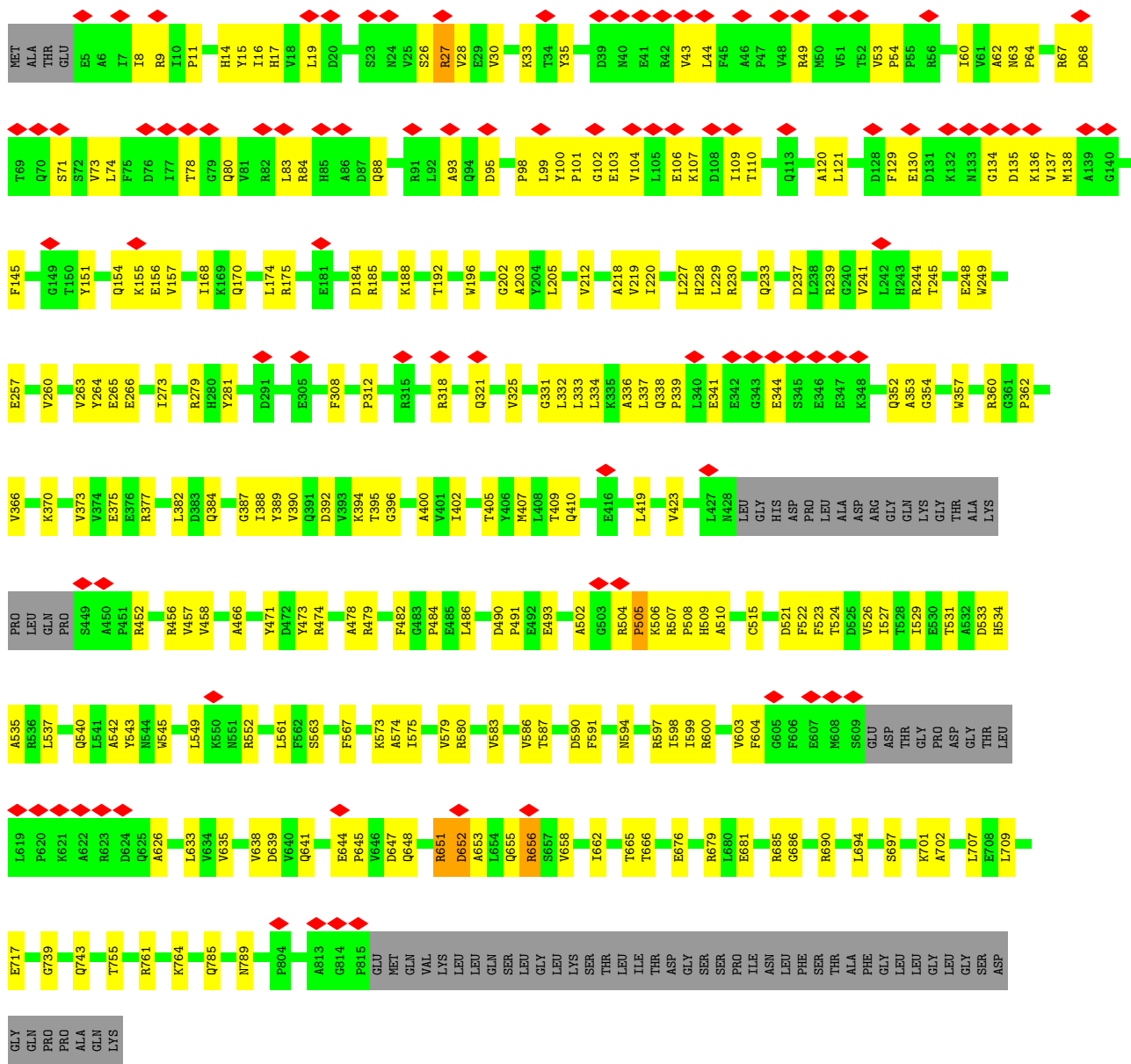


• Molecule 1: Major vault protein

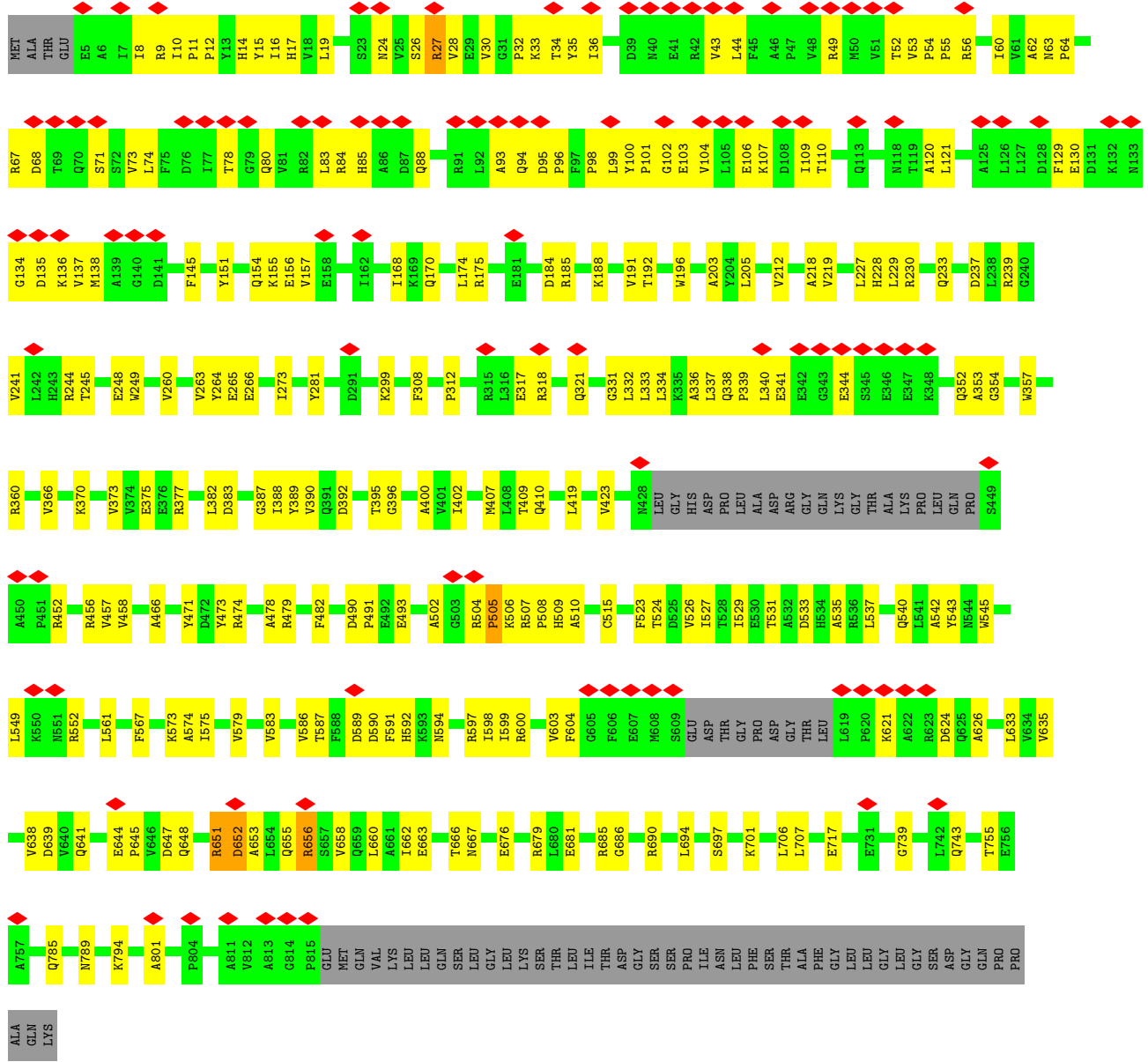




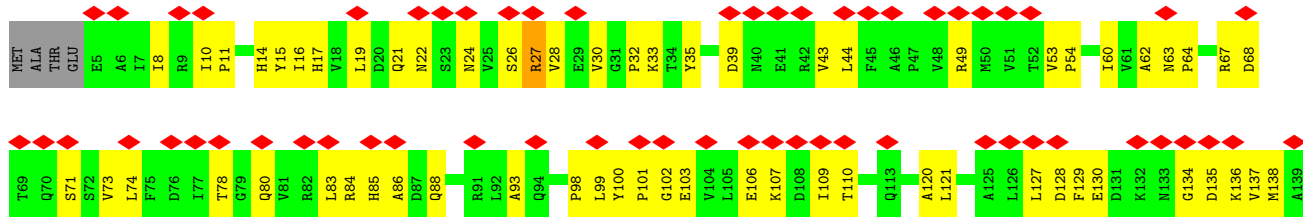
• Molecule 1: Major vault protein

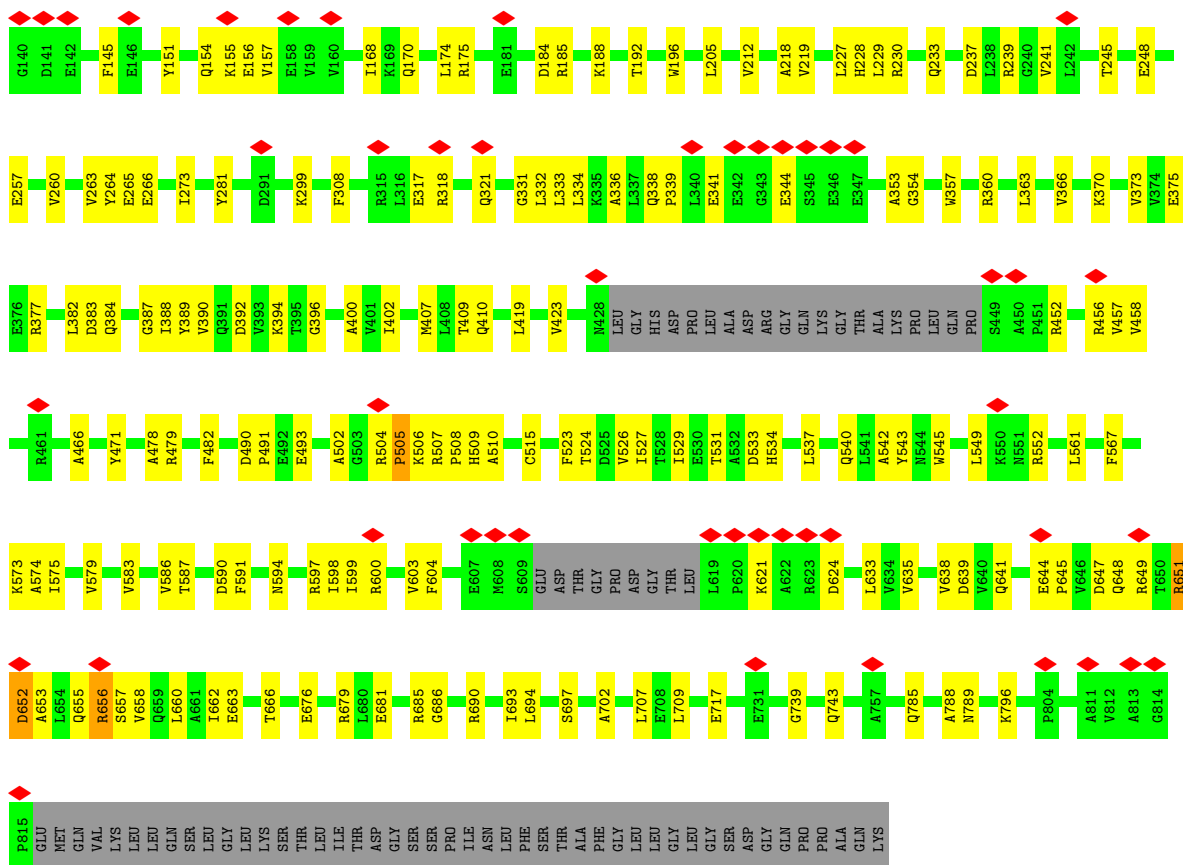


• Molecule 1: Major vault protein

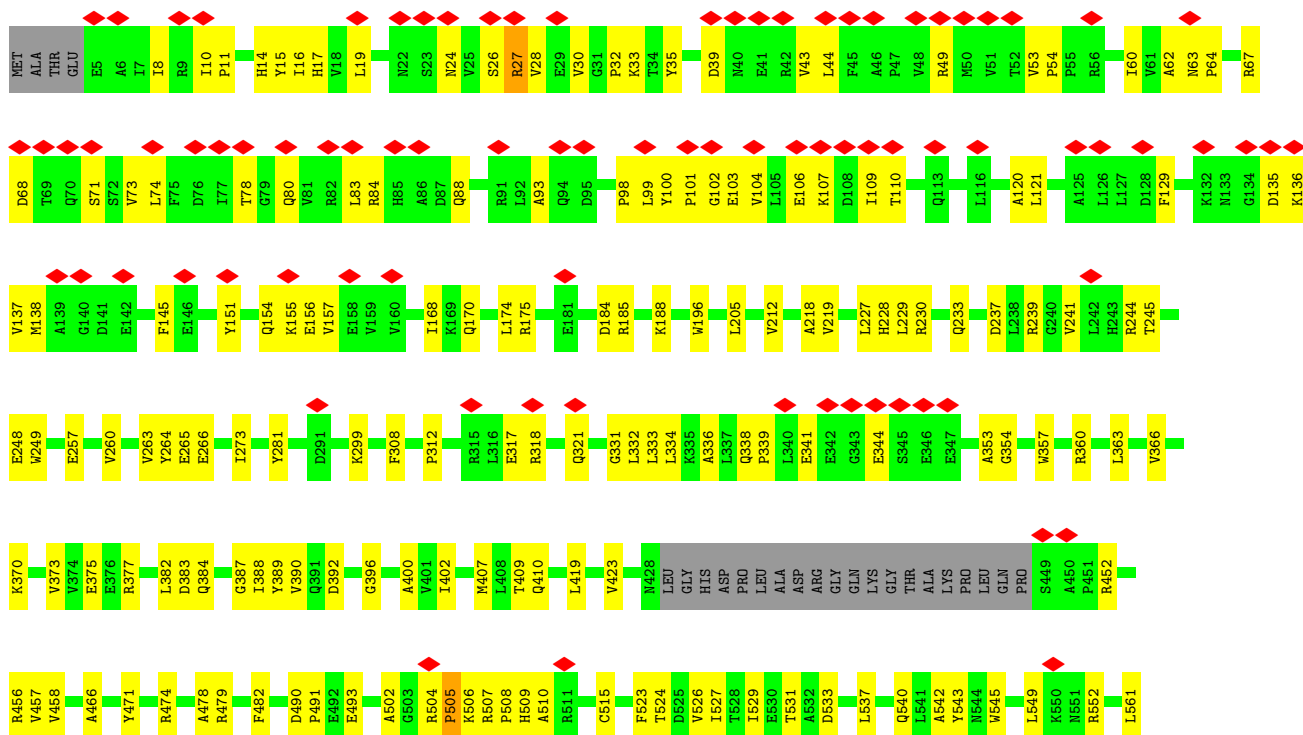


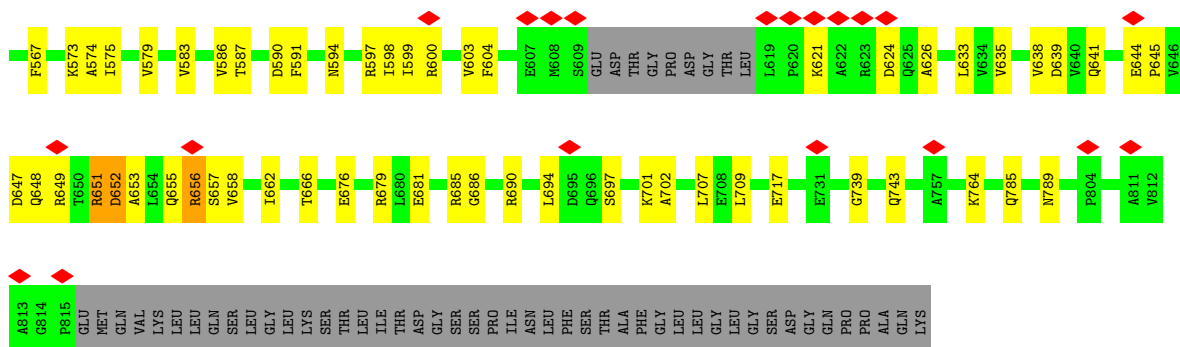
• Molecule 1: Major vault protein



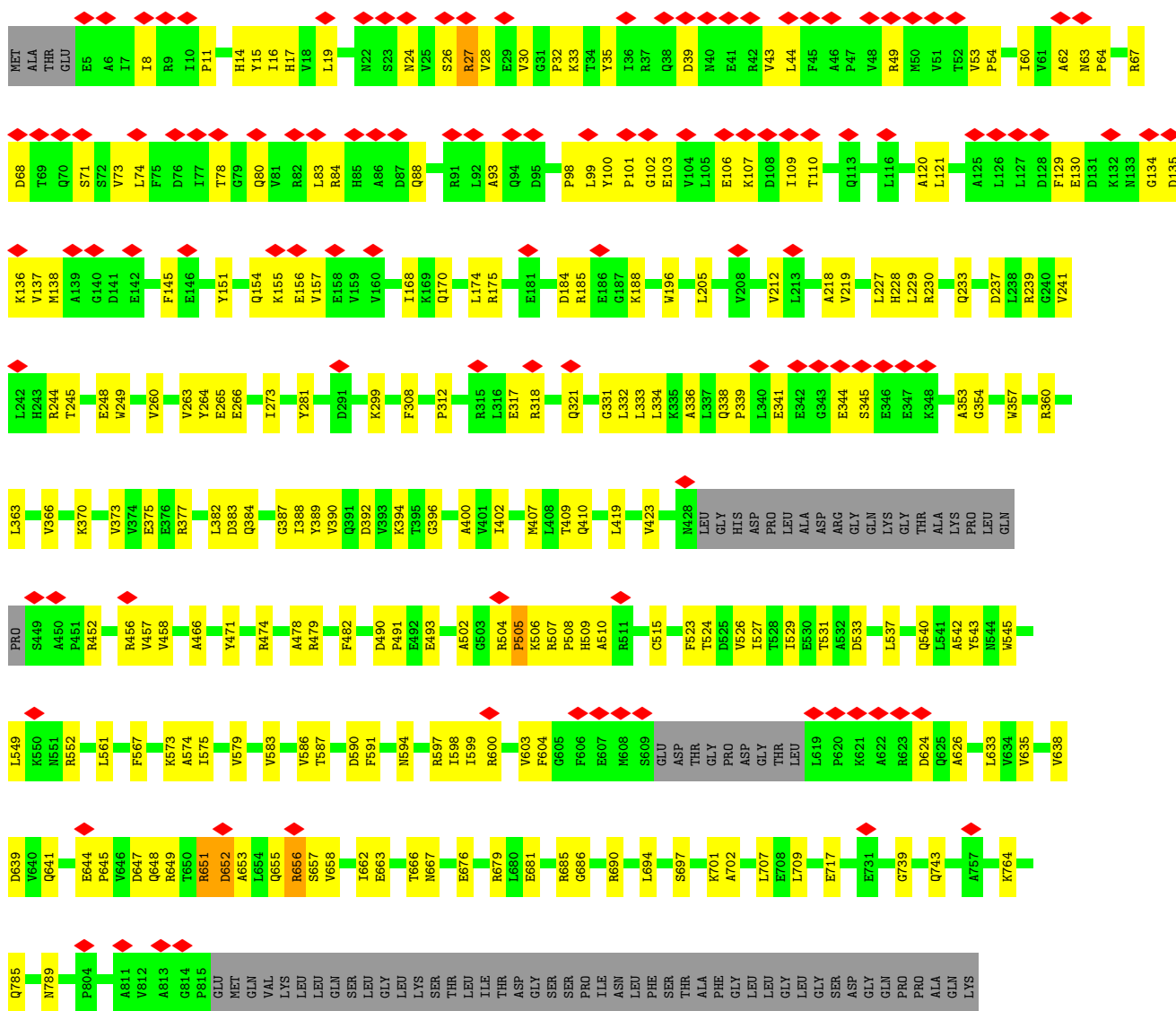


• Molecule 1: Major vault protein

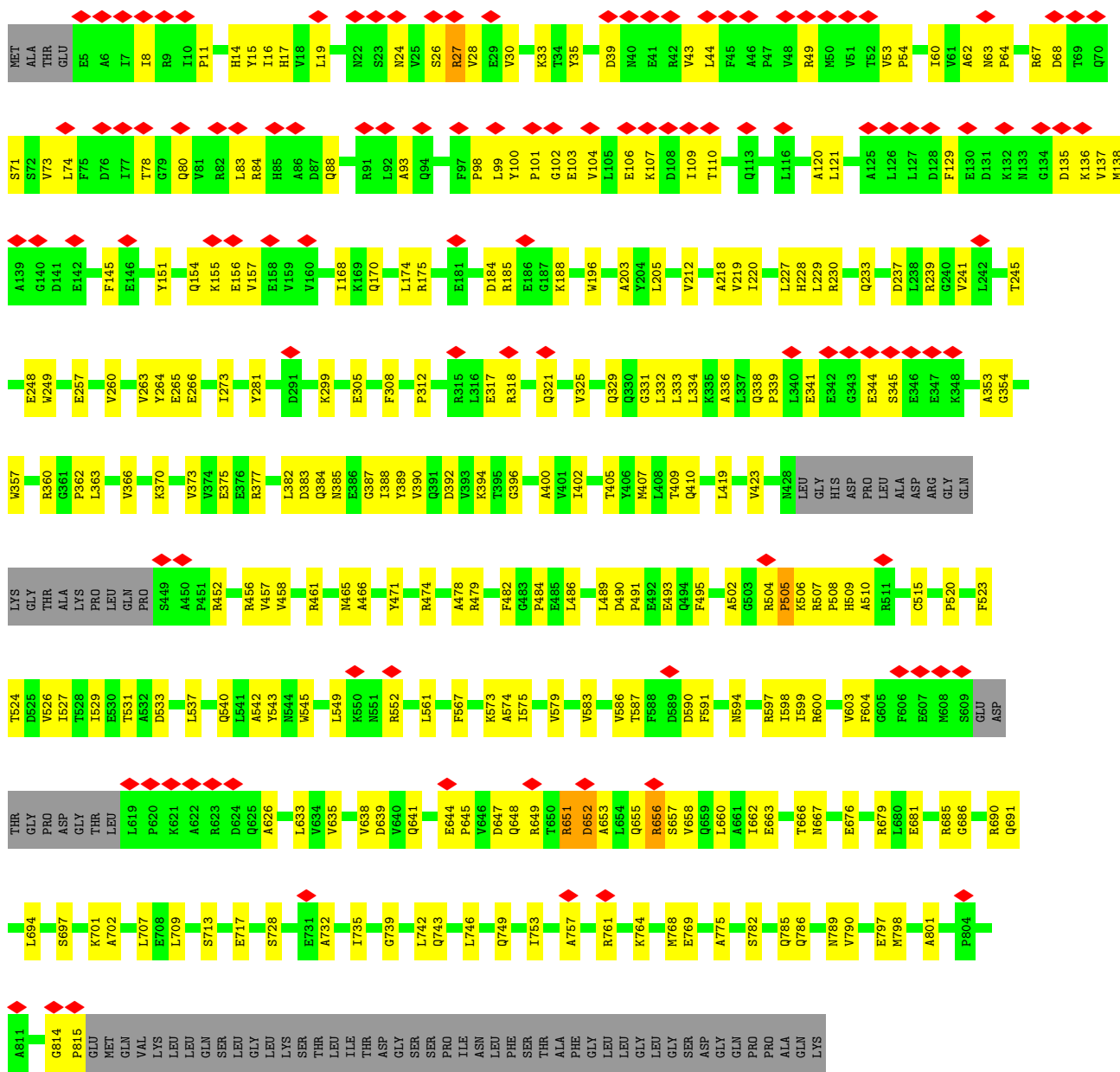




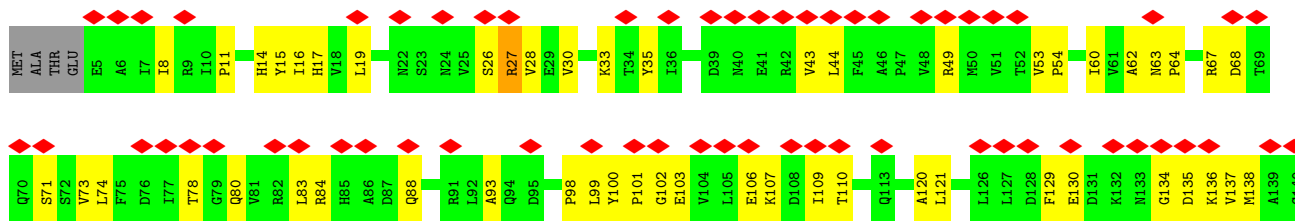
• Molecule 1: Major vault protein



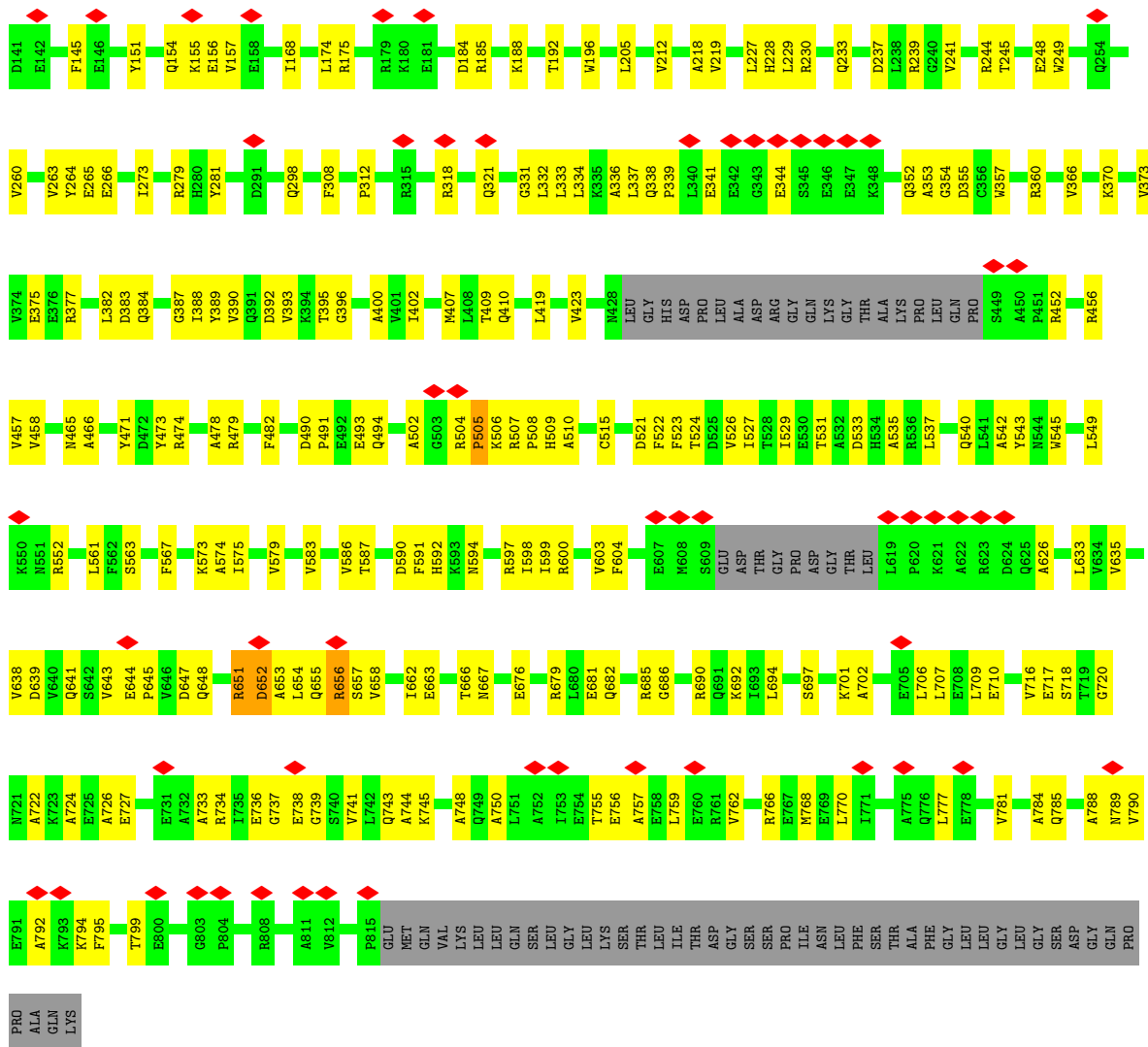
• Molecule 1: Major vault protein



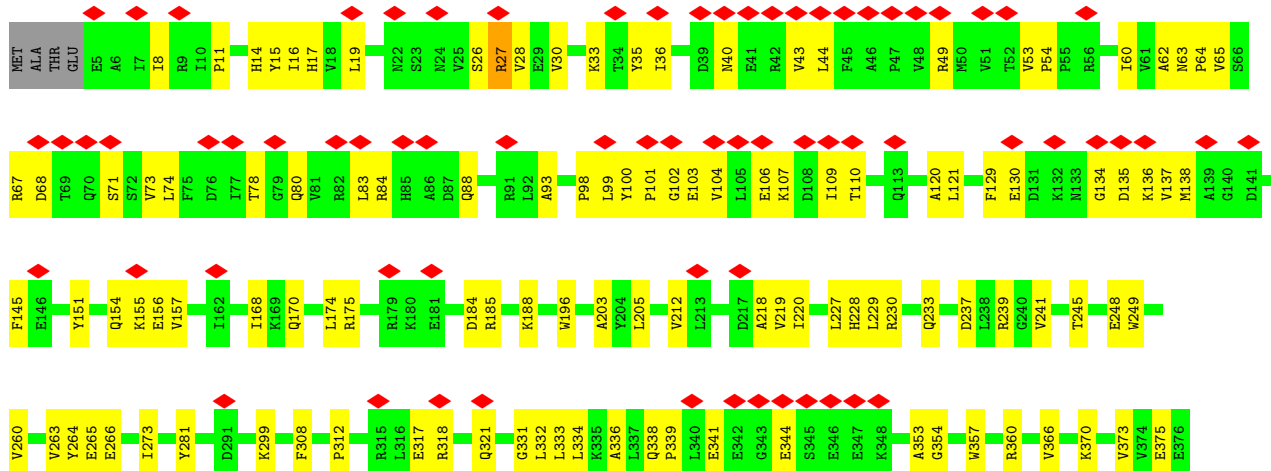
• Molecule 1: Major vault protein

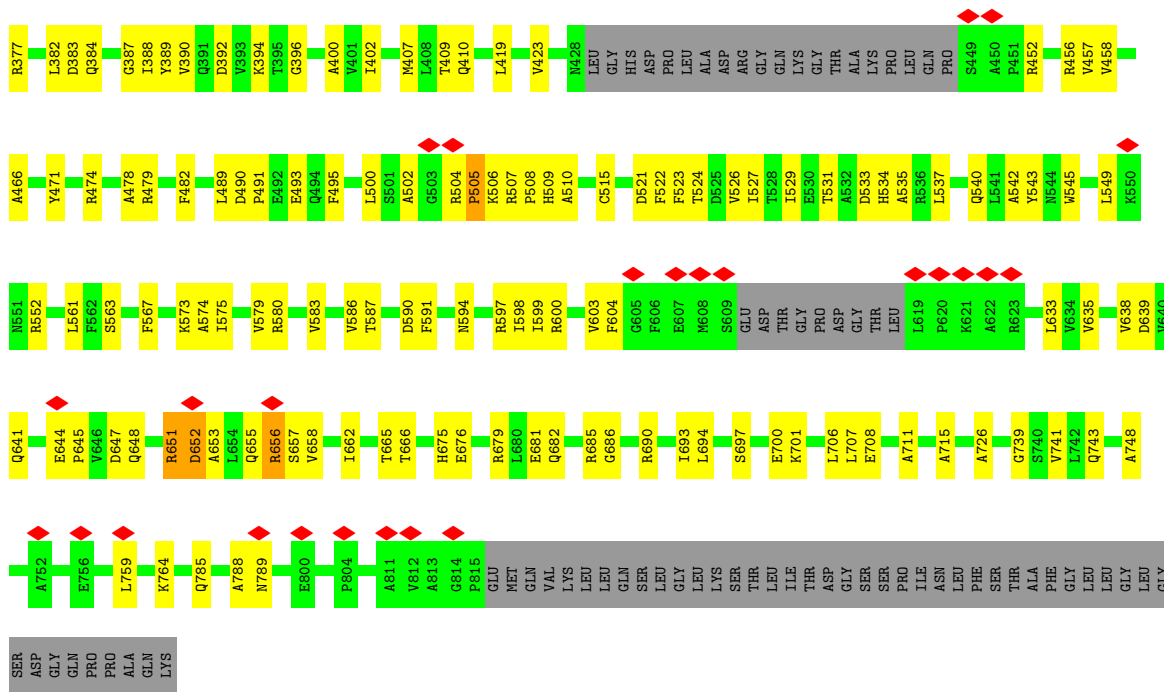




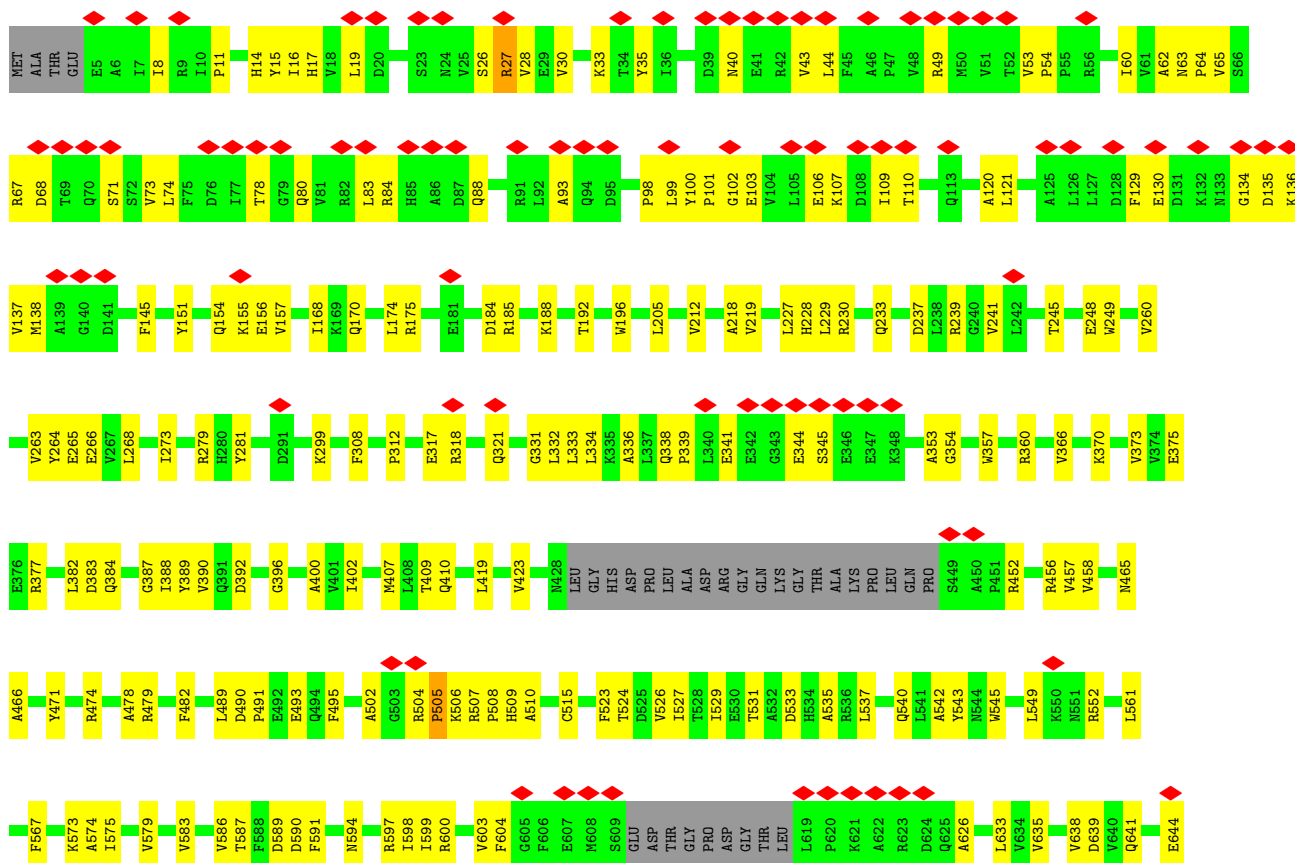


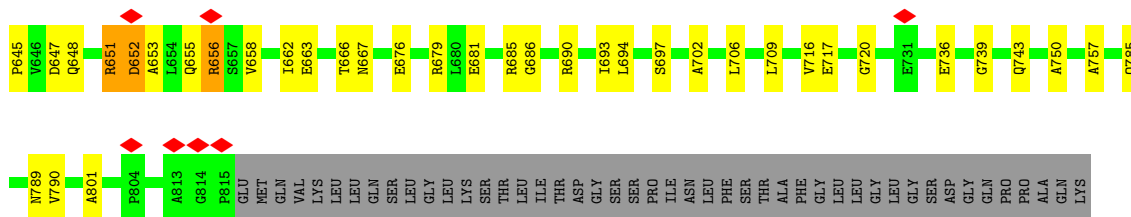
• Molecule 1: Major vault protein



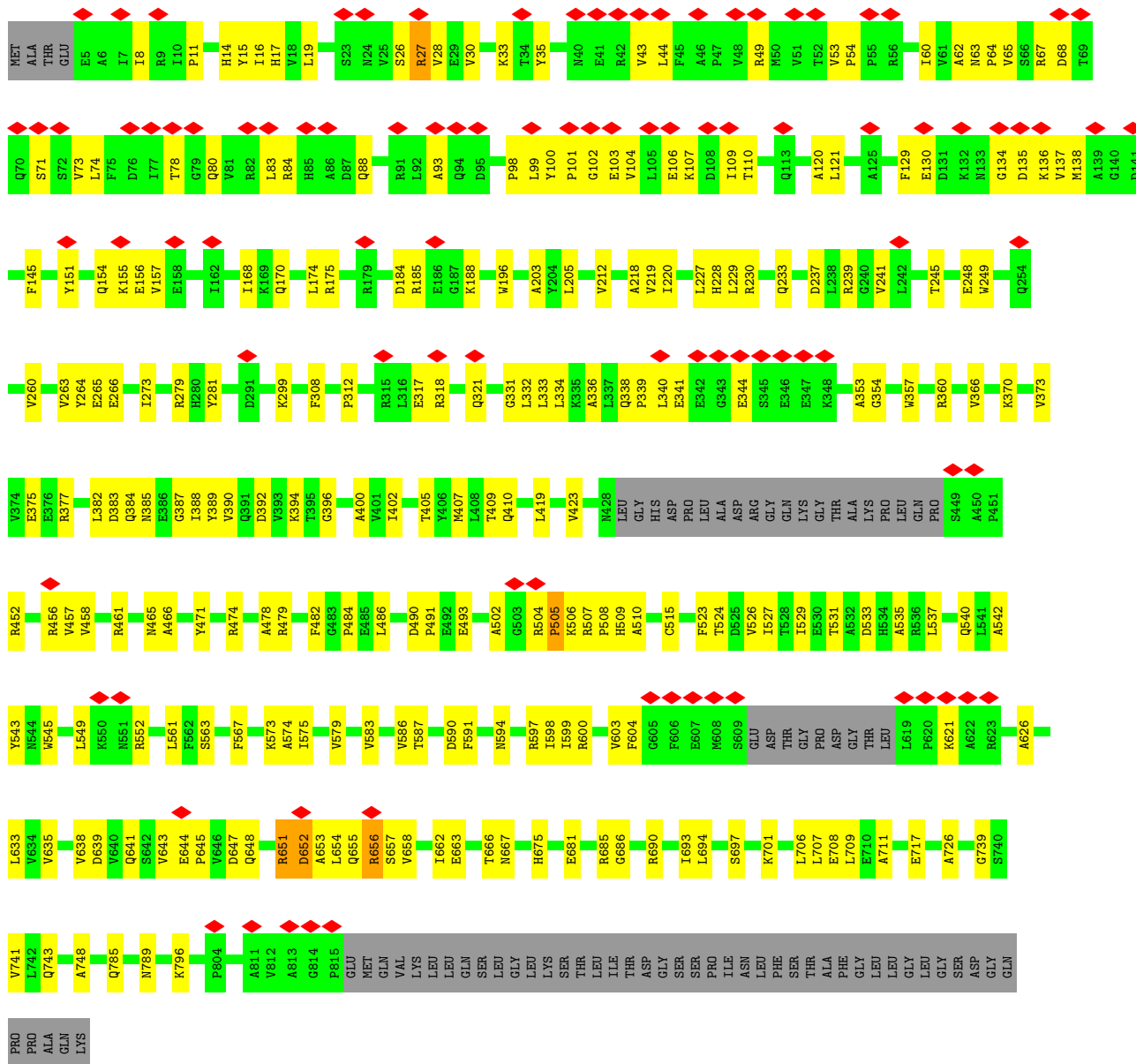


• Molecule 1: Major vault protein



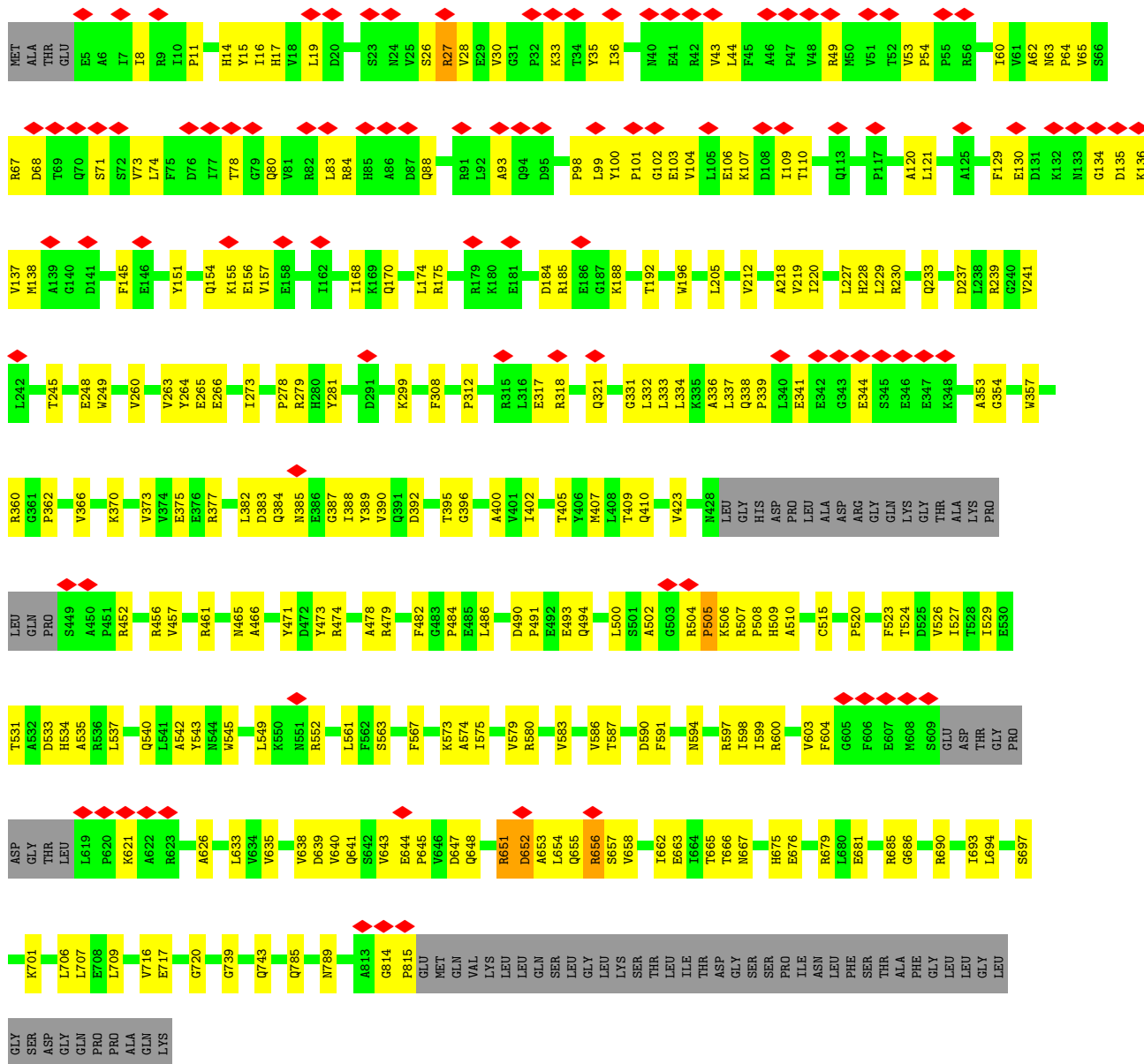


• Molecule 1: Major vault protein

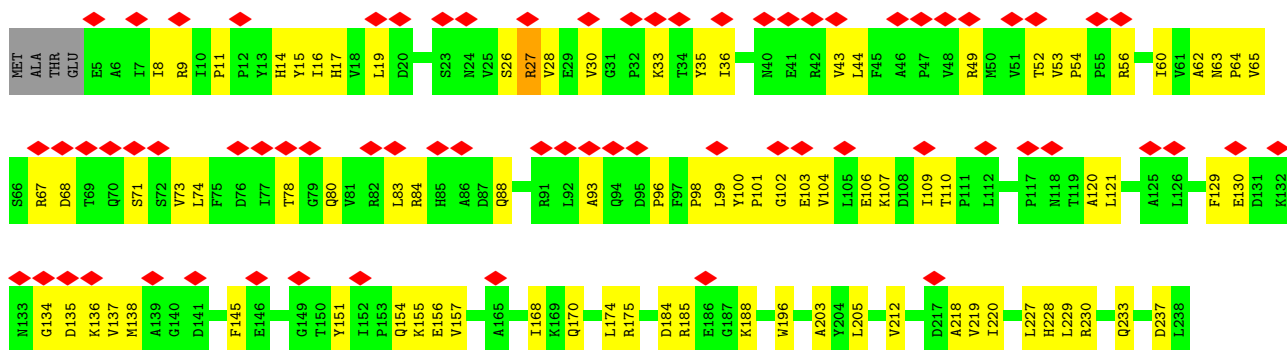


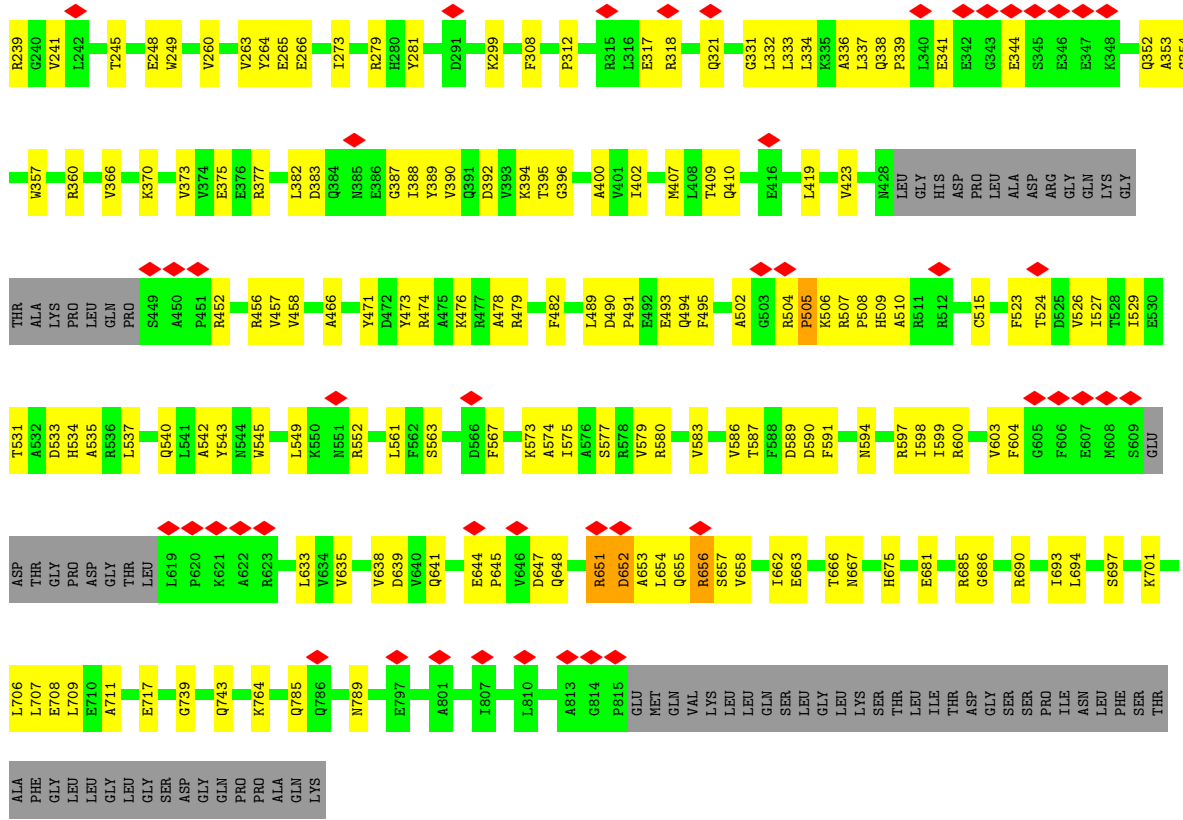
• Molecule 1: Major vault protein





● Molecule 1: Major vault protein





## 4 Experimental information

| Property                             | Value                                   | Source    |
|--------------------------------------|---|-----------|
| EM reconstruction method             | SINGLE PARTICLE                         | Depositor |
| Imposed symmetry                     | POINT, Not provided                     |           |
| Number of particles used             | 9793                                    | Depositor |
| Resolution determination method      | FSC 0.143 CUT-OFF                       | Depositor |
| CTF correction method                | PHASE FLIPPING AND AMPLITUDE CORRECTION | Depositor |
| Microscope                           | FEI TITAN KRIOS                         | Depositor |
| Voltage (kV)                         | 300                                     | Depositor |
| Electron dose ( $e^-/\text{\AA}^2$ ) | 30                                      | Depositor |
| Minimum defocus (nm)                 | Not provided                            |           |
| Maximum defocus (nm)                 | Not provided                            |           |
| Magnification                        | Not provided                            |           |
| Image detector                       | GATAN K2 QUANTUM (4k x 4k)              | Depositor |
| Maximum map value                    | 0.180                                   | Depositor |
| Minimum map value                    | -0.144                                  | Depositor |
| Average map value                    | 0.001                                   | Depositor |
| Map value standard deviation         | 0.009                                   | Depositor |
| Recommended contour level            | 0.04                                    | Depositor |
| Map size (Å)                         | 676.0, 676.0, 676.0                     | wwPDB     |
| Map dimensions                       | 400, 400, 400                           | wwPDB     |
| Map angles (°)                       | 90.0, 90.0, 90.0                        | wwPDB     |
| Pixel spacing (Å)                    | 1.69, 1.69, 1.69                        | Depositor |

## 5 Model quality [i](#)

### 5.1 Standard geometry [i](#)

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with  $|Z| > 5$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

| Mol | Chain | Bond lengths |         | Bond angles |         |
|-----|-------|--------------|---------|-------------|---------|
|     |       | RMSZ         | # Z  >5 | RMSZ        | # Z  >5 |
| 1   | A     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | AA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | AB    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | AC    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | B     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | BA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | BB    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | C     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | CA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | CB    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | D     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | DA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | DB    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | E     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | EA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | EB    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | F     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | FA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | FB    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | G     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | GA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | GB    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | H     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | HA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | HB    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | I     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | IA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | IB    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | J     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | JA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | JB    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | K     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | KA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | KB    | 0.25         | 0/6255  | 0.53        | 0/8475  |

| Mol | Chain | Bond lengths |         | Bond angles |         |
|-----|-------|--------------|---------|-------------|---------|
|     |       | RMSZ         | # Z  >5 | RMSZ        | # Z  >5 |
| 1   | L     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | LA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | LB    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | M     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | MA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | MB    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | N     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | NA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | NB    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | O     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | OA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | OB    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | P     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | PA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | PB    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | Q     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | QA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | QB    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | R     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | RA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | RB    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | S     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | SA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | SB    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | T     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | TA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | TB    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | UA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | UB    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | V     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | VA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | VB    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | W     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | WA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | WB    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | X     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | XA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | XB    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | Y     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | YA    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | YB    | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | Z     | 0.25         | 0/6255  | 0.53        | 0/8475  |
| 1   | ZA    | 0.25         | 0/6255  | 0.53        | 0/8475  |



| Mol | Chain | Bond lengths |          | Bond angles |          |
|-----|-------|--------------|----------|-------------|----------|
|     |       | RMSZ         | # Z  >5  | RMSZ        | # Z  >5  |
| 1   | ZB    | 0.25         | 0/6255   | 0.53        | 0/8475   |
| All | All   | 0.25         | 0/487890 | 0.53        | 0/661050 |

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

| Mol | Chain | #Chirality outliers | #Planarity outliers |
|-----|-------|---------------------|---------------------|
| 1   | A     | 0                   | 2                   |
| 1   | AA    | 0                   | 2                   |
| 1   | AB    | 0                   | 2                   |
| 1   | AC    | 0                   | 2                   |
| 1   | B     | 0                   | 2                   |
| 1   | BA    | 0                   | 2                   |
| 1   | BB    | 0                   | 2                   |
| 1   | C     | 0                   | 2                   |
| 1   | CA    | 0                   | 2                   |
| 1   | CB    | 0                   | 2                   |
| 1   | D     | 0                   | 2                   |
| 1   | DA    | 0                   | 2                   |
| 1   | DB    | 0                   | 2                   |
| 1   | E     | 0                   | 2                   |
| 1   | EA    | 0                   | 2                   |
| 1   | EB    | 0                   | 2                   |
| 1   | F     | 0                   | 2                   |
| 1   | FA    | 0                   | 2                   |
| 1   | FB    | 0                   | 2                   |
| 1   | G     | 0                   | 2                   |
| 1   | GA    | 0                   | 2                   |
| 1   | GB    | 0                   | 2                   |
| 1   | H     | 0                   | 2                   |
| 1   | HA    | 0                   | 2                   |
| 1   | HB    | 0                   | 2                   |
| 1   | I     | 0                   | 2                   |
| 1   | IA    | 0                   | 2                   |
| 1   | IB    | 0                   | 2                   |
| 1   | J     | 0                   | 2                   |
| 1   | JA    | 0                   | 2                   |
| 1   | JB    | 0                   | 2                   |
| 1   | K     | 0                   | 2                   |
| 1   | KA    | 0                   | 2                   |

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| Mol | Chain | #Chirality outliers | #Planarity outliers |
|-----|-------|---------------------|---------------------|
| 1   | KB    | 0                   | 2                   |
| 1   | L     | 0                   | 2                   |
| 1   | LA    | 0                   | 2                   |
| 1   | LB    | 0                   | 2                   |
| 1   | M     | 0                   | 2                   |
| 1   | MA    | 0                   | 2                   |
| 1   | MB    | 0                   | 2                   |
| 1   | N     | 0                   | 2                   |
| 1   | NA    | 0                   | 2                   |
| 1   | NB    | 0                   | 2                   |
| 1   | O     | 0                   | 2                   |
| 1   | OA    | 0                   | 2                   |
| 1   | OB    | 0                   | 2                   |
| 1   | P     | 0                   | 2                   |
| 1   | PA    | 0                   | 2                   |
| 1   | PB    | 0                   | 2                   |
| 1   | Q     | 0                   | 2                   |
| 1   | QA    | 0                   | 2                   |
| 1   | QB    | 0                   | 2                   |
| 1   | R     | 0                   | 2                   |
| 1   | RA    | 0                   | 2                   |
| 1   | RB    | 0                   | 2                   |
| 1   | S     | 0                   | 2                   |
| 1   | SA    | 0                   | 2                   |
| 1   | SB    | 0                   | 2                   |
| 1   | T     | 0                   | 2                   |
| 1   | TA    | 0                   | 2                   |
| 1   | TB    | 0                   | 2                   |
| 1   | UA    | 0                   | 2                   |
| 1   | UB    | 0                   | 2                   |
| 1   | V     | 0                   | 2                   |
| 1   | VA    | 0                   | 2                   |
| 1   | VB    | 0                   | 2                   |
| 1   | W     | 0                   | 2                   |
| 1   | WA    | 0                   | 2                   |
| 1   | WB    | 0                   | 2                   |
| 1   | X     | 0                   | 2                   |
| 1   | XA    | 0                   | 2                   |
| 1   | XB    | 0                   | 2                   |
| 1   | Y     | 0                   | 2                   |
| 1   | YA    | 0                   | 2                   |
| 1   | YB    | 0                   | 2                   |

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| Mol | Chain | #Chirality outliers | #Planarity outliers |
|-----|-------|---------------------|---------------------|
| 1   | Z     | 0                   | 2                   |
| 1   | ZA    | 0                   | 2                   |
| 1   | ZB    | 0                   | 2                   |
| All | All   | 0                   | 156                 |

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (156) planarity outliers are listed below:

| Mol | Chain | Res | Type | Group   |
|-----|-------|-----|------|---------|
| 1   | A     | 644 | GLU  | Peptide |
| 1   | A     | 651 | ARG  | Peptide |
| 1   | AA    | 644 | GLU  | Peptide |
| 1   | AA    | 651 | ARG  | Peptide |
| 1   | AB    | 644 | GLU  | Peptide |
| 1   | AB    | 651 | ARG  | Peptide |
| 1   | AC    | 644 | GLU  | Peptide |
| 1   | AC    | 651 | ARG  | Peptide |
| 1   | B     | 644 | GLU  | Peptide |
| 1   | B     | 651 | ARG  | Peptide |
| 1   | BA    | 644 | GLU  | Peptide |
| 1   | BA    | 651 | ARG  | Peptide |
| 1   | BB    | 644 | GLU  | Peptide |
| 1   | BB    | 651 | ARG  | Peptide |
| 1   | C     | 644 | GLU  | Peptide |
| 1   | C     | 651 | ARG  | Peptide |
| 1   | CA    | 644 | GLU  | Peptide |
| 1   | CA    | 651 | ARG  | Peptide |
| 1   | CB    | 644 | GLU  | Peptide |
| 1   | CB    | 651 | ARG  | Peptide |
| 1   | D     | 644 | GLU  | Peptide |
| 1   | D     | 651 | ARG  | Peptide |
| 1   | DA    | 644 | GLU  | Peptide |
| 1   | DA    | 651 | ARG  | Peptide |
| 1   | DB    | 644 | GLU  | Peptide |
| 1   | DB    | 651 | ARG  | Peptide |
| 1   | E     | 644 | GLU  | Peptide |
| 1   | E     | 651 | ARG  | Peptide |
| 1   | EA    | 644 | GLU  | Peptide |
| 1   | EA    | 651 | ARG  | Peptide |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> | <b>Group</b> |
|------------|--------------|------------|-------------|--------------|
| 1          | EB           | 644        | GLU         | Peptide      |
| 1          | EB           | 651        | ARG         | Peptide      |
| 1          | F            | 644        | GLU         | Peptide      |
| 1          | F            | 651        | ARG         | Peptide      |
| 1          | FA           | 644        | GLU         | Peptide      |
| 1          | FA           | 651        | ARG         | Peptide      |
| 1          | FB           | 644        | GLU         | Peptide      |
| 1          | FB           | 651        | ARG         | Peptide      |
| 1          | G            | 644        | GLU         | Peptide      |
| 1          | G            | 651        | ARG         | Peptide      |
| 1          | GA           | 644        | GLU         | Peptide      |
| 1          | GA           | 651        | ARG         | Peptide      |
| 1          | GB           | 644        | GLU         | Peptide      |
| 1          | GB           | 651        | ARG         | Peptide      |
| 1          | H            | 644        | GLU         | Peptide      |
| 1          | H            | 651        | ARG         | Peptide      |
| 1          | HA           | 644        | GLU         | Peptide      |
| 1          | HA           | 651        | ARG         | Peptide      |
| 1          | HB           | 644        | GLU         | Peptide      |
| 1          | HB           | 651        | ARG         | Peptide      |
| 1          | I            | 644        | GLU         | Peptide      |
| 1          | I            | 651        | ARG         | Peptide      |
| 1          | IA           | 644        | GLU         | Peptide      |
| 1          | IA           | 651        | ARG         | Peptide      |
| 1          | IB           | 644        | GLU         | Peptide      |
| 1          | IB           | 651        | ARG         | Peptide      |
| 1          | J            | 644        | GLU         | Peptide      |
| 1          | J            | 651        | ARG         | Peptide      |
| 1          | JA           | 644        | GLU         | Peptide      |
| 1          | JA           | 651        | ARG         | Peptide      |
| 1          | JB           | 644        | GLU         | Peptide      |
| 1          | JB           | 651        | ARG         | Peptide      |
| 1          | K            | 644        | GLU         | Peptide      |
| 1          | K            | 651        | ARG         | Peptide      |
| 1          | KA           | 644        | GLU         | Peptide      |
| 1          | KA           | 651        | ARG         | Peptide      |
| 1          | KB           | 644        | GLU         | Peptide      |
| 1          | KB           | 651        | ARG         | Peptide      |
| 1          | L            | 644        | GLU         | Peptide      |
| 1          | L            | 651        | ARG         | Peptide      |
| 1          | LA           | 644        | GLU         | Peptide      |
| 1          | LA           | 651        | ARG         | Peptide      |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> | <b>Group</b> |
|------------|--------------|------------|-------------|--------------|
| 1          | LB           | 644        | GLU         | Peptide      |
| 1          | LB           | 651        | ARG         | Peptide      |
| 1          | M            | 644        | GLU         | Peptide      |
| 1          | M            | 651        | ARG         | Peptide      |
| 1          | MA           | 644        | GLU         | Peptide      |
| 1          | MA           | 651        | ARG         | Peptide      |
| 1          | MB           | 644        | GLU         | Peptide      |
| 1          | MB           | 651        | ARG         | Peptide      |
| 1          | N            | 644        | GLU         | Peptide      |
| 1          | N            | 651        | ARG         | Peptide      |
| 1          | NA           | 644        | GLU         | Peptide      |
| 1          | NA           | 651        | ARG         | Peptide      |
| 1          | NB           | 644        | GLU         | Peptide      |
| 1          | NB           | 651        | ARG         | Peptide      |
| 1          | O            | 644        | GLU         | Peptide      |
| 1          | O            | 651        | ARG         | Peptide      |
| 1          | OA           | 644        | GLU         | Peptide      |
| 1          | OA           | 651        | ARG         | Peptide      |
| 1          | OB           | 644        | GLU         | Peptide      |
| 1          | OB           | 651        | ARG         | Peptide      |
| 1          | P            | 644        | GLU         | Peptide      |
| 1          | P            | 651        | ARG         | Peptide      |
| 1          | PA           | 644        | GLU         | Peptide      |
| 1          | PA           | 651        | ARG         | Peptide      |
| 1          | PB           | 644        | GLU         | Peptide      |
| 1          | PB           | 651        | ARG         | Peptide      |
| 1          | Q            | 644        | GLU         | Peptide      |
| 1          | Q            | 651        | ARG         | Peptide      |
| 1          | QA           | 644        | GLU         | Peptide      |
| 1          | QA           | 651        | ARG         | Peptide      |
| 1          | QB           | 644        | GLU         | Peptide      |
| 1          | QB           | 651        | ARG         | Peptide      |
| 1          | R            | 644        | GLU         | Peptide      |
| 1          | R            | 651        | ARG         | Peptide      |
| 1          | RA           | 644        | GLU         | Peptide      |
| 1          | RA           | 651        | ARG         | Peptide      |
| 1          | RB           | 644        | GLU         | Peptide      |
| 1          | RB           | 651        | ARG         | Peptide      |
| 1          | S            | 644        | GLU         | Peptide      |
| 1          | S            | 651        | ARG         | Peptide      |
| 1          | SA           | 644        | GLU         | Peptide      |
| 1          | SA           | 651        | ARG         | Peptide      |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> | <b>Group</b> |
|------------|--------------|------------|-------------|--------------|
| 1          | SB           | 644        | GLU         | Peptide      |
| 1          | SB           | 651        | ARG         | Peptide      |
| 1          | T            | 644        | GLU         | Peptide      |
| 1          | T            | 651        | ARG         | Peptide      |
| 1          | TA           | 644        | GLU         | Peptide      |
| 1          | TA           | 651        | ARG         | Peptide      |
| 1          | TB           | 644        | GLU         | Peptide      |
| 1          | TB           | 651        | ARG         | Peptide      |
| 1          | UA           | 644        | GLU         | Peptide      |
| 1          | UA           | 651        | ARG         | Peptide      |
| 1          | UB           | 644        | GLU         | Peptide      |
| 1          | UB           | 651        | ARG         | Peptide      |
| 1          | V            | 644        | GLU         | Peptide      |
| 1          | V            | 651        | ARG         | Peptide      |
| 1          | VA           | 644        | GLU         | Peptide      |
| 1          | VA           | 651        | ARG         | Peptide      |
| 1          | VB           | 644        | GLU         | Peptide      |
| 1          | VB           | 651        | ARG         | Peptide      |
| 1          | W            | 644        | GLU         | Peptide      |
| 1          | W            | 651        | ARG         | Peptide      |
| 1          | WA           | 644        | GLU         | Peptide      |
| 1          | WA           | 651        | ARG         | Peptide      |
| 1          | WB           | 644        | GLU         | Peptide      |
| 1          | WB           | 651        | ARG         | Peptide      |
| 1          | X            | 644        | GLU         | Peptide      |
| 1          | X            | 651        | ARG         | Peptide      |
| 1          | XA           | 644        | GLU         | Peptide      |
| 1          | XA           | 651        | ARG         | Peptide      |
| 1          | XB           | 644        | GLU         | Peptide      |
| 1          | XB           | 651        | ARG         | Peptide      |
| 1          | Y            | 644        | GLU         | Peptide      |
| 1          | Y            | 651        | ARG         | Peptide      |
| 1          | YA           | 644        | GLU         | Peptide      |
| 1          | YA           | 651        | ARG         | Peptide      |
| 1          | YB           | 644        | GLU         | Peptide      |
| 1          | YB           | 651        | ARG         | Peptide      |
| 1          | Z            | 644        | GLU         | Peptide      |
| 1          | Z            | 651        | ARG         | Peptide      |
| 1          | ZA           | 644        | GLU         | Peptide      |
| 1          | ZA           | 651        | ARG         | Peptide      |
| 1          | ZB           | 644        | GLU         | Peptide      |
| 1          | ZB           | 651        | ARG         | Peptide      |

## 5.2 Too-close contacts [i](#)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 1   | A     | 6150  | 0        | 6175     | 211     | 0            |
| 1   | AA    | 6150  | 0        | 6175     | 155     | 0            |
| 1   | AB    | 6150  | 0        | 6175     | 166     | 0            |
| 1   | AC    | 6150  | 0        | 6175     | 192     | 0            |
| 1   | B     | 6150  | 0        | 6175     | 177     | 0            |
| 1   | BA    | 6150  | 0        | 6175     | 172     | 0            |
| 1   | BB    | 6150  | 0        | 6175     | 196     | 0            |
| 1   | C     | 6150  | 0        | 6175     | 210     | 0            |
| 1   | CA    | 6150  | 0        | 6175     | 158     | 0            |
| 1   | CB    | 6150  | 0        | 6175     | 188     | 0            |
| 1   | D     | 6150  | 0        | 6175     | 177     | 0            |
| 1   | DA    | 6150  | 0        | 6175     | 164     | 0            |
| 1   | DB    | 6150  | 0        | 6175     | 165     | 0            |
| 1   | E     | 6150  | 0        | 6175     | 189     | 0            |
| 1   | EA    | 6150  | 0        | 6175     | 159     | 0            |
| 1   | EB    | 6150  | 0        | 6175     | 194     | 0            |
| 1   | F     | 6150  | 0        | 6175     | 169     | 0            |
| 1   | FA    | 6150  | 0        | 6175     | 165     | 0            |
| 1   | FB    | 6150  | 0        | 6175     | 199     | 0            |
| 1   | G     | 6150  | 0        | 6175     | 185     | 0            |
| 1   | GA    | 6150  | 0        | 6175     | 167     | 0            |
| 1   | GB    | 6150  | 0        | 6175     | 175     | 0            |
| 1   | H     | 6150  | 0        | 6175     | 211     | 0            |
| 1   | HA    | 6150  | 0        | 6175     | 163     | 0            |
| 1   | HB    | 6150  | 0        | 6175     | 183     | 0            |
| 1   | I     | 6150  | 0        | 6175     | 178     | 0            |
| 1   | IA    | 6150  | 0        | 6175     | 184     | 0            |
| 1   | IB    | 6150  | 0        | 6175     | 204     | 0            |
| 1   | J     | 6150  | 0        | 6175     | 222     | 0            |
| 1   | JA    | 6150  | 0        | 6175     | 162     | 0            |
| 1   | JB    | 6150  | 0        | 6175     | 209     | 0            |
| 1   | K     | 6150  | 0        | 6175     | 176     | 0            |
| 1   | KA    | 6150  | 0        | 6175     | 210     | 0            |
| 1   | KB    | 6150  | 0        | 6175     | 182     | 0            |
| 1   | L     | 6150  | 0        | 6175     | 170     | 0            |
| 1   | LA    | 6150  | 0        | 6175     | 159     | 0            |
| 1   | LB    | 6150  | 0        | 6175     | 213     | 0            |

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| Mol | Chain | Non-H  | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|--------|----------|----------|---------|--------------|
| 1   | M     | 6150   | 0        | 6175     | 167     | 0            |
| 1   | MA    | 6150   | 0        | 6175     | 197     | 0            |
| 1   | MB    | 6150   | 0        | 6175     | 234     | 0            |
| 1   | N     | 6150   | 0        | 6175     | 161     | 0            |
| 1   | NA    | 6150   | 0        | 6175     | 165     | 0            |
| 1   | NB    | 6150   | 0        | 6175     | 181     | 0            |
| 1   | O     | 6150   | 0        | 6175     | 193     | 0            |
| 1   | OA    | 6150   | 0        | 6175     | 165     | 0            |
| 1   | OB    | 6150   | 0        | 6175     | 179     | 0            |
| 1   | P     | 6150   | 0        | 6175     | 187     | 0            |
| 1   | PA    | 6150   | 0        | 6175     | 166     | 0            |
| 1   | PB    | 6150   | 0        | 6175     | 180     | 0            |
| 1   | Q     | 6150   | 0        | 6175     | 198     | 0            |
| 1   | QA    | 6150   | 0        | 6175     | 168     | 0            |
| 1   | QB    | 6150   | 0        | 6175     | 229     | 0            |
| 1   | R     | 6150   | 0        | 6175     | 187     | 0            |
| 1   | RA    | 6150   | 0        | 6175     | 163     | 0            |
| 1   | RB    | 6150   | 0        | 6175     | 213     | 0            |
| 1   | S     | 6150   | 0        | 6175     | 159     | 0            |
| 1   | SA    | 6150   | 0        | 6175     | 167     | 0            |
| 1   | SB    | 6150   | 0        | 6175     | 162     | 0            |
| 1   | T     | 6150   | 0        | 6175     | 156     | 0            |
| 1   | TA    | 6150   | 0        | 6175     | 171     | 0            |
| 1   | TB    | 6150   | 0        | 6175     | 160     | 0            |
| 1   | UA    | 6150   | 0        | 6175     | 175     | 0            |
| 1   | UB    | 6150   | 0        | 6175     | 272     | 0            |
| 1   | V     | 6150   | 0        | 6175     | 181     | 0            |
| 1   | VA    | 6150   | 0        | 6175     | 163     | 0            |
| 1   | VB    | 6150   | 0        | 6175     | 290     | 0            |
| 1   | W     | 6150   | 0        | 6175     | 153     | 0            |
| 1   | WA    | 6150   | 0        | 6175     | 168     | 0            |
| 1   | WB    | 6150   | 0        | 6175     | 191     | 0            |
| 1   | X     | 6150   | 0        | 6175     | 191     | 0            |
| 1   | XA    | 6150   | 0        | 6175     | 162     | 0            |
| 1   | XB    | 6150   | 0        | 6175     | 170     | 0            |
| 1   | Y     | 6150   | 0        | 6175     | 158     | 0            |
| 1   | YA    | 6150   | 0        | 6175     | 165     | 0            |
| 1   | YB    | 6150   | 0        | 6175     | 185     | 0            |
| 1   | Z     | 6150   | 0        | 6175     | 176     | 0            |
| 1   | ZA    | 6150   | 0        | 6175     | 165     | 0            |
| 1   | ZB    | 6150   | 0        | 6175     | 202     | 0            |
| All | All   | 479700 | 0        | 481650   | 12482   | 0            |



The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 13.

All (12482) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:QB:9:ARG:HH12   | 1:RB:21:GLN:CA    | 1.60                     | 1.15              |
| 1:QB:9:ARG:HH12   | 1:RB:21:GLN:HA    | 1.14                     | 1.07              |
| 1:QB:32:PRO:CG    | 1:RB:78:THR:HG21  | 1.86                     | 1.05              |
| 1:QB:32:PRO:HG3   | 1:RB:78:THR:HG21  | 1.33                     | 1.04              |
| 1:QB:9:ARG:NH1    | 1:RB:21:GLN:HA    | 1.72                     | 1.03              |
| 1:W:39:ASP:HB2    | 1:CB:39:ASP:HB2   | 1.38                     | 1.03              |
| 1:QB:95:ASP:HA    | 1:RB:85:HIS:CE1   | 1.93                     | 1.01              |
| 1:UB:746:LEU:HD13 | 1:VB:737:GLY:HA3  | 1.41                     | 1.01              |
| 1:T:39:ASP:HB2    | 1:DB:39:ASP:HB2   | 1.39                     | 1.01              |
| 1:DA:39:ASP:HB2   | 1:WA:39:ASP:HB2   | 1.43                     | 1.01              |
| 1:BB:709:LEU:HD13 | 1:CB:701:LYS:HG3  | 1.44                     | 0.99              |
| 1:UB:768:MET:SD   | 1:VB:766:ARG:HD2  | 2.03                     | 0.99              |
| 1:IB:9:ARG:HH21   | 1:JB:24:ASN:ND2   | 1.61                     | 0.97              |
| 1:IA:32:PRO:HB2   | 1:KA:24:ASN:HB2   | 1.45                     | 0.97              |
| 1:VB:709:LEU:HD13 | 1:WB:701:LYS:HG3  | 1.43                     | 0.96              |
| 1:O:9:ARG:HH21    | 1:Q:24:ASN:ND2    | 1.62                     | 0.95              |
| 1:H:9:ARG:HH21    | 1:J:24:ASN:ND2    | 1.64                     | 0.95              |
| 1:QB:655:GLN:HG2  | 1:RB:649:ARG:HH11 | 1.31                     | 0.94              |
| 1:UB:746:LEU:HD13 | 1:VB:737:GLY:CA   | 1.96                     | 0.94              |
| 1:Y:39:ASP:HB2    | 1:BB:39:ASP:HB2   | 1.50                     | 0.93              |
| 1:A:9:ARG:HH21    | 1:C:24:ASN:ND2    | 1.67                     | 0.91              |
| 1:UB:769:GLU:HA   | 1:VB:766:ARG:NH1  | 1.86                     | 0.91              |
| 1:H:709:LEU:HD13  | 1:J:701:LYS:HG3   | 1.52                     | 0.90              |
| 1:UB:742:LEU:HD21 | 1:VB:734:ARG:CG   | 2.02                     | 0.90              |
| 1:BA:39:ASP:HB2   | 1:YA:39:ASP:HB2   | 1.54                     | 0.90              |
| 1:V:655:GLN:HG2   | 1:X:649:ARG:HH11  | 1.37                     | 0.89              |
| 1:UB:746:LEU:CD1  | 1:VB:737:GLY:HA3  | 2.01                     | 0.89              |
| 1:Z:39:ASP:HB2    | 1:AB:39:ASP:HB2   | 1.54                     | 0.88              |
| 1:KA:717:GLU:HB2  | 1:MA:707:LEU:HD13 | 1.54                     | 0.88              |
| 1:QB:10:ILE:O     | 1:RB:24:ASN:CG    | 2.13                     | 0.87              |
| 1:LB:775:ALA:CB   | 1:MB:770:LEU:HD21 | 2.06                     | 0.85              |
| 1:UB:735:ILE:HB   | 1:VB:726:ALA:HB1  | 1.59                     | 0.85              |
| 1:AA:39:ASP:HB2   | 1:ZA:39:ASP:HB2   | 1.56                     | 0.85              |
| 1:UB:786:GLN:NE2  | 1:VB:781:VAL:HG21 | 1.92                     | 0.84              |
| 1:IA:806:THR:HG22 | 1:KA:808:ARG:NH1  | 1.93                     | 0.84              |
| 1:BB:717:GLU:HB2  | 1:CB:707:LEU:HD13 | 1.57                     | 0.84              |
| 1:LB:709:LEU:HD13 | 1:MB:701:LYS:HG3  | 1.60                     | 0.84              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:UB:786:GLN:CD   | 1:VB:781:VAL:HG11 | 1.98                     | 0.84              |
| 1:LB:9:ARG:HH21   | 1:MB:24:ASN:ND2   | 1.76                     | 0.83              |
| 1:LB:717:GLU:HB2  | 1:MB:707:LEU:HD13 | 1.60                     | 0.83              |
| 1:QB:34:THR:OG1   | 1:RB:22:ASN:O     | 1.96                     | 0.83              |
| 1:IA:10:ILE:O     | 1:KA:24:ASN:ND2   | 2.11                     | 0.83              |
| 1:O:9:ARG:HH21    | 1:Q:24:ASN:CG     | 1.81                     | 0.82              |
| 1:VB:709:LEU:HD11 | 1:WB:701:LYS:HE3  | 1.60                     | 0.82              |
| 1:H:717:GLU:HB2   | 1:J:707:LEU:HD13  | 1.61                     | 0.82              |
| 1:UB:742:LEU:HD21 | 1:VB:734:ARG:HG3  | 1.62                     | 0.82              |
| 1:QB:55:PRO:HD3   | 1:RB:86:ALA:O     | 1.80                     | 0.82              |
| 1:HA:39:ASP:HB2   | 1:SA:39:ASP:HB2   | 1.62                     | 0.81              |
| 1:BB:720:GLY:HA3  | 1:CB:711:ALA:HB1  | 1.60                     | 0.81              |
| 1:LB:790:VAL:HG21 | 1:MB:785:GLN:HA   | 1.62                     | 0.81              |
| 1:QB:10:ILE:O     | 1:RB:24:ASN:ND2   | 2.13                     | 0.81              |
| 1:OA:653:ALA:HA   | 1:OA:656:ARG:HE   | 1.46                     | 0.81              |
| 1:A:653:ALA:HA    | 1:A:656:ARG:HE    | 1.46                     | 0.81              |
| 1:XB:709:LEU:HD13 | 1:YB:701:LYS:HG3  | 1.62                     | 0.81              |
| 1:G:653:ALA:HA    | 1:G:656:ARG:HE    | 1.46                     | 0.81              |
| 1:T:653:ALA:HA    | 1:T:656:ARG:HE    | 1.46                     | 0.81              |
| 1:KA:709:LEU:HD13 | 1:MA:701:LYS:HG3  | 1.61                     | 0.81              |
| 1:K:653:ALA:HA    | 1:K:656:ARG:HE    | 1.46                     | 0.81              |
| 1:N:653:ALA:HA    | 1:N:656:ARG:HE    | 1.46                     | 0.81              |
| 1:Q:653:ALA:HA    | 1:Q:656:ARG:HE    | 1.46                     | 0.81              |
| 1:BA:653:ALA:HA   | 1:BA:656:ARG:HE   | 1.46                     | 0.81              |
| 1:EA:653:ALA:HA   | 1:EA:656:ARG:HE   | 1.46                     | 0.81              |
| 1:LA:653:ALA:HA   | 1:LA:656:ARG:HE   | 1.46                     | 0.81              |
| 1:UA:653:ALA:HA   | 1:UA:656:ARG:HE   | 1.46                     | 0.81              |
| 1:D:653:ALA:HA    | 1:D:656:ARG:HE    | 1.46                     | 0.81              |
| 1:JB:653:ALA:HA   | 1:JB:656:ARG:HE   | 1.46                     | 0.81              |
| 1:MB:653:ALA:HA   | 1:MB:656:ARG:HE   | 1.46                     | 0.81              |
| 1:J:653:ALA:HA    | 1:J:656:ARG:HE    | 1.46                     | 0.81              |
| 1:V:653:ALA:HA    | 1:V:656:ARG:HE    | 1.46                     | 0.81              |
| 1:RA:653:ALA:HA   | 1:RA:656:ARG:HE   | 1.46                     | 0.81              |
| 1:YA:653:ALA:HA   | 1:YA:656:ARG:HE   | 1.46                     | 0.81              |
| 1:QB:96:PRO:HD3   | 1:RB:85:HIS:CE1   | 2.16                     | 0.81              |
| 1:FA:653:ALA:HA   | 1:FA:656:ARG:HE   | 1.46                     | 0.80              |
| 1:HA:653:ALA:HA   | 1:HA:656:ARG:HE   | 1.46                     | 0.80              |
| 1:KA:653:ALA:HA   | 1:KA:656:ARG:HE   | 1.46                     | 0.80              |
| 1:PB:653:ALA:HA   | 1:PB:656:ARG:HE   | 1.46                     | 0.80              |
| 1:A:717:GLU:HB2   | 1:C:707:LEU:HD13  | 1.63                     | 0.80              |
| 1:Y:653:ALA:HA    | 1:Y:656:ARG:HE    | 1.46                     | 0.80              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:AA:653:ALA:HA   | 1:AA:656:ARG:HE   | 1.46                     | 0.80              |
| 1:IA:653:ALA:HA   | 1:IA:656:ARG:HE   | 1.46                     | 0.80              |
| 1:UB:653:ALA:HA   | 1:UB:656:ARG:HE   | 1.46                     | 0.80              |
| 1:I:653:ALA:HA    | 1:I:656:ARG:HE    | 1.46                     | 0.80              |
| 1:X:653:ALA:HA    | 1:X:656:ARG:HE    | 1.46                     | 0.80              |
| 1:BB:653:ALA:HA   | 1:BB:656:ARG:HE   | 1.46                     | 0.80              |
| 1:E:653:ALA:HA    | 1:E:656:ARG:HE    | 1.46                     | 0.80              |
| 1:SA:653:ALA:HA   | 1:SA:656:ARG:HE   | 1.46                     | 0.80              |
| 1:VA:653:ALA:HA   | 1:VA:656:ARG:HE   | 1.46                     | 0.80              |
| 1:LB:653:ALA:HA   | 1:LB:656:ARG:HE   | 1.46                     | 0.80              |
| 1:ZB:653:ALA:HA   | 1:ZB:656:ARG:HE   | 1.46                     | 0.80              |
| 1:O:653:ALA:HA    | 1:O:656:ARG:HE    | 1.46                     | 0.80              |
| 1:P:653:ALA:HA    | 1:P:656:ARG:HE    | 1.46                     | 0.80              |
| 1:EB:653:ALA:HA   | 1:EB:656:ARG:HE   | 1.46                     | 0.80              |
| 1:GB:653:ALA:HA   | 1:GB:656:ARG:HE   | 1.46                     | 0.80              |
| 1:RB:653:ALA:HA   | 1:RB:656:ARG:HE   | 1.46                     | 0.80              |
| 1:UB:717:GLU:HB2  | 1:VB:707:LEU:HD13 | 1.64                     | 0.80              |
| 1:XB:653:ALA:HA   | 1:XB:656:ARG:HE   | 1.46                     | 0.80              |
| 1:H:653:ALA:HA    | 1:H:656:ARG:HE    | 1.46                     | 0.80              |
| 1:W:653:ALA:HA    | 1:W:656:ARG:HE    | 1.46                     | 0.80              |
| 1:Z:653:ALA:HA    | 1:Z:656:ARG:HE    | 1.46                     | 0.80              |
| 1:CA:39:ASP:HB2   | 1:XA:39:ASP:HB2   | 1.62                     | 0.80              |
| 1:MA:653:ALA:HA   | 1:MA:656:ARG:HE   | 1.46                     | 0.80              |
| 1:C:653:ALA:HA    | 1:C:656:ARG:HE    | 1.46                     | 0.80              |
| 1:M:653:ALA:HA    | 1:M:656:ARG:HE    | 1.46                     | 0.80              |
| 1:NA:653:ALA:HA   | 1:NA:656:ARG:HE   | 1.46                     | 0.80              |
| 1:A:709:LEU:HD13  | 1:C:701:LYS:HG3   | 1.64                     | 0.80              |
| 1:PA:653:ALA:HA   | 1:PA:656:ARG:HE   | 1.46                     | 0.80              |
| 1:XA:653:ALA:HA   | 1:XA:656:ARG:HE   | 1.46                     | 0.80              |
| 1:AB:653:ALA:HA   | 1:AB:656:ARG:HE   | 1.46                     | 0.80              |
| 1:HB:653:ALA:HA   | 1:HB:656:ARG:HE   | 1.46                     | 0.80              |
| 1:JB:96:PRO:HD3   | 1:KB:85:HIS:CE1   | 2.16                     | 0.80              |
| 1:OB:653:ALA:HA   | 1:OB:656:ARG:HE   | 1.46                     | 0.80              |
| 1:SB:653:ALA:HA   | 1:SB:656:ARG:HE   | 1.46                     | 0.80              |
| 1:AC:653:ALA:HA   | 1:AC:656:ARG:HE   | 1.46                     | 0.80              |
| 1:ZB:654:LEU:HD13 | 1:AC:534:HIS:CD2  | 2.17                     | 0.80              |
| 1:QA:653:ALA:HA   | 1:QA:656:ARG:HE   | 1.46                     | 0.80              |
| 1:VB:720:GLY:HA3  | 1:WB:711:ALA:HB1  | 1.61                     | 0.80              |
| 1:DA:653:ALA:HA   | 1:DA:656:ARG:HE   | 1.46                     | 0.79              |
| 1:GA:653:ALA:HA   | 1:GA:656:ARG:HE   | 1.46                     | 0.79              |
| 1:IA:94:GLN:O     | 1:KA:85:HIS:NE2   | 2.15                     | 0.79              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:LB:769:GLU:HG2  | 1:MB:766:ARG:HH12 | 1.46                     | 0.79              |
| 1:R:653:ALA:HA    | 1:R:656:ARG:HE    | 1.46                     | 0.79              |
| 1:WB:653:ALA:HA   | 1:WB:656:ARG:HE   | 1.46                     | 0.79              |
| 1:F:653:ALA:HA    | 1:F:656:ARG:HE    | 1.46                     | 0.79              |
| 1:FA:39:ASP:HB2   | 1:UA:39:ASP:HB2   | 1.64                     | 0.79              |
| 1:DB:653:ALA:HA   | 1:DB:656:ARG:HE   | 1.46                     | 0.79              |
| 1:IB:653:ALA:HA   | 1:IB:656:ARG:HE   | 1.46                     | 0.79              |
| 1:CA:653:ALA:HA   | 1:CA:656:ARG:HE   | 1.46                     | 0.79              |
| 1:B:653:ALA:HA    | 1:B:656:ARG:HE    | 1.46                     | 0.79              |
| 1:CB:653:ALA:HA   | 1:CB:656:ARG:HE   | 1.46                     | 0.79              |
| 1:R:39:ASP:HB2    | 1:EB:39:ASP:HB2   | 1.64                     | 0.79              |
| 1:JA:653:ALA:HA   | 1:JA:656:ARG:HE   | 1.46                     | 0.79              |
| 1:QA:717:GLU:HB2  | 1:SA:707:LEU:HD13 | 1.63                     | 0.79              |
| 1:KB:653:ALA:HA   | 1:KB:656:ARG:HE   | 1.46                     | 0.79              |
| 1:NB:653:ALA:HA   | 1:NB:656:ARG:HE   | 1.46                     | 0.79              |
| 1:VB:653:ALA:HA   | 1:VB:656:ARG:HE   | 1.46                     | 0.79              |
| 1:ZA:653:ALA:HA   | 1:ZA:656:ARG:HE   | 1.46                     | 0.79              |
| 1:TB:653:ALA:HA   | 1:TB:656:ARG:HE   | 1.46                     | 0.78              |
| 1:L:653:ALA:HA    | 1:L:656:ARG:HE    | 1.46                     | 0.78              |
| 1:S:653:ALA:HA    | 1:S:656:ARG:HE    | 1.46                     | 0.78              |
| 1:TA:653:ALA:HA   | 1:TA:656:ARG:HE   | 1.46                     | 0.78              |
| 1:WA:653:ALA:HA   | 1:WA:656:ARG:HE   | 1.46                     | 0.78              |
| 1:JB:203:ALA:HB2  | 1:KB:192:THR:HB   | 1.65                     | 0.78              |
| 1:QB:653:ALA:HA   | 1:QB:656:ARG:HE   | 1.46                     | 0.78              |
| 1:FB:653:ALA:HA   | 1:FB:656:ARG:HE   | 1.46                     | 0.78              |
| 1:YB:653:ALA:HA   | 1:YB:656:ARG:HE   | 1.46                     | 0.78              |
| 1:IA:806:THR:HG22 | 1:KA:808:ARG:HH11 | 1.46                     | 0.77              |
| 1:E:36:ILE:HD13   | 1:WB:36:ILE:HD13  | 1.65                     | 0.77              |
| 1:IA:32:PRO:CB    | 1:KA:24:ASN:HB2   | 2.13                     | 0.77              |
| 1:B:9:ARG:HH21    | 1:D:24:ASN:ND2    | 1.82                     | 0.77              |
| 1:A:9:ARG:HH21    | 1:C:24:ASN:CG     | 1.86                     | 0.77              |
| 1:UB:742:LEU:CD2  | 1:VB:734:ARG:CG   | 2.62                     | 0.77              |
| 1:P:790:VAL:HG21  | 1:R:785:GLN:HA    | 1.66                     | 0.76              |
| 1:KA:655:GLN:HG2  | 1:MA:649:ARG:HH11 | 1.48                     | 0.76              |
| 1:LB:757:ALA:CB   | 1:MB:748:ALA:HB1  | 2.15                     | 0.76              |
| 1:LB:801:ALA:HA   | 1:MB:796:LYS:NZ   | 2.01                     | 0.76              |
| 1:BB:794:LYS:HD3  | 1:CB:788:ALA:HB1  | 1.67                     | 0.76              |
| 1:IA:94:GLN:C     | 1:KA:85:HIS:HE2   | 1.88                     | 0.75              |
| 1:JA:39:ASP:HB2   | 1:QA:39:ASP:HB2   | 1.69                     | 0.75              |
| 1:P:801:ALA:HA    | 1:R:796:LYS:NZ    | 2.00                     | 0.75              |
| 1:H:757:ALA:CB    | 1:J:748:ALA:HB1   | 2.17                     | 0.75              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:O:279:ARG:NH2   | 1:Q:338:GLN:OE1   | 2.20                     | 0.75              |
| 1:ZA:717:GLU:HB2  | 1:BB:707:LEU:HD13 | 1.67                     | 0.75              |
| 1:UB:742:LEU:HD21 | 1:VB:734:ARG:HG2  | 1.67                     | 0.75              |
| 1:UB:713:SER:OG   | 1:VB:707:LEU:HD12 | 1.86                     | 0.75              |
| 1:P:655:GLN:HG2   | 1:R:649:ARG:HH11  | 1.52                     | 0.74              |
| 1:IB:279:ARG:NH2  | 1:JB:338:GLN:OE1  | 2.19                     | 0.74              |
| 1:VB:716:VAL:HG21 | 1:WB:708:GLU:HG2  | 1.70                     | 0.74              |
| 1:HB:709:LEU:HD13 | 1:IB:701:LYS:HG3  | 1.69                     | 0.74              |
| 1:IA:257:GLU:HG2  | 1:KA:244:ARG:HB3  | 1.68                     | 0.74              |
| 1:UB:790:VAL:HG21 | 1:VB:784:ALA:O    | 1.87                     | 0.74              |
| 1:LB:790:VAL:CG2  | 1:MB:785:GLN:HA   | 2.17                     | 0.74              |
| 1:UB:742:LEU:CD2  | 1:VB:734:ARG:HG2  | 2.18                     | 0.74              |
| 1:N:709:LEU:HD13  | 1:P:701:LYS:HG3   | 1.69                     | 0.74              |
| 1:UA:717:GLU:HB2  | 1:WA:707:LEU:HD13 | 1.70                     | 0.74              |
| 1:UB:749:GLN:OE1  | 1:VB:741:VAL:HG21 | 1.87                     | 0.74              |
| 1:IA:33:LYS:N     | 1:KA:24:ASN:OD1   | 2.20                     | 0.74              |
| 1:I:279:ARG:NH2   | 1:K:338:GLN:OE1   | 2.21                     | 0.73              |
| 1:R:761:ARG:HG2   | 1:T:755:THR:HG21  | 1.69                     | 0.73              |
| 1:VB:717:GLU:HB2  | 1:WB:707:LEU:HD13 | 1.69                     | 0.73              |
| 1:VB:750:ALA:HA   | 1:WB:741:VAL:HG23 | 1.69                     | 0.73              |
| 1:EA:39:ASP:HB2   | 1:VA:39:ASP:HB2   | 1.70                     | 0.73              |
| 1:ZB:643:VAL:H    | 1:AC:580:ARG:NH2  | 1.86                     | 0.73              |
| 1:B:338:GLN:OE1   | 1:AC:279:ARG:NH2  | 2.21                     | 0.73              |
| 1:H:775:ALA:CB    | 1:J:770:LEU:HD21  | 2.19                     | 0.73              |
| 1:UB:768:MET:HE1  | 1:VB:762:VAL:HG11 | 1.70                     | 0.73              |
| 1:LB:775:ALA:HB1  | 1:MB:770:LEU:HD21 | 1.70                     | 0.73              |
| 1:UB:382:LEU:O    | 1:VB:396:GLY:HA3  | 1.89                     | 0.73              |
| 1:O:709:LEU:HD13  | 1:Q:701:LYS:HG3   | 1.69                     | 0.72              |
| 1:X:761:ARG:HG2   | 1:Z:755:THR:HG21  | 1.70                     | 0.72              |
| 1:GA:655:GLN:HG2  | 1:IA:649:ARG:HH11 | 1.54                     | 0.72              |
| 1:FB:709:LEU:HD13 | 1:GB:701:LYS:HG3  | 1.69                     | 0.72              |
| 1:IB:9:ARG:HH21   | 1:JB:24:ASN:CG    | 1.92                     | 0.72              |
| 1:DA:717:GLU:HB2  | 1:FA:707:LEU:HD13 | 1.71                     | 0.72              |
| 1:EB:761:ARG:HG2  | 1:FB:755:THR:HG21 | 1.71                     | 0.72              |
| 1:A:790:VAL:HG21  | 1:C:785:GLN:HA    | 1.70                     | 0.72              |
| 1:H:720:GLY:HA3   | 1:J:711:ALA:HB1   | 1.71                     | 0.72              |
| 1:KA:651:ARG:O    | 1:KA:653:ALA:N    | 2.22                     | 0.72              |
| 1:X:651:ARG:O     | 1:X:653:ALA:N     | 2.22                     | 0.72              |
| 1:DB:384:GLN:HB2  | 1:EB:474:ARG:HG3  | 1.70                     | 0.72              |
| 1:SB:717:GLU:HB2  | 1:TB:707:LEU:HD13 | 1.70                     | 0.72              |
| 1:UB:735:ILE:HG21 | 1:VB:727:GLU:N    | 2.03                     | 0.72              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:K:651:ARG:O     | 1:K:653:ALA:N     | 2.22                     | 0.72              |
| 1:P:717:GLU:HB2   | 1:R:707:LEU:HD13  | 1.71                     | 0.72              |
| 1:Y:651:ARG:O     | 1:Y:653:ALA:N     | 2.22                     | 0.72              |
| 1:Z:651:ARG:O     | 1:Z:653:ALA:N     | 2.22                     | 0.72              |
| 1:AA:651:ARG:O    | 1:AA:653:ALA:N    | 2.22                     | 0.72              |
| 1:MA:651:ARG:O    | 1:MA:653:ALA:N    | 2.22                     | 0.72              |
| 1:UB:769:GLU:HG2  | 1:VB:766:ARG:HH12 | 1.55                     | 0.72              |
| 1:UA:709:LEU:HD13 | 1:WA:701:LYS:HG3  | 1.71                     | 0.72              |
| 1:PB:220:ILE:HD12 | 1:QB:245:THR:HG22 | 1.72                     | 0.72              |
| 1:QB:32:PRO:HG2   | 1:RB:78:THR:HG21  | 1.72                     | 0.72              |
| 1:I:651:ARG:O     | 1:I:653:ALA:N     | 2.22                     | 0.72              |
| 1:M:651:ARG:O     | 1:M:653:ALA:N     | 2.22                     | 0.72              |
| 1:QB:592:HIS:CD2  | 1:RB:534:HIS:CD2  | 2.76                     | 0.72              |
| 1:CA:651:ARG:O    | 1:CA:653:ALA:N    | 2.22                     | 0.72              |
| 1:O:717:GLU:HB2   | 1:Q:707:LEU:HD13  | 1.71                     | 0.72              |
| 1:W:651:ARG:O     | 1:W:653:ALA:N     | 2.22                     | 0.72              |
| 1:CA:170:GLN:HB3  | 1:EA:233:GLN:OE1  | 1.90                     | 0.72              |
| 1:IA:363:LEU:HA   | 1:KA:353:ALA:HB3  | 1.70                     | 0.72              |
| 1:JA:651:ARG:O    | 1:JA:653:ALA:N    | 2.22                     | 0.72              |
| 1:OA:651:ARG:O    | 1:OA:653:ALA:N    | 2.22                     | 0.72              |
| 1:EB:746:LEU:HD13 | 1:FB:737:GLY:HA3  | 1.72                     | 0.72              |
| 1:E:279:ARG:NH2   | 1:G:338:GLN:OE1   | 2.23                     | 0.71              |
| 1:G:651:ARG:O     | 1:G:653:ALA:N     | 2.22                     | 0.71              |
| 1:BA:651:ARG:O    | 1:BA:653:ALA:N    | 2.22                     | 0.71              |
| 1:WA:651:ARG:O    | 1:WA:653:ALA:N    | 2.22                     | 0.71              |
| 1:HA:651:ARG:O    | 1:HA:653:ALA:N    | 2.23                     | 0.71              |
| 1:UA:651:ARG:O    | 1:UA:653:ALA:N    | 2.22                     | 0.71              |
| 1:YA:651:ARG:O    | 1:YA:653:ALA:N    | 2.22                     | 0.71              |
| 1:LA:651:ARG:O    | 1:LA:653:ALA:N    | 2.22                     | 0.71              |
| 1:L:651:ARG:O     | 1:L:653:ALA:N     | 2.22                     | 0.71              |
| 1:N:651:ARG:O     | 1:N:653:ALA:N     | 2.22                     | 0.71              |
| 1:O:651:ARG:O     | 1:O:653:ALA:N     | 2.22                     | 0.71              |
| 1:RB:717:GLU:HB2  | 1:SB:707:LEU:HD13 | 1.70                     | 0.71              |
| 1:UB:746:LEU:HD13 | 1:VB:737:GLY:C    | 2.10                     | 0.71              |
| 1:UB:768:MET:CE   | 1:VB:762:VAL:HG11 | 2.20                     | 0.71              |
| 1:T:651:ARG:O     | 1:T:653:ALA:N     | 2.22                     | 0.71              |
| 1:FA:651:ARG:O    | 1:FA:653:ALA:N    | 2.22                     | 0.71              |
| 1:NB:651:ARG:O    | 1:NB:653:ALA:N    | 2.22                     | 0.71              |
| 1:J:96:PRO:HD3    | 1:L:85:HIS:CE1    | 2.25                     | 0.71              |
| 1:J:651:ARG:O     | 1:J:653:ALA:N     | 2.22                     | 0.71              |
| 1:P:651:ARG:O     | 1:P:653:ALA:N     | 2.22                     | 0.71              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:EA:651:ARG:O    | 1:EA:653:ALA:N    | 2.22                     | 0.71              |
| 1:SA:651:ARG:O    | 1:SA:653:ALA:N    | 2.22                     | 0.71              |
| 1:MB:651:ARG:O    | 1:MB:653:ALA:N    | 2.23                     | 0.71              |
| 1:A:651:ARG:O     | 1:A:653:ALA:N     | 2.22                     | 0.71              |
| 1:H:790:VAL:HG21  | 1:J:785:GLN:HA    | 1.72                     | 0.71              |
| 1:LA:39:ASP:HB2   | 1:OA:39:ASP:HB2   | 1.73                     | 0.71              |
| 1:JB:95:ASP:HA    | 1:KB:85:HIS:CE1   | 2.25                     | 0.71              |
| 1:NA:651:ARG:O    | 1:NA:653:ALA:N    | 2.22                     | 0.71              |
| 1:AB:651:ARG:O    | 1:AB:653:ALA:N    | 2.22                     | 0.71              |
| 1:E:651:ARG:O     | 1:E:653:ALA:N     | 2.22                     | 0.71              |
| 1:QA:651:ARG:O    | 1:QA:653:ALA:N    | 2.23                     | 0.71              |
| 1:DA:651:ARG:O    | 1:DA:653:ALA:N    | 2.22                     | 0.71              |
| 1:LB:651:ARG:O    | 1:LB:653:ALA:N    | 2.22                     | 0.71              |
| 1:ZB:709:LEU:HD13 | 1:AC:701:LYS:HG3  | 1.71                     | 0.71              |
| 1:H:651:ARG:O     | 1:H:653:ALA:N     | 2.22                     | 0.70              |
| 1:J:95:ASP:HA     | 1:L:85:HIS:CE1    | 2.26                     | 0.70              |
| 1:XB:717:GLU:HB2  | 1:YB:707:LEU:HD13 | 1.71                     | 0.70              |
| 1:C:651:ARG:O     | 1:C:653:ALA:N     | 2.22                     | 0.70              |
| 1:R:651:ARG:O     | 1:R:653:ALA:N     | 2.22                     | 0.70              |
| 1:BB:666:THR:HG22 | 1:CB:657:SER:HB2  | 1.72                     | 0.70              |
| 1:LB:753:ILE:HG12 | 1:MB:745:LYS:HE2  | 1.73                     | 0.70              |
| 1:QB:651:ARG:O    | 1:QB:653:ALA:N    | 2.22                     | 0.70              |
| 1:A:775:ALA:CB    | 1:C:770:LEU:HD21  | 2.20                     | 0.70              |
| 1:Q:651:ARG:O     | 1:Q:653:ALA:N     | 2.22                     | 0.70              |
| 1:X:170:GLN:HB3   | 1:Z:233:GLN:OE1   | 1.91                     | 0.70              |
| 1:VA:651:ARG:O    | 1:VA:653:ALA:N    | 2.22                     | 0.70              |
| 1:RB:651:ARG:O    | 1:RB:653:ALA:N    | 2.22                     | 0.70              |
| 1:TA:651:ARG:O    | 1:TA:653:ALA:N    | 2.22                     | 0.70              |
| 1:XA:651:ARG:O    | 1:XA:653:ALA:N    | 2.22                     | 0.70              |
| 1:J:203:ALA:HB2   | 1:L:192:THR:HB    | 1.72                     | 0.70              |
| 1:MB:717:GLU:HB2  | 1:NB:707:LEU:HD13 | 1.72                     | 0.70              |
| 1:SB:651:ARG:O    | 1:SB:653:ALA:N    | 2.22                     | 0.70              |
| 1:GA:651:ARG:O    | 1:GA:653:ALA:N    | 2.22                     | 0.70              |
| 1:PA:651:ARG:O    | 1:PA:653:ALA:N    | 2.22                     | 0.70              |
| 1:KB:651:ARG:O    | 1:KB:653:ALA:N    | 2.22                     | 0.70              |
| 1:PB:651:ARG:O    | 1:PB:653:ALA:N    | 2.22                     | 0.70              |
| 1:VA:717:GLU:HB2  | 1:XA:707:LEU:HD13 | 1.72                     | 0.70              |
| 1:AB:170:GLN:HB3  | 1:OB:233:GLN:OE1  | 1.91                     | 0.70              |
| 1:OB:651:ARG:O    | 1:OB:653:ALA:N    | 2.22                     | 0.70              |
| 1:TB:651:ARG:O    | 1:TB:653:ALA:N    | 2.22                     | 0.70              |
| 1:ZA:651:ARG:O    | 1:ZA:653:ALA:N    | 2.22                     | 0.70              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:GB:651:ARG:O    | 1:GB:653:ALA:N    | 2.22                     | 0.70              |
| 1:HB:651:ARG:O    | 1:HB:653:ALA:N    | 2.22                     | 0.70              |
| 1:UB:743:GLN:CG   | 1:VB:733:ALA:HB1  | 2.21                     | 0.70              |
| 1:H:9:ARG:HH21    | 1:J:24:ASN:CG     | 1.94                     | 0.70              |
| 1:RA:651:ARG:O    | 1:RA:653:ALA:N    | 2.22                     | 0.70              |
| 1:ZB:651:ARG:O    | 1:ZB:653:ALA:N    | 2.23                     | 0.70              |
| 1:AC:651:ARG:O    | 1:AC:653:ALA:N    | 2.22                     | 0.70              |
| 1:B:651:ARG:O     | 1:B:653:ALA:N     | 2.22                     | 0.70              |
| 1:F:651:ARG:O     | 1:F:653:ALA:N     | 2.23                     | 0.70              |
| 1:R:170:GLN:HB3   | 1:T:233:GLN:OE1   | 1.92                     | 0.70              |
| 1:EB:384:GLN:HB2  | 1:FB:474:ARG:HG3  | 1.74                     | 0.70              |
| 1:FB:651:ARG:O    | 1:FB:653:ALA:N    | 2.22                     | 0.70              |
| 1:QB:9:ARG:HH12   | 1:RB:21:GLN:CB    | 2.05                     | 0.70              |
| 1:A:279:ARG:NH2   | 1:C:338:GLN:OE1   | 2.25                     | 0.69              |
| 1:A:757:ALA:CB    | 1:C:748:ALA:HB1   | 2.21                     | 0.69              |
| 1:EA:655:GLN:HG2  | 1:GA:649:ARG:HH11 | 1.56                     | 0.69              |
| 1:BB:716:VAL:HG21 | 1:CB:708:GLU:HG2  | 1.73                     | 0.69              |
| 1:UB:757:ALA:HB2  | 1:VB:748:ALA:HB1  | 1.74                     | 0.69              |
| 1:YB:651:ARG:O    | 1:YB:653:ALA:N    | 2.22                     | 0.69              |
| 1:N:717:GLU:HB2   | 1:P:707:LEU:HD13  | 1.73                     | 0.69              |
| 1:UB:651:ARG:O    | 1:UB:653:ALA:N    | 2.22                     | 0.69              |
| 1:F:717:GLU:HB2   | 1:H:707:LEU:HD13  | 1.71                     | 0.69              |
| 1:DB:709:LEU:HD13 | 1:EB:701:LYS:HG3  | 1.73                     | 0.69              |
| 1:IB:651:ARG:O    | 1:IB:653:ALA:N    | 2.23                     | 0.69              |
| 1:XB:651:ARG:O    | 1:XB:653:ALA:N    | 2.22                     | 0.69              |
| 1:D:651:ARG:O     | 1:D:653:ALA:N     | 2.22                     | 0.69              |
| 1:S:651:ARG:O     | 1:S:653:ALA:N     | 2.22                     | 0.69              |
| 1:KA:790:VAL:HG21 | 1:MA:785:GLN:HA   | 1.75                     | 0.69              |
| 1:BB:651:ARG:O    | 1:BB:653:ALA:N    | 2.23                     | 0.69              |
| 1:EB:651:ARG:O    | 1:EB:653:ALA:N    | 2.22                     | 0.69              |
| 1:UB:786:GLN:OE1  | 1:VB:781:VAL:HG11 | 1.92                     | 0.69              |
| 1:QB:56:ARG:NH1   | 1:RB:128:ASP:H    | 1.89                     | 0.69              |
| 1:UB:362:PRO:O    | 1:VB:352:GLN:HB3  | 1.93                     | 0.69              |
| 1:UB:797:GLU:HG2  | 1:VB:792:ALA:HB1  | 1.73                     | 0.69              |
| 1:JB:651:ARG:O    | 1:JB:653:ALA:N    | 2.22                     | 0.69              |
| 1:A:801:ALA:HA    | 1:C:796:LYS:NZ    | 2.08                     | 0.69              |
| 1:X:655:GLN:HG2   | 1:Z:649:ARG:HH11  | 1.56                     | 0.69              |
| 1:HA:717:GLU:HB2  | 1:JA:707:LEU:HD13 | 1.74                     | 0.69              |
| 1:UB:384:GLN:HB2  | 1:VB:474:ARG:HG3  | 1.73                     | 0.69              |
| 1:UB:742:LEU:CD2  | 1:VB:734:ARG:HG3  | 2.22                     | 0.69              |
| 1:VB:724:ALA:HB1  | 1:WB:715:ALA:HA   | 1.74                     | 0.69              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:QA:709:LEU:HD13 | 1:SA:701:LYS:HG3  | 1.74                     | 0.69              |
| 1:CB:651:ARG:O    | 1:CB:653:ALA:N    | 2.23                     | 0.69              |
| 1:WB:651:ARG:O    | 1:WB:653:ALA:N    | 2.22                     | 0.69              |
| 1:IA:651:ARG:O    | 1:IA:653:ALA:N    | 2.23                     | 0.69              |
| 1:DB:651:ARG:O    | 1:DB:653:ALA:N    | 2.22                     | 0.69              |
| 1:G:40:ASN:ND2    | 1:WB:40:ASN:ND2   | 2.41                     | 0.68              |
| 1:VB:794:LYS:HD3  | 1:WB:788:ALA:HB1  | 1.74                     | 0.68              |
| 1:K:279:ARG:NH2   | 1:M:338:GLN:OE1   | 2.25                     | 0.68              |
| 1:EB:717:GLU:HB2  | 1:FB:707:LEU:HD13 | 1.75                     | 0.68              |
| 1:G:279:ARG:NH2   | 1:I:338:GLN:OE1   | 2.27                     | 0.68              |
| 1:V:790:VAL:HG21  | 1:X:785:GLN:HA    | 1.76                     | 0.68              |
| 1:V:801:ALA:HA    | 1:X:796:LYS:NZ    | 2.08                     | 0.68              |
| 1:BB:790:VAL:HG21 | 1:CB:785:GLN:HA   | 1.75                     | 0.68              |
| 1:JB:279:ARG:NH2  | 1:KB:338:GLN:OE1  | 2.25                     | 0.68              |
| 1:UB:702:ALA:HB2  | 1:VB:690:ARG:HH12 | 1.57                     | 0.68              |
| 1:VB:651:ARG:O    | 1:VB:653:ALA:N    | 2.22                     | 0.68              |
| 1:HB:279:ARG:NH2  | 1:IB:338:GLN:OE1  | 2.25                     | 0.68              |
| 1:E:709:LEU:HD13  | 1:G:701:LYS:HG3   | 1.74                     | 0.68              |
| 1:SA:717:GLU:HB2  | 1:UA:707:LEU:HD13 | 1.76                     | 0.68              |
| 1:BB:750:ALA:HA   | 1:CB:741:VAL:HG23 | 1.76                     | 0.68              |
| 1:EB:768:MET:SD   | 1:FB:766:ARG:HD2  | 2.33                     | 0.68              |
| 1:QB:9:ARG:CZ     | 1:RB:21:GLN:HA    | 2.23                     | 0.68              |
| 1:H:279:ARG:NH2   | 1:J:338:GLN:OE1   | 2.27                     | 0.68              |
| 1:J:36:ILE:HD13   | 1:HB:36:ILE:HD13  | 1.74                     | 0.68              |
| 1:KA:702:ALA:HB2  | 1:MA:690:ARG:HH12 | 1.58                     | 0.68              |
| 1:C:709:LEU:HD13  | 1:E:701:LYS:HG3   | 1.74                     | 0.68              |
| 1:DB:717:GLU:HB2  | 1:EB:707:LEU:HD13 | 1.76                     | 0.68              |
| 1:V:651:ARG:O     | 1:V:653:ALA:N     | 2.23                     | 0.68              |
| 1:VA:655:GLN:HG2  | 1:XA:649:ARG:HH11 | 1.59                     | 0.68              |
| 1:H:648:GLN:HA    | 1:H:651:ARG:HB2   | 1.76                     | 0.68              |
| 1:MA:39:ASP:HB2   | 1:NA:39:ASP:HB2   | 1.76                     | 0.68              |
| 1:BB:709:LEU:HD11 | 1:CB:701:LYS:HE3  | 1.76                     | 0.68              |
| 1:E:648:GLN:HA    | 1:E:651:ARG:HB2   | 1.76                     | 0.67              |
| 1:L:648:GLN:HA    | 1:L:651:ARG:HB2   | 1.76                     | 0.67              |
| 1:TA:717:GLU:HB2  | 1:VA:707:LEU:HD13 | 1.75                     | 0.67              |
| 1:GB:648:GLN:HA   | 1:GB:651:ARG:HB2  | 1.76                     | 0.67              |
| 1:LB:648:GLN:HA   | 1:LB:651:ARG:HB2  | 1.77                     | 0.67              |
| 1:QB:203:ALA:HB2  | 1:RB:192:THR:HB   | 1.76                     | 0.67              |
| 1:TB:717:GLU:HB2  | 1:UB:707:LEU:HD13 | 1.75                     | 0.67              |
| 1:D:648:GLN:HA    | 1:D:651:ARG:HB2   | 1.76                     | 0.67              |
| 1:BA:717:GLU:HB2  | 1:DA:707:LEU:HD13 | 1.77                     | 0.67              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:QA:655:GLN:HG2  | 1:SA:649:ARG:HH11 | 1.58                     | 0.67              |
| 1:NB:648:GLN:HA   | 1:NB:651:ARG:HB2  | 1.77                     | 0.67              |
| 1:VB:592:HIS:NE2  | 1:WB:531:THR:O    | 2.24                     | 0.67              |
| 1:H:753:ILE:HG12  | 1:J:745:LYS:HE2   | 1.76                     | 0.67              |
| 1:H:801:ALA:HA    | 1:J:796:LYS:NZ    | 2.09                     | 0.67              |
| 1:I:648:GLN:HA    | 1:I:651:ARG:HB2   | 1.77                     | 0.67              |
| 1:R:648:GLN:HA    | 1:R:651:ARG:HB2   | 1.77                     | 0.67              |
| 1:IA:170:GLN:HB3  | 1:KA:233:GLN:OE1  | 1.94                     | 0.67              |
| 1:OA:717:GLU:HB2  | 1:QA:707:LEU:HD13 | 1.76                     | 0.67              |
| 1:IB:648:GLN:HA   | 1:IB:651:ARG:HB2  | 1.76                     | 0.67              |
| 1:JB:220:ILE:HD12 | 1:KB:245:THR:HG22 | 1.76                     | 0.67              |
| 1:ZB:648:GLN:HA   | 1:ZB:651:ARG:HB2  | 1.77                     | 0.67              |
| 1:B:648:GLN:HA    | 1:B:651:ARG:HB2   | 1.76                     | 0.67              |
| 1:M:648:GLN:HA    | 1:M:651:ARG:HB2   | 1.76                     | 0.67              |
| 1:W:648:GLN:HA    | 1:W:651:ARG:HB2   | 1.76                     | 0.67              |
| 1:JB:648:GLN:HA   | 1:JB:651:ARG:HB2  | 1.76                     | 0.67              |
| 1:XB:648:GLN:HA   | 1:XB:651:ARG:HB2  | 1.76                     | 0.67              |
| 1:EB:648:GLN:HA   | 1:EB:651:ARG:HB2  | 1.76                     | 0.67              |
| 1:IB:709:LEU:HD13 | 1:JB:701:LYS:HG3  | 1.75                     | 0.67              |
| 1:B:279:ARG:NH2   | 1:D:338:GLN:OE1   | 2.28                     | 0.67              |
| 1:C:648:GLN:HA    | 1:C:651:ARG:HB2   | 1.76                     | 0.67              |
| 1:N:648:GLN:HA    | 1:N:651:ARG:HB2   | 1.77                     | 0.67              |
| 1:LB:720:GLY:HA3  | 1:MB:711:ALA:HB1  | 1.77                     | 0.67              |
| 1:QB:52:THR:OG1   | 1:RB:85:HIS:CD2   | 2.46                     | 0.67              |
| 1:LB:775:ALA:HB3  | 1:MB:770:LEU:HD21 | 1.77                     | 0.67              |
| 1:KA:720:GLY:HA3  | 1:MA:711:ALA:HB1  | 1.76                     | 0.67              |
| 1:UB:743:GLN:HG2  | 1:VB:733:ALA:HB1  | 1.74                     | 0.67              |
| 1:A:648:GLN:HA    | 1:A:651:ARG:HB2   | 1.76                     | 0.67              |
| 1:K:490:ASP:HB2   | 1:K:493:GLU:HG3   | 1.77                     | 0.67              |
| 1:P:648:GLN:HA    | 1:P:651:ARG:HB2   | 1.76                     | 0.67              |
| 1:ZA:655:GLN:HG2  | 1:BB:649:ARG:HH11 | 1.60                     | 0.67              |
| 1:UB:761:ARG:HG2  | 1:VB:755:THR:HG21 | 1.75                     | 0.67              |
| 1:VB:681:GLU:OE1  | 1:WB:675:HIS:NE2  | 2.27                     | 0.67              |
| 1:C:490:ASP:HB2   | 1:C:493:GLU:HG3   | 1.77                     | 0.67              |
| 1:E:490:ASP:HB2   | 1:E:493:GLU:HG3   | 1.77                     | 0.67              |
| 1:I:490:ASP:HB2   | 1:I:493:GLU:HG3   | 1.77                     | 0.67              |
| 1:N:490:ASP:HB2   | 1:N:493:GLU:HG3   | 1.77                     | 0.67              |
| 1:W:490:ASP:HB2   | 1:W:493:GLU:HG3   | 1.77                     | 0.67              |
| 1:CA:648:GLN:HA   | 1:CA:651:ARG:HB2  | 1.76                     | 0.67              |
| 1:KB:648:GLN:HA   | 1:KB:651:ARG:HB2  | 1.76                     | 0.67              |
| 1:A:490:ASP:HB2   | 1:A:493:GLU:HG3   | 1.77                     | 0.66              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:M:490:ASP:HB2   | 1:M:493:GLU:HG3   | 1.77                     | 0.66              |
| 1:P:490:ASP:HB2   | 1:P:493:GLU:HG3   | 1.77                     | 0.66              |
| 1:Q:490:ASP:HB2   | 1:Q:493:GLU:HG3   | 1.77                     | 0.66              |
| 1:Y:490:ASP:HB2   | 1:Y:493:GLU:HG3   | 1.77                     | 0.66              |
| 1:LB:490:ASP:HB2  | 1:LB:493:GLU:HG3  | 1.77                     | 0.66              |
| 1:UB:743:GLN:CD   | 1:VB:733:ALA:HB1  | 2.16                     | 0.66              |
| 1:VB:648:GLN:HA   | 1:VB:651:ARG:HB2  | 1.76                     | 0.66              |
| 1:H:490:ASP:HB2   | 1:H:493:GLU:HG3   | 1.77                     | 0.66              |
| 1:O:9:ARG:NH2     | 1:Q:24:ASN:ND2    | 2.41                     | 0.66              |
| 1:O:648:GLN:HA    | 1:O:651:ARG:HB2   | 1.76                     | 0.66              |
| 1:S:490:ASP:HB2   | 1:S:493:GLU:HG3   | 1.77                     | 0.66              |
| 1:S:648:GLN:HA    | 1:S:651:ARG:HB2   | 1.77                     | 0.66              |
| 1:T:717:GLU:HB2   | 1:W:707:LEU:HD13  | 1.77                     | 0.66              |
| 1:AA:648:GLN:HA   | 1:AA:651:ARG:HB2  | 1.77                     | 0.66              |
| 1:WA:32:PRO:HB2   | 1:YA:24:ASN:HB2   | 1.77                     | 0.66              |
| 1:HB:648:GLN:HA   | 1:HB:651:ARG:HB2  | 1.76                     | 0.66              |
| 1:AC:648:GLN:HA   | 1:AC:651:ARG:HB2  | 1.76                     | 0.66              |
| 1:G:648:GLN:HA    | 1:G:651:ARG:HB2   | 1.76                     | 0.66              |
| 1:Q:648:GLN:HA    | 1:Q:651:ARG:HB2   | 1.76                     | 0.66              |
| 1:R:490:ASP:HB2   | 1:R:493:GLU:HG3   | 1.77                     | 0.66              |
| 1:T:490:ASP:HB2   | 1:T:493:GLU:HG3   | 1.77                     | 0.66              |
| 1:YA:384:GLN:HB2  | 1:AB:474:ARG:HG3  | 1.76                     | 0.66              |
| 1:CB:648:GLN:HA   | 1:CB:651:ARG:HB2  | 1.77                     | 0.66              |
| 1:MB:490:ASP:HB2  | 1:MB:493:GLU:HG3  | 1.77                     | 0.66              |
| 1:PB:203:ALA:HB2  | 1:QB:192:THR:HB   | 1.76                     | 0.66              |
| 1:UB:363:LEU:HA   | 1:VB:353:ALA:HB3  | 1.77                     | 0.66              |
| 1:B:490:ASP:HB2   | 1:B:493:GLU:HG3   | 1.77                     | 0.66              |
| 1:F:490:ASP:HB2   | 1:F:493:GLU:HG3   | 1.77                     | 0.66              |
| 1:F:648:GLN:HA    | 1:F:651:ARG:HB2   | 1.76                     | 0.66              |
| 1:L:490:ASP:HB2   | 1:L:493:GLU:HG3   | 1.77                     | 0.66              |
| 1:O:490:ASP:HB2   | 1:O:493:GLU:HG3   | 1.77                     | 0.66              |
| 1:V:794:LYS:HD3   | 1:X:788:ALA:HB1   | 1.77                     | 0.66              |
| 1:Y:648:GLN:HA    | 1:Y:651:ARG:HB2   | 1.76                     | 0.66              |
| 1:EA:490:ASP:HB2  | 1:EA:493:GLU:HG3  | 1.77                     | 0.66              |
| 1:BB:655:GLN:HG2  | 1:CB:649:ARG:HH11 | 1.61                     | 0.66              |
| 1:KB:490:ASP:HB2  | 1:KB:493:GLU:HG3  | 1.77                     | 0.66              |
| 1:NB:490:ASP:HB2  | 1:NB:493:GLU:HG3  | 1.77                     | 0.66              |
| 1:UB:735:ILE:HG21 | 1:VB:726:ALA:C    | 2.16                     | 0.66              |
| 1:G:490:ASP:HB2   | 1:G:493:GLU:HG3   | 1.77                     | 0.66              |
| 1:J:490:ASP:HB2   | 1:J:493:GLU:HG3   | 1.77                     | 0.66              |
| 1:J:648:GLN:HA    | 1:J:651:ARG:HB2   | 1.76                     | 0.66              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:CA:490:ASP:HB2  | 1:CA:493:GLU:HG3  | 1.77                     | 0.66              |
| 1:GA:648:GLN:HA   | 1:GA:651:ARG:HB2  | 1.77                     | 0.66              |
| 1:IB:490:ASP:HB2  | 1:IB:493:GLU:HG3  | 1.77                     | 0.66              |
| 1:LB:783:LYS:HA   | 1:MB:777:LEU:HD11 | 1.78                     | 0.66              |
| 1:QB:9:ARG:NH1    | 1:RB:21:GLN:CA    | 2.40                     | 0.66              |
| 1:AC:490:ASP:HB2  | 1:AC:493:GLU:HG3  | 1.77                     | 0.66              |
| 1:V:490:ASP:HB2   | 1:V:493:GLU:HG3   | 1.77                     | 0.66              |
| 1:GA:490:ASP:HB2  | 1:GA:493:GLU:HG3  | 1.77                     | 0.66              |
| 1:KA:666:THR:HG22 | 1:MA:657:SER:HB2  | 1.77                     | 0.66              |
| 1:UA:648:GLN:HA   | 1:UA:651:ARG:HB2  | 1.76                     | 0.66              |
| 1:QB:648:GLN:HA   | 1:QB:651:ARG:HB2  | 1.76                     | 0.66              |
| 1:WB:648:GLN:HA   | 1:WB:651:ARG:HB2  | 1.76                     | 0.66              |
| 1:K:648:GLN:HA    | 1:K:651:ARG:HB2   | 1.76                     | 0.66              |
| 1:AA:490:ASP:HB2  | 1:AA:493:GLU:HG3  | 1.77                     | 0.66              |
| 1:JA:648:GLN:HA   | 1:JA:651:ARG:HB2  | 1.76                     | 0.66              |
| 1:PA:648:GLN:HA   | 1:PA:651:ARG:HB2  | 1.76                     | 0.66              |
| 1:PA:717:GLU:HB2  | 1:RA:707:LEU:HD13 | 1.78                     | 0.66              |
| 1:WA:648:GLN:HA   | 1:WA:651:ARG:HB2  | 1.76                     | 0.66              |
| 1:HB:490:ASP:HB2  | 1:HB:493:GLU:HG3  | 1.77                     | 0.66              |
| 1:LB:779:LEU:HD21 | 1:MB:773:ALA:HB1  | 1.78                     | 0.66              |
| 1:UB:775:ALA:CB   | 1:VB:770:LEU:HD21 | 2.25                     | 0.66              |
| 1:C:279:ARG:NH2   | 1:E:338:GLN:OE1   | 2.29                     | 0.66              |
| 1:X:648:GLN:HA    | 1:X:651:ARG:HB2   | 1.77                     | 0.66              |
| 1:HA:648:GLN:HA   | 1:HA:651:ARG:HB2  | 1.76                     | 0.66              |
| 1:KA:648:GLN:HA   | 1:KA:651:ARG:HB2  | 1.76                     | 0.66              |
| 1:LA:648:GLN:HA   | 1:LA:651:ARG:HB2  | 1.77                     | 0.66              |
| 1:OA:648:GLN:HA   | 1:OA:651:ARG:HB2  | 1.76                     | 0.66              |
| 1:SA:648:GLN:HA   | 1:SA:651:ARG:HB2  | 1.76                     | 0.66              |
| 1:YA:648:GLN:HA   | 1:YA:651:ARG:HB2  | 1.76                     | 0.66              |
| 1:ZA:490:ASP:HB2  | 1:ZA:493:GLU:HG3  | 1.77                     | 0.66              |
| 1:JB:490:ASP:HB2  | 1:JB:493:GLU:HG3  | 1.77                     | 0.66              |
| 1:MB:769:GLU:HG2  | 1:NB:766:ARG:HH12 | 1.61                     | 0.66              |
| 1:D:490:ASP:HB2   | 1:D:493:GLU:HG3   | 1.77                     | 0.66              |
| 1:FA:648:GLN:HA   | 1:FA:651:ARG:HB2  | 1.76                     | 0.66              |
| 1:PA:490:ASP:HB2  | 1:PA:493:GLU:HG3  | 1.77                     | 0.66              |
| 1:RA:648:GLN:HA   | 1:RA:651:ARG:HB2  | 1.77                     | 0.66              |
| 1:VA:490:ASP:HB2  | 1:VA:493:GLU:HG3  | 1.77                     | 0.66              |
| 1:XA:648:GLN:HA   | 1:XA:651:ARG:HB2  | 1.76                     | 0.66              |
| 1:MB:648:GLN:HA   | 1:MB:651:ARG:HB2  | 1.77                     | 0.66              |
| 1:RB:490:ASP:HB2  | 1:RB:493:GLU:HG3  | 1.77                     | 0.66              |
| 1:TB:490:ASP:HB2  | 1:TB:493:GLU:HG3  | 1.77                     | 0.66              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:UB:768:MET:CE   | 1:VB:762:VAL:CG1  | 2.73                     | 0.66              |
| 1:Z:648:GLN:HA    | 1:Z:651:ARG:HB2   | 1.76                     | 0.66              |
| 1:BA:648:GLN:HA   | 1:BA:651:ARG:HB2  | 1.77                     | 0.66              |
| 1:DA:648:GLN:HA   | 1:DA:651:ARG:HB2  | 1.76                     | 0.66              |
| 1:IA:490:ASP:HB2  | 1:IA:493:GLU:HG3  | 1.77                     | 0.66              |
| 1:LA:490:ASP:HB2  | 1:LA:493:GLU:HG3  | 1.77                     | 0.66              |
| 1:MA:648:GLN:HA   | 1:MA:651:ARG:HB2  | 1.76                     | 0.66              |
| 1:YA:490:ASP:HB2  | 1:YA:493:GLU:HG3  | 1.77                     | 0.66              |
| 1:BB:648:GLN:HA   | 1:BB:651:ARG:HB2  | 1.77                     | 0.66              |
| 1:OB:648:GLN:HA   | 1:OB:651:ARG:HB2  | 1.76                     | 0.66              |
| 1:SB:648:GLN:HA   | 1:SB:651:ARG:HB2  | 1.76                     | 0.66              |
| 1:X:490:ASP:HB2   | 1:X:493:GLU:HG3   | 1.77                     | 0.65              |
| 1:GA:39:ASP:HB2   | 1:TA:39:ASP:HB2   | 1.78                     | 0.65              |
| 1:KA:490:ASP:HB2  | 1:KA:493:GLU:HG3  | 1.77                     | 0.65              |
| 1:NA:648:GLN:HA   | 1:NA:651:ARG:HB2  | 1.76                     | 0.65              |
| 1:QA:648:GLN:HA   | 1:QA:651:ARG:HB2  | 1.76                     | 0.65              |
| 1:DB:648:GLN:HA   | 1:DB:651:ARG:HB2  | 1.76                     | 0.65              |
| 1:FB:648:GLN:HA   | 1:FB:651:ARG:HB2  | 1.77                     | 0.65              |
| 1:OB:490:ASP:HB2  | 1:OB:493:GLU:HG3  | 1.77                     | 0.65              |
| 1:UB:648:GLN:HA   | 1:UB:651:ARG:HB2  | 1.76                     | 0.65              |
| 1:ZB:490:ASP:HB2  | 1:ZB:493:GLU:HG3  | 1.77                     | 0.65              |
| 1:O:9:ARG:HE      | 1:Q:24:ASN:HD21   | 1.44                     | 0.65              |
| 1:Z:490:ASP:HB2   | 1:Z:493:GLU:HG3   | 1.77                     | 0.65              |
| 1:EA:648:GLN:HA   | 1:EA:651:ARG:HB2  | 1.76                     | 0.65              |
| 1:MA:490:ASP:HB2  | 1:MA:493:GLU:HG3  | 1.77                     | 0.65              |
| 1:TA:648:GLN:HA   | 1:TA:651:ARG:HB2  | 1.76                     | 0.65              |
| 1:ZA:648:GLN:HA   | 1:ZA:651:ARG:HB2  | 1.76                     | 0.65              |
| 1:CB:490:ASP:HB2  | 1:CB:493:GLU:HG3  | 1.77                     | 0.65              |
| 1:IB:717:GLU:HB2  | 1:JB:707:LEU:HD13 | 1.77                     | 0.65              |
| 1:JB:170:GLN:HB3  | 1:KB:233:GLN:OE1  | 1.95                     | 0.65              |
| 1:MB:761:ARG:HG2  | 1:NB:755:THR:HG21 | 1.78                     | 0.65              |
| 1:TB:648:GLN:HA   | 1:TB:651:ARG:HB2  | 1.76                     | 0.65              |
| 1:T:648:GLN:HA    | 1:T:651:ARG:HB2   | 1.76                     | 0.65              |
| 1:AB:648:GLN:HA   | 1:AB:651:ARG:HB2  | 1.76                     | 0.65              |
| 1:OB:170:GLN:HB3  | 1:PB:233:GLN:OE1  | 1.96                     | 0.65              |
| 1:RB:648:GLN:HA   | 1:RB:651:ARG:HB2  | 1.76                     | 0.65              |
| 1:UB:486:LEU:HB2  | 1:VB:473:TYR:HB3  | 1.78                     | 0.65              |
| 1:UB:775:ALA:HB3  | 1:VB:770:LEU:HD11 | 1.78                     | 0.65              |
| 1:VB:706:LEU:HD12 | 1:WB:693:ILE:O    | 1.96                     | 0.65              |
| 1:YB:648:GLN:HA   | 1:YB:651:ARG:HB2  | 1.76                     | 0.65              |
| 1:H:769:GLU:HG2   | 1:J:766:ARG:HH12  | 1.62                     | 0.65              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:L:709:LEU:HD13 | 1:N:701:LYS:HG3   | 1.76                     | 0.65              |
| 1:O:801:ALA:HA   | 1:Q:796:LYS:NZ    | 2.11                     | 0.65              |
| 1:BA:490:ASP:HB2 | 1:BA:493:GLU:HG3  | 1.77                     | 0.65              |
| 1:FA:392:ASP:O   | 1:FA:396:GLY:N    | 2.29                     | 0.65              |
| 1:OA:490:ASP:HB2 | 1:OA:493:GLU:HG3  | 1.77                     | 0.65              |
| 1:SA:392:ASP:O   | 1:SA:396:GLY:N    | 2.29                     | 0.65              |
| 1:TA:490:ASP:HB2 | 1:TA:493:GLU:HG3  | 1.77                     | 0.65              |
| 1:UA:490:ASP:HB2 | 1:UA:493:GLU:HG3  | 1.77                     | 0.65              |
| 1:VA:648:GLN:HA  | 1:VA:651:ARG:HB2  | 1.76                     | 0.65              |
| 1:EB:486:LEU:HB2 | 1:FB:473:TYR:HB3  | 1.79                     | 0.65              |
| 1:FB:490:ASP:HB2 | 1:FB:493:GLU:HG3  | 1.77                     | 0.65              |
| 1:GB:490:ASP:HB2 | 1:GB:493:GLU:HG3  | 1.77                     | 0.65              |
| 1:VB:490:ASP:HB2 | 1:VB:493:GLU:HG3  | 1.77                     | 0.65              |
| 1:MA:655:GLN:HG2 | 1:OA:649:ARG:HH11 | 1.62                     | 0.65              |
| 1:RA:490:ASP:HB2 | 1:RA:493:GLU:HG3  | 1.77                     | 0.65              |
| 1:PB:648:GLN:HA  | 1:PB:651:ARG:HB2  | 1.77                     | 0.65              |
| 1:A:192:THR:HB   | 1:NB:203:ALA:HB2  | 1.77                     | 0.65              |
| 1:O:790:VAL:HG21 | 1:Q:785:GLN:HA    | 1.78                     | 0.65              |
| 1:V:648:GLN:HA   | 1:V:651:ARG:HB2   | 1.76                     | 0.65              |
| 1:Z:392:ASP:O    | 1:Z:396:GLY:N     | 2.29                     | 0.65              |
| 1:LA:392:ASP:O   | 1:LA:396:GLY:N    | 2.30                     | 0.65              |
| 1:MA:392:ASP:O   | 1:MA:396:GLY:N    | 2.29                     | 0.65              |
| 1:NA:392:ASP:O   | 1:NA:396:GLY:N    | 2.29                     | 0.65              |
| 1:TA:392:ASP:O   | 1:TA:396:GLY:N    | 2.29                     | 0.65              |
| 1:YA:392:ASP:O   | 1:YA:396:GLY:N    | 2.29                     | 0.65              |
| 1:AB:392:ASP:O   | 1:AB:396:GLY:N    | 2.29                     | 0.65              |
| 1:QB:490:ASP:HB2 | 1:QB:493:GLU:HG3  | 1.77                     | 0.65              |
| 1:HA:490:ASP:HB2 | 1:HA:493:GLU:HG3  | 1.77                     | 0.65              |
| 1:KA:757:ALA:CB  | 1:MA:748:ALA:HB1  | 2.26                     | 0.65              |
| 1:MA:717:GLU:HB2 | 1:OA:707:LEU:HD13 | 1.78                     | 0.65              |
| 1:SA:655:GLN:HG2 | 1:UA:649:ARG:HH11 | 1.61                     | 0.65              |
| 1:AB:384:GLN:HB2 | 1:OB:474:ARG:HG3  | 1.79                     | 0.65              |
| 1:DB:490:ASP:HB2 | 1:DB:493:GLU:HG3  | 1.77                     | 0.65              |
| 1:XB:490:ASP:HB2 | 1:XB:493:GLU:HG3  | 1.77                     | 0.65              |
| 1:YB:490:ASP:HB2 | 1:YB:493:GLU:HG3  | 1.77                     | 0.65              |
| 1:FA:333:LEU:HB3 | 1:FA:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:JA:333:LEU:HB3 | 1:JA:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:UA:392:ASP:O   | 1:UA:396:GLY:N    | 2.29                     | 0.65              |
| 1:VA:333:LEU:HB3 | 1:VA:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:AB:333:LEU:HB3 | 1:AB:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:GB:333:LEU:HB3 | 1:GB:375:GLU:HG2  | 1.79                     | 0.65              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:HB:717:GLU:HB2 | 1:IB:707:LEU:HD13 | 1.77                     | 0.65              |
| 1:RB:333:LEU:HB3 | 1:RB:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:XB:333:LEU:HB3 | 1:XB:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:B:96:PRO:HD3   | 1:D:85:HIS:CE1    | 2.32                     | 0.65              |
| 1:B:333:LEU:HB3  | 1:B:375:GLU:HG2   | 1.79                     | 0.65              |
| 1:F:333:LEU:HB3  | 1:F:375:GLU:HG2   | 1.79                     | 0.65              |
| 1:J:333:LEU:HB3  | 1:J:375:GLU:HG2   | 1.79                     | 0.65              |
| 1:FA:490:ASP:HB2 | 1:FA:493:GLU:HG3  | 1.77                     | 0.65              |
| 1:HA:392:ASP:O   | 1:HA:396:GLY:N    | 2.29                     | 0.65              |
| 1:IA:648:GLN:HA  | 1:IA:651:ARG:HB2  | 1.77                     | 0.65              |
| 1:KA:392:ASP:O   | 1:KA:396:GLY:N    | 2.29                     | 0.65              |
| 1:NA:333:LEU:HB3 | 1:NA:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:RA:333:LEU:HB3 | 1:RA:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:SA:333:LEU:HB3 | 1:SA:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:UA:333:LEU:HB3 | 1:UA:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:WA:333:LEU:HB3 | 1:WA:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:ZA:333:LEU:HB3 | 1:ZA:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:EB:170:GLN:HB3 | 1:FB:233:GLN:OE1  | 1.96                     | 0.65              |
| 1:EB:490:ASP:HB2 | 1:EB:493:GLU:HG3  | 1.77                     | 0.65              |
| 1:IB:333:LEU:HB3 | 1:IB:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:JB:333:LEU:HB3 | 1:JB:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:MB:333:LEU:HB3 | 1:MB:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:PB:333:LEU:HB3 | 1:PB:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:TB:333:LEU:HB3 | 1:TB:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:ZB:333:LEU:HB3 | 1:ZB:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:D:333:LEU:HB3  | 1:D:375:GLU:HG2   | 1.79                     | 0.65              |
| 1:X:392:ASP:O    | 1:X:396:GLY:N     | 2.29                     | 0.65              |
| 1:BA:333:LEU:HB3 | 1:BA:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:RA:392:ASP:O   | 1:RA:396:GLY:N    | 2.29                     | 0.65              |
| 1:SA:490:ASP:HB2 | 1:SA:493:GLU:HG3  | 1.77                     | 0.65              |
| 1:YA:333:LEU:HB3 | 1:YA:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:EB:333:LEU:HB3 | 1:EB:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:FB:333:LEU:HB3 | 1:FB:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:HB:333:LEU:HB3 | 1:HB:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:KB:333:LEU:HB3 | 1:KB:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:QB:333:LEU:HB3 | 1:QB:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:VB:333:LEU:HB3 | 1:VB:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:WB:490:ASP:HB2 | 1:WB:493:GLU:HG3  | 1.77                     | 0.65              |
| 1:ZB:279:ARG:NH2 | 1:AC:338:GLN:OE1  | 2.30                     | 0.65              |
| 1:AC:333:LEU:HB3 | 1:AC:375:GLU:HG2  | 1.79                     | 0.65              |
| 1:H:333:LEU:HB3  | 1:H:375:GLU:HG2   | 1.79                     | 0.64              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:N:333:LEU:HB3   | 1:N:375:GLU:HG2   | 1.79                     | 0.64              |
| 1:R:333:LEU:HB3   | 1:R:375:GLU:HG2   | 1.79                     | 0.64              |
| 1:DA:333:LEU:HB3  | 1:DA:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:DA:392:ASP:O    | 1:DA:396:GLY:N    | 2.30                     | 0.64              |
| 1:DA:490:ASP:HB2  | 1:DA:493:GLU:HG3  | 1.77                     | 0.64              |
| 1:LA:333:LEU:HB3  | 1:LA:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:MA:333:LEU:HB3  | 1:MA:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:QA:333:LEU:HB3  | 1:QA:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:QA:392:ASP:O    | 1:QA:396:GLY:N    | 2.29                     | 0.64              |
| 1:ZA:392:ASP:O    | 1:ZA:396:GLY:N    | 2.29                     | 0.64              |
| 1:CB:333:LEU:HB3  | 1:CB:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:LB:333:LEU:HB3  | 1:LB:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:MB:220:ILE:HD12 | 1:NB:245:THR:HG22 | 1.78                     | 0.64              |
| 1:QB:56:ARG:HG3   | 1:RB:127:LEU:HB3  | 1.78                     | 0.64              |
| 1:TB:392:ASP:O    | 1:TB:396:GLY:N    | 2.29                     | 0.64              |
| 1:C:333:LEU:HB3   | 1:C:375:GLU:HG2   | 1.79                     | 0.64              |
| 1:G:333:LEU:HB3   | 1:G:375:GLU:HG2   | 1.79                     | 0.64              |
| 1:L:333:LEU:HB3   | 1:L:375:GLU:HG2   | 1.79                     | 0.64              |
| 1:Z:333:LEU:HB3   | 1:Z:375:GLU:HG2   | 1.79                     | 0.64              |
| 1:HA:333:LEU:HB3  | 1:HA:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:OA:333:LEU:HB3  | 1:OA:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:PA:333:LEU:HB3  | 1:PA:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:QA:490:ASP:HB2  | 1:QA:493:GLU:HG3  | 1.77                     | 0.64              |
| 1:TA:333:LEU:HB3  | 1:TA:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:BB:333:LEU:HB3  | 1:BB:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:NB:333:LEU:HB3  | 1:NB:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:PB:392:ASP:O    | 1:PB:396:GLY:N    | 2.29                     | 0.64              |
| 1:PB:490:ASP:HB2  | 1:PB:493:GLU:HG3  | 1.77                     | 0.64              |
| 1:QB:392:ASP:O    | 1:QB:396:GLY:N    | 2.29                     | 0.64              |
| 1:UB:490:ASP:HB2  | 1:UB:493:GLU:HG3  | 1.77                     | 0.64              |
| 1:VB:716:VAL:HG21 | 1:WB:708:GLU:CG   | 2.26                     | 0.64              |
| 1:YB:333:LEU:HB3  | 1:YB:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:A:333:LEU:HB3   | 1:A:375:GLU:HG2   | 1.79                     | 0.64              |
| 1:C:717:GLU:HB2   | 1:E:707:LEU:HD13  | 1.78                     | 0.64              |
| 1:W:333:LEU:HB3   | 1:W:375:GLU:HG2   | 1.79                     | 0.64              |
| 1:X:333:LEU:HB3   | 1:X:375:GLU:HG2   | 1.79                     | 0.64              |
| 1:Z:170:GLN:HB3   | 1:BA:233:GLN:OE1  | 1.98                     | 0.64              |
| 1:GA:392:ASP:O    | 1:GA:396:GLY:N    | 2.29                     | 0.64              |
| 1:IA:333:LEU:HB3  | 1:IA:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:KA:333:LEU:HB3  | 1:KA:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:XA:490:ASP:HB2  | 1:XA:493:GLU:HG3  | 1.77                     | 0.64              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:BB:490:ASP:HB2 | 1:BB:493:GLU:HG3  | 1.77                     | 0.64              |
| 1:JB:56:ARG:HB2  | 1:KB:127:LEU:HD22 | 1.79                     | 0.64              |
| 1:OB:333:LEU:HB3 | 1:OB:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:RB:392:ASP:O   | 1:RB:396:GLY:N    | 2.29                     | 0.64              |
| 1:SB:333:LEU:HB3 | 1:SB:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:UB:333:LEU:HB3 | 1:UB:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:E:333:LEU:HB3  | 1:E:375:GLU:HG2   | 1.79                     | 0.64              |
| 1:P:709:LEU:HD13 | 1:R:701:LYS:HG3   | 1.78                     | 0.64              |
| 1:S:333:LEU:HB3  | 1:S:375:GLU:HG2   | 1.79                     | 0.64              |
| 1:AA:333:LEU:HB3 | 1:AA:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:EA:333:LEU:HB3 | 1:EA:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:EA:392:ASP:O   | 1:EA:396:GLY:N    | 2.29                     | 0.64              |
| 1:JA:490:ASP:HB2 | 1:JA:493:GLU:HG3  | 1.77                     | 0.64              |
| 1:KA:801:ALA:HA  | 1:MA:796:LYS:NZ   | 2.13                     | 0.64              |
| 1:OA:392:ASP:O   | 1:OA:396:GLY:N    | 2.29                     | 0.64              |
| 1:YA:717:GLU:HB2 | 1:AB:707:LEU:HD13 | 1.78                     | 0.64              |
| 1:AB:490:ASP:HB2 | 1:AB:493:GLU:HG3  | 1.77                     | 0.64              |
| 1:K:333:LEU:HB3  | 1:K:375:GLU:HG2   | 1.79                     | 0.64              |
| 1:O:333:LEU:HB3  | 1:O:375:GLU:HG2   | 1.79                     | 0.64              |
| 1:P:333:LEU:HB3  | 1:P:375:GLU:HG2   | 1.79                     | 0.64              |
| 1:T:333:LEU:HB3  | 1:T:375:GLU:HG2   | 1.79                     | 0.64              |
| 1:CA:333:LEU:HB3 | 1:CA:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:VA:392:ASP:O   | 1:VA:396:GLY:N    | 2.29                     | 0.64              |
| 1:XA:333:LEU:HB3 | 1:XA:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:DB:333:LEU:HB3 | 1:DB:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:SB:490:ASP:HB2 | 1:SB:493:GLU:HG3  | 1.77                     | 0.64              |
| 1:WB:333:LEU:HB3 | 1:WB:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:I:333:LEU:HB3  | 1:I:375:GLU:HG2   | 1.79                     | 0.64              |
| 1:V:333:LEU:HB3  | 1:V:375:GLU:HG2   | 1.79                     | 0.64              |
| 1:Y:333:LEU:HB3  | 1:Y:375:GLU:HG2   | 1.79                     | 0.64              |
| 1:BA:392:ASP:O   | 1:BA:396:GLY:N    | 2.29                     | 0.64              |
| 1:GA:333:LEU:HB3 | 1:GA:375:GLU:HG2  | 1.79                     | 0.64              |
| 1:JA:392:ASP:O   | 1:JA:396:GLY:N    | 2.29                     | 0.64              |
| 1:NA:490:ASP:HB2 | 1:NA:493:GLU:HG3  | 1.77                     | 0.64              |
| 1:XA:717:GLU:HB2 | 1:ZA:707:LEU:HD13 | 1.78                     | 0.64              |
| 1:UB:392:ASP:O   | 1:UB:396:GLY:N    | 2.29                     | 0.64              |
| 1:JA:184:ASP:OD1 | 1:JA:188:LYS:N    | 2.31                     | 0.64              |
| 1:PA:392:ASP:O   | 1:PA:396:GLY:N    | 2.29                     | 0.64              |
| 1:PA:655:GLN:HG2 | 1:RA:649:ARG:HH11 | 1.62                     | 0.64              |
| 1:WA:490:ASP:HB2 | 1:WA:493:GLU:HG3  | 1.77                     | 0.64              |
| 1:BB:392:ASP:O   | 1:BB:396:GLY:N    | 2.29                     | 0.64              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:CB:717:GLU:HB2  | 1:DB:707:LEU:HD13 | 1.78                     | 0.64              |
| 1:A:790:VAL:CG2   | 1:C:785:GLN:HA    | 2.28                     | 0.64              |
| 1:F:121:LEU:HB2   | 1:F:145:PHE:HB3   | 1.80                     | 0.64              |
| 1:H:775:ALA:HB1   | 1:J:770:LEU:HD21  | 1.79                     | 0.64              |
| 1:J:121:LEU:HB2   | 1:J:145:PHE:HB3   | 1.80                     | 0.64              |
| 1:M:279:ARG:NH2   | 1:O:338:GLN:OE1   | 2.31                     | 0.64              |
| 1:M:333:LEU:HB3   | 1:M:375:GLU:HG2   | 1.79                     | 0.64              |
| 1:N:121:LEU:HB2   | 1:N:145:PHE:HB3   | 1.80                     | 0.64              |
| 1:V:121:LEU:HB2   | 1:V:145:PHE:HB3   | 1.80                     | 0.64              |
| 1:W:121:LEU:HB2   | 1:W:145:PHE:HB3   | 1.80                     | 0.64              |
| 1:Z:121:LEU:HB2   | 1:Z:145:PHE:HB3   | 1.80                     | 0.64              |
| 1:DA:121:LEU:HB2  | 1:DA:145:PHE:HB3  | 1.80                     | 0.64              |
| 1:IA:121:LEU:HB2  | 1:IA:145:PHE:HB3  | 1.80                     | 0.64              |
| 1:MA:121:LEU:HB2  | 1:MA:145:PHE:HB3  | 1.80                     | 0.64              |
| 1:QA:121:LEU:HB2  | 1:QA:145:PHE:HB3  | 1.80                     | 0.64              |
| 1:WA:392:ASP:O    | 1:WA:396:GLY:N    | 2.29                     | 0.64              |
| 1:XA:392:ASP:O    | 1:XA:396:GLY:N    | 2.29                     | 0.64              |
| 1:KB:121:LEU:HB2  | 1:KB:145:PHE:HB3  | 1.80                     | 0.64              |
| 1:LB:772:TYR:CD1  | 1:MB:766:ARG:HB3  | 2.33                     | 0.64              |
| 1:SB:392:ASP:O    | 1:SB:396:GLY:N    | 2.29                     | 0.64              |
| 1:UB:257:GLU:HG2  | 1:VB:244:ARG:HB3  | 1.78                     | 0.64              |
| 1:YB:709:LEU:HD13 | 1:ZB:701:LYS:HG3  | 1.78                     | 0.64              |
| 1:A:121:LEU:HB2   | 1:A:145:PHE:HB3   | 1.80                     | 0.64              |
| 1:B:121:LEU:HB2   | 1:B:145:PHE:HB3   | 1.80                     | 0.64              |
| 1:E:121:LEU:HB2   | 1:E:145:PHE:HB3   | 1.80                     | 0.64              |
| 1:M:184:ASP:OD1   | 1:M:188:LYS:N     | 2.31                     | 0.64              |
| 1:M:203:ALA:HB2   | 1:O:192:THR:HB    | 1.80                     | 0.64              |
| 1:Q:333:LEU:HB3   | 1:Q:375:GLU:HG2   | 1.79                     | 0.64              |
| 1:Q:392:ASP:O     | 1:Q:396:GLY:N     | 2.29                     | 0.64              |
| 1:Z:184:ASP:OD1   | 1:Z:188:LYS:N     | 2.31                     | 0.64              |
| 1:AA:121:LEU:HB2  | 1:AA:145:PHE:HB3  | 1.80                     | 0.64              |
| 1:BA:184:ASP:OD1  | 1:BA:188:LYS:N    | 2.31                     | 0.64              |
| 1:EA:121:LEU:HB2  | 1:EA:145:PHE:HB3  | 1.80                     | 0.64              |
| 1:OA:184:ASP:OD1  | 1:OA:188:LYS:N    | 2.31                     | 0.64              |
| 1:WA:184:ASP:OD1  | 1:WA:188:LYS:N    | 2.31                     | 0.64              |
| 1:MB:121:LEU:HB2  | 1:MB:145:PHE:HB3  | 1.80                     | 0.64              |
| 1:A:769:GLU:HG2   | 1:C:766:ARG:HH12  | 1.62                     | 0.64              |
| 1:I:121:LEU:HB2   | 1:I:145:PHE:HB3   | 1.80                     | 0.64              |
| 1:K:184:ASP:OD1   | 1:K:188:LYS:N     | 2.31                     | 0.64              |
| 1:M:121:LEU:HB2   | 1:M:145:PHE:HB3   | 1.80                     | 0.64              |
| 1:Q:121:LEU:HB2   | 1:Q:145:PHE:HB3   | 1.80                     | 0.64              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:R:121:LEU:HB2  | 1:R:145:PHE:HB3   | 1.80                     | 0.64              |
| 1:V:717:GLU:HB2  | 1:X:707:LEU:HD13  | 1.78                     | 0.64              |
| 1:X:39:ASP:HB2   | 1:OB:39:ASP:HB2   | 1.78                     | 0.64              |
| 1:CA:184:ASP:OD1 | 1:CA:188:LYS:N    | 2.31                     | 0.64              |
| 1:EA:184:ASP:OD1 | 1:EA:188:LYS:N    | 2.31                     | 0.64              |
| 1:HA:121:LEU:HB2 | 1:HA:145:PHE:HB3  | 1.80                     | 0.64              |
| 1:UA:121:LEU:HB2 | 1:UA:145:PHE:HB3  | 1.80                     | 0.64              |
| 1:IB:121:LEU:HB2 | 1:IB:145:PHE:HB3  | 1.80                     | 0.64              |
| 1:G:121:LEU:HB2  | 1:G:145:PHE:HB3   | 1.80                     | 0.63              |
| 1:O:121:LEU:HB2  | 1:O:145:PHE:HB3   | 1.80                     | 0.63              |
| 1:Y:121:LEU:HB2  | 1:Y:145:PHE:HB3   | 1.80                     | 0.63              |
| 1:CA:121:LEU:HB2 | 1:CA:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:LA:121:LEU:HB2 | 1:LA:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:MA:184:ASP:OD1 | 1:MA:188:LYS:N    | 2.31                     | 0.63              |
| 1:YA:121:LEU:HB2 | 1:YA:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:DB:392:ASP:O   | 1:DB:396:GLY:N    | 2.29                     | 0.63              |
| 1:GB:121:LEU:HB2 | 1:GB:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:JB:121:LEU:HB2 | 1:JB:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:LB:783:LYS:HA  | 1:MB:777:LEU:CD1  | 2.28                     | 0.63              |
| 1:NB:121:LEU:HB2 | 1:NB:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:OB:392:ASP:O   | 1:OB:396:GLY:N    | 2.29                     | 0.63              |
| 1:ZB:121:LEU:HB2 | 1:ZB:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:A:245:THR:HG22 | 1:NB:220:ILE:HD12 | 1.79                     | 0.63              |
| 1:C:121:LEU:HB2  | 1:C:145:PHE:HB3   | 1.80                     | 0.63              |
| 1:K:121:LEU:HB2  | 1:K:145:PHE:HB3   | 1.80                     | 0.63              |
| 1:L:121:LEU:HB2  | 1:L:145:PHE:HB3   | 1.80                     | 0.63              |
| 1:T:121:LEU:HB2  | 1:T:145:PHE:HB3   | 1.80                     | 0.63              |
| 1:V:392:ASP:O    | 1:V:396:GLY:N     | 2.29                     | 0.63              |
| 1:AA:184:ASP:OD1 | 1:AA:188:LYS:N    | 2.31                     | 0.63              |
| 1:GA:121:LEU:HB2 | 1:GA:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:KA:121:LEU:HB2 | 1:KA:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:OA:121:LEU:HB2 | 1:OA:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:D:121:LEU:HB2  | 1:D:145:PHE:HB3   | 1.80                     | 0.63              |
| 1:S:121:LEU:HB2  | 1:S:145:PHE:HB3   | 1.80                     | 0.63              |
| 1:S:392:ASP:O    | 1:S:396:GLY:N     | 2.29                     | 0.63              |
| 1:X:121:LEU:HB2  | 1:X:145:PHE:HB3   | 1.80                     | 0.63              |
| 1:Y:392:ASP:O    | 1:Y:396:GLY:N     | 2.30                     | 0.63              |
| 1:FA:121:LEU:HB2 | 1:FA:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:HA:184:ASP:OD1 | 1:HA:188:LYS:N    | 2.31                     | 0.63              |
| 1:PA:121:LEU:HB2 | 1:PA:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:SA:121:LEU:HB2 | 1:SA:145:PHE:HB3  | 1.80                     | 0.63              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:ZA:709:LEU:HD13 | 1:BB:701:LYS:HG3  | 1.81                     | 0.63              |
| 1:BB:702:ALA:HB2  | 1:CB:690:ARG:HH12 | 1.62                     | 0.63              |
| 1:OB:121:LEU:HB2  | 1:OB:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:PB:121:LEU:HB2  | 1:PB:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:PB:717:GLU:HB2  | 1:QB:707:LEU:HD13 | 1.80                     | 0.63              |
| 1:WB:392:ASP:O    | 1:WB:396:GLY:N    | 2.29                     | 0.63              |
| 1:A:720:GLY:HA3   | 1:C:711:ALA:HB1   | 1.80                     | 0.63              |
| 1:H:121:LEU:HB2   | 1:H:145:PHE:HB3   | 1.80                     | 0.63              |
| 1:P:121:LEU:HB2   | 1:P:145:PHE:HB3   | 1.80                     | 0.63              |
| 1:X:184:ASP:OD1   | 1:X:188:LYS:N     | 2.31                     | 0.63              |
| 1:BA:121:LEU:HB2  | 1:BA:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:DA:655:GLN:HG2  | 1:FA:649:ARG:HH11 | 1.64                     | 0.63              |
| 1:IA:392:ASP:O    | 1:IA:396:GLY:N    | 2.29                     | 0.63              |
| 1:EB:121:LEU:HB2  | 1:EB:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:EB:362:PRO:O    | 1:FB:352:GLN:HB3  | 1.99                     | 0.63              |
| 1:LB:121:LEU:HB2  | 1:LB:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:UB:728:SER:HB3  | 1:VB:718:SER:OG   | 1.98                     | 0.63              |
| 1:XB:121:LEU:HB2  | 1:XB:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:D:709:LEU:HD13  | 1:F:701:LYS:HG3   | 1.80                     | 0.63              |
| 1:D:717:GLU:HB2   | 1:F:707:LEU:HD13  | 1.81                     | 0.63              |
| 1:M:170:GLN:HB3   | 1:O:233:GLN:OE1   | 1.98                     | 0.63              |
| 1:AA:392:ASP:O    | 1:AA:396:GLY:N    | 2.30                     | 0.63              |
| 1:JA:121:LEU:HB2  | 1:JA:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:TA:121:LEU:HB2  | 1:TA:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:TA:655:GLN:HG2  | 1:VA:649:ARG:HH11 | 1.63                     | 0.63              |
| 1:QB:121:LEU:HB2  | 1:QB:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:UB:484:PRO:HG2  | 1:VB:471:TYR:CD2  | 2.34                     | 0.63              |
| 1:AC:121:LEU:HB2  | 1:AC:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:A:479:ARG:NH1   | 1:A:493:GLU:OE2   | 2.32                     | 0.63              |
| 1:D:19:LEU:HD12   | 1:D:44:LEU:HD21   | 1.81                     | 0.63              |
| 1:H:479:ARG:NH1   | 1:H:493:GLU:OE2   | 2.32                     | 0.63              |
| 1:IA:479:ARG:NH1  | 1:IA:493:GLU:OE2  | 2.32                     | 0.63              |
| 1:KA:184:ASP:OD1  | 1:KA:188:LYS:N    | 2.31                     | 0.63              |
| 1:UA:184:ASP:OD1  | 1:UA:188:LYS:N    | 2.31                     | 0.63              |
| 1:VA:479:ARG:NH1  | 1:VA:493:GLU:OE2  | 2.32                     | 0.63              |
| 1:WA:121:LEU:HB2  | 1:WA:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:AB:121:LEU:HB2  | 1:AB:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:DB:121:LEU:HB2  | 1:DB:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:EB:392:ASP:O    | 1:EB:396:GLY:N    | 2.29                     | 0.63              |
| 1:GB:19:LEU:HD12  | 1:GB:44:LEU:HD21  | 1.81                     | 0.63              |
| 1:HB:19:LEU:HD12  | 1:HB:44:LEU:HD21  | 1.81                     | 0.63              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:HB:121:LEU:HB2 | 1:HB:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:KB:19:LEU:HD12 | 1:KB:44:LEU:HD21  | 1.81                     | 0.63              |
| 1:LB:9:ARG:HH21  | 1:MB:24:ASN:CG    | 2.02                     | 0.63              |
| 1:QB:12:PRO:HG2  | 1:RB:80:GLN:CD    | 2.18                     | 0.63              |
| 1:UB:121:LEU:HB2 | 1:UB:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:VB:121:LEU:HB2 | 1:VB:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:WB:19:LEU:HD12 | 1:WB:44:LEU:HD21  | 1.81                     | 0.63              |
| 1:YB:121:LEU:HB2 | 1:YB:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:ZB:19:LEU:HD12 | 1:ZB:44:LEU:HD21  | 1.81                     | 0.63              |
| 1:AC:19:LEU:HD12 | 1:AC:44:LEU:HD21  | 1.81                     | 0.63              |
| 1:F:19:LEU:HD12  | 1:F:44:LEU:HD21   | 1.81                     | 0.63              |
| 1:G:479:ARG:NH1  | 1:G:493:GLU:OE2   | 2.32                     | 0.63              |
| 1:I:184:ASP:OD1  | 1:I:188:LYS:N     | 2.31                     | 0.63              |
| 1:N:479:ARG:NH1  | 1:N:493:GLU:OE2   | 2.32                     | 0.63              |
| 1:S:479:ARG:NH1  | 1:S:493:GLU:OE2   | 2.32                     | 0.63              |
| 1:DA:479:ARG:NH1 | 1:DA:493:GLU:OE2  | 2.32                     | 0.63              |
| 1:NA:121:LEU:HB2 | 1:NA:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:RA:121:LEU:HB2 | 1:RA:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:RA:655:GLN:HG2 | 1:TA:649:ARG:HH11 | 1.64                     | 0.63              |
| 1:BB:121:LEU:HB2 | 1:BB:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:EB:479:ARG:NH1 | 1:EB:493:GLU:OE2  | 2.32                     | 0.63              |
| 1:FB:121:LEU:HB2 | 1:FB:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:HB:479:ARG:NH1 | 1:HB:493:GLU:OE2  | 2.32                     | 0.63              |
| 1:JB:19:LEU:HD12 | 1:JB:44:LEU:HD21  | 1.81                     | 0.63              |
| 1:LB:479:ARG:NH1 | 1:LB:493:GLU:OE2  | 2.32                     | 0.63              |
| 1:QB:94:GLN:O    | 1:RB:85:HIS:NE2   | 2.24                     | 0.63              |
| 1:QB:479:ARG:NH1 | 1:QB:493:GLU:OE2  | 2.32                     | 0.63              |
| 1:RB:479:ARG:NH1 | 1:RB:493:GLU:OE2  | 2.32                     | 0.63              |
| 1:SB:121:LEU:HB2 | 1:SB:145:PHE:HB3  | 1.80                     | 0.63              |
| 1:XB:19:LEU:HD12 | 1:XB:44:LEU:HD21  | 1.81                     | 0.63              |
| 1:XB:479:ARG:NH1 | 1:XB:493:GLU:OE2  | 2.32                     | 0.63              |
| 1:AC:479:ARG:NH1 | 1:AC:493:GLU:OE2  | 2.32                     | 0.63              |
| 1:A:775:ALA:HB1  | 1:C:770:LEU:HD21  | 1.80                     | 0.63              |
| 1:I:479:ARG:NH1  | 1:I:493:GLU:OE2   | 2.32                     | 0.63              |
| 1:J:19:LEU:HD12  | 1:J:44:LEU:HD21   | 1.81                     | 0.63              |
| 1:O:392:ASP:O    | 1:O:396:GLY:N     | 2.29                     | 0.63              |
| 1:O:479:ARG:NH1  | 1:O:493:GLU:OE2   | 2.32                     | 0.63              |
| 1:Q:39:ASP:HB2   | 1:RB:39:ASP:HB2   | 1.79                     | 0.63              |
| 1:V:184:ASP:OD1  | 1:V:188:LYS:N     | 2.31                     | 0.63              |
| 1:V:479:ARG:NH1  | 1:V:493:GLU:OE2   | 2.32                     | 0.63              |
| 1:W:479:ARG:NH1  | 1:W:493:GLU:OE2   | 2.32                     | 0.63              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:CA:392:ASP:O   | 1:CA:396:GLY:N   | 2.29                     | 0.63              |
| 1:GA:479:ARG:NH1 | 1:GA:493:GLU:OE2 | 2.32                     | 0.63              |
| 1:LA:479:ARG:NH1 | 1:LA:493:GLU:OE2 | 2.32                     | 0.63              |
| 1:NA:479:ARG:NH1 | 1:NA:493:GLU:OE2 | 2.32                     | 0.63              |
| 1:QA:479:ARG:NH1 | 1:QA:493:GLU:OE2 | 2.32                     | 0.63              |
| 1:VA:121:LEU:HB2 | 1:VA:145:PHE:HB3 | 1.80                     | 0.63              |
| 1:XA:121:LEU:HB2 | 1:XA:145:PHE:HB3 | 1.80                     | 0.63              |
| 1:YA:479:ARG:NH1 | 1:YA:493:GLU:OE2 | 2.32                     | 0.63              |
| 1:ZA:121:LEU:HB2 | 1:ZA:145:PHE:HB3 | 1.80                     | 0.63              |
| 1:AB:479:ARG:NH1 | 1:AB:493:GLU:OE2 | 2.32                     | 0.63              |
| 1:CB:121:LEU:HB2 | 1:CB:145:PHE:HB3 | 1.80                     | 0.63              |
| 1:DB:19:LEU:HD12 | 1:DB:44:LEU:HD21 | 1.81                     | 0.63              |
| 1:EB:19:LEU:HD12 | 1:EB:44:LEU:HD21 | 1.81                     | 0.63              |
| 1:MB:19:LEU:HD12 | 1:MB:44:LEU:HD21 | 1.81                     | 0.63              |
| 1:NB:19:LEU:HD12 | 1:NB:44:LEU:HD21 | 1.81                     | 0.63              |
| 1:OB:184:ASP:OD1 | 1:OB:188:LYS:N   | 2.31                     | 0.63              |
| 1:RB:121:LEU:HB2 | 1:RB:145:PHE:HB3 | 1.80                     | 0.63              |
| 1:WB:121:LEU:HB2 | 1:WB:145:PHE:HB3 | 1.80                     | 0.63              |
| 1:B:479:ARG:NH1  | 1:B:493:GLU:OE2  | 2.32                     | 0.63              |
| 1:F:479:ARG:NH1  | 1:F:493:GLU:OE2  | 2.32                     | 0.63              |
| 1:L:19:LEU:HD12  | 1:L:44:LEU:HD21  | 1.81                     | 0.63              |
| 1:O:775:ALA:CB   | 1:Q:770:LEU:HD21 | 2.29                     | 0.63              |
| 1:P:479:ARG:NH1  | 1:P:493:GLU:OE2  | 2.32                     | 0.63              |
| 1:R:392:ASP:O    | 1:R:396:GLY:N    | 2.29                     | 0.63              |
| 1:Y:184:ASP:OD1  | 1:Y:188:LYS:N    | 2.31                     | 0.63              |
| 1:QA:62:ALA:HB2  | 1:QA:106:GLU:HB2 | 1.81                     | 0.63              |
| 1:CB:479:ARG:NH1 | 1:CB:493:GLU:OE2 | 2.32                     | 0.63              |
| 1:DB:479:ARG:NH1 | 1:DB:493:GLU:OE2 | 2.32                     | 0.63              |
| 1:KB:479:ARG:NH1 | 1:KB:493:GLU:OE2 | 2.32                     | 0.63              |
| 1:SB:479:ARG:NH1 | 1:SB:493:GLU:OE2 | 2.32                     | 0.63              |
| 1:UB:801:ALA:HB1 | 1:VB:799:THR:OG1 | 1.99                     | 0.63              |
| 1:VB:19:LEU:HD12 | 1:VB:44:LEU:HD21 | 1.81                     | 0.63              |
| 1:VB:392:ASP:O   | 1:VB:396:GLY:N   | 2.29                     | 0.63              |
| 1:VB:479:ARG:NH1 | 1:VB:493:GLU:OE2 | 2.32                     | 0.63              |
| 1:XB:392:ASP:O   | 1:XB:396:GLY:N   | 2.29                     | 0.63              |
| 1:YB:19:LEU:HD12 | 1:YB:44:LEU:HD21 | 1.81                     | 0.63              |
| 1:A:19:LEU:HD12  | 1:A:44:LEU:HD21  | 1.81                     | 0.62              |
| 1:B:19:LEU:HD12  | 1:B:44:LEU:HD21  | 1.81                     | 0.62              |
| 1:K:392:ASP:O    | 1:K:396:GLY:N    | 2.29                     | 0.62              |
| 1:X:62:ALA:HB2   | 1:X:106:GLU:HB2  | 1.81                     | 0.62              |
| 1:Y:479:ARG:NH1  | 1:Y:493:GLU:OE2  | 2.32                     | 0.62              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:CA:479:ARG:NH1  | 1:CA:493:GLU:OE2  | 2.32                     | 0.62              |
| 1:DA:62:ALA:HB2   | 1:DA:106:GLU:HB2  | 1.81                     | 0.62              |
| 1:SA:479:ARG:NH1  | 1:SA:493:GLU:OE2  | 2.32                     | 0.62              |
| 1:TA:479:ARG:NH1  | 1:TA:493:GLU:OE2  | 2.32                     | 0.62              |
| 1:XA:479:ARG:NH1  | 1:XA:493:GLU:OE2  | 2.32                     | 0.62              |
| 1:CB:19:LEU:HD12  | 1:CB:44:LEU:HD21  | 1.81                     | 0.62              |
| 1:NB:184:ASP:OD1  | 1:NB:188:LYS:N    | 2.31                     | 0.62              |
| 1:QB:706:LEU:HD13 | 1:RB:693:ILE:HG23 | 1.81                     | 0.62              |
| 1:TB:121:LEU:HB2  | 1:TB:145:PHE:HB3  | 1.80                     | 0.62              |
| 1:M:479:ARG:NH1   | 1:M:493:GLU:OE2   | 2.32                     | 0.62              |
| 1:T:479:ARG:NH1   | 1:T:493:GLU:OE2   | 2.32                     | 0.62              |
| 1:V:62:ALA:HB2    | 1:V:106:GLU:HB2   | 1.81                     | 0.62              |
| 1:BA:479:ARG:NH1  | 1:BA:493:GLU:OE2  | 2.32                     | 0.62              |
| 1:EA:717:GLU:HB2  | 1:GA:707:LEU:HD13 | 1.79                     | 0.62              |
| 1:FA:479:ARG:NH1  | 1:FA:493:GLU:OE2  | 2.32                     | 0.62              |
| 1:IA:62:ALA:HB2   | 1:IA:106:GLU:HB2  | 1.81                     | 0.62              |
| 1:LA:32:PRO:HB2   | 1:NA:24:ASN:HB2   | 1.80                     | 0.62              |
| 1:LA:62:ALA:HB2   | 1:LA:106:GLU:HB2  | 1.81                     | 0.62              |
| 1:WA:62:ALA:HB2   | 1:WA:106:GLU:HB2  | 1.81                     | 0.62              |
| 1:YA:62:ALA:HB2   | 1:YA:106:GLU:HB2  | 1.81                     | 0.62              |
| 1:CB:392:ASP:O    | 1:CB:396:GLY:N    | 2.29                     | 0.62              |
| 1:IB:19:LEU:HD12  | 1:IB:44:LEU:HD21  | 1.81                     | 0.62              |
| 1:IB:479:ARG:NH1  | 1:IB:493:GLU:OE2  | 2.32                     | 0.62              |
| 1:LB:801:ALA:HA   | 1:MB:796:LYS:HZ1  | 1.64                     | 0.62              |
| 1:UB:786:GLN:HE22 | 1:VB:781:VAL:HG21 | 1.64                     | 0.62              |
| 1:WB:479:ARG:NH1  | 1:WB:493:GLU:OE2  | 2.32                     | 0.62              |
| 1:A:16:ILE:HD12   | 1:A:43:VAL:HG23   | 1.81                     | 0.62              |
| 1:C:479:ARG:NH1   | 1:C:493:GLU:OE2   | 2.32                     | 0.62              |
| 1:E:16:ILE:HD12   | 1:E:43:VAL:HG23   | 1.82                     | 0.62              |
| 1:E:19:LEU:HD12   | 1:E:44:LEU:HD21   | 1.81                     | 0.62              |
| 1:G:19:LEU:HD12   | 1:G:44:LEU:HD21   | 1.81                     | 0.62              |
| 1:H:19:LEU:HD12   | 1:H:44:LEU:HD21   | 1.81                     | 0.62              |
| 1:I:16:ILE:HD12   | 1:I:43:VAL:HG23   | 1.82                     | 0.62              |
| 1:M:16:ILE:HD12   | 1:M:43:VAL:HG23   | 1.81                     | 0.62              |
| 1:P:19:LEU:HD12   | 1:P:44:LEU:HD21   | 1.81                     | 0.62              |
| 1:P:790:VAL:CG2   | 1:R:785:GLN:HA    | 2.28                     | 0.62              |
| 1:BA:62:ALA:HB2   | 1:BA:106:GLU:HB2  | 1.81                     | 0.62              |
| 1:BA:655:GLN:HG2  | 1:DA:649:ARG:HH11 | 1.64                     | 0.62              |
| 1:FA:62:ALA:HB2   | 1:FA:106:GLU:HB2  | 1.81                     | 0.62              |
| 1:IA:56:ARG:HG3   | 1:KA:127:LEU:HD22 | 1.80                     | 0.62              |
| 1:KA:62:ALA:HB2   | 1:KA:106:GLU:HB2  | 1.81                     | 0.62              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:NA:62:ALA:HB2   | 1:NA:106:GLU:HB2  | 1.81                     | 0.62              |
| 1:OA:62:ALA:HB2   | 1:OA:106:GLU:HB2  | 1.81                     | 0.62              |
| 1:PA:184:ASP:OD1  | 1:PA:188:LYS:N    | 2.31                     | 0.62              |
| 1:RA:717:GLU:HB2  | 1:TA:707:LEU:HD13 | 1.80                     | 0.62              |
| 1:SA:62:ALA:HB2   | 1:SA:106:GLU:HB2  | 1.81                     | 0.62              |
| 1:ZA:19:LEU:HD12  | 1:ZA:44:LEU:HD21  | 1.81                     | 0.62              |
| 1:EB:405:THR:HG22 | 1:FB:395:THR:HA   | 1.81                     | 0.62              |
| 1:FB:19:LEU:HD12  | 1:FB:44:LEU:HD21  | 1.81                     | 0.62              |
| 1:LB:19:LEU:HD12  | 1:LB:44:LEU:HD21  | 1.81                     | 0.62              |
| 1:UB:479:ARG:NH1  | 1:UB:493:GLU:OE2  | 2.32                     | 0.62              |
| 1:UB:542:ALA:HB1  | 1:VB:573:LYS:HE2  | 1.80                     | 0.62              |
| 1:H:9:ARG:NH2     | 1:J:24:ASN:ND2    | 2.44                     | 0.62              |
| 1:J:16:ILE:HD12   | 1:J:43:VAL:HG23   | 1.81                     | 0.62              |
| 1:Q:479:ARG:NH1   | 1:Q:493:GLU:OE2   | 2.32                     | 0.62              |
| 1:R:19:LEU:HD12   | 1:R:44:LEU:HD21   | 1.81                     | 0.62              |
| 1:W:392:ASP:O     | 1:W:396:GLY:N     | 2.29                     | 0.62              |
| 1:X:479:ARG:NH1   | 1:X:493:GLU:OE2   | 2.32                     | 0.62              |
| 1:X:813:ALA:HB1   | 1:Z:812:VAL:HA    | 1.81                     | 0.62              |
| 1:AA:479:ARG:NH1  | 1:AA:493:GLU:OE2  | 2.32                     | 0.62              |
| 1:FA:184:ASP:OD1  | 1:FA:188:LYS:N    | 2.31                     | 0.62              |
| 1:GA:62:ALA:HB2   | 1:GA:106:GLU:HB2  | 1.81                     | 0.62              |
| 1:HA:62:ALA:HB2   | 1:HA:106:GLU:HB2  | 1.81                     | 0.62              |
| 1:KA:479:ARG:NH1  | 1:KA:493:GLU:OE2  | 2.32                     | 0.62              |
| 1:OA:479:ARG:NH1  | 1:OA:493:GLU:OE2  | 2.32                     | 0.62              |
| 1:XA:655:GLN:HG2  | 1:ZA:649:ARG:HH11 | 1.64                     | 0.62              |
| 1:YA:761:ARG:HG2  | 1:AB:755:THR:HG21 | 1.81                     | 0.62              |
| 1:AB:62:ALA:HB2   | 1:AB:106:GLU:HB2  | 1.81                     | 0.62              |
| 1:BB:479:ARG:NH1  | 1:BB:493:GLU:OE2  | 2.32                     | 0.62              |
| 1:GB:479:ARG:NH1  | 1:GB:493:GLU:OE2  | 2.32                     | 0.62              |
| 1:MB:16:ILE:HD12  | 1:MB:43:VAL:HG23  | 1.81                     | 0.62              |
| 1:NB:479:ARG:NH1  | 1:NB:493:GLU:OE2  | 2.32                     | 0.62              |
| 1:TB:19:LEU:HD12  | 1:TB:44:LEU:HD21  | 1.81                     | 0.62              |
| 1:YB:479:ARG:NH1  | 1:YB:493:GLU:OE2  | 2.32                     | 0.62              |
| 1:C:19:LEU:HD12   | 1:C:44:LEU:HD21   | 1.81                     | 0.62              |
| 1:J:32:PRO:HG3    | 1:L:78:THR:HG21   | 1.81                     | 0.62              |
| 1:J:479:ARG:NH1   | 1:J:493:GLU:OE2   | 2.32                     | 0.62              |
| 1:L:184:ASP:OD1   | 1:L:188:LYS:N     | 2.31                     | 0.62              |
| 1:P:16:ILE:HD12   | 1:P:43:VAL:HG23   | 1.81                     | 0.62              |
| 1:Q:16:ILE:HD12   | 1:Q:43:VAL:HG23   | 1.81                     | 0.62              |
| 1:R:16:ILE:HD12   | 1:R:43:VAL:HG23   | 1.81                     | 0.62              |
| 1:T:392:ASP:O     | 1:T:396:GLY:N     | 2.29                     | 0.62              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:PA:479:ARG:NH1 | 1:PA:493:GLU:OE2 | 2.32                     | 0.62              |
| 1:RA:62:ALA:HB2  | 1:RA:106:GLU:HB2 | 1.81                     | 0.62              |
| 1:XA:19:LEU:HD12 | 1:XA:44:LEU:HD21 | 1.81                     | 0.62              |
| 1:BB:19:LEU:HD12 | 1:BB:44:LEU:HD21 | 1.81                     | 0.62              |
| 1:UB:19:LEU:HD12 | 1:UB:44:LEU:HD21 | 1.81                     | 0.62              |
| 1:ZB:479:ARG:NH1 | 1:ZB:493:GLU:OE2 | 2.32                     | 0.62              |
| 1:I:392:ASP:O    | 1:I:396:GLY:N    | 2.29                     | 0.62              |
| 1:K:16:ILE:HD12  | 1:K:43:VAL:HG23  | 1.81                     | 0.62              |
| 1:K:479:ARG:NH1  | 1:K:493:GLU:OE2  | 2.32                     | 0.62              |
| 1:L:16:ILE:HD12  | 1:L:43:VAL:HG23  | 1.81                     | 0.62              |
| 1:L:479:ARG:NH1  | 1:L:493:GLU:OE2  | 2.32                     | 0.62              |
| 1:N:16:ILE:HD12  | 1:N:43:VAL:HG23  | 1.82                     | 0.62              |
| 1:N:19:LEU:HD12  | 1:N:44:LEU:HD21  | 1.81                     | 0.62              |
| 1:S:62:ALA:HB2   | 1:S:106:GLU:HB2  | 1.81                     | 0.62              |
| 1:S:184:ASP:OD1  | 1:S:188:LYS:N    | 2.31                     | 0.62              |
| 1:Y:16:ILE:HD12  | 1:Y:43:VAL:HG23  | 1.81                     | 0.62              |
| 1:Z:62:ALA:HB2   | 1:Z:106:GLU:HB2  | 1.81                     | 0.62              |
| 1:CA:62:ALA:HB2  | 1:CA:106:GLU:HB2 | 1.81                     | 0.62              |
| 1:IA:184:ASP:OD1 | 1:IA:188:LYS:N   | 2.31                     | 0.62              |
| 1:JA:62:ALA:HB2  | 1:JA:106:GLU:HB2 | 1.82                     | 0.62              |
| 1:JA:479:ARG:NH1 | 1:JA:493:GLU:OE2 | 2.32                     | 0.62              |
| 1:TA:62:ALA:HB2  | 1:TA:106:GLU:HB2 | 1.81                     | 0.62              |
| 1:UA:62:ALA:HB2  | 1:UA:106:GLU:HB2 | 1.81                     | 0.62              |
| 1:GB:392:ASP:O   | 1:GB:396:GLY:N   | 2.29                     | 0.62              |
| 1:MB:479:ARG:NH1 | 1:MB:493:GLU:OE2 | 2.32                     | 0.62              |
| 1:OB:479:ARG:NH1 | 1:OB:493:GLU:OE2 | 2.32                     | 0.62              |
| 1:SB:19:LEU:HD12 | 1:SB:44:LEU:HD21 | 1.81                     | 0.62              |
| 1:ZB:392:ASP:O   | 1:ZB:396:GLY:N   | 2.29                     | 0.62              |
| 1:A:233:GLN:OE1  | 1:NB:170:GLN:HB3 | 1.98                     | 0.62              |
| 1:H:16:ILE:HD12  | 1:H:43:VAL:HG23  | 1.81                     | 0.62              |
| 1:I:19:LEU:HD12  | 1:I:44:LEU:HD21  | 1.81                     | 0.62              |
| 1:T:16:ILE:HD12  | 1:T:43:VAL:HG23  | 1.82                     | 0.62              |
| 1:EA:62:ALA:HB2  | 1:EA:106:GLU:HB2 | 1.81                     | 0.62              |
| 1:EA:479:ARG:NH1 | 1:EA:493:GLU:OE2 | 2.32                     | 0.62              |
| 1:MA:62:ALA:HB2  | 1:MA:106:GLU:HB2 | 1.81                     | 0.62              |
| 1:FB:479:ARG:NH1 | 1:FB:493:GLU:OE2 | 2.32                     | 0.62              |
| 1:KB:16:ILE:HD12 | 1:KB:43:VAL:HG23 | 1.82                     | 0.62              |
| 1:LB:16:ILE:HD12 | 1:LB:43:VAL:HG23 | 1.81                     | 0.62              |
| 1:PB:19:LEU:HD12 | 1:PB:44:LEU:HD21 | 1.81                     | 0.62              |
| 1:PB:479:ARG:NH1 | 1:PB:493:GLU:OE2 | 2.32                     | 0.62              |
| 1:QB:19:LEU:HD12 | 1:QB:44:LEU:HD21 | 1.81                     | 0.62              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:B:9:ARG:HH21    | 1:D:24:ASN:CG    | 2.03                     | 0.62              |
| 1:B:16:ILE:HD12   | 1:B:43:VAL:HG23  | 1.81                     | 0.62              |
| 1:C:16:ILE:HD12   | 1:C:43:VAL:HG23  | 1.82                     | 0.62              |
| 1:E:392:ASP:O     | 1:E:396:GLY:N    | 2.29                     | 0.62              |
| 1:E:479:ARG:NH1   | 1:E:493:GLU:OE2  | 2.32                     | 0.62              |
| 1:F:16:ILE:HD12   | 1:F:43:VAL:HG23  | 1.82                     | 0.62              |
| 1:L:392:ASP:O     | 1:L:396:GLY:N    | 2.29                     | 0.62              |
| 1:M:392:ASP:O     | 1:M:396:GLY:N    | 2.29                     | 0.62              |
| 1:O:62:ALA:HB2    | 1:O:106:GLU:HB2  | 1.81                     | 0.62              |
| 1:Q:62:ALA:HB2    | 1:Q:106:GLU:HB2  | 1.81                     | 0.62              |
| 1:T:19:LEU:HD12   | 1:T:44:LEU:HD21  | 1.81                     | 0.62              |
| 1:W:16:ILE:HD12   | 1:W:43:VAL:HG23  | 1.82                     | 0.62              |
| 1:AA:16:ILE:HD12  | 1:AA:43:VAL:HG23 | 1.82                     | 0.62              |
| 1:AA:62:ALA:HB2   | 1:AA:106:GLU:HB2 | 1.82                     | 0.62              |
| 1:SA:184:ASP:OD1  | 1:SA:188:LYS:N   | 2.31                     | 0.62              |
| 1:WA:479:ARG:NH1  | 1:WA:493:GLU:OE2 | 2.32                     | 0.62              |
| 1:ZA:479:ARG:NH1  | 1:ZA:493:GLU:OE2 | 2.32                     | 0.62              |
| 1:AB:382:LEU:HD13 | 1:AB:387:GLY:HA2 | 1.82                     | 0.62              |
| 1:BB:757:ALA:CB   | 1:CB:748:ALA:HB1 | 2.30                     | 0.62              |
| 1:CB:382:LEU:HD13 | 1:CB:387:GLY:HA2 | 1.82                     | 0.62              |
| 1:IB:16:ILE:HD12  | 1:IB:43:VAL:HG23 | 1.82                     | 0.62              |
| 1:PB:62:ALA:HB2   | 1:PB:106:GLU:HB2 | 1.81                     | 0.62              |
| 1:D:16:ILE:HD12   | 1:D:43:VAL:HG23  | 1.81                     | 0.62              |
| 1:G:16:ILE:HD12   | 1:G:43:VAL:HG23  | 1.82                     | 0.62              |
| 1:K:19:LEU:HD12   | 1:K:44:LEU:HD21  | 1.81                     | 0.62              |
| 1:M:19:LEU:HD12   | 1:M:44:LEU:HD21  | 1.81                     | 0.62              |
| 1:P:392:ASP:O     | 1:P:396:GLY:N    | 2.29                     | 0.62              |
| 1:R:479:ARG:NH1   | 1:R:493:GLU:OE2  | 2.32                     | 0.62              |
| 1:V:592:HIS:CD2   | 1:X:534:HIS:CD2  | 2.87                     | 0.62              |
| 1:W:19:LEU:HD12   | 1:W:44:LEU:HD21  | 1.81                     | 0.62              |
| 1:Y:19:LEU:HD12   | 1:Y:44:LEU:HD21  | 1.81                     | 0.62              |
| 1:Y:62:ALA:HB2    | 1:Y:106:GLU:HB2  | 1.81                     | 0.62              |
| 1:CA:16:ILE:HD12  | 1:CA:43:VAL:HG23 | 1.82                     | 0.62              |
| 1:LA:382:LEU:HD13 | 1:LA:387:GLY:HA2 | 1.82                     | 0.62              |
| 1:PA:382:LEU:HD13 | 1:PA:387:GLY:HA2 | 1.82                     | 0.62              |
| 1:RA:19:LEU:HD12  | 1:RA:44:LEU:HD21 | 1.81                     | 0.62              |
| 1:SA:27:ARG:NH1   | 1:SA:28:VAL:O    | 2.33                     | 0.62              |
| 1:VA:62:ALA:HB2   | 1:VA:106:GLU:HB2 | 1.81                     | 0.62              |
| 1:WA:382:LEU:HD13 | 1:WA:387:GLY:HA2 | 1.82                     | 0.62              |
| 1:ZA:382:LEU:HD13 | 1:ZA:387:GLY:HA2 | 1.82                     | 0.62              |
| 1:JB:479:ARG:NH1  | 1:JB:493:GLU:OE2 | 2.32                     | 0.62              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:NB:16:ILE:HD12  | 1:NB:43:VAL:HG23 | 1.82                     | 0.62              |
| 1:QB:62:ALA:HB2   | 1:QB:106:GLU:HB2 | 1.81                     | 0.62              |
| 1:RB:19:LEU:HD12  | 1:RB:44:LEU:HD21 | 1.81                     | 0.62              |
| 1:RB:62:ALA:HB2   | 1:RB:106:GLU:HB2 | 1.81                     | 0.62              |
| 1:TB:479:ARG:NH1  | 1:TB:493:GLU:OE2 | 2.32                     | 0.62              |
| 1:UB:790:VAL:CG2  | 1:VB:788:ALA:CB  | 2.78                     | 0.62              |
| 1:VB:724:ALA:CB   | 1:WB:715:ALA:HA  | 2.30                     | 0.62              |
| 1:C:392:ASP:O     | 1:C:396:GLY:N    | 2.29                     | 0.62              |
| 1:G:184:ASP:OD1   | 1:G:188:LYS:N    | 2.31                     | 0.62              |
| 1:M:62:ALA:HB2    | 1:M:106:GLU:HB2  | 1.81                     | 0.62              |
| 1:O:16:ILE:HD12   | 1:O:43:VAL:HG23  | 1.82                     | 0.62              |
| 1:S:27:ARG:NH1    | 1:S:28:VAL:O     | 2.33                     | 0.62              |
| 1:V:16:ILE:HD12   | 1:V:43:VAL:HG23  | 1.82                     | 0.62              |
| 1:W:184:ASP:OD1   | 1:W:188:LYS:N    | 2.31                     | 0.62              |
| 1:DA:27:ARG:NH1   | 1:DA:28:VAL:O    | 2.33                     | 0.62              |
| 1:EA:16:ILE:HD12  | 1:EA:43:VAL:HG23 | 1.82                     | 0.62              |
| 1:FA:27:ARG:NH1   | 1:FA:28:VAL:O    | 2.33                     | 0.62              |
| 1:GA:16:ILE:HD12  | 1:GA:43:VAL:HG23 | 1.81                     | 0.62              |
| 1:HA:382:LEU:HD13 | 1:HA:387:GLY:HA2 | 1.82                     | 0.62              |
| 1:IA:27:ARG:NH1   | 1:IA:28:VAL:O    | 2.33                     | 0.62              |
| 1:JA:382:LEU:HD13 | 1:JA:387:GLY:HA2 | 1.82                     | 0.62              |
| 1:NA:382:LEU:HD13 | 1:NA:387:GLY:HA2 | 1.82                     | 0.62              |
| 1:PA:62:ALA:HB2   | 1:PA:106:GLU:HB2 | 1.81                     | 0.62              |
| 1:QA:19:LEU:HD12  | 1:QA:44:LEU:HD21 | 1.81                     | 0.62              |
| 1:QA:27:ARG:NH1   | 1:QA:28:VAL:O    | 2.33                     | 0.62              |
| 1:RA:382:LEU:HD13 | 1:RA:387:GLY:HA2 | 1.82                     | 0.62              |
| 1:TA:19:LEU:HD12  | 1:TA:44:LEU:HD21 | 1.81                     | 0.62              |
| 1:UA:479:ARG:NH1  | 1:UA:493:GLU:OE2 | 2.32                     | 0.62              |
| 1:VA:19:LEU:HD12  | 1:VA:44:LEU:HD21 | 1.81                     | 0.62              |
| 1:WA:60:ILE:HD13  | 1:WA:107:LYS:HD3 | 1.82                     | 0.62              |
| 1:YA:382:LEU:HD13 | 1:YA:387:GLY:HA2 | 1.82                     | 0.62              |
| 1:BB:382:LEU:HD13 | 1:BB:387:GLY:HA2 | 1.82                     | 0.62              |
| 1:OB:62:ALA:HB2   | 1:OB:106:GLU:HB2 | 1.81                     | 0.62              |
| 1:OB:382:LEU:HD13 | 1:OB:387:GLY:HA2 | 1.82                     | 0.62              |
| 1:RB:382:LEU:HD13 | 1:RB:387:GLY:HA2 | 1.82                     | 0.62              |
| 1:TB:382:LEU:HD13 | 1:TB:387:GLY:HA2 | 1.82                     | 0.62              |
| 1:D:392:ASP:O     | 1:D:396:GLY:N    | 2.29                     | 0.61              |
| 1:D:479:ARG:NH1   | 1:D:493:GLU:OE2  | 2.32                     | 0.61              |
| 1:F:392:ASP:O     | 1:F:396:GLY:N    | 2.29                     | 0.61              |
| 1:P:27:ARG:NH1    | 1:P:28:VAL:O     | 2.33                     | 0.61              |
| 1:R:27:ARG:NH1    | 1:R:28:VAL:O     | 2.33                     | 0.61              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:S:16:ILE:HD12   | 1:S:43:VAL:HG23  | 1.82                     | 0.61              |
| 1:T:62:ALA:HB2    | 1:T:106:GLU:HB2  | 1.81                     | 0.61              |
| 1:Z:27:ARG:NH1    | 1:Z:28:VAL:O     | 2.33                     | 0.61              |
| 1:BA:27:ARG:NH1   | 1:BA:28:VAL:O    | 2.33                     | 0.61              |
| 1:BA:60:ILE:HD13  | 1:BA:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:DA:19:LEU:HD12  | 1:DA:44:LEU:HD21 | 1.81                     | 0.61              |
| 1:DA:60:ILE:HD13  | 1:DA:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:HA:27:ARG:NH1   | 1:HA:28:VAL:O    | 2.33                     | 0.61              |
| 1:OA:27:ARG:NH1   | 1:OA:28:VAL:O    | 2.33                     | 0.61              |
| 1:QA:60:ILE:HD13  | 1:QA:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:RA:479:ARG:NH1  | 1:RA:493:GLU:OE2 | 2.32                     | 0.61              |
| 1:TA:16:ILE:HD12  | 1:TA:43:VAL:HG23 | 1.81                     | 0.61              |
| 1:UA:27:ARG:NH1   | 1:UA:28:VAL:O    | 2.33                     | 0.61              |
| 1:VA:382:LEU:HD13 | 1:VA:387:GLY:HA2 | 1.82                     | 0.61              |
| 1:XA:382:LEU:HD13 | 1:XA:387:GLY:HA2 | 1.82                     | 0.61              |
| 1:DB:382:LEU:HD13 | 1:DB:387:GLY:HA2 | 1.82                     | 0.61              |
| 1:EB:382:LEU:HD13 | 1:EB:387:GLY:HA2 | 1.82                     | 0.61              |
| 1:FB:60:ILE:HD13  | 1:FB:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:GB:60:ILE:HD13  | 1:GB:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:HB:392:ASP:O    | 1:HB:396:GLY:N   | 2.29                     | 0.61              |
| 1:IB:9:ARG:NH2    | 1:JB:24:ASN:ND2  | 2.42                     | 0.61              |
| 1:JB:16:ILE:HD12  | 1:JB:43:VAL:HG23 | 1.81                     | 0.61              |
| 1:JB:60:ILE:HD13  | 1:JB:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:JB:62:ALA:HB2   | 1:JB:106:GLU:HB2 | 1.81                     | 0.61              |
| 1:NB:392:ASP:O    | 1:NB:396:GLY:N   | 2.29                     | 0.61              |
| 1:OB:19:LEU:HD12  | 1:OB:44:LEU:HD21 | 1.81                     | 0.61              |
| 1:OB:60:ILE:HD13  | 1:OB:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:PB:60:ILE:HD13  | 1:PB:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:PB:170:GLN:HB3  | 1:QB:233:GLN:OE1 | 2.00                     | 0.61              |
| 1:PB:382:LEU:HD13 | 1:PB:387:GLY:HA2 | 1.82                     | 0.61              |
| 1:UB:382:LEU:HD13 | 1:UB:387:GLY:HA2 | 1.82                     | 0.61              |
| 1:VB:382:LEU:HD13 | 1:VB:387:GLY:HA2 | 1.82                     | 0.61              |
| 1:WB:382:LEU:HD13 | 1:WB:387:GLY:HA2 | 1.82                     | 0.61              |
| 1:YB:60:ILE:HD13  | 1:YB:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:ZB:60:ILE:HD13  | 1:ZB:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:AC:16:ILE:HD12  | 1:AC:43:VAL:HG23 | 1.82                     | 0.61              |
| 1:B:60:ILE:HD13   | 1:B:107:LYS:HD3  | 1.82                     | 0.61              |
| 1:D:60:ILE:HD13   | 1:D:107:LYS:HD3  | 1.83                     | 0.61              |
| 1:E:9:ARG:HH21    | 1:G:24:ASN:CG    | 2.04                     | 0.61              |
| 1:N:27:ARG:NH1    | 1:N:28:VAL:O     | 2.33                     | 0.61              |
| 1:O:19:LEU:HD12   | 1:O:44:LEU:HD21  | 1.81                     | 0.61              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:Q:27:ARG:NH1    | 1:Q:28:VAL:O      | 2.33                     | 0.61              |
| 1:T:27:ARG:NH1    | 1:T:28:VAL:O      | 2.33                     | 0.61              |
| 1:V:27:ARG:NH1    | 1:V:28:VAL:O      | 2.33                     | 0.61              |
| 1:W:170:GLN:HB3   | 1:Y:233:GLN:OE1   | 2.00                     | 0.61              |
| 1:X:19:LEU:HD12   | 1:X:44:LEU:HD21   | 1.81                     | 0.61              |
| 1:X:27:ARG:NH1    | 1:X:28:VAL:O      | 2.33                     | 0.61              |
| 1:Z:479:ARG:NH1   | 1:Z:493:GLU:OE2   | 2.32                     | 0.61              |
| 1:AA:19:LEU:HD12  | 1:AA:44:LEU:HD21  | 1.81                     | 0.61              |
| 1:DA:68:ASP:HB2   | 1:DA:74:LEU:HD21  | 1.83                     | 0.61              |
| 1:GA:27:ARG:NH1   | 1:GA:28:VAL:O     | 2.33                     | 0.61              |
| 1:GA:761:ARG:HG2  | 1:IA:755:THR:HG21 | 1.82                     | 0.61              |
| 1:HA:68:ASP:HB2   | 1:HA:74:LEU:HD21  | 1.83                     | 0.61              |
| 1:HA:479:ARG:NH1  | 1:HA:493:GLU:OE2  | 2.32                     | 0.61              |
| 1:JA:60:ILE:HD13  | 1:JA:107:LYS:HD3  | 1.83                     | 0.61              |
| 1:KA:19:LEU:HD12  | 1:KA:44:LEU:HD21  | 1.81                     | 0.61              |
| 1:KA:27:ARG:NH1   | 1:KA:28:VAL:O     | 2.33                     | 0.61              |
| 1:OA:60:ILE:HD13  | 1:OA:107:LYS:HD3  | 1.82                     | 0.61              |
| 1:PA:60:ILE:HD13  | 1:PA:107:LYS:HD3  | 1.82                     | 0.61              |
| 1:QA:68:ASP:HB2   | 1:QA:74:LEU:HD21  | 1.83                     | 0.61              |
| 1:RA:60:ILE:HD13  | 1:RA:107:LYS:HD3  | 1.82                     | 0.61              |
| 1:TA:382:LEU:HD13 | 1:TA:387:GLY:HA2  | 1.82                     | 0.61              |
| 1:UA:68:ASP:HB2   | 1:UA:74:LEU:HD21  | 1.83                     | 0.61              |
| 1:ZA:62:ALA:HB2   | 1:ZA:106:GLU:HB2  | 1.81                     | 0.61              |
| 1:ZA:68:ASP:HB2   | 1:ZA:74:LEU:HD21  | 1.83                     | 0.61              |
| 1:AB:257:GLU:HG2  | 1:OB:244:ARG:HB3  | 1.82                     | 0.61              |
| 1:BB:62:ALA:HB2   | 1:BB:106:GLU:HB2  | 1.81                     | 0.61              |
| 1:IB:60:ILE:HD13  | 1:IB:107:LYS:HD3  | 1.82                     | 0.61              |
| 1:MB:203:ALA:HB2  | 1:NB:192:THR:HB   | 1.81                     | 0.61              |
| 1:MB:392:ASP:O    | 1:MB:396:GLY:N    | 2.29                     | 0.61              |
| 1:NB:27:ARG:NH1   | 1:NB:28:VAL:O     | 2.33                     | 0.61              |
| 1:QB:382:LEU:HD13 | 1:QB:387:GLY:HA2  | 1.82                     | 0.61              |
| 1:SB:62:ALA:HB2   | 1:SB:106:GLU:HB2  | 1.81                     | 0.61              |
| 1:TB:62:ALA:HB2   | 1:TB:106:GLU:HB2  | 1.81                     | 0.61              |
| 1:TB:68:ASP:HB2   | 1:TB:74:LEU:HD21  | 1.83                     | 0.61              |
| 1:UB:62:ALA:HB2   | 1:UB:106:GLU:HB2  | 1.81                     | 0.61              |
| 1:VB:60:ILE:HD13  | 1:VB:107:LYS:HD3  | 1.82                     | 0.61              |
| 1:A:27:ARG:NH1    | 1:A:28:VAL:O      | 2.33                     | 0.61              |
| 1:D:62:ALA:HB2    | 1:D:106:GLU:HB2   | 1.81                     | 0.61              |
| 1:J:60:ILE:HD13   | 1:J:107:LYS:HD3   | 1.82                     | 0.61              |
| 1:L:27:ARG:NH1    | 1:L:28:VAL:O      | 2.33                     | 0.61              |
| 1:X:60:ILE:HD13   | 1:X:107:LYS:HD3   | 1.82                     | 0.61              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:Z:10:ILE:O      | 1:BA:24:ASN:ND2  | 2.34                     | 0.61              |
| 1:HA:60:ILE:HD13  | 1:HA:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:IA:16:ILE:HD12  | 1:IA:43:VAL:HG23 | 1.82                     | 0.61              |
| 1:IA:19:LEU:HD12  | 1:IA:44:LEU:HD21 | 1.81                     | 0.61              |
| 1:JA:27:ARG:NH1   | 1:JA:28:VAL:O    | 2.33                     | 0.61              |
| 1:LA:60:ILE:HD13  | 1:LA:107:LYS:HD3 | 1.83                     | 0.61              |
| 1:MA:27:ARG:NH1   | 1:MA:28:VAL:O    | 2.33                     | 0.61              |
| 1:PA:19:LEU:HD12  | 1:PA:44:LEU:HD21 | 1.81                     | 0.61              |
| 1:UA:60:ILE:HD13  | 1:UA:107:LYS:HD3 | 1.83                     | 0.61              |
| 1:UA:382:LEU:HD13 | 1:UA:387:GLY:HA2 | 1.82                     | 0.61              |
| 1:VA:68:ASP:HB2   | 1:VA:74:LEU:HD21 | 1.83                     | 0.61              |
| 1:WA:27:ARG:NH1   | 1:WA:28:VAL:O    | 2.33                     | 0.61              |
| 1:XA:16:ILE:HD12  | 1:XA:43:VAL:HG23 | 1.82                     | 0.61              |
| 1:XA:60:ILE:HD13  | 1:XA:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:XA:62:ALA:HB2   | 1:XA:106:GLU:HB2 | 1.81                     | 0.61              |
| 1:YA:60:ILE:HD13  | 1:YA:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:CB:60:ILE:HD13  | 1:CB:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:CB:68:ASP:HB2   | 1:CB:74:LEU:HD21 | 1.83                     | 0.61              |
| 1:FB:392:ASP:O    | 1:FB:396:GLY:N   | 2.29                     | 0.61              |
| 1:GB:16:ILE:HD12  | 1:GB:43:VAL:HG23 | 1.81                     | 0.61              |
| 1:HB:16:ILE:HD12  | 1:HB:43:VAL:HG23 | 1.82                     | 0.61              |
| 1:JB:9:ARG:HH21   | 1:KB:24:ASN:ND2  | 1.98                     | 0.61              |
| 1:KB:60:ILE:HD13  | 1:KB:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:MB:60:ILE:HD13  | 1:MB:107:LYS:HD3 | 1.83                     | 0.61              |
| 1:RB:68:ASP:HB2   | 1:RB:74:LEU:HD21 | 1.83                     | 0.61              |
| 1:SB:16:ILE:HD12  | 1:SB:43:VAL:HG23 | 1.82                     | 0.61              |
| 1:SB:60:ILE:HD13  | 1:SB:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:SB:382:LEU:HD13 | 1:SB:387:GLY:HA2 | 1.82                     | 0.61              |
| 1:WB:60:ILE:HD13  | 1:WB:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:XB:382:LEU:HD13 | 1:XB:387:GLY:HA2 | 1.82                     | 0.61              |
| 1:ZB:16:ILE:HD12  | 1:ZB:43:VAL:HG23 | 1.81                     | 0.61              |
| 1:C:27:ARG:NH1    | 1:C:28:VAL:O     | 2.33                     | 0.61              |
| 1:E:27:ARG:NH1    | 1:E:28:VAL:O     | 2.33                     | 0.61              |
| 1:F:60:ILE:HD13   | 1:F:107:LYS:HD3  | 1.82                     | 0.61              |
| 1:L:60:ILE:HD13   | 1:L:107:LYS:HD3  | 1.82                     | 0.61              |
| 1:P:375:GLU:OE2   | 1:P:377:ARG:NE   | 2.34                     | 0.61              |
| 1:R:62:ALA:HB2    | 1:R:106:GLU:HB2  | 1.81                     | 0.61              |
| 1:W:27:ARG:NH1    | 1:W:28:VAL:O     | 2.33                     | 0.61              |
| 1:Z:68:ASP:HB2    | 1:Z:74:LEU:HD21  | 1.83                     | 0.61              |
| 1:BA:19:LEU:HD12  | 1:BA:44:LEU:HD21 | 1.81                     | 0.61              |
| 1:FA:60:ILE:HD13  | 1:FA:107:LYS:HD3 | 1.83                     | 0.61              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:FA:382:LEU:HD13 | 1:FA:387:GLY:HA2 | 1.82                     | 0.61              |
| 1:IA:12:PRO:HG3   | 1:KA:24:ASN:O    | 2.00                     | 0.61              |
| 1:IA:60:ILE:HD13  | 1:IA:107:LYS:HD3 | 1.83                     | 0.61              |
| 1:JA:19:LEU:HD12  | 1:JA:44:LEU:HD21 | 1.81                     | 0.61              |
| 1:LA:16:ILE:HD12  | 1:LA:43:VAL:HG23 | 1.82                     | 0.61              |
| 1:LA:68:ASP:HB2   | 1:LA:74:LEU:HD21 | 1.83                     | 0.61              |
| 1:PA:16:ILE:HD12  | 1:PA:43:VAL:HG23 | 1.82                     | 0.61              |
| 1:RA:68:ASP:HB2   | 1:RA:74:LEU:HD21 | 1.83                     | 0.61              |
| 1:SA:382:LEU:HD13 | 1:SA:387:GLY:HA2 | 1.82                     | 0.61              |
| 1:BB:16:ILE:HD12  | 1:BB:43:VAL:HG23 | 1.81                     | 0.61              |
| 1:FB:382:LEU:HD13 | 1:FB:387:GLY:HA2 | 1.82                     | 0.61              |
| 1:NB:60:ILE:HD13  | 1:NB:107:LYS:HD3 | 1.83                     | 0.61              |
| 1:QB:60:ILE:HD13  | 1:QB:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:RB:60:ILE:HD13  | 1:RB:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:VB:68:ASP:HB2   | 1:VB:74:LEU:HD21 | 1.83                     | 0.61              |
| 1:ZB:486:LEU:HB2  | 1:AC:473:TYR:HB3 | 1.82                     | 0.61              |
| 1:AC:62:ALA:HB2   | 1:AC:106:GLU:HB2 | 1.81                     | 0.61              |
| 1:AC:392:ASP:O    | 1:AC:396:GLY:N   | 2.29                     | 0.61              |
| 1:A:60:ILE:HD13   | 1:A:107:LYS:HD3  | 1.82                     | 0.61              |
| 1:E:60:ILE:HD13   | 1:E:107:LYS:HD3  | 1.82                     | 0.61              |
| 1:G:27:ARG:NH1    | 1:G:28:VAL:O     | 2.33                     | 0.61              |
| 1:G:60:ILE:HD13   | 1:G:107:LYS:HD3  | 1.82                     | 0.61              |
| 1:H:375:GLU:OE2   | 1:H:377:ARG:NE   | 2.34                     | 0.61              |
| 1:J:27:ARG:NH1    | 1:J:28:VAL:O     | 2.33                     | 0.61              |
| 1:J:392:ASP:O     | 1:J:396:GLY:N    | 2.29                     | 0.61              |
| 1:K:62:ALA:HB2    | 1:K:106:GLU:HB2  | 1.81                     | 0.61              |
| 1:L:375:GLU:OE2   | 1:L:377:ARG:NE   | 2.34                     | 0.61              |
| 1:O:27:ARG:NH1    | 1:O:28:VAL:O     | 2.33                     | 0.61              |
| 1:P:60:ILE:HD13   | 1:P:107:LYS:HD3  | 1.82                     | 0.61              |
| 1:R:60:ILE:HD13   | 1:R:107:LYS:HD3  | 1.83                     | 0.61              |
| 1:V:19:LEU:HD12   | 1:V:44:LEU:HD21  | 1.81                     | 0.61              |
| 1:V:60:ILE:HD13   | 1:V:107:LYS:HD3  | 1.82                     | 0.61              |
| 1:W:62:ALA:HB2    | 1:W:106:GLU:HB2  | 1.82                     | 0.61              |
| 1:AA:60:ILE:HD13  | 1:AA:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:GA:60:ILE:HD13  | 1:GA:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:KA:60:ILE:HD13  | 1:KA:107:LYS:HD3 | 1.83                     | 0.61              |
| 1:MA:68:ASP:HB2   | 1:MA:74:LEU:HD21 | 1.83                     | 0.61              |
| 1:MA:479:ARG:NH1  | 1:MA:493:GLU:OE2 | 2.32                     | 0.61              |
| 1:OA:19:LEU:HD12  | 1:OA:44:LEU:HD21 | 1.81                     | 0.61              |
| 1:SA:60:ILE:HD13  | 1:SA:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:UA:16:ILE:HD12  | 1:UA:43:VAL:HG23 | 1.81                     | 0.61              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:YA:16:ILE:HD12  | 1:YA:43:VAL:HG23  | 1.82                     | 0.61              |
| 1:YA:27:ARG:NH1   | 1:YA:28:VAL:O     | 2.33                     | 0.61              |
| 1:ZA:60:ILE:HD13  | 1:ZA:107:LYS:HD3  | 1.82                     | 0.61              |
| 1:AB:60:ILE:HD13  | 1:AB:107:LYS:HD3  | 1.82                     | 0.61              |
| 1:DB:60:ILE:HD13  | 1:DB:107:LYS:HD3  | 1.83                     | 0.61              |
| 1:EB:68:ASP:HB2   | 1:EB:74:LEU:HD21  | 1.83                     | 0.61              |
| 1:EB:382:LEU:O    | 1:FB:396:GLY:HA3  | 2.00                     | 0.61              |
| 1:HB:60:ILE:HD13  | 1:HB:107:LYS:HD3  | 1.82                     | 0.61              |
| 1:HB:62:ALA:HB2   | 1:HB:106:GLU:HB2  | 1.81                     | 0.61              |
| 1:JB:375:GLU:OE2  | 1:JB:377:ARG:NE   | 2.34                     | 0.61              |
| 1:JB:392:ASP:O    | 1:JB:396:GLY:N    | 2.29                     | 0.61              |
| 1:KB:392:ASP:O    | 1:KB:396:GLY:N    | 2.29                     | 0.61              |
| 1:LB:60:ILE:HD13  | 1:LB:107:LYS:HD3  | 1.82                     | 0.61              |
| 1:LB:375:GLU:OE2  | 1:LB:377:ARG:NE   | 2.34                     | 0.61              |
| 1:MB:27:ARG:NH1   | 1:MB:28:VAL:O     | 2.33                     | 0.61              |
| 1:NB:375:GLU:OE2  | 1:NB:377:ARG:NE   | 2.34                     | 0.61              |
| 1:OB:16:ILE:HD12  | 1:OB:43:VAL:HG23  | 1.81                     | 0.61              |
| 1:RB:655:GLN:HG2  | 1:SB:649:ARG:HH11 | 1.65                     | 0.61              |
| 1:UB:16:ILE:HD12  | 1:UB:43:VAL:HG23  | 1.82                     | 0.61              |
| 1:UB:60:ILE:HD13  | 1:UB:107:LYS:HD3  | 1.82                     | 0.61              |
| 1:YB:382:LEU:HD13 | 1:YB:387:GLY:HA2  | 1.82                     | 0.61              |
| 1:YB:392:ASP:O    | 1:YB:396:GLY:N    | 2.29                     | 0.61              |
| 1:ZB:658:VAL:HG12 | 1:AC:533:ASP:O    | 1.99                     | 0.61              |
| 1:C:375:GLU:OE2   | 1:C:377:ARG:NE    | 2.34                     | 0.61              |
| 1:D:375:GLU:OE2   | 1:D:377:ARG:NE    | 2.34                     | 0.61              |
| 1:G:62:ALA:HB2    | 1:G:106:GLU:HB2   | 1.81                     | 0.61              |
| 1:G:375:GLU:OE2   | 1:G:377:ARG:NE    | 2.34                     | 0.61              |
| 1:H:60:ILE:HD13   | 1:H:107:LYS:HD3   | 1.83                     | 0.61              |
| 1:I:62:ALA:HB2    | 1:I:106:GLU:HB2   | 1.81                     | 0.61              |
| 1:J:184:ASP:OD1   | 1:J:188:LYS:N     | 2.31                     | 0.61              |
| 1:Q:184:ASP:OD1   | 1:Q:188:LYS:N     | 2.31                     | 0.61              |
| 1:S:19:LEU:HD12   | 1:S:44:LEU:HD21   | 1.81                     | 0.61              |
| 1:T:375:GLU:OE2   | 1:T:377:ARG:NE    | 2.34                     | 0.61              |
| 1:T:709:LEU:HD13  | 1:W:701:LYS:HG3   | 1.82                     | 0.61              |
| 1:Y:27:ARG:NH1    | 1:Y:28:VAL:O      | 2.33                     | 0.61              |
| 1:Y:60:ILE:HD13   | 1:Y:107:LYS:HD3   | 1.82                     | 0.61              |
| 1:DA:382:LEU:HD13 | 1:DA:387:GLY:HA2  | 1.82                     | 0.61              |
| 1:EA:27:ARG:NH1   | 1:EA:28:VAL:O     | 2.33                     | 0.61              |
| 1:IA:68:ASP:HB2   | 1:IA:74:LEU:HD21  | 1.83                     | 0.61              |
| 1:JA:375:GLU:OE2  | 1:JA:377:ARG:NE   | 2.34                     | 0.61              |
| 1:LA:19:LEU:HD12  | 1:LA:44:LEU:HD21  | 1.81                     | 0.61              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:LA:27:ARG:NH1   | 1:LA:28:VAL:O    | 2.33                     | 0.61              |
| 1:MA:60:ILE:HD13  | 1:MA:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:NA:60:ILE:HD13  | 1:NA:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:TA:60:ILE:HD13  | 1:TA:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:VA:16:ILE:HD12  | 1:VA:43:VAL:HG23 | 1.82                     | 0.61              |
| 1:WA:19:LEU:HD12  | 1:WA:44:LEU:HD21 | 1.81                     | 0.61              |
| 1:WA:375:GLU:OE2  | 1:WA:377:ARG:NE  | 2.34                     | 0.61              |
| 1:XA:184:ASP:OD1  | 1:XA:188:LYS:N   | 2.31                     | 0.61              |
| 1:YA:19:LEU:HD12  | 1:YA:44:LEU:HD21 | 1.81                     | 0.61              |
| 1:YA:68:ASP:HB2   | 1:YA:74:LEU:HD21 | 1.83                     | 0.61              |
| 1:ZA:16:ILE:HD12  | 1:ZA:43:VAL:HG23 | 1.81                     | 0.61              |
| 1:AB:68:ASP:HB2   | 1:AB:74:LEU:HD21 | 1.82                     | 0.61              |
| 1:AB:184:ASP:OD1  | 1:AB:188:LYS:N   | 2.31                     | 0.61              |
| 1:EB:60:ILE:HD13  | 1:EB:107:LYS:HD3 | 1.83                     | 0.61              |
| 1:HB:375:GLU:OE2  | 1:HB:377:ARG:NE  | 2.34                     | 0.61              |
| 1:RB:16:ILE:HD12  | 1:RB:43:VAL:HG23 | 1.81                     | 0.61              |
| 1:SB:184:ASP:OD1  | 1:SB:188:LYS:N   | 2.31                     | 0.61              |
| 1:TB:60:ILE:HD13  | 1:TB:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:UB:405:THR:HG22 | 1:VB:395:THR:HA  | 1.83                     | 0.61              |
| 1:XB:60:ILE:HD13  | 1:XB:107:LYS:HD3 | 1.82                     | 0.61              |
| 1:XB:68:ASP:HB2   | 1:XB:74:LEU:HD21 | 1.83                     | 0.61              |
| 1:YB:16:ILE:HD12  | 1:YB:43:VAL:HG23 | 1.81                     | 0.61              |
| 1:AC:60:ILE:HD13  | 1:AC:107:LYS:HD3 | 1.83                     | 0.61              |
| 1:AC:375:GLU:OE2  | 1:AC:377:ARG:NE  | 2.34                     | 0.61              |
| 1:H:27:ARG:NH1    | 1:H:28:VAL:O     | 2.33                     | 0.61              |
| 1:H:62:ALA:HB2    | 1:H:106:GLU:HB2  | 1.81                     | 0.61              |
| 1:K:375:GLU:OE2   | 1:K:377:ARG:NE   | 2.34                     | 0.61              |
| 1:M:60:ILE:HD13   | 1:M:107:LYS:HD3  | 1.82                     | 0.61              |
| 1:N:60:ILE:HD13   | 1:N:107:LYS:HD3  | 1.82                     | 0.61              |
| 1:O:60:ILE:HD13   | 1:O:107:LYS:HD3  | 1.82                     | 0.61              |
| 1:T:60:ILE:HD13   | 1:T:107:LYS:HD3  | 1.83                     | 0.61              |
| 1:X:16:ILE:HD12   | 1:X:43:VAL:HG23  | 1.81                     | 0.61              |
| 1:Y:375:GLU:OE2   | 1:Y:377:ARG:NE   | 2.34                     | 0.61              |
| 1:Z:60:ILE:HD13   | 1:Z:107:LYS:HD3  | 1.82                     | 0.61              |
| 1:CA:19:LEU:HD12  | 1:CA:44:LEU:HD21 | 1.81                     | 0.61              |
| 1:HA:16:ILE:HD12  | 1:HA:43:VAL:HG23 | 1.82                     | 0.61              |
| 1:KA:16:ILE:HD12  | 1:KA:43:VAL:HG23 | 1.81                     | 0.61              |
| 1:MA:16:ILE:HD12  | 1:MA:43:VAL:HG23 | 1.81                     | 0.61              |
| 1:NA:68:ASP:HB2   | 1:NA:74:LEU:HD21 | 1.83                     | 0.61              |
| 1:VA:60:ILE:HD13  | 1:VA:107:LYS:HD3 | 1.83                     | 0.61              |
| 1:XA:375:GLU:OE2  | 1:XA:377:ARG:NE  | 2.34                     | 0.61              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:BB:60:ILE:HD13  | 1:BB:107:LYS:HD3  | 1.83                     | 0.61              |
| 1:GB:62:ALA:HB2   | 1:GB:106:GLU:HB2  | 1.81                     | 0.61              |
| 1:LB:27:ARG:NH1   | 1:LB:28:VAL:O     | 2.33                     | 0.61              |
| 1:LB:62:ALA:HB2   | 1:LB:106:GLU:HB2  | 1.81                     | 0.61              |
| 1:MB:184:ASP:OD1  | 1:MB:188:LYS:N    | 2.31                     | 0.61              |
| 1:OB:68:ASP:HB2   | 1:OB:74:LEU:HD21  | 1.83                     | 0.61              |
| 1:PB:68:ASP:HB2   | 1:PB:74:LEU:HD21  | 1.83                     | 0.61              |
| 1:QB:16:ILE:HD12  | 1:QB:43:VAL:HG23  | 1.82                     | 0.61              |
| 1:SB:375:GLU:OE2  | 1:SB:377:ARG:NE   | 2.34                     | 0.61              |
| 1:ZB:382:LEU:HD13 | 1:ZB:387:GLY:HA2  | 1.82                     | 0.61              |
| 1:C:60:ILE:HD13   | 1:C:107:LYS:HD3   | 1.83                     | 0.61              |
| 1:I:27:ARG:NH1    | 1:I:28:VAL:O      | 2.33                     | 0.61              |
| 1:K:60:ILE:HD13   | 1:K:107:LYS:HD3   | 1.82                     | 0.61              |
| 1:N:392:ASP:O     | 1:N:396:GLY:N     | 2.29                     | 0.61              |
| 1:O:375:GLU:OE2   | 1:O:377:ARG:NE    | 2.34                     | 0.61              |
| 1:Q:19:LEU:HD12   | 1:Q:44:LEU:HD21   | 1.81                     | 0.61              |
| 1:S:60:ILE:HD13   | 1:S:107:LYS:HD3   | 1.82                     | 0.61              |
| 1:S:68:ASP:HB2    | 1:S:74:LEU:HD21   | 1.83                     | 0.61              |
| 1:Z:16:ILE:HD12   | 1:Z:43:VAL:HG23   | 1.82                     | 0.61              |
| 1:CA:68:ASP:HB2   | 1:CA:74:LEU:HD21  | 1.83                     | 0.61              |
| 1:DA:184:ASP:OD1  | 1:DA:188:LYS:N    | 2.31                     | 0.61              |
| 1:GA:68:ASP:HB2   | 1:GA:74:LEU:HD21  | 1.82                     | 0.61              |
| 1:GA:170:GLN:HB3  | 1:IA:233:GLN:OE1  | 2.01                     | 0.61              |
| 1:NA:16:ILE:HD12  | 1:NA:43:VAL:HG23  | 1.82                     | 0.61              |
| 1:NA:184:ASP:OD1  | 1:NA:188:LYS:N    | 2.31                     | 0.61              |
| 1:QA:382:LEU:HD13 | 1:QA:387:GLY:HA2  | 1.82                     | 0.61              |
| 1:RA:16:ILE:HD12  | 1:RA:43:VAL:HG23  | 1.82                     | 0.61              |
| 1:SA:375:GLU:OE2  | 1:SA:377:ARG:NE   | 2.34                     | 0.61              |
| 1:EB:62:ALA:HB2   | 1:EB:106:GLU:HB2  | 1.81                     | 0.61              |
| 1:FB:16:ILE:HD12  | 1:FB:43:VAL:HG23  | 1.82                     | 0.61              |
| 1:GB:382:LEU:HD13 | 1:GB:387:GLY:HA2  | 1.82                     | 0.61              |
| 1:LB:794:LYS:HB2  | 1:MB:788:ALA:HB1  | 1.83                     | 0.61              |
| 1:PB:16:ILE:HD12  | 1:PB:43:VAL:HG23  | 1.81                     | 0.61              |
| 1:TB:16:ILE:HD12  | 1:TB:43:VAL:HG23  | 1.81                     | 0.61              |
| 1:UB:775:ALA:CB   | 1:VB:770:LEU:HD11 | 2.31                     | 0.61              |
| 1:XB:62:ALA:HB2   | 1:XB:106:GLU:HB2  | 1.81                     | 0.61              |
| 1:ZB:62:ALA:HB2   | 1:ZB:106:GLU:HB2  | 1.81                     | 0.61              |
| 1:ZB:484:PRO:HB2  | 1:AC:471:TYR:CD2  | 2.35                     | 0.61              |
| 1:E:62:ALA:HB2    | 1:E:106:GLU:HB2   | 1.81                     | 0.61              |
| 1:G:392:ASP:O     | 1:G:396:GLY:N     | 2.29                     | 0.61              |
| 1:H:716:VAL:HG21  | 1:J:708:GLU:HG2   | 1.82                     | 0.61              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:M:382:LEU:HD13  | 1:M:387:GLY:HA2   | 1.82                     | 0.61              |
| 1:N:62:ALA:HB2    | 1:N:106:GLU:HB2   | 1.81                     | 0.61              |
| 1:Q:60:ILE:HD13   | 1:Q:107:LYS:HD3   | 1.82                     | 0.61              |
| 1:AA:27:ARG:NH1   | 1:AA:28:VAL:O     | 2.33                     | 0.61              |
| 1:CA:60:ILE:HD13  | 1:CA:107:LYS:HD3  | 1.83                     | 0.61              |
| 1:CA:375:GLU:OE2  | 1:CA:377:ARG:NE   | 2.34                     | 0.61              |
| 1:EA:19:LEU:HD12  | 1:EA:44:LEU:HD21  | 1.81                     | 0.61              |
| 1:EA:60:ILE:HD13  | 1:EA:107:LYS:HD3  | 1.83                     | 0.61              |
| 1:GA:184:ASP:OD1  | 1:GA:188:LYS:N    | 2.31                     | 0.61              |
| 1:MA:382:LEU:HD13 | 1:MA:387:GLY:HA2  | 1.82                     | 0.61              |
| 1:NA:19:LEU:HD12  | 1:NA:44:LEU:HD21  | 1.81                     | 0.61              |
| 1:PA:68:ASP:HB2   | 1:PA:74:LEU:HD21  | 1.83                     | 0.61              |
| 1:QA:702:ALA:HB2  | 1:SA:690:ARG:HH12 | 1.65                     | 0.61              |
| 1:SA:16:ILE:HD12  | 1:SA:43:VAL:HG23  | 1.81                     | 0.61              |
| 1:SA:19:LEU:HD12  | 1:SA:44:LEU:HD21  | 1.81                     | 0.61              |
| 1:WA:16:ILE:HD12  | 1:WA:43:VAL:HG23  | 1.82                     | 0.61              |
| 1:AB:16:ILE:HD12  | 1:AB:43:VAL:HG23  | 1.82                     | 0.61              |
| 1:CB:16:ILE:HD12  | 1:CB:43:VAL:HG23  | 1.81                     | 0.61              |
| 1:DB:62:ALA:HB2   | 1:DB:106:GLU:HB2  | 1.81                     | 0.61              |
| 1:KB:27:ARG:NH1   | 1:KB:28:VAL:O     | 2.33                     | 0.61              |
| 1:QB:68:ASP:HB2   | 1:QB:74:LEU:HD21  | 1.83                     | 0.61              |
| 1:VB:16:ILE:HD12  | 1:VB:43:VAL:HG23  | 1.81                     | 0.61              |
| 1:VB:62:ALA:HB2   | 1:VB:106:GLU:HB2  | 1.81                     | 0.61              |
| 1:XB:16:ILE:HD12  | 1:XB:43:VAL:HG23  | 1.82                     | 0.61              |
| 1:A:62:ALA:HB2    | 1:A:106:GLU:HB2   | 1.81                     | 0.61              |
| 1:B:24:ASN:CG     | 1:AC:9:ARG:HH21   | 2.03                     | 0.61              |
| 1:I:60:ILE:HD13   | 1:I:107:LYS:HD3   | 1.82                     | 0.61              |
| 1:I:382:LEU:HD13  | 1:I:387:GLY:HA2   | 1.82                     | 0.61              |
| 1:W:60:ILE:HD13   | 1:W:107:LYS:HD3   | 1.83                     | 0.61              |
| 1:Z:382:LEU:HD13  | 1:Z:387:GLY:HA2   | 1.82                     | 0.61              |
| 1:FA:375:GLU:OE2  | 1:FA:377:ARG:NE   | 2.34                     | 0.61              |
| 1:GA:19:LEU:HD12  | 1:GA:44:LEU:HD21  | 1.81                     | 0.61              |
| 1:JA:16:ILE:HD12  | 1:JA:43:VAL:HG23  | 1.81                     | 0.61              |
| 1:NA:27:ARG:NH1   | 1:NA:28:VAL:O     | 2.33                     | 0.61              |
| 1:AB:19:LEU:HD12  | 1:AB:44:LEU:HD21  | 1.81                     | 0.61              |
| 1:AB:27:ARG:NH1   | 1:AB:28:VAL:O     | 2.33                     | 0.61              |
| 1:CB:62:ALA:HB2   | 1:CB:106:GLU:HB2  | 1.81                     | 0.61              |
| 1:DB:16:ILE:HD12  | 1:DB:43:VAL:HG23  | 1.82                     | 0.61              |
| 1:FB:27:ARG:NH1   | 1:FB:28:VAL:O     | 2.33                     | 0.61              |
| 1:FB:375:GLU:OE2  | 1:FB:377:ARG:NE   | 2.34                     | 0.61              |
| 1:GB:68:ASP:HB2   | 1:GB:74:LEU:HD21  | 1.83                     | 0.61              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:UB:385:ASN:ND2  | 1:VB:474:ARG:HA   | 2.16                     | 0.61              |
| 1:UB:746:LEU:HD13 | 1:VB:738:GLU:N    | 2.16                     | 0.61              |
| 1:VB:709:LEU:CD1  | 1:WB:701:LYS:HE3  | 2.28                     | 0.61              |
| 1:YB:27:ARG:NH1   | 1:YB:28:VAL:O     | 2.33                     | 0.61              |
| 1:YB:185:ARG:NH2  | 1:YB:205:LEU:O    | 2.34                     | 0.61              |
| 1:YB:375:GLU:OE2  | 1:YB:377:ARG:NE   | 2.34                     | 0.61              |
| 1:C:382:LEU:HD13  | 1:C:387:GLY:HA2   | 1.82                     | 0.60              |
| 1:F:27:ARG:NH1    | 1:F:28:VAL:O      | 2.33                     | 0.60              |
| 1:G:382:LEU:HD13  | 1:G:387:GLY:HA2   | 1.82                     | 0.60              |
| 1:J:62:ALA:HB2    | 1:J:106:GLU:HB2   | 1.81                     | 0.60              |
| 1:J:170:GLN:HB3   | 1:L:233:GLN:OE1   | 2.00                     | 0.60              |
| 1:L:62:ALA:HB2    | 1:L:106:GLU:HB2   | 1.81                     | 0.60              |
| 1:M:27:ARG:NH1    | 1:M:28:VAL:O      | 2.33                     | 0.60              |
| 1:M:375:GLU:OE2   | 1:M:377:ARG:NE    | 2.34                     | 0.60              |
| 1:P:62:ALA:HB2    | 1:P:106:GLU:HB2   | 1.81                     | 0.60              |
| 1:R:384:GLN:HB2   | 1:T:474:ARG:HG3   | 1.83                     | 0.60              |
| 1:V:68:ASP:HB2    | 1:V:74:LEU:HD21   | 1.83                     | 0.60              |
| 1:X:68:ASP:HB2    | 1:X:74:LEU:HD21   | 1.83                     | 0.60              |
| 1:Y:68:ASP:HB2    | 1:Y:74:LEU:HD21   | 1.83                     | 0.60              |
| 1:BA:382:LEU:HD13 | 1:BA:387:GLY:HA2  | 1.82                     | 0.60              |
| 1:CA:27:ARG:NH1   | 1:CA:28:VAL:O     | 2.33                     | 0.60              |
| 1:DA:16:ILE:HD12  | 1:DA:43:VAL:HG23  | 1.82                     | 0.60              |
| 1:FA:16:ILE:HD12  | 1:FA:43:VAL:HG23  | 1.81                     | 0.60              |
| 1:FA:19:LEU:HD12  | 1:FA:44:LEU:HD21  | 1.81                     | 0.60              |
| 1:HA:19:LEU:HD12  | 1:HA:44:LEU:HD21  | 1.81                     | 0.60              |
| 1:KA:382:LEU:HD13 | 1:KA:387:GLY:HA2  | 1.82                     | 0.60              |
| 1:NA:170:GLN:HB3  | 1:PA:233:GLN:OE1  | 2.01                     | 0.60              |
| 1:OA:16:ILE:HD12  | 1:OA:43:VAL:HG23  | 1.81                     | 0.60              |
| 1:QA:16:ILE:HD12  | 1:QA:43:VAL:HG23  | 1.81                     | 0.60              |
| 1:QA:184:ASP:OD1  | 1:QA:188:LYS:N    | 2.31                     | 0.60              |
| 1:WA:68:ASP:HB2   | 1:WA:74:LEU:HD21  | 1.83                     | 0.60              |
| 1:DB:68:ASP:HB2   | 1:DB:74:LEU:HD21  | 1.83                     | 0.60              |
| 1:DB:761:ARG:HG2  | 1:EB:755:THR:HG21 | 1.83                     | 0.60              |
| 1:EB:16:ILE:HD12  | 1:EB:43:VAL:HG23  | 1.81                     | 0.60              |
| 1:FB:185:ARG:NH2  | 1:FB:205:LEU:O    | 2.34                     | 0.60              |
| 1:HB:68:ASP:HB2   | 1:HB:74:LEU:HD21  | 1.83                     | 0.60              |
| 1:KB:279:ARG:NH2  | 1:LB:338:GLN:OE1  | 2.34                     | 0.60              |
| 1:NB:382:LEU:HD13 | 1:NB:387:GLY:HA2  | 1.82                     | 0.60              |
| 1:RB:185:ARG:NH2  | 1:RB:205:LEU:O    | 2.34                     | 0.60              |
| 1:SB:185:ARG:NH2  | 1:SB:205:LEU:O    | 2.34                     | 0.60              |
| 1:TB:83:LEU:HD11  | 1:TB:102:GLY:HA3  | 1.84                     | 0.60              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:XB:27:ARG:NH1   | 1:XB:28:VAL:O    | 2.33                     | 0.60              |
| 1:XB:185:ARG:NH2  | 1:XB:205:LEU:O   | 2.34                     | 0.60              |
| 1:YB:68:ASP:HB2   | 1:YB:74:LEU:HD21 | 1.83                     | 0.60              |
| 1:C:62:ALA:HB2    | 1:C:106:GLU:HB2  | 1.81                     | 0.60              |
| 1:D:68:ASP:HB2    | 1:D:74:LEU:HD21  | 1.83                     | 0.60              |
| 1:I:375:GLU:OE2   | 1:I:377:ARG:NE   | 2.34                     | 0.60              |
| 1:L:382:LEU:HD13  | 1:L:387:GLY:HA2  | 1.82                     | 0.60              |
| 1:Q:375:GLU:OE2   | 1:Q:377:ARG:NE   | 2.34                     | 0.60              |
| 1:Q:382:LEU:HD13  | 1:Q:387:GLY:HA2  | 1.82                     | 0.60              |
| 1:X:382:LEU:HD13  | 1:X:387:GLY:HA2  | 1.82                     | 0.60              |
| 1:IA:34:THR:HG21  | 1:KA:21:GLN:O    | 2.01                     | 0.60              |
| 1:OA:382:LEU:HD13 | 1:OA:387:GLY:HA2 | 1.82                     | 0.60              |
| 1:RA:185:ARG:NH2  | 1:RA:205:LEU:O   | 2.34                     | 0.60              |
| 1:TA:185:ARG:NH2  | 1:TA:205:LEU:O   | 2.34                     | 0.60              |
| 1:UA:19:LEU:HD12  | 1:UA:44:LEU:HD21 | 1.81                     | 0.60              |
| 1:VA:83:LEU:HD11  | 1:VA:102:GLY:HA3 | 1.84                     | 0.60              |
| 1:VA:185:ARG:NH2  | 1:VA:205:LEU:O   | 2.34                     | 0.60              |
| 1:XA:185:ARG:NH2  | 1:XA:205:LEU:O   | 2.34                     | 0.60              |
| 1:ZA:83:LEU:HD11  | 1:ZA:102:GLY:HA3 | 1.84                     | 0.60              |
| 1:EB:27:ARG:NH1   | 1:EB:28:VAL:O    | 2.33                     | 0.60              |
| 1:EB:185:ARG:NH2  | 1:EB:205:LEU:O   | 2.34                     | 0.60              |
| 1:GB:27:ARG:NH1   | 1:GB:28:VAL:O    | 2.33                     | 0.60              |
| 1:HB:382:LEU:HD13 | 1:HB:387:GLY:HA2 | 1.82                     | 0.60              |
| 1:QB:95:ASP:HA    | 1:RB:85:HIS:HE1  | 1.61                     | 0.60              |
| 1:QB:185:ARG:NH2  | 1:QB:205:LEU:O   | 2.34                     | 0.60              |
| 1:RB:83:LEU:HD11  | 1:RB:102:GLY:HA3 | 1.84                     | 0.60              |
| 1:SB:27:ARG:NH1   | 1:SB:28:VAL:O    | 2.33                     | 0.60              |
| 1:TB:185:ARG:NH2  | 1:TB:205:LEU:O   | 2.34                     | 0.60              |
| 1:ZB:27:ARG:NH1   | 1:ZB:28:VAL:O    | 2.33                     | 0.60              |
| 1:ZB:185:ARG:NH2  | 1:ZB:205:LEU:O   | 2.34                     | 0.60              |
| 1:AC:382:LEU:HD13 | 1:AC:387:GLY:HA2 | 1.82                     | 0.60              |
| 1:E:375:GLU:OE2   | 1:E:377:ARG:NE   | 2.34                     | 0.60              |
| 1:H:382:LEU:HD13  | 1:H:387:GLY:HA2  | 1.82                     | 0.60              |
| 1:P:382:LEU:HD13  | 1:P:387:GLY:HA2  | 1.82                     | 0.60              |
| 1:S:375:GLU:OE2   | 1:S:377:ARG:NE   | 2.34                     | 0.60              |
| 1:W:382:LEU:HD13  | 1:W:387:GLY:HA2  | 1.82                     | 0.60              |
| 1:Y:170:GLN:HB3   | 1:AA:233:GLN:OE1 | 2.01                     | 0.60              |
| 1:AA:382:LEU:HD13 | 1:AA:387:GLY:HA2 | 1.82                     | 0.60              |
| 1:BA:16:ILE:HD12  | 1:BA:43:VAL:HG23 | 1.82                     | 0.60              |
| 1:GA:375:GLU:OE2  | 1:GA:377:ARG:NE  | 2.34                     | 0.60              |
| 1:IA:382:LEU:HD13 | 1:IA:387:GLY:HA2 | 1.82                     | 0.60              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:JA:68:ASP:HB2   | 1:JA:74:LEU:HD21 | 1.83                     | 0.60              |
| 1:KA:68:ASP:HB2   | 1:KA:74:LEU:HD21 | 1.83                     | 0.60              |
| 1:PA:375:GLU:OE2  | 1:PA:377:ARG:NE  | 2.34                     | 0.60              |
| 1:RA:83:LEU:HD11  | 1:RA:102:GLY:HA3 | 1.84                     | 0.60              |
| 1:TA:375:GLU:OE2  | 1:TA:377:ARG:NE  | 2.34                     | 0.60              |
| 1:XA:27:ARG:NH1   | 1:XA:28:VAL:O    | 2.33                     | 0.60              |
| 1:CB:83:LEU:HD11  | 1:CB:102:GLY:HA3 | 1.84                     | 0.60              |
| 1:EB:83:LEU:HD11  | 1:EB:102:GLY:HA3 | 1.84                     | 0.60              |
| 1:IB:62:ALA:HB2   | 1:IB:106:GLU:HB2 | 1.81                     | 0.60              |
| 1:JB:27:ARG:NH1   | 1:JB:28:VAL:O    | 2.33                     | 0.60              |
| 1:JB:68:ASP:HB2   | 1:JB:74:LEU:HD21 | 1.83                     | 0.60              |
| 1:MB:62:ALA:HB2   | 1:MB:106:GLU:HB2 | 1.81                     | 0.60              |
| 1:NB:62:ALA:HB2   | 1:NB:106:GLU:HB2 | 1.81                     | 0.60              |
| 1:OB:185:ARG:NH2  | 1:OB:205:LEU:O   | 2.34                     | 0.60              |
| 1:PB:185:ARG:NH2  | 1:PB:205:LEU:O   | 2.34                     | 0.60              |
| 1:TB:27:ARG:NH1   | 1:TB:28:VAL:O    | 2.33                     | 0.60              |
| 1:UB:170:GLN:HB3  | 1:VB:233:GLN:OE1 | 2.01                     | 0.60              |
| 1:VB:83:LEU:HD11  | 1:VB:102:GLY:HA3 | 1.84                     | 0.60              |
| 1:WB:16:ILE:HD12  | 1:WB:43:VAL:HG23 | 1.82                     | 0.60              |
| 1:WB:62:ALA:HB2   | 1:WB:106:GLU:HB2 | 1.81                     | 0.60              |
| 1:WB:184:ASP:OD1  | 1:WB:188:LYS:N   | 2.31                     | 0.60              |
| 1:XB:83:LEU:HD11  | 1:XB:102:GLY:HA3 | 1.84                     | 0.60              |
| 1:XB:184:ASP:OD1  | 1:XB:188:LYS:N   | 2.31                     | 0.60              |
| 1:ZB:68:ASP:HB2   | 1:ZB:74:LEU:HD21 | 1.83                     | 0.60              |
| 1:A:375:GLU:OE2   | 1:A:377:ARG:NE   | 2.34                     | 0.60              |
| 1:B:83:LEU:HD11   | 1:B:102:GLY:HA3  | 1.84                     | 0.60              |
| 1:E:382:LEU:HD13  | 1:E:387:GLY:HA2  | 1.82                     | 0.60              |
| 1:K:27:ARG:NH1    | 1:K:28:VAL:O     | 2.33                     | 0.60              |
| 1:K:382:LEU:HD13  | 1:K:387:GLY:HA2  | 1.82                     | 0.60              |
| 1:O:68:ASP:HB2    | 1:O:74:LEU:HD21  | 1.83                     | 0.60              |
| 1:Z:19:LEU:HD12   | 1:Z:44:LEU:HD21  | 1.81                     | 0.60              |
| 1:EA:68:ASP:HB2   | 1:EA:74:LEU:HD21 | 1.83                     | 0.60              |
| 1:EA:382:LEU:HD13 | 1:EA:387:GLY:HA2 | 1.82                     | 0.60              |
| 1:GA:382:LEU:HD13 | 1:GA:387:GLY:HA2 | 1.82                     | 0.60              |
| 1:LA:375:GLU:OE2  | 1:LA:377:ARG:NE  | 2.34                     | 0.60              |
| 1:MA:19:LEU:HD12  | 1:MA:44:LEU:HD21 | 1.81                     | 0.60              |
| 1:NA:83:LEU:HD11  | 1:NA:102:GLY:HA3 | 1.84                     | 0.60              |
| 1:OA:375:GLU:OE2  | 1:OA:377:ARG:NE  | 2.34                     | 0.60              |
| 1:PA:185:ARG:NH2  | 1:PA:205:LEU:O   | 2.34                     | 0.60              |
| 1:SA:68:ASP:HB2   | 1:SA:74:LEU:HD21 | 1.83                     | 0.60              |
| 1:TA:27:ARG:NH1   | 1:TA:28:VAL:O    | 2.33                     | 0.60              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:TA:68:ASP:HB2   | 1:TA:74:LEU:HD21  | 1.83                     | 0.60              |
| 1:VA:27:ARG:NH1   | 1:VA:28:VAL:O     | 2.33                     | 0.60              |
| 1:YA:375:GLU:OE2  | 1:YA:377:ARG:NE   | 2.34                     | 0.60              |
| 1:ZA:27:ARG:NH1   | 1:ZA:28:VAL:O     | 2.33                     | 0.60              |
| 1:ZA:185:ARG:NH2  | 1:ZA:205:LEU:O    | 2.34                     | 0.60              |
| 1:BB:27:ARG:NH1   | 1:BB:28:VAL:O     | 2.33                     | 0.60              |
| 1:EB:184:ASP:OD1  | 1:EB:188:LYS:N    | 2.31                     | 0.60              |
| 1:FB:68:ASP:HB2   | 1:FB:74:LEU:HD21  | 1.83                     | 0.60              |
| 1:FB:184:ASP:OD1  | 1:FB:188:LYS:N    | 2.31                     | 0.60              |
| 1:GB:83:LEU:HD11  | 1:GB:102:GLY:HA3  | 1.84                     | 0.60              |
| 1:GB:185:ARG:NH2  | 1:GB:205:LEU:O    | 2.34                     | 0.60              |
| 1:HB:184:ASP:OD1  | 1:HB:188:LYS:N    | 2.31                     | 0.60              |
| 1:IB:83:LEU:HD11  | 1:IB:102:GLY:HA3  | 1.83                     | 0.60              |
| 1:IB:392:ASP:O    | 1:IB:396:GLY:N    | 2.29                     | 0.60              |
| 1:LB:382:LEU:HD13 | 1:LB:387:GLY:HA2  | 1.82                     | 0.60              |
| 1:MB:9:ARG:HH21   | 1:NB:24:ASN:CG    | 2.04                     | 0.60              |
| 1:PB:27:ARG:NH1   | 1:PB:28:VAL:O     | 2.33                     | 0.60              |
| 1:PB:83:LEU:HD11  | 1:PB:102:GLY:HA3  | 1.84                     | 0.60              |
| 1:QB:27:ARG:NH1   | 1:QB:28:VAL:O     | 2.33                     | 0.60              |
| 1:SB:83:LEU:HD11  | 1:SB:102:GLY:HA3  | 1.84                     | 0.60              |
| 1:UB:27:ARG:NH1   | 1:UB:28:VAL:O     | 2.33                     | 0.60              |
| 1:UB:185:ARG:NH2  | 1:UB:205:LEU:O    | 2.34                     | 0.60              |
| 1:WB:185:ARG:NH2  | 1:WB:205:LEU:O    | 2.34                     | 0.60              |
| 1:YB:184:ASP:OD1  | 1:YB:188:LYS:N    | 2.31                     | 0.60              |
| 1:ZB:83:LEU:HD11  | 1:ZB:102:GLY:HA3  | 1.84                     | 0.60              |
| 1:AC:68:ASP:HB2   | 1:AC:74:LEU:HD21  | 1.83                     | 0.60              |
| 1:A:392:ASP:O     | 1:A:396:GLY:N     | 2.29                     | 0.60              |
| 1:D:27:ARG:NH1    | 1:D:28:VAL:O      | 2.33                     | 0.60              |
| 1:D:382:LEU:HD13  | 1:D:387:GLY:HA2   | 1.82                     | 0.60              |
| 1:E:717:GLU:HB2   | 1:G:707:LEU:HD13  | 1.82                     | 0.60              |
| 1:F:83:LEU:HD11   | 1:F:102:GLY:HA3   | 1.84                     | 0.60              |
| 1:H:68:ASP:HB2    | 1:H:74:LEU:HD21   | 1.83                     | 0.60              |
| 1:L:717:GLU:HB2   | 1:N:707:LEU:HD13  | 1.83                     | 0.60              |
| 1:N:68:ASP:HB2    | 1:N:74:LEU:HD21   | 1.83                     | 0.60              |
| 1:R:68:ASP:HB2    | 1:R:74:LEU:HD21   | 1.83                     | 0.60              |
| 1:R:382:LEU:HD13  | 1:R:387:GLY:HA2   | 1.82                     | 0.60              |
| 1:V:382:LEU:HD13  | 1:V:387:GLY:HA2   | 1.82                     | 0.60              |
| 1:V:666:THR:HG22  | 1:X:657:SER:HB2   | 1.83                     | 0.60              |
| 1:BA:375:GLU:OE2  | 1:BA:377:ARG:NE   | 2.34                     | 0.60              |
| 1:GA:717:GLU:HB2  | 1:IA:707:LEU:HD13 | 1.82                     | 0.60              |
| 1:JA:83:LEU:HD11  | 1:JA:102:GLY:HA3  | 1.84                     | 0.60              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:NA:185:ARG:NH2  | 1:NA:205:LEU:O    | 2.34                     | 0.60              |
| 1:PA:27:ARG:NH1   | 1:PA:28:VAL:O     | 2.33                     | 0.60              |
| 1:WA:83:LEU:HD11  | 1:WA:102:GLY:HA3  | 1.84                     | 0.60              |
| 1:AB:83:LEU:HD11  | 1:AB:102:GLY:HA3  | 1.84                     | 0.60              |
| 1:AB:185:ARG:NH2  | 1:AB:205:LEU:O    | 2.34                     | 0.60              |
| 1:BB:185:ARG:NH2  | 1:BB:205:LEU:O    | 2.34                     | 0.60              |
| 1:CB:27:ARG:NH1   | 1:CB:28:VAL:O     | 2.33                     | 0.60              |
| 1:FB:83:LEU:HD11  | 1:FB:102:GLY:HA3  | 1.84                     | 0.60              |
| 1:HB:83:LEU:HD11  | 1:HB:102:GLY:HA3  | 1.84                     | 0.60              |
| 1:LB:68:ASP:HB2   | 1:LB:74:LEU:HD21  | 1.83                     | 0.60              |
| 1:RB:27:ARG:NH1   | 1:RB:28:VAL:O     | 2.33                     | 0.60              |
| 1:SB:655:GLN:HG2  | 1:TB:649:ARG:HH11 | 1.67                     | 0.60              |
| 1:WB:27:ARG:NH1   | 1:WB:28:VAL:O     | 2.33                     | 0.60              |
| 1:YB:62:ALA:HB2   | 1:YB:106:GLU:HB2  | 1.81                     | 0.60              |
| 1:AC:83:LEU:HD11  | 1:AC:102:GLY:HA3  | 1.84                     | 0.60              |
| 1:B:62:ALA:HB2    | 1:B:106:GLU:HB2   | 1.81                     | 0.60              |
| 1:B:392:ASP:O     | 1:B:396:GLY:N     | 2.30                     | 0.60              |
| 1:F:62:ALA:HB2    | 1:F:106:GLU:HB2   | 1.81                     | 0.60              |
| 1:F:382:LEU:HD13  | 1:F:387:GLY:HA2   | 1.82                     | 0.60              |
| 1:S:170:GLN:HB3   | 1:V:233:GLN:OE1   | 2.01                     | 0.60              |
| 1:T:184:ASP:OD1   | 1:T:188:LYS:N     | 2.31                     | 0.60              |
| 1:V:375:GLU:OE2   | 1:V:377:ARG:NE    | 2.34                     | 0.60              |
| 1:HA:709:LEU:HD13 | 1:JA:701:LYS:HG3  | 1.81                     | 0.60              |
| 1:PA:83:LEU:HD11  | 1:PA:102:GLY:HA3  | 1.84                     | 0.60              |
| 1:UA:375:GLU:OE2  | 1:UA:377:ARG:NE   | 2.34                     | 0.60              |
| 1:XA:83:LEU:HD11  | 1:XA:102:GLY:HA3  | 1.84                     | 0.60              |
| 1:CB:185:ARG:NH2  | 1:CB:205:LEU:O    | 2.34                     | 0.60              |
| 1:DB:27:ARG:NH1   | 1:DB:28:VAL:O     | 2.33                     | 0.60              |
| 1:DB:83:LEU:HD11  | 1:DB:102:GLY:HA3  | 1.84                     | 0.60              |
| 1:DB:185:ARG:NH2  | 1:DB:205:LEU:O    | 2.34                     | 0.60              |
| 1:FB:62:ALA:HB2   | 1:FB:106:GLU:HB2  | 1.81                     | 0.60              |
| 1:HB:27:ARG:NH1   | 1:HB:28:VAL:O     | 2.33                     | 0.60              |
| 1:JB:83:LEU:HD11  | 1:JB:102:GLY:HA3  | 1.84                     | 0.60              |
| 1:JB:185:ARG:NH2  | 1:JB:205:LEU:O    | 2.34                     | 0.60              |
| 1:KB:83:LEU:HD11  | 1:KB:102:GLY:HA3  | 1.84                     | 0.60              |
| 1:LB:392:ASP:O    | 1:LB:396:GLY:N    | 2.29                     | 0.60              |
| 1:MB:279:ARG:NH2  | 1:NB:338:GLN:OE1  | 2.34                     | 0.60              |
| 1:OB:375:GLU:OE2  | 1:OB:377:ARG:NE   | 2.34                     | 0.60              |
| 1:UB:68:ASP:HB2   | 1:UB:74:LEU:HD21  | 1.83                     | 0.60              |
| 1:VB:27:ARG:NH1   | 1:VB:28:VAL:O     | 2.33                     | 0.60              |
| 1:WB:83:LEU:HD11  | 1:WB:102:GLY:HA3  | 1.84                     | 0.60              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:WB:375:GLU:OE2  | 1:WB:377:ARG:NE   | 2.34                     | 0.60              |
| 1:AC:27:ARG:NH1   | 1:AC:28:VAL:O     | 2.33                     | 0.60              |
| 1:A:68:ASP:HB2    | 1:A:74:LEU:HD21   | 1.83                     | 0.60              |
| 1:D:83:LEU:HD11   | 1:D:102:GLY:HA3   | 1.84                     | 0.60              |
| 1:D:185:ARG:NH2   | 1:D:205:LEU:O     | 2.34                     | 0.60              |
| 1:E:68:ASP:HB2    | 1:E:74:LEU:HD21   | 1.83                     | 0.60              |
| 1:H:83:LEU:HD11   | 1:H:102:GLY:HA3   | 1.84                     | 0.60              |
| 1:H:392:ASP:O     | 1:H:396:GLY:N     | 2.29                     | 0.60              |
| 1:H:790:VAL:CG2   | 1:J:785:GLN:HA    | 2.32                     | 0.60              |
| 1:J:375:GLU:OE2   | 1:J:377:ARG:NE    | 2.34                     | 0.60              |
| 1:T:68:ASP:HB2    | 1:T:74:LEU:HD21   | 1.83                     | 0.60              |
| 1:BA:68:ASP:HB2   | 1:BA:74:LEU:HD21  | 1.83                     | 0.60              |
| 1:FA:68:ASP:HB2   | 1:FA:74:LEU:HD21  | 1.83                     | 0.60              |
| 1:HA:375:GLU:OE2  | 1:HA:377:ARG:NE   | 2.34                     | 0.60              |
| 1:LA:185:ARG:NH2  | 1:LA:205:LEU:O    | 2.34                     | 0.60              |
| 1:TA:83:LEU:HD11  | 1:TA:102:GLY:HA3  | 1.84                     | 0.60              |
| 1:UA:83:LEU:HD11  | 1:UA:102:GLY:HA3  | 1.84                     | 0.60              |
| 1:XA:68:ASP:HB2   | 1:XA:74:LEU:HD21  | 1.83                     | 0.60              |
| 1:YA:83:LEU:HD11  | 1:YA:102:GLY:HA3  | 1.84                     | 0.60              |
| 1:BB:83:LEU:HD11  | 1:BB:102:GLY:HA3  | 1.84                     | 0.60              |
| 1:DB:184:ASP:OD1  | 1:DB:188:LYS:N    | 2.31                     | 0.60              |
| 1:IB:185:ARG:NH2  | 1:IB:205:LEU:O    | 2.34                     | 0.60              |
| 1:IB:220:ILE:HD12 | 1:JB:245:THR:HG22 | 1.84                     | 0.60              |
| 1:KB:62:ALA:HB2   | 1:KB:106:GLU:HB2  | 1.81                     | 0.60              |
| 1:KB:185:ARG:NH2  | 1:KB:205:LEU:O    | 2.34                     | 0.60              |
| 1:KB:375:GLU:OE2  | 1:KB:377:ARG:NE   | 2.34                     | 0.60              |
| 1:KB:382:LEU:HD13 | 1:KB:387:GLY:HA2  | 1.82                     | 0.60              |
| 1:MB:375:GLU:OE2  | 1:MB:377:ARG:NE   | 2.34                     | 0.60              |
| 1:OB:83:LEU:HD11  | 1:OB:102:GLY:HA3  | 1.84                     | 0.60              |
| 1:QB:375:GLU:OE2  | 1:QB:377:ARG:NE   | 2.34                     | 0.60              |
| 1:UB:83:LEU:HD11  | 1:UB:102:GLY:HA3  | 1.84                     | 0.60              |
| 1:WB:68:ASP:HB2   | 1:WB:74:LEU:HD21  | 1.83                     | 0.60              |
| 1:B:185:ARG:NH2   | 1:B:205:LEU:O     | 2.34                     | 0.60              |
| 1:B:382:LEU:HD13  | 1:B:387:GLY:HA2   | 1.82                     | 0.60              |
| 1:E:184:ASP:OD1   | 1:E:188:LYS:N     | 2.31                     | 0.60              |
| 1:F:185:ARG:NH2   | 1:F:205:LEU:O     | 2.34                     | 0.60              |
| 1:H:185:ARG:NH2   | 1:H:205:LEU:O     | 2.34                     | 0.60              |
| 1:J:83:LEU:HD11   | 1:J:102:GLY:HA3   | 1.84                     | 0.60              |
| 1:J:382:LEU:HD13  | 1:J:387:GLY:HA2   | 1.82                     | 0.60              |
| 1:K:68:ASP:HB2    | 1:K:74:LEU:HD21   | 1.83                     | 0.60              |
| 1:M:185:ARG:NH2   | 1:M:205:LEU:O     | 2.34                     | 0.60              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:N:382:LEU:HD13  | 1:N:387:GLY:HA2  | 1.82                     | 0.60              |
| 1:O:185:ARG:NH2   | 1:O:205:LEU:O    | 2.34                     | 0.60              |
| 1:O:382:LEU:HD13  | 1:O:387:GLY:HA2  | 1.82                     | 0.60              |
| 1:T:382:LEU:HD13  | 1:T:387:GLY:HA2  | 1.82                     | 0.60              |
| 1:W:68:ASP:HB2    | 1:W:74:LEU:HD21  | 1.83                     | 0.60              |
| 1:CA:185:ARG:NH2  | 1:CA:205:LEU:O   | 2.34                     | 0.60              |
| 1:FA:83:LEU:HD11  | 1:FA:102:GLY:HA3 | 1.84                     | 0.60              |
| 1:HA:83:LEU:HD11  | 1:HA:102:GLY:HA3 | 1.84                     | 0.60              |
| 1:LA:83:LEU:HD11  | 1:LA:102:GLY:HA3 | 1.84                     | 0.60              |
| 1:RA:27:ARG:NH1   | 1:RA:28:VAL:O    | 2.33                     | 0.60              |
| 1:YA:185:ARG:NH2  | 1:YA:205:LEU:O   | 2.34                     | 0.60              |
| 1:ZA:375:GLU:OE2  | 1:ZA:377:ARG:NE  | 2.34                     | 0.60              |
| 1:BB:68:ASP:HB2   | 1:BB:74:LEU:HD21 | 1.83                     | 0.60              |
| 1:EB:375:GLU:OE2  | 1:EB:377:ARG:NE  | 2.34                     | 0.60              |
| 1:HB:185:ARG:NH2  | 1:HB:205:LEU:O   | 2.34                     | 0.60              |
| 1:IB:27:ARG:NH1   | 1:IB:28:VAL:O    | 2.33                     | 0.60              |
| 1:IB:382:LEU:HD13 | 1:IB:387:GLY:HA2 | 1.82                     | 0.60              |
| 1:JB:184:ASP:OD1  | 1:JB:188:LYS:N   | 2.31                     | 0.60              |
| 1:JB:382:LEU:HD13 | 1:JB:387:GLY:HA2 | 1.82                     | 0.60              |
| 1:LB:83:LEU:HD11  | 1:LB:102:GLY:HA3 | 1.84                     | 0.60              |
| 1:LB:185:ARG:NH2  | 1:LB:205:LEU:O   | 2.34                     | 0.60              |
| 1:MB:185:ARG:NH2  | 1:MB:205:LEU:O   | 2.34                     | 0.60              |
| 1:MB:382:LEU:HD13 | 1:MB:387:GLY:HA2 | 1.82                     | 0.60              |
| 1:OB:27:ARG:NH1   | 1:OB:28:VAL:O    | 2.33                     | 0.60              |
| 1:QB:83:LEU:HD11  | 1:QB:102:GLY:HA3 | 1.84                     | 0.60              |
| 1:TB:375:GLU:OE2  | 1:TB:377:ARG:NE  | 2.34                     | 0.60              |
| 1:UB:325:VAL:HG21 | 1:VB:337:LEU:HA  | 1.84                     | 0.60              |
| 1:VB:185:ARG:NH2  | 1:VB:205:LEU:O   | 2.34                     | 0.60              |
| 1:XB:375:GLU:OE2  | 1:XB:377:ARG:NE  | 2.34                     | 0.60              |
| 1:YB:83:LEU:HD11  | 1:YB:102:GLY:HA3 | 1.84                     | 0.60              |
| 1:ZB:375:GLU:OE2  | 1:ZB:377:ARG:NE  | 2.34                     | 0.60              |
| 1:AC:185:ARG:NH2  | 1:AC:205:LEU:O   | 2.34                     | 0.60              |
| 1:B:27:ARG:NH1    | 1:B:28:VAL:O     | 2.33                     | 0.60              |
| 1:B:375:GLU:OE2   | 1:B:377:ARG:NE   | 2.34                     | 0.60              |
| 1:F:375:GLU:OE2   | 1:F:377:ARG:NE   | 2.34                     | 0.60              |
| 1:I:68:ASP:HB2    | 1:I:74:LEU:HD21  | 1.83                     | 0.60              |
| 1:J:185:ARG:NH2   | 1:J:205:LEU:O    | 2.34                     | 0.60              |
| 1:K:185:ARG:NH2   | 1:K:205:LEU:O    | 2.34                     | 0.60              |
| 1:N:375:GLU:OE2   | 1:N:377:ARG:NE   | 2.34                     | 0.60              |
| 1:S:382:LEU:HD13  | 1:S:387:GLY:HA2  | 1.82                     | 0.60              |
| 1:W:375:GLU:OE2   | 1:W:377:ARG:NE   | 2.34                     | 0.60              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:AA:375:GLU:OE2  | 1:AA:377:ARG:NE  | 2.34                     | 0.60              |
| 1:EA:185:ARG:NH2  | 1:EA:205:LEU:O   | 2.34                     | 0.60              |
| 1:EA:375:GLU:OE2  | 1:EA:377:ARG:NE  | 2.34                     | 0.60              |
| 1:JA:185:ARG:NH2  | 1:JA:205:LEU:O   | 2.34                     | 0.60              |
| 1:SA:83:LEU:HD11  | 1:SA:102:GLY:HA3 | 1.84                     | 0.60              |
| 1:TA:170:GLN:HB3  | 1:VA:233:GLN:OE1 | 2.02                     | 0.60              |
| 1:CB:531:THR:OG1  | 1:CB:586:VAL:O   | 2.20                     | 0.60              |
| 1:FB:531:THR:OG1  | 1:FB:586:VAL:O   | 2.20                     | 0.60              |
| 1:IB:184:ASP:OD1  | 1:IB:188:LYS:N   | 2.31                     | 0.60              |
| 1:MB:83:LEU:HD11  | 1:MB:102:GLY:HA3 | 1.84                     | 0.60              |
| 1:NB:185:ARG:NH2  | 1:NB:205:LEU:O   | 2.34                     | 0.60              |
| 1:RB:375:GLU:OE2  | 1:RB:377:ARG:NE  | 2.34                     | 0.60              |
| 1:VB:375:GLU:OE2  | 1:VB:377:ARG:NE  | 2.34                     | 0.60              |
| 1:VB:709:LEU:HD13 | 1:WB:701:LYS:CG  | 2.26                     | 0.60              |
| 1:YB:531:THR:OG1  | 1:YB:586:VAL:O   | 2.20                     | 0.60              |
| 1:ZB:405:THR:HG22 | 1:AC:395:THR:HA  | 1.84                     | 0.60              |
| 1:B:184:ASP:OD1   | 1:B:188:LYS:N    | 2.31                     | 0.60              |
| 1:L:185:ARG:NH2   | 1:L:205:LEU:O    | 2.34                     | 0.60              |
| 1:N:83:LEU:HD11   | 1:N:102:GLY:HA3  | 1.84                     | 0.60              |
| 1:R:375:GLU:OE2   | 1:R:377:ARG:NE   | 2.34                     | 0.60              |
| 1:X:375:GLU:OE2   | 1:X:377:ARG:NE   | 2.34                     | 0.60              |
| 1:AA:185:ARG:NH2  | 1:AA:205:LEU:O   | 2.34                     | 0.60              |
| 1:DA:83:LEU:HD11  | 1:DA:102:GLY:HA3 | 1.83                     | 0.60              |
| 1:FA:185:ARG:NH2  | 1:FA:205:LEU:O   | 2.34                     | 0.60              |
| 1:OA:68:ASP:HB2   | 1:OA:74:LEU:HD21 | 1.83                     | 0.60              |
| 1:SA:185:ARG:NH2  | 1:SA:205:LEU:O   | 2.34                     | 0.60              |
| 1:UA:185:ARG:NH2  | 1:UA:205:LEU:O   | 2.34                     | 0.60              |
| 1:VA:375:GLU:OE2  | 1:VA:377:ARG:NE  | 2.34                     | 0.60              |
| 1:WA:170:GLN:HB3  | 1:YA:233:GLN:OE1 | 2.02                     | 0.60              |
| 1:WA:185:ARG:NH2  | 1:WA:205:LEU:O   | 2.34                     | 0.60              |
| 1:ZA:531:THR:OG1  | 1:ZA:586:VAL:O   | 2.20                     | 0.60              |
| 1:CB:375:GLU:OE2  | 1:CB:377:ARG:NE  | 2.34                     | 0.60              |
| 1:DB:375:GLU:OE2  | 1:DB:377:ARG:NE  | 2.34                     | 0.60              |
| 1:GB:375:GLU:OE2  | 1:GB:377:ARG:NE  | 2.34                     | 0.60              |
| 1:IB:68:ASP:HB2   | 1:IB:74:LEU:HD21 | 1.83                     | 0.60              |
| 1:IB:375:GLU:OE2  | 1:IB:377:ARG:NE  | 2.34                     | 0.60              |
| 1:NB:83:LEU:HD11  | 1:NB:102:GLY:HA3 | 1.84                     | 0.60              |
| 1:UB:768:MET:HE2  | 1:VB:762:VAL:CG1 | 2.32                     | 0.60              |
| 1:VB:184:ASP:OD1  | 1:VB:188:LYS:N   | 2.31                     | 0.60              |
| 1:VB:531:THR:OG1  | 1:VB:586:VAL:O   | 2.20                     | 0.60              |
| 1:VB:666:THR:HG22 | 1:WB:657:SER:HB2 | 1.84                     | 0.60              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:ZB:184:ASP:OD1  | 1:ZB:188:LYS:N    | 2.31                     | 0.60              |
| 1:AC:531:THR:OG1  | 1:AC:586:VAL:O    | 2.20                     | 0.60              |
| 1:A:83:LEU:HD11   | 1:A:102:GLY:HA3   | 1.84                     | 0.59              |
| 1:A:382:LEU:HD13  | 1:A:387:GLY:HA2   | 1.82                     | 0.59              |
| 1:B:203:ALA:HB2   | 1:D:192:THR:HB    | 1.83                     | 0.59              |
| 1:D:184:ASP:OD1   | 1:D:188:LYS:N     | 2.31                     | 0.59              |
| 1:J:68:ASP:HB2    | 1:J:74:LEU:HD21   | 1.83                     | 0.59              |
| 1:Y:382:LEU:HD13  | 1:Y:387:GLY:HA2   | 1.82                     | 0.59              |
| 1:Z:257:GLU:HG2   | 1:BA:244:ARG:HB3  | 1.84                     | 0.59              |
| 1:Z:375:GLU:OE2   | 1:Z:377:ARG:NE    | 2.34                     | 0.59              |
| 1:HA:185:ARG:NH2  | 1:HA:205:LEU:O    | 2.34                     | 0.59              |
| 1:IA:375:GLU:OE2  | 1:IA:377:ARG:NE   | 2.34                     | 0.59              |
| 1:KA:375:GLU:OE2  | 1:KA:377:ARG:NE   | 2.34                     | 0.59              |
| 1:QA:83:LEU:HD11  | 1:QA:102:GLY:HA3  | 1.84                     | 0.59              |
| 1:DB:170:GLN:HB3  | 1:EB:233:GLN:OE1  | 2.02                     | 0.59              |
| 1:GB:184:ASP:OD1  | 1:GB:188:LYS:N    | 2.31                     | 0.59              |
| 1:HB:531:THR:OG1  | 1:HB:586:VAL:O    | 2.20                     | 0.59              |
| 1:MB:68:ASP:HB2   | 1:MB:74:LEU:HD21  | 1.83                     | 0.59              |
| 1:MB:775:ALA:CB   | 1:NB:770:LEU:HD21 | 2.32                     | 0.59              |
| 1:NB:68:ASP:HB2   | 1:NB:74:LEU:HD21  | 1.83                     | 0.59              |
| 1:SB:68:ASP:HB2   | 1:SB:74:LEU:HD21  | 1.83                     | 0.59              |
| 1:TB:531:THR:OG1  | 1:TB:586:VAL:O    | 2.20                     | 0.59              |
| 1:UB:749:GLN:CD   | 1:VB:741:VAL:HG21 | 2.22                     | 0.59              |
| 1:XB:720:GLY:HA3  | 1:YB:711:ALA:HB1  | 1.83                     | 0.59              |
| 1:A:185:ARG:NH2   | 1:A:205:LEU:O     | 2.34                     | 0.59              |
| 1:C:83:LEU:HD11   | 1:C:102:GLY:HA3   | 1.84                     | 0.59              |
| 1:F:184:ASP:OD1   | 1:F:188:LYS:N     | 2.31                     | 0.59              |
| 1:H:783:LYS:HA    | 1:J:777:LEU:HD11  | 1.85                     | 0.59              |
| 1:J:55:PRO:HD3    | 1:L:86:ALA:O      | 2.02                     | 0.59              |
| 1:L:68:ASP:HB2    | 1:L:74:LEU:HD21   | 1.83                     | 0.59              |
| 1:L:83:LEU:HD11   | 1:L:102:GLY:HA3   | 1.84                     | 0.59              |
| 1:N:185:ARG:NH2   | 1:N:205:LEU:O     | 2.34                     | 0.59              |
| 1:O:184:ASP:OD1   | 1:O:188:LYS:N     | 2.31                     | 0.59              |
| 1:Q:185:ARG:NH2   | 1:Q:205:LEU:O     | 2.34                     | 0.59              |
| 1:W:185:ARG:NH2   | 1:W:205:LEU:O     | 2.34                     | 0.59              |
| 1:BA:83:LEU:HD11  | 1:BA:102:GLY:HA3  | 1.84                     | 0.59              |
| 1:CA:382:LEU:HD13 | 1:CA:387:GLY:HA2  | 1.82                     | 0.59              |
| 1:DA:375:GLU:OE2  | 1:DA:377:ARG:NE   | 2.34                     | 0.59              |
| 1:MA:83:LEU:HD11  | 1:MA:102:GLY:HA3  | 1.84                     | 0.59              |
| 1:MA:375:GLU:OE2  | 1:MA:377:ARG:NE   | 2.34                     | 0.59              |
| 1:OA:83:LEU:HD11  | 1:OA:102:GLY:HA3  | 1.84                     | 0.59              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:QA:375:GLU:OE2 | 1:QA:377:ARG:NE  | 2.34                     | 0.59              |
| 1:VA:531:THR:OG1 | 1:VA:586:VAL:O   | 2.20                     | 0.59              |
| 1:BB:801:ALA:HA  | 1:CB:796:LYS:NZ  | 2.17                     | 0.59              |
| 1:PB:375:GLU:OE2 | 1:PB:377:ARG:NE  | 2.34                     | 0.59              |
| 1:TB:184:ASP:OD1 | 1:TB:188:LYS:N   | 2.31                     | 0.59              |
| 1:A:707:LEU:HD13 | 1:NB:717:GLU:HB2 | 1.84                     | 0.59              |
| 1:B:68:ASP:HB2   | 1:B:74:LEU:HD21  | 1.83                     | 0.59              |
| 1:D:531:THR:OG1  | 1:D:586:VAL:O    | 2.20                     | 0.59              |
| 1:I:185:ARG:NH2  | 1:I:205:LEU:O    | 2.34                     | 0.59              |
| 1:M:68:ASP:HB2   | 1:M:74:LEU:HD21  | 1.83                     | 0.59              |
| 1:R:83:LEU:HD11  | 1:R:102:GLY:HA3  | 1.84                     | 0.59              |
| 1:T:185:ARG:NH2  | 1:T:205:LEU:O    | 2.34                     | 0.59              |
| 1:W:83:LEU:HD11  | 1:W:102:GLY:HA3  | 1.84                     | 0.59              |
| 1:Y:185:ARG:NH2  | 1:Y:205:LEU:O    | 2.34                     | 0.59              |
| 1:Z:83:LEU:HD11  | 1:Z:102:GLY:HA3  | 1.84                     | 0.59              |
| 1:GA:185:ARG:NH2 | 1:GA:205:LEU:O   | 2.34                     | 0.59              |
| 1:NA:10:ILE:O    | 1:PA:24:ASN:ND2  | 2.35                     | 0.59              |
| 1:NA:375:GLU:OE2 | 1:NA:377:ARG:NE  | 2.34                     | 0.59              |
| 1:VA:184:ASP:OD1 | 1:VA:188:LYS:N   | 2.31                     | 0.59              |
| 1:ZA:184:ASP:OD1 | 1:ZA:188:LYS:N   | 2.31                     | 0.59              |
| 1:KB:184:ASP:OD1 | 1:KB:188:LYS:N   | 2.31                     | 0.59              |
| 1:KB:531:THR:OG1 | 1:KB:586:VAL:O   | 2.20                     | 0.59              |
| 1:PB:531:THR:OG1 | 1:PB:586:VAL:O   | 2.20                     | 0.59              |
| 1:RB:531:THR:OG1 | 1:RB:586:VAL:O   | 2.20                     | 0.59              |
| 1:WB:531:THR:OG1 | 1:WB:586:VAL:O   | 2.20                     | 0.59              |
| 1:AC:184:ASP:OD1 | 1:AC:188:LYS:N   | 2.31                     | 0.59              |
| 1:C:185:ARG:NH2  | 1:C:205:LEU:O    | 2.34                     | 0.59              |
| 1:G:83:LEU:HD11  | 1:G:102:GLY:HA3  | 1.84                     | 0.59              |
| 1:J:531:THR:OG1  | 1:J:586:VAL:O    | 2.20                     | 0.59              |
| 1:P:83:LEU:HD11  | 1:P:102:GLY:HA3  | 1.84                     | 0.59              |
| 1:P:185:ARG:NH2  | 1:P:205:LEU:O    | 2.34                     | 0.59              |
| 1:R:185:ARG:NH2  | 1:R:205:LEU:O    | 2.34                     | 0.59              |
| 1:CA:95:ASP:HA   | 1:EA:85:HIS:CE1  | 2.38                     | 0.59              |
| 1:DA:185:ARG:NH2 | 1:DA:205:LEU:O   | 2.34                     | 0.59              |
| 1:PA:531:THR:OG1 | 1:PA:586:VAL:O   | 2.20                     | 0.59              |
| 1:QA:185:ARG:NH2 | 1:QA:205:LEU:O   | 2.34                     | 0.59              |
| 1:RA:375:GLU:OE2 | 1:RA:377:ARG:NE  | 2.34                     | 0.59              |
| 1:AB:375:GLU:OE2 | 1:AB:377:ARG:NE  | 2.34                     | 0.59              |
| 1:EB:531:THR:OG1 | 1:EB:586:VAL:O   | 2.20                     | 0.59              |
| 1:JB:118:ASN:OD1 | 1:KB:180:LYS:HA  | 2.03                     | 0.59              |
| 1:MB:531:THR:OG1 | 1:MB:586:VAL:O   | 2.20                     | 0.59              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:UB:184:ASP:OD1 | 1:UB:188:LYS:N   | 2.31                     | 0.59              |
| 1:A:531:THR:OG1  | 1:A:586:VAL:O    | 2.20                     | 0.59              |
| 1:E:83:LEU:HD11  | 1:E:102:GLY:HA3  | 1.84                     | 0.59              |
| 1:F:68:ASP:HB2   | 1:F:74:LEU:HD21  | 1.83                     | 0.59              |
| 1:X:83:LEU:HD11  | 1:X:102:GLY:HA3  | 1.84                     | 0.59              |
| 1:Z:32:PRO:HB2   | 1:BA:24:ASN:HB2  | 1.84                     | 0.59              |
| 1:BA:185:ARG:NH2 | 1:BA:205:LEU:O   | 2.34                     | 0.59              |
| 1:EA:83:LEU:HD11 | 1:EA:102:GLY:HA3 | 1.83                     | 0.59              |
| 1:IA:83:LEU:HD11 | 1:IA:102:GLY:HA3 | 1.84                     | 0.59              |
| 1:BB:184:ASP:OD1 | 1:BB:188:LYS:N   | 2.31                     | 0.59              |
| 1:BB:375:GLU:OE2 | 1:BB:377:ARG:NE  | 2.34                     | 0.59              |
| 1:DB:531:THR:OG1 | 1:DB:586:VAL:O   | 2.20                     | 0.59              |
| 1:IB:531:THR:OG1 | 1:IB:586:VAL:O   | 2.20                     | 0.59              |
| 1:JB:531:THR:OG1 | 1:JB:586:VAL:O   | 2.20                     | 0.59              |
| 1:LB:184:ASP:OD1 | 1:LB:188:LYS:N   | 2.31                     | 0.59              |
| 1:OB:531:THR:OG1 | 1:OB:586:VAL:O   | 2.20                     | 0.59              |
| 1:RB:184:ASP:OD1 | 1:RB:188:LYS:N   | 2.31                     | 0.59              |
| 1:XB:531:THR:OG1 | 1:XB:586:VAL:O   | 2.20                     | 0.59              |
| 1:B:717:GLU:HB2  | 1:D:707:LEU:HD13 | 1.84                     | 0.59              |
| 1:E:185:ARG:NH2  | 1:E:205:LEU:O    | 2.34                     | 0.59              |
| 1:F:531:THR:OG1  | 1:F:586:VAL:O    | 2.20                     | 0.59              |
| 1:G:185:ARG:NH2  | 1:G:205:LEU:O    | 2.34                     | 0.59              |
| 1:N:531:THR:OG1  | 1:N:586:VAL:O    | 2.20                     | 0.59              |
| 1:Q:68:ASP:HB2   | 1:Q:74:LEU:HD21  | 1.83                     | 0.59              |
| 1:S:83:LEU:HD11  | 1:S:102:GLY:HA3  | 1.84                     | 0.59              |
| 1:S:185:ARG:NH2  | 1:S:205:LEU:O    | 2.34                     | 0.59              |
| 1:AA:83:LEU:HD11 | 1:AA:102:GLY:HA3 | 1.84                     | 0.59              |
| 1:KA:83:LEU:HD11 | 1:KA:102:GLY:HA3 | 1.84                     | 0.59              |
| 1:LA:531:THR:OG1 | 1:LA:586:VAL:O   | 2.20                     | 0.59              |
| 1:OA:185:ARG:NH2 | 1:OA:205:LEU:O   | 2.34                     | 0.59              |
| 1:TA:531:THR:OG1 | 1:TA:586:VAL:O   | 2.20                     | 0.59              |
| 1:YA:531:THR:OG1 | 1:YA:586:VAL:O   | 2.20                     | 0.59              |
| 1:MB:170:GLN:HB3 | 1:NB:233:GLN:OE1 | 2.02                     | 0.59              |
| 1:UB:375:GLU:OE2 | 1:UB:377:ARG:NE  | 2.34                     | 0.59              |
| 1:B:531:THR:OG1  | 1:B:586:VAL:O    | 2.20                     | 0.59              |
| 1:E:531:THR:OG1  | 1:E:586:VAL:O    | 2.20                     | 0.59              |
| 1:H:184:ASP:OD1  | 1:H:188:LYS:N    | 2.31                     | 0.59              |
| 1:H:531:THR:OG1  | 1:H:586:VAL:O    | 2.20                     | 0.59              |
| 1:K:83:LEU:HD11  | 1:K:102:GLY:HA3  | 1.84                     | 0.59              |
| 1:T:83:LEU:HD11  | 1:T:102:GLY:HA3  | 1.84                     | 0.59              |
| 1:Y:83:LEU:HD11  | 1:Y:102:GLY:HA3  | 1.84                     | 0.59              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:Z:655:GLN:HG2   | 1:BA:649:ARG:HH11 | 1.68                     | 0.59              |
| 1:AA:68:ASP:HB2   | 1:AA:74:LEU:HD21  | 1.83                     | 0.59              |
| 1:GA:83:LEU:HD11  | 1:GA:102:GLY:HA3  | 1.84                     | 0.59              |
| 1:IA:185:ARG:NH2  | 1:IA:205:LEU:O    | 2.34                     | 0.59              |
| 1:LA:184:ASP:OD1  | 1:LA:188:LYS:N    | 2.31                     | 0.59              |
| 1:QA:666:THR:HG22 | 1:SA:657:SER:HB2  | 1.84                     | 0.59              |
| 1:XA:531:THR:OG1  | 1:XA:586:VAL:O    | 2.20                     | 0.59              |
| 1:BB:716:VAL:HG21 | 1:CB:708:GLU:CG   | 2.31                     | 0.59              |
| 1:CB:184:ASP:OD1  | 1:CB:188:LYS:N    | 2.31                     | 0.59              |
| 1:OB:717:GLU:HB2  | 1:PB:707:LEU:HD13 | 1.84                     | 0.59              |
| 1:QB:184:ASP:OD1  | 1:QB:188:LYS:N    | 2.31                     | 0.59              |
| 1:ZB:385:ASN:ND2  | 1:AC:473:TYR:O    | 2.36                     | 0.59              |
| 1:B:220:ILE:HD12  | 1:D:245:THR:HG22  | 1.84                     | 0.59              |
| 1:G:68:ASP:HB2    | 1:G:74:LEU:HD21   | 1.83                     | 0.59              |
| 1:I:83:LEU:HD11   | 1:I:102:GLY:HA3   | 1.84                     | 0.59              |
| 1:O:83:LEU:HD11   | 1:O:102:GLY:HA3   | 1.84                     | 0.59              |
| 1:V:83:LEU:HD11   | 1:V:102:GLY:HA3   | 1.84                     | 0.59              |
| 1:X:203:ALA:HB2   | 1:Z:192:THR:HB    | 1.85                     | 0.59              |
| 1:AA:170:GLN:HB3  | 1:CA:233:GLN:OE1  | 2.02                     | 0.59              |
| 1:HA:531:THR:OG1  | 1:HA:586:VAL:O    | 2.20                     | 0.59              |
| 1:RA:531:THR:OG1  | 1:RA:586:VAL:O    | 2.20                     | 0.59              |
| 1:UA:531:THR:OG1  | 1:UA:586:VAL:O    | 2.20                     | 0.59              |
| 1:WA:56:ARG:HG3   | 1:YA:127:LEU:HD22 | 1.85                     | 0.59              |
| 1:EB:713:SER:OG   | 1:FB:707:LEU:HD12 | 2.03                     | 0.59              |
| 1:SB:531:THR:OG1  | 1:SB:586:VAL:O    | 2.20                     | 0.59              |
| 1:C:68:ASP:HB2    | 1:C:74:LEU:HD21   | 1.83                     | 0.59              |
| 1:F:761:ARG:HG2   | 1:H:755:THR:HG21  | 1.84                     | 0.59              |
| 1:I:9:ARG:HH21    | 1:K:24:ASN:CG     | 2.06                     | 0.59              |
| 1:O:757:ALA:CB    | 1:Q:748:ALA:HB1   | 2.32                     | 0.59              |
| 1:P:68:ASP:HB2    | 1:P:74:LEU:HD21   | 1.83                     | 0.59              |
| 1:Q:83:LEU:HD11   | 1:Q:102:GLY:HA3   | 1.84                     | 0.59              |
| 1:Q:203:ALA:HB2   | 1:S:192:THR:HB    | 1.85                     | 0.59              |
| 1:R:531:THR:OG1   | 1:R:586:VAL:O     | 2.20                     | 0.59              |
| 1:Z:185:ARG:NH2   | 1:Z:205:LEU:O     | 2.34                     | 0.59              |
| 1:UA:423:VAL:HG21 | 1:UA:452:ARG:HD2  | 1.85                     | 0.59              |
| 1:LB:531:THR:OG1  | 1:LB:586:VAL:O    | 2.20                     | 0.59              |
| 1:LB:666:THR:HG22 | 1:MB:657:SER:HB2  | 1.84                     | 0.59              |
| 1:QB:34:THR:CG2   | 1:RB:22:ASN:C     | 2.71                     | 0.59              |
| 1:RB:423:VAL:HG21 | 1:RB:452:ARG:HD2  | 1.85                     | 0.59              |
| 1:UB:735:ILE:HB   | 1:VB:726:ALA:CB   | 2.32                     | 0.59              |
| 1:YB:423:VAL:HG21 | 1:YB:452:ARG:HD2  | 1.85                     | 0.59              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:E:220:ILE:HD12  | 1:G:245:THR:HG22 | 1.85                     | 0.59              |
| 1:M:83:LEU:HD11   | 1:M:102:GLY:HA3  | 1.84                     | 0.59              |
| 1:R:655:GLN:HG2   | 1:T:649:ARG:HH11 | 1.68                     | 0.59              |
| 1:X:95:ASP:HA     | 1:Z:85:HIS:CE1   | 2.37                     | 0.59              |
| 1:CA:83:LEU:HD11  | 1:CA:102:GLY:HA3 | 1.84                     | 0.59              |
| 1:HA:423:VAL:HG21 | 1:HA:452:ARG:HD2 | 1.85                     | 0.59              |
| 1:LA:423:VAL:HG21 | 1:LA:452:ARG:HD2 | 1.85                     | 0.59              |
| 1:MA:185:ARG:NH2  | 1:MA:205:LEU:O   | 2.34                     | 0.59              |
| 1:VA:423:VAL:HG21 | 1:VA:452:ARG:HD2 | 1.85                     | 0.59              |
| 1:YA:168:ILE:HD11 | 1:YA:174:LEU:HB2 | 1.85                     | 0.59              |
| 1:YA:423:VAL:HG21 | 1:YA:452:ARG:HD2 | 1.85                     | 0.59              |
| 1:DB:423:VAL:HG21 | 1:DB:452:ARG:HD2 | 1.85                     | 0.59              |
| 1:FB:423:VAL:HG21 | 1:FB:452:ARG:HD2 | 1.85                     | 0.59              |
| 1:KB:68:ASP:HB2   | 1:KB:74:LEU:HD21 | 1.83                     | 0.59              |
| 1:QB:531:THR:OG1  | 1:QB:586:VAL:O   | 2.20                     | 0.59              |
| 1:WB:170:GLN:HB3  | 1:XB:233:GLN:OE1 | 2.03                     | 0.59              |
| 1:WB:423:VAL:HG21 | 1:WB:452:ARG:HD2 | 1.85                     | 0.59              |
| 1:A:783:LYS:HA    | 1:C:777:LEU:HD11 | 1.85                     | 0.58              |
| 1:L:531:THR:OG1   | 1:L:586:VAL:O    | 2.20                     | 0.58              |
| 1:W:531:THR:OG1   | 1:W:586:VAL:O    | 2.20                     | 0.58              |
| 1:CA:10:ILE:O     | 1:EA:24:ASN:ND2  | 2.35                     | 0.58              |
| 1:DA:531:THR:OG1  | 1:DA:586:VAL:O   | 2.20                     | 0.58              |
| 1:DA:785:GLN:O    | 1:DA:789:ASN:ND2 | 2.36                     | 0.58              |
| 1:KA:423:VAL:HG21 | 1:KA:452:ARG:HD2 | 1.85                     | 0.58              |
| 1:LA:168:ILE:HD11 | 1:LA:174:LEU:HB2 | 1.85                     | 0.58              |
| 1:YA:184:ASP:OD1  | 1:YA:188:LYS:N   | 2.31                     | 0.58              |
| 1:QB:95:ASP:HA    | 1:RB:85:HIS:NE2  | 2.17                     | 0.58              |
| 1:A:9:ARG:HE      | 1:C:24:ASN:HD21  | 1.49                     | 0.58              |
| 1:I:531:THR:OG1   | 1:I:586:VAL:O    | 2.20                     | 0.58              |
| 1:V:185:ARG:NH2   | 1:V:205:LEU:O    | 2.34                     | 0.58              |
| 1:KA:185:ARG:NH2  | 1:KA:205:LEU:O   | 2.34                     | 0.58              |
| 1:MA:785:GLN:O    | 1:MA:789:ASN:ND2 | 2.36                     | 0.58              |
| 1:PA:423:VAL:HG21 | 1:PA:452:ARG:HD2 | 1.85                     | 0.58              |
| 1:QA:423:VAL:HG21 | 1:QA:452:ARG:HD2 | 1.85                     | 0.58              |
| 1:QA:531:THR:OG1  | 1:QA:586:VAL:O   | 2.20                     | 0.58              |
| 1:QA:785:GLN:O    | 1:QA:789:ASN:ND2 | 2.36                     | 0.58              |
| 1:TA:168:ILE:HD11 | 1:TA:174:LEU:HB2 | 1.85                     | 0.58              |
| 1:YA:709:LEU:HD13 | 1:AB:701:LYS:HG3 | 1.85                     | 0.58              |
| 1:ZA:423:VAL:HG21 | 1:ZA:452:ARG:HD2 | 1.85                     | 0.58              |
| 1:AB:531:THR:OG1  | 1:AB:586:VAL:O   | 2.20                     | 0.58              |
| 1:GB:531:THR:OG1  | 1:GB:586:VAL:O   | 2.20                     | 0.58              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:HB:423:VAL:HG21 | 1:HB:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:TB:423:VAL:HG21 | 1:TB:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:YB:170:GLN:HB3  | 1:ZB:233:GLN:OE1  | 2.03                     | 0.58              |
| 1:A:8:ILE:HD11    | 1:A:35:TYR:HB3    | 1.85                     | 0.58              |
| 1:F:423:VAL:HG21  | 1:F:452:ARG:HD2   | 1.85                     | 0.58              |
| 1:O:769:GLU:HG2   | 1:Q:766:ARG:HH12  | 1.68                     | 0.58              |
| 1:S:531:THR:OG1   | 1:S:586:VAL:O     | 2.20                     | 0.58              |
| 1:X:185:ARG:NH2   | 1:X:205:LEU:O     | 2.34                     | 0.58              |
| 1:X:423:VAL:HG21  | 1:X:452:ARG:HD2   | 1.85                     | 0.58              |
| 1:DA:168:ILE:HD11 | 1:DA:174:LEU:HB2  | 1.85                     | 0.58              |
| 1:GA:423:VAL:HG21 | 1:GA:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:GA:531:THR:OG1  | 1:GA:586:VAL:O    | 2.20                     | 0.58              |
| 1:HA:785:GLN:O    | 1:HA:789:ASN:ND2  | 2.36                     | 0.58              |
| 1:NA:531:THR:OG1  | 1:NA:586:VAL:O    | 2.20                     | 0.58              |
| 1:RA:168:ILE:HD11 | 1:RA:174:LEU:HB2  | 1.85                     | 0.58              |
| 1:RA:423:VAL:HG21 | 1:RA:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:TA:184:ASP:OD1  | 1:TA:188:LYS:N    | 2.31                     | 0.58              |
| 1:XA:761:ARG:HG2  | 1:ZA:755:THR:HG21 | 1.85                     | 0.58              |
| 1:ZA:702:ALA:HB2  | 1:BB:690:ARG:HH12 | 1.68                     | 0.58              |
| 1:KB:8:ILE:HD11   | 1:KB:35:TYR:HB3   | 1.86                     | 0.58              |
| 1:KB:423:VAL:HG21 | 1:KB:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:QB:56:ARG:HB2   | 1:RB:127:LEU:HD22 | 1.84                     | 0.58              |
| 1:AC:423:VAL:HG21 | 1:AC:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:F:8:ILE:HD11    | 1:F:35:TYR:HB3    | 1.86                     | 0.58              |
| 1:N:8:ILE:HD11    | 1:N:35:TYR:HB3    | 1.86                     | 0.58              |
| 1:BA:423:VAL:HG21 | 1:BA:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:CA:423:VAL:HG21 | 1:CA:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:MA:531:THR:OG1  | 1:MA:586:VAL:O    | 2.20                     | 0.58              |
| 1:OA:655:GLN:HG2  | 1:QA:649:ARG:HH11 | 1.69                     | 0.58              |
| 1:QA:168:ILE:HD11 | 1:QA:174:LEU:HB2  | 1.85                     | 0.58              |
| 1:UA:785:GLN:O    | 1:UA:789:ASN:ND2  | 2.36                     | 0.58              |
| 1:BB:531:THR:OG1  | 1:BB:586:VAL:O    | 2.20                     | 0.58              |
| 1:GB:709:LEU:HD13 | 1:HB:701:LYS:HG3  | 1.85                     | 0.58              |
| 1:HB:785:GLN:O    | 1:HB:789:ASN:ND2  | 2.36                     | 0.58              |
| 1:JB:785:GLN:O    | 1:JB:789:ASN:ND2  | 2.36                     | 0.58              |
| 1:LB:8:ILE:HD11   | 1:LB:35:TYR:HB3   | 1.86                     | 0.58              |
| 1:MB:423:VAL:HG21 | 1:MB:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:NB:531:THR:OG1  | 1:NB:586:VAL:O    | 2.20                     | 0.58              |
| 1:OB:423:VAL:HG21 | 1:OB:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:PB:168:ILE:HD11 | 1:PB:174:LEU:HB2  | 1.85                     | 0.58              |
| 1:PB:423:VAL:HG21 | 1:PB:452:ARG:HD2  | 1.85                     | 0.58              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:TB:168:ILE:HD11 | 1:TB:174:LEU:HB2  | 1.85                     | 0.58              |
| 1:UB:423:VAL:HG21 | 1:UB:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:UB:531:THR:OG1  | 1:UB:586:VAL:O    | 2.20                     | 0.58              |
| 1:ZB:531:THR:OG1  | 1:ZB:586:VAL:O    | 2.20                     | 0.58              |
| 1:AC:785:GLN:O    | 1:AC:789:ASN:ND2  | 2.36                     | 0.58              |
| 1:A:423:VAL:HG21  | 1:A:452:ARG:HD2   | 1.85                     | 0.58              |
| 1:B:423:VAL:HG21  | 1:B:452:ARG:HD2   | 1.85                     | 0.58              |
| 1:C:8:ILE:HD11    | 1:C:35:TYR:HB3    | 1.86                     | 0.58              |
| 1:D:785:GLN:O     | 1:D:789:ASN:ND2   | 2.36                     | 0.58              |
| 1:H:8:ILE:HD11    | 1:H:35:TYR:HB3    | 1.86                     | 0.58              |
| 1:I:8:ILE:HD11    | 1:I:35:TYR:HB3    | 1.86                     | 0.58              |
| 1:J:423:VAL:HG21  | 1:J:452:ARG:HD2   | 1.85                     | 0.58              |
| 1:K:8:ILE:HD11    | 1:K:35:TYR:HB3    | 1.86                     | 0.58              |
| 1:L:8:ILE:HD11    | 1:L:35:TYR:HB3    | 1.86                     | 0.58              |
| 1:S:423:VAL:HG21  | 1:S:452:ARG:HD2   | 1.85                     | 0.58              |
| 1:Z:531:THR:OG1   | 1:Z:586:VAL:O     | 2.20                     | 0.58              |
| 1:AA:531:THR:OG1  | 1:AA:586:VAL:O    | 2.20                     | 0.58              |
| 1:DA:423:VAL:HG21 | 1:DA:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:FA:168:ILE:HD11 | 1:FA:174:LEU:HB2  | 1.85                     | 0.58              |
| 1:JA:168:ILE:HD11 | 1:JA:174:LEU:HB2  | 1.85                     | 0.58              |
| 1:OA:423:VAL:HG21 | 1:OA:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:RA:785:GLN:O    | 1:RA:789:ASN:ND2  | 2.36                     | 0.58              |
| 1:SA:168:ILE:HD11 | 1:SA:174:LEU:HB2  | 1.85                     | 0.58              |
| 1:ZA:168:ILE:HD11 | 1:ZA:174:LEU:HB2  | 1.85                     | 0.58              |
| 1:AB:761:ARG:HG2  | 1:OB:755:THR:HG21 | 1.85                     | 0.58              |
| 1:FB:785:GLN:O    | 1:FB:789:ASN:ND2  | 2.36                     | 0.58              |
| 1:HB:9:ARG:HH21   | 1:IB:24:ASN:CG    | 2.06                     | 0.58              |
| 1:LB:785:GLN:O    | 1:LB:789:ASN:ND2  | 2.36                     | 0.58              |
| 1:LB:797:GLU:HB3  | 1:MB:792:ALA:HB1  | 1.86                     | 0.58              |
| 1:YB:785:GLN:O    | 1:YB:789:ASN:ND2  | 2.36                     | 0.58              |
| 1:G:8:ILE:HD11    | 1:G:35:TYR:HB3    | 1.86                     | 0.58              |
| 1:H:168:ILE:HD11  | 1:H:174:LEU:HB2   | 1.85                     | 0.58              |
| 1:H:785:GLN:O     | 1:H:789:ASN:ND2   | 2.36                     | 0.58              |
| 1:M:531:THR:OG1   | 1:M:586:VAL:O     | 2.20                     | 0.58              |
| 1:N:423:VAL:HG21  | 1:N:452:ARG:HD2   | 1.85                     | 0.58              |
| 1:R:184:ASP:OD1   | 1:R:188:LYS:N     | 2.31                     | 0.58              |
| 1:UA:655:GLN:HG2  | 1:WA:649:ARG:HH11 | 1.67                     | 0.58              |
| 1:BB:423:VAL:HG21 | 1:BB:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:HB:8:ILE:HD11   | 1:HB:35:TYR:HB3   | 1.86                     | 0.58              |
| 1:IB:423:VAL:HG21 | 1:IB:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:JB:8:ILE:HD11   | 1:JB:35:TYR:HB3   | 1.86                     | 0.58              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:JB:168:ILE:HD11 | 1:JB:174:LEU:HB2  | 1.85                     | 0.58              |
| 1:LB:168:ILE:HD11 | 1:LB:174:LEU:HB2  | 1.85                     | 0.58              |
| 1:NB:8:ILE:HD11   | 1:NB:35:TYR:HB3   | 1.86                     | 0.58              |
| 1:NB:168:ILE:HD11 | 1:NB:174:LEU:HB2  | 1.85                     | 0.58              |
| 1:UB:769:GLU:HA   | 1:VB:766:ARG:HH12 | 1.64                     | 0.58              |
| 1:UB:797:GLU:CG   | 1:VB:792:ALA:HB1  | 2.33                     | 0.58              |
| 1:VB:423:VAL:HG21 | 1:VB:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:C:168:ILE:HD11  | 1:C:174:LEU:HB2   | 1.85                     | 0.58              |
| 1:C:591:PHE:HD1   | 1:C:598:ILE:HD11  | 1.69                     | 0.58              |
| 1:D:8:ILE:HD11    | 1:D:35:TYR:HB3    | 1.86                     | 0.58              |
| 1:E:8:ILE:HD11    | 1:E:35:TYR:HB3    | 1.86                     | 0.58              |
| 1:E:168:ILE:HD11  | 1:E:174:LEU:HB2   | 1.85                     | 0.58              |
| 1:G:531:THR:OG1   | 1:G:586:VAL:O     | 2.20                     | 0.58              |
| 1:L:168:ILE:HD11  | 1:L:174:LEU:HB2   | 1.85                     | 0.58              |
| 1:N:504:ARG:NH2   | 1:N:524:THR:OG1   | 2.37                     | 0.58              |
| 1:P:531:THR:OG1   | 1:P:586:VAL:O     | 2.20                     | 0.58              |
| 1:P:591:PHE:HD1   | 1:P:598:ILE:HD11  | 1.69                     | 0.58              |
| 1:R:8:ILE:HD11    | 1:R:35:TYR:HB3    | 1.86                     | 0.58              |
| 1:S:785:GLN:O     | 1:S:789:ASN:ND2   | 2.36                     | 0.58              |
| 1:T:8:ILE:HD11    | 1:T:35:TYR:HB3    | 1.86                     | 0.58              |
| 1:W:8:ILE:HD11    | 1:W:35:TYR:HB3    | 1.86                     | 0.58              |
| 1:CA:203:ALA:HB2  | 1:EA:192:THR:HB   | 1.86                     | 0.58              |
| 1:CA:785:GLN:O    | 1:CA:789:ASN:ND2  | 2.36                     | 0.58              |
| 1:FA:717:GLU:HB2  | 1:HA:707:LEU:HD13 | 1.85                     | 0.58              |
| 1:GA:785:GLN:O    | 1:GA:789:ASN:ND2  | 2.36                     | 0.58              |
| 1:KA:531:THR:OG1  | 1:KA:586:VAL:O    | 2.20                     | 0.58              |
| 1:LA:785:GLN:O    | 1:LA:789:ASN:ND2  | 2.36                     | 0.58              |
| 1:NA:423:VAL:HG21 | 1:NA:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:RA:170:GLN:HB3  | 1:TA:233:GLN:OE1  | 2.04                     | 0.58              |
| 1:WA:168:ILE:HD11 | 1:WA:174:LEU:HB2  | 1.85                     | 0.58              |
| 1:AB:203:ALA:HB2  | 1:OB:192:THR:HB   | 1.86                     | 0.58              |
| 1:AB:218:ALA:HB2  | 1:AB:260:VAL:HG22 | 1.86                     | 0.58              |
| 1:AB:423:VAL:HG21 | 1:AB:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:DB:591:PHE:HD1  | 1:DB:598:ILE:HD11 | 1.69                     | 0.58              |
| 1:GB:8:ILE:HD11   | 1:GB:35:TYR:HB3   | 1.86                     | 0.58              |
| 1:LB:384:GLN:HB2  | 1:MB:474:ARG:HG3  | 1.86                     | 0.58              |
| 1:NB:785:GLN:O    | 1:NB:789:ASN:ND2  | 2.36                     | 0.58              |
| 1:PB:184:ASP:OD1  | 1:PB:188:LYS:N    | 2.31                     | 0.58              |
| 1:PB:591:PHE:HD1  | 1:PB:598:ILE:HD11 | 1.69                     | 0.58              |
| 1:RB:591:PHE:HD1  | 1:RB:598:ILE:HD11 | 1.69                     | 0.58              |
| 1:WB:591:PHE:HD1  | 1:WB:598:ILE:HD11 | 1.69                     | 0.58              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:ZB:8:ILE:HD11   | 1:ZB:35:TYR:HB3   | 1.86                     | 0.58              |
| 1:ZB:640:VAL:O    | 1:AC:577:SER:HB2  | 2.03                     | 0.58              |
| 1:AC:8:ILE:HD11   | 1:AC:35:TYR:HB3   | 1.86                     | 0.58              |
| 1:A:9:ARG:NH2     | 1:C:24:ASN:ND2    | 2.46                     | 0.58              |
| 1:A:504:ARG:NH2   | 1:A:524:THR:OG1   | 2.37                     | 0.58              |
| 1:E:423:VAL:HG21  | 1:E:452:ARG:HD2   | 1.85                     | 0.58              |
| 1:G:168:ILE:HD11  | 1:G:174:LEU:HB2   | 1.85                     | 0.58              |
| 1:G:504:ARG:NH2   | 1:G:524:THR:OG1   | 2.37                     | 0.58              |
| 1:K:168:ILE:HD11  | 1:K:174:LEU:HB2   | 1.85                     | 0.58              |
| 1:K:218:ALA:HB2   | 1:K:260:VAL:HG22  | 1.86                     | 0.58              |
| 1:L:591:PHE:HD1   | 1:L:598:ILE:HD11  | 1.69                     | 0.58              |
| 1:L:785:GLN:O     | 1:L:789:ASN:ND2   | 2.36                     | 0.58              |
| 1:O:8:ILE:HD11    | 1:O:35:TYR:HB3    | 1.86                     | 0.58              |
| 1:O:423:VAL:HG21  | 1:O:452:ARG:HD2   | 1.85                     | 0.58              |
| 1:O:504:ARG:NH2   | 1:O:524:THR:OG1   | 2.37                     | 0.58              |
| 1:O:531:THR:OG1   | 1:O:586:VAL:O     | 2.20                     | 0.58              |
| 1:P:8:ILE:HD11    | 1:P:35:TYR:HB3    | 1.86                     | 0.58              |
| 1:P:168:ILE:HD11  | 1:P:174:LEU:HB2   | 1.85                     | 0.58              |
| 1:P:218:ALA:HB2   | 1:P:260:VAL:HG22  | 1.86                     | 0.58              |
| 1:Q:8:ILE:HD11    | 1:Q:35:TYR:HB3    | 1.86                     | 0.58              |
| 1:Q:531:THR:OG1   | 1:Q:586:VAL:O     | 2.20                     | 0.58              |
| 1:V:531:THR:OG1   | 1:V:586:VAL:O     | 2.20                     | 0.58              |
| 1:W:218:ALA:HB2   | 1:W:260:VAL:HG22  | 1.86                     | 0.58              |
| 1:X:168:ILE:HD11  | 1:X:174:LEU:HB2   | 1.85                     | 0.58              |
| 1:Y:423:VAL:HG21  | 1:Y:452:ARG:HD2   | 1.85                     | 0.58              |
| 1:CA:504:ARG:NH2  | 1:CA:524:THR:OG1  | 2.37                     | 0.58              |
| 1:EA:218:ALA:HB2  | 1:EA:260:VAL:HG22 | 1.86                     | 0.58              |
| 1:EA:531:THR:OG1  | 1:EA:586:VAL:O    | 2.20                     | 0.58              |
| 1:FA:423:VAL:HG21 | 1:FA:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:HA:218:ALA:HB2  | 1:HA:260:VAL:HG22 | 1.86                     | 0.58              |
| 1:IA:531:THR:OG1  | 1:IA:586:VAL:O    | 2.20                     | 0.58              |
| 1:KA:168:ILE:HD11 | 1:KA:174:LEU:HB2  | 1.85                     | 0.58              |
| 1:MA:218:ALA:HB2  | 1:MA:260:VAL:HG22 | 1.86                     | 0.58              |
| 1:MA:423:VAL:HG21 | 1:MA:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:NA:168:ILE:HD11 | 1:NA:174:LEU:HB2  | 1.85                     | 0.58              |
| 1:NA:218:ALA:HB2  | 1:NA:260:VAL:HG22 | 1.86                     | 0.58              |
| 1:AB:168:ILE:HD11 | 1:AB:174:LEU:HB2  | 1.85                     | 0.58              |
| 1:BB:592:HIS:NE2  | 1:CB:531:THR:O    | 2.36                     | 0.58              |
| 1:CB:423:VAL:HG21 | 1:CB:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:JB:423:VAL:HG21 | 1:JB:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:KB:504:ARG:NH2  | 1:KB:524:THR:OG1  | 2.37                     | 0.58              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:NB:591:PHE:HD1  | 1:NB:598:ILE:HD11 | 1.69                     | 0.58              |
| 1:QB:52:THR:OG1   | 1:RB:85:HIS:HD2   | 1.87                     | 0.58              |
| 1:QB:168:ILE:HD11 | 1:QB:174:LEU:HB2  | 1.85                     | 0.58              |
| 1:QB:423:VAL:HG21 | 1:QB:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:UB:764:LYS:HD2  | 1:VB:759:LEU:HD22 | 1.85                     | 0.58              |
| 1:WB:785:GLN:O    | 1:WB:789:ASN:ND2  | 2.36                     | 0.58              |
| 1:A:184:ASP:OD1   | 1:A:188:LYS:N     | 2.31                     | 0.58              |
| 1:B:8:ILE:HD11    | 1:B:35:TYR:HB3    | 1.86                     | 0.58              |
| 1:B:591:PHE:HD1   | 1:B:598:ILE:HD11  | 1.69                     | 0.58              |
| 1:C:184:ASP:OD1   | 1:C:188:LYS:N     | 2.31                     | 0.58              |
| 1:C:785:GLN:O     | 1:C:789:ASN:ND2   | 2.36                     | 0.58              |
| 1:D:168:ILE:HD11  | 1:D:174:LEU:HB2   | 1.85                     | 0.58              |
| 1:D:423:VAL:HG21  | 1:D:452:ARG:HD2   | 1.85                     | 0.58              |
| 1:H:504:ARG:NH2   | 1:H:524:THR:OG1   | 2.37                     | 0.58              |
| 1:I:168:ILE:HD11  | 1:I:174:LEU:HB2   | 1.85                     | 0.58              |
| 1:I:218:ALA:HB2   | 1:I:260:VAL:HG22  | 1.86                     | 0.58              |
| 1:I:591:PHE:HD1   | 1:I:598:ILE:HD11  | 1.69                     | 0.58              |
| 1:J:8:ILE:HD11    | 1:J:35:TYR:HB3    | 1.86                     | 0.58              |
| 1:J:168:ILE:HD11  | 1:J:174:LEU:HB2   | 1.85                     | 0.58              |
| 1:M:8:ILE:HD11    | 1:M:35:TYR:HB3    | 1.86                     | 0.58              |
| 1:M:504:ARG:NH2   | 1:M:524:THR:OG1   | 2.37                     | 0.58              |
| 1:M:591:PHE:HD1   | 1:M:598:ILE:HD11  | 1.69                     | 0.58              |
| 1:N:218:ALA:HB2   | 1:N:260:VAL:HG22  | 1.86                     | 0.58              |
| 1:O:52:THR:HG21   | 1:Q:85:HIS:HD2    | 1.69                     | 0.58              |
| 1:Q:218:ALA:HB2   | 1:Q:260:VAL:HG22  | 1.86                     | 0.58              |
| 1:S:203:ALA:HB2   | 1:V:192:THR:HB    | 1.85                     | 0.58              |
| 1:T:218:ALA:HB2   | 1:T:260:VAL:HG22  | 1.86                     | 0.58              |
| 1:T:531:THR:OG1   | 1:T:586:VAL:O     | 2.20                     | 0.58              |
| 1:W:504:ARG:NH2   | 1:W:524:THR:OG1   | 2.37                     | 0.58              |
| 1:Z:218:ALA:HB2   | 1:Z:260:VAL:HG22  | 1.86                     | 0.58              |
| 1:Z:423:VAL:HG21  | 1:Z:452:ARG:HD2   | 1.85                     | 0.58              |
| 1:CA:8:ILE:HD11   | 1:CA:35:TYR:HB3   | 1.86                     | 0.58              |
| 1:CA:218:ALA:HB2  | 1:CA:260:VAL:HG22 | 1.86                     | 0.58              |
| 1:CA:384:GLN:HB2  | 1:EA:474:ARG:HG3  | 1.84                     | 0.58              |
| 1:JA:531:THR:OG1  | 1:JA:586:VAL:O    | 2.20                     | 0.58              |
| 1:PA:218:ALA:HB2  | 1:PA:260:VAL:HG22 | 1.86                     | 0.58              |
| 1:RA:591:PHE:HD1  | 1:RA:598:ILE:HD11 | 1.69                     | 0.58              |
| 1:UA:218:ALA:HB2  | 1:UA:260:VAL:HG22 | 1.86                     | 0.58              |
| 1:VA:218:ALA:HB2  | 1:VA:260:VAL:HG22 | 1.86                     | 0.58              |
| 1:YA:785:GLN:O    | 1:YA:789:ASN:ND2  | 2.36                     | 0.58              |
| 1:BB:168:ILE:HD11 | 1:BB:174:LEU:HB2  | 1.85                     | 0.58              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:CB:655:GLN:HG2  | 1:DB:649:ARG:HH11 | 1.68                     | 0.58              |
| 1:IB:8:ILE:HD11   | 1:IB:35:TYR:HB3   | 1.86                     | 0.58              |
| 1:MB:8:ILE:HD11   | 1:MB:35:TYR:HB3   | 1.86                     | 0.58              |
| 1:RB:218:ALA:HB2  | 1:RB:260:VAL:HG22 | 1.86                     | 0.58              |
| 1:RB:785:GLN:O    | 1:RB:789:ASN:ND2  | 2.36                     | 0.58              |
| 1:UB:168:ILE:HD11 | 1:UB:174:LEU:HB2  | 1.85                     | 0.58              |
| 1:A:168:ILE:HD11  | 1:A:174:LEU:HB2   | 1.85                     | 0.58              |
| 1:C:218:ALA:HB2   | 1:C:260:VAL:HG22  | 1.86                     | 0.58              |
| 1:C:531:THR:OG1   | 1:C:586:VAL:O     | 2.20                     | 0.58              |
| 1:F:504:ARG:NH2   | 1:F:524:THR:OG1   | 2.37                     | 0.58              |
| 1:I:504:ARG:NH2   | 1:I:524:THR:OG1   | 2.37                     | 0.58              |
| 1:K:531:THR:OG1   | 1:K:586:VAL:O     | 2.20                     | 0.58              |
| 1:P:775:ALA:CB    | 1:R:770:LEU:HD21  | 2.34                     | 0.58              |
| 1:Q:591:PHE:HD1   | 1:Q:598:ILE:HD11  | 1.69                     | 0.58              |
| 1:R:423:VAL:HG21  | 1:R:452:ARG:HD2   | 1.85                     | 0.58              |
| 1:S:218:ALA:HB2   | 1:S:260:VAL:HG22  | 1.86                     | 0.58              |
| 1:T:423:VAL:HG21  | 1:T:452:ARG:HD2   | 1.85                     | 0.58              |
| 1:T:504:ARG:NH2   | 1:T:524:THR:OG1   | 2.37                     | 0.58              |
| 1:T:591:PHE:HD1   | 1:T:598:ILE:HD11  | 1.69                     | 0.58              |
| 1:V:504:ARG:NH2   | 1:V:524:THR:OG1   | 2.37                     | 0.58              |
| 1:X:531:THR:OG1   | 1:X:586:VAL:O     | 2.20                     | 0.58              |
| 1:X:785:GLN:O     | 1:X:789:ASN:ND2   | 2.36                     | 0.58              |
| 1:Y:218:ALA:HB2   | 1:Y:260:VAL:HG22  | 1.86                     | 0.58              |
| 1:JA:218:ALA:HB2  | 1:JA:260:VAL:HG22 | 1.86                     | 0.58              |
| 1:KA:785:GLN:O    | 1:KA:789:ASN:ND2  | 2.36                     | 0.58              |
| 1:SA:218:ALA:HB2  | 1:SA:260:VAL:HG22 | 1.86                     | 0.58              |
| 1:SA:531:THR:OG1  | 1:SA:586:VAL:O    | 2.20                     | 0.58              |
| 1:TA:218:ALA:HB2  | 1:TA:260:VAL:HG22 | 1.86                     | 0.58              |
| 1:TA:423:VAL:HG21 | 1:TA:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:VA:591:PHE:HD1  | 1:VA:598:ILE:HD11 | 1.69                     | 0.58              |
| 1:VA:785:GLN:O    | 1:VA:789:ASN:ND2  | 2.36                     | 0.58              |
| 1:XA:168:ILE:HD11 | 1:XA:174:LEU:HB2  | 1.85                     | 0.58              |
| 1:FB:8:ILE:HD11   | 1:FB:35:TYR:HB3   | 1.86                     | 0.58              |
| 1:GB:591:PHE:HD1  | 1:GB:598:ILE:HD11 | 1.69                     | 0.58              |
| 1:HB:168:ILE:HD11 | 1:HB:174:LEU:HB2  | 1.85                     | 0.58              |
| 1:IB:591:PHE:HD1  | 1:IB:598:ILE:HD11 | 1.69                     | 0.58              |
| 1:LB:504:ARG:NH2  | 1:LB:524:THR:OG1  | 2.37                     | 0.58              |
| 1:MB:168:ILE:HD11 | 1:MB:174:LEU:HB2  | 1.85                     | 0.58              |
| 1:NB:504:ARG:NH2  | 1:NB:524:THR:OG1  | 2.37                     | 0.58              |
| 1:OB:218:ALA:HB2  | 1:OB:260:VAL:HG22 | 1.86                     | 0.58              |
| 1:SB:218:ALA:HB2  | 1:SB:260:VAL:HG22 | 1.86                     | 0.58              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:VB:736:GLU:OE2  | 1:WB:726:ALA:HB1  | 2.04                     | 0.58              |
| 1:ZB:423:VAL:HG21 | 1:ZB:452:ARG:HD2  | 1.85                     | 0.58              |
| 1:AC:168:ILE:HD11 | 1:AC:174:LEU:HB2  | 1.85                     | 0.58              |
| 1:A:218:ALA:HB2   | 1:A:260:VAL:HG22  | 1.86                     | 0.57              |
| 1:B:168:ILE:HD11  | 1:B:174:LEU:HB2   | 1.85                     | 0.57              |
| 1:F:36:ILE:HD13   | 1:JB:36:ILE:HD13  | 1.86                     | 0.57              |
| 1:F:168:ILE:HD11  | 1:F:174:LEU:HB2   | 1.85                     | 0.57              |
| 1:F:769:GLU:HG2   | 1:H:766:ARG:HH12  | 1.69                     | 0.57              |
| 1:G:170:GLN:HB3   | 1:I:233:GLN:OE1   | 2.04                     | 0.57              |
| 1:K:423:VAL:HG21  | 1:K:452:ARG:HD2   | 1.85                     | 0.57              |
| 1:M:168:ILE:HD11  | 1:M:174:LEU:HB2   | 1.85                     | 0.57              |
| 1:M:218:ALA:HB2   | 1:M:260:VAL:HG22  | 1.86                     | 0.57              |
| 1:N:801:ALA:HA    | 1:P:796:LYS:NZ    | 2.18                     | 0.57              |
| 1:O:218:ALA:HB2   | 1:O:260:VAL:HG22  | 1.86                     | 0.57              |
| 1:P:504:ARG:NH2   | 1:P:524:THR:OG1   | 2.37                     | 0.57              |
| 1:P:785:GLN:O     | 1:P:789:ASN:ND2   | 2.36                     | 0.57              |
| 1:T:168:ILE:HD11  | 1:T:174:LEU:HB2   | 1.85                     | 0.57              |
| 1:X:218:ALA:HB2   | 1:X:260:VAL:HG22  | 1.86                     | 0.57              |
| 1:Y:8:ILE:HD11    | 1:Y:35:TYR:HB3    | 1.86                     | 0.57              |
| 1:AA:8:ILE:HD11   | 1:AA:35:TYR:HB3   | 1.86                     | 0.57              |
| 1:AA:218:ALA:HB2  | 1:AA:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:FA:218:ALA:HB2  | 1:FA:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:GA:218:ALA:HB2  | 1:GA:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:KA:218:ALA:HB2  | 1:KA:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:SA:423:VAL:HG21 | 1:SA:452:ARG:HD2  | 1.85                     | 0.57              |
| 1:WA:531:THR:OG1  | 1:WA:586:VAL:O    | 2.20                     | 0.57              |
| 1:XA:218:ALA:HB2  | 1:XA:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:YA:218:ALA:HB2  | 1:YA:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:AB:591:PHE:HD1  | 1:AB:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:BB:218:ALA:HB2  | 1:BB:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:BB:591:PHE:HD1  | 1:BB:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:DB:785:GLN:O    | 1:DB:789:ASN:ND2  | 2.36                     | 0.57              |
| 1:HB:504:ARG:NH2  | 1:HB:524:THR:OG1  | 2.37                     | 0.57              |
| 1:HB:591:PHE:HD1  | 1:HB:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:IB:168:ILE:HD11 | 1:IB:174:LEU:HB2  | 1.85                     | 0.57              |
| 1:LB:218:ALA:HB2  | 1:LB:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:LB:786:GLN:HB2  | 1:MB:781:VAL:HG11 | 1.86                     | 0.57              |
| 1:MB:218:ALA:HB2  | 1:MB:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:SB:168:ILE:HD11 | 1:SB:174:LEU:HB2  | 1.85                     | 0.57              |
| 1:TB:591:PHE:HD1  | 1:TB:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:UB:218:ALA:HB2  | 1:UB:260:VAL:HG22 | 1.86                     | 0.57              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:UB:591:PHE:HD1  | 1:UB:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:UB:790:VAL:HG11 | 1:VB:784:ALA:HB1  | 1.84                     | 0.57              |
| 1:YB:8:ILE:HD11   | 1:YB:35:TYR:HB3   | 1.86                     | 0.57              |
| 1:ZB:591:PHE:HD1  | 1:ZB:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:AC:504:ARG:NH2  | 1:AC:524:THR:OG1  | 2.37                     | 0.57              |
| 1:A:753:ILE:HG12  | 1:C:745:LYS:HE2   | 1.86                     | 0.57              |
| 1:C:14:HIS:CE1    | 1:C:49:ARG:HA     | 2.40                     | 0.57              |
| 1:E:218:ALA:HB2   | 1:E:260:VAL:HG22  | 1.86                     | 0.57              |
| 1:F:591:PHE:HD1   | 1:F:598:ILE:HD11  | 1.69                     | 0.57              |
| 1:G:218:ALA:HB2   | 1:G:260:VAL:HG22  | 1.86                     | 0.57              |
| 1:H:591:PHE:HD1   | 1:H:598:ILE:HD11  | 1.69                     | 0.57              |
| 1:I:423:VAL:HG21  | 1:I:452:ARG:HD2   | 1.85                     | 0.57              |
| 1:L:504:ARG:NH2   | 1:L:524:THR:OG1   | 2.37                     | 0.57              |
| 1:M:14:HIS:CE1    | 1:M:49:ARG:HA     | 2.40                     | 0.57              |
| 1:N:168:ILE:HD11  | 1:N:174:LEU:HB2   | 1.85                     | 0.57              |
| 1:P:14:HIS:CE1    | 1:P:49:ARG:HA     | 2.40                     | 0.57              |
| 1:R:168:ILE:HD11  | 1:R:174:LEU:HB2   | 1.85                     | 0.57              |
| 1:R:813:ALA:HB1   | 1:T:812:VAL:HA    | 1.84                     | 0.57              |
| 1:S:8:ILE:HD11    | 1:S:35:TYR:HB3    | 1.86                     | 0.57              |
| 1:Y:531:THR:OG1   | 1:Y:586:VAL:O     | 2.20                     | 0.57              |
| 1:BA:218:ALA:HB2  | 1:BA:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:DA:218:ALA:HB2  | 1:DA:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:EA:8:ILE:HD11   | 1:EA:35:TYR:HB3   | 1.86                     | 0.57              |
| 1:FA:531:THR:OG1  | 1:FA:586:VAL:O    | 2.20                     | 0.57              |
| 1:IA:168:ILE:HD11 | 1:IA:174:LEU:HB2  | 1.85                     | 0.57              |
| 1:IA:218:ALA:HB2  | 1:IA:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:LA:218:ALA:HB2  | 1:LA:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:SA:709:LEU:HD13 | 1:UA:701:LYS:HG3  | 1.85                     | 0.57              |
| 1:WA:218:ALA:HB2  | 1:WA:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:ZA:591:PHE:HD1  | 1:ZA:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:CB:218:ALA:HB2  | 1:CB:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:DB:168:ILE:HD11 | 1:DB:174:LEU:HB2  | 1.85                     | 0.57              |
| 1:GB:423:VAL:HG21 | 1:GB:452:ARG:HD2  | 1.85                     | 0.57              |
| 1:JB:56:ARG:NH1   | 1:KB:128:ASP:H    | 2.02                     | 0.57              |
| 1:KB:168:ILE:HD11 | 1:KB:174:LEU:HB2  | 1.85                     | 0.57              |
| 1:LB:591:PHE:HD1  | 1:LB:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:PB:218:ALA:HB2  | 1:PB:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:QB:218:ALA:HB2  | 1:QB:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:VB:218:ALA:HB2  | 1:VB:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:WB:168:ILE:HD11 | 1:WB:174:LEU:HB2  | 1.85                     | 0.57              |
| 1:D:591:PHE:HD1   | 1:D:598:ILE:HD11  | 1.69                     | 0.57              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:E:504:ARG:NH2   | 1:E:524:THR:OG1   | 2.37                     | 0.57              |
| 1:F:14:HIS:CE1    | 1:F:49:ARG:HA     | 2.40                     | 0.57              |
| 1:G:423:VAL:HG21  | 1:G:452:ARG:HD2   | 1.85                     | 0.57              |
| 1:H:218:ALA:HB2   | 1:H:260:VAL:HG22  | 1.86                     | 0.57              |
| 1:H:592:HIS:NE2   | 1:J:531:THR:O     | 2.32                     | 0.57              |
| 1:J:218:ALA:HB2   | 1:J:260:VAL:HG22  | 1.86                     | 0.57              |
| 1:O:168:ILE:HD11  | 1:O:174:LEU:HB2   | 1.85                     | 0.57              |
| 1:O:220:ILE:HD12  | 1:Q:245:THR:HG22  | 1.87                     | 0.57              |
| 1:Q:14:HIS:CE1    | 1:Q:49:ARG:HA     | 2.40                     | 0.57              |
| 1:R:218:ALA:HB2   | 1:R:260:VAL:HG22  | 1.86                     | 0.57              |
| 1:T:14:HIS:CE1    | 1:T:49:ARG:HA     | 2.40                     | 0.57              |
| 1:Y:64:PRO:O      | 1:Y:84:ARG:N      | 2.38                     | 0.57              |
| 1:Y:168:ILE:HD11  | 1:Y:174:LEU:HB2   | 1.85                     | 0.57              |
| 1:AA:591:PHE:HD1  | 1:AA:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:BA:168:ILE:HD11 | 1:BA:174:LEU:HB2  | 1.85                     | 0.57              |
| 1:EA:14:HIS:CE1   | 1:EA:49:ARG:HA    | 2.40                     | 0.57              |
| 1:EA:504:ARG:NH2  | 1:EA:524:THR:OG1  | 2.37                     | 0.57              |
| 1:OA:218:ALA:HB2  | 1:OA:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:OA:531:THR:OG1  | 1:OA:586:VAL:O    | 2.20                     | 0.57              |
| 1:PA:8:ILE:HD11   | 1:PA:35:TYR:HB3   | 1.86                     | 0.57              |
| 1:PA:168:ILE:HD11 | 1:PA:174:LEU:HB2  | 1.85                     | 0.57              |
| 1:QA:218:ALA:HB2  | 1:QA:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:RA:184:ASP:OD1  | 1:RA:188:LYS:N    | 2.31                     | 0.57              |
| 1:RA:218:ALA:HB2  | 1:RA:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:YA:8:ILE:HD11   | 1:YA:35:TYR:HB3   | 1.86                     | 0.57              |
| 1:DB:14:HIS:CE1   | 1:DB:49:ARG:HA    | 2.40                     | 0.57              |
| 1:EB:168:ILE:HD11 | 1:EB:174:LEU:HB2  | 1.85                     | 0.57              |
| 1:EB:385:ASN:ND2  | 1:FB:474:ARG:HA   | 2.19                     | 0.57              |
| 1:EB:658:VAL:HG12 | 1:FB:533:ASP:O    | 2.04                     | 0.57              |
| 1:GB:279:ARG:NH2  | 1:HB:338:GLN:OE1  | 2.36                     | 0.57              |
| 1:IB:14:HIS:CE1   | 1:IB:49:ARG:HA    | 2.40                     | 0.57              |
| 1:JB:591:PHE:HD1  | 1:JB:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:MB:797:GLU:CG   | 1:NB:792:ALA:HB1  | 2.34                     | 0.57              |
| 1:RB:168:ILE:HD11 | 1:RB:174:LEU:HB2  | 1.85                     | 0.57              |
| 1:SB:423:VAL:HG21 | 1:SB:452:ARG:HD2  | 1.85                     | 0.57              |
| 1:TB:218:ALA:HB2  | 1:TB:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:UB:220:ILE:HD12 | 1:VB:245:THR:HG22 | 1.87                     | 0.57              |
| 1:UB:743:GLN:NE2  | 1:VB:733:ALA:CB   | 2.67                     | 0.57              |
| 1:VB:11:PRO:HB2   | 1:VB:14:HIS:CD2   | 2.40                     | 0.57              |
| 1:WB:14:HIS:CE1   | 1:WB:49:ARG:HA    | 2.40                     | 0.57              |
| 1:YB:14:HIS:CE1   | 1:YB:49:ARG:HA    | 2.40                     | 0.57              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:YB:591:PHE:HD1  | 1:YB:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:YB:717:GLU:HB2  | 1:ZB:707:LEU:HD13 | 1.87                     | 0.57              |
| 1:ZB:11:PRO:HB2   | 1:ZB:14:HIS:CD2   | 2.40                     | 0.57              |
| 1:AC:591:PHE:HD1  | 1:AC:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:B:14:HIS:CE1    | 1:B:49:ARG:HA     | 2.40                     | 0.57              |
| 1:B:504:ARG:NH2   | 1:B:524:THR:OG1   | 2.37                     | 0.57              |
| 1:B:785:GLN:O     | 1:B:789:ASN:ND2   | 2.36                     | 0.57              |
| 1:E:11:PRO:HB2    | 1:E:14:HIS:CD2    | 2.40                     | 0.57              |
| 1:F:170:GLN:HB3   | 1:H:233:GLN:OE1   | 2.05                     | 0.57              |
| 1:F:218:ALA:HB2   | 1:F:260:VAL:HG22  | 1.86                     | 0.57              |
| 1:G:14:HIS:CE1    | 1:G:49:ARG:HA     | 2.40                     | 0.57              |
| 1:G:591:PHE:HD1   | 1:G:598:ILE:HD11  | 1.69                     | 0.57              |
| 1:G:785:GLN:O     | 1:G:789:ASN:ND2   | 2.36                     | 0.57              |
| 1:K:64:PRO:O      | 1:K:84:ARG:N      | 2.38                     | 0.57              |
| 1:L:218:ALA:HB2   | 1:L:260:VAL:HG22  | 1.86                     | 0.57              |
| 1:N:184:ASP:OD1   | 1:N:188:LYS:N     | 2.31                     | 0.57              |
| 1:P:184:ASP:OD1   | 1:P:188:LYS:N     | 2.31                     | 0.57              |
| 1:P:423:VAL:HG21  | 1:P:452:ARG:HD2   | 1.85                     | 0.57              |
| 1:V:95:ASP:HA     | 1:X:85:HIS:CE1    | 2.39                     | 0.57              |
| 1:V:168:ILE:HD11  | 1:V:174:LEU:HB2   | 1.85                     | 0.57              |
| 1:V:591:PHE:HD1   | 1:V:598:ILE:HD11  | 1.69                     | 0.57              |
| 1:X:504:ARG:NH2   | 1:X:524:THR:OG1   | 2.37                     | 0.57              |
| 1:AA:14:HIS:CE1   | 1:AA:49:ARG:HA    | 2.40                     | 0.57              |
| 1:AA:64:PRO:O     | 1:AA:84:ARG:N     | 2.38                     | 0.57              |
| 1:BA:531:THR:OG1  | 1:BA:586:VAL:O    | 2.20                     | 0.57              |
| 1:BA:785:GLN:O    | 1:BA:789:ASN:ND2  | 2.36                     | 0.57              |
| 1:CA:655:GLN:HG2  | 1:EA:649:ARG:HH11 | 1.68                     | 0.57              |
| 1:EA:591:PHE:HD1  | 1:EA:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:IA:382:LEU:O    | 1:KA:396:GLY:HA3  | 2.04                     | 0.57              |
| 1:IA:423:VAL:HG21 | 1:IA:452:ARG:HD2  | 1.85                     | 0.57              |
| 1:IA:504:ARG:NH2  | 1:IA:524:THR:OG1  | 2.37                     | 0.57              |
| 1:KA:504:ARG:NH2  | 1:KA:524:THR:OG1  | 2.37                     | 0.57              |
| 1:LA:8:ILE:HD11   | 1:LA:35:TYR:HB3   | 1.86                     | 0.57              |
| 1:MA:168:ILE:HD11 | 1:MA:174:LEU:HB2  | 1.85                     | 0.57              |
| 1:NA:591:PHE:HD1  | 1:NA:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:NA:655:GLN:HG2  | 1:PA:649:ARG:HH11 | 1.69                     | 0.57              |
| 1:RA:64:PRO:O     | 1:RA:84:ARG:N     | 2.38                     | 0.57              |
| 1:UA:384:GLN:HB2  | 1:WA:474:ARG:HG3  | 1.85                     | 0.57              |
| 1:WA:423:VAL:HG21 | 1:WA:452:ARG:HD2  | 1.85                     | 0.57              |
| 1:XA:423:VAL:HG21 | 1:XA:452:ARG:HD2  | 1.85                     | 0.57              |
| 1:ZA:14:HIS:CE1   | 1:ZA:49:ARG:HA    | 2.40                     | 0.57              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:ZA:218:ALA:HB2  | 1:ZA:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:BB:587:THR:HG23 | 1:BB:590:ASP:H    | 1.70                     | 0.57              |
| 1:BB:717:GLU:CB   | 1:CB:707:LEU:HD13 | 2.32                     | 0.57              |
| 1:DB:64:PRO:O     | 1:DB:84:ARG:N     | 2.38                     | 0.57              |
| 1:FB:14:HIS:CE1   | 1:FB:49:ARG:HA    | 2.40                     | 0.57              |
| 1:KB:14:HIS:CE1   | 1:KB:49:ARG:HA    | 2.40                     | 0.57              |
| 1:KB:591:PHE:HD1  | 1:KB:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:OB:168:ILE:HD11 | 1:OB:174:LEU:HB2  | 1.85                     | 0.57              |
| 1:PB:64:PRO:O     | 1:PB:84:ARG:N     | 2.38                     | 0.57              |
| 1:QB:14:HIS:CE1   | 1:QB:49:ARG:HA    | 2.40                     | 0.57              |
| 1:VB:14:HIS:CE1   | 1:VB:49:ARG:HA    | 2.40                     | 0.57              |
| 1:VB:692:LYS:HG3  | 1:WB:682:GLN:HG2  | 1.85                     | 0.57              |
| 1:WB:8:ILE:HD11   | 1:WB:35:TYR:HB3   | 1.86                     | 0.57              |
| 1:XB:11:PRO:HB2   | 1:XB:14:HIS:CD2   | 2.40                     | 0.57              |
| 1:ZB:785:GLN:O    | 1:ZB:789:ASN:ND2  | 2.36                     | 0.57              |
| 1:A:11:PRO:HB2    | 1:A:14:HIS:CD2    | 2.40                     | 0.57              |
| 1:B:218:ALA:HB2   | 1:B:260:VAL:HG22  | 1.86                     | 0.57              |
| 1:C:504:ARG:NH2   | 1:C:524:THR:OG1   | 2.37                     | 0.57              |
| 1:D:11:PRO:HB2    | 1:D:14:HIS:CD2    | 2.40                     | 0.57              |
| 1:H:11:PRO:HB2    | 1:H:14:HIS:CD2    | 2.40                     | 0.57              |
| 1:I:14:HIS:CE1    | 1:I:49:ARG:HA     | 2.40                     | 0.57              |
| 1:I:64:PRO:O      | 1:I:84:ARG:N      | 2.38                     | 0.57              |
| 1:L:11:PRO:HB2    | 1:L:14:HIS:CD2    | 2.40                     | 0.57              |
| 1:M:64:PRO:O      | 1:M:84:ARG:N      | 2.38                     | 0.57              |
| 1:N:11:PRO:HB2    | 1:N:14:HIS:CD2    | 2.40                     | 0.57              |
| 1:Q:168:ILE:HD11  | 1:Q:174:LEU:HB2   | 1.85                     | 0.57              |
| 1:V:218:ALA:HB2   | 1:V:260:VAL:HG22  | 1.86                     | 0.57              |
| 1:W:423:VAL:HG21  | 1:W:452:ARG:HD2   | 1.85                     | 0.57              |
| 1:Z:587:THR:HG23  | 1:Z:590:ASP:H     | 1.70                     | 0.57              |
| 1:BA:591:PHE:HD1  | 1:BA:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:CA:64:PRO:O     | 1:CA:84:ARG:N     | 2.38                     | 0.57              |
| 1:CA:531:THR:OG1  | 1:CA:586:VAL:O    | 2.20                     | 0.57              |
| 1:IA:95:ASP:HA    | 1:KA:85:HIS:CE1   | 2.39                     | 0.57              |
| 1:IA:591:PHE:HD1  | 1:IA:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:MA:587:THR:HG23 | 1:MA:590:ASP:H    | 1.70                     | 0.57              |
| 1:NA:587:THR:HG23 | 1:NA:590:ASP:H    | 1.70                     | 0.57              |
| 1:OA:168:ILE:HD11 | 1:OA:174:LEU:HB2  | 1.85                     | 0.57              |
| 1:OA:785:GLN:O    | 1:OA:789:ASN:ND2  | 2.36                     | 0.57              |
| 1:PA:785:GLN:O    | 1:PA:789:ASN:ND2  | 2.36                     | 0.57              |
| 1:VA:168:ILE:HD11 | 1:VA:174:LEU:HB2  | 1.85                     | 0.57              |
| 1:VA:587:THR:HG23 | 1:VA:590:ASP:H    | 1.70                     | 0.57              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:AB:587:THR:HG23 | 1:AB:590:ASP:H    | 1.70                     | 0.57              |
| 1:CB:11:PRO:HB2   | 1:CB:14:HIS:CD2   | 2.40                     | 0.57              |
| 1:EB:11:PRO:HB2   | 1:EB:14:HIS:CD2   | 2.40                     | 0.57              |
| 1:EB:218:ALA:HB2  | 1:EB:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:EB:257:GLU:HG2  | 1:FB:244:ARG:HB3  | 1.86                     | 0.57              |
| 1:FB:218:ALA:HB2  | 1:FB:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:FB:717:GLU:HB2  | 1:GB:707:LEU:HD13 | 1.85                     | 0.57              |
| 1:GB:11:PRO:HB2   | 1:GB:14:HIS:CD2   | 2.40                     | 0.57              |
| 1:IB:218:ALA:HB2  | 1:IB:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:KB:709:LEU:HD13 | 1:LB:701:LYS:HG3  | 1.85                     | 0.57              |
| 1:KB:717:GLU:HB2  | 1:LB:707:LEU:HD13 | 1.87                     | 0.57              |
| 1:LB:11:PRO:HB2   | 1:LB:14:HIS:CD2   | 2.40                     | 0.57              |
| 1:LB:702:ALA:HB2  | 1:MB:690:ARG:HH12 | 1.70                     | 0.57              |
| 1:LB:802:LEU:HG   | 1:MB:795:PHE:HE2  | 1.69                     | 0.57              |
| 1:MB:14:HIS:CE1   | 1:MB:49:ARG:HA    | 2.40                     | 0.57              |
| 1:NB:14:HIS:CE1   | 1:NB:49:ARG:HA    | 2.40                     | 0.57              |
| 1:OB:8:ILE:HD11   | 1:OB:35:TYR:HB3   | 1.85                     | 0.57              |
| 1:QB:587:THR:HG23 | 1:QB:590:ASP:H    | 1.70                     | 0.57              |
| 1:RB:587:THR:HG23 | 1:RB:590:ASP:H    | 1.70                     | 0.57              |
| 1:SB:504:ARG:NH2  | 1:SB:524:THR:OG1  | 2.37                     | 0.57              |
| 1:TB:14:HIS:CE1   | 1:TB:49:ARG:HA    | 2.40                     | 0.57              |
| 1:VB:64:PRO:O     | 1:VB:84:ARG:N     | 2.38                     | 0.57              |
| 1:WB:64:PRO:O     | 1:WB:84:ARG:N     | 2.38                     | 0.57              |
| 1:XB:168:ILE:HD11 | 1:XB:174:LEU:HB2  | 1.85                     | 0.57              |
| 1:XB:591:PHE:HD1  | 1:XB:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:XB:785:GLN:O    | 1:XB:789:ASN:ND2  | 2.36                     | 0.57              |
| 1:ZB:168:ILE:HD11 | 1:ZB:174:LEU:HB2  | 1.85                     | 0.57              |
| 1:B:11:PRO:HB2    | 1:B:14:HIS:CD2    | 2.40                     | 0.57              |
| 1:D:218:ALA:HB2   | 1:D:260:VAL:HG22  | 1.86                     | 0.57              |
| 1:E:591:PHE:HD1   | 1:E:598:ILE:HD11  | 1.69                     | 0.57              |
| 1:I:11:PRO:HB2    | 1:I:14:HIS:CD2    | 2.40                     | 0.57              |
| 1:J:14:HIS:CE1    | 1:J:49:ARG:HA     | 2.40                     | 0.57              |
| 1:L:14:HIS:CE1    | 1:L:49:ARG:HA     | 2.40                     | 0.57              |
| 1:R:11:PRO:HB2    | 1:R:14:HIS:CD2    | 2.40                     | 0.57              |
| 1:R:785:GLN:O     | 1:R:789:ASN:ND2   | 2.36                     | 0.57              |
| 1:V:14:HIS:CE1    | 1:V:49:ARG:HA     | 2.40                     | 0.57              |
| 1:X:14:HIS:CE1    | 1:X:49:ARG:HA     | 2.40                     | 0.57              |
| 1:Y:14:HIS:CE1    | 1:Y:49:ARG:HA     | 2.40                     | 0.57              |
| 1:Y:591:PHE:HD1   | 1:Y:598:ILE:HD11  | 1.69                     | 0.57              |
| 1:Z:168:ILE:HD11  | 1:Z:174:LEU:HB2   | 1.85                     | 0.57              |
| 1:Z:363:LEU:HA    | 1:BA:353:ALA:HB3  | 1.86                     | 0.57              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:CA:168:ILE:HD11 | 1:CA:174:LEU:HB2  | 1.85                     | 0.57              |
| 1:FA:8:ILE:HD11   | 1:FA:35:TYR:HB3   | 1.86                     | 0.57              |
| 1:FA:587:THR:HG23 | 1:FA:590:ASP:H    | 1.70                     | 0.57              |
| 1:IA:14:HIS:CE1   | 1:IA:49:ARG:HA    | 2.40                     | 0.57              |
| 1:IA:39:ASP:HB2   | 1:RA:39:ASP:HB2   | 1.85                     | 0.57              |
| 1:JA:423:VAL:HG21 | 1:JA:452:ARG:HD2  | 1.85                     | 0.57              |
| 1:KA:14:HIS:CE1   | 1:KA:49:ARG:HA    | 2.40                     | 0.57              |
| 1:NA:504:ARG:NH2  | 1:NA:524:THR:OG1  | 2.37                     | 0.57              |
| 1:OA:591:PHE:HD1  | 1:OA:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:PA:64:PRO:O     | 1:PA:84:ARG:N     | 2.38                     | 0.57              |
| 1:QA:587:THR:HG23 | 1:QA:590:ASP:H    | 1.70                     | 0.57              |
| 1:TA:64:PRO:O     | 1:TA:84:ARG:N     | 2.38                     | 0.57              |
| 1:UA:8:ILE:HD11   | 1:UA:35:TYR:HB3   | 1.86                     | 0.57              |
| 1:VA:504:ARG:NH2  | 1:VA:524:THR:OG1  | 2.37                     | 0.57              |
| 1:XA:504:ARG:NH2  | 1:XA:524:THR:OG1  | 2.37                     | 0.57              |
| 1:XA:591:PHE:HD1  | 1:XA:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:BB:785:GLN:O    | 1:BB:789:ASN:ND2  | 2.36                     | 0.57              |
| 1:EB:64:PRO:O     | 1:EB:84:ARG:N     | 2.38                     | 0.57              |
| 1:EB:423:VAL:HG21 | 1:EB:452:ARG:HD2  | 1.85                     | 0.57              |
| 1:EB:785:GLN:O    | 1:EB:789:ASN:ND2  | 2.36                     | 0.57              |
| 1:FB:591:PHE:HD1  | 1:FB:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:GB:218:ALA:HB2  | 1:GB:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:GB:785:GLN:O    | 1:GB:789:ASN:ND2  | 2.36                     | 0.57              |
| 1:IB:504:ARG:NH2  | 1:IB:524:THR:OG1  | 2.37                     | 0.57              |
| 1:JB:11:PRO:HB2   | 1:JB:14:HIS:CD2   | 2.40                     | 0.57              |
| 1:JB:218:ALA:HB2  | 1:JB:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:LB:423:VAL:HG21 | 1:LB:452:ARG:HD2  | 1.85                     | 0.57              |
| 1:NB:11:PRO:HB2   | 1:NB:14:HIS:CD2   | 2.40                     | 0.57              |
| 1:OB:64:PRO:O     | 1:OB:84:ARG:N     | 2.38                     | 0.57              |
| 1:OB:384:GLN:HB2  | 1:PB:474:ARG:HG3  | 1.87                     | 0.57              |
| 1:OB:785:GLN:O    | 1:OB:789:ASN:ND2  | 2.36                     | 0.57              |
| 1:RB:8:ILE:HD11   | 1:RB:35:TYR:HB3   | 1.85                     | 0.57              |
| 1:RB:504:ARG:NH2  | 1:RB:524:THR:OG1  | 2.37                     | 0.57              |
| 1:UB:587:THR:HG23 | 1:UB:590:ASP:H    | 1.70                     | 0.57              |
| 1:UB:785:GLN:O    | 1:UB:789:ASN:ND2  | 2.36                     | 0.57              |
| 1:VB:717:GLU:CB   | 1:WB:707:LEU:HD13 | 2.35                     | 0.57              |
| 1:XB:8:ILE:HD11   | 1:XB:35:TYR:HB3   | 1.86                     | 0.57              |
| 1:XB:64:PRO:O     | 1:XB:84:ARG:N     | 2.38                     | 0.57              |
| 1:XB:218:ALA:HB2  | 1:XB:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:XB:423:VAL:HG21 | 1:XB:452:ARG:HD2  | 1.85                     | 0.57              |
| 1:YB:218:ALA:HB2  | 1:YB:260:VAL:HG22 | 1.86                     | 0.57              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:423:VAL:HG21  | 1:C:452:ARG:HD2   | 1.85                     | 0.57              |
| 1:F:785:GLN:O     | 1:F:789:ASN:ND2   | 2.36                     | 0.57              |
| 1:H:64:PRO:O      | 1:H:84:ARG:N      | 2.38                     | 0.57              |
| 1:H:423:VAL:HG21  | 1:H:452:ARG:HD2   | 1.85                     | 0.57              |
| 1:K:11:PRO:HB2    | 1:K:14:HIS:CD2    | 2.40                     | 0.57              |
| 1:M:423:VAL:HG21  | 1:M:452:ARG:HD2   | 1.85                     | 0.57              |
| 1:N:790:VAL:HG21  | 1:P:785:GLN:HA    | 1.87                     | 0.57              |
| 1:P:783:LYS:HA    | 1:R:777:LEU:HD11  | 1.86                     | 0.57              |
| 1:Q:504:ARG:NH2   | 1:Q:524:THR:OG1   | 2.37                     | 0.57              |
| 1:T:785:GLN:O     | 1:T:789:ASN:ND2   | 2.36                     | 0.57              |
| 1:V:8:ILE:HD11    | 1:V:35:TYR:HB3    | 1.86                     | 0.57              |
| 1:W:168:ILE:HD11  | 1:W:174:LEU:HB2   | 1.85                     | 0.57              |
| 1:W:591:PHE:HD1   | 1:W:598:ILE:HD11  | 1.69                     | 0.57              |
| 1:Y:504:ARG:NH2   | 1:Y:524:THR:OG1   | 2.37                     | 0.57              |
| 1:BA:8:ILE:HD11   | 1:BA:35:TYR:HB3   | 1.85                     | 0.57              |
| 1:BA:64:PRO:O     | 1:BA:84:ARG:N     | 2.38                     | 0.57              |
| 1:EA:587:THR:HG23 | 1:EA:590:ASP:H    | 1.70                     | 0.57              |
| 1:HA:587:THR:HG23 | 1:HA:590:ASP:H    | 1.70                     | 0.57              |
| 1:HA:591:PHE:HD1  | 1:HA:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:MA:591:PHE:HD1  | 1:MA:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:OA:8:ILE:HD11   | 1:OA:35:TYR:HB3   | 1.86                     | 0.57              |
| 1:QA:64:PRO:O     | 1:QA:84:ARG:N     | 2.38                     | 0.57              |
| 1:SA:587:THR:HG23 | 1:SA:590:ASP:H    | 1.70                     | 0.57              |
| 1:TA:587:THR:HG23 | 1:TA:590:ASP:H    | 1.70                     | 0.57              |
| 1:UA:168:ILE:HD11 | 1:UA:174:LEU:HB2  | 1.85                     | 0.57              |
| 1:UA:587:THR:HG23 | 1:UA:590:ASP:H    | 1.70                     | 0.57              |
| 1:VA:8:ILE:HD11   | 1:VA:35:TYR:HB3   | 1.85                     | 0.57              |
| 1:BB:14:HIS:CE1   | 1:BB:49:ARG:HA    | 2.40                     | 0.57              |
| 1:CB:14:HIS:CE1   | 1:CB:49:ARG:HA    | 2.40                     | 0.57              |
| 1:DB:11:PRO:HB2   | 1:DB:14:HIS:CD2   | 2.40                     | 0.57              |
| 1:DB:218:ALA:HB2  | 1:DB:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:EB:591:PHE:HD1  | 1:EB:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:FB:168:ILE:HD11 | 1:FB:174:LEU:HB2  | 1.85                     | 0.57              |
| 1:GB:14:HIS:CE1   | 1:GB:49:ARG:HA    | 2.40                     | 0.57              |
| 1:GB:168:ILE:HD11 | 1:GB:174:LEU:HB2  | 1.85                     | 0.57              |
| 1:KB:218:ALA:HB2  | 1:KB:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:MB:591:PHE:HD1  | 1:MB:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:NB:218:ALA:HB2  | 1:NB:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:PB:14:HIS:CE1   | 1:PB:49:ARG:HA    | 2.40                     | 0.57              |
| 1:QB:64:PRO:O     | 1:QB:84:ARG:N     | 2.38                     | 0.57              |
| 1:RB:14:HIS:CE1   | 1:RB:49:ARG:HA    | 2.40                     | 0.57              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:SB:587:THR:HG23 | 1:SB:590:ASP:H    | 1.70                     | 0.57              |
| 1:UB:790:VAL:CG2  | 1:VB:788:ALA:HB3  | 2.35                     | 0.57              |
| 1:WB:11:PRO:HB2   | 1:WB:14:HIS:CD2   | 2.40                     | 0.57              |
| 1:WB:218:ALA:HB2  | 1:WB:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:XB:504:ARG:NH2  | 1:XB:524:THR:OG1  | 2.37                     | 0.57              |
| 1:ZB:218:ALA:HB2  | 1:ZB:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:A:591:PHE:HD1   | 1:A:598:ILE:HD11  | 1.69                     | 0.57              |
| 1:J:591:PHE:HD1   | 1:J:598:ILE:HD11  | 1.69                     | 0.57              |
| 1:K:14:HIS:CE1    | 1:K:49:ARG:HA     | 2.40                     | 0.57              |
| 1:N:591:PHE:HD1   | 1:N:598:ILE:HD11  | 1.69                     | 0.57              |
| 1:O:11:PRO:HB2    | 1:O:14:HIS:CD2    | 2.40                     | 0.57              |
| 1:P:11:PRO:HB2    | 1:P:14:HIS:CD2    | 2.40                     | 0.57              |
| 1:S:168:ILE:HD11  | 1:S:174:LEU:HB2   | 1.85                     | 0.57              |
| 1:T:11:PRO:HB2    | 1:T:14:HIS:CD2    | 2.40                     | 0.57              |
| 1:W:11:PRO:HB2    | 1:W:14:HIS:CD2    | 2.40                     | 0.57              |
| 1:X:8:ILE:HD11    | 1:X:35:TYR:HB3    | 1.86                     | 0.57              |
| 1:Y:11:PRO:HB2    | 1:Y:14:HIS:CD2    | 2.40                     | 0.57              |
| 1:Z:64:PRO:O      | 1:Z:84:ARG:N      | 2.38                     | 0.57              |
| 1:Z:591:PHE:HD1   | 1:Z:598:ILE:HD11  | 1.69                     | 0.57              |
| 1:DA:64:PRO:O     | 1:DA:84:ARG:N     | 2.38                     | 0.57              |
| 1:DA:587:THR:HG23 | 1:DA:590:ASP:H    | 1.70                     | 0.57              |
| 1:DA:591:PHE:HD1  | 1:DA:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:HA:8:ILE:HD11   | 1:HA:35:TYR:HB3   | 1.86                     | 0.57              |
| 1:IA:8:ILE:HD11   | 1:IA:35:TYR:HB3   | 1.86                     | 0.57              |
| 1:KA:587:THR:HG23 | 1:KA:590:ASP:H    | 1.70                     | 0.57              |
| 1:OA:64:PRO:O     | 1:OA:84:ARG:N     | 2.38                     | 0.57              |
| 1:PA:504:ARG:NH2  | 1:PA:524:THR:OG1  | 2.37                     | 0.57              |
| 1:QA:591:PHE:HD1  | 1:QA:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:SA:8:ILE:HD11   | 1:SA:35:TYR:HB3   | 1.86                     | 0.57              |
| 1:TA:8:ILE:HD11   | 1:TA:35:TYR:HB3   | 1.86                     | 0.57              |
| 1:TA:14:HIS:CE1   | 1:TA:49:ARG:HA    | 2.40                     | 0.57              |
| 1:UA:591:PHE:HD1  | 1:UA:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:VA:14:HIS:CE1   | 1:VA:49:ARG:HA    | 2.40                     | 0.57              |
| 1:VA:64:PRO:O     | 1:VA:84:ARG:N     | 2.38                     | 0.57              |
| 1:WA:587:THR:HG23 | 1:WA:590:ASP:H    | 1.70                     | 0.57              |
| 1:XA:587:THR:HG23 | 1:XA:590:ASP:H    | 1.70                     | 0.57              |
| 1:YA:591:PHE:HD1  | 1:YA:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:AB:14:HIS:CE1   | 1:AB:49:ARG:HA    | 2.40                     | 0.57              |
| 1:AB:504:ARG:NH2  | 1:AB:524:THR:OG1  | 2.37                     | 0.57              |
| 1:BB:11:PRO:HB2   | 1:BB:14:HIS:CD2   | 2.40                     | 0.57              |
| 1:CB:587:THR:HG23 | 1:CB:590:ASP:H    | 1.70                     | 0.57              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:DB:8:ILE:HD11   | 1:DB:35:TYR:HB3   | 1.86                     | 0.57              |
| 1:EB:8:ILE:HD11   | 1:EB:35:TYR:HB3   | 1.86                     | 0.57              |
| 1:EB:504:ARG:NH2  | 1:EB:524:THR:OG1  | 2.37                     | 0.57              |
| 1:HB:14:HIS:CE1   | 1:HB:49:ARG:HA    | 2.40                     | 0.57              |
| 1:HB:218:ALA:HB2  | 1:HB:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:IB:11:PRO:HB2   | 1:IB:14:HIS:CD2   | 2.40                     | 0.57              |
| 1:KB:64:PRO:O     | 1:KB:84:ARG:N     | 2.38                     | 0.57              |
| 1:KB:785:GLN:O    | 1:KB:789:ASN:ND2  | 2.36                     | 0.57              |
| 1:LB:64:PRO:O     | 1:LB:84:ARG:N     | 2.38                     | 0.57              |
| 1:MB:64:PRO:O     | 1:MB:84:ARG:N     | 2.38                     | 0.57              |
| 1:QB:655:GLN:HG2  | 1:RB:649:ARG:NH1  | 2.12                     | 0.57              |
| 1:RB:64:PRO:O     | 1:RB:84:ARG:N     | 2.38                     | 0.57              |
| 1:SB:702:ALA:HB2  | 1:TB:690:ARG:HH12 | 1.69                     | 0.57              |
| 1:TB:8:ILE:HD11   | 1:TB:35:TYR:HB3   | 1.86                     | 0.57              |
| 1:UB:11:PRO:HB2   | 1:UB:14:HIS:CD2   | 2.40                     | 0.57              |
| 1:UB:14:HIS:CE1   | 1:UB:49:ARG:HA    | 2.40                     | 0.57              |
| 1:VB:8:ILE:HD11   | 1:VB:35:TYR:HB3   | 1.86                     | 0.57              |
| 1:VB:591:PHE:HD1  | 1:VB:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:VB:785:GLN:O    | 1:VB:789:ASN:ND2  | 2.36                     | 0.57              |
| 1:ZB:14:HIS:CE1   | 1:ZB:49:ARG:HA    | 2.40                     | 0.57              |
| 1:AC:14:HIS:CE1   | 1:AC:49:ARG:HA    | 2.40                     | 0.57              |
| 1:A:594:ASN:HB3   | 1:A:597:ARG:HB3   | 1.87                     | 0.57              |
| 1:A:785:GLN:O     | 1:A:789:ASN:ND2   | 2.36                     | 0.57              |
| 1:E:785:GLN:O     | 1:E:789:ASN:ND2   | 2.36                     | 0.57              |
| 1:I:785:GLN:O     | 1:I:789:ASN:ND2   | 2.36                     | 0.57              |
| 1:J:64:PRO:O      | 1:J:84:ARG:N      | 2.38                     | 0.57              |
| 1:L:64:PRO:O      | 1:L:84:ARG:N      | 2.38                     | 0.57              |
| 1:M:11:PRO:HB2    | 1:M:14:HIS:CD2    | 2.40                     | 0.57              |
| 1:O:64:PRO:O      | 1:O:84:ARG:N      | 2.38                     | 0.57              |
| 1:W:785:GLN:O     | 1:W:789:ASN:ND2   | 2.36                     | 0.57              |
| 1:Z:14:HIS:CE1    | 1:Z:49:ARG:HA     | 2.40                     | 0.57              |
| 1:AA:168:ILE:HD11 | 1:AA:174:LEU:HB2  | 1.85                     | 0.57              |
| 1:AA:423:VAL:HG21 | 1:AA:452:ARG:HD2  | 1.85                     | 0.57              |
| 1:EA:64:PRO:O     | 1:EA:84:ARG:N     | 2.38                     | 0.57              |
| 1:EA:168:ILE:HD11 | 1:EA:174:LEU:HB2  | 1.85                     | 0.57              |
| 1:JA:591:PHE:HD1  | 1:JA:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:KA:8:ILE:HD11   | 1:KA:35:TYR:HB3   | 1.86                     | 0.57              |
| 1:MA:14:HIS:CE1   | 1:MA:49:ARG:HA    | 2.40                     | 0.57              |
| 1:RA:14:HIS:CE1   | 1:RA:49:ARG:HA    | 2.40                     | 0.57              |
| 1:SA:64:PRO:O     | 1:SA:84:ARG:N     | 2.38                     | 0.57              |
| 1:SA:591:PHE:HD1  | 1:SA:598:ILE:HD11 | 1.69                     | 0.57              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:ZA:8:ILE:HD11   | 1:ZA:35:TYR:HB3   | 1.86                     | 0.57              |
| 1:ZA:666:THR:HG22 | 1:BB:657:SER:HB2  | 1.87                     | 0.57              |
| 1:ZA:785:GLN:O    | 1:ZA:789:ASN:ND2  | 2.36                     | 0.57              |
| 1:BB:783:LYS:HA   | 1:CB:777:LEU:HD11 | 1.86                     | 0.57              |
| 1:CB:591:PHE:HD1  | 1:CB:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:CB:785:GLN:O    | 1:CB:789:ASN:ND2  | 2.36                     | 0.57              |
| 1:HB:11:PRO:HB2   | 1:HB:14:HIS:CD2   | 2.40                     | 0.57              |
| 1:SB:591:PHE:HD1  | 1:SB:598:ILE:HD11 | 1.69                     | 0.57              |
| 1:TB:785:GLN:O    | 1:TB:789:ASN:ND2  | 2.36                     | 0.57              |
| 1:YB:64:PRO:O     | 1:YB:84:ARG:N     | 2.38                     | 0.57              |
| 1:YB:168:ILE:HD11 | 1:YB:174:LEU:HB2  | 1.85                     | 0.57              |
| 1:AC:218:ALA:HB2  | 1:AC:260:VAL:HG22 | 1.86                     | 0.57              |
| 1:C:11:PRO:HB2    | 1:C:14:HIS:CD2    | 2.40                     | 0.57              |
| 1:F:220:ILE:HD12  | 1:H:245:THR:HG22  | 1.86                     | 0.57              |
| 1:J:11:PRO:HB2    | 1:J:14:HIS:CD2    | 2.40                     | 0.57              |
| 1:J:785:GLN:O     | 1:J:789:ASN:ND2   | 2.36                     | 0.57              |
| 1:K:785:GLN:O     | 1:K:789:ASN:ND2   | 2.36                     | 0.57              |
| 1:L:423:VAL:HG21  | 1:L:452:ARG:HD2   | 1.85                     | 0.57              |
| 1:N:14:HIS:CE1    | 1:N:49:ARG:HA     | 2.40                     | 0.57              |
| 1:O:594:ASN:HB3   | 1:O:597:ARG:HB3   | 1.87                     | 0.57              |
| 1:P:594:ASN:HB3   | 1:P:597:ARG:HB3   | 1.87                     | 0.57              |
| 1:Q:423:VAL:HG21  | 1:Q:452:ARG:HD2   | 1.85                     | 0.57              |
| 1:V:423:VAL:HG21  | 1:V:452:ARG:HD2   | 1.85                     | 0.57              |
| 1:W:14:HIS:CE1    | 1:W:49:ARG:HA     | 2.40                     | 0.57              |
| 1:W:594:ASN:HB3   | 1:W:597:ARG:HB3   | 1.87                     | 0.57              |
| 1:X:587:THR:HG23  | 1:X:590:ASP:H     | 1.70                     | 0.57              |
| 1:AA:11:PRO:HB2   | 1:AA:14:HIS:CD2   | 2.40                     | 0.57              |
| 1:DA:14:HIS:CE1   | 1:DA:49:ARG:HA    | 2.40                     | 0.57              |
| 1:DA:504:ARG:NH2  | 1:DA:524:THR:OG1  | 2.37                     | 0.57              |
| 1:FA:785:GLN:O    | 1:FA:789:ASN:ND2  | 2.36                     | 0.57              |
| 1:GA:8:ILE:HD11   | 1:GA:35:TYR:HB3   | 1.86                     | 0.57              |
| 1:GA:14:HIS:CE1   | 1:GA:49:ARG:HA    | 2.40                     | 0.57              |
| 1:MA:64:PRO:O     | 1:MA:84:ARG:N     | 2.38                     | 0.57              |
| 1:NA:14:HIS:CE1   | 1:NA:49:ARG:HA    | 2.40                     | 0.57              |
| 1:QA:14:HIS:CE1   | 1:QA:49:ARG:HA    | 2.40                     | 0.57              |
| 1:QA:504:ARG:NH2  | 1:QA:524:THR:OG1  | 2.37                     | 0.57              |
| 1:XA:11:PRO:HB2   | 1:XA:14:HIS:CD2   | 2.40                     | 0.57              |
| 1:ZA:11:PRO:HB2   | 1:ZA:14:HIS:CD2   | 2.40                     | 0.57              |
| 1:CB:8:ILE:HD11   | 1:CB:35:TYR:HB3   | 1.86                     | 0.57              |
| 1:EB:587:THR:HG23 | 1:EB:590:ASP:H    | 1.70                     | 0.57              |
| 1:FB:64:PRO:O     | 1:FB:84:ARG:N     | 2.38                     | 0.57              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:LB:14:HIS:CE1   | 1:LB:49:ARG:HA    | 2.40                     | 0.57              |
| 1:LB:594:ASN:HB3  | 1:LB:597:ARG:HB3  | 1.87                     | 0.57              |
| 1:MB:504:ARG:NH2  | 1:MB:524:THR:OG1  | 2.37                     | 0.57              |
| 1:NB:423:VAL:HG21 | 1:NB:452:ARG:HD2  | 1.85                     | 0.57              |
| 1:PB:587:THR:HG23 | 1:PB:590:ASP:H    | 1.70                     | 0.57              |
| 1:QB:12:PRO:CB    | 1:RB:80:GLN:HG2   | 2.35                     | 0.57              |
| 1:RB:709:LEU:HD13 | 1:SB:701:LYS:HG3  | 1.87                     | 0.57              |
| 1:TB:11:PRO:HB2   | 1:TB:14:HIS:CD2   | 2.40                     | 0.57              |
| 1:XB:587:THR:HG23 | 1:XB:590:ASP:H    | 1.70                     | 0.57              |
| 1:YB:587:THR:HG23 | 1:YB:590:ASP:H    | 1.70                     | 0.57              |
| 1:ZB:643:VAL:H    | 1:AC:580:ARG:HH22 | 1.51                     | 0.57              |
| 1:ZB:717:GLU:HB2  | 1:AC:707:LEU:HD13 | 1.87                     | 0.57              |
| 1:F:11:PRO:HB2    | 1:F:14:HIS:CD2    | 2.40                     | 0.56              |
| 1:H:14:HIS:CE1    | 1:H:49:ARG:HA     | 2.40                     | 0.56              |
| 1:H:594:ASN:HB3   | 1:H:597:ARG:HB3   | 1.87                     | 0.56              |
| 1:I:594:ASN:HB3   | 1:I:597:ARG:HB3   | 1.87                     | 0.56              |
| 1:J:504:ARG:NH2   | 1:J:524:THR:OG1   | 2.37                     | 0.56              |
| 1:N:64:PRO:O      | 1:N:84:ARG:N      | 2.38                     | 0.56              |
| 1:N:594:ASN:HB3   | 1:N:597:ARG:HB3   | 1.87                     | 0.56              |
| 1:O:14:HIS:CE1    | 1:O:49:ARG:HA     | 2.40                     | 0.56              |
| 1:P:666:THR:HG22  | 1:R:657:SER:HB2   | 1.87                     | 0.56              |
| 1:Q:587:THR:HG23  | 1:Q:590:ASP:H     | 1.70                     | 0.56              |
| 1:W:384:GLN:HB2   | 1:Y:474:ARG:HG3   | 1.86                     | 0.56              |
| 1:BA:14:HIS:CE1   | 1:BA:49:ARG:HA    | 2.40                     | 0.56              |
| 1:CA:591:PHE:HD1  | 1:CA:598:ILE:HD11 | 1.69                     | 0.56              |
| 1:CA:594:ASN:HB3  | 1:CA:597:ARG:HB3  | 1.87                     | 0.56              |
| 1:FA:64:PRO:O     | 1:FA:84:ARG:N     | 2.38                     | 0.56              |
| 1:FA:504:ARG:NH2  | 1:FA:524:THR:OG1  | 2.37                     | 0.56              |
| 1:FA:591:PHE:HD1  | 1:FA:598:ILE:HD11 | 1.69                     | 0.56              |
| 1:GA:587:THR:HG23 | 1:GA:590:ASP:H    | 1.70                     | 0.56              |
| 1:JA:8:ILE:HD11   | 1:JA:35:TYR:HB3   | 1.86                     | 0.56              |
| 1:JA:14:HIS:CE1   | 1:JA:49:ARG:HA    | 2.40                     | 0.56              |
| 1:JA:587:THR:HG23 | 1:JA:590:ASP:H    | 1.70                     | 0.56              |
| 1:RA:587:THR:HG23 | 1:RA:590:ASP:H    | 1.70                     | 0.56              |
| 1:SA:504:ARG:NH2  | 1:SA:524:THR:OG1  | 2.37                     | 0.56              |
| 1:WA:591:PHE:HD1  | 1:WA:598:ILE:HD11 | 1.69                     | 0.56              |
| 1:XA:785:GLN:O    | 1:XA:789:ASN:ND2  | 2.36                     | 0.56              |
| 1:ZA:504:ARG:NH2  | 1:ZA:524:THR:OG1  | 2.37                     | 0.56              |
| 1:DB:504:ARG:NH2  | 1:DB:524:THR:OG1  | 2.37                     | 0.56              |
| 1:FB:587:THR:HG23 | 1:FB:590:ASP:H    | 1.70                     | 0.56              |
| 1:FB:709:LEU:HD11 | 1:GB:701:LYS:HE3  | 1.87                     | 0.56              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:IB:785:GLN:O    | 1:IB:789:ASN:ND2  | 2.36                     | 0.56              |
| 1:MB:11:PRO:HB2   | 1:MB:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:MB:785:GLN:O    | 1:MB:789:ASN:ND2  | 2.36                     | 0.56              |
| 1:NB:64:PRO:O     | 1:NB:84:ARG:N     | 2.38                     | 0.56              |
| 1:OB:504:ARG:NH2  | 1:OB:524:THR:OG1  | 2.37                     | 0.56              |
| 1:QB:8:ILE:HD11   | 1:QB:35:TYR:HB3   | 1.86                     | 0.56              |
| 1:QB:11:PRO:HB2   | 1:QB:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:QB:504:ARG:NH2  | 1:QB:524:THR:OG1  | 2.37                     | 0.56              |
| 1:QB:591:PHE:HD1  | 1:QB:598:ILE:HD11 | 1.69                     | 0.56              |
| 1:RB:702:ALA:HB2  | 1:SB:690:ARG:HH12 | 1.69                     | 0.56              |
| 1:TB:504:ARG:NH2  | 1:TB:524:THR:OG1  | 2.37                     | 0.56              |
| 1:VB:587:THR:HG23 | 1:VB:590:ASP:H    | 1.70                     | 0.56              |
| 1:AC:11:PRO:HB2   | 1:AC:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:A:14:HIS:CE1    | 1:A:49:ARG:HA     | 2.40                     | 0.56              |
| 1:G:594:ASN:HB3   | 1:G:597:ARG:HB3   | 1.87                     | 0.56              |
| 1:M:785:GLN:O     | 1:M:789:ASN:ND2   | 2.36                     | 0.56              |
| 1:R:591:PHE:HD1   | 1:R:598:ILE:HD11  | 1.69                     | 0.56              |
| 1:V:594:ASN:HB3   | 1:V:597:ARG:HB3   | 1.87                     | 0.56              |
| 1:Y:587:THR:HG23  | 1:Y:590:ASP:H     | 1.70                     | 0.56              |
| 1:BA:587:THR:HG23 | 1:BA:590:ASP:H    | 1.70                     | 0.56              |
| 1:CA:14:HIS:CE1   | 1:CA:49:ARG:HA    | 2.40                     | 0.56              |
| 1:FA:14:HIS:CE1   | 1:FA:49:ARG:HA    | 2.40                     | 0.56              |
| 1:GA:591:PHE:HD1  | 1:GA:598:ILE:HD11 | 1.69                     | 0.56              |
| 1:HA:14:HIS:CE1   | 1:HA:49:ARG:HA    | 2.40                     | 0.56              |
| 1:HA:168:ILE:HD11 | 1:HA:174:LEU:HB2  | 1.85                     | 0.56              |
| 1:KA:594:ASN:HB3  | 1:KA:597:ARG:HB3  | 1.87                     | 0.56              |
| 1:KA:775:ALA:CB   | 1:MA:770:LEU:HD21 | 2.35                     | 0.56              |
| 1:LA:504:ARG:NH2  | 1:LA:524:THR:OG1  | 2.37                     | 0.56              |
| 1:LA:587:THR:HG23 | 1:LA:590:ASP:H    | 1.70                     | 0.56              |
| 1:OA:14:HIS:CE1   | 1:OA:49:ARG:HA    | 2.40                     | 0.56              |
| 1:PA:14:HIS:CE1   | 1:PA:49:ARG:HA    | 2.40                     | 0.56              |
| 1:PA:587:THR:HG23 | 1:PA:590:ASP:H    | 1.70                     | 0.56              |
| 1:SA:14:HIS:CE1   | 1:SA:49:ARG:HA    | 2.40                     | 0.56              |
| 1:TA:504:ARG:NH2  | 1:TA:524:THR:OG1  | 2.37                     | 0.56              |
| 1:WA:14:HIS:CE1   | 1:WA:49:ARG:HA    | 2.40                     | 0.56              |
| 1:YA:504:ARG:NH2  | 1:YA:524:THR:OG1  | 2.37                     | 0.56              |
| 1:AB:382:LEU:O    | 1:OB:396:GLY:HA3  | 2.05                     | 0.56              |
| 1:AB:717:GLU:HB2  | 1:OB:707:LEU:HD13 | 1.87                     | 0.56              |
| 1:CB:504:ARG:NH2  | 1:CB:524:THR:OG1  | 2.37                     | 0.56              |
| 1:OB:14:HIS:CE1   | 1:OB:49:ARG:HA    | 2.40                     | 0.56              |
| 1:PB:785:GLN:O    | 1:PB:789:ASN:ND2  | 2.36                     | 0.56              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:SB:11:PRO:HB2   | 1:SB:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:SB:64:PRO:O     | 1:SB:84:ARG:N     | 2.38                     | 0.56              |
| 1:VB:168:ILE:HD11 | 1:VB:174:LEU:HB2  | 1.85                     | 0.56              |
| 1:VB:504:ARG:NH2  | 1:VB:524:THR:OG1  | 2.37                     | 0.56              |
| 1:YB:11:PRO:HB2   | 1:YB:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:YB:504:ARG:NH2  | 1:YB:524:THR:OG1  | 2.37                     | 0.56              |
| 1:B:594:ASN:HB3   | 1:B:597:ARG:HB3   | 1.87                     | 0.56              |
| 1:C:594:ASN:HB3   | 1:C:597:ARG:HB3   | 1.87                     | 0.56              |
| 1:E:14:HIS:CE1    | 1:E:49:ARG:HA     | 2.40                     | 0.56              |
| 1:G:11:PRO:HB2    | 1:G:14:HIS:CD2    | 2.40                     | 0.56              |
| 1:H:709:LEU:HD11  | 1:J:701:LYS:HE3   | 1.86                     | 0.56              |
| 1:H:772:TYR:CD1   | 1:J:766:ARG:HB3   | 2.41                     | 0.56              |
| 1:J:220:ILE:HD12  | 1:L:245:THR:HG22  | 1.87                     | 0.56              |
| 1:J:655:GLN:HG2   | 1:L:649:ARG:HH11  | 1.71                     | 0.56              |
| 1:K:39:ASP:HB2    | 1:UB:39:ASP:HB2   | 1.88                     | 0.56              |
| 1:K:504:ARG:NH2   | 1:K:524:THR:OG1   | 2.37                     | 0.56              |
| 1:N:785:GLN:O     | 1:N:789:ASN:ND2   | 2.36                     | 0.56              |
| 1:O:591:PHE:HD1   | 1:O:598:ILE:HD11  | 1.69                     | 0.56              |
| 1:Q:594:ASN:HB3   | 1:Q:597:ARG:HB3   | 1.87                     | 0.56              |
| 1:R:504:ARG:NH2   | 1:R:524:THR:OG1   | 2.37                     | 0.56              |
| 1:S:11:PRO:HB2    | 1:S:14:HIS:CD2    | 2.40                     | 0.56              |
| 1:S:14:HIS:CE1    | 1:S:49:ARG:HA     | 2.40                     | 0.56              |
| 1:T:594:ASN:HB3   | 1:T:597:ARG:HB3   | 1.87                     | 0.56              |
| 1:X:594:ASN:HB3   | 1:X:597:ARG:HB3   | 1.88                     | 0.56              |
| 1:Y:785:GLN:O     | 1:Y:789:ASN:ND2   | 2.36                     | 0.56              |
| 1:AA:785:GLN:O    | 1:AA:789:ASN:ND2  | 2.36                     | 0.56              |
| 1:DA:594:ASN:HB3  | 1:DA:597:ARG:HB3  | 1.87                     | 0.56              |
| 1:EA:594:ASN:HB3  | 1:EA:597:ARG:HB3  | 1.88                     | 0.56              |
| 1:GA:64:PRO:O     | 1:GA:84:ARG:N     | 2.38                     | 0.56              |
| 1:GA:168:ILE:HD11 | 1:GA:174:LEU:HB2  | 1.85                     | 0.56              |
| 1:HA:64:PRO:O     | 1:HA:84:ARG:N     | 2.38                     | 0.56              |
| 1:HA:504:ARG:NH2  | 1:HA:524:THR:OG1  | 2.37                     | 0.56              |
| 1:JA:504:ARG:NH2  | 1:JA:524:THR:OG1  | 2.37                     | 0.56              |
| 1:LA:591:PHE:HD1  | 1:LA:598:ILE:HD11 | 1.69                     | 0.56              |
| 1:NA:717:GLU:HB2  | 1:PA:707:LEU:HD13 | 1.87                     | 0.56              |
| 1:OA:587:THR:HG23 | 1:OA:590:ASP:H    | 1.70                     | 0.56              |
| 1:RA:8:ILE:HD11   | 1:RA:35:TYR:HB3   | 1.86                     | 0.56              |
| 1:RA:504:ARG:NH2  | 1:RA:524:THR:OG1  | 2.37                     | 0.56              |
| 1:SA:785:GLN:O    | 1:SA:789:ASN:ND2  | 2.36                     | 0.56              |
| 1:TA:11:PRO:HB2   | 1:TA:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:UA:14:HIS:CE1   | 1:UA:49:ARG:HA    | 2.40                     | 0.56              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:UA:64:PRO:O     | 1:UA:84:ARG:N     | 2.38                     | 0.56              |
| 1:UA:504:ARG:NH2  | 1:UA:524:THR:OG1  | 2.37                     | 0.56              |
| 1:WA:504:ARG:NH2  | 1:WA:524:THR:OG1  | 2.37                     | 0.56              |
| 1:XA:14:HIS:CE1   | 1:XA:49:ARG:HA    | 2.40                     | 0.56              |
| 1:XA:64:PRO:O     | 1:XA:84:ARG:N     | 2.38                     | 0.56              |
| 1:YA:587:THR:HG23 | 1:YA:590:ASP:H    | 1.70                     | 0.56              |
| 1:ZA:587:THR:HG23 | 1:ZA:590:ASP:H    | 1.70                     | 0.56              |
| 1:BB:8:ILE:HD11   | 1:BB:35:TYR:HB3   | 1.86                     | 0.56              |
| 1:BB:504:ARG:NH2  | 1:BB:524:THR:OG1  | 2.37                     | 0.56              |
| 1:BB:724:ALA:CB   | 1:CB:715:ALA:HA   | 2.35                     | 0.56              |
| 1:EB:14:HIS:CE1   | 1:EB:49:ARG:HA    | 2.40                     | 0.56              |
| 1:FB:11:PRO:HB2   | 1:FB:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:FB:504:ARG:NH2  | 1:FB:524:THR:OG1  | 2.37                     | 0.56              |
| 1:HB:594:ASN:HB3  | 1:HB:597:ARG:HB3  | 1.87                     | 0.56              |
| 1:IB:594:ASN:HB3  | 1:IB:597:ARG:HB3  | 1.87                     | 0.56              |
| 1:KB:11:PRO:HB2   | 1:KB:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:KB:594:ASN:HB3  | 1:KB:597:ARG:HB3  | 1.87                     | 0.56              |
| 1:OB:587:THR:HG23 | 1:OB:590:ASP:H    | 1.70                     | 0.56              |
| 1:PB:11:PRO:HB2   | 1:PB:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:QB:55:PRO:HD3   | 1:RB:86:ALA:C     | 2.24                     | 0.56              |
| 1:QB:785:GLN:O    | 1:QB:789:ASN:ND2  | 2.36                     | 0.56              |
| 1:SB:14:HIS:CE1   | 1:SB:49:ARG:HA    | 2.40                     | 0.56              |
| 1:SB:785:GLN:O    | 1:SB:789:ASN:ND2  | 2.36                     | 0.56              |
| 1:TB:587:THR:HG23 | 1:TB:590:ASP:H    | 1.70                     | 0.56              |
| 1:UB:8:ILE:HD11   | 1:UB:35:TYR:HB3   | 1.86                     | 0.56              |
| 1:UB:782:SER:HB2  | 1:VB:777:LEU:HD21 | 1.86                     | 0.56              |
| 1:WB:504:ARG:NH2  | 1:WB:524:THR:OG1  | 2.37                     | 0.56              |
| 1:XB:14:HIS:CE1   | 1:XB:49:ARG:HA    | 2.40                     | 0.56              |
| 1:AC:594:ASN:HB3  | 1:AC:597:ARG:HB3  | 1.87                     | 0.56              |
| 1:B:587:THR:HG23  | 1:B:590:ASP:H     | 1.70                     | 0.56              |
| 1:D:14:HIS:CE1    | 1:D:49:ARG:HA     | 2.40                     | 0.56              |
| 1:F:594:ASN:HB3   | 1:F:597:ARG:HB3   | 1.87                     | 0.56              |
| 1:K:591:PHE:HD1   | 1:K:598:ILE:HD11  | 1.69                     | 0.56              |
| 1:P:769:GLU:HG2   | 1:R:766:ARG:HH12  | 1.70                     | 0.56              |
| 1:Q:11:PRO:HB2    | 1:Q:14:HIS:CD2    | 2.40                     | 0.56              |
| 1:Q:64:PRO:O      | 1:Q:84:ARG:N      | 2.38                     | 0.56              |
| 1:Z:8:ILE:HD11    | 1:Z:35:TYR:HB3    | 1.86                     | 0.56              |
| 1:EA:11:PRO:HB2   | 1:EA:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:EA:423:VAL:HG21 | 1:EA:452:ARG:HD2  | 1.85                     | 0.56              |
| 1:MA:8:ILE:HD11   | 1:MA:35:TYR:HB3   | 1.86                     | 0.56              |
| 1:QA:594:ASN:HB3  | 1:QA:597:ARG:HB3  | 1.87                     | 0.56              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:RA:11:PRO:HB2   | 1:RA:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:VA:11:PRO:HB2   | 1:VA:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:VA:709:LEU:HD13 | 1:XA:701:LYS:HG3  | 1.87                     | 0.56              |
| 1:WA:8:ILE:HD11   | 1:WA:35:TYR:HB3   | 1.86                     | 0.56              |
| 1:XA:170:GLN:HB3  | 1:ZA:233:GLN:OE1  | 2.05                     | 0.56              |
| 1:AB:11:PRO:HB2   | 1:AB:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:BB:706:LEU:HD12 | 1:CB:693:ILE:O    | 2.06                     | 0.56              |
| 1:CB:168:ILE:HD11 | 1:CB:174:LEU:HB2  | 1.85                     | 0.56              |
| 1:PB:8:ILE:HD11   | 1:PB:35:TYR:HB3   | 1.86                     | 0.56              |
| 1:UB:362:PRO:CB   | 1:VB:355:ASP:HB3  | 2.35                     | 0.56              |
| 1:UB:504:ARG:NH2  | 1:UB:524:THR:OG1  | 2.37                     | 0.56              |
| 1:ZB:64:PRO:O     | 1:ZB:84:ARG:N     | 2.38                     | 0.56              |
| 1:ZB:486:LEU:O    | 1:AC:476:LYS:NZ   | 2.39                     | 0.56              |
| 1:A:64:PRO:O      | 1:A:84:ARG:N      | 2.38                     | 0.56              |
| 1:C:587:THR:HG23  | 1:C:590:ASP:H     | 1.70                     | 0.56              |
| 1:M:594:ASN:HB3   | 1:M:597:ARG:HB3   | 1.87                     | 0.56              |
| 1:P:64:PRO:O      | 1:P:84:ARG:N      | 2.38                     | 0.56              |
| 1:Q:785:GLN:O     | 1:Q:789:ASN:ND2   | 2.36                     | 0.56              |
| 1:V:11:PRO:HB2    | 1:V:14:HIS:CD2    | 2.40                     | 0.56              |
| 1:Y:594:ASN:HB3   | 1:Y:597:ARG:HB3   | 1.87                     | 0.56              |
| 1:CA:11:PRO:HB2   | 1:CA:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:IA:594:ASN:HB3  | 1:IA:597:ARG:HB3  | 1.87                     | 0.56              |
| 1:PA:591:PHE:HD1  | 1:PA:598:ILE:HD11 | 1.69                     | 0.56              |
| 1:QA:11:PRO:HB2   | 1:QA:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:SA:594:ASN:HB3  | 1:SA:597:ARG:HB3  | 1.87                     | 0.56              |
| 1:TA:591:PHE:HD1  | 1:TA:598:ILE:HD11 | 1.69                     | 0.56              |
| 1:TA:785:GLN:O    | 1:TA:789:ASN:ND2  | 2.36                     | 0.56              |
| 1:IB:587:THR:HG23 | 1:IB:590:ASP:H    | 1.70                     | 0.56              |
| 1:JB:55:PRO:HD3   | 1:KB:86:ALA:O     | 2.05                     | 0.56              |
| 1:OB:203:ALA:HB2  | 1:PB:192:THR:HB   | 1.86                     | 0.56              |
| 1:RB:11:PRO:HB2   | 1:RB:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:TB:655:GLN:HG2  | 1:UB:649:ARG:HH11 | 1.70                     | 0.56              |
| 1:XB:709:LEU:HD11 | 1:YB:701:LYS:HE3  | 1.88                     | 0.56              |
| 1:ZB:461:ARG:HH11 | 1:AC:473:TYR:HE2  | 1.54                     | 0.56              |
| 1:J:56:ARG:HB2    | 1:L:127:LEU:HD22  | 1.88                     | 0.56              |
| 1:J:594:ASN:HB3   | 1:J:597:ARG:HB3   | 1.87                     | 0.56              |
| 1:O:587:THR:HG23  | 1:O:590:ASP:H     | 1.70                     | 0.56              |
| 1:P:587:THR:HG23  | 1:P:590:ASP:H     | 1.70                     | 0.56              |
| 1:R:14:HIS:CE1    | 1:R:49:ARG:HA     | 2.40                     | 0.56              |
| 1:W:587:THR:HG23  | 1:W:590:ASP:H     | 1.70                     | 0.56              |
| 1:FA:40:ASN:ND2   | 1:UA:38:GLN:HG3   | 2.20                     | 0.56              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:MA:504:ARG:NH2  | 1:MA:524:THR:OG1  | 2.37                     | 0.56              |
| 1:NA:11:PRO:HB2   | 1:NA:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:QA:8:ILE:HD11   | 1:QA:35:TYR:HB3   | 1.86                     | 0.56              |
| 1:WA:11:PRO:HB2   | 1:WA:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:XA:8:ILE:HD11   | 1:XA:35:TYR:HB3   | 1.86                     | 0.56              |
| 1:EB:17:HIS:NE2   | 1:EB:99:LEU:O     | 2.33                     | 0.56              |
| 1:JB:14:HIS:CE1   | 1:JB:49:ARG:HA    | 2.40                     | 0.56              |
| 1:JB:32:PRO:HG3   | 1:KB:78:THR:HG21  | 1.88                     | 0.56              |
| 1:SB:8:ILE:HD11   | 1:SB:35:TYR:HB3   | 1.86                     | 0.56              |
| 1:SB:709:LEU:HD13 | 1:TB:701:LYS:HG3  | 1.88                     | 0.56              |
| 1:XB:17:HIS:NE2   | 1:XB:99:LEU:O     | 2.33                     | 0.56              |
| 1:D:504:ARG:NH2   | 1:D:524:THR:OG1   | 2.37                     | 0.56              |
| 1:I:587:THR:HG23  | 1:I:590:ASP:H     | 1.70                     | 0.56              |
| 1:R:587:THR:HG23  | 1:R:590:ASP:H     | 1.70                     | 0.56              |
| 1:S:587:THR:HG23  | 1:S:590:ASP:H     | 1.70                     | 0.56              |
| 1:S:591:PHE:HD1   | 1:S:598:ILE:HD11  | 1.69                     | 0.56              |
| 1:X:17:HIS:NE2    | 1:X:99:LEU:O      | 2.33                     | 0.56              |
| 1:X:384:GLN:HB2   | 1:Z:474:ARG:HG3   | 1.88                     | 0.56              |
| 1:Z:717:GLU:HB2   | 1:BA:707:LEU:HD13 | 1.87                     | 0.56              |
| 1:AA:17:HIS:NE2   | 1:AA:99:LEU:O     | 2.33                     | 0.56              |
| 1:AA:587:THR:HG23 | 1:AA:590:ASP:H    | 1.70                     | 0.56              |
| 1:DA:8:ILE:HD11   | 1:DA:35:TYR:HB3   | 1.86                     | 0.56              |
| 1:DA:11:PRO:HB2   | 1:DA:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:FA:594:ASN:HB3  | 1:FA:597:ARG:HB3  | 1.87                     | 0.56              |
| 1:GA:504:ARG:NH2  | 1:GA:524:THR:OG1  | 2.37                     | 0.56              |
| 1:JA:11:PRO:HB2   | 1:JA:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:KA:11:PRO:HB2   | 1:KA:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:LA:594:ASN:HB3  | 1:LA:597:ARG:HB3  | 1.87                     | 0.56              |
| 1:MA:594:ASN:HB3  | 1:MA:597:ARG:HB3  | 1.87                     | 0.56              |
| 1:WA:64:PRO:O     | 1:WA:84:ARG:N     | 2.38                     | 0.56              |
| 1:YA:14:HIS:CE1   | 1:YA:49:ARG:HA    | 2.40                     | 0.56              |
| 1:AB:785:GLN:O    | 1:AB:789:ASN:ND2  | 2.36                     | 0.56              |
| 1:EB:594:ASN:HB3  | 1:EB:597:ARG:HB3  | 1.87                     | 0.56              |
| 1:GB:64:PRO:O     | 1:GB:84:ARG:N     | 2.38                     | 0.56              |
| 1:MB:594:ASN:HB3  | 1:MB:597:ARG:HB3  | 1.87                     | 0.56              |
| 1:NB:594:ASN:HB3  | 1:NB:597:ARG:HB3  | 1.87                     | 0.56              |
| 1:OB:11:PRO:HB2   | 1:OB:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:XB:594:ASN:HB3  | 1:XB:597:ARG:HB3  | 1.87                     | 0.56              |
| 1:F:537:LEU:HD11  | 1:F:591:PHE:HE2   | 1.71                     | 0.56              |
| 1:K:587:THR:HG23  | 1:K:590:ASP:H     | 1.70                     | 0.56              |
| 1:X:11:PRO:HB2    | 1:X:14:HIS:CD2    | 2.40                     | 0.56              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:Z:11:PRO:HB2    | 1:Z:14:HIS:CD2    | 2.40                     | 0.56              |
| 1:DA:702:ALA:HB2  | 1:FA:690:ARG:HH12 | 1.71                     | 0.56              |
| 1:FA:11:PRO:HB2   | 1:FA:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:GA:11:PRO:HB2   | 1:GA:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:IA:11:PRO:HB2   | 1:IA:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:KA:17:HIS:NE2   | 1:KA:99:LEU:O     | 2.33                     | 0.56              |
| 1:LA:14:HIS:CE1   | 1:LA:49:ARG:HA    | 2.40                     | 0.56              |
| 1:SA:11:PRO:HB2   | 1:SA:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:TA:384:GLN:HB2  | 1:VA:474:ARG:HG3  | 1.88                     | 0.56              |
| 1:YA:594:ASN:HB3  | 1:YA:597:ARG:HB3  | 1.87                     | 0.56              |
| 1:LB:587:THR:HG23 | 1:LB:590:ASP:H    | 1.70                     | 0.56              |
| 1:LB:772:TYR:CG   | 1:MB:766:ARG:HD3  | 2.41                     | 0.56              |
| 1:OB:591:PHE:HD1  | 1:OB:598:ILE:HD11 | 1.69                     | 0.56              |
| 1:PB:594:ASN:HB3  | 1:PB:597:ARG:HB3  | 1.87                     | 0.56              |
| 1:TB:64:PRO:O     | 1:TB:84:ARG:N     | 2.38                     | 0.56              |
| 1:UB:769:GLU:CG   | 1:VB:766:ARG:HH12 | 2.18                     | 0.56              |
| 1:D:17:HIS:NE2    | 1:D:99:LEU:O      | 2.33                     | 0.56              |
| 1:E:537:LEU:HD11  | 1:E:591:PHE:HE2   | 1.71                     | 0.56              |
| 1:H:36:ILE:HD13   | 1:IB:36:ILE:HD13  | 1.87                     | 0.56              |
| 1:J:587:THR:HG23  | 1:J:590:ASP:H     | 1.70                     | 0.56              |
| 1:K:537:LEU:HD11  | 1:K:591:PHE:HE2   | 1.71                     | 0.56              |
| 1:O:785:GLN:O     | 1:O:789:ASN:ND2   | 2.36                     | 0.56              |
| 1:R:64:PRO:O      | 1:R:84:ARG:N      | 2.38                     | 0.56              |
| 1:V:785:GLN:O     | 1:V:789:ASN:ND2   | 2.36                     | 0.56              |
| 1:Z:504:ARG:NH2   | 1:Z:524:THR:OG1   | 2.37                     | 0.56              |
| 1:BA:11:PRO:HB2   | 1:BA:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:KA:537:LEU:HD11 | 1:KA:591:PHE:HE2  | 1.71                     | 0.56              |
| 1:LA:11:PRO:HB2   | 1:LA:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:MA:11:PRO:HB2   | 1:MA:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:NA:785:GLN:O    | 1:NA:789:ASN:ND2  | 2.36                     | 0.56              |
| 1:OA:11:PRO:HB2   | 1:OA:14:HIS:CD2   | 2.40                     | 0.56              |
| 1:AB:363:LEU:HA   | 1:OB:353:ALA:HB3  | 1.86                     | 0.56              |
| 1:HB:537:LEU:HD11 | 1:HB:591:PHE:HE2  | 1.71                     | 0.56              |
| 1:KB:537:LEU:HD11 | 1:KB:591:PHE:HE2  | 1.71                     | 0.56              |
| 1:MB:587:THR:HG23 | 1:MB:590:ASP:H    | 1.70                     | 0.56              |
| 1:VB:658:VAL:HG11 | 1:WB:535:ALA:HA   | 1.88                     | 0.56              |
| 1:YB:384:GLN:HB2  | 1:ZB:474:ARG:HG3  | 1.88                     | 0.56              |
| 1:H:587:THR:HG23  | 1:H:590:ASP:H     | 1.70                     | 0.56              |
| 1:L:537:LEU:HD11  | 1:L:591:PHE:HE2   | 1.71                     | 0.56              |
| 1:R:537:LEU:HD11  | 1:R:591:PHE:HE2   | 1.71                     | 0.56              |
| 1:R:594:ASN:HB3   | 1:R:597:ARG:HB3   | 1.87                     | 0.56              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:S:9:ARG:HH21    | 1:V:24:ASN:ND2   | 2.04                     | 0.56              |
| 1:S:64:PRO:O      | 1:S:84:ARG:N     | 2.38                     | 0.56              |
| 1:X:537:LEU:HD11  | 1:X:591:PHE:HE2  | 1.71                     | 0.56              |
| 1:X:591:PHE:HD1   | 1:X:598:ILE:HD11 | 1.69                     | 0.56              |
| 1:Z:594:ASN:HB3   | 1:Z:597:ARG:HB3  | 1.87                     | 0.56              |
| 1:CA:587:THR:HG23 | 1:CA:590:ASP:H   | 1.70                     | 0.56              |
| 1:EA:785:GLN:O    | 1:EA:789:ASN:ND2 | 2.36                     | 0.56              |
| 1:JA:64:PRO:O     | 1:JA:84:ARG:N    | 2.38                     | 0.56              |
| 1:JA:594:ASN:HB3  | 1:JA:597:ARG:HB3 | 1.87                     | 0.56              |
| 1:JA:785:GLN:O    | 1:JA:789:ASN:ND2 | 2.36                     | 0.56              |
| 1:KA:794:LYS:HD3  | 1:MA:788:ALA:HB1 | 1.88                     | 0.56              |
| 1:PA:11:PRO:HB2   | 1:PA:14:HIS:CD2  | 2.40                     | 0.56              |
| 1:ZA:64:PRO:O     | 1:ZA:84:ARG:N    | 2.38                     | 0.56              |
| 1:MB:797:GLU:HG2  | 1:NB:792:ALA:HB1 | 1.87                     | 0.56              |
| 1:NB:537:LEU:HD11 | 1:NB:591:PHE:HE2 | 1.72                     | 0.56              |
| 1:PB:504:ARG:NH2  | 1:PB:524:THR:OG1 | 2.37                     | 0.56              |
| 1:QB:537:LEU:HD11 | 1:QB:591:PHE:HE2 | 1.71                     | 0.56              |
| 1:AC:537:LEU:HD11 | 1:AC:591:PHE:HE2 | 1.71                     | 0.56              |
| 1:C:64:PRO:O      | 1:C:84:ARG:N     | 2.38                     | 0.55              |
| 1:D:360:ARG:HG3   | 1:D:407:MET:SD   | 2.47                     | 0.55              |
| 1:D:587:THR:HG23  | 1:D:590:ASP:H    | 1.70                     | 0.55              |
| 1:K:594:ASN:HB3   | 1:K:597:ARG:HB3  | 1.87                     | 0.55              |
| 1:L:594:ASN:HB3   | 1:L:597:ARG:HB3  | 1.87                     | 0.55              |
| 1:Q:170:GLN:HB3   | 1:S:233:GLN:OE1  | 2.05                     | 0.55              |
| 1:Q:279:ARG:NH2   | 1:S:338:GLN:OE1  | 2.35                     | 0.55              |
| 1:Q:537:LEU:HD11  | 1:Q:591:PHE:HE2  | 1.71                     | 0.55              |
| 1:T:384:GLN:HB2   | 1:W:474:ARG:HG3  | 1.87                     | 0.55              |
| 1:Y:537:LEU:HD11  | 1:Y:591:PHE:HE2  | 1.71                     | 0.55              |
| 1:Z:384:GLN:HB2   | 1:BA:474:ARG:HG3 | 1.87                     | 0.55              |
| 1:AA:594:ASN:HB3  | 1:AA:597:ARG:HB3 | 1.87                     | 0.55              |
| 1:BA:504:ARG:NH2  | 1:BA:524:THR:OG1 | 2.37                     | 0.55              |
| 1:BA:594:ASN:HB3  | 1:BA:597:ARG:HB3 | 1.87                     | 0.55              |
| 1:DA:170:GLN:HB3  | 1:FA:233:GLN:OE1 | 2.05                     | 0.55              |
| 1:EA:537:LEU:HD11 | 1:EA:591:PHE:HE2 | 1.72                     | 0.55              |
| 1:FA:537:LEU:HD11 | 1:FA:591:PHE:HE2 | 1.71                     | 0.55              |
| 1:IA:64:PRO:O     | 1:IA:84:ARG:N    | 2.38                     | 0.55              |
| 1:NA:8:ILE:HD11   | 1:NA:35:TYR:HB3  | 1.86                     | 0.55              |
| 1:RA:594:ASN:HB3  | 1:RA:597:ARG:HB3 | 1.87                     | 0.55              |
| 1:SA:537:LEU:HD11 | 1:SA:591:PHE:HE2 | 1.71                     | 0.55              |
| 1:TA:537:LEU:HD11 | 1:TA:591:PHE:HE2 | 1.71                     | 0.55              |
| 1:YA:11:PRO:HB2   | 1:YA:14:HIS:CD2  | 2.40                     | 0.55              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:ZA:537:LEU:HD11 | 1:ZA:591:PHE:HE2 | 1.72                     | 0.55              |
| 1:AB:8:ILE:HD11   | 1:AB:35:TYR:HB3  | 1.86                     | 0.55              |
| 1:EB:484:PRO:HG2  | 1:FB:471:TYR:CD2 | 2.41                     | 0.55              |
| 1:EB:537:LEU:HD11 | 1:EB:591:PHE:HE2 | 1.71                     | 0.55              |
| 1:HB:587:THR:HG23 | 1:HB:590:ASP:H   | 1.70                     | 0.55              |
| 1:TB:537:LEU:HD11 | 1:TB:591:PHE:HE2 | 1.72                     | 0.55              |
| 1:WB:594:ASN:HB3  | 1:WB:597:ARG:HB3 | 1.87                     | 0.55              |
| 1:ZB:594:ASN:HB3  | 1:ZB:597:ARG:HB3 | 1.87                     | 0.55              |
| 1:AC:587:THR:HG23 | 1:AC:590:ASP:H   | 1.70                     | 0.55              |
| 1:A:772:TYR:CD1   | 1:C:766:ARG:HB3  | 2.41                     | 0.55              |
| 1:B:360:ARG:HG3   | 1:B:407:MET:SD   | 2.47                     | 0.55              |
| 1:F:360:ARG:HG3   | 1:F:407:MET:SD   | 2.47                     | 0.55              |
| 1:M:587:THR:HG23  | 1:M:590:ASP:H    | 1.70                     | 0.55              |
| 1:O:96:PRO:HD3    | 1:Q:85:HIS:CE1   | 2.41                     | 0.55              |
| 1:Q:360:ARG:HG3   | 1:Q:407:MET:SD   | 2.47                     | 0.55              |
| 1:S:360:ARG:HG3   | 1:S:407:MET:SD   | 2.47                     | 0.55              |
| 1:T:587:THR:HG23  | 1:T:590:ASP:H    | 1.70                     | 0.55              |
| 1:V:360:ARG:HG3   | 1:V:407:MET:SD   | 2.47                     | 0.55              |
| 1:V:587:THR:HG23  | 1:V:590:ASP:H    | 1.70                     | 0.55              |
| 1:HA:11:PRO:HB2   | 1:HA:14:HIS:CD2  | 2.40                     | 0.55              |
| 1:LA:537:LEU:HD11 | 1:LA:591:PHE:HE2 | 1.71                     | 0.55              |
| 1:OA:594:ASN:HB3  | 1:OA:597:ARG:HB3 | 1.87                     | 0.55              |
| 1:SA:384:GLN:HB2  | 1:UA:474:ARG:HG3 | 1.87                     | 0.55              |
| 1:TA:594:ASN:HB3  | 1:TA:597:ARG:HB3 | 1.87                     | 0.55              |
| 1:WA:785:GLN:O    | 1:WA:789:ASN:ND2 | 2.36                     | 0.55              |
| 1:YA:537:LEU:HD11 | 1:YA:591:PHE:HE2 | 1.71                     | 0.55              |
| 1:EB:363:LEU:HA   | 1:FB:353:ALA:HB3 | 1.88                     | 0.55              |
| 1:EB:465:ASN:OD1  | 1:FB:563:SER:HA  | 2.06                     | 0.55              |
| 1:GB:594:ASN:HB3  | 1:GB:597:ARG:HB3 | 1.87                     | 0.55              |
| 1:IB:360:ARG:HG3  | 1:IB:407:MET:SD  | 2.47                     | 0.55              |
| 1:JB:504:ARG:NH2  | 1:JB:524:THR:OG1 | 2.37                     | 0.55              |
| 1:KB:587:THR:HG23 | 1:KB:590:ASP:H   | 1.70                     | 0.55              |
| 1:QB:12:PRO:HB3   | 1:RB:80:GLN:HG2  | 1.87                     | 0.55              |
| 1:QB:594:ASN:HB3  | 1:QB:597:ARG:HB3 | 1.87                     | 0.55              |
| 1:XB:537:LEU:HD11 | 1:XB:591:PHE:HE2 | 1.71                     | 0.55              |
| 1:YB:594:ASN:HB3  | 1:YB:597:ARG:HB3 | 1.87                     | 0.55              |
| 1:A:587:THR:HG23  | 1:A:590:ASP:H    | 1.70                     | 0.55              |
| 1:F:17:HIS:NE2    | 1:F:99:LEU:O     | 2.33                     | 0.55              |
| 1:L:587:THR:HG23  | 1:L:590:ASP:H    | 1.70                     | 0.55              |
| 1:Q:36:ILE:HD13   | 1:QB:36:ILE:HD13 | 1.88                     | 0.55              |
| 1:T:17:HIS:NE2    | 1:T:99:LEU:O     | 2.33                     | 0.55              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:X:768:MET:SD    | 1:Z:766:ARG:HD2   | 2.47                     | 0.55              |
| 1:EA:360:ARG:HG3  | 1:EA:407:MET:SD   | 2.47                     | 0.55              |
| 1:GA:360:ARG:HG3  | 1:GA:407:MET:SD   | 2.47                     | 0.55              |
| 1:IA:360:ARG:HG3  | 1:IA:407:MET:SD   | 2.47                     | 0.55              |
| 1:KA:591:PHE:HD1  | 1:KA:598:ILE:HD11 | 1.69                     | 0.55              |
| 1:OA:504:ARG:NH2  | 1:OA:524:THR:OG1  | 2.37                     | 0.55              |
| 1:QA:537:LEU:HD11 | 1:QA:591:PHE:HE2  | 1.71                     | 0.55              |
| 1:UA:11:PRO:HB2   | 1:UA:14:HIS:CD2   | 2.40                     | 0.55              |
| 1:WA:594:ASN:HB3  | 1:WA:597:ARG:HB3  | 1.87                     | 0.55              |
| 1:ZA:594:ASN:HB3  | 1:ZA:597:ARG:HB3  | 1.87                     | 0.55              |
| 1:CB:384:GLN:HB2  | 1:DB:474:ARG:HG3  | 1.88                     | 0.55              |
| 1:DB:537:LEU:HD11 | 1:DB:591:PHE:HE2  | 1.72                     | 0.55              |
| 1:DB:587:THR:HG23 | 1:DB:590:ASP:H    | 1.70                     | 0.55              |
| 1:HB:64:PRO:O     | 1:HB:84:ARG:N     | 2.38                     | 0.55              |
| 1:HB:360:ARG:HG3  | 1:HB:407:MET:SD   | 2.47                     | 0.55              |
| 1:JB:360:ARG:HG3  | 1:JB:407:MET:SD   | 2.47                     | 0.55              |
| 1:NB:587:THR:HG23 | 1:NB:590:ASP:H    | 1.70                     | 0.55              |
| 1:QB:56:ARG:HH11  | 1:RB:128:ASP:H    | 1.52                     | 0.55              |
| 1:TB:594:ASN:HB3  | 1:TB:597:ARG:HB3  | 1.87                     | 0.55              |
| 1:ZB:658:VAL:HG11 | 1:AC:535:ALA:HA   | 1.89                     | 0.55              |
| 1:AC:360:ARG:HG3  | 1:AC:407:MET:SD   | 2.47                     | 0.55              |
| 1:E:360:ARG:HG3   | 1:E:407:MET:SD    | 2.47                     | 0.55              |
| 1:F:587:THR:HG23  | 1:F:590:ASP:H     | 1.70                     | 0.55              |
| 1:H:360:ARG:HG3   | 1:H:407:MET:SD    | 2.47                     | 0.55              |
| 1:K:360:ARG:HG3   | 1:K:407:MET:SD    | 2.47                     | 0.55              |
| 1:N:360:ARG:HG3   | 1:N:407:MET:SD    | 2.47                     | 0.55              |
| 1:S:594:ASN:HB3   | 1:S:597:ARG:HB3   | 1.87                     | 0.55              |
| 1:X:360:ARG:HG3   | 1:X:407:MET:SD    | 2.47                     | 0.55              |
| 1:AA:504:ARG:NH2  | 1:AA:524:THR:OG1  | 2.37                     | 0.55              |
| 1:DA:537:LEU:HD11 | 1:DA:591:PHE:HE2  | 1.71                     | 0.55              |
| 1:EA:17:HIS:NE2   | 1:EA:99:LEU:O     | 2.33                     | 0.55              |
| 1:GA:594:ASN:HB3  | 1:GA:597:ARG:HB3  | 1.87                     | 0.55              |
| 1:IA:785:GLN:O    | 1:IA:789:ASN:ND2  | 2.36                     | 0.55              |
| 1:KA:360:ARG:HG3  | 1:KA:407:MET:SD   | 2.47                     | 0.55              |
| 1:RA:537:LEU:HD11 | 1:RA:591:PHE:HE2  | 1.71                     | 0.55              |
| 1:YA:64:PRO:O     | 1:YA:84:ARG:N     | 2.38                     | 0.55              |
| 1:AB:594:ASN:HB3  | 1:AB:597:ARG:HB3  | 1.87                     | 0.55              |
| 1:DB:594:ASN:HB3  | 1:DB:597:ARG:HB3  | 1.87                     | 0.55              |
| 1:JB:17:HIS:NE2   | 1:JB:99:LEU:O     | 2.33                     | 0.55              |
| 1:KB:360:ARG:HG3  | 1:KB:407:MET:SD   | 2.47                     | 0.55              |
| 1:LB:360:ARG:HG3  | 1:LB:407:MET:SD   | 2.47                     | 0.55              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:UB:594:ASN:HB3  | 1:UB:597:ARG:HB3  | 1.87                     | 0.55              |
| 1:UB:769:GLU:HA   | 1:VB:766:ARG:HH11 | 1.68                     | 0.55              |
| 1:WB:537:LEU:HD11 | 1:WB:591:PHE:HE2  | 1.72                     | 0.55              |
| 1:A:360:ARG:HG3   | 1:A:407:MET:SD    | 2.47                     | 0.55              |
| 1:B:17:HIS:NE2    | 1:B:99:LEU:O      | 2.33                     | 0.55              |
| 1:D:594:ASN:HB3   | 1:D:597:ARG:HB3   | 1.87                     | 0.55              |
| 1:E:594:ASN:HB3   | 1:E:597:ARG:HB3   | 1.87                     | 0.55              |
| 1:I:237:ASP:OD1   | 1:I:241:VAL:N     | 2.35                     | 0.55              |
| 1:O:360:ARG:HG3   | 1:O:407:MET:SD    | 2.47                     | 0.55              |
| 1:Q:237:ASP:OD1   | 1:Q:241:VAL:N     | 2.35                     | 0.55              |
| 1:R:360:ARG:HG3   | 1:R:407:MET:SD    | 2.47                     | 0.55              |
| 1:S:504:ARG:NH2   | 1:S:524:THR:OG1   | 2.37                     | 0.55              |
| 1:Y:360:ARG:HG3   | 1:Y:407:MET:SD    | 2.47                     | 0.55              |
| 1:Z:537:LEU:HD11  | 1:Z:591:PHE:HE2   | 1.72                     | 0.55              |
| 1:CA:360:ARG:HG3  | 1:CA:407:MET:SD   | 2.47                     | 0.55              |
| 1:IA:587:THR:HG23 | 1:IA:590:ASP:H    | 1.70                     | 0.55              |
| 1:MA:537:LEU:HD11 | 1:MA:591:PHE:HE2  | 1.71                     | 0.55              |
| 1:NA:594:ASN:HB3  | 1:NA:597:ARG:HB3  | 1.87                     | 0.55              |
| 1:AB:537:LEU:HD11 | 1:AB:591:PHE:HE2  | 1.71                     | 0.55              |
| 1:BB:594:ASN:HB3  | 1:BB:597:ARG:HB3  | 1.87                     | 0.55              |
| 1:GB:170:GLN:HB3  | 1:HB:233:GLN:OE1  | 2.06                     | 0.55              |
| 1:GB:360:ARG:HG3  | 1:GB:407:MET:SD   | 2.47                     | 0.55              |
| 1:GB:504:ARG:NH2  | 1:GB:524:THR:OG1  | 2.37                     | 0.55              |
| 1:IB:17:HIS:NE2   | 1:IB:99:LEU:O     | 2.33                     | 0.55              |
| 1:JB:587:THR:HG23 | 1:JB:590:ASP:H    | 1.70                     | 0.55              |
| 1:MB:360:ARG:HG3  | 1:MB:407:MET:SD   | 2.47                     | 0.55              |
| 1:PB:537:LEU:HD11 | 1:PB:591:PHE:HE2  | 1.72                     | 0.55              |
| 1:WB:587:THR:HG23 | 1:WB:590:ASP:H    | 1.70                     | 0.55              |
| 1:ZB:360:ARG:HG3  | 1:ZB:407:MET:SD   | 2.47                     | 0.55              |
| 1:AC:64:PRO:O     | 1:AC:84:ARG:N     | 2.38                     | 0.55              |
| 1:D:537:LEU:HD11  | 1:D:591:PHE:HE2   | 1.71                     | 0.55              |
| 1:G:587:THR:HG23  | 1:G:590:ASP:H     | 1.70                     | 0.55              |
| 1:I:506:LYS:O     | 1:I:507:ARG:NE    | 2.40                     | 0.55              |
| 1:L:17:HIS:NE2    | 1:L:99:LEU:O      | 2.33                     | 0.55              |
| 1:N:587:THR:HG23  | 1:N:590:ASP:H     | 1.70                     | 0.55              |
| 1:P:537:LEU:HD11  | 1:P:591:PHE:HE2   | 1.71                     | 0.55              |
| 1:T:360:ARG:HG3   | 1:T:407:MET:SD    | 2.47                     | 0.55              |
| 1:W:537:LEU:HD11  | 1:W:591:PHE:HE2   | 1.71                     | 0.55              |
| 1:Z:360:ARG:HG3   | 1:Z:407:MET:SD    | 2.47                     | 0.55              |
| 1:CA:537:LEU:HD11 | 1:CA:591:PHE:HE2  | 1.71                     | 0.55              |
| 1:CA:761:ARG:HG2  | 1:EA:755:THR:HG21 | 1.88                     | 0.55              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:NA:537:LEU:HD11 | 1:NA:591:PHE:HE2  | 1.72                     | 0.55              |
| 1:BB:537:LEU:HD11 | 1:BB:591:PHE:HE2  | 1.72                     | 0.55              |
| 1:CB:761:ARG:HG2  | 1:DB:755:THR:HG21 | 1.89                     | 0.55              |
| 1:FB:594:ASN:HB3  | 1:FB:597:ARG:HB3  | 1.88                     | 0.55              |
| 1:JB:594:ASN:HB3  | 1:JB:597:ARG:HB3  | 1.87                     | 0.55              |
| 1:NB:360:ARG:HG3  | 1:NB:407:MET:SD   | 2.47                     | 0.55              |
| 1:QB:17:HIS:NE2   | 1:QB:99:LEU:O     | 2.33                     | 0.55              |
| 1:UB:64:PRO:O     | 1:UB:84:ARG:N     | 2.38                     | 0.55              |
| 1:UB:537:LEU:HD11 | 1:UB:591:PHE:HE2  | 1.71                     | 0.55              |
| 1:VB:720:GLY:HA3  | 1:WB:711:ALA:CB   | 2.33                     | 0.55              |
| 1:ZB:504:ARG:NH2  | 1:ZB:524:THR:OG1  | 2.37                     | 0.55              |
| 1:ZB:587:THR:HG23 | 1:ZB:590:ASP:H    | 1.70                     | 0.55              |
| 1:I:360:ARG:HG3   | 1:I:407:MET:SD    | 2.47                     | 0.55              |
| 1:J:360:ARG:HG3   | 1:J:407:MET:SD    | 2.47                     | 0.55              |
| 1:L:360:ARG:HG3   | 1:L:407:MET:SD    | 2.47                     | 0.55              |
| 1:M:17:HIS:NE2    | 1:M:99:LEU:O      | 2.33                     | 0.55              |
| 1:M:360:ARG:HG3   | 1:M:407:MET:SD    | 2.47                     | 0.55              |
| 1:Q:17:HIS:NE2    | 1:Q:99:LEU:O      | 2.33                     | 0.55              |
| 1:R:17:HIS:NE2    | 1:R:99:LEU:O      | 2.33                     | 0.55              |
| 1:S:537:LEU:HD11  | 1:S:591:PHE:HE2   | 1.71                     | 0.55              |
| 1:T:64:PRO:O      | 1:T:84:ARG:N      | 2.38                     | 0.55              |
| 1:V:64:PRO:O      | 1:V:84:ARG:N      | 2.38                     | 0.55              |
| 1:Y:17:HIS:NE2    | 1:Y:99:LEU:O      | 2.33                     | 0.55              |
| 1:Z:785:GLN:O     | 1:Z:789:ASN:ND2   | 2.36                     | 0.55              |
| 1:AA:360:ARG:HG3  | 1:AA:407:MET:SD   | 2.47                     | 0.55              |
| 1:JA:32:PRO:HB2   | 1:LA:24:ASN:HB2   | 1.89                     | 0.55              |
| 1:LA:64:PRO:O     | 1:LA:84:ARG:N     | 2.38                     | 0.55              |
| 1:MA:237:ASP:OD1  | 1:MA:241:VAL:N    | 2.35                     | 0.55              |
| 1:MA:360:ARG:HG3  | 1:MA:407:MET:SD   | 2.47                     | 0.55              |
| 1:VA:702:ALA:HB2  | 1:XA:690:ARG:HH12 | 1.71                     | 0.55              |
| 1:FB:360:ARG:HG3  | 1:FB:407:MET:SD   | 2.47                     | 0.55              |
| 1:KB:17:HIS:NE2   | 1:KB:99:LEU:O     | 2.33                     | 0.55              |
| 1:ZB:537:LEU:HD11 | 1:ZB:591:PHE:HE2  | 1.71                     | 0.55              |
| 1:E:587:THR:HG23  | 1:E:590:ASP:H     | 1.70                     | 0.55              |
| 1:G:658:VAL:HG12  | 1:I:533:ASP:O     | 2.06                     | 0.55              |
| 1:J:537:LEU:HD11  | 1:J:591:PHE:HE2   | 1.71                     | 0.55              |
| 1:Y:237:ASP:OD1   | 1:Y:241:VAL:N     | 2.35                     | 0.55              |
| 1:FA:655:GLN:HG2  | 1:HA:649:ARG:HH11 | 1.71                     | 0.55              |
| 1:BB:64:PRO:O     | 1:BB:84:ARG:N     | 2.38                     | 0.55              |
| 1:GB:537:LEU:HD11 | 1:GB:591:PHE:HE2  | 1.71                     | 0.55              |
| 1:GB:587:THR:HG23 | 1:GB:590:ASP:H    | 1.70                     | 0.55              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:779:LEU:HD21  | 1:C:773:ALA:HB1   | 1.89                     | 0.55              |
| 1:C:537:LEU:HD11  | 1:C:591:PHE:HE2   | 1.71                     | 0.55              |
| 1:G:360:ARG:HG3   | 1:G:407:MET:SD    | 2.47                     | 0.55              |
| 1:G:537:LEU:HD11  | 1:G:591:PHE:HE2   | 1.71                     | 0.55              |
| 1:H:384:GLN:HB2   | 1:J:474:ARG:HG3   | 1.87                     | 0.55              |
| 1:M:220:ILE:HD12  | 1:O:245:THR:HG22  | 1.88                     | 0.55              |
| 1:O:537:LEU:HD11  | 1:O:591:PHE:HE2   | 1.71                     | 0.55              |
| 1:Q:506:LYS:O     | 1:Q:507:ARG:NE    | 2.40                     | 0.55              |
| 1:Z:237:ASP:OD1   | 1:Z:241:VAL:N     | 2.35                     | 0.55              |
| 1:BA:360:ARG:HG3  | 1:BA:407:MET:SD   | 2.47                     | 0.55              |
| 1:IA:230:ARG:HB2  | 1:IA:248:GLU:HG2  | 1.89                     | 0.55              |
| 1:SA:237:ASP:OD1  | 1:SA:241:VAL:N    | 2.35                     | 0.55              |
| 1:XA:537:LEU:HD11 | 1:XA:591:PHE:HE2  | 1.71                     | 0.55              |
| 1:XA:594:ASN:HB3  | 1:XA:597:ARG:HB3  | 1.87                     | 0.55              |
| 1:BB:692:LYS:HG3  | 1:CB:682:GLN:HG2  | 1.88                     | 0.55              |
| 1:IB:64:PRO:O     | 1:IB:84:ARG:N     | 2.38                     | 0.55              |
| 1:JB:64:PRO:O     | 1:JB:84:ARG:N     | 2.38                     | 0.55              |
| 1:MB:384:GLN:HB2  | 1:NB:474:ARG:HG3  | 1.89                     | 0.55              |
| 1:MB:537:LEU:HD11 | 1:MB:591:PHE:HE2  | 1.71                     | 0.55              |
| 1:NB:17:HIS:NE2   | 1:NB:99:LEU:O     | 2.33                     | 0.55              |
| 1:OB:658:VAL:HG12 | 1:PB:533:ASP:O    | 2.06                     | 0.55              |
| 1:QB:706:LEU:CD1  | 1:RB:693:ILE:HG23 | 2.36                     | 0.55              |
| 1:SB:537:LEU:HD11 | 1:SB:591:PHE:HE2  | 1.72                     | 0.55              |
| 1:YB:360:ARG:HG3  | 1:YB:407:MET:SD   | 2.47                     | 0.55              |
| 1:B:64:PRO:O      | 1:B:84:ARG:N      | 2.38                     | 0.55              |
| 1:E:64:PRO:O      | 1:E:84:ARG:N      | 2.38                     | 0.55              |
| 1:H:775:ALA:HB3   | 1:J:770:LEU:HD21  | 1.88                     | 0.55              |
| 1:M:537:LEU:HD11  | 1:M:591:PHE:HE2   | 1.72                     | 0.55              |
| 1:CA:95:ASP:HA    | 1:EA:85:HIS:NE2   | 2.22                     | 0.55              |
| 1:GA:537:LEU:HD11 | 1:GA:591:PHE:HE2  | 1.72                     | 0.55              |
| 1:IA:537:LEU:HD11 | 1:IA:591:PHE:HE2  | 1.71                     | 0.55              |
| 1:OA:360:ARG:HG3  | 1:OA:407:MET:SD   | 2.47                     | 0.55              |
| 1:UA:594:ASN:HB3  | 1:UA:597:ARG:HB3  | 1.87                     | 0.55              |
| 1:WA:537:LEU:HD11 | 1:WA:591:PHE:HE2  | 1.71                     | 0.55              |
| 1:EB:709:LEU:HD13 | 1:FB:701:LYS:HG3  | 1.87                     | 0.55              |
| 1:IB:537:LEU:HD11 | 1:IB:591:PHE:HE2  | 1.71                     | 0.55              |
| 1:MB:17:HIS:NE2   | 1:MB:99:LEU:O     | 2.33                     | 0.55              |
| 1:MB:790:VAL:HG21 | 1:NB:784:ALA:O    | 2.07                     | 0.55              |
| 1:A:537:LEU:HD11  | 1:A:591:PHE:HE2   | 1.71                     | 0.54              |
| 1:E:17:HIS:NE2    | 1:E:99:LEU:O      | 2.33                     | 0.54              |
| 1:I:537:LEU:HD11  | 1:I:591:PHE:HE2   | 1.71                     | 0.54              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:J:17:HIS:NE2    | 1:J:99:LEU:O     | 2.33                     | 0.54              |
| 1:N:17:HIS:NE2    | 1:N:99:LEU:O     | 2.33                     | 0.54              |
| 1:V:230:ARG:HB2   | 1:V:248:GLU:HG2  | 1.89                     | 0.54              |
| 1:FA:230:ARG:HB2  | 1:FA:248:GLU:HG2 | 1.89                     | 0.54              |
| 1:FA:237:ASP:OD1  | 1:FA:241:VAL:N   | 2.35                     | 0.54              |
| 1:SA:230:ARG:HB2  | 1:SA:248:GLU:HG2 | 1.89                     | 0.54              |
| 1:UA:230:ARG:HB2  | 1:UA:248:GLU:HG2 | 1.89                     | 0.54              |
| 1:VA:537:LEU:HD11 | 1:VA:591:PHE:HE2 | 1.71                     | 0.54              |
| 1:JB:537:LEU:HD11 | 1:JB:591:PHE:HE2 | 1.72                     | 0.54              |
| 1:LB:537:LEU:HD11 | 1:LB:591:PHE:HE2 | 1.71                     | 0.54              |
| 1:SB:594:ASN:HB3  | 1:SB:597:ARG:HB3 | 1.87                     | 0.54              |
| 1:XB:360:ARG:HG3  | 1:XB:407:MET:SD  | 2.47                     | 0.54              |
| 1:A:783:LYS:HA    | 1:C:777:LEU:CD1  | 2.38                     | 0.54              |
| 1:H:537:LEU:HD11  | 1:H:591:PHE:HE2  | 1.71                     | 0.54              |
| 1:H:779:LEU:HD21  | 1:J:773:ALA:HB1  | 1.90                     | 0.54              |
| 1:V:537:LEU:HD11  | 1:V:591:PHE:HE2  | 1.71                     | 0.54              |
| 1:Y:384:GLN:HB2   | 1:AA:474:ARG:HG3 | 1.89                     | 0.54              |
| 1:AA:537:LEU:HD11 | 1:AA:591:PHE:HE2 | 1.71                     | 0.54              |
| 1:DA:360:ARG:HG3  | 1:DA:407:MET:SD  | 2.47                     | 0.54              |
| 1:GA:230:ARG:HB2  | 1:GA:248:GLU:HG2 | 1.89                     | 0.54              |
| 1:HA:230:ARG:HB2  | 1:HA:248:GLU:HG2 | 1.89                     | 0.54              |
| 1:HA:537:LEU:HD11 | 1:HA:591:PHE:HE2 | 1.72                     | 0.54              |
| 1:HA:594:ASN:HB3  | 1:HA:597:ARG:HB3 | 1.87                     | 0.54              |
| 1:JA:537:LEU:HD11 | 1:JA:591:PHE:HE2 | 1.71                     | 0.54              |
| 1:QA:360:ARG:HG3  | 1:QA:407:MET:SD  | 2.47                     | 0.54              |
| 1:RA:360:ARG:HG3  | 1:RA:407:MET:SD  | 2.47                     | 0.54              |
| 1:TA:17:HIS:NE2   | 1:TA:99:LEU:O    | 2.33                     | 0.54              |
| 1:WA:384:GLN:HB2  | 1:YA:474:ARG:HG3 | 1.87                     | 0.54              |
| 1:BB:720:GLY:HA3  | 1:CB:711:ALA:CB  | 2.32                     | 0.54              |
| 1:OB:594:ASN:HB3  | 1:OB:597:ARG:HB3 | 1.88                     | 0.54              |
| 1:QB:9:ARG:NH2    | 1:RB:21:GLN:HA   | 2.22                     | 0.54              |
| 1:RB:594:ASN:HB3  | 1:RB:597:ARG:HB3 | 1.87                     | 0.54              |
| 1:A:237:ASP:OD1   | 1:A:241:VAL:N    | 2.35                     | 0.54              |
| 1:D:64:PRO:O      | 1:D:84:ARG:N     | 2.38                     | 0.54              |
| 1:E:643:VAL:H     | 1:G:580:ARG:NH2  | 2.06                     | 0.54              |
| 1:K:17:HIS:NE2    | 1:K:99:LEU:O     | 2.33                     | 0.54              |
| 1:P:237:ASP:OD1   | 1:P:241:VAL:N    | 2.35                     | 0.54              |
| 1:W:360:ARG:HG3   | 1:W:407:MET:SD   | 2.47                     | 0.54              |
| 1:X:64:PRO:O      | 1:X:84:ARG:N     | 2.38                     | 0.54              |
| 1:X:230:ARG:HB2   | 1:X:248:GLU:HG2  | 1.89                     | 0.54              |
| 1:GA:237:ASP:OD1  | 1:GA:241:VAL:N   | 2.35                     | 0.54              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:HA:17:HIS:NE2  | 1:HA:99:LEU:O     | 2.33                     | 0.54              |
| 1:KA:64:PRO:O    | 1:KA:84:ARG:N     | 2.38                     | 0.54              |
| 1:KA:230:ARG:HB2 | 1:KA:248:GLU:HG2  | 1.89                     | 0.54              |
| 1:MA:363:LEU:HA  | 1:OA:353:ALA:HB3  | 1.89                     | 0.54              |
| 1:NA:17:HIS:NE2  | 1:NA:99:LEU:O     | 2.33                     | 0.54              |
| 1:NA:360:ARG:HG3 | 1:NA:407:MET:SD   | 2.47                     | 0.54              |
| 1:PA:594:ASN:HB3 | 1:PA:597:ARG:HB3  | 1.87                     | 0.54              |
| 1:ZA:17:HIS:NE2  | 1:ZA:99:LEU:O     | 2.33                     | 0.54              |
| 1:EB:702:ALA:HB2 | 1:FB:690:ARG:HH12 | 1.72                     | 0.54              |
| 1:UB:360:ARG:HG3 | 1:UB:407:MET:SD   | 2.47                     | 0.54              |
| 1:WB:360:ARG:HG3 | 1:WB:407:MET:SD   | 2.47                     | 0.54              |
| 1:ZB:362:PRO:O   | 1:AC:352:GLN:HB3  | 2.07                     | 0.54              |
| 1:F:64:PRO:O     | 1:F:84:ARG:N      | 2.38                     | 0.54              |
| 1:F:709:LEU:HD13 | 1:H:701:LYS:HG3   | 1.88                     | 0.54              |
| 1:G:17:HIS:NE2   | 1:G:99:LEU:O      | 2.33                     | 0.54              |
| 1:H:801:ALA:HA   | 1:J:796:LYS:HZ3   | 1.73                     | 0.54              |
| 1:K:203:ALA:HB2  | 1:M:192:THR:HB    | 1.90                     | 0.54              |
| 1:N:505:PRO:HA   | 1:N:526:VAL:HG12  | 1.90                     | 0.54              |
| 1:P:360:ARG:HG3  | 1:P:407:MET:SD    | 2.47                     | 0.54              |
| 1:S:230:ARG:HB2  | 1:S:248:GLU:HG2   | 1.89                     | 0.54              |
| 1:S:505:PRO:HA   | 1:S:526:VAL:HG12  | 1.90                     | 0.54              |
| 1:X:336:ALA:O    | 1:X:354:GLY:N     | 2.41                     | 0.54              |
| 1:X:505:PRO:HA   | 1:X:526:VAL:HG12  | 1.90                     | 0.54              |
| 1:BA:505:PRO:HA  | 1:BA:526:VAL:HG12 | 1.90                     | 0.54              |
| 1:CA:505:PRO:HA  | 1:CA:526:VAL:HG12 | 1.90                     | 0.54              |
| 1:DA:230:ARG:HB2 | 1:DA:248:GLU:HG2  | 1.89                     | 0.54              |
| 1:GA:336:ALA:O   | 1:GA:354:GLY:N    | 2.41                     | 0.54              |
| 1:GA:505:PRO:HA  | 1:GA:526:VAL:HG12 | 1.90                     | 0.54              |
| 1:IA:40:ASN:ND2  | 1:RA:38:GLN:HG3   | 2.22                     | 0.54              |
| 1:KA:336:ALA:O   | 1:KA:354:GLY:N    | 2.41                     | 0.54              |
| 1:LA:505:PRO:HA  | 1:LA:526:VAL:HG12 | 1.90                     | 0.54              |
| 1:OA:505:PRO:HA  | 1:OA:526:VAL:HG12 | 1.90                     | 0.54              |
| 1:PA:505:PRO:HA  | 1:PA:526:VAL:HG12 | 1.90                     | 0.54              |
| 1:QA:230:ARG:HB2 | 1:QA:248:GLU:HG2  | 1.89                     | 0.54              |
| 1:RA:230:ARG:HB2 | 1:RA:248:GLU:HG2  | 1.89                     | 0.54              |
| 1:UA:567:PHE:HD2 | 1:UA:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:UA:702:ALA:HB2 | 1:WA:690:ARG:HH12 | 1.72                     | 0.54              |
| 1:VA:360:ARG:HG3 | 1:VA:407:MET:SD   | 2.47                     | 0.54              |
| 1:VA:594:ASN:HB3 | 1:VA:597:ARG:HB3  | 1.87                     | 0.54              |
| 1:YA:505:PRO:HA  | 1:YA:526:VAL:HG12 | 1.90                     | 0.54              |
| 1:AB:360:ARG:HG3 | 1:AB:407:MET:SD   | 2.47                     | 0.54              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:CB:336:ALA:O    | 1:CB:354:GLY:N    | 2.41                     | 0.54              |
| 1:EB:336:ALA:O    | 1:EB:354:GLY:N    | 2.41                     | 0.54              |
| 1:FB:537:LEU:HD11 | 1:FB:591:PHE:HE2  | 1.71                     | 0.54              |
| 1:GB:567:PHE:HD2  | 1:GB:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:HB:17:HIS:NE2   | 1:HB:99:LEU:O     | 2.33                     | 0.54              |
| 1:SB:360:ARG:HG3  | 1:SB:407:MET:SD   | 2.47                     | 0.54              |
| 1:YB:506:LYS:O    | 1:YB:507:ARG:NE   | 2.40                     | 0.54              |
| 1:A:17:HIS:NE2    | 1:A:99:LEU:O      | 2.33                     | 0.54              |
| 1:A:505:PRO:HA    | 1:A:526:VAL:HG12  | 1.90                     | 0.54              |
| 1:B:537:LEU:HD11  | 1:B:591:PHE:HE2   | 1.72                     | 0.54              |
| 1:C:17:HIS:NE2    | 1:C:99:LEU:O      | 2.33                     | 0.54              |
| 1:C:360:ARG:HG3   | 1:C:407:MET:SD    | 2.47                     | 0.54              |
| 1:D:506:LYS:O     | 1:D:507:ARG:NE    | 2.40                     | 0.54              |
| 1:F:203:ALA:HB2   | 1:H:192:THR:HB    | 1.88                     | 0.54              |
| 1:J:32:PRO:CG     | 1:L:78:THR:HG21   | 2.37                     | 0.54              |
| 1:J:336:ALA:O     | 1:J:354:GLY:N     | 2.41                     | 0.54              |
| 1:M:336:ALA:O     | 1:M:354:GLY:N     | 2.41                     | 0.54              |
| 1:O:505:PRO:HA    | 1:O:526:VAL:HG12  | 1.90                     | 0.54              |
| 1:Q:567:PHE:HD2   | 1:Q:633:LEU:HD22  | 1.72                     | 0.54              |
| 1:W:336:ALA:O     | 1:W:354:GLY:N     | 2.41                     | 0.54              |
| 1:Y:505:PRO:HA    | 1:Y:526:VAL:HG12  | 1.90                     | 0.54              |
| 1:AA:336:ALA:O    | 1:AA:354:GLY:N    | 2.41                     | 0.54              |
| 1:EA:567:PHE:HD2  | 1:EA:633:LEU:HD22 | 1.73                     | 0.54              |
| 1:GA:567:PHE:HD2  | 1:GA:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:HA:567:PHE:HD2  | 1:HA:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:JA:567:PHE:HD2  | 1:JA:633:LEU:HD22 | 1.73                     | 0.54              |
| 1:KA:505:PRO:HA   | 1:KA:526:VAL:HG12 | 1.90                     | 0.54              |
| 1:LA:56:ARG:HG3   | 1:NA:127:LEU:HD22 | 1.90                     | 0.54              |
| 1:OA:709:LEU:HD13 | 1:QA:701:LYS:HG3  | 1.88                     | 0.54              |
| 1:SA:360:ARG:HG3  | 1:SA:407:MET:SD   | 2.47                     | 0.54              |
| 1:TA:230:ARG:HB2  | 1:TA:248:GLU:HG2  | 1.89                     | 0.54              |
| 1:UA:360:ARG:HG3  | 1:UA:407:MET:SD   | 2.47                     | 0.54              |
| 1:UA:537:LEU:HD11 | 1:UA:591:PHE:HE2  | 1.72                     | 0.54              |
| 1:WA:567:PHE:HD2  | 1:WA:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:XA:336:ALA:O    | 1:XA:354:GLY:N    | 2.41                     | 0.54              |
| 1:XA:360:ARG:HG3  | 1:XA:407:MET:SD   | 2.47                     | 0.54              |
| 1:AB:17:HIS:NE2   | 1:AB:99:LEU:O     | 2.33                     | 0.54              |
| 1:BB:360:ARG:HG3  | 1:BB:407:MET:SD   | 2.47                     | 0.54              |
| 1:CB:537:LEU:HD11 | 1:CB:591:PHE:HE2  | 1.71                     | 0.54              |
| 1:DB:360:ARG:HG3  | 1:DB:407:MET:SD   | 2.47                     | 0.54              |
| 1:EB:360:ARG:HG3  | 1:EB:407:MET:SD   | 2.47                     | 0.54              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:LB:279:ARG:NH2  | 1:MB:338:GLN:OE1  | 2.40                     | 0.54              |
| 1:OB:505:PRO:HA   | 1:OB:526:VAL:HG12 | 1.90                     | 0.54              |
| 1:PB:336:ALA:O    | 1:PB:354:GLY:N    | 2.41                     | 0.54              |
| 1:QB:9:ARG:HH21   | 1:RB:24:ASN:HA    | 1.72                     | 0.54              |
| 1:RB:360:ARG:HG3  | 1:RB:407:MET:SD   | 2.47                     | 0.54              |
| 1:RB:537:LEU:HD11 | 1:RB:591:PHE:HE2  | 1.72                     | 0.54              |
| 1:SB:336:ALA:O    | 1:SB:354:GLY:N    | 2.41                     | 0.54              |
| 1:XB:336:ALA:O    | 1:XB:354:GLY:N    | 2.41                     | 0.54              |
| 1:ZB:567:PHE:HD2  | 1:ZB:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:AC:17:HIS:NE2   | 1:AC:99:LEU:O     | 2.33                     | 0.54              |
| 1:B:85:HIS:CE1    | 1:AC:96:PRO:HD3   | 2.42                     | 0.54              |
| 1:B:567:PHE:HD2   | 1:B:633:LEU:HD22  | 1.72                     | 0.54              |
| 1:C:336:ALA:O     | 1:C:354:GLY:N     | 2.41                     | 0.54              |
| 1:D:336:ALA:O     | 1:D:354:GLY:N     | 2.41                     | 0.54              |
| 1:E:505:PRO:HA    | 1:E:526:VAL:HG12  | 1.90                     | 0.54              |
| 1:H:506:LYS:O     | 1:H:507:ARG:NE    | 2.40                     | 0.54              |
| 1:I:170:GLN:HB3   | 1:K:233:GLN:OE1   | 2.07                     | 0.54              |
| 1:I:505:PRO:HA    | 1:I:526:VAL:HG12  | 1.90                     | 0.54              |
| 1:L:506:LYS:O     | 1:L:507:ARG:NE    | 2.40                     | 0.54              |
| 1:N:537:LEU:HD11  | 1:N:591:PHE:HE2   | 1.72                     | 0.54              |
| 1:O:567:PHE:HD2   | 1:O:633:LEU:HD22  | 1.72                     | 0.54              |
| 1:O:720:GLY:HA3   | 1:Q:711:ALA:HB1   | 1.88                     | 0.54              |
| 1:P:336:ALA:O     | 1:P:354:GLY:N     | 2.41                     | 0.54              |
| 1:P:506:LYS:O     | 1:P:507:ARG:NE    | 2.40                     | 0.54              |
| 1:Q:336:ALA:O     | 1:Q:354:GLY:N     | 2.41                     | 0.54              |
| 1:T:537:LEU:HD11  | 1:T:591:PHE:HE2   | 1.71                     | 0.54              |
| 1:W:230:ARG:HB2   | 1:W:248:GLU:HG2   | 1.89                     | 0.54              |
| 1:AA:717:GLU:HB2  | 1:CA:707:LEU:HD13 | 1.90                     | 0.54              |
| 1:FA:336:ALA:O    | 1:FA:354:GLY:N    | 2.41                     | 0.54              |
| 1:FA:360:ARG:HG3  | 1:FA:407:MET:SD   | 2.47                     | 0.54              |
| 1:GA:10:ILE:O     | 1:IA:24:ASN:ND2   | 2.41                     | 0.54              |
| 1:HA:360:ARG:HG3  | 1:HA:407:MET:SD   | 2.47                     | 0.54              |
| 1:HA:505:PRO:HA   | 1:HA:526:VAL:HG12 | 1.90                     | 0.54              |
| 1:IA:567:PHE:HD2  | 1:IA:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:LA:506:LYS:O    | 1:LA:507:ARG:NE   | 2.40                     | 0.54              |
| 1:LA:567:PHE:HD2  | 1:LA:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:MA:32:PRO:HB2   | 1:OA:24:ASN:HB2   | 1.88                     | 0.54              |
| 1:NA:64:PRO:O     | 1:NA:84:ARG:N     | 2.38                     | 0.54              |
| 1:NA:336:ALA:O    | 1:NA:354:GLY:N    | 2.41                     | 0.54              |
| 1:PA:506:LYS:O    | 1:PA:507:ARG:NE   | 2.40                     | 0.54              |
| 1:QA:336:ALA:O    | 1:QA:354:GLY:N    | 2.41                     | 0.54              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:SA:567:PHE:HD2  | 1:SA:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:YA:506:LYS:O    | 1:YA:507:ARG:NE   | 2.40                     | 0.54              |
| 1:AB:64:PRO:O     | 1:AB:84:ARG:N     | 2.38                     | 0.54              |
| 1:AB:336:ALA:O    | 1:AB:354:GLY:N    | 2.41                     | 0.54              |
| 1:BB:336:ALA:O    | 1:BB:354:GLY:N    | 2.41                     | 0.54              |
| 1:CB:594:ASN:HB3  | 1:CB:597:ARG:HB3  | 1.87                     | 0.54              |
| 1:DB:363:LEU:HA   | 1:EB:353:ALA:HB3  | 1.90                     | 0.54              |
| 1:FB:506:LYS:O    | 1:FB:507:ARG:NE   | 2.40                     | 0.54              |
| 1:HB:506:LYS:O    | 1:HB:507:ARG:NE   | 2.40                     | 0.54              |
| 1:HB:567:PHE:HD2  | 1:HB:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:IB:567:PHE:HD2  | 1:IB:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:JB:336:ALA:O    | 1:JB:354:GLY:N    | 2.41                     | 0.54              |
| 1:LB:779:LEU:CD2  | 1:MB:773:ALA:HB1  | 2.37                     | 0.54              |
| 1:LB:793:LYS:NZ   | 1:MB:789:ASN:OD1  | 2.37                     | 0.54              |
| 1:PB:230:ARG:HB2  | 1:PB:248:GLU:HG2  | 1.89                     | 0.54              |
| 1:PB:360:ARG:HG3  | 1:PB:407:MET:SD   | 2.47                     | 0.54              |
| 1:QB:360:ARG:HG3  | 1:QB:407:MET:SD   | 2.47                     | 0.54              |
| 1:UB:790:VAL:HG23 | 1:VB:788:ALA:HB3  | 1.88                     | 0.54              |
| 1:VB:537:LEU:HD11 | 1:VB:591:PHE:HE2  | 1.71                     | 0.54              |
| 1:VB:594:ASN:HB3  | 1:VB:597:ARG:HB3  | 1.87                     | 0.54              |
| 1:WB:506:LYS:O    | 1:WB:507:ARG:NE   | 2.40                     | 0.54              |
| 1:WB:706:LEU:HD13 | 1:XB:693:ILE:HG23 | 1.88                     | 0.54              |
| 1:YB:537:LEU:HD11 | 1:YB:591:PHE:HE2  | 1.71                     | 0.54              |
| 1:YB:567:PHE:HD2  | 1:YB:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:ZB:336:ALA:O    | 1:ZB:354:GLY:N    | 2.41                     | 0.54              |
| 1:AC:506:LYS:O    | 1:AC:507:ARG:NE   | 2.40                     | 0.54              |
| 1:AC:567:PHE:HD2  | 1:AC:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:D:567:PHE:HD2   | 1:D:633:LEU:HD22  | 1.72                     | 0.54              |
| 1:I:336:ALA:O     | 1:I:354:GLY:N     | 2.41                     | 0.54              |
| 1:I:658:VAL:HG12  | 1:K:533:ASP:O     | 2.08                     | 0.54              |
| 1:K:505:PRO:HA    | 1:K:526:VAL:HG12  | 1.90                     | 0.54              |
| 1:N:384:GLN:HB2   | 1:P:474:ARG:HG3   | 1.90                     | 0.54              |
| 1:P:801:ALA:HA    | 1:R:796:LYS:HZ3   | 1.71                     | 0.54              |
| 1:R:505:PRO:HA    | 1:R:526:VAL:HG12  | 1.90                     | 0.54              |
| 1:S:336:ALA:O     | 1:S:354:GLY:N     | 2.41                     | 0.54              |
| 1:S:567:PHE:HD2   | 1:S:633:LEU:HD22  | 1.72                     | 0.54              |
| 1:T:230:ARG:HB2   | 1:T:248:GLU:HG2   | 1.89                     | 0.54              |
| 1:W:64:PRO:O      | 1:W:84:ARG:N      | 2.38                     | 0.54              |
| 1:CA:567:PHE:HD2  | 1:CA:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:DA:336:ALA:O    | 1:DA:354:GLY:N    | 2.41                     | 0.54              |
| 1:FA:505:PRO:HA   | 1:FA:526:VAL:HG12 | 1.90                     | 0.54              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:HA:336:ALA:O   | 1:HA:354:GLY:N    | 2.41                     | 0.54              |
| 1:LA:336:ALA:O   | 1:LA:354:GLY:N    | 2.41                     | 0.54              |
| 1:PA:230:ARG:HB2 | 1:PA:248:GLU:HG2  | 1.89                     | 0.54              |
| 1:RA:384:GLN:HB2 | 1:TA:474:ARG:HG3  | 1.89                     | 0.54              |
| 1:SA:336:ALA:O   | 1:SA:354:GLY:N    | 2.41                     | 0.54              |
| 1:TA:336:ALA:O   | 1:TA:354:GLY:N    | 2.41                     | 0.54              |
| 1:TA:505:PRO:HA  | 1:TA:526:VAL:HG12 | 1.90                     | 0.54              |
| 1:UA:336:ALA:O   | 1:UA:354:GLY:N    | 2.41                     | 0.54              |
| 1:UA:505:PRO:HA  | 1:UA:526:VAL:HG12 | 1.90                     | 0.54              |
| 1:WA:360:ARG:HG3 | 1:WA:407:MET:SD   | 2.47                     | 0.54              |
| 1:YA:237:ASP:OD1 | 1:YA:241:VAL:N    | 2.35                     | 0.54              |
| 1:YA:336:ALA:O   | 1:YA:354:GLY:N    | 2.41                     | 0.54              |
| 1:YA:567:PHE:HD2 | 1:YA:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:CB:64:PRO:O    | 1:CB:84:ARG:N     | 2.38                     | 0.54              |
| 1:FB:567:PHE:HD2 | 1:FB:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:GB:336:ALA:O   | 1:GB:354:GLY:N    | 2.41                     | 0.54              |
| 1:JB:567:PHE:HD2 | 1:JB:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:KB:567:PHE:HD2 | 1:KB:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:LB:769:GLU:HG2 | 1:MB:766:ARG:NH1  | 2.20                     | 0.54              |
| 1:MB:336:ALA:O   | 1:MB:354:GLY:N    | 2.41                     | 0.54              |
| 1:MB:505:PRO:HA  | 1:MB:526:VAL:HG12 | 1.90                     | 0.54              |
| 1:QB:10:ILE:N    | 1:RB:24:ASN:HD21  | 2.06                     | 0.54              |
| 1:QB:230:ARG:HB2 | 1:QB:248:GLU:HG2  | 1.89                     | 0.54              |
| 1:TB:17:HIS:NE2  | 1:TB:99:LEU:O     | 2.33                     | 0.54              |
| 1:UB:336:ALA:O   | 1:UB:354:GLY:N    | 2.41                     | 0.54              |
| 1:VB:336:ALA:O   | 1:VB:354:GLY:N    | 2.41                     | 0.54              |
| 1:VB:360:ARG:HG3 | 1:VB:407:MET:SD   | 2.47                     | 0.54              |
| 1:WB:17:HIS:NE2  | 1:WB:99:LEU:O     | 2.33                     | 0.54              |
| 1:F:567:PHE:HD2  | 1:F:633:LEU:HD22  | 1.72                     | 0.54              |
| 1:H:17:HIS:NE2   | 1:H:99:LEU:O      | 2.33                     | 0.54              |
| 1:J:505:PRO:HA   | 1:J:526:VAL:HG12  | 1.90                     | 0.54              |
| 1:N:720:GLY:HA3  | 1:P:711:ALA:HB1   | 1.89                     | 0.54              |
| 1:P:17:HIS:NE2   | 1:P:99:LEU:O      | 2.33                     | 0.54              |
| 1:T:505:PRO:HA   | 1:T:526:VAL:HG12  | 1.90                     | 0.54              |
| 1:T:506:LYS:O    | 1:T:507:ARG:NE    | 2.40                     | 0.54              |
| 1:V:567:PHE:HD2  | 1:V:633:LEU:HD22  | 1.72                     | 0.54              |
| 1:W:505:PRO:HA   | 1:W:526:VAL:HG12  | 1.90                     | 0.54              |
| 1:Y:506:LYS:O    | 1:Y:507:ARG:NE    | 2.40                     | 0.54              |
| 1:Z:94:GLN:O     | 1:BA:85:HIS:NE2   | 2.37                     | 0.54              |
| 1:CA:336:ALA:O   | 1:CA:354:GLY:N    | 2.41                     | 0.54              |
| 1:EA:230:ARG:HB2 | 1:EA:248:GLU:HG2  | 1.89                     | 0.54              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:FA:567:PHE:HD2  | 1:FA:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:JA:230:ARG:HB2  | 1:JA:248:GLU:HG2  | 1.89                     | 0.54              |
| 1:JA:360:ARG:HG3  | 1:JA:407:MET:SD   | 2.47                     | 0.54              |
| 1:LA:237:ASP:OD1  | 1:LA:241:VAL:N    | 2.35                     | 0.54              |
| 1:OA:537:LEU:HD11 | 1:OA:591:PHE:HE2  | 1.71                     | 0.54              |
| 1:PA:336:ALA:O    | 1:PA:354:GLY:N    | 2.41                     | 0.54              |
| 1:RA:336:ALA:O    | 1:RA:354:GLY:N    | 2.41                     | 0.54              |
| 1:TA:360:ARG:HG3  | 1:TA:407:MET:SD   | 2.47                     | 0.54              |
| 1:TA:363:LEU:HA   | 1:VA:353:ALA:HB3  | 1.89                     | 0.54              |
| 1:UA:17:HIS:NE2   | 1:UA:99:LEU:O     | 2.33                     | 0.54              |
| 1:UA:506:LYS:O    | 1:UA:507:ARG:NE   | 2.40                     | 0.54              |
| 1:VA:506:LYS:O    | 1:VA:507:ARG:NE   | 2.40                     | 0.54              |
| 1:ZA:506:LYS:O    | 1:ZA:507:ARG:NE   | 2.40                     | 0.54              |
| 1:EB:385:ASN:ND2  | 1:FB:473:TYR:O    | 2.41                     | 0.54              |
| 1:JB:506:LYS:O    | 1:JB:507:ARG:NE   | 2.40                     | 0.54              |
| 1:LB:17:HIS:NE2   | 1:LB:99:LEU:O     | 2.33                     | 0.54              |
| 1:LB:506:LYS:O    | 1:LB:507:ARG:NE   | 2.40                     | 0.54              |
| 1:QB:336:ALA:O    | 1:QB:354:GLY:N    | 2.41                     | 0.54              |
| 1:QB:505:PRO:HA   | 1:QB:526:VAL:HG12 | 1.90                     | 0.54              |
| 1:RB:506:LYS:O    | 1:RB:507:ARG:NE   | 2.40                     | 0.54              |
| 1:RB:666:THR:HG22 | 1:SB:657:SER:HB2  | 1.90                     | 0.54              |
| 1:XB:567:PHE:HD2  | 1:XB:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:A:336:ALA:O     | 1:A:354:GLY:N     | 2.41                     | 0.54              |
| 1:C:237:ASP:OD1   | 1:C:241:VAL:N     | 2.35                     | 0.54              |
| 1:G:203:ALA:HB2   | 1:I:192:THR:HB    | 1.90                     | 0.54              |
| 1:K:230:ARG:HB2   | 1:K:248:GLU:HG2   | 1.89                     | 0.54              |
| 1:L:336:ALA:O     | 1:L:354:GLY:N     | 2.41                     | 0.54              |
| 1:R:336:ALA:O     | 1:R:354:GLY:N     | 2.41                     | 0.54              |
| 1:X:567:PHE:HD2   | 1:X:633:LEU:HD22  | 1.72                     | 0.54              |
| 1:Y:230:ARG:HB2   | 1:Y:248:GLU:HG2   | 1.89                     | 0.54              |
| 1:BA:17:HIS:NE2   | 1:BA:99:LEU:O     | 2.33                     | 0.54              |
| 1:BA:336:ALA:O    | 1:BA:354:GLY:N    | 2.41                     | 0.54              |
| 1:EA:336:ALA:O    | 1:EA:354:GLY:N    | 2.41                     | 0.54              |
| 1:EA:761:ARG:HG2  | 1:GA:755:THR:HG21 | 1.90                     | 0.54              |
| 1:HA:506:LYS:O    | 1:HA:507:ARG:NE   | 2.40                     | 0.54              |
| 1:KA:567:PHE:HD2  | 1:KA:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:NA:567:PHE:HD2  | 1:NA:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:SA:505:PRO:HA   | 1:SA:526:VAL:HG12 | 1.90                     | 0.54              |
| 1:VA:336:ALA:O    | 1:VA:354:GLY:N    | 2.41                     | 0.54              |
| 1:XA:384:GLN:HB2  | 1:ZA:474:ARG:HG3  | 1.90                     | 0.54              |
| 1:ZA:360:ARG:HG3  | 1:ZA:407:MET:SD   | 2.47                     | 0.54              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:CB:360:ARG:HG3  | 1:CB:407:MET:SD   | 2.47                     | 0.54              |
| 1:EB:567:PHE:HD2  | 1:EB:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:IB:336:ALA:O    | 1:IB:354:GLY:N    | 2.41                     | 0.54              |
| 1:LB:336:ALA:O    | 1:LB:354:GLY:N    | 2.41                     | 0.54              |
| 1:NB:336:ALA:O    | 1:NB:354:GLY:N    | 2.41                     | 0.54              |
| 1:NB:506:LYS:O    | 1:NB:507:ARG:NE   | 2.40                     | 0.54              |
| 1:OB:230:ARG:HB2  | 1:OB:248:GLU:HG2  | 1.89                     | 0.54              |
| 1:OB:336:ALA:O    | 1:OB:354:GLY:N    | 2.41                     | 0.54              |
| 1:OB:506:LYS:O    | 1:OB:507:ARG:NE   | 2.40                     | 0.54              |
| 1:RB:336:ALA:O    | 1:RB:354:GLY:N    | 2.41                     | 0.54              |
| 1:TB:360:ARG:HG3  | 1:TB:407:MET:SD   | 2.47                     | 0.54              |
| 1:TB:506:LYS:O    | 1:TB:507:ARG:NE   | 2.40                     | 0.54              |
| 1:WB:567:PHE:HD2  | 1:WB:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:B:336:ALA:O     | 1:B:354:GLY:N     | 2.41                     | 0.54              |
| 1:C:506:LYS:O     | 1:C:507:ARG:NE    | 2.40                     | 0.54              |
| 1:G:64:PRO:O      | 1:G:84:ARG:N      | 2.38                     | 0.54              |
| 1:G:336:ALA:O     | 1:G:354:GLY:N     | 2.41                     | 0.54              |
| 1:H:336:ALA:O     | 1:H:354:GLY:N     | 2.41                     | 0.54              |
| 1:H:567:PHE:HD2   | 1:H:633:LEU:HD22  | 1.72                     | 0.54              |
| 1:J:567:PHE:HD2   | 1:J:633:LEU:HD22  | 1.72                     | 0.54              |
| 1:K:220:ILE:HD12  | 1:M:245:THR:HG22  | 1.89                     | 0.54              |
| 1:M:567:PHE:HD2   | 1:M:633:LEU:HD22  | 1.72                     | 0.54              |
| 1:AA:567:PHE:HD2  | 1:AA:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:BA:537:LEU:HD11 | 1:BA:591:PHE:HE2  | 1.71                     | 0.54              |
| 1:HA:647:ASP:N    | 1:HA:647:ASP:OD1  | 2.42                     | 0.54              |
| 1:JA:336:ALA:O    | 1:JA:354:GLY:N    | 2.41                     | 0.54              |
| 1:LA:360:ARG:HG3  | 1:LA:407:MET:SD   | 2.47                     | 0.54              |
| 1:MA:336:ALA:O    | 1:MA:354:GLY:N    | 2.41                     | 0.54              |
| 1:OA:336:ALA:O    | 1:OA:354:GLY:N    | 2.41                     | 0.54              |
| 1:QA:505:PRO:HA   | 1:QA:526:VAL:HG12 | 1.90                     | 0.54              |
| 1:RA:506:LYS:O    | 1:RA:507:ARG:NE   | 2.40                     | 0.54              |
| 1:WA:230:ARG:HB2  | 1:WA:248:GLU:HG2  | 1.89                     | 0.54              |
| 1:WA:336:ALA:O    | 1:WA:354:GLY:N    | 2.41                     | 0.54              |
| 1:ZA:505:PRO:HA   | 1:ZA:526:VAL:HG12 | 1.90                     | 0.54              |
| 1:BB:724:ALA:HB1  | 1:CB:715:ALA:HA   | 1.89                     | 0.54              |
| 1:JB:505:PRO:HA   | 1:JB:526:VAL:HG12 | 1.90                     | 0.54              |
| 1:OB:537:LEU:HD11 | 1:OB:591:PHE:HE2  | 1.71                     | 0.54              |
| 1:QB:10:ILE:C     | 1:RB:24:ASN:ND2   | 2.61                     | 0.54              |
| 1:QB:52:THR:HG21  | 1:RB:85:HIS:HB2   | 1.90                     | 0.54              |
| 1:TB:505:PRO:HA   | 1:TB:526:VAL:HG12 | 1.90                     | 0.54              |
| 1:UB:362:PRO:HB2  | 1:VB:355:ASP:HB3  | 1.90                     | 0.54              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:UB:753:ILE:CG2  | 1:VB:744:ALA:HB1  | 2.39                     | 0.54              |
| 1:VB:567:PHE:HD2  | 1:VB:633:LEU:HD22 | 1.72                     | 0.54              |
| 1:VB:757:ALA:CB   | 1:WB:748:ALA:HB1  | 2.38                     | 0.54              |
| 1:B:230:ARG:HB2   | 1:B:248:GLU:HG2   | 1.89                     | 0.53              |
| 1:I:230:ARG:HB2   | 1:I:248:GLU:HG2   | 1.89                     | 0.53              |
| 1:K:237:ASP:OD1   | 1:K:241:VAL:N     | 2.35                     | 0.53              |
| 1:M:230:ARG:HB2   | 1:M:248:GLU:HG2   | 1.89                     | 0.53              |
| 1:M:505:PRO:HA    | 1:M:526:VAL:HG12  | 1.90                     | 0.53              |
| 1:O:336:ALA:O     | 1:O:354:GLY:N     | 2.41                     | 0.53              |
| 1:R:203:ALA:HB2   | 1:T:192:THR:HB    | 1.90                     | 0.53              |
| 1:Z:336:ALA:O     | 1:Z:354:GLY:N     | 2.41                     | 0.53              |
| 1:BA:647:ASP:N    | 1:BA:647:ASP:OD1  | 2.42                     | 0.53              |
| 1:DA:505:PRO:HA   | 1:DA:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:IA:203:ALA:HB2  | 1:KA:192:THR:HB   | 1.90                     | 0.53              |
| 1:JA:505:PRO:HA   | 1:JA:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:JA:647:ASP:N    | 1:JA:647:ASP:OD1  | 2.42                     | 0.53              |
| 1:LA:647:ASP:OD1  | 1:LA:647:ASP:N    | 2.42                     | 0.53              |
| 1:OA:230:ARG:HB2  | 1:OA:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:PA:360:ARG:HG3  | 1:PA:407:MET:SD   | 2.47                     | 0.53              |
| 1:PA:537:LEU:HD11 | 1:PA:591:PHE:HE2  | 1.71                     | 0.53              |
| 1:TA:702:ALA:HB2  | 1:VA:690:ARG:HH12 | 1.73                     | 0.53              |
| 1:UA:647:ASP:N    | 1:UA:647:ASP:OD1  | 2.42                     | 0.53              |
| 1:WA:647:ASP:OD1  | 1:WA:647:ASP:N    | 2.42                     | 0.53              |
| 1:YA:360:ARG:HG3  | 1:YA:407:MET:SD   | 2.47                     | 0.53              |
| 1:AB:647:ASP:N    | 1:AB:647:ASP:OD1  | 2.42                     | 0.53              |
| 1:DB:567:PHE:HD2  | 1:DB:633:LEU:HD22 | 1.72                     | 0.53              |
| 1:LB:567:PHE:HD2  | 1:LB:633:LEU:HD22 | 1.72                     | 0.53              |
| 1:MB:567:PHE:HD2  | 1:MB:633:LEU:HD22 | 1.72                     | 0.53              |
| 1:QB:506:LYS:O    | 1:QB:507:ARG:NE   | 2.40                     | 0.53              |
| 1:TB:336:ALA:O    | 1:TB:354:GLY:N    | 2.41                     | 0.53              |
| 1:AC:505:PRO:HA   | 1:AC:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:A:666:THR:HG22  | 1:C:657:SER:HB2   | 1.89                     | 0.53              |
| 1:A:702:ALA:HB2   | 1:C:690:ARG:HH12  | 1.73                     | 0.53              |
| 1:D:505:PRO:HA    | 1:D:526:VAL:HG12  | 1.90                     | 0.53              |
| 1:G:505:PRO:HA    | 1:G:526:VAL:HG12  | 1.90                     | 0.53              |
| 1:H:702:ALA:HB2   | 1:J:690:ARG:HH12  | 1.72                     | 0.53              |
| 1:J:56:ARG:NH1    | 1:L:128:ASP:H     | 2.05                     | 0.53              |
| 1:L:567:PHE:HD2   | 1:L:633:LEU:HD22  | 1.72                     | 0.53              |
| 1:N:336:ALA:O     | 1:N:354:GLY:N     | 2.41                     | 0.53              |
| 1:P:170:GLN:HB3   | 1:R:233:GLN:OE1   | 2.08                     | 0.53              |
| 1:V:17:HIS:NE2    | 1:V:99:LEU:O      | 2.33                     | 0.53              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:V:336:ALA:O     | 1:V:354:GLY:N     | 2.41                     | 0.53              |
| 1:BA:170:GLN:HB3  | 1:DA:233:GLN:OE1  | 2.08                     | 0.53              |
| 1:CA:506:LYS:O    | 1:CA:507:ARG:NE   | 2.40                     | 0.53              |
| 1:EA:170:GLN:HB3  | 1:GA:233:GLN:OE1  | 2.08                     | 0.53              |
| 1:HA:666:THR:HG22 | 1:JA:657:SER:HB2  | 1.89                     | 0.53              |
| 1:IA:336:ALA:O    | 1:IA:354:GLY:N    | 2.41                     | 0.53              |
| 1:LA:717:GLU:HB2  | 1:NA:707:LEU:HD13 | 1.90                     | 0.53              |
| 1:MA:647:ASP:N    | 1:MA:647:ASP:OD1  | 2.41                     | 0.53              |
| 1:NA:647:ASP:OD1  | 1:NA:647:ASP:N    | 2.42                     | 0.53              |
| 1:OA:647:ASP:OD1  | 1:OA:647:ASP:N    | 2.42                     | 0.53              |
| 1:PA:647:ASP:N    | 1:PA:647:ASP:OD1  | 2.42                     | 0.53              |
| 1:QA:506:LYS:O    | 1:QA:507:ARG:NE   | 2.40                     | 0.53              |
| 1:QA:567:PHE:HD2  | 1:QA:633:LEU:HD22 | 1.72                     | 0.53              |
| 1:VA:230:ARG:HB2  | 1:VA:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:WA:505:PRO:HA   | 1:WA:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:XA:505:PRO:HA   | 1:XA:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:YA:647:ASP:OD1  | 1:YA:647:ASP:N    | 2.42                     | 0.53              |
| 1:AB:567:PHE:HD2  | 1:AB:633:LEU:HD22 | 1.72                     | 0.53              |
| 1:CB:505:PRO:HA   | 1:CB:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:CB:506:LYS:O    | 1:CB:507:ARG:NE   | 2.40                     | 0.53              |
| 1:DB:17:HIS:NE2   | 1:DB:99:LEU:O     | 2.33                     | 0.53              |
| 1:EB:542:ALA:HB1  | 1:FB:573:LYS:HE2  | 1.89                     | 0.53              |
| 1:HB:505:PRO:HA   | 1:HB:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:IB:230:ARG:HB2  | 1:IB:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:LB:505:PRO:HA   | 1:LB:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:RB:505:PRO:HA   | 1:RB:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:UB:237:ASP:OD1  | 1:UB:241:VAL:N    | 2.35                     | 0.53              |
| 1:UB:735:ILE:HG21 | 1:VB:727:GLU:CA   | 2.37                     | 0.53              |
| 1:VB:505:PRO:HA   | 1:VB:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:AC:230:ARG:HB2  | 1:AC:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:E:336:ALA:O     | 1:E:354:GLY:N     | 2.41                     | 0.53              |
| 1:F:505:PRO:HA    | 1:F:526:VAL:HG12  | 1.90                     | 0.53              |
| 1:G:506:LYS:O     | 1:G:507:ARG:NE    | 2.40                     | 0.53              |
| 1:H:505:PRO:HA    | 1:H:526:VAL:HG12  | 1.90                     | 0.53              |
| 1:W:17:HIS:NE2    | 1:W:99:LEU:O      | 2.33                     | 0.53              |
| 1:Z:230:ARG:HB2   | 1:Z:248:GLU:HG2   | 1.89                     | 0.53              |
| 1:Z:567:PHE:HD2   | 1:Z:633:LEU:HD22  | 1.72                     | 0.53              |
| 1:Z:647:ASP:N     | 1:Z:647:ASP:OD1   | 2.42                     | 0.53              |
| 1:AA:384:GLN:HB2  | 1:CA:474:ARG:HG3  | 1.90                     | 0.53              |
| 1:DA:506:LYS:O    | 1:DA:507:ARG:NE   | 2.40                     | 0.53              |
| 1:JA:717:GLU:HB2  | 1:LA:707:LEU:HD13 | 1.89                     | 0.53              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:OA:17:HIS:NE2   | 1:OA:99:LEU:O     | 2.33                     | 0.53              |
| 1:RA:647:ASP:N    | 1:RA:647:ASP:OD1  | 2.42                     | 0.53              |
| 1:VA:505:PRO:HA   | 1:VA:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:ZA:336:ALA:O    | 1:ZA:354:GLY:N    | 2.41                     | 0.53              |
| 1:CB:567:PHE:HD2  | 1:CB:633:LEU:HD22 | 1.72                     | 0.53              |
| 1:DB:336:ALA:O    | 1:DB:354:GLY:N    | 2.41                     | 0.53              |
| 1:FB:336:ALA:O    | 1:FB:354:GLY:N    | 2.41                     | 0.53              |
| 1:HB:230:ARG:HB2  | 1:HB:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:LB:237:ASP:OD1  | 1:LB:241:VAL:N    | 2.35                     | 0.53              |
| 1:NB:567:PHE:HD2  | 1:NB:633:LEU:HD22 | 1.72                     | 0.53              |
| 1:OB:647:ASP:N    | 1:OB:647:ASP:OD1  | 2.42                     | 0.53              |
| 1:PB:647:ASP:OD1  | 1:PB:647:ASP:N    | 2.42                     | 0.53              |
| 1:QB:9:ARG:HH12   | 1:RB:21:GLN:C     | 2.10                     | 0.53              |
| 1:VB:506:LYS:O    | 1:VB:507:ARG:NE   | 2.40                     | 0.53              |
| 1:WB:336:ALA:O    | 1:WB:354:GLY:N    | 2.41                     | 0.53              |
| 1:XB:384:GLN:HB2  | 1:YB:474:ARG:HG3  | 1.91                     | 0.53              |
| 1:YB:237:ASP:OD1  | 1:YB:241:VAL:N    | 2.35                     | 0.53              |
| 1:E:170:GLN:HB3   | 1:G:233:GLN:OE1   | 2.08                     | 0.53              |
| 1:F:336:ALA:O     | 1:F:354:GLY:N     | 2.41                     | 0.53              |
| 1:G:230:ARG:HB2   | 1:G:248:GLU:HG2   | 1.89                     | 0.53              |
| 1:H:237:ASP:OD1   | 1:H:241:VAL:N     | 2.35                     | 0.53              |
| 1:I:17:HIS:NE2    | 1:I:99:LEU:O      | 2.33                     | 0.53              |
| 1:R:237:ASP:OD1   | 1:R:241:VAL:N     | 2.35                     | 0.53              |
| 1:X:647:ASP:N     | 1:X:647:ASP:OD1   | 2.42                     | 0.53              |
| 1:AA:505:PRO:HA   | 1:AA:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:AA:655:GLN:HG2  | 1:CA:649:ARG:HH11 | 1.73                     | 0.53              |
| 1:BA:230:ARG:HB2  | 1:BA:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:BA:506:LYS:O    | 1:BA:507:ARG:NE   | 2.40                     | 0.53              |
| 1:DA:567:PHE:HD2  | 1:DA:633:LEU:HD22 | 1.72                     | 0.53              |
| 1:IA:647:ASP:OD1  | 1:IA:647:ASP:N    | 2.42                     | 0.53              |
| 1:KA:647:ASP:N    | 1:KA:647:ASP:OD1  | 2.42                     | 0.53              |
| 1:OA:506:LYS:O    | 1:OA:507:ARG:NE   | 2.40                     | 0.53              |
| 1:TA:647:ASP:OD1  | 1:TA:647:ASP:N    | 2.42                     | 0.53              |
| 1:TA:761:ARG:HG2  | 1:VA:755:THR:HG21 | 1.90                     | 0.53              |
| 1:VA:647:ASP:OD1  | 1:VA:647:ASP:N    | 2.41                     | 0.53              |
| 1:BB:237:ASP:OD1  | 1:BB:241:VAL:N    | 2.35                     | 0.53              |
| 1:BB:567:PHE:HD2  | 1:BB:633:LEU:HD22 | 1.72                     | 0.53              |
| 1:KB:505:PRO:HA   | 1:KB:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:PB:237:ASP:OD1  | 1:PB:241:VAL:N    | 2.35                     | 0.53              |
| 1:QB:666:THR:HG22 | 1:RB:657:SER:HB2  | 1.91                     | 0.53              |
| 1:SB:505:PRO:HA   | 1:SB:526:VAL:HG12 | 1.90                     | 0.53              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:VB:542:ALA:HB1  | 1:WB:573:LYS:HE2  | 1.91                     | 0.53              |
| 1:YB:505:PRO:HA   | 1:YB:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:A:567:PHE:HD2   | 1:A:633:LEU:HD22  | 1.72                     | 0.53              |
| 1:H:230:ARG:HB2   | 1:H:248:GLU:HG2   | 1.89                     | 0.53              |
| 1:K:506:LYS:O     | 1:K:507:ARG:NE    | 2.40                     | 0.53              |
| 1:N:567:PHE:HD2   | 1:N:633:LEU:HD22  | 1.72                     | 0.53              |
| 1:Q:505:PRO:HA    | 1:Q:526:VAL:HG12  | 1.90                     | 0.53              |
| 1:R:230:ARG:HB2   | 1:R:248:GLU:HG2   | 1.89                     | 0.53              |
| 1:T:336:ALA:O     | 1:T:354:GLY:N     | 2.41                     | 0.53              |
| 1:AA:230:ARG:HB2  | 1:AA:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:MA:230:ARG:HB2  | 1:MA:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:MA:505:PRO:HA   | 1:MA:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:NA:32:PRO:HB2   | 1:PA:24:ASN:HB2   | 1.89                     | 0.53              |
| 1:NA:506:LYS:O    | 1:NA:507:ARG:NE   | 2.40                     | 0.53              |
| 1:OA:567:PHE:HD2  | 1:OA:633:LEU:HD22 | 1.72                     | 0.53              |
| 1:PA:567:PHE:HD2  | 1:PA:633:LEU:HD22 | 1.72                     | 0.53              |
| 1:VA:567:PHE:HD2  | 1:VA:633:LEU:HD22 | 1.72                     | 0.53              |
| 1:WA:237:ASP:OD1  | 1:WA:241:VAL:N    | 2.35                     | 0.53              |
| 1:XA:567:PHE:HD2  | 1:XA:633:LEU:HD22 | 1.72                     | 0.53              |
| 1:XA:647:ASP:N    | 1:XA:647:ASP:OD1  | 2.41                     | 0.53              |
| 1:YA:170:GLN:HB3  | 1:AB:233:GLN:OE1  | 2.09                     | 0.53              |
| 1:ZA:334:LEU:HD23 | 1:ZA:373:VAL:HA   | 1.91                     | 0.53              |
| 1:AB:230:ARG:HB2  | 1:AB:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:EB:505:PRO:HA   | 1:EB:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:FB:505:PRO:HA   | 1:FB:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:KB:336:ALA:O    | 1:KB:354:GLY:N    | 2.41                     | 0.53              |
| 1:LB:230:ARG:HB2  | 1:LB:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:OB:360:ARG:HG3  | 1:OB:407:MET:SD   | 2.47                     | 0.53              |
| 1:QB:56:ARG:CB    | 1:RB:127:LEU:HD22 | 2.39                     | 0.53              |
| 1:QB:647:ASP:N    | 1:QB:647:ASP:OD1  | 2.42                     | 0.53              |
| 1:RB:230:ARG:HB2  | 1:RB:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:RB:567:PHE:HD2  | 1:RB:633:LEU:HD22 | 1.72                     | 0.53              |
| 1:RB:647:ASP:N    | 1:RB:647:ASP:OD1  | 2.42                     | 0.53              |
| 1:SB:567:PHE:HD2  | 1:SB:633:LEU:HD22 | 1.72                     | 0.53              |
| 1:TB:334:LEU:HD23 | 1:TB:373:VAL:HA   | 1.91                     | 0.53              |
| 1:UB:567:PHE:HD2  | 1:UB:633:LEU:HD22 | 1.72                     | 0.53              |
| 1:XB:230:ARG:HB2  | 1:XB:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:XB:505:PRO:HA   | 1:XB:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:YB:336:ALA:O    | 1:YB:354:GLY:N    | 2.41                     | 0.53              |
| 1:C:567:PHE:HD2   | 1:C:633:LEU:HD22  | 1.72                     | 0.53              |
| 1:O:506:LYS:O     | 1:O:507:ARG:NE    | 2.40                     | 0.53              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:P:505:PRO:HA    | 1:P:526:VAL:HG12  | 1.90                     | 0.53              |
| 1:P:567:PHE:HD2   | 1:P:633:LEU:HD22  | 1.72                     | 0.53              |
| 1:Q:230:ARG:HB2   | 1:Q:248:GLU:HG2   | 1.89                     | 0.53              |
| 1:S:237:ASP:OD1   | 1:S:241:VAL:N     | 2.35                     | 0.53              |
| 1:IA:17:HIS:NE2   | 1:IA:99:LEU:O     | 2.33                     | 0.53              |
| 1:MA:567:PHE:HD2  | 1:MA:633:LEU:HD22 | 1.72                     | 0.53              |
| 1:NA:230:ARG:HB2  | 1:NA:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:RA:237:ASP:OD1  | 1:RA:241:VAL:N    | 2.35                     | 0.53              |
| 1:RA:334:LEU:HD23 | 1:RA:373:VAL:HA   | 1.91                     | 0.53              |
| 1:XA:334:LEU:HD23 | 1:XA:373:VAL:HA   | 1.91                     | 0.53              |
| 1:BB:384:GLN:HB2  | 1:CB:474:ARG:HG3  | 1.90                     | 0.53              |
| 1:EB:230:ARG:HB2  | 1:EB:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:HB:336:ALA:O    | 1:HB:354:GLY:N    | 2.41                     | 0.53              |
| 1:PB:506:LYS:O    | 1:PB:507:ARG:NE   | 2.40                     | 0.53              |
| 1:SB:334:LEU:HD23 | 1:SB:373:VAL:HA   | 1.91                     | 0.53              |
| 1:SB:647:ASP:OD1  | 1:SB:647:ASP:N    | 2.42                     | 0.53              |
| 1:TB:567:PHE:HD2  | 1:TB:633:LEU:HD22 | 1.72                     | 0.53              |
| 1:A:220:ILE:HD12  | 1:C:245:THR:HG22  | 1.90                     | 0.53              |
| 1:E:567:PHE:HD2   | 1:E:633:LEU:HD22  | 1.72                     | 0.53              |
| 1:I:203:ALA:HB2   | 1:K:192:THR:HB    | 1.91                     | 0.53              |
| 1:K:170:GLN:HB3   | 1:M:233:GLN:OE1   | 2.08                     | 0.53              |
| 1:K:567:PHE:HD2   | 1:K:633:LEU:HD22  | 1.72                     | 0.53              |
| 1:O:17:HIS:NE2    | 1:O:99:LEU:O      | 2.33                     | 0.53              |
| 1:V:647:ASP:OD1   | 1:V:647:ASP:N     | 2.42                     | 0.53              |
| 1:Y:336:ALA:O     | 1:Y:354:GLY:N     | 2.41                     | 0.53              |
| 1:Y:567:PHE:HD2   | 1:Y:633:LEU:HD22  | 1.72                     | 0.53              |
| 1:Z:505:PRO:HA    | 1:Z:526:VAL:HG12  | 1.90                     | 0.53              |
| 1:AA:237:ASP:OD1  | 1:AA:241:VAL:N    | 2.35                     | 0.53              |
| 1:BA:567:PHE:HD2  | 1:BA:633:LEU:HD22 | 1.72                     | 0.53              |
| 1:CA:17:HIS:NE2   | 1:CA:99:LEU:O     | 2.33                     | 0.53              |
| 1:FA:32:PRO:HB2   | 1:HA:24:ASN:HB2   | 1.90                     | 0.53              |
| 1:GA:647:ASP:N    | 1:GA:647:ASP:OD1  | 2.42                     | 0.53              |
| 1:KA:506:LYS:O    | 1:KA:507:ARG:NE   | 2.40                     | 0.53              |
| 1:KA:753:ILE:HG12 | 1:MA:745:LYS:HE2  | 1.91                     | 0.53              |
| 1:LA:230:ARG:HB2  | 1:LA:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:LA:655:GLN:HG2  | 1:NA:649:ARG:HH11 | 1.74                     | 0.53              |
| 1:MA:702:ALA:HB2  | 1:OA:690:ARG:HH12 | 1.74                     | 0.53              |
| 1:PA:334:LEU:HD23 | 1:PA:373:VAL:HA   | 1.91                     | 0.53              |
| 1:RA:505:PRO:HA   | 1:RA:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:TA:334:LEU:HD23 | 1:TA:373:VAL:HA   | 1.91                     | 0.53              |
| 1:ZA:567:PHE:HD2  | 1:ZA:633:LEU:HD22 | 1.72                     | 0.53              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:ZA:647:ASP:N    | 1:ZA:647:ASP:OD1  | 2.42                     | 0.53              |
| 1:AB:506:LYS:O    | 1:AB:507:ARG:NE   | 2.40                     | 0.53              |
| 1:BB:334:LEU:HD23 | 1:BB:373:VAL:HA   | 1.91                     | 0.53              |
| 1:DB:230:ARG:HB2  | 1:DB:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:JB:56:ARG:HH11  | 1:KB:128:ASP:H    | 1.57                     | 0.53              |
| 1:LB:716:VAL:HG21 | 1:MB:708:GLU:HG2  | 1.90                     | 0.53              |
| 1:TB:647:ASP:N    | 1:TB:647:ASP:OD1  | 2.42                     | 0.53              |
| 1:WB:230:ARG:HB2  | 1:WB:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:ZB:465:ASN:OD1  | 1:AC:563:SER:HA   | 2.08                     | 0.53              |
| 1:AC:336:ALA:O    | 1:AC:354:GLY:N    | 2.41                     | 0.53              |
| 1:B:170:GLN:HB3   | 1:D:233:GLN:OE1   | 2.07                     | 0.53              |
| 1:F:230:ARG:HB2   | 1:F:248:GLU:HG2   | 1.89                     | 0.53              |
| 1:F:775:ALA:CB    | 1:H:770:LEU:HD21  | 2.39                     | 0.53              |
| 1:G:567:PHE:HD2   | 1:G:633:LEU:HD22  | 1.72                     | 0.53              |
| 1:J:230:ARG:HB2   | 1:J:248:GLU:HG2   | 1.89                     | 0.53              |
| 1:K:336:ALA:O     | 1:K:354:GLY:N     | 2.41                     | 0.53              |
| 1:R:567:PHE:HD2   | 1:R:633:LEU:HD22  | 1.72                     | 0.53              |
| 1:V:801:ALA:HA    | 1:X:796:LYS:HZ1   | 1.74                     | 0.53              |
| 1:X:506:LYS:O     | 1:X:507:ARG:NE    | 2.40                     | 0.53              |
| 1:EA:505:PRO:HA   | 1:EA:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:EA:647:ASP:N    | 1:EA:647:ASP:OD1  | 2.42                     | 0.53              |
| 1:GA:506:LYS:O    | 1:GA:507:ARG:NE   | 2.40                     | 0.53              |
| 1:JA:739:GLY:O    | 1:JA:743:GLN:HG3  | 2.09                     | 0.53              |
| 1:WA:739:GLY:O    | 1:WA:743:GLN:HG3  | 2.09                     | 0.53              |
| 1:ZA:739:GLY:O    | 1:ZA:743:GLN:HG3  | 2.09                     | 0.53              |
| 1:BB:647:ASP:N    | 1:BB:647:ASP:OD1  | 2.42                     | 0.53              |
| 1:FB:237:ASP:OD1  | 1:FB:241:VAL:N    | 2.35                     | 0.53              |
| 1:HB:384:GLN:HB2  | 1:IB:474:ARG:HG3  | 1.90                     | 0.53              |
| 1:HB:643:VAL:H    | 1:IB:580:ARG:NH2  | 2.07                     | 0.53              |
| 1:HB:739:GLY:O    | 1:HB:743:GLN:HG3  | 2.09                     | 0.53              |
| 1:KB:237:ASP:OD1  | 1:KB:241:VAL:N    | 2.35                     | 0.53              |
| 1:LB:790:VAL:HG21 | 1:MB:785:GLN:CA   | 2.37                     | 0.53              |
| 1:NB:505:PRO:HA   | 1:NB:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:OB:220:ILE:HD12 | 1:PB:245:THR:HG22 | 1.90                     | 0.53              |
| 1:PB:334:LEU:HD23 | 1:PB:373:VAL:HA   | 1.91                     | 0.53              |
| 1:PB:505:PRO:HA   | 1:PB:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:QB:334:LEU:HD23 | 1:QB:373:VAL:HA   | 1.91                     | 0.53              |
| 1:QB:567:PHE:HD2  | 1:QB:633:LEU:HD22 | 1.72                     | 0.53              |
| 1:UB:647:ASP:OD1  | 1:UB:647:ASP:N    | 2.42                     | 0.53              |
| 1:F:237:ASP:OD1   | 1:F:241:VAL:N     | 2.35                     | 0.53              |
| 1:F:384:GLN:HB2   | 1:H:474:ARG:HG3   | 1.89                     | 0.53              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:M:658:VAL:HG12  | 1:O:533:ASP:O     | 2.09                     | 0.53              |
| 1:P:794:LYS:HD3   | 1:R:788:ALA:HB1   | 1.91                     | 0.53              |
| 1:S:95:ASP:HA     | 1:V:85:HIS:CE1    | 2.43                     | 0.53              |
| 1:BA:739:GLY:O    | 1:BA:743:GLN:HG3  | 2.09                     | 0.53              |
| 1:IA:505:PRO:HA   | 1:IA:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:JA:334:LEU:HD23 | 1:JA:373:VAL:HA   | 1.91                     | 0.53              |
| 1:LA:334:LEU:HD23 | 1:LA:373:VAL:HA   | 1.91                     | 0.53              |
| 1:NA:505:PRO:HA   | 1:NA:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:RA:761:ARG:HG2  | 1:TA:755:THR:HG21 | 1.90                     | 0.53              |
| 1:TA:567:PHE:HD2  | 1:TA:633:LEU:HD22 | 1.72                     | 0.53              |
| 1:WA:334:LEU:HD23 | 1:WA:373:VAL:HA   | 1.91                     | 0.53              |
| 1:XA:363:LEU:HA   | 1:ZA:353:ALA:HB3  | 1.90                     | 0.53              |
| 1:YA:334:LEU:HD23 | 1:YA:373:VAL:HA   | 1.91                     | 0.53              |
| 1:AB:505:PRO:HA   | 1:AB:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:CB:230:ARG:HB2  | 1:CB:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:CB:647:ASP:OD1  | 1:CB:647:ASP:N    | 2.42                     | 0.53              |
| 1:EB:325:VAL:HG21 | 1:FB:337:LEU:HA   | 1.91                     | 0.53              |
| 1:EB:334:LEU:HD23 | 1:EB:373:VAL:HA   | 1.91                     | 0.53              |
| 1:FB:230:ARG:HB2  | 1:FB:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:JB:230:ARG:HB2  | 1:JB:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:JB:647:ASP:N    | 1:JB:647:ASP:OD1  | 2.42                     | 0.53              |
| 1:KB:230:ARG:HB2  | 1:KB:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:MB:230:ARG:HB2  | 1:MB:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:PB:220:ILE:CD1  | 1:QB:245:THR:HG22 | 2.39                     | 0.53              |
| 1:QB:34:THR:HG21  | 1:RB:22:ASN:CA    | 2.38                     | 0.53              |
| 1:UB:334:LEU:HD23 | 1:UB:373:VAL:HA   | 1.91                     | 0.53              |
| 1:VB:334:LEU:HD23 | 1:VB:373:VAL:HA   | 1.91                     | 0.53              |
| 1:VB:357:TRP:HA   | 1:VB:410:GLN:HB3  | 1.91                     | 0.53              |
| 1:WB:739:GLY:O    | 1:WB:743:GLN:HG3  | 2.09                     | 0.53              |
| 1:AC:739:GLY:O    | 1:AC:743:GLN:HG3  | 2.09                     | 0.53              |
| 1:A:230:ARG:HB2   | 1:A:248:GLU:HG2   | 1.89                     | 0.53              |
| 1:B:52:THR:HG21   | 1:D:85:HIS:HD2    | 1.74                     | 0.53              |
| 1:B:647:ASP:N     | 1:B:647:ASP:OD1   | 2.42                     | 0.53              |
| 1:B:739:GLY:O     | 1:B:743:GLN:HG3   | 2.09                     | 0.53              |
| 1:G:334:LEU:HD23  | 1:G:373:VAL:HA    | 1.91                     | 0.53              |
| 1:H:739:GLY:O     | 1:H:743:GLN:HG3   | 2.09                     | 0.53              |
| 1:I:567:PHE:HD2   | 1:I:633:LEU:HD22  | 1.72                     | 0.53              |
| 1:L:384:GLN:HB2   | 1:N:474:ARG:HG3   | 1.91                     | 0.53              |
| 1:L:505:PRO:HA    | 1:L:526:VAL:HG12  | 1.90                     | 0.53              |
| 1:O:230:ARG:HB2   | 1:O:248:GLU:HG2   | 1.89                     | 0.53              |
| 1:S:647:ASP:OD1   | 1:S:647:ASP:N     | 2.42                     | 0.53              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:T:567:PHE:HD2   | 1:T:633:LEU:HD22  | 1.72                     | 0.53              |
| 1:CA:647:ASP:OD1  | 1:CA:647:ASP:N    | 2.42                     | 0.53              |
| 1:JA:237:ASP:OD1  | 1:JA:241:VAL:N    | 2.35                     | 0.53              |
| 1:KA:790:VAL:CG2  | 1:MA:785:GLN:HA   | 2.39                     | 0.53              |
| 1:LA:739:GLY:O    | 1:LA:743:GLN:HG3  | 2.10                     | 0.53              |
| 1:OA:739:GLY:O    | 1:OA:743:GLN:HG3  | 2.09                     | 0.53              |
| 1:RA:739:GLY:O    | 1:RA:743:GLN:HG3  | 2.09                     | 0.53              |
| 1:TA:257:GLU:HG2  | 1:VA:244:ARG:HB3  | 1.90                     | 0.53              |
| 1:UA:334:LEU:HD23 | 1:UA:373:VAL:HA   | 1.91                     | 0.53              |
| 1:VA:334:LEU:HD23 | 1:VA:373:VAL:HA   | 1.91                     | 0.53              |
| 1:XA:357:TRP:HA   | 1:XA:410:GLN:HB3  | 1.92                     | 0.53              |
| 1:XA:739:GLY:O    | 1:XA:743:GLN:HG3  | 2.09                     | 0.53              |
| 1:BB:357:TRP:HA   | 1:BB:410:GLN:HB3  | 1.91                     | 0.53              |
| 1:BB:739:GLY:O    | 1:BB:743:GLN:HG3  | 2.09                     | 0.53              |
| 1:CB:334:LEU:HD23 | 1:CB:373:VAL:HA   | 1.91                     | 0.53              |
| 1:CB:357:TRP:HA   | 1:CB:410:GLN:HB3  | 1.92                     | 0.53              |
| 1:DB:334:LEU:HD23 | 1:DB:373:VAL:HA   | 1.91                     | 0.53              |
| 1:DB:505:PRO:HA   | 1:DB:526:VAL:HG12 | 1.90                     | 0.53              |
| 1:EB:357:TRP:HA   | 1:EB:410:GLN:HB3  | 1.91                     | 0.53              |
| 1:EB:506:LYS:O    | 1:EB:507:ARG:NE   | 2.40                     | 0.53              |
| 1:GB:230:ARG:HB2  | 1:GB:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:HB:647:ASP:OD1  | 1:HB:647:ASP:N    | 2.42                     | 0.53              |
| 1:IB:647:ASP:N    | 1:IB:647:ASP:OD1  | 2.42                     | 0.53              |
| 1:OB:334:LEU:HD23 | 1:OB:373:VAL:HA   | 1.91                     | 0.53              |
| 1:OB:567:PHE:HD2  | 1:OB:633:LEU:HD22 | 1.72                     | 0.53              |
| 1:OB:739:GLY:O    | 1:OB:743:GLN:HG3  | 2.09                     | 0.53              |
| 1:PB:739:GLY:O    | 1:PB:743:GLN:HG3  | 2.09                     | 0.53              |
| 1:RB:334:LEU:HD23 | 1:RB:373:VAL:HA   | 1.91                     | 0.53              |
| 1:RB:363:LEU:HA   | 1:SB:353:ALA:HB3  | 1.90                     | 0.53              |
| 1:TB:357:TRP:HA   | 1:TB:410:GLN:HB3  | 1.92                     | 0.53              |
| 1:TB:702:ALA:HB2  | 1:UB:690:ARG:HH12 | 1.74                     | 0.53              |
| 1:TB:739:GLY:O    | 1:TB:743:GLN:HG3  | 2.09                     | 0.53              |
| 1:UB:357:TRP:HA   | 1:UB:410:GLN:HB3  | 1.91                     | 0.53              |
| 1:VB:230:ARG:HB2  | 1:VB:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:WB:357:TRP:HA   | 1:WB:410:GLN:HB3  | 1.91                     | 0.53              |
| 1:ZB:230:ARG:HB2  | 1:ZB:248:GLU:HG2  | 1.89                     | 0.53              |
| 1:AC:647:ASP:N    | 1:AC:647:ASP:OD1  | 2.42                     | 0.53              |
| 1:C:230:ARG:HB2   | 1:C:248:GLU:HG2   | 1.89                     | 0.52              |
| 1:C:505:PRO:HA    | 1:C:526:VAL:HG12  | 1.90                     | 0.52              |
| 1:H:666:THR:HG22  | 1:J:657:SER:HB2   | 1.91                     | 0.52              |
| 1:V:505:PRO:HA    | 1:V:526:VAL:HG12  | 1.90                     | 0.52              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:V:709:LEU:HD13  | 1:X:701:LYS:HG3   | 1.91                     | 0.52              |
| 1:HA:334:LEU:HD23 | 1:HA:373:VAL:HA   | 1.91                     | 0.52              |
| 1:MA:506:LYS:O    | 1:MA:507:ARG:NE   | 2.40                     | 0.52              |
| 1:NA:739:GLY:O    | 1:NA:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:PA:120:ALA:HB2  | 1:PA:205:LEU:HD21 | 1.91                     | 0.52              |
| 1:PA:739:GLY:O    | 1:PA:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:TA:357:TRP:HA   | 1:TA:410:GLN:HB3  | 1.91                     | 0.52              |
| 1:WA:506:LYS:O    | 1:WA:507:ARG:NE   | 2.40                     | 0.52              |
| 1:XA:120:ALA:HB2  | 1:XA:205:LEU:HD21 | 1.91                     | 0.52              |
| 1:YA:739:GLY:O    | 1:YA:743:GLN:HG3  | 2.10                     | 0.52              |
| 1:ZA:357:TRP:HA   | 1:ZA:410:GLN:HB3  | 1.92                     | 0.52              |
| 1:AB:739:GLY:O    | 1:AB:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:DB:357:TRP:HA   | 1:DB:410:GLN:HB3  | 1.91                     | 0.52              |
| 1:DB:506:LYS:O    | 1:DB:507:ARG:NE   | 2.40                     | 0.52              |
| 1:DB:739:GLY:O    | 1:DB:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:GB:17:HIS:NE2   | 1:GB:99:LEU:O     | 2.33                     | 0.52              |
| 1:GB:505:PRO:HA   | 1:GB:526:VAL:HG12 | 1.90                     | 0.52              |
| 1:GB:647:ASP:N    | 1:GB:647:ASP:OD1  | 2.42                     | 0.52              |
| 1:GB:739:GLY:O    | 1:GB:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:IB:739:GLY:O    | 1:IB:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:LB:739:GLY:O    | 1:LB:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:PB:567:PHE:HD2  | 1:PB:633:LEU:HD22 | 1.72                     | 0.52              |
| 1:RB:357:TRP:HA   | 1:RB:410:GLN:HB3  | 1.91                     | 0.52              |
| 1:SB:120:ALA:HB2  | 1:SB:205:LEU:HD21 | 1.91                     | 0.52              |
| 1:SB:357:TRP:HA   | 1:SB:410:GLN:HB3  | 1.92                     | 0.52              |
| 1:SB:739:GLY:O    | 1:SB:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:UB:230:ARG:HB2  | 1:UB:248:GLU:HG2  | 1.89                     | 0.52              |
| 1:UB:506:LYS:O    | 1:UB:507:ARG:NE   | 2.40                     | 0.52              |
| 1:UB:739:GLY:O    | 1:UB:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:VB:647:ASP:OD1  | 1:VB:647:ASP:N    | 2.42                     | 0.52              |
| 1:XB:334:LEU:HD23 | 1:XB:373:VAL:HA   | 1.91                     | 0.52              |
| 1:YB:230:ARG:HB2  | 1:YB:248:GLU:HG2  | 1.89                     | 0.52              |
| 1:ZB:647:ASP:N    | 1:ZB:647:ASP:OD1  | 2.41                     | 0.52              |
| 1:ZB:739:GLY:O    | 1:ZB:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:C:739:GLY:O     | 1:C:743:GLN:HG3   | 2.09                     | 0.52              |
| 1:E:647:ASP:N     | 1:E:647:ASP:OD1   | 2.42                     | 0.52              |
| 1:J:237:ASP:OD1   | 1:J:241:VAL:N     | 2.35                     | 0.52              |
| 1:K:334:LEU:HD23  | 1:K:373:VAL:HA    | 1.91                     | 0.52              |
| 1:N:230:ARG:HB2   | 1:N:248:GLU:HG2   | 1.89                     | 0.52              |
| 1:O:591:PHE:CD1   | 1:O:598:ILE:HD11  | 2.45                     | 0.52              |
| 1:P:334:LEU:HD23  | 1:P:373:VAL:HA    | 1.91                     | 0.52              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:Q:334:LEU:HD23  | 1:Q:373:VAL:HA    | 1.91                     | 0.52              |
| 1:S:506:LYS:O     | 1:S:507:ARG:NE    | 2.40                     | 0.52              |
| 1:V:591:PHE:CD1   | 1:V:598:ILE:HD11  | 2.45                     | 0.52              |
| 1:Z:506:LYS:O     | 1:Z:507:ARG:NE    | 2.40                     | 0.52              |
| 1:AA:647:ASP:OD1  | 1:AA:647:ASP:N    | 2.42                     | 0.52              |
| 1:BA:591:PHE:CD1  | 1:BA:598:ILE:HD11 | 2.45                     | 0.52              |
| 1:CA:230:ARG:HB2  | 1:CA:248:GLU:HG2  | 1.89                     | 0.52              |
| 1:CA:591:PHE:CD1  | 1:CA:598:ILE:HD11 | 2.45                     | 0.52              |
| 1:DA:334:LEU:HD23 | 1:DA:373:VAL:HA   | 1.91                     | 0.52              |
| 1:HA:739:GLY:O    | 1:HA:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:IA:591:PHE:CD1  | 1:IA:598:ILE:HD11 | 2.45                     | 0.52              |
| 1:KA:769:GLU:HG2  | 1:MA:766:ARG:HH12 | 1.74                     | 0.52              |
| 1:NA:334:LEU:HD23 | 1:NA:373:VAL:HA   | 1.91                     | 0.52              |
| 1:OA:237:ASP:OD1  | 1:OA:241:VAL:N    | 2.35                     | 0.52              |
| 1:TA:120:ALA:HB2  | 1:TA:205:LEU:HD21 | 1.92                     | 0.52              |
| 1:UA:237:ASP:OD1  | 1:UA:241:VAL:N    | 2.35                     | 0.52              |
| 1:VA:237:ASP:OD1  | 1:VA:241:VAL:N    | 2.35                     | 0.52              |
| 1:VA:357:TRP:HA   | 1:VA:410:GLN:HB3  | 1.92                     | 0.52              |
| 1:WA:357:TRP:HA   | 1:WA:410:GLN:HB3  | 1.91                     | 0.52              |
| 1:YA:230:ARG:HB2  | 1:YA:248:GLU:HG2  | 1.89                     | 0.52              |
| 1:AB:334:LEU:HD23 | 1:AB:373:VAL:HA   | 1.91                     | 0.52              |
| 1:BB:506:LYS:O    | 1:BB:507:ARG:NE   | 2.40                     | 0.52              |
| 1:BB:640:VAL:HG13 | 1:CB:580:ARG:HH11 | 1.74                     | 0.52              |
| 1:CB:739:GLY:O    | 1:CB:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:DB:647:ASP:N    | 1:DB:647:ASP:OD1  | 2.42                     | 0.52              |
| 1:EB:739:GLY:O    | 1:EB:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:MB:237:ASP:OD1  | 1:MB:241:VAL:N    | 2.35                     | 0.52              |
| 1:QB:592:HIS:CD2  | 1:RB:534:HIS:NE2  | 2.77                     | 0.52              |
| 1:WB:334:LEU:HD23 | 1:WB:373:VAL:HA   | 1.91                     | 0.52              |
| 1:WB:505:PRO:HA   | 1:WB:526:VAL:HG12 | 1.90                     | 0.52              |
| 1:XB:357:TRP:HA   | 1:XB:410:GLN:HB3  | 1.92                     | 0.52              |
| 1:XB:506:LYS:O    | 1:XB:507:ARG:NE   | 2.40                     | 0.52              |
| 1:YB:334:LEU:HD23 | 1:YB:373:VAL:HA   | 1.91                     | 0.52              |
| 1:ZB:505:PRO:HA   | 1:ZB:526:VAL:HG12 | 1.90                     | 0.52              |
| 1:A:739:GLY:O     | 1:A:743:GLN:HG3   | 2.09                     | 0.52              |
| 1:B:505:PRO:HA    | 1:B:526:VAL:HG12  | 1.90                     | 0.52              |
| 1:C:334:LEU:HD23  | 1:C:373:VAL:HA    | 1.91                     | 0.52              |
| 1:C:647:ASP:OD1   | 1:C:647:ASP:N     | 2.42                     | 0.52              |
| 1:D:230:ARG:HB2   | 1:D:248:GLU:HG2   | 1.89                     | 0.52              |
| 1:D:647:ASP:N     | 1:D:647:ASP:OD1   | 2.42                     | 0.52              |
| 1:D:739:GLY:O     | 1:D:743:GLN:HG3   | 2.09                     | 0.52              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:E:230:ARG:HB2   | 1:E:248:GLU:HG2   | 1.89                     | 0.52              |
| 1:F:739:GLY:O     | 1:F:743:GLN:HG3   | 2.09                     | 0.52              |
| 1:G:647:ASP:N     | 1:G:647:ASP:OD1   | 2.42                     | 0.52              |
| 1:I:647:ASP:OD1   | 1:I:647:ASP:N     | 2.42                     | 0.52              |
| 1:M:334:LEU:HD23  | 1:M:373:VAL:HA    | 1.91                     | 0.52              |
| 1:O:790:VAL:CG2   | 1:Q:785:GLN:HA    | 2.38                     | 0.52              |
| 1:P:647:ASP:OD1   | 1:P:647:ASP:N     | 2.42                     | 0.52              |
| 1:P:739:GLY:O     | 1:P:743:GLN:HG3   | 2.09                     | 0.52              |
| 1:Q:647:ASP:OD1   | 1:Q:647:ASP:N     | 2.42                     | 0.52              |
| 1:W:567:PHE:HD2   | 1:W:633:LEU:HD22  | 1.72                     | 0.52              |
| 1:W:717:GLU:HB2   | 1:Y:707:LEU:HD13  | 1.91                     | 0.52              |
| 1:AA:334:LEU:HD23 | 1:AA:373:VAL:HA   | 1.91                     | 0.52              |
| 1:DA:761:ARG:HG2  | 1:FA:755:THR:HG21 | 1.90                     | 0.52              |
| 1:GA:739:GLY:O    | 1:GA:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:HA:591:PHE:CD1  | 1:HA:598:ILE:HD11 | 2.45                     | 0.52              |
| 1:JA:506:LYS:O    | 1:JA:507:ARG:NE   | 2.40                     | 0.52              |
| 1:KA:783:LYS:HA   | 1:MA:777:LEU:HD11 | 1.89                     | 0.52              |
| 1:NA:257:GLU:HG2  | 1:PA:244:ARG:HB3  | 1.90                     | 0.52              |
| 1:OA:591:PHE:CD1  | 1:OA:598:ILE:HD11 | 2.45                     | 0.52              |
| 1:RA:567:PHE:HD2  | 1:RA:633:LEU:HD22 | 1.72                     | 0.52              |
| 1:SA:591:PHE:CD1  | 1:SA:598:ILE:HD11 | 2.45                     | 0.52              |
| 1:UA:591:PHE:CD1  | 1:UA:598:ILE:HD11 | 2.45                     | 0.52              |
| 1:UA:739:GLY:O    | 1:UA:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:XA:702:ALA:HB2  | 1:ZA:690:ARG:HH12 | 1.74                     | 0.52              |
| 1:YA:120:ALA:HB2  | 1:YA:205:LEU:HD21 | 1.91                     | 0.52              |
| 1:YA:357:TRP:HA   | 1:YA:410:GLN:HB3  | 1.91                     | 0.52              |
| 1:BB:120:ALA:HB2  | 1:BB:205:LEU:HD21 | 1.92                     | 0.52              |
| 1:BB:505:PRO:HA   | 1:BB:526:VAL:HG12 | 1.90                     | 0.52              |
| 1:EB:647:ASP:OD1  | 1:EB:647:ASP:N    | 2.42                     | 0.52              |
| 1:FB:334:LEU:HD23 | 1:FB:373:VAL:HA   | 1.91                     | 0.52              |
| 1:IB:357:TRP:HA   | 1:IB:410:GLN:HB3  | 1.91                     | 0.52              |
| 1:KB:647:ASP:OD1  | 1:KB:647:ASP:N    | 2.42                     | 0.52              |
| 1:KB:739:GLY:O    | 1:KB:743:GLN:HG3  | 2.10                     | 0.52              |
| 1:NB:230:ARG:HB2  | 1:NB:248:GLU:HG2  | 1.89                     | 0.52              |
| 1:OB:120:ALA:HB2  | 1:OB:205:LEU:HD21 | 1.92                     | 0.52              |
| 1:PB:279:ARG:NH2  | 1:QB:338:GLN:OE1  | 2.36                     | 0.52              |
| 1:QB:120:ALA:HB2  | 1:QB:205:LEU:HD21 | 1.92                     | 0.52              |
| 1:QB:357:TRP:HA   | 1:QB:410:GLN:HB3  | 1.92                     | 0.52              |
| 1:UB:505:PRO:HA   | 1:UB:526:VAL:HG12 | 1.90                     | 0.52              |
| 1:XB:739:GLY:O    | 1:XB:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:YB:357:TRP:HA   | 1:YB:410:GLN:HB3  | 1.92                     | 0.52              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:ZB:357:TRP:HA   | 1:ZB:410:GLN:HB3  | 1.91                     | 0.52              |
| 1:A:647:ASP:OD1   | 1:A:647:ASP:N     | 2.42                     | 0.52              |
| 1:B:357:TRP:HA    | 1:B:410:GLN:HB3   | 1.91                     | 0.52              |
| 1:D:357:TRP:HA    | 1:D:410:GLN:HB3   | 1.91                     | 0.52              |
| 1:E:654:LEU:HD13  | 1:G:534:HIS:CD2   | 2.45                     | 0.52              |
| 1:F:357:TRP:HA    | 1:F:410:GLN:HB3   | 1.92                     | 0.52              |
| 1:I:591:PHE:CD1   | 1:I:598:ILE:HD11  | 2.45                     | 0.52              |
| 1:J:357:TRP:HA    | 1:J:410:GLN:HB3   | 1.91                     | 0.52              |
| 1:N:647:ASP:OD1   | 1:N:647:ASP:N     | 2.42                     | 0.52              |
| 1:P:230:ARG:HB2   | 1:P:248:GLU:HG2   | 1.89                     | 0.52              |
| 1:W:591:PHE:CD1   | 1:W:598:ILE:HD11  | 2.45                     | 0.52              |
| 1:Y:647:ASP:OD1   | 1:Y:647:ASP:N     | 2.42                     | 0.52              |
| 1:Y:739:GLY:O     | 1:Y:743:GLN:HG3   | 2.09                     | 0.52              |
| 1:GA:591:PHE:CD1  | 1:GA:598:ILE:HD11 | 2.45                     | 0.52              |
| 1:KA:591:PHE:CD1  | 1:KA:598:ILE:HD11 | 2.45                     | 0.52              |
| 1:LA:357:TRP:HA   | 1:LA:410:GLN:HB3  | 1.92                     | 0.52              |
| 1:MA:591:PHE:CD1  | 1:MA:598:ILE:HD11 | 2.45                     | 0.52              |
| 1:OA:334:LEU:HD23 | 1:OA:373:VAL:HA   | 1.91                     | 0.52              |
| 1:RA:357:TRP:HA   | 1:RA:410:GLN:HB3  | 1.92                     | 0.52              |
| 1:BB:230:ARG:HB2  | 1:BB:248:GLU:HG2  | 1.89                     | 0.52              |
| 1:DB:382:LEU:O    | 1:EB:396:GLY:HA3  | 2.09                     | 0.52              |
| 1:FB:357:TRP:HA   | 1:FB:410:GLN:HB3  | 1.92                     | 0.52              |
| 1:GB:357:TRP:HA   | 1:GB:410:GLN:HB3  | 1.92                     | 0.52              |
| 1:IB:505:PRO:HA   | 1:IB:526:VAL:HG12 | 1.90                     | 0.52              |
| 1:JB:357:TRP:HA   | 1:JB:410:GLN:HB3  | 1.92                     | 0.52              |
| 1:KB:357:TRP:HA   | 1:KB:410:GLN:HB3  | 1.92                     | 0.52              |
| 1:OB:357:TRP:HA   | 1:OB:410:GLN:HB3  | 1.91                     | 0.52              |
| 1:SB:666:THR:HG22 | 1:TB:657:SER:HB2  | 1.91                     | 0.52              |
| 1:UB:120:ALA:HB2  | 1:UB:205:LEU:HD21 | 1.92                     | 0.52              |
| 1:VB:739:GLY:O    | 1:VB:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:WB:120:ALA:HB2  | 1:WB:205:LEU:HD21 | 1.92                     | 0.52              |
| 1:WB:647:ASP:N    | 1:WB:647:ASP:OD1  | 2.42                     | 0.52              |
| 1:XB:716:VAL:HG21 | 1:YB:708:GLU:HG2  | 1.92                     | 0.52              |
| 1:YB:647:ASP:N    | 1:YB:647:ASP:OD1  | 2.42                     | 0.52              |
| 1:ZB:17:HIS:NE2   | 1:ZB:99:LEU:O     | 2.33                     | 0.52              |
| 1:E:203:ALA:HB2   | 1:G:192:THR:HB    | 1.92                     | 0.52              |
| 1:E:658:VAL:HG11  | 1:G:535:ALA:HA    | 1.92                     | 0.52              |
| 1:F:647:ASP:OD1   | 1:F:647:ASP:N     | 2.42                     | 0.52              |
| 1:H:357:TRP:HA    | 1:H:410:GLN:HB3   | 1.92                     | 0.52              |
| 1:L:334:LEU:HD23  | 1:L:373:VAL:HA    | 1.91                     | 0.52              |
| 1:N:739:GLY:O     | 1:N:743:GLN:HG3   | 2.09                     | 0.52              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:Q:739:GLY:O     | 1:Q:743:GLN:HG3   | 2.09                     | 0.52              |
| 1:S:739:GLY:O     | 1:S:743:GLN:HG3   | 2.09                     | 0.52              |
| 1:T:334:LEU:HD23  | 1:T:373:VAL:HA    | 1.91                     | 0.52              |
| 1:W:334:LEU:HD23  | 1:W:373:VAL:HA    | 1.91                     | 0.52              |
| 1:Z:739:GLY:O     | 1:Z:743:GLN:HG3   | 2.09                     | 0.52              |
| 1:BA:334:LEU:HD23 | 1:BA:373:VAL:HA   | 1.91                     | 0.52              |
| 1:DA:384:GLN:HB2  | 1:FA:474:ARG:HG3  | 1.90                     | 0.52              |
| 1:HA:357:TRP:HA   | 1:HA:410:GLN:HB3  | 1.92                     | 0.52              |
| 1:HA:702:ALA:HB2  | 1:JA:690:ARG:HH12 | 1.73                     | 0.52              |
| 1:JA:357:TRP:HA   | 1:JA:410:GLN:HB3  | 1.92                     | 0.52              |
| 1:LA:120:ALA:HB2  | 1:LA:205:LEU:HD21 | 1.92                     | 0.52              |
| 1:NA:357:TRP:HA   | 1:NA:410:GLN:HB3  | 1.91                     | 0.52              |
| 1:NA:591:PHE:CD1  | 1:NA:598:ILE:HD11 | 2.45                     | 0.52              |
| 1:QA:334:LEU:HD23 | 1:QA:373:VAL:HA   | 1.91                     | 0.52              |
| 1:QA:739:GLY:O    | 1:QA:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:SA:357:TRP:HA   | 1:SA:410:GLN:HB3  | 1.91                     | 0.52              |
| 1:UA:357:TRP:HA   | 1:UA:410:GLN:HB3  | 1.92                     | 0.52              |
| 1:XA:230:ARG:HB2  | 1:XA:248:GLU:HG2  | 1.90                     | 0.52              |
| 1:ZA:230:ARG:HB2  | 1:ZA:248:GLU:HG2  | 1.89                     | 0.52              |
| 1:AB:357:TRP:HA   | 1:AB:410:GLN:HB3  | 1.92                     | 0.52              |
| 1:AB:591:PHE:CD1  | 1:AB:598:ILE:HD11 | 2.45                     | 0.52              |
| 1:CB:120:ALA:HB2  | 1:CB:205:LEU:HD21 | 1.91                     | 0.52              |
| 1:DB:120:ALA:HB2  | 1:DB:205:LEU:HD21 | 1.91                     | 0.52              |
| 1:EB:120:ALA:HB2  | 1:EB:205:LEU:HD21 | 1.92                     | 0.52              |
| 1:FB:739:GLY:O    | 1:FB:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:KB:334:LEU:HD23 | 1:KB:373:VAL:HA   | 1.91                     | 0.52              |
| 1:PB:357:TRP:HA   | 1:PB:410:GLN:HB3  | 1.92                     | 0.52              |
| 1:SB:506:LYS:O    | 1:SB:507:ARG:NE   | 2.40                     | 0.52              |
| 1:TB:230:ARG:HB2  | 1:TB:248:GLU:HG2  | 1.89                     | 0.52              |
| 1:TB:709:LEU:HD13 | 1:UB:701:LYS:HG3  | 1.92                     | 0.52              |
| 1:UB:709:LEU:HD13 | 1:VB:697:SER:O    | 2.09                     | 0.52              |
| 1:XB:647:ASP:OD1  | 1:XB:647:ASP:N    | 2.42                     | 0.52              |
| 1:A:755:THR:HG21  | 1:NB:761:ARG:HG2  | 1.91                     | 0.52              |
| 1:C:591:PHE:CD1   | 1:C:598:ILE:HD11  | 2.45                     | 0.52              |
| 1:I:739:GLY:O     | 1:I:743:GLN:HG3   | 2.09                     | 0.52              |
| 1:L:230:ARG:HB2   | 1:L:248:GLU:HG2   | 1.89                     | 0.52              |
| 1:O:9:ARG:HE      | 1:Q:24:ASN:ND2    | 2.08                     | 0.52              |
| 1:O:647:ASP:N     | 1:O:647:ASP:OD1   | 2.42                     | 0.52              |
| 1:P:591:PHE:CD1   | 1:P:598:ILE:HD11  | 2.45                     | 0.52              |
| 1:Q:591:PHE:CD1   | 1:Q:598:ILE:HD11  | 2.45                     | 0.52              |
| 1:R:647:ASP:N     | 1:R:647:ASP:OD1   | 2.42                     | 0.52              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:R:739:GLY:O     | 1:R:743:GLN:HG3   | 2.09                     | 0.52              |
| 1:T:170:GLN:HB3   | 1:W:233:GLN:OE1   | 2.09                     | 0.52              |
| 1:W:647:ASP:N     | 1:W:647:ASP:OD1   | 2.42                     | 0.52              |
| 1:Z:591:PHE:CD1   | 1:Z:598:ILE:HD11  | 2.45                     | 0.52              |
| 1:AA:591:PHE:CD1  | 1:AA:598:ILE:HD11 | 2.45                     | 0.52              |
| 1:DA:739:GLY:O    | 1:DA:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:EA:334:LEU:HD23 | 1:EA:373:VAL:HA   | 1.91                     | 0.52              |
| 1:FA:334:LEU:HD23 | 1:FA:373:VAL:HA   | 1.91                     | 0.52              |
| 1:FA:357:TRP:HA   | 1:FA:410:GLN:HB3  | 1.92                     | 0.52              |
| 1:FA:591:PHE:CD1  | 1:FA:598:ILE:HD11 | 2.45                     | 0.52              |
| 1:HA:237:ASP:OD1  | 1:HA:241:VAL:N    | 2.35                     | 0.52              |
| 1:IA:739:GLY:O    | 1:IA:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:MA:739:GLY:O    | 1:MA:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:SA:334:LEU:HD23 | 1:SA:373:VAL:HA   | 1.91                     | 0.52              |
| 1:TA:237:ASP:OD1  | 1:TA:241:VAL:N    | 2.35                     | 0.52              |
| 1:UA:801:ALA:HA   | 1:WA:796:LYS:NZ   | 2.24                     | 0.52              |
| 1:VA:739:GLY:O    | 1:VA:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:XA:237:ASP:OD1  | 1:XA:241:VAL:N    | 2.35                     | 0.52              |
| 1:XA:506:LYS:O    | 1:XA:507:ARG:NE   | 2.40                     | 0.52              |
| 1:FB:120:ALA:HB2  | 1:FB:205:LEU:HD21 | 1.92                     | 0.52              |
| 1:JB:739:GLY:O    | 1:JB:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:LB:357:TRP:HA   | 1:LB:410:GLN:HB3  | 1.92                     | 0.52              |
| 1:MB:739:GLY:O    | 1:MB:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:QB:739:GLY:O    | 1:QB:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:SB:230:ARG:HB2  | 1:SB:248:GLU:HG2  | 1.89                     | 0.52              |
| 1:SB:237:ASP:OD1  | 1:SB:241:VAL:N    | 2.35                     | 0.52              |
| 1:SB:363:LEU:HA   | 1:TB:353:ALA:HB3  | 1.91                     | 0.52              |
| 1:ZB:120:ALA:HB2  | 1:ZB:205:LEU:HD21 | 1.92                     | 0.52              |
| 1:AC:357:TRP:HA   | 1:AC:410:GLN:HB3  | 1.91                     | 0.52              |
| 1:B:120:ALA:HB2   | 1:B:205:LEU:HD21  | 1.92                     | 0.52              |
| 1:B:237:ASP:OD1   | 1:B:241:VAL:N     | 2.35                     | 0.52              |
| 1:H:783:LYS:HA    | 1:J:777:LEU:CD1   | 2.39                     | 0.52              |
| 1:J:739:GLY:O     | 1:J:743:GLN:HG3   | 2.09                     | 0.52              |
| 1:K:591:PHE:CD1   | 1:K:598:ILE:HD11  | 2.45                     | 0.52              |
| 1:K:647:ASP:OD1   | 1:K:647:ASP:N     | 2.42                     | 0.52              |
| 1:L:357:TRP:HA    | 1:L:410:GLN:HB3   | 1.92                     | 0.52              |
| 1:M:647:ASP:N     | 1:M:647:ASP:OD1   | 2.42                     | 0.52              |
| 1:T:591:PHE:CD1   | 1:T:598:ILE:HD11  | 2.45                     | 0.52              |
| 1:T:647:ASP:N     | 1:T:647:ASP:OD1   | 2.42                     | 0.52              |
| 1:AA:739:GLY:O    | 1:AA:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:BA:237:ASP:OD1  | 1:BA:241:VAL:N    | 2.35                     | 0.52              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:FA:120:ALA:HB2  | 1:FA:205:LEU:HD21 | 1.92                     | 0.52              |
| 1:PA:357:TRP:HA   | 1:PA:410:GLN:HB3  | 1.92                     | 0.52              |
| 1:TA:739:GLY:O    | 1:TA:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:BB:736:GLU:OE2  | 1:CB:726:ALA:HB1  | 2.09                     | 0.52              |
| 1:FB:647:ASP:N    | 1:FB:647:ASP:OD1  | 2.42                     | 0.52              |
| 1:GB:120:ALA:HB2  | 1:GB:205:LEU:HD21 | 1.92                     | 0.52              |
| 1:GB:334:LEU:HD23 | 1:GB:373:VAL:HA   | 1.91                     | 0.52              |
| 1:HB:357:TRP:HA   | 1:HB:410:GLN:HB3  | 1.92                     | 0.52              |
| 1:IB:120:ALA:HB2  | 1:IB:205:LEU:HD21 | 1.92                     | 0.52              |
| 1:LB:647:ASP:N    | 1:LB:647:ASP:OD1  | 2.42                     | 0.52              |
| 1:LB:797:GLU:CG   | 1:MB:792:ALA:HB1  | 2.40                     | 0.52              |
| 1:MB:357:TRP:HA   | 1:MB:410:GLN:HB3  | 1.92                     | 0.52              |
| 1:NB:334:LEU:HD23 | 1:NB:373:VAL:HA   | 1.91                     | 0.52              |
| 1:QB:9:ARG:NH1    | 1:RB:21:GLN:CB    | 2.72                     | 0.52              |
| 1:RB:739:GLY:O    | 1:RB:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:VB:384:GLN:HB2  | 1:WB:474:ARG:HG3  | 1.92                     | 0.52              |
| 1:XB:120:ALA:HB2  | 1:XB:205:LEU:HD21 | 1.92                     | 0.52              |
| 1:YB:120:ALA:HB2  | 1:YB:205:LEU:HD21 | 1.92                     | 0.52              |
| 1:YB:739:GLY:O    | 1:YB:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:ZB:334:LEU:HD23 | 1:ZB:373:VAL:HA   | 1.91                     | 0.52              |
| 1:A:775:ALA:HB3   | 1:C:770:LEU:HD21  | 1.91                     | 0.52              |
| 1:C:9:ARG:HH21    | 1:E:24:ASN:CG     | 2.13                     | 0.52              |
| 1:E:237:ASP:OD1   | 1:E:241:VAL:N     | 2.35                     | 0.52              |
| 1:H:647:ASP:OD1   | 1:H:647:ASP:N     | 2.42                     | 0.52              |
| 1:J:334:LEU:HD23  | 1:J:373:VAL:HA    | 1.91                     | 0.52              |
| 1:K:706:LEU:HD13  | 1:M:693:ILE:HG23  | 1.92                     | 0.52              |
| 1:K:739:GLY:O     | 1:K:743:GLN:HG3   | 2.10                     | 0.52              |
| 1:O:384:GLN:HB2   | 1:Q:474:ARG:HG3   | 1.92                     | 0.52              |
| 1:X:739:GLY:O     | 1:X:743:GLN:HG3   | 2.09                     | 0.52              |
| 1:HA:655:GLN:HG2  | 1:JA:649:ARG:HH11 | 1.75                     | 0.52              |
| 1:JA:120:ALA:HB2  | 1:JA:205:LEU:HD21 | 1.92                     | 0.52              |
| 1:KA:739:GLY:O    | 1:KA:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:TA:591:PHE:CD1  | 1:TA:598:ILE:HD11 | 2.45                     | 0.52              |
| 1:UA:120:ALA:HB2  | 1:UA:205:LEU:HD21 | 1.92                     | 0.52              |
| 1:HB:237:ASP:OD1  | 1:HB:241:VAL:N    | 2.35                     | 0.52              |
| 1:HB:385:ASN:ND2  | 1:IB:473:TYR:O    | 2.43                     | 0.52              |
| 1:JB:220:ILE:CD1  | 1:KB:245:THR:HG22 | 2.39                     | 0.52              |
| 1:MB:334:LEU:HD23 | 1:MB:373:VAL:HA   | 1.91                     | 0.52              |
| 1:NB:357:TRP:HA   | 1:NB:410:GLN:HB3  | 1.92                     | 0.52              |
| 1:TB:120:ALA:HB2  | 1:TB:205:LEU:HD21 | 1.92                     | 0.52              |
| 1:VB:120:ALA:HB2  | 1:VB:205:LEU:HD21 | 1.91                     | 0.52              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:E:739:GLY:O     | 1:E:743:GLN:HG3   | 2.09                     | 0.52              |
| 1:F:120:ALA:HB2   | 1:F:205:LEU:HD21  | 1.92                     | 0.52              |
| 1:F:334:LEU:HD23  | 1:F:373:VAL:HA    | 1.91                     | 0.52              |
| 1:I:220:ILE:HD12  | 1:K:245:THR:HG22  | 1.92                     | 0.52              |
| 1:J:717:GLU:HB2   | 1:L:707:LEU:HD13  | 1.92                     | 0.52              |
| 1:N:591:PHE:CD1   | 1:N:598:ILE:HD11  | 2.45                     | 0.52              |
| 1:P:779:LEU:HD21  | 1:R:773:ALA:HB1   | 1.92                     | 0.52              |
| 1:R:717:GLU:HB2   | 1:T:707:LEU:HD13  | 1.92                     | 0.52              |
| 1:S:591:PHE:CD1   | 1:S:598:ILE:HD11  | 2.45                     | 0.52              |
| 1:V:334:LEU:HD23  | 1:V:373:VAL:HA    | 1.91                     | 0.52              |
| 1:W:739:GLY:O     | 1:W:743:GLN:HG3   | 2.09                     | 0.52              |
| 1:Z:334:LEU:HD23  | 1:Z:373:VAL:HA    | 1.91                     | 0.52              |
| 1:BA:120:ALA:HB2  | 1:BA:205:LEU:HD21 | 1.92                     | 0.52              |
| 1:DA:357:TRP:HA   | 1:DA:410:GLN:HB3  | 1.92                     | 0.52              |
| 1:EA:739:GLY:O    | 1:EA:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:IA:237:ASP:OD1  | 1:IA:241:VAL:N    | 2.35                     | 0.52              |
| 1:MA:334:LEU:HD23 | 1:MA:373:VAL:HA   | 1.91                     | 0.52              |
| 1:NA:363:LEU:HA   | 1:PA:353:ALA:HB3  | 1.91                     | 0.52              |
| 1:OA:120:ALA:HB2  | 1:OA:205:LEU:HD21 | 1.92                     | 0.52              |
| 1:OA:170:GLN:HB3  | 1:QA:233:GLN:OE1  | 2.10                     | 0.52              |
| 1:OA:384:GLN:HB2  | 1:QA:474:ARG:HG3  | 1.91                     | 0.52              |
| 1:QA:357:TRP:HA   | 1:QA:410:GLN:HB3  | 1.91                     | 0.52              |
| 1:SA:120:ALA:HB2  | 1:SA:205:LEU:HD21 | 1.92                     | 0.52              |
| 1:SA:506:LYS:O    | 1:SA:507:ARG:NE   | 2.40                     | 0.52              |
| 1:YA:591:PHE:CD1  | 1:YA:598:ILE:HD11 | 2.45                     | 0.52              |
| 1:FB:643:VAL:H    | 1:GB:580:ARG:NH2  | 2.08                     | 0.52              |
| 1:IB:237:ASP:OD1  | 1:IB:241:VAL:N    | 2.35                     | 0.52              |
| 1:KB:120:ALA:HB2  | 1:KB:205:LEU:HD21 | 1.91                     | 0.52              |
| 1:MB:591:PHE:CD1  | 1:MB:598:ILE:HD11 | 2.45                     | 0.52              |
| 1:NB:739:GLY:O    | 1:NB:743:GLN:HG3  | 2.09                     | 0.52              |
| 1:QB:591:PHE:CD1  | 1:QB:598:ILE:HD11 | 2.45                     | 0.52              |
| 1:AC:237:ASP:OD1  | 1:AC:241:VAL:N    | 2.35                     | 0.52              |
| 1:A:334:LEU:HD23  | 1:A:373:VAL:HA    | 1.91                     | 0.52              |
| 1:B:334:LEU:HD23  | 1:B:373:VAL:HA    | 1.91                     | 0.52              |
| 1:H:591:PHE:CD1   | 1:H:598:ILE:HD11  | 2.45                     | 0.52              |
| 1:I:334:LEU:HD23  | 1:I:373:VAL:HA    | 1.91                     | 0.52              |
| 1:J:591:PHE:CD1   | 1:J:598:ILE:HD11  | 2.45                     | 0.52              |
| 1:O:775:ALA:HB1   | 1:Q:770:LEU:HD21  | 1.90                     | 0.52              |
| 1:T:357:TRP:HA    | 1:T:410:GLN:HB3   | 1.91                     | 0.52              |
| 1:T:739:GLY:O     | 1:T:743:GLN:HG3   | 2.10                     | 0.52              |
| 1:V:739:GLY:O     | 1:V:743:GLN:HG3   | 2.09                     | 0.52              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:W:357:TRP:HA    | 1:W:410:GLN:HB3   | 1.91                     | 0.52              |
| 1:X:591:PHE:CD1   | 1:X:598:ILE:HD11  | 2.45                     | 0.52              |
| 1:Y:717:GLU:HB2   | 1:AA:707:LEU:HD13 | 1.92                     | 0.52              |
| 1:EA:506:LYS:O    | 1:EA:507:ARG:NE   | 2.40                     | 0.52              |
| 1:HA:120:ALA:HB2  | 1:HA:205:LEU:HD21 | 1.92                     | 0.52              |
| 1:NA:237:ASP:OD1  | 1:NA:241:VAL:N    | 2.35                     | 0.52              |
| 1:SA:170:GLN:HB3  | 1:UA:233:GLN:OE1  | 2.10                     | 0.52              |
| 1:VA:591:PHE:CD1  | 1:VA:598:ILE:HD11 | 2.45                     | 0.52              |
| 1:WA:120:ALA:HB2  | 1:WA:205:LEU:HD21 | 1.92                     | 0.52              |
| 1:ZA:120:ALA:HB2  | 1:ZA:205:LEU:HD21 | 1.92                     | 0.52              |
| 1:HB:334:LEU:HD23 | 1:HB:373:VAL:HA   | 1.91                     | 0.52              |
| 1:OB:591:PHE:CD1  | 1:OB:598:ILE:HD11 | 2.45                     | 0.52              |
| 1:RB:591:PHE:CD1  | 1:RB:598:ILE:HD11 | 2.45                     | 0.52              |
| 1:UB:797:GLU:CB   | 1:VB:792:ALA:HB1  | 2.40                     | 0.52              |
| 1:WB:203:ALA:HB2  | 1:XB:192:THR:HB   | 1.92                     | 0.52              |
| 1:A:591:PHE:CD1   | 1:A:598:ILE:HD11  | 2.45                     | 0.51              |
| 1:B:591:PHE:CD1   | 1:B:598:ILE:HD11  | 2.45                     | 0.51              |
| 1:C:357:TRP:HA    | 1:C:410:GLN:HB3   | 1.91                     | 0.51              |
| 1:G:357:TRP:HA    | 1:G:410:GLN:HB3   | 1.92                     | 0.51              |
| 1:N:357:TRP:HA    | 1:N:410:GLN:HB3   | 1.92                     | 0.51              |
| 1:X:717:GLU:HB2   | 1:Z:707:LEU:HD13  | 1.92                     | 0.51              |
| 1:Z:761:ARG:HG2   | 1:BA:755:THR:HG21 | 1.91                     | 0.51              |
| 1:EA:591:PHE:CD1  | 1:EA:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:FA:170:GLN:HB3  | 1:HA:233:GLN:OE1  | 2.10                     | 0.51              |
| 1:FA:739:GLY:O    | 1:FA:743:GLN:HG3  | 2.09                     | 0.51              |
| 1:IA:334:LEU:HD23 | 1:IA:373:VAL:HA   | 1.91                     | 0.51              |
| 1:KA:334:LEU:HD23 | 1:KA:373:VAL:HA   | 1.91                     | 0.51              |
| 1:LA:591:PHE:CD1  | 1:LA:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:PA:591:PHE:CD1  | 1:PA:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:AB:120:ALA:HB2  | 1:AB:205:LEU:HD21 | 1.91                     | 0.51              |
| 1:AB:237:ASP:OD1  | 1:AB:241:VAL:N    | 2.35                     | 0.51              |
| 1:EB:461:ARG:HH11 | 1:FB:494:GLN:HG3  | 1.75                     | 0.51              |
| 1:IB:334:LEU:HD23 | 1:IB:373:VAL:HA   | 1.91                     | 0.51              |
| 1:LB:591:PHE:CD1  | 1:LB:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:LB:743:GLN:CD   | 1:MB:733:ALA:HB1  | 2.30                     | 0.51              |
| 1:MB:647:ASP:OD1  | 1:MB:647:ASP:N    | 2.42                     | 0.51              |
| 1:PB:362:PRO:O    | 1:QB:352:GLN:HB3  | 2.09                     | 0.51              |
| 1:QB:170:GLN:HB3  | 1:RB:233:GLN:OE1  | 2.10                     | 0.51              |
| 1:UB:591:PHE:CD1  | 1:UB:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:UB:768:MET:SD   | 1:VB:766:ARG:CD   | 2.89                     | 0.51              |
| 1:AC:120:ALA:HB2  | 1:AC:205:LEU:HD21 | 1.91                     | 0.51              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:52:THR:HG21   | 1:C:85:HIS:HD2    | 1.75                     | 0.51              |
| 1:A:357:TRP:HA    | 1:A:410:GLN:HB3   | 1.91                     | 0.51              |
| 1:E:357:TRP:HA    | 1:E:410:GLN:HB3   | 1.92                     | 0.51              |
| 1:E:591:PHE:CD1   | 1:E:598:ILE:HD11  | 2.45                     | 0.51              |
| 1:G:591:PHE:CD1   | 1:G:598:ILE:HD11  | 2.45                     | 0.51              |
| 1:I:357:TRP:HA    | 1:I:410:GLN:HB3   | 1.92                     | 0.51              |
| 1:J:647:ASP:N     | 1:J:647:ASP:OD1   | 2.42                     | 0.51              |
| 1:L:739:GLY:O     | 1:L:743:GLN:HG3   | 2.09                     | 0.51              |
| 1:O:334:LEU:HD23  | 1:O:373:VAL:HA    | 1.91                     | 0.51              |
| 1:R:357:TRP:HA    | 1:R:410:GLN:HB3   | 1.91                     | 0.51              |
| 1:V:10:ILE:O      | 1:X:24:ASN:ND2    | 2.43                     | 0.51              |
| 1:V:357:TRP:HA    | 1:V:410:GLN:HB3   | 1.91                     | 0.51              |
| 1:X:334:LEU:HD23  | 1:X:373:VAL:HA    | 1.91                     | 0.51              |
| 1:X:357:TRP:HA    | 1:X:410:GLN:HB3   | 1.92                     | 0.51              |
| 1:Y:334:LEU:HD23  | 1:Y:373:VAL:HA    | 1.91                     | 0.51              |
| 1:Y:357:TRP:HA    | 1:Y:410:GLN:HB3   | 1.91                     | 0.51              |
| 1:Y:591:PHE:CD1   | 1:Y:598:ILE:HD11  | 2.45                     | 0.51              |
| 1:DA:591:PHE:CD1  | 1:DA:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:GA:384:GLN:HB2  | 1:IA:474:ARG:HG3  | 1.90                     | 0.51              |
| 1:IA:357:TRP:HA   | 1:IA:410:GLN:HB3  | 1.92                     | 0.51              |
| 1:IA:506:LYS:O    | 1:IA:507:ARG:NE   | 2.40                     | 0.51              |
| 1:JA:591:PHE:CD1  | 1:JA:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:KA:716:VAL:HG21 | 1:MA:708:GLU:HG2  | 1.91                     | 0.51              |
| 1:XA:591:PHE:CD1  | 1:XA:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:ZA:591:PHE:CD1  | 1:ZA:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:BB:591:PHE:CD1  | 1:BB:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:BB:702:ALA:CB   | 1:CB:690:ARG:HH12 | 2.24                     | 0.51              |
| 1:CB:702:ALA:HB2  | 1:DB:690:ARG:HH12 | 1.76                     | 0.51              |
| 1:GB:506:LYS:O    | 1:GB:507:ARG:NE   | 2.40                     | 0.51              |
| 1:HB:220:ILE:HD12 | 1:IB:245:THR:HG22 | 1.92                     | 0.51              |
| 1:IB:591:PHE:CD1  | 1:IB:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:OB:761:ARG:HG2  | 1:PB:755:THR:HG21 | 1.92                     | 0.51              |
| 1:TB:591:PHE:CD1  | 1:TB:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:ZB:709:LEU:HD11 | 1:AC:701:LYS:HE3  | 1.92                     | 0.51              |
| 1:H:334:LEU:HD23  | 1:H:373:VAL:HA    | 1.91                     | 0.51              |
| 1:J:120:ALA:HB2   | 1:J:205:LEU:HD21  | 1.91                     | 0.51              |
| 1:L:647:ASP:N     | 1:L:647:ASP:OD1   | 2.42                     | 0.51              |
| 1:M:591:PHE:CD1   | 1:M:598:ILE:HD11  | 2.45                     | 0.51              |
| 1:P:357:TRP:HA    | 1:P:410:GLN:HB3   | 1.92                     | 0.51              |
| 1:R:334:LEU:HD23  | 1:R:373:VAL:HA    | 1.91                     | 0.51              |
| 1:R:713:SER:OG    | 1:T:707:LEU:HD12  | 2.11                     | 0.51              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:S:357:TRP:HA    | 1:S:410:GLN:HB3   | 1.91                     | 0.51              |
| 1:X:10:ILE:O      | 1:Z:24:ASN:ND2    | 2.44                     | 0.51              |
| 1:X:120:ALA:HB2   | 1:X:205:LEU:HD21  | 1.92                     | 0.51              |
| 1:AA:506:LYS:O    | 1:AA:507:ARG:NE   | 2.40                     | 0.51              |
| 1:BA:357:TRP:HA   | 1:BA:410:GLN:HB3  | 1.92                     | 0.51              |
| 1:FA:506:LYS:O    | 1:FA:507:ARG:NE   | 2.40                     | 0.51              |
| 1:KA:120:ALA:HB2  | 1:KA:205:LEU:HD21 | 1.91                     | 0.51              |
| 1:KA:357:TRP:HA   | 1:KA:410:GLN:HB3  | 1.92                     | 0.51              |
| 1:LA:384:GLN:HB2  | 1:NA:474:ARG:HG3  | 1.91                     | 0.51              |
| 1:NA:120:ALA:HB2  | 1:NA:205:LEU:HD21 | 1.92                     | 0.51              |
| 1:OA:357:TRP:HA   | 1:OA:410:GLN:HB3  | 1.92                     | 0.51              |
| 1:QA:591:PHE:CD1  | 1:QA:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:SA:739:GLY:O    | 1:SA:743:GLN:HG3  | 2.09                     | 0.51              |
| 1:EB:654:LEU:HD13 | 1:FB:534:HIS:CD2  | 2.46                     | 0.51              |
| 1:FB:384:GLN:HB2  | 1:GB:474:ARG:HG3  | 1.93                     | 0.51              |
| 1:FB:681:GLU:OE1  | 1:GB:675:HIS:NE2  | 2.44                     | 0.51              |
| 1:HB:120:ALA:HB2  | 1:HB:205:LEU:HD21 | 1.92                     | 0.51              |
| 1:HB:227:LEU:HD23 | 1:HB:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:IB:279:ARG:HD3  | 1:JB:337:LEU:HD13 | 1.92                     | 0.51              |
| 1:MB:120:ALA:HB2  | 1:MB:205:LEU:HD21 | 1.92                     | 0.51              |
| 1:PB:120:ALA:HB2  | 1:PB:205:LEU:HD21 | 1.92                     | 0.51              |
| 1:WB:658:VAL:HG12 | 1:XB:533:ASP:O    | 2.11                     | 0.51              |
| 1:AC:334:LEU:HD23 | 1:AC:373:VAL:HA   | 1.91                     | 0.51              |
| 1:B:693:ILE:HG23  | 1:AC:706:LEU:HD13 | 1.91                     | 0.51              |
| 1:D:227:LEU:HD23  | 1:D:229:LEU:HD23  | 1.93                     | 0.51              |
| 1:D:334:LEU:HD23  | 1:D:373:VAL:HA    | 1.91                     | 0.51              |
| 1:G:739:GLY:O     | 1:G:743:GLN:HG3   | 2.09                     | 0.51              |
| 1:H:227:LEU:HD23  | 1:H:229:LEU:HD23  | 1.93                     | 0.51              |
| 1:K:357:TRP:HA    | 1:K:410:GLN:HB3   | 1.91                     | 0.51              |
| 1:L:227:LEU:HD23  | 1:L:229:LEU:HD23  | 1.93                     | 0.51              |
| 1:M:237:ASP:OD1   | 1:M:241:VAL:N     | 2.35                     | 0.51              |
| 1:X:95:ASP:HA     | 1:Z:85:HIS:NE2    | 2.25                     | 0.51              |
| 1:DA:709:LEU:HD13 | 1:FA:701:LYS:HG3  | 1.92                     | 0.51              |
| 1:GA:334:LEU:HD23 | 1:GA:373:VAL:HA   | 1.91                     | 0.51              |
| 1:GA:357:TRP:HA   | 1:GA:410:GLN:HB3  | 1.92                     | 0.51              |
| 1:MA:357:TRP:HA   | 1:MA:410:GLN:HB3  | 1.92                     | 0.51              |
| 1:SA:702:ALA:HB2  | 1:UA:690:ARG:HH12 | 1.75                     | 0.51              |
| 1:TA:506:LYS:O    | 1:TA:507:ARG:NE   | 2.40                     | 0.51              |
| 1:WA:591:PHE:CD1  | 1:WA:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:CB:237:ASP:OD1  | 1:CB:241:VAL:N    | 2.35                     | 0.51              |
| 1:EB:237:ASP:OD1  | 1:EB:241:VAL:N    | 2.35                     | 0.51              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:FB:591:PHE:CD1  | 1:FB:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:HB:654:LEU:HD13 | 1:IB:534:HIS:CD2  | 2.45                     | 0.51              |
| 1:JB:334:LEU:HD23 | 1:JB:373:VAL:HA   | 1.91                     | 0.51              |
| 1:JB:591:PHE:CD1  | 1:JB:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:LB:334:LEU:HD23 | 1:LB:373:VAL:HA   | 1.91                     | 0.51              |
| 1:OB:362:PRO:O    | 1:PB:352:GLN:HB3  | 2.10                     | 0.51              |
| 1:PB:17:HIS:NE2   | 1:PB:99:LEU:O     | 2.33                     | 0.51              |
| 1:RB:120:ALA:HB2  | 1:RB:205:LEU:HD21 | 1.92                     | 0.51              |
| 1:SB:591:PHE:CD1  | 1:SB:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:WB:227:LEU:HD23 | 1:WB:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:XB:591:PHE:CD1  | 1:XB:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:A:227:LEU:HD23  | 1:A:229:LEU:HD23  | 1.93                     | 0.51              |
| 1:A:338:GLN:OE1   | 1:NB:279:ARG:NH2  | 2.38                     | 0.51              |
| 1:B:9:ARG:HE      | 1:D:24:ASN:HD21   | 1.59                     | 0.51              |
| 1:C:120:ALA:HB2   | 1:C:205:LEU:HD21  | 1.91                     | 0.51              |
| 1:D:591:PHE:CD1   | 1:D:598:ILE:HD11  | 2.45                     | 0.51              |
| 1:M:739:GLY:O     | 1:M:743:GLN:HG3   | 2.09                     | 0.51              |
| 1:O:739:GLY:O     | 1:O:743:GLN:HG3   | 2.09                     | 0.51              |
| 1:P:757:ALA:CB    | 1:R:748:ALA:HB1   | 2.41                     | 0.51              |
| 1:R:591:PHE:CD1   | 1:R:598:ILE:HD11  | 2.45                     | 0.51              |
| 1:Z:357:TRP:HA    | 1:Z:410:GLN:HB3   | 1.92                     | 0.51              |
| 1:AA:357:TRP:HA   | 1:AA:410:GLN:HB3  | 1.92                     | 0.51              |
| 1:QA:120:ALA:HB2  | 1:QA:205:LEU:HD21 | 1.91                     | 0.51              |
| 1:VA:120:ALA:HB2  | 1:VA:205:LEU:HD21 | 1.92                     | 0.51              |
| 1:EB:484:PRO:HB2  | 1:FB:471:TYR:CD2  | 2.46                     | 0.51              |
| 1:EB:591:PHE:CD1  | 1:EB:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:IB:385:ASN:ND2  | 1:JB:473:TYR:O    | 2.44                     | 0.51              |
| 1:KB:227:LEU:HD23 | 1:KB:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:LB:793:LYS:NZ   | 1:MB:789:ASN:CG   | 2.64                     | 0.51              |
| 1:NB:227:LEU:HD23 | 1:NB:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:NB:647:ASP:OD1  | 1:NB:647:ASP:N    | 2.42                     | 0.51              |
| 1:UB:801:ALA:HB3  | 1:VB:795:PHE:CE2  | 2.45                     | 0.51              |
| 1:VB:716:VAL:CG2  | 1:WB:708:GLU:HG2  | 2.39                     | 0.51              |
| 1:XB:237:ASP:OD1  | 1:XB:241:VAL:N    | 2.35                     | 0.51              |
| 1:YB:227:LEU:HD23 | 1:YB:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:YB:591:PHE:CD1  | 1:YB:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:YB:654:LEU:HD13 | 1:ZB:534:HIS:CD2  | 2.46                     | 0.51              |
| 1:D:237:ASP:OD1   | 1:D:241:VAL:N     | 2.35                     | 0.51              |
| 1:E:227:LEU:HD23  | 1:E:229:LEU:HD23  | 1.93                     | 0.51              |
| 1:J:227:LEU:HD23  | 1:J:229:LEU:HD23  | 1.93                     | 0.51              |
| 1:K:120:ALA:HB2   | 1:K:205:LEU:HD21  | 1.92                     | 0.51              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:L:120:ALA:HB2   | 1:L:205:LEU:HD21  | 1.92                     | 0.51              |
| 1:N:334:LEU:HD23  | 1:N:373:VAL:HA    | 1.91                     | 0.51              |
| 1:N:666:THR:HG22  | 1:P:657:SER:HB2   | 1.91                     | 0.51              |
| 1:P:227:LEU:HD23  | 1:P:229:LEU:HD23  | 1.93                     | 0.51              |
| 1:Q:357:TRP:HA    | 1:Q:410:GLN:HB3   | 1.92                     | 0.51              |
| 1:T:237:ASP:OD1   | 1:T:241:VAL:N     | 2.35                     | 0.51              |
| 1:EA:357:TRP:HA   | 1:EA:410:GLN:HB3  | 1.92                     | 0.51              |
| 1:JA:655:GLN:HG2  | 1:LA:649:ARG:HH11 | 1.74                     | 0.51              |
| 1:LA:709:LEU:HD13 | 1:NA:701:LYS:HG3  | 1.92                     | 0.51              |
| 1:RA:120:ALA:HB2  | 1:RA:205:LEU:HD21 | 1.92                     | 0.51              |
| 1:RA:591:PHE:CD1  | 1:RA:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:VA:666:THR:HG22 | 1:XA:657:SER:HB2  | 1.91                     | 0.51              |
| 1:XA:257:GLU:HG2  | 1:ZA:244:ARG:HB3  | 1.92                     | 0.51              |
| 1:CB:227:LEU:HD23 | 1:CB:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:FB:227:LEU:HD23 | 1:FB:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:FB:720:GLY:HA3  | 1:GB:711:ALA:HB1  | 1.92                     | 0.51              |
| 1:JB:32:PRO:CG    | 1:KB:78:THR:HG21  | 2.41                     | 0.51              |
| 1:JB:227:LEU:HD23 | 1:JB:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:LB:227:LEU:HD23 | 1:LB:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:LB:793:LYS:HZ3  | 1:MB:789:ASN:CG   | 2.14                     | 0.51              |
| 1:VB:237:ASP:OD1  | 1:VB:241:VAL:N    | 2.35                     | 0.51              |
| 1:YB:643:VAL:H    | 1:ZB:580:ARG:NH2  | 2.08                     | 0.51              |
| 1:B:227:LEU:HD23  | 1:B:229:LEU:HD23  | 1.93                     | 0.51              |
| 1:B:229:LEU:HD13  | 1:B:265:GLU:HB3   | 1.93                     | 0.51              |
| 1:C:227:LEU:HD23  | 1:C:229:LEU:HD23  | 1.93                     | 0.51              |
| 1:I:227:LEU:HD23  | 1:I:229:LEU:HD23  | 1.93                     | 0.51              |
| 1:I:461:ARG:HH11  | 1:K:473:TYR:HE2   | 1.59                     | 0.51              |
| 1:L:237:ASP:OD1   | 1:L:241:VAL:N     | 2.35                     | 0.51              |
| 1:M:120:ALA:HB2   | 1:M:205:LEU:HD21  | 1.92                     | 0.51              |
| 1:M:357:TRP:HA    | 1:M:410:GLN:HB3   | 1.92                     | 0.51              |
| 1:N:227:LEU:HD23  | 1:N:229:LEU:HD23  | 1.93                     | 0.51              |
| 1:O:120:ALA:HB2   | 1:O:205:LEU:HD21  | 1.92                     | 0.51              |
| 1:P:120:ALA:HB2   | 1:P:205:LEU:HD21  | 1.92                     | 0.51              |
| 1:Q:120:ALA:HB2   | 1:Q:205:LEU:HD21  | 1.91                     | 0.51              |
| 1:S:334:LEU:HD23  | 1:S:373:VAL:HA    | 1.91                     | 0.51              |
| 1:T:120:ALA:HB2   | 1:T:205:LEU:HD21  | 1.91                     | 0.51              |
| 1:T:227:LEU:HD23  | 1:T:229:LEU:HD23  | 1.93                     | 0.51              |
| 1:EA:120:ALA:HB2  | 1:EA:205:LEU:HD21 | 1.91                     | 0.51              |
| 1:DB:227:LEU:HD23 | 1:DB:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:GB:227:LEU:HD23 | 1:GB:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:IB:227:LEU:HD23 | 1:IB:229:LEU:HD23 | 1.93                     | 0.51              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:JB:229:LEU:HD13 | 1:JB:265:GLU:HB3  | 1.93                     | 0.51              |
| 1:MB:227:LEU:HD23 | 1:MB:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:NB:120:ALA:HB2  | 1:NB:205:LEU:HD21 | 1.92                     | 0.51              |
| 1:QB:227:LEU:HD23 | 1:QB:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:VB:227:LEU:HD23 | 1:VB:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:WB:591:PHE:CD1  | 1:WB:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:ZB:227:LEU:HD23 | 1:ZB:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:ZB:506:LYS:O    | 1:ZB:507:ARG:NE   | 2.40                     | 0.51              |
| 1:AC:227:LEU:HD23 | 1:AC:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:D:170:GLN:HB3   | 1:F:233:GLN:OE1   | 2.11                     | 0.51              |
| 1:D:229:LEU:HD13  | 1:D:265:GLU:HB3   | 1.93                     | 0.51              |
| 1:F:227:LEU:HD23  | 1:F:229:LEU:HD23  | 1.93                     | 0.51              |
| 1:G:120:ALA:HB2   | 1:G:205:LEU:HD21  | 1.91                     | 0.51              |
| 1:G:227:LEU:HD23  | 1:G:229:LEU:HD23  | 1.93                     | 0.51              |
| 1:H:794:LYS:HD3   | 1:J:788:ALA:HB1   | 1.92                     | 0.51              |
| 1:I:120:ALA:HB2   | 1:I:205:LEU:HD21  | 1.92                     | 0.51              |
| 1:Q:96:PRO:HD3    | 1:S:85:HIS:CE1    | 2.45                     | 0.51              |
| 1:V:120:ALA:HB2   | 1:V:205:LEU:HD21  | 1.91                     | 0.51              |
| 1:X:229:LEU:HD13  | 1:X:265:GLU:HB3   | 1.93                     | 0.51              |
| 1:Y:655:GLN:HG2   | 1:AA:649:ARG:HH11 | 1.76                     | 0.51              |
| 1:DA:120:ALA:HB2  | 1:DA:205:LEU:HD21 | 1.92                     | 0.51              |
| 1:FA:384:GLN:HB2  | 1:HA:474:ARG:HG3  | 1.92                     | 0.51              |
| 1:IA:229:LEU:HD13 | 1:IA:265:GLU:HB3  | 1.93                     | 0.51              |
| 1:KA:229:LEU:HD13 | 1:KA:265:GLU:HB3  | 1.93                     | 0.51              |
| 1:LA:67:ARG:NH2   | 1:LA:71:SER:O     | 2.44                     | 0.51              |
| 1:MA:170:GLN:HB3  | 1:OA:233:GLN:OE1  | 2.11                     | 0.51              |
| 1:QA:384:GLN:HB2  | 1:SA:474:ARG:HG3  | 1.92                     | 0.51              |
| 1:BB:227:LEU:HD23 | 1:BB:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:CB:32:PRO:HB2   | 1:DB:24:ASN:HB2   | 1.92                     | 0.51              |
| 1:EB:362:PRO:HB2  | 1:FB:355:ASP:HB3  | 1.92                     | 0.51              |
| 1:JB:120:ALA:HB2  | 1:JB:205:LEU:HD21 | 1.92                     | 0.51              |
| 1:UB:227:LEU:HD23 | 1:UB:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:B:506:LYS:O     | 1:B:507:ARG:NE    | 2.40                     | 0.51              |
| 1:E:334:LEU:HD23  | 1:E:373:VAL:HA    | 1.91                     | 0.51              |
| 1:H:120:ALA:HB2   | 1:H:205:LEU:HD21  | 1.91                     | 0.51              |
| 1:I:67:ARG:NH2    | 1:I:71:SER:O      | 2.44                     | 0.51              |
| 1:M:227:LEU:HD23  | 1:M:229:LEU:HD23  | 1.93                     | 0.51              |
| 1:N:67:ARG:NH2    | 1:N:71:SER:O      | 2.44                     | 0.51              |
| 1:V:229:LEU:HD13  | 1:V:265:GLU:HB3   | 1.93                     | 0.51              |
| 1:W:506:LYS:O     | 1:W:507:ARG:NE    | 2.40                     | 0.51              |
| 1:Y:120:ALA:HB2   | 1:Y:205:LEU:HD21  | 1.91                     | 0.51              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:Y:229:LEU:HD13  | 1:Y:265:GLU:HB3   | 1.93                     | 0.51              |
| 1:Z:229:LEU:HD13  | 1:Z:265:GLU:HB3   | 1.93                     | 0.51              |
| 1:BA:384:GLN:HB2  | 1:DA:474:ARG:HG3  | 1.91                     | 0.51              |
| 1:CA:120:ALA:HB2  | 1:CA:205:LEU:HD21 | 1.91                     | 0.51              |
| 1:CA:334:LEU:HD23 | 1:CA:373:VAL:HA   | 1.91                     | 0.51              |
| 1:GA:120:ALA:HB2  | 1:GA:205:LEU:HD21 | 1.92                     | 0.51              |
| 1:QA:383:ASP:OD1  | 1:QA:383:ASP:N    | 2.44                     | 0.51              |
| 1:TA:10:ILE:O     | 1:VA:24:ASN:ND2   | 2.44                     | 0.51              |
| 1:XA:227:LEU:HD23 | 1:XA:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:YA:67:ARG:NH2   | 1:YA:71:SER:O     | 2.44                     | 0.51              |
| 1:DB:591:PHE:CD1  | 1:DB:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:EB:227:LEU:HD23 | 1:EB:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:EB:746:LEU:HD13 | 1:FB:737:GLY:CA   | 2.38                     | 0.51              |
| 1:FB:658:VAL:HG11 | 1:GB:535:ALA:HA   | 1.92                     | 0.51              |
| 1:IB:229:LEU:HD13 | 1:IB:265:GLU:HB3  | 1.93                     | 0.51              |
| 1:IB:643:VAL:H    | 1:JB:580:ARG:NH2  | 2.09                     | 0.51              |
| 1:JB:96:PRO:HD3   | 1:KB:85:HIS:NE2   | 2.26                     | 0.51              |
| 1:MB:709:LEU:HD13 | 1:NB:701:LYS:HG3  | 1.92                     | 0.51              |
| 1:NB:67:ARG:NH2   | 1:NB:71:SER:O     | 2.44                     | 0.51              |
| 1:NB:591:PHE:CD1  | 1:NB:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:PB:591:PHE:CD1  | 1:PB:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:UB:229:LEU:HD13 | 1:UB:265:GLU:HB3  | 1.93                     | 0.51              |
| 1:VB:17:HIS:NE2   | 1:VB:99:LEU:O     | 2.33                     | 0.51              |
| 1:VB:591:PHE:CD1  | 1:VB:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:XB:227:LEU:HD23 | 1:XB:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:A:67:ARG:NH2    | 1:A:71:SER:O      | 2.44                     | 0.51              |
| 1:A:120:ALA:HB2   | 1:A:205:LEU:HD21  | 1.92                     | 0.51              |
| 1:A:229:LEU:HD13  | 1:A:265:GLU:HB3   | 1.93                     | 0.51              |
| 1:G:67:ARG:NH2    | 1:G:71:SER:O      | 2.44                     | 0.51              |
| 1:L:67:ARG:NH2    | 1:L:71:SER:O      | 2.44                     | 0.51              |
| 1:M:229:LEU:HD13  | 1:M:265:GLU:HB3   | 1.93                     | 0.51              |
| 1:N:229:LEU:HD13  | 1:N:265:GLU:HB3   | 1.93                     | 0.51              |
| 1:O:357:TRP:HA    | 1:O:410:GLN:HB3   | 1.92                     | 0.51              |
| 1:Q:383:ASP:OD1   | 1:Q:383:ASP:N     | 2.44                     | 0.51              |
| 1:V:32:PRO:HG3    | 1:X:78:THR:HG21   | 1.92                     | 0.51              |
| 1:W:67:ARG:NH2    | 1:W:71:SER:O      | 2.44                     | 0.51              |
| 1:W:120:ALA:HB2   | 1:W:205:LEU:HD21  | 1.92                     | 0.51              |
| 1:W:227:LEU:HD23  | 1:W:229:LEU:HD23  | 1.93                     | 0.51              |
| 1:Y:227:LEU:HD23  | 1:Y:229:LEU:HD23  | 1.93                     | 0.51              |
| 1:AA:120:ALA:HB2  | 1:AA:205:LEU:HD21 | 1.92                     | 0.51              |
| 1:AA:229:LEU:HD13 | 1:AA:265:GLU:HB3  | 1.93                     | 0.51              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:BA:67:ARG:NH2   | 1:BA:71:SER:O     | 2.44                     | 0.51              |
| 1:CA:357:TRP:HA   | 1:CA:410:GLN:HB3  | 1.92                     | 0.51              |
| 1:CA:739:GLY:O    | 1:CA:743:GLN:HG3  | 2.09                     | 0.51              |
| 1:IA:120:ALA:HB2  | 1:IA:205:LEU:HD21 | 1.92                     | 0.51              |
| 1:JA:67:ARG:NH2   | 1:JA:71:SER:O     | 2.44                     | 0.51              |
| 1:MA:229:LEU:HD13 | 1:MA:265:GLU:HB3  | 1.93                     | 0.51              |
| 1:PA:32:PRO:HB2   | 1:RA:24:ASN:HB2   | 1.91                     | 0.51              |
| 1:VA:227:LEU:HD23 | 1:VA:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:YA:229:LEU:HD13 | 1:YA:265:GLU:HB3  | 1.93                     | 0.51              |
| 1:BB:229:LEU:HD13 | 1:BB:265:GLU:HB3  | 1.93                     | 0.51              |
| 1:CB:591:PHE:CD1  | 1:CB:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:GB:591:PHE:CD1  | 1:GB:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:HB:591:PHE:CD1  | 1:HB:598:ILE:HD11 | 2.45                     | 0.51              |
| 1:RB:227:LEU:HD23 | 1:RB:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:SB:227:LEU:HD23 | 1:SB:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:TB:227:LEU:HD23 | 1:TB:229:LEU:HD23 | 1.93                     | 0.51              |
| 1:TB:229:LEU:HD13 | 1:TB:265:GLU:HB3  | 1.93                     | 0.51              |
| 1:VB:229:LEU:HD13 | 1:VB:265:GLU:HB3  | 1.93                     | 0.51              |
| 1:ZB:170:GLN:HB3  | 1:AC:233:GLN:OE1  | 2.11                     | 0.51              |
| 1:F:506:LYS:O     | 1:F:507:ARG:NE    | 2.40                     | 0.50              |
| 1:F:591:PHE:CD1   | 1:F:598:ILE:HD11  | 2.45                     | 0.50              |
| 1:K:227:LEU:HD23  | 1:K:229:LEU:HD23  | 1.93                     | 0.50              |
| 1:L:591:PHE:CD1   | 1:L:598:ILE:HD11  | 2.45                     | 0.50              |
| 1:Q:67:ARG:NH2    | 1:Q:71:SER:O      | 2.44                     | 0.50              |
| 1:Q:227:LEU:HD23  | 1:Q:229:LEU:HD23  | 1.93                     | 0.50              |
| 1:S:120:ALA:HB2   | 1:S:205:LEU:HD21  | 1.91                     | 0.50              |
| 1:Y:67:ARG:NH2    | 1:Y:71:SER:O      | 2.44                     | 0.50              |
| 1:CA:257:GLU:HG2  | 1:EA:244:ARG:HB3  | 1.93                     | 0.50              |
| 1:DA:67:ARG:NH2   | 1:DA:71:SER:O     | 2.44                     | 0.50              |
| 1:GA:67:ARG:NH2   | 1:GA:71:SER:O     | 2.44                     | 0.50              |
| 1:LA:229:LEU:HD13 | 1:LA:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:OA:67:ARG:NH2   | 1:OA:71:SER:O     | 2.44                     | 0.50              |
| 1:QA:67:ARG:NH2   | 1:QA:71:SER:O     | 2.44                     | 0.50              |
| 1:TA:227:LEU:HD23 | 1:TA:229:LEU:HD23 | 1.93                     | 0.50              |
| 1:WA:229:LEU:HD13 | 1:WA:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:ZA:227:LEU:HD23 | 1:ZA:229:LEU:HD23 | 1.93                     | 0.50              |
| 1:AB:229:LEU:HD13 | 1:AB:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:CB:229:LEU:HD13 | 1:CB:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:FB:154:GLN:HB2  | 1:FB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:HB:229:LEU:HD13 | 1:HB:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:IB:461:ARG:HH11 | 1:JB:473:TYR:HE2  | 1.59                     | 0.50              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:OB:486:LEU:HB2  | 1:PB:473:TYR:HB3  | 1.94                     | 0.50              |
| 1:UB:709:LEU:HD13 | 1:VB:701:LYS:HG3  | 1.93                     | 0.50              |
| 1:YB:154:GLN:HB2  | 1:YB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:AC:229:LEU:HD13 | 1:AC:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:B:245:THR:HG22  | 1:AC:220:ILE:HD12 | 1.93                     | 0.50              |
| 1:C:229:LEU:HD13  | 1:C:265:GLU:HB3   | 1.93                     | 0.50              |
| 1:C:384:GLN:HB2   | 1:E:474:ARG:HG3   | 1.92                     | 0.50              |
| 1:E:120:ALA:HB2   | 1:E:205:LEU:HD21  | 1.92                     | 0.50              |
| 1:K:229:LEU:HD13  | 1:K:265:GLU:HB3   | 1.93                     | 0.50              |
| 1:L:229:LEU:HD13  | 1:L:265:GLU:HB3   | 1.93                     | 0.50              |
| 1:M:506:LYS:O     | 1:M:507:ARG:NE    | 2.40                     | 0.50              |
| 1:R:227:LEU:HD23  | 1:R:229:LEU:HD23  | 1.93                     | 0.50              |
| 1:S:67:ARG:NH2    | 1:S:71:SER:O      | 2.44                     | 0.50              |
| 1:V:237:ASP:OD1   | 1:V:241:VAL:N     | 2.35                     | 0.50              |
| 1:V:506:LYS:O     | 1:V:507:ARG:NE    | 2.40                     | 0.50              |
| 1:W:229:LEU:HD13  | 1:W:265:GLU:HB3   | 1.93                     | 0.50              |
| 1:CA:227:LEU:HD23 | 1:CA:229:LEU:HD23 | 1.93                     | 0.50              |
| 1:EA:67:ARG:NH2   | 1:EA:71:SER:O     | 2.44                     | 0.50              |
| 1:FA:17:HIS:NE2   | 1:FA:99:LEU:O     | 2.33                     | 0.50              |
| 1:GA:229:LEU:HD13 | 1:GA:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:HA:154:GLN:HB2  | 1:HA:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:JA:229:LEU:HD13 | 1:JA:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:LA:17:HIS:NE2   | 1:LA:99:LEU:O     | 2.33                     | 0.50              |
| 1:NA:154:GLN:HB2  | 1:NA:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:WA:67:ARG:NH2   | 1:WA:71:SER:O     | 2.44                     | 0.50              |
| 1:EB:154:GLN:HB2  | 1:EB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:FB:706:LEU:HD13 | 1:GB:693:ILE:HG23 | 1.94                     | 0.50              |
| 1:GB:154:GLN:HB2  | 1:GB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:JB:237:ASP:OD1  | 1:JB:241:VAL:N    | 2.35                     | 0.50              |
| 1:LB:120:ALA:HB2  | 1:LB:205:LEU:HD21 | 1.92                     | 0.50              |
| 1:MB:67:ARG:NH2   | 1:MB:71:SER:O     | 2.44                     | 0.50              |
| 1:NB:229:LEU:HD13 | 1:NB:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:OB:227:LEU:HD23 | 1:OB:229:LEU:HD23 | 1.93                     | 0.50              |
| 1:TB:237:ASP:OD1  | 1:TB:241:VAL:N    | 2.35                     | 0.50              |
| 1:XB:154:GLN:HB2  | 1:XB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:ZB:154:GLN:HB2  | 1:ZB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:AC:591:PHE:CD1  | 1:AC:598:ILE:HD11 | 2.45                     | 0.50              |
| 1:D:120:ALA:HB2   | 1:D:205:LEU:HD21  | 1.92                     | 0.50              |
| 1:E:384:GLN:HB2   | 1:G:474:ARG:HG3   | 1.93                     | 0.50              |
| 1:H:465:ASN:OD1   | 1:J:563:SER:HA    | 2.11                     | 0.50              |
| 1:I:279:ARG:HD3   | 1:K:337:LEU:HD13  | 1.94                     | 0.50              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:J:67:ARG:NH2    | 1:J:71:SER:O      | 2.44                     | 0.50              |
| 1:K:9:ARG:HH21    | 1:M:24:ASN:CG     | 2.15                     | 0.50              |
| 1:K:67:ARG:NH2    | 1:K:71:SER:O      | 2.44                     | 0.50              |
| 1:N:120:ALA:HB2   | 1:N:205:LEU:HD21  | 1.91                     | 0.50              |
| 1:N:506:LYS:O     | 1:N:507:ARG:NE    | 2.40                     | 0.50              |
| 1:O:227:LEU:HD23  | 1:O:229:LEU:HD23  | 1.93                     | 0.50              |
| 1:P:229:LEU:HD13  | 1:P:265:GLU:HB3   | 1.93                     | 0.50              |
| 1:R:506:LYS:O     | 1:R:507:ARG:NE    | 2.40                     | 0.50              |
| 1:S:17:HIS:NE2    | 1:S:99:LEU:O      | 2.33                     | 0.50              |
| 1:T:67:ARG:NH2    | 1:T:71:SER:O      | 2.44                     | 0.50              |
| 1:X:154:GLN:HB2   | 1:X:157:VAL:HG22  | 1.94                     | 0.50              |
| 1:Z:120:ALA:HB2   | 1:Z:205:LEU:HD21  | 1.92                     | 0.50              |
| 1:IA:154:GLN:HB2  | 1:IA:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:JA:154:GLN:HB2  | 1:JA:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:LA:154:GLN:HB2  | 1:LA:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:NA:229:LEU:HD13 | 1:NA:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:PA:154:GLN:HB2  | 1:PA:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:RA:17:HIS:NE2   | 1:RA:99:LEU:O     | 2.33                     | 0.50              |
| 1:XA:17:HIS:NE2   | 1:XA:99:LEU:O     | 2.33                     | 0.50              |
| 1:YA:154:GLN:HB2  | 1:YA:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:ZA:229:LEU:HD13 | 1:ZA:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:AB:154:GLN:HB2  | 1:AB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:AB:227:LEU:HD23 | 1:AB:229:LEU:HD23 | 1.93                     | 0.50              |
| 1:DB:713:SER:OG   | 1:EB:707:LEU:HD12 | 2.10                     | 0.50              |
| 1:FB:654:LEU:HD13 | 1:GB:534:HIS:CD2  | 2.46                     | 0.50              |
| 1:JB:56:ARG:HG3   | 1:KB:127:LEU:HB3  | 1.93                     | 0.50              |
| 1:KB:9:ARG:HH21   | 1:LB:24:ASN:CG    | 2.14                     | 0.50              |
| 1:KB:591:PHE:CD1  | 1:KB:598:ILE:HD11 | 2.45                     | 0.50              |
| 1:NB:237:ASP:OD1  | 1:NB:241:VAL:N    | 2.35                     | 0.50              |
| 1:OB:154:GLN:HB2  | 1:OB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:PB:154:GLN:HB2  | 1:PB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:PB:227:LEU:HD23 | 1:PB:229:LEU:HD23 | 1.93                     | 0.50              |
| 1:ZB:591:PHE:CD1  | 1:ZB:598:ILE:HD11 | 2.45                     | 0.50              |
| 1:A:474:ARG:HG3   | 1:NB:384:GLN:HB2  | 1.93                     | 0.50              |
| 1:G:279:ARG:HD3   | 1:I:337:LEU:HD13  | 1.94                     | 0.50              |
| 1:H:220:ILE:HD12  | 1:J:245:THR:HG22  | 1.92                     | 0.50              |
| 1:P:67:ARG:NH2    | 1:P:71:SER:O      | 2.44                     | 0.50              |
| 1:Z:154:GLN:HB2   | 1:Z:157:VAL:HG22  | 1.94                     | 0.50              |
| 1:BA:229:LEU:HD13 | 1:BA:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:BA:702:ALA:HB2  | 1:DA:690:ARG:HH12 | 1.76                     | 0.50              |
| 1:FA:154:GLN:HB2  | 1:FA:157:VAL:HG22 | 1.94                     | 0.50              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:MA:154:GLN:HB2  | 1:MA:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:NA:384:GLN:HB2  | 1:PA:474:ARG:HG3  | 1.92                     | 0.50              |
| 1:RA:227:LEU:HD23 | 1:RA:229:LEU:HD23 | 1.93                     | 0.50              |
| 1:WA:154:GLN:HB2  | 1:WA:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:YA:702:ALA:HB2  | 1:AB:690:ARG:HH12 | 1.76                     | 0.50              |
| 1:CB:154:GLN:HB2  | 1:CB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:DB:154:GLN:HB2  | 1:DB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:HB:154:GLN:HB2  | 1:HB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:HB:279:ARG:HD3  | 1:IB:337:LEU:HD13 | 1.93                     | 0.50              |
| 1:IB:506:LYS:O    | 1:IB:507:ARG:NE   | 2.40                     | 0.50              |
| 1:KB:229:LEU:HD13 | 1:KB:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:MB:506:LYS:O    | 1:MB:507:ARG:NE   | 2.40                     | 0.50              |
| 1:PB:658:VAL:HG11 | 1:QB:535:ALA:HA   | 1.94                     | 0.50              |
| 1:SB:229:LEU:HD13 | 1:SB:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:UB:465:ASN:OD1  | 1:VB:563:SER:HA   | 2.11                     | 0.50              |
| 1:UB:728:SER:HB2  | 1:VB:722:ALA:HB2  | 1.93                     | 0.50              |
| 1:VB:154:GLN:HB2  | 1:VB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:WB:154:GLN:HB2  | 1:WB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:ZB:237:ASP:OD1  | 1:ZB:241:VAL:N    | 2.35                     | 0.50              |
| 1:F:229:LEU:HD13  | 1:F:265:GLU:HB3   | 1.93                     | 0.50              |
| 1:J:506:LYS:O     | 1:J:507:ARG:NE    | 2.40                     | 0.50              |
| 1:O:229:LEU:HD13  | 1:O:265:GLU:HB3   | 1.93                     | 0.50              |
| 1:R:120:ALA:HB2   | 1:R:205:LEU:HD21  | 1.91                     | 0.50              |
| 1:S:227:LEU:HD23  | 1:S:229:LEU:HD23  | 1.93                     | 0.50              |
| 1:V:154:GLN:HB2   | 1:V:157:VAL:HG22  | 1.94                     | 0.50              |
| 1:V:227:LEU:HD23  | 1:V:229:LEU:HD23  | 1.93                     | 0.50              |
| 1:V:655:GLN:OE1   | 1:X:649:ARG:HB2   | 2.11                     | 0.50              |
| 1:Z:67:ARG:NH2    | 1:Z:71:SER:O      | 2.44                     | 0.50              |
| 1:AA:227:LEU:HD23 | 1:AA:229:LEU:HD23 | 1.93                     | 0.50              |
| 1:GA:154:GLN:HB2  | 1:GA:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:GA:196:TRP:HA   | 1:GA:263:VAL:HG21 | 1.94                     | 0.50              |
| 1:GA:227:LEU:HD23 | 1:GA:229:LEU:HD23 | 1.93                     | 0.50              |
| 1:IA:67:ARG:NH2   | 1:IA:71:SER:O     | 2.44                     | 0.50              |
| 1:KA:154:GLN:HB2  | 1:KA:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:MA:67:ARG:NH2   | 1:MA:71:SER:O     | 2.44                     | 0.50              |
| 1:NA:227:LEU:HD23 | 1:NA:229:LEU:HD23 | 1.93                     | 0.50              |
| 1:PA:227:LEU:HD23 | 1:PA:229:LEU:HD23 | 1.93                     | 0.50              |
| 1:RA:154:GLN:HB2  | 1:RA:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:UA:154:GLN:HB2  | 1:UA:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:ZA:237:ASP:OD1  | 1:ZA:241:VAL:N    | 2.35                     | 0.50              |
| 1:BB:154:GLN:HB2  | 1:BB:157:VAL:HG22 | 1.94                     | 0.50              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:DB:702:ALA:HB2  | 1:EB:690:ARG:HH12 | 1.76                     | 0.50              |
| 1:HB:465:ASN:OD1  | 1:IB:563:SER:HA   | 2.11                     | 0.50              |
| 1:HB:720:GLY:HA3  | 1:IB:711:ALA:HB1  | 1.93                     | 0.50              |
| 1:JB:196:TRP:HA   | 1:JB:263:VAL:HG21 | 1.94                     | 0.50              |
| 1:LB:713:SER:OG   | 1:MB:707:LEU:HD12 | 2.11                     | 0.50              |
| 1:LB:768:MET:HB2  | 1:MB:759:LEU:HD11 | 1.94                     | 0.50              |
| 1:MB:96:PRO:HD3   | 1:NB:85:HIS:CE1   | 2.47                     | 0.50              |
| 1:MB:154:GLN:HB2  | 1:MB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:OB:229:LEU:HD13 | 1:OB:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:PB:67:ARG:NH2   | 1:PB:71:SER:O     | 2.44                     | 0.50              |
| 1:QB:154:GLN:HB2  | 1:QB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:SB:17:HIS:NE2   | 1:SB:99:LEU:O     | 2.33                     | 0.50              |
| 1:WB:229:LEU:HD13 | 1:WB:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:ZB:196:TRP:HA   | 1:ZB:263:VAL:HG21 | 1.94                     | 0.50              |
| 1:ZB:229:LEU:HD13 | 1:ZB:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:AC:154:GLN:HB2  | 1:AC:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:D:196:TRP:HA    | 1:D:263:VAL:HG21  | 1.94                     | 0.50              |
| 1:L:196:TRP:HA    | 1:L:263:VAL:HG21  | 1.94                     | 0.50              |
| 1:O:67:ARG:NH2    | 1:O:71:SER:O      | 2.44                     | 0.50              |
| 1:R:196:TRP:HA    | 1:R:263:VAL:HG21  | 1.94                     | 0.50              |
| 1:S:154:GLN:HB2   | 1:S:157:VAL:HG22  | 1.94                     | 0.50              |
| 1:S:196:TRP:HA    | 1:S:263:VAL:HG21  | 1.94                     | 0.50              |
| 1:T:655:GLN:HG2   | 1:W:649:ARG:HH11  | 1.75                     | 0.50              |
| 1:V:196:TRP:HA    | 1:V:263:VAL:HG21  | 1.94                     | 0.50              |
| 1:Z:17:HIS:NE2    | 1:Z:99:LEU:O      | 2.33                     | 0.50              |
| 1:AA:196:TRP:HA   | 1:AA:263:VAL:HG21 | 1.94                     | 0.50              |
| 1:BA:154:GLN:HB2  | 1:BA:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:HA:229:LEU:HD13 | 1:HA:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:LA:694:LEU:O    | 1:LA:697:SER:OG   | 2.28                     | 0.50              |
| 1:MA:120:ALA:HB2  | 1:MA:205:LEU:HD21 | 1.92                     | 0.50              |
| 1:OA:154:GLN:HB2  | 1:OA:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:OA:196:TRP:HA   | 1:OA:263:VAL:HG21 | 1.94                     | 0.50              |
| 1:PA:229:LEU:HD13 | 1:PA:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:QA:154:GLN:HB2  | 1:QA:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:SA:67:ARG:NH2   | 1:SA:71:SER:O     | 2.44                     | 0.50              |
| 1:SA:154:GLN:HB2  | 1:SA:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:TA:154:GLN:HB2  | 1:TA:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:UA:229:LEU:HD13 | 1:UA:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:WA:694:LEU:O    | 1:WA:697:SER:OG   | 2.28                     | 0.50              |
| 1:XA:229:LEU:HD13 | 1:XA:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:YA:694:LEU:O    | 1:YA:697:SER:OG   | 2.28                     | 0.50              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:DB:229:LEU:HD13 | 1:DB:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:GB:196:TRP:HA   | 1:GB:263:VAL:HG21 | 1.94                     | 0.50              |
| 1:KB:506:LYS:O    | 1:KB:507:ARG:NE   | 2.40                     | 0.50              |
| 1:NB:196:TRP:HA   | 1:NB:263:VAL:HG21 | 1.94                     | 0.50              |
| 1:QB:9:ARG:NH1    | 1:RB:21:GLN:HG2   | 2.26                     | 0.50              |
| 1:QB:237:ASP:OD1  | 1:QB:241:VAL:N    | 2.35                     | 0.50              |
| 1:RB:154:GLN:HB2  | 1:RB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:UB:384:GLN:HB2  | 1:VB:474:ARG:CG   | 2.40                     | 0.50              |
| 1:A:506:LYS:O     | 1:A:507:ARG:NE    | 2.40                     | 0.50              |
| 1:B:154:GLN:HB2   | 1:B:157:VAL:HG22  | 1.94                     | 0.50              |
| 1:C:67:ARG:NH2    | 1:C:71:SER:O      | 2.44                     | 0.50              |
| 1:E:67:ARG:NH2    | 1:E:71:SER:O      | 2.44                     | 0.50              |
| 1:E:229:LEU:HD13  | 1:E:265:GLU:HB3   | 1.93                     | 0.50              |
| 1:H:154:GLN:HB2   | 1:H:157:VAL:HG22  | 1.94                     | 0.50              |
| 1:J:154:GLN:HB2   | 1:J:157:VAL:HG22  | 1.94                     | 0.50              |
| 1:L:154:GLN:HB2   | 1:L:157:VAL:HG22  | 1.94                     | 0.50              |
| 1:M:196:TRP:HA    | 1:M:263:VAL:HG21  | 1.94                     | 0.50              |
| 1:S:229:LEU:HD13  | 1:S:265:GLU:HB3   | 1.93                     | 0.50              |
| 1:V:67:ARG:NH2    | 1:V:71:SER:O      | 2.44                     | 0.50              |
| 1:Y:154:GLN:HB2   | 1:Y:157:VAL:HG22  | 1.94                     | 0.50              |
| 1:BA:196:TRP:HA   | 1:BA:263:VAL:HG21 | 1.94                     | 0.50              |
| 1:CA:229:LEU:HD13 | 1:CA:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:CA:237:ASP:OD1  | 1:CA:241:VAL:N    | 2.35                     | 0.50              |
| 1:DA:154:GLN:HB2  | 1:DA:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:FA:67:ARG:NH2   | 1:FA:71:SER:O     | 2.44                     | 0.50              |
| 1:HA:67:ARG:NH2   | 1:HA:71:SER:O     | 2.44                     | 0.50              |
| 1:IA:95:ASP:HA    | 1:KA:85:HIS:NE2   | 2.27                     | 0.50              |
| 1:IA:196:TRP:HA   | 1:IA:263:VAL:HG21 | 1.94                     | 0.50              |
| 1:JA:227:LEU:HD23 | 1:JA:229:LEU:HD23 | 1.93                     | 0.50              |
| 1:JA:694:LEU:O    | 1:JA:697:SER:OG   | 2.28                     | 0.50              |
| 1:KA:227:LEU:HD23 | 1:KA:229:LEU:HD23 | 1.93                     | 0.50              |
| 1:OA:229:LEU:HD13 | 1:OA:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:OA:702:ALA:HB2  | 1:QA:690:ARG:HH12 | 1.76                     | 0.50              |
| 1:PA:702:ALA:HB2  | 1:RA:690:ARG:HH12 | 1.76                     | 0.50              |
| 1:RA:67:ARG:NH2   | 1:RA:71:SER:O     | 2.44                     | 0.50              |
| 1:TA:709:LEU:HD13 | 1:VA:701:LYS:HG3  | 1.94                     | 0.50              |
| 1:VA:154:GLN:HB2  | 1:VA:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:WA:227:LEU:HD23 | 1:WA:229:LEU:HD23 | 1.93                     | 0.50              |
| 1:ZA:154:GLN:HB2  | 1:ZA:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:CB:170:GLN:HB3  | 1:DB:233:GLN:OE1  | 2.12                     | 0.50              |
| 1:JB:202:GLY:HA2  | 1:KB:191:VAL:CG2  | 2.42                     | 0.50              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:KB:154:GLN:HB2  | 1:KB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:KB:706:LEU:HD13 | 1:LB:693:ILE:HG23 | 1.94                     | 0.50              |
| 1:LB:154:GLN:HB2  | 1:LB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:LB:764:LYS:HB3  | 1:MB:759:LEU:HD22 | 1.94                     | 0.50              |
| 1:MB:36:ILE:HD13  | 1:AC:36:ILE:HD13  | 1.92                     | 0.50              |
| 1:SB:154:GLN:HB2  | 1:SB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:UB:154:GLN:HB2  | 1:UB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:WB:196:TRP:HA   | 1:WB:263:VAL:HG21 | 1.94                     | 0.50              |
| 1:E:385:ASN:ND2   | 1:G:473:TYR:O     | 2.45                     | 0.50              |
| 1:F:154:GLN:HB2   | 1:F:157:VAL:HG22  | 1.94                     | 0.50              |
| 1:I:229:LEU:HD13  | 1:I:265:GLU:HB3   | 1.93                     | 0.50              |
| 1:N:154:GLN:HB2   | 1:N:157:VAL:HG22  | 1.94                     | 0.50              |
| 1:W:154:GLN:HB2   | 1:W:157:VAL:HG22  | 1.94                     | 0.50              |
| 1:X:227:LEU:HD23  | 1:X:229:LEU:HD23  | 1.93                     | 0.50              |
| 1:AA:67:ARG:NH2   | 1:AA:71:SER:O     | 2.44                     | 0.50              |
| 1:AA:154:GLN:HB2  | 1:AA:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:BA:227:LEU:HD23 | 1:BA:229:LEU:HD23 | 1.93                     | 0.50              |
| 1:EA:227:LEU:HD23 | 1:EA:229:LEU:HD23 | 1.93                     | 0.50              |
| 1:FA:227:LEU:HD23 | 1:FA:229:LEU:HD23 | 1.93                     | 0.50              |
| 1:HA:227:LEU:HD23 | 1:HA:229:LEU:HD23 | 1.93                     | 0.50              |
| 1:LA:227:LEU:HD23 | 1:LA:229:LEU:HD23 | 1.93                     | 0.50              |
| 1:TA:666:THR:HG22 | 1:VA:657:SER:HB2  | 1.94                     | 0.50              |
| 1:UA:196:TRP:HA   | 1:UA:263:VAL:HG21 | 1.94                     | 0.50              |
| 1:UA:720:GLY:HA3  | 1:WA:711:ALA:HB1  | 1.93                     | 0.50              |
| 1:YA:17:HIS:NE2   | 1:YA:99:LEU:O     | 2.33                     | 0.50              |
| 1:CB:17:HIS:NE2   | 1:CB:99:LEU:O     | 2.33                     | 0.50              |
| 1:DB:196:TRP:HA   | 1:DB:263:VAL:HG21 | 1.94                     | 0.50              |
| 1:DB:237:ASP:OD1  | 1:DB:241:VAL:N    | 2.35                     | 0.50              |
| 1:GB:229:LEU:HD13 | 1:GB:265:GLU:HB3  | 1.93                     | 0.50              |
| 1:IB:154:GLN:HB2  | 1:IB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:JB:154:GLN:HB2  | 1:JB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:KB:196:TRP:HA   | 1:KB:263:VAL:HG21 | 1.94                     | 0.50              |
| 1:NB:154:GLN:HB2  | 1:NB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:QB:33:LYS:C     | 1:RB:24:ASN:OD1   | 2.50                     | 0.50              |
| 1:RB:384:GLN:HB2  | 1:SB:474:ARG:HG3  | 1.94                     | 0.50              |
| 1:TB:154:GLN:HB2  | 1:TB:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:UB:743:GLN:NE2  | 1:VB:733:ALA:HB1  | 2.27                     | 0.50              |
| 1:A:154:GLN:HB2   | 1:A:157:VAL:HG22  | 1.94                     | 0.50              |
| 1:D:154:GLN:HB2   | 1:D:157:VAL:HG22  | 1.94                     | 0.50              |
| 1:E:196:TRP:HA    | 1:E:263:VAL:HG21  | 1.94                     | 0.50              |
| 1:E:279:ARG:HD3   | 1:G:337:LEU:HD13  | 1.94                     | 0.50              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:F:196:TRP:HA    | 1:F:263:VAL:HG21  | 1.94                     | 0.50              |
| 1:F:702:ALA:HB2   | 1:H:690:ARG:HH12  | 1.77                     | 0.50              |
| 1:G:154:GLN:HB2   | 1:G:157:VAL:HG22  | 1.94                     | 0.50              |
| 1:G:654:LEU:HD13  | 1:I:534:HIS:CD2   | 2.47                     | 0.50              |
| 1:H:716:VAL:HG21  | 1:J:708:GLU:CG    | 2.42                     | 0.50              |
| 1:H:750:ALA:HA    | 1:J:741:VAL:HG23  | 1.94                     | 0.50              |
| 1:I:154:GLN:HB2   | 1:I:157:VAL:HG22  | 1.94                     | 0.50              |
| 1:J:229:LEU:HD13  | 1:J:265:GLU:HB3   | 1.93                     | 0.50              |
| 1:K:154:GLN:HB2   | 1:K:157:VAL:HG22  | 1.94                     | 0.50              |
| 1:Q:95:ASP:HA     | 1:S:85:HIS:CE1    | 2.47                     | 0.50              |
| 1:R:229:LEU:HD13  | 1:R:265:GLU:HB3   | 1.93                     | 0.50              |
| 1:T:154:GLN:HB2   | 1:T:157:VAL:HG22  | 1.94                     | 0.50              |
| 1:T:196:TRP:HA    | 1:T:263:VAL:HG21  | 1.94                     | 0.50              |
| 1:T:229:LEU:HD13  | 1:T:265:GLU:HB3   | 1.93                     | 0.50              |
| 1:Y:196:TRP:HA    | 1:Y:263:VAL:HG21  | 1.94                     | 0.50              |
| 1:Z:196:TRP:HA    | 1:Z:263:VAL:HG21  | 1.94                     | 0.50              |
| 1:CA:67:ARG:NH2   | 1:CA:71:SER:O     | 2.44                     | 0.50              |
| 1:HA:196:TRP:HA   | 1:HA:263:VAL:HG21 | 1.94                     | 0.50              |
| 1:JA:56:ARG:HG3   | 1:LA:127:LEU:HD22 | 1.94                     | 0.50              |
| 1:KA:640:VAL:HG13 | 1:MA:580:ARG:HH11 | 1.77                     | 0.50              |
| 1:MA:196:TRP:HA   | 1:MA:263:VAL:HG21 | 1.94                     | 0.50              |
| 1:OA:227:LEU:HD23 | 1:OA:229:LEU:HD23 | 1.93                     | 0.50              |
| 1:SA:17:HIS:NE2   | 1:SA:99:LEU:O     | 2.33                     | 0.50              |
| 1:SA:227:LEU:HD23 | 1:SA:229:LEU:HD23 | 1.93                     | 0.50              |
| 1:UA:67:ARG:NH2   | 1:UA:71:SER:O     | 2.44                     | 0.50              |
| 1:UA:227:LEU:HD23 | 1:UA:229:LEU:HD23 | 1.93                     | 0.50              |
| 1:XA:154:GLN:HB2  | 1:XA:157:VAL:HG22 | 1.94                     | 0.50              |
| 1:YA:227:LEU:HD23 | 1:YA:229:LEU:HD23 | 1.93                     | 0.50              |
| 1:EB:384:GLN:HB2  | 1:FB:474:ARG:CG   | 2.41                     | 0.50              |
| 1:FB:17:HIS:NE2   | 1:FB:99:LEU:O     | 2.33                     | 0.50              |
| 1:GB:237:ASP:OD1  | 1:GB:241:VAL:N    | 2.35                     | 0.50              |
| 1:MB:813:ALA:HB1  | 1:NB:812:VAL:HA   | 1.93                     | 0.50              |
| 1:TB:196:TRP:HA   | 1:TB:263:VAL:HG21 | 1.94                     | 0.50              |
| 1:B:192:THR:HB    | 1:AC:203:ALA:HB2  | 1.94                     | 0.49              |
| 1:E:154:GLN:HB2   | 1:E:157:VAL:HG22  | 1.94                     | 0.49              |
| 1:G:196:TRP:HA    | 1:G:263:VAL:HG21  | 1.94                     | 0.49              |
| 1:H:67:ARG:NH2    | 1:H:71:SER:O      | 2.44                     | 0.49              |
| 1:J:196:TRP:HA    | 1:J:263:VAL:HG21  | 1.94                     | 0.49              |
| 1:O:279:ARG:HD3   | 1:Q:337:LEU:HD13  | 1.94                     | 0.49              |
| 1:P:154:GLN:HB2   | 1:P:157:VAL:HG22  | 1.94                     | 0.49              |
| 1:Q:154:GLN:HB2   | 1:Q:157:VAL:HG22  | 1.94                     | 0.49              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:Q:229:LEU:HD13  | 1:Q:265:GLU:HB3   | 1.93                     | 0.49              |
| 1:Z:227:LEU:HD23  | 1:Z:229:LEU:HD23  | 1.93                     | 0.49              |
| 1:CA:154:GLN:HB2  | 1:CA:157:VAL:HG22 | 1.94                     | 0.49              |
| 1:EA:154:GLN:HB2  | 1:EA:157:VAL:HG22 | 1.94                     | 0.49              |
| 1:NA:196:TRP:HA   | 1:NA:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:PA:384:GLN:HB2  | 1:RA:474:ARG:HG3  | 1.93                     | 0.49              |
| 1:ZA:196:TRP:HA   | 1:ZA:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:AB:196:TRP:HA   | 1:AB:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:EB:362:PRO:CB   | 1:FB:355:ASP:HB3  | 2.40                     | 0.49              |
| 1:HB:196:TRP:HA   | 1:HB:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:IB:170:GLN:HB3  | 1:JB:233:GLN:OE1  | 2.11                     | 0.49              |
| 1:LB:67:ARG:NH2   | 1:LB:71:SER:O     | 2.44                     | 0.49              |
| 1:LB:229:LEU:HD13 | 1:LB:265:GLU:HB3  | 1.93                     | 0.49              |
| 1:MB:196:TRP:HA   | 1:MB:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:MB:229:LEU:HD13 | 1:MB:265:GLU:HB3  | 1.93                     | 0.49              |
| 1:QB:196:TRP:HA   | 1:QB:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:P:783:LYS:HA    | 1:R:777:LEU:CD1   | 2.42                     | 0.49              |
| 1:R:154:GLN:HB2   | 1:R:157:VAL:HG22  | 1.94                     | 0.49              |
| 1:X:801:ALA:HB1   | 1:Z:799:THR:OG1   | 2.12                     | 0.49              |
| 1:Z:203:ALA:HB2   | 1:BA:192:THR:HB   | 1.93                     | 0.49              |
| 1:BA:709:LEU:HD13 | 1:DA:701:LYS:HG3  | 1.93                     | 0.49              |
| 1:DA:227:LEU:HD23 | 1:DA:229:LEU:HD23 | 1.93                     | 0.49              |
| 1:GA:17:HIS:NE2   | 1:GA:99:LEU:O     | 2.33                     | 0.49              |
| 1:IA:227:LEU:HD23 | 1:IA:229:LEU:HD23 | 1.93                     | 0.49              |
| 1:MA:17:HIS:NE2   | 1:MA:99:LEU:O     | 2.33                     | 0.49              |
| 1:EB:229:LEU:HD13 | 1:EB:265:GLU:HB3  | 1.93                     | 0.49              |
| 1:IB:278:PRO:HB2  | 1:JB:338:GLN:NE2  | 2.27                     | 0.49              |
| 1:PB:229:LEU:HD13 | 1:PB:265:GLU:HB3  | 1.93                     | 0.49              |
| 1:RB:229:LEU:HD13 | 1:RB:265:GLU:HB3  | 1.93                     | 0.49              |
| 1:VB:196:TRP:HA   | 1:VB:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:VB:702:ALA:HB2  | 1:WB:690:ARG:HH12 | 1.77                     | 0.49              |
| 1:XB:229:LEU:HD13 | 1:XB:265:GLU:HB3  | 1.93                     | 0.49              |
| 1:YB:196:TRP:HA   | 1:YB:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:ZB:484:PRO:O    | 1:AC:471:TYR:CZ   | 2.65                     | 0.49              |
| 1:G:461:ARG:HH11  | 1:I:473:TYR:HE2   | 1.60                     | 0.49              |
| 1:H:229:LEU:HD13  | 1:H:265:GLU:HB3   | 1.93                     | 0.49              |
| 1:K:196:TRP:HA    | 1:K:263:VAL:HG21  | 1.94                     | 0.49              |
| 1:M:67:ARG:NH2    | 1:M:71:SER:O      | 2.44                     | 0.49              |
| 1:N:170:GLN:HB3   | 1:P:233:GLN:OE1   | 2.12                     | 0.49              |
| 1:O:196:TRP:HA    | 1:O:263:VAL:HG21  | 1.94                     | 0.49              |
| 1:R:67:ARG:NH2    | 1:R:71:SER:O      | 2.44                     | 0.49              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:EA:229:LEU:HD13 | 1:EA:265:GLU:HB3  | 1.93                     | 0.49              |
| 1:FA:694:LEU:O    | 1:FA:697:SER:OG   | 2.28                     | 0.49              |
| 1:KA:775:ALA:HB1  | 1:MA:770:LEU:HD21 | 1.93                     | 0.49              |
| 1:MA:227:LEU:HD23 | 1:MA:229:LEU:HD23 | 1.93                     | 0.49              |
| 1:NA:694:LEU:O    | 1:NA:697:SER:OG   | 2.28                     | 0.49              |
| 1:SA:32:PRO:HB2   | 1:UA:24:ASN:HB2   | 1.93                     | 0.49              |
| 1:SA:196:TRP:HA   | 1:SA:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:SA:229:LEU:HD13 | 1:SA:265:GLU:HB3  | 1.93                     | 0.49              |
| 1:TA:196:TRP:HA   | 1:TA:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:UA:713:SER:OG   | 1:WA:707:LEU:HD12 | 2.11                     | 0.49              |
| 1:BB:753:ILE:HG12 | 1:CB:745:LYS:HE2  | 1.94                     | 0.49              |
| 1:PB:196:TRP:HA   | 1:PB:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:AC:196:TRP:HA   | 1:AC:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:A:716:VAL:HG21  | 1:C:708:GLU:HG2   | 1.93                     | 0.49              |
| 1:C:154:GLN:HB2   | 1:C:157:VAL:HG22  | 1.94                     | 0.49              |
| 1:H:768:MET:CB    | 1:J:759:LEU:HD11  | 2.43                     | 0.49              |
| 1:M:154:GLN:HB2   | 1:M:157:VAL:HG22  | 1.94                     | 0.49              |
| 1:O:154:GLN:HB2   | 1:O:157:VAL:HG22  | 1.94                     | 0.49              |
| 1:P:720:GLY:HA3   | 1:R:711:ALA:HB1   | 1.94                     | 0.49              |
| 1:DA:694:LEU:O    | 1:DA:697:SER:OG   | 2.28                     | 0.49              |
| 1:EA:237:ASP:OD1  | 1:EA:241:VAL:N    | 2.35                     | 0.49              |
| 1:FA:196:TRP:HA   | 1:FA:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:KA:736:GLU:OE2  | 1:MA:726:ALA:HB1  | 2.12                     | 0.49              |
| 1:MA:10:ILE:O     | 1:OA:24:ASN:ND2   | 2.44                     | 0.49              |
| 1:QA:227:LEU:HD23 | 1:QA:229:LEU:HD23 | 1.93                     | 0.49              |
| 1:QA:694:LEU:O    | 1:QA:697:SER:OG   | 2.28                     | 0.49              |
| 1:SA:694:LEU:O    | 1:SA:697:SER:OG   | 2.28                     | 0.49              |
| 1:SA:761:ARG:HG2  | 1:UA:755:THR:HG21 | 1.94                     | 0.49              |
| 1:VA:229:LEU:HD13 | 1:VA:265:GLU:HB3  | 1.93                     | 0.49              |
| 1:CB:196:TRP:HA   | 1:CB:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:FB:196:TRP:HA   | 1:FB:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:MB:797:GLU:HB3  | 1:NB:792:ALA:HB1  | 1.94                     | 0.49              |
| 1:YB:17:HIS:NE2   | 1:YB:99:LEU:O     | 2.33                     | 0.49              |
| 1:YB:229:LEU:HD13 | 1:YB:265:GLU:HB3  | 1.93                     | 0.49              |
| 1:ZB:461:ARG:HH11 | 1:AC:494:GLN:HG3  | 1.77                     | 0.49              |
| 1:E:506:LYS:O     | 1:E:507:ARG:NE    | 2.40                     | 0.49              |
| 1:Q:220:ILE:HD12  | 1:S:245:THR:HG22  | 1.92                     | 0.49              |
| 1:V:640:VAL:HG13  | 1:X:580:ARG:NH1   | 2.28                     | 0.49              |
| 1:X:67:ARG:NH2    | 1:X:71:SER:O      | 2.44                     | 0.49              |
| 1:CA:196:TRP:HA   | 1:CA:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:DA:229:LEU:HD13 | 1:DA:265:GLU:HB3  | 1.93                     | 0.49              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:FA:229:LEU:HD13 | 1:FA:265:GLU:HB3  | 1.93                     | 0.49              |
| 1:KA:67:ARG:NH2   | 1:KA:71:SER:O     | 2.44                     | 0.49              |
| 1:LA:170:GLN:HB3  | 1:NA:233:GLN:OE1  | 2.12                     | 0.49              |
| 1:UA:761:ARG:HG2  | 1:WA:755:THR:HG21 | 1.94                     | 0.49              |
| 1:VA:32:PRO:HB2   | 1:XA:24:ASN:HB2   | 1.94                     | 0.49              |
| 1:EB:196:TRP:HA   | 1:EB:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:GB:384:GLN:HB2  | 1:HB:474:ARG:HG3  | 1.92                     | 0.49              |
| 1:IB:203:ALA:HB2  | 1:JB:192:THR:HB   | 1.94                     | 0.49              |
| 1:LB:794:LYS:HD3  | 1:MB:788:ALA:HB1  | 1.94                     | 0.49              |
| 1:OB:382:LEU:O    | 1:PB:396:GLY:HA3  | 2.13                     | 0.49              |
| 1:QB:34:THR:HG21  | 1:RB:22:ASN:C     | 2.33                     | 0.49              |
| 1:SB:196:TRP:HA   | 1:SB:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:WB:237:ASP:OD1  | 1:WB:241:VAL:N    | 2.35                     | 0.49              |
| 1:ZB:384:GLN:HB2  | 1:AC:474:ARG:HG3  | 1.93                     | 0.49              |
| 1:ZB:658:VAL:HG11 | 1:AC:535:ALA:CA   | 2.43                     | 0.49              |
| 1:A:196:TRP:HA    | 1:A:263:VAL:HG21  | 1.94                     | 0.49              |
| 1:B:196:TRP:HA    | 1:B:263:VAL:HG21  | 1.94                     | 0.49              |
| 1:G:229:LEU:HD13  | 1:G:265:GLU:HB3   | 1.93                     | 0.49              |
| 1:N:196:TRP:HA    | 1:N:263:VAL:HG21  | 1.94                     | 0.49              |
| 1:O:237:ASP:OD1   | 1:O:241:VAL:N     | 2.35                     | 0.49              |
| 1:O:753:ILE:HG12  | 1:Q:745:LYS:HE2   | 1.94                     | 0.49              |
| 1:DA:196:TRP:HA   | 1:DA:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:RA:229:LEU:HD13 | 1:RA:265:GLU:HB3  | 1.93                     | 0.49              |
| 1:SA:666:THR:HG22 | 1:UA:657:SER:HB2  | 1.94                     | 0.49              |
| 1:UA:694:LEU:O    | 1:UA:697:SER:OG   | 2.28                     | 0.49              |
| 1:XA:196:TRP:HA   | 1:XA:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:YA:196:TRP:HA   | 1:YA:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:HB:170:GLN:HB3  | 1:IB:233:GLN:OE1  | 2.11                     | 0.49              |
| 1:IB:9:ARG:HE     | 1:JB:24:ASN:HD21  | 1.61                     | 0.49              |
| 1:PB:658:VAL:HG12 | 1:QB:533:ASP:O    | 2.13                     | 0.49              |
| 1:RB:237:ASP:OD1  | 1:RB:241:VAL:N    | 2.35                     | 0.49              |
| 1:YB:658:VAL:HG11 | 1:ZB:535:ALA:HA   | 1.94                     | 0.49              |
| 1:P:196:TRP:HA    | 1:P:263:VAL:HG21  | 1.94                     | 0.49              |
| 1:Z:56:ARG:HG3    | 1:BA:127:LEU:HD22 | 1.95                     | 0.49              |
| 1:EA:196:TRP:HA   | 1:EA:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:LA:196:TRP:HA   | 1:LA:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:MA:694:LEU:O    | 1:MA:697:SER:OG   | 2.28                     | 0.49              |
| 1:PA:67:ARG:NH2   | 1:PA:71:SER:O     | 2.44                     | 0.49              |
| 1:PA:196:TRP:HA   | 1:PA:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:PA:709:LEU:HD13 | 1:RA:701:LYS:HG3  | 1.94                     | 0.49              |
| 1:RA:702:ALA:HB2  | 1:TA:690:ARG:HH12 | 1.78                     | 0.49              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:FB:229:LEU:HD13 | 1:FB:265:GLU:HB3  | 1.93                     | 0.49              |
| 1:IB:384:GLN:HB2  | 1:JB:474:ARG:HG3  | 1.93                     | 0.49              |
| 1:IB:654:LEU:HD13 | 1:JB:534:HIS:CD2  | 2.48                     | 0.49              |
| 1:IB:658:VAL:HG11 | 1:JB:535:ALA:HA   | 1.95                     | 0.49              |
| 1:OB:67:ARG:NH2   | 1:OB:71:SER:O     | 2.44                     | 0.49              |
| 1:VB:710:GLU:HG3  | 1:WB:700:GLU:CD   | 2.32                     | 0.49              |
| 1:A:802:LEU:HG    | 1:C:795:PHE:HE2   | 1.76                     | 0.49              |
| 1:B:701:LYS:HG3   | 1:AC:709:LEU:HD13 | 1.94                     | 0.49              |
| 1:D:279:ARG:NH2   | 1:F:338:GLN:OE1   | 2.42                     | 0.49              |
| 1:D:466:ALA:HB1   | 1:D:515:CYS:HB2   | 1.95                     | 0.49              |
| 1:L:170:GLN:HB3   | 1:N:233:GLN:OE1   | 2.12                     | 0.49              |
| 1:O:56:ARG:HH12   | 1:Q:139:ALA:HB2   | 1.77                     | 0.49              |
| 1:S:377:ARG:NH1   | 1:S:409:THR:O     | 2.30                     | 0.49              |
| 1:BA:761:ARG:HG2  | 1:DA:755:THR:HG21 | 1.95                     | 0.49              |
| 1:EA:702:ALA:HB2  | 1:GA:690:ARG:HH12 | 1.78                     | 0.49              |
| 1:HA:694:LEU:O    | 1:HA:697:SER:OG   | 2.28                     | 0.49              |
| 1:QA:196:TRP:HA   | 1:QA:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:QA:229:LEU:HD13 | 1:QA:265:GLU:HB3  | 1.93                     | 0.49              |
| 1:WA:655:GLN:HG2  | 1:YA:649:ARG:HH11 | 1.76                     | 0.49              |
| 1:YA:363:LEU:HA   | 1:AB:353:ALA:HB3  | 1.95                     | 0.49              |
| 1:DB:299:LYS:NZ   | 1:DB:317:GLU:OE2  | 2.38                     | 0.49              |
| 1:IB:196:TRP:HA   | 1:IB:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:JB:52:THR:HG21  | 1:KB:85:HIS:HD2   | 1.78                     | 0.49              |
| 1:UB:761:ARG:HG2  | 1:VB:755:THR:CG2  | 2.41                     | 0.49              |
| 1:XB:196:TRP:HA   | 1:XB:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:C:170:GLN:HB3   | 1:E:233:GLN:OE1   | 2.12                     | 0.49              |
| 1:G:237:ASP:OD1   | 1:G:241:VAL:N     | 2.35                     | 0.49              |
| 1:H:466:ALA:HB1   | 1:H:515:CYS:HB2   | 1.95                     | 0.49              |
| 1:H:720:GLY:HA3   | 1:J:711:ALA:CB    | 2.42                     | 0.49              |
| 1:DA:647:ASP:OD1  | 1:DA:647:ASP:N    | 2.42                     | 0.49              |
| 1:IA:384:GLN:HB2  | 1:KA:474:ARG:HG3  | 1.95                     | 0.49              |
| 1:JA:196:TRP:HA   | 1:JA:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:KA:717:GLU:CB   | 1:MA:707:LEU:HD13 | 2.36                     | 0.49              |
| 1:QA:237:ASP:OD1  | 1:QA:241:VAL:N    | 2.35                     | 0.49              |
| 1:QA:647:ASP:OD1  | 1:QA:647:ASP:N    | 2.42                     | 0.49              |
| 1:RA:196:TRP:HA   | 1:RA:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:UA:676:GLU:OE2  | 1:UA:679:ARG:NH2  | 2.43                     | 0.49              |
| 1:VA:196:TRP:HA   | 1:VA:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:WA:196:TRP:HA   | 1:WA:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:YA:713:SER:OG   | 1:AB:707:LEU:HD12 | 2.12                     | 0.49              |
| 1:BB:196:TRP:HA   | 1:BB:263:VAL:HG21 | 1.94                     | 0.49              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:LB:466:ALA:HB1  | 1:LB:515:CYS:HB2  | 1.95                     | 0.49              |
| 1:MB:702:ALA:HB2  | 1:NB:690:ARG:HH12 | 1.77                     | 0.49              |
| 1:OB:196:TRP:HA   | 1:OB:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:TB:170:GLN:HB3  | 1:UB:233:GLN:OE1  | 2.13                     | 0.49              |
| 1:UB:196:TRP:HA   | 1:UB:263:VAL:HG21 | 1.94                     | 0.49              |
| 1:XB:666:THR:HG22 | 1:YB:657:SER:HB2  | 1.94                     | 0.49              |
| 1:B:466:ALA:HB1   | 1:B:515:CYS:HB2   | 1.95                     | 0.49              |
| 1:C:196:TRP:HA    | 1:C:263:VAL:HG21  | 1.94                     | 0.49              |
| 1:F:466:ALA:HB1   | 1:F:515:CYS:HB2   | 1.95                     | 0.49              |
| 1:I:466:ALA:HB1   | 1:I:515:CYS:HB2   | 1.95                     | 0.49              |
| 1:J:9:ARG:HH21    | 1:L:24:ASN:ND2    | 2.11                     | 0.49              |
| 1:J:466:ALA:HB1   | 1:J:515:CYS:HB2   | 1.95                     | 0.49              |
| 1:J:686:GLY:O     | 1:J:690:ARG:HG2   | 2.13                     | 0.49              |
| 1:N:801:ALA:HA    | 1:P:796:LYS:HZ3   | 1.78                     | 0.49              |
| 1:O:203:ALA:HB2   | 1:Q:192:THR:HB    | 1.95                     | 0.49              |
| 1:Q:196:TRP:HA    | 1:Q:263:VAL:HG21  | 1.94                     | 0.49              |
| 1:T:702:ALA:HB2   | 1:W:690:ARG:HH12  | 1.78                     | 0.49              |
| 1:V:686:GLY:O     | 1:V:690:ARG:HG2   | 2.13                     | 0.49              |
| 1:V:790:VAL:CG2   | 1:X:785:GLN:HA    | 2.42                     | 0.49              |
| 1:X:686:GLY:O     | 1:X:690:ARG:HG2   | 2.13                     | 0.49              |
| 1:DA:666:THR:HG22 | 1:FA:657:SER:HB2  | 1.94                     | 0.49              |
| 1:FA:56:ARG:HG3   | 1:HA:127:LEU:HD22 | 1.95                     | 0.49              |
| 1:IA:341:GLU:HB3  | 1:IA:344:GLU:HG2  | 1.95                     | 0.49              |
| 1:ZA:67:ARG:NH2   | 1:ZA:71:SER:O     | 2.44                     | 0.49              |
| 1:BB:686:GLY:O    | 1:BB:690:ARG:HG2  | 2.13                     | 0.49              |
| 1:EB:686:GLY:O    | 1:EB:690:ARG:HG2  | 2.13                     | 0.49              |
| 1:IB:466:ALA:HB1  | 1:IB:515:CYS:HB2  | 1.95                     | 0.49              |
| 1:JB:466:ALA:HB1  | 1:JB:515:CYS:HB2  | 1.95                     | 0.49              |
| 1:KB:466:ALA:HB1  | 1:KB:515:CYS:HB2  | 1.95                     | 0.49              |
| 1:MB:686:GLY:O    | 1:MB:690:ARG:HG2  | 2.13                     | 0.49              |
| 1:UB:686:GLY:O    | 1:UB:690:ARG:HG2  | 2.13                     | 0.49              |
| 1:XB:686:GLY:O    | 1:XB:690:ARG:HG2  | 2.13                     | 0.49              |
| 1:AC:466:ALA:HB1  | 1:AC:515:CYS:HB2  | 1.95                     | 0.49              |
| 1:A:384:GLN:HB2   | 1:C:474:ARG:HG3   | 1.94                     | 0.48              |
| 1:A:794:LYS:HD3   | 1:C:788:ALA:HB1   | 1.94                     | 0.48              |
| 1:C:30:VAL:O      | 1:C:33:LYS:NZ     | 2.46                     | 0.48              |
| 1:G:466:ALA:HB1   | 1:G:515:CYS:HB2   | 1.95                     | 0.48              |
| 1:K:466:ALA:HB1   | 1:K:515:CYS:HB2   | 1.95                     | 0.48              |
| 1:K:686:GLY:O     | 1:K:690:ARG:HG2   | 2.13                     | 0.48              |
| 1:L:466:ALA:HB1   | 1:L:515:CYS:HB2   | 1.95                     | 0.48              |
| 1:M:466:ALA:HB1   | 1:M:515:CYS:HB2   | 1.95                     | 0.48              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:N:466:ALA:HB1   | 1:N:515:CYS:HB2   | 1.95                     | 0.48              |
| 1:P:203:ALA:HB2   | 1:R:192:THR:HB    | 1.94                     | 0.48              |
| 1:Q:30:VAL:O      | 1:Q:33:LYS:NZ     | 2.47                     | 0.48              |
| 1:X:196:TRP:HA    | 1:X:263:VAL:HG21  | 1.94                     | 0.48              |
| 1:Z:95:ASP:HA     | 1:BA:85:HIS:CE1   | 2.48                     | 0.48              |
| 1:CA:717:GLU:HB2  | 1:EA:707:LEU:HD13 | 1.95                     | 0.48              |
| 1:DA:341:GLU:HB3  | 1:DA:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:EA:686:GLY:O    | 1:EA:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:KA:196:TRP:HA   | 1:KA:263:VAL:HG21 | 1.94                     | 0.48              |
| 1:KA:686:GLY:O    | 1:KA:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:PA:686:GLY:O    | 1:PA:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:UA:666:THR:HG22 | 1:WA:657:SER:HB2  | 1.94                     | 0.48              |
| 1:VA:686:GLY:O    | 1:VA:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:BB:681:GLU:OE1  | 1:CB:675:HIS:NE2  | 2.45                     | 0.48              |
| 1:DB:257:GLU:HG2  | 1:EB:244:ARG:HB3  | 1.95                     | 0.48              |
| 1:GB:30:VAL:O     | 1:GB:33:LYS:NZ    | 2.46                     | 0.48              |
| 1:HB:466:ALA:HB1  | 1:HB:515:CYS:HB2  | 1.95                     | 0.48              |
| 1:LB:655:GLN:HG2  | 1:MB:649:ARG:HH11 | 1.78                     | 0.48              |
| 1:MB:466:ALA:HB1  | 1:MB:515:CYS:HB2  | 1.95                     | 0.48              |
| 1:QB:229:LEU:HD13 | 1:QB:265:GLU:HB3  | 1.93                     | 0.48              |
| 1:RB:196:TRP:HA   | 1:RB:263:VAL:HG21 | 1.94                     | 0.48              |
| 1:RB:686:GLY:O    | 1:RB:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:TB:67:ARG:NH2   | 1:TB:71:SER:O     | 2.44                     | 0.48              |
| 1:VB:706:LEU:HD13 | 1:WB:693:ILE:HG23 | 1.94                     | 0.48              |
| 1:XB:30:VAL:O     | 1:XB:33:LYS:NZ    | 2.46                     | 0.48              |
| 1:ZB:30:VAL:O     | 1:ZB:33:LYS:NZ    | 2.46                     | 0.48              |
| 1:A:466:ALA:HB1   | 1:A:515:CYS:HB2   | 1.95                     | 0.48              |
| 1:A:686:GLY:O     | 1:A:690:ARG:HG2   | 2.13                     | 0.48              |
| 1:B:30:VAL:O      | 1:B:33:LYS:NZ     | 2.47                     | 0.48              |
| 1:C:220:ILE:HD12  | 1:E:245:THR:HG22  | 1.94                     | 0.48              |
| 1:E:461:ARG:HH11  | 1:G:473:TYR:HE2   | 1.61                     | 0.48              |
| 1:F:686:GLY:O     | 1:F:690:ARG:HG2   | 2.13                     | 0.48              |
| 1:G:30:VAL:O      | 1:G:33:LYS:NZ     | 2.47                     | 0.48              |
| 1:G:686:GLY:O     | 1:G:690:ARG:HG2   | 2.13                     | 0.48              |
| 1:O:466:ALA:HB1   | 1:O:515:CYS:HB2   | 1.95                     | 0.48              |
| 1:O:686:GLY:O     | 1:O:690:ARG:HG2   | 2.13                     | 0.48              |
| 1:P:30:VAL:O      | 1:P:33:LYS:NZ     | 2.47                     | 0.48              |
| 1:R:466:ALA:HB1   | 1:R:515:CYS:HB2   | 1.95                     | 0.48              |
| 1:T:30:VAL:O      | 1:T:33:LYS:NZ     | 2.47                     | 0.48              |
| 1:T:686:GLY:O     | 1:T:690:ARG:HG2   | 2.13                     | 0.48              |
| 1:V:30:VAL:O      | 1:V:33:LYS:NZ     | 2.47                     | 0.48              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:W:466:ALA:HB1   | 1:W:515:CYS:HB2   | 1.95                     | 0.48              |
| 1:Y:466:ALA:HB1   | 1:Y:515:CYS:HB2   | 1.95                     | 0.48              |
| 1:AA:466:ALA:HB1  | 1:AA:515:CYS:HB2  | 1.95                     | 0.48              |
| 1:BA:686:GLY:O    | 1:BA:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:CA:686:GLY:O    | 1:CA:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:EA:30:VAL:O     | 1:EA:33:LYS:NZ    | 2.47                     | 0.48              |
| 1:FA:647:ASP:OD1  | 1:FA:647:ASP:N    | 2.42                     | 0.48              |
| 1:HA:384:GLN:HB2  | 1:JA:474:ARG:HG3  | 1.94                     | 0.48              |
| 1:IA:377:ARG:NH1  | 1:IA:409:THR:O    | 2.30                     | 0.48              |
| 1:KA:341:GLU:HB3  | 1:KA:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:PA:341:GLU:HB3  | 1:PA:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:QA:341:GLU:HB3  | 1:QA:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:QA:686:GLY:O    | 1:QA:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:SA:647:ASP:N    | 1:SA:647:ASP:OD1  | 2.42                     | 0.48              |
| 1:VA:341:GLU:HB3  | 1:VA:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:WA:341:GLU:HB3  | 1:WA:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:XA:341:GLU:HB3  | 1:XA:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:CB:490:ASP:HB3  | 1:CB:491:PRO:HD2  | 1.95                     | 0.48              |
| 1:EB:30:VAL:O     | 1:EB:33:LYS:NZ    | 2.47                     | 0.48              |
| 1:EB:643:VAL:H    | 1:FB:580:ARG:NH2  | 2.11                     | 0.48              |
| 1:FB:466:ALA:HB1  | 1:FB:515:CYS:HB2  | 1.95                     | 0.48              |
| 1:FB:686:GLY:O    | 1:FB:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:GB:466:ALA:HB1  | 1:GB:515:CYS:HB2  | 1.95                     | 0.48              |
| 1:HB:490:ASP:HB3  | 1:HB:491:PRO:HD2  | 1.95                     | 0.48              |
| 1:HB:686:GLY:O    | 1:HB:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:IB:30:VAL:O     | 1:IB:33:LYS:NZ    | 2.47                     | 0.48              |
| 1:KB:67:ARG:NH2   | 1:KB:71:SER:O     | 2.44                     | 0.48              |
| 1:LB:196:TRP:HA   | 1:LB:263:VAL:HG21 | 1.94                     | 0.48              |
| 1:OB:341:GLU:HB3  | 1:OB:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:OB:686:GLY:O    | 1:OB:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:PB:30:VAL:O     | 1:PB:33:LYS:NZ    | 2.46                     | 0.48              |
| 1:QB:686:GLY:O    | 1:QB:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:RB:341:GLU:HB3  | 1:RB:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:TB:384:GLN:HB2  | 1:UB:474:ARG:HG3  | 1.95                     | 0.48              |
| 1:TB:666:THR:HG22 | 1:UB:657:SER:HB2  | 1.95                     | 0.48              |
| 1:ZB:466:ALA:HB1  | 1:ZB:515:CYS:HB2  | 1.95                     | 0.48              |
| 1:AC:490:ASP:HB3  | 1:AC:491:PRO:HD2  | 1.95                     | 0.48              |
| 1:AC:686:GLY:O    | 1:AC:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:E:466:ALA:HB1   | 1:E:515:CYS:HB2   | 1.95                     | 0.48              |
| 1:E:676:GLU:OE2   | 1:E:679:ARG:NH2   | 2.43                     | 0.48              |
| 1:F:30:VAL:O      | 1:F:33:LYS:NZ     | 2.47                     | 0.48              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:I:107:LYS:NZ   | 1:I:110:THR:HG21  | 2.29                     | 0.48              |
| 1:K:709:LEU:HD13 | 1:M:701:LYS:HG3   | 1.96                     | 0.48              |
| 1:M:30:VAL:O     | 1:M:33:LYS:NZ     | 2.46                     | 0.48              |
| 1:M:676:GLU:OE2  | 1:M:679:ARG:NH2   | 2.43                     | 0.48              |
| 1:N:686:GLY:O    | 1:N:690:ARG:HG2   | 2.13                     | 0.48              |
| 1:P:466:ALA:HB1  | 1:P:515:CYS:HB2   | 1.95                     | 0.48              |
| 1:P:686:GLY:O    | 1:P:690:ARG:HG2   | 2.13                     | 0.48              |
| 1:P:702:ALA:HB2  | 1:R:690:ARG:HH12  | 1.78                     | 0.48              |
| 1:Q:466:ALA:HB1  | 1:Q:515:CYS:HB2   | 1.95                     | 0.48              |
| 1:R:95:ASP:HA    | 1:T:85:HIS:CE1    | 2.49                     | 0.48              |
| 1:W:686:GLY:O    | 1:W:690:ARG:HG2   | 2.13                     | 0.48              |
| 1:X:713:SER:OG   | 1:Z:707:LEU:HD12  | 2.13                     | 0.48              |
| 1:Y:30:VAL:O     | 1:Y:33:LYS:NZ     | 2.46                     | 0.48              |
| 1:Z:30:VAL:O     | 1:Z:33:LYS:NZ     | 2.46                     | 0.48              |
| 1:BA:341:GLU:HB3 | 1:BA:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:CA:466:ALA:HB1 | 1:CA:515:CYS:HB2  | 1.95                     | 0.48              |
| 1:DA:676:GLU:OE2 | 1:DA:679:ARG:NH2  | 2.43                     | 0.48              |
| 1:DA:686:GLY:O   | 1:DA:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:IA:30:VAL:O    | 1:IA:33:LYS:NZ    | 2.47                     | 0.48              |
| 1:IA:686:GLY:O   | 1:IA:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:JA:30:VAL:O    | 1:JA:33:LYS:NZ    | 2.47                     | 0.48              |
| 1:JA:341:GLU:HB3 | 1:JA:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:MA:30:VAL:O    | 1:MA:33:LYS:NZ    | 2.46                     | 0.48              |
| 1:NA:30:VAL:O    | 1:NA:33:LYS:NZ    | 2.47                     | 0.48              |
| 1:OA:341:GLU:HB3 | 1:OA:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:OA:694:LEU:O   | 1:OA:697:SER:OG   | 2.28                     | 0.48              |
| 1:PA:237:ASP:OD1 | 1:PA:241:VAL:N    | 2.35                     | 0.48              |
| 1:RA:10:ILE:O    | 1:TA:24:ASN:ND2   | 2.46                     | 0.48              |
| 1:WA:30:VAL:O    | 1:WA:33:LYS:NZ    | 2.46                     | 0.48              |
| 1:WA:686:GLY:O   | 1:WA:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:GB:490:ASP:HB3 | 1:GB:491:PRO:HD2  | 1.95                     | 0.48              |
| 1:JB:686:GLY:O   | 1:JB:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:KB:30:VAL:O    | 1:KB:33:LYS:NZ    | 2.46                     | 0.48              |
| 1:KB:686:GLY:O   | 1:KB:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:LB:768:MET:CB  | 1:MB:759:LEU:HD11 | 2.43                     | 0.48              |
| 1:MB:220:ILE:CD1 | 1:NB:245:THR:HG22 | 2.44                     | 0.48              |
| 1:NB:30:VAL:O    | 1:NB:33:LYS:NZ    | 2.47                     | 0.48              |
| 1:NB:466:ALA:HB1 | 1:NB:515:CYS:HB2  | 1.95                     | 0.48              |
| 1:PB:341:GLU:HB3 | 1:PB:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:SB:384:GLN:HB2 | 1:TB:474:ARG:HG3  | 1.96                     | 0.48              |
| 1:UB:341:GLU:HB3 | 1:UB:344:GLU:HG2  | 1.96                     | 0.48              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:UB:490:ASP:HB3  | 1:UB:491:PRO:HD2  | 1.95                     | 0.48              |
| 1:VB:30:VAL:O     | 1:VB:33:LYS:NZ    | 2.47                     | 0.48              |
| 1:VB:490:ASP:HB3  | 1:VB:491:PRO:HD2  | 1.95                     | 0.48              |
| 1:WB:466:ALA:HB1  | 1:WB:515:CYS:HB2  | 1.95                     | 0.48              |
| 1:XB:107:LYS:NZ   | 1:XB:110:THR:HG21 | 2.29                     | 0.48              |
| 1:YB:542:ALA:HB1  | 1:ZB:573:LYS:HE2  | 1.96                     | 0.48              |
| 1:YB:686:GLY:O    | 1:YB:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:A:794:LYS:HB2   | 1:C:788:ALA:HB1   | 1.95                     | 0.48              |
| 1:B:107:LYS:NZ    | 1:B:110:THR:HG21  | 2.29                     | 0.48              |
| 1:D:686:GLY:O     | 1:D:690:ARG:HG2   | 2.13                     | 0.48              |
| 1:H:196:TRP:HA    | 1:H:263:VAL:HG21  | 1.94                     | 0.48              |
| 1:J:30:VAL:O      | 1:J:33:LYS:NZ     | 2.47                     | 0.48              |
| 1:K:30:VAL:O      | 1:K:33:LYS:NZ     | 2.47                     | 0.48              |
| 1:K:107:LYS:NZ    | 1:K:110:THR:HG21  | 2.29                     | 0.48              |
| 1:L:30:VAL:O      | 1:L:33:LYS:NZ     | 2.47                     | 0.48              |
| 1:O:783:LYS:HA    | 1:Q:777:LEU:HD11  | 1.94                     | 0.48              |
| 1:P:802:LEU:HG    | 1:R:795:PHE:HE2   | 1.78                     | 0.48              |
| 1:R:107:LYS:NZ    | 1:R:110:THR:HG21  | 2.29                     | 0.48              |
| 1:V:341:GLU:HB3   | 1:V:344:GLU:HG2   | 1.96                     | 0.48              |
| 1:W:196:TRP:HA    | 1:W:263:VAL:HG21  | 1.94                     | 0.48              |
| 1:W:761:ARG:HG2   | 1:Y:755:THR:HG21  | 1.95                     | 0.48              |
| 1:X:341:GLU:HB3   | 1:X:344:GLU:HG2   | 1.96                     | 0.48              |
| 1:BA:694:LEU:O    | 1:BA:697:SER:OG   | 2.28                     | 0.48              |
| 1:CA:341:GLU:HB3  | 1:CA:344:GLU:HG2  | 1.95                     | 0.48              |
| 1:DA:237:ASP:OD1  | 1:DA:241:VAL:N    | 2.35                     | 0.48              |
| 1:FA:30:VAL:O     | 1:FA:33:LYS:NZ    | 2.47                     | 0.48              |
| 1:GA:341:GLU:HB3  | 1:GA:344:GLU:HG2  | 1.95                     | 0.48              |
| 1:HA:341:GLU:HB3  | 1:HA:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:HA:363:LEU:HA   | 1:JA:353:ALA:HB3  | 1.94                     | 0.48              |
| 1:JA:686:GLY:O    | 1:JA:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:LA:341:GLU:HB3  | 1:LA:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:NA:341:GLU:HB3  | 1:NA:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:QA:30:VAL:O     | 1:QA:33:LYS:NZ    | 2.46                     | 0.48              |
| 1:RA:30:VAL:O     | 1:RA:33:LYS:NZ    | 2.47                     | 0.48              |
| 1:SA:30:VAL:O     | 1:SA:33:LYS:NZ    | 2.47                     | 0.48              |
| 1:TA:229:LEU:HD13 | 1:TA:265:GLU:HB3  | 1.93                     | 0.48              |
| 1:UA:341:GLU:HB3  | 1:UA:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:VA:30:VAL:O     | 1:VA:33:LYS:NZ    | 2.46                     | 0.48              |
| 1:WA:10:ILE:O     | 1:YA:24:ASN:ND2   | 2.46                     | 0.48              |
| 1:ZA:30:VAL:O     | 1:ZA:33:LYS:NZ    | 2.47                     | 0.48              |
| 1:AB:30:VAL:O     | 1:AB:33:LYS:NZ    | 2.47                     | 0.48              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:AB:341:GLU:HB3 | 1:AB:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:BB:341:GLU:HB3 | 1:BB:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:BB:490:ASP:HB3 | 1:BB:491:PRO:HD2  | 1.95                     | 0.48              |
| 1:CB:30:VAL:O    | 1:CB:33:LYS:NZ    | 2.47                     | 0.48              |
| 1:CB:341:GLU:HB3 | 1:CB:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:CB:466:ALA:HB1 | 1:CB:515:CYS:HB2  | 1.95                     | 0.48              |
| 1:DB:466:ALA:HB1 | 1:DB:515:CYS:HB2  | 1.95                     | 0.48              |
| 1:DB:490:ASP:HB3 | 1:DB:491:PRO:HD2  | 1.95                     | 0.48              |
| 1:IB:490:ASP:HB3 | 1:IB:491:PRO:HD2  | 1.95                     | 0.48              |
| 1:SB:341:GLU:HB3 | 1:SB:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:VB:341:GLU:HB3 | 1:VB:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:YB:466:ALA:HB1 | 1:YB:515:CYS:HB2  | 1.95                     | 0.48              |
| 1:A:768:MET:CB   | 1:C:759:LEU:HD11  | 2.43                     | 0.48              |
| 1:B:490:ASP:HB3  | 1:B:491:PRO:HD2   | 1.95                     | 0.48              |
| 1:C:466:ALA:HB1  | 1:C:515:CYS:HB2   | 1.95                     | 0.48              |
| 1:G:107:LYS:NZ   | 1:G:110:THR:HG21  | 2.29                     | 0.48              |
| 1:G:220:ILE:HD12 | 1:I:245:THR:HG22  | 1.94                     | 0.48              |
| 1:I:196:TRP:HA   | 1:I:263:VAL:HG21  | 1.94                     | 0.48              |
| 1:J:107:LYS:NZ   | 1:J:110:THR:HG21  | 2.29                     | 0.48              |
| 1:M:107:LYS:NZ   | 1:M:110:THR:HG21  | 2.29                     | 0.48              |
| 1:N:237:ASP:OD1  | 1:N:241:VAL:N     | 2.35                     | 0.48              |
| 1:O:52:THR:HG21  | 1:Q:85:HIS:CD2    | 2.48                     | 0.48              |
| 1:O:170:GLN:HB3  | 1:Q:233:GLN:OE1   | 2.14                     | 0.48              |
| 1:Q:717:GLU:HB2  | 1:S:707:LEU:HD13  | 1.95                     | 0.48              |
| 1:S:107:LYS:NZ   | 1:S:110:THR:HG21  | 2.29                     | 0.48              |
| 1:Y:686:GLY:O    | 1:Y:690:ARG:HG2   | 2.13                     | 0.48              |
| 1:AA:30:VAL:O    | 1:AA:33:LYS:NZ    | 2.47                     | 0.48              |
| 1:AA:107:LYS:NZ  | 1:AA:110:THR:HG21 | 2.29                     | 0.48              |
| 1:BA:30:VAL:O    | 1:BA:33:LYS:NZ    | 2.46                     | 0.48              |
| 1:DA:30:VAL:O    | 1:DA:33:LYS:NZ    | 2.46                     | 0.48              |
| 1:EA:466:ALA:HB1 | 1:EA:515:CYS:HB2  | 1.95                     | 0.48              |
| 1:HA:686:GLY:O   | 1:HA:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:MA:341:GLU:HB3 | 1:MA:344:GLU:HG2  | 1.95                     | 0.48              |
| 1:OA:686:GLY:O   | 1:OA:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:RA:341:GLU:HB3 | 1:RA:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:TA:341:GLU:HB3 | 1:TA:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:ZA:341:GLU:HB3 | 1:ZA:344:GLU:HG2  | 1.95                     | 0.48              |
| 1:CB:383:ASP:OD1 | 1:CB:383:ASP:N    | 2.44                     | 0.48              |
| 1:IB:107:LYS:NZ  | 1:IB:110:THR:HG21 | 2.29                     | 0.48              |
| 1:MB:30:VAL:O    | 1:MB:33:LYS:NZ    | 2.46                     | 0.48              |
| 1:MB:107:LYS:NZ  | 1:MB:110:THR:HG21 | 2.29                     | 0.48              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:PB:542:ALA:HB1  | 1:QB:573:LYS:HE2  | 1.96                     | 0.48              |
| 1:QB:341:GLU:HB3  | 1:QB:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:RB:30:VAL:O     | 1:RB:33:LYS:NZ    | 2.47                     | 0.48              |
| 1:TB:30:VAL:O     | 1:TB:33:LYS:NZ    | 2.47                     | 0.48              |
| 1:UB:761:ARG:HG2  | 1:VB:755:THR:OG1  | 2.14                     | 0.48              |
| 1:VB:466:ALA:HB1  | 1:VB:515:CYS:HB2  | 1.95                     | 0.48              |
| 1:WB:490:ASP:HB3  | 1:WB:491:PRO:HD2  | 1.95                     | 0.48              |
| 1:WB:686:GLY:O    | 1:WB:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:XB:466:ALA:HB1  | 1:XB:515:CYS:HB2  | 1.95                     | 0.48              |
| 1:ZB:490:ASP:HB3  | 1:ZB:491:PRO:HD2  | 1.95                     | 0.48              |
| 1:A:736:GLU:OE2   | 1:C:726:ALA:HB1   | 2.13                     | 0.48              |
| 1:C:686:GLY:O     | 1:C:690:ARG:HG2   | 2.13                     | 0.48              |
| 1:E:107:LYS:NZ    | 1:E:110:THR:HG21  | 2.29                     | 0.48              |
| 1:E:686:GLY:O     | 1:E:690:ARG:HG2   | 2.13                     | 0.48              |
| 1:F:67:ARG:NH2    | 1:F:71:SER:O      | 2.44                     | 0.48              |
| 1:M:39:ASP:HB2    | 1:TB:39:ASP:HB2   | 1.95                     | 0.48              |
| 1:O:107:LYS:NZ    | 1:O:110:THR:HG21  | 2.29                     | 0.48              |
| 1:O:666:THR:HG22  | 1:Q:657:SER:HB2   | 1.96                     | 0.48              |
| 1:S:466:ALA:HB1   | 1:S:515:CYS:HB2   | 1.95                     | 0.48              |
| 1:T:107:LYS:NZ    | 1:T:110:THR:HG21  | 2.29                     | 0.48              |
| 1:T:466:ALA:HB1   | 1:T:515:CYS:HB2   | 1.95                     | 0.48              |
| 1:V:107:LYS:NZ    | 1:V:110:THR:HG21  | 2.29                     | 0.48              |
| 1:Y:107:LYS:NZ    | 1:Y:110:THR:HG21  | 2.29                     | 0.48              |
| 1:EA:341:GLU:HB3  | 1:EA:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:FA:341:GLU:HB3  | 1:FA:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:IA:107:LYS:NZ   | 1:IA:110:THR:HG21 | 2.29                     | 0.48              |
| 1:NA:94:GLN:O     | 1:PA:85:HIS:NE2   | 2.41                     | 0.48              |
| 1:NA:686:GLY:O    | 1:NA:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:OA:30:VAL:O     | 1:OA:33:LYS:NZ    | 2.46                     | 0.48              |
| 1:OA:666:THR:HG22 | 1:QA:657:SER:HB2  | 1.95                     | 0.48              |
| 1:QA:676:GLU:OE2  | 1:QA:679:ARG:NH2  | 2.43                     | 0.48              |
| 1:QA:720:GLY:HA3  | 1:SA:711:ALA:HB1  | 1.94                     | 0.48              |
| 1:RA:257:GLU:HG2  | 1:TA:244:ARG:HB3  | 1.95                     | 0.48              |
| 1:TA:686:GLY:O    | 1:TA:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:UA:30:VAL:O     | 1:UA:33:LYS:NZ    | 2.46                     | 0.48              |
| 1:ZA:686:GLY:O    | 1:ZA:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:AB:686:GLY:O    | 1:AB:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:BB:466:ALA:HB1  | 1:BB:515:CYS:HB2  | 1.95                     | 0.48              |
| 1:CB:686:GLY:O    | 1:CB:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:DB:341:GLU:HB3  | 1:DB:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:EB:107:LYS:NZ   | 1:EB:110:THR:HG21 | 2.29                     | 0.48              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:EB:466:ALA:HB1 | 1:EB:515:CYS:HB2  | 1.95                     | 0.48              |
| 1:IB:465:ASN:OD1 | 1:JB:563:SER:HA   | 2.14                     | 0.48              |
| 1:LB:30:VAL:O    | 1:LB:33:LYS:NZ    | 2.47                     | 0.48              |
| 1:TB:341:GLU:HB3 | 1:TB:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:TB:363:LEU:HA  | 1:UB:353:ALA:HB3  | 1.95                     | 0.48              |
| 1:TB:686:GLY:O   | 1:TB:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:UB:466:ALA:HB1 | 1:UB:515:CYS:HB2  | 1.95                     | 0.48              |
| 1:VB:702:ALA:CB  | 1:WB:690:ARG:HH12 | 2.25                     | 0.48              |
| 1:WB:341:GLU:HB3 | 1:WB:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:YB:107:LYS:NZ  | 1:YB:110:THR:HG21 | 2.29                     | 0.48              |
| 1:A:676:GLU:OE2  | 1:A:679:ARG:NH2   | 2.43                     | 0.48              |
| 1:C:107:LYS:NZ   | 1:C:110:THR:HG21  | 2.29                     | 0.48              |
| 1:E:465:ASN:OD1  | 1:G:563:SER:HA    | 2.13                     | 0.48              |
| 1:H:30:VAL:O     | 1:H:33:LYS:NZ     | 2.46                     | 0.48              |
| 1:I:30:VAL:O     | 1:I:33:LYS:NZ     | 2.46                     | 0.48              |
| 1:I:56:ARG:HH12  | 1:K:139:ALA:HB2   | 1.79                     | 0.48              |
| 1:I:686:GLY:O    | 1:I:690:ARG:HG2   | 2.13                     | 0.48              |
| 1:L:107:LYS:NZ   | 1:L:110:THR:HG21  | 2.29                     | 0.48              |
| 1:O:341:GLU:HB3  | 1:O:344:GLU:HG2   | 1.96                     | 0.48              |
| 1:Q:341:GLU:HB3  | 1:Q:344:GLU:HG2   | 1.96                     | 0.48              |
| 1:V:490:ASP:HB3  | 1:V:491:PRO:HD2   | 1.95                     | 0.48              |
| 1:V:655:GLN:CG   | 1:X:649:ARG:HD3   | 2.44                     | 0.48              |
| 1:V:676:GLU:OE2  | 1:V:679:ARG:NH2   | 2.43                     | 0.48              |
| 1:V:783:LYS:HA   | 1:X:777:LEU:HD11  | 1.96                     | 0.48              |
| 1:W:107:LYS:NZ   | 1:W:110:THR:HG21  | 2.29                     | 0.48              |
| 1:Z:341:GLU:HB3  | 1:Z:344:GLU:HG2   | 1.96                     | 0.48              |
| 1:AA:341:GLU:HB3 | 1:AA:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:CA:30:VAL:O    | 1:CA:33:LYS:NZ    | 2.46                     | 0.48              |
| 1:DA:363:LEU:HA  | 1:FA:353:ALA:HB3  | 1.95                     | 0.48              |
| 1:GA:466:ALA:HB1 | 1:GA:515:CYS:HB2  | 1.95                     | 0.48              |
| 1:HA:30:VAL:O    | 1:HA:33:LYS:NZ    | 2.46                     | 0.48              |
| 1:IA:490:ASP:HB3 | 1:IA:491:PRO:HD2  | 1.95                     | 0.48              |
| 1:KA:237:ASP:OD1 | 1:KA:241:VAL:N    | 2.35                     | 0.48              |
| 1:RA:363:LEU:HA  | 1:TA:353:ALA:HB3  | 1.94                     | 0.48              |
| 1:SA:341:GLU:HB3 | 1:SA:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:UA:686:GLY:O   | 1:UA:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:VA:676:GLU:OE2 | 1:VA:679:ARG:NH2  | 2.43                     | 0.48              |
| 1:YA:341:GLU:HB3 | 1:YA:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:DB:686:GLY:O   | 1:DB:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:FB:107:LYS:NZ  | 1:FB:110:THR:HG21 | 2.29                     | 0.48              |
| 1:TB:466:ALA:HB1 | 1:TB:515:CYS:HB2  | 1.95                     | 0.48              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:UB:107:LYS:NZ   | 1:UB:110:THR:HG21 | 2.29                     | 0.48              |
| 1:WB:107:LYS:NZ   | 1:WB:110:THR:HG21 | 2.29                     | 0.48              |
| 1:A:107:LYS:NZ    | 1:A:110:THR:HG21  | 2.29                     | 0.48              |
| 1:B:686:GLY:O     | 1:B:690:ARG:HG2   | 2.13                     | 0.48              |
| 1:C:575:ILE:HD11  | 1:C:635:VAL:HG21  | 1.96                     | 0.48              |
| 1:D:107:LYS:NZ    | 1:D:110:THR:HG21  | 2.29                     | 0.48              |
| 1:I:709:LEU:HD13  | 1:K:701:LYS:HG3   | 1.96                     | 0.48              |
| 1:J:575:ILE:HD11  | 1:J:635:VAL:HG21  | 1.96                     | 0.48              |
| 1:N:30:VAL:O      | 1:N:33:LYS:NZ     | 2.46                     | 0.48              |
| 1:O:30:VAL:O      | 1:O:33:LYS:NZ     | 2.46                     | 0.48              |
| 1:P:575:ILE:HD11  | 1:P:635:VAL:HG21  | 1.96                     | 0.48              |
| 1:Q:686:GLY:O     | 1:Q:690:ARG:HG2   | 2.13                     | 0.48              |
| 1:T:341:GLU:HB3   | 1:T:344:GLU:HG2   | 1.96                     | 0.48              |
| 1:Z:676:GLU:OE2   | 1:Z:679:ARG:NH2   | 2.43                     | 0.48              |
| 1:CA:107:LYS:NZ   | 1:CA:110:THR:HG21 | 2.29                     | 0.48              |
| 1:DA:490:ASP:HB3  | 1:DA:491:PRO:HD2  | 1.95                     | 0.48              |
| 1:KA:490:ASP:HB3  | 1:KA:491:PRO:HD2  | 1.95                     | 0.48              |
| 1:KA:801:ALA:HA   | 1:MA:796:LYS:HZ3  | 1.79                     | 0.48              |
| 1:QA:490:ASP:HB3  | 1:QA:491:PRO:HD2  | 1.95                     | 0.48              |
| 1:YA:30:VAL:O     | 1:YA:33:LYS:NZ    | 2.46                     | 0.48              |
| 1:ZA:107:LYS:NZ   | 1:ZA:110:THR:HG21 | 2.29                     | 0.48              |
| 1:ZA:466:ALA:HB1  | 1:ZA:515:CYS:HB2  | 1.95                     | 0.48              |
| 1:BB:107:LYS:NZ   | 1:BB:110:THR:HG21 | 2.29                     | 0.48              |
| 1:HB:107:LYS:NZ   | 1:HB:110:THR:HG21 | 2.29                     | 0.48              |
| 1:LB:107:LYS:NZ   | 1:LB:110:THR:HG21 | 2.29                     | 0.48              |
| 1:MB:575:ILE:HD11 | 1:MB:635:VAL:HG21 | 1.96                     | 0.48              |
| 1:NB:490:ASP:HB3  | 1:NB:491:PRO:HD2  | 1.95                     | 0.48              |
| 1:OB:257:GLU:HG2  | 1:PB:244:ARG:HB3  | 1.95                     | 0.48              |
| 1:PB:107:LYS:NZ   | 1:PB:110:THR:HG21 | 2.29                     | 0.48              |
| 1:PB:202:GLY:HA2  | 1:QB:191:VAL:HB   | 1.95                     | 0.48              |
| 1:QB:107:LYS:NZ   | 1:QB:110:THR:HG21 | 2.29                     | 0.48              |
| 1:VB:383:ASP:OD1  | 1:VB:383:ASP:N    | 2.44                     | 0.48              |
| 1:VB:790:VAL:HG21 | 1:WB:785:GLN:HA   | 1.96                     | 0.48              |
| 1:WB:67:ARG:NH2   | 1:WB:71:SER:O     | 2.44                     | 0.48              |
| 1:AC:107:LYS:NZ   | 1:AC:110:THR:HG21 | 2.29                     | 0.48              |
| 1:A:490:ASP:HB3   | 1:A:491:PRO:HD2   | 1.95                     | 0.48              |
| 1:B:575:ILE:HD11  | 1:B:635:VAL:HG21  | 1.96                     | 0.48              |
| 1:J:490:ASP:HB3   | 1:J:491:PRO:HD2   | 1.95                     | 0.48              |
| 1:K:575:ILE:HD11  | 1:K:635:VAL:HG21  | 1.96                     | 0.48              |
| 1:L:490:ASP:HB3   | 1:L:491:PRO:HD2   | 1.95                     | 0.48              |
| 1:L:686:GLY:O     | 1:L:690:ARG:HG2   | 2.13                     | 0.48              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:M:490:ASP:HB3   | 1:M:491:PRO:HD2   | 1.95                     | 0.48              |
| 1:M:686:GLY:O     | 1:M:690:ARG:HG2   | 2.13                     | 0.48              |
| 1:P:107:LYS:NZ    | 1:P:110:THR:HG21  | 2.29                     | 0.48              |
| 1:Q:107:LYS:NZ    | 1:Q:110:THR:HG21  | 2.29                     | 0.48              |
| 1:Q:575:ILE:HD11  | 1:Q:635:VAL:HG21  | 1.96                     | 0.48              |
| 1:R:575:ILE:HD11  | 1:R:635:VAL:HG21  | 1.96                     | 0.48              |
| 1:S:341:GLU:HB3   | 1:S:344:GLU:HG2   | 1.96                     | 0.48              |
| 1:W:30:VAL:O      | 1:W:33:LYS:NZ     | 2.46                     | 0.48              |
| 1:W:341:GLU:HB3   | 1:W:344:GLU:HG2   | 1.96                     | 0.48              |
| 1:X:30:VAL:O      | 1:X:33:LYS:NZ     | 2.47                     | 0.48              |
| 1:X:490:ASP:HB3   | 1:X:491:PRO:HD2   | 1.95                     | 0.48              |
| 1:X:746:LEU:HD13  | 1:Z:737:GLY:HA3   | 1.95                     | 0.48              |
| 1:Y:341:GLU:HB3   | 1:Y:344:GLU:HG2   | 1.96                     | 0.48              |
| 1:Y:575:ILE:HD11  | 1:Y:635:VAL:HG21  | 1.96                     | 0.48              |
| 1:Z:575:ILE:HD11  | 1:Z:635:VAL:HG21  | 1.96                     | 0.48              |
| 1:CA:56:ARG:HG3   | 1:EA:127:LEU:HD22 | 1.95                     | 0.48              |
| 1:CA:490:ASP:HB3  | 1:CA:491:PRO:HD2  | 1.95                     | 0.48              |
| 1:EA:107:LYS:NZ   | 1:EA:110:THR:HG21 | 2.29                     | 0.48              |
| 1:EA:575:ILE:HD11 | 1:EA:635:VAL:HG21 | 1.96                     | 0.48              |
| 1:GA:107:LYS:NZ   | 1:GA:110:THR:HG21 | 2.29                     | 0.48              |
| 1:KA:30:VAL:O     | 1:KA:33:LYS:NZ    | 2.46                     | 0.48              |
| 1:KA:750:ALA:HA   | 1:MA:741:VAL:HG23 | 1.96                     | 0.48              |
| 1:OA:490:ASP:HB3  | 1:OA:491:PRO:HD2  | 1.95                     | 0.48              |
| 1:DB:67:ARG:NH2   | 1:DB:71:SER:O     | 2.44                     | 0.48              |
| 1:DB:107:LYS:NZ   | 1:DB:110:THR:HG21 | 2.29                     | 0.48              |
| 1:FB:341:GLU:HB3  | 1:FB:344:GLU:HG2  | 1.95                     | 0.48              |
| 1:IB:575:ILE:HD11 | 1:IB:635:VAL:HG21 | 1.96                     | 0.48              |
| 1:IB:686:GLY:O    | 1:IB:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:LB:220:ILE:HD12 | 1:MB:245:THR:HG22 | 1.95                     | 0.48              |
| 1:LB:686:GLY:O    | 1:LB:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:OB:30:VAL:O     | 1:OB:33:LYS:NZ    | 2.46                     | 0.48              |
| 1:PB:466:ALA:HB1  | 1:PB:515:CYS:HB2  | 1.95                     | 0.48              |
| 1:PB:676:GLU:OE2  | 1:PB:679:ARG:NH2  | 2.43                     | 0.48              |
| 1:RB:676:GLU:OE2  | 1:RB:679:ARG:NH2  | 2.43                     | 0.48              |
| 1:SB:686:GLY:O    | 1:SB:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:TB:107:LYS:NZ   | 1:TB:110:THR:HG21 | 2.29                     | 0.48              |
| 1:XB:736:GLU:OE2  | 1:YB:726:ALA:HB1  | 2.14                     | 0.48              |
| 1:YB:341:GLU:HB3  | 1:YB:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:A:30:VAL:O      | 1:A:33:LYS:NZ     | 2.47                     | 0.48              |
| 1:D:575:ILE:HD11  | 1:D:635:VAL:HG21  | 1.96                     | 0.48              |
| 1:D:603:VAL:HG21  | 1:D:638:VAL:HG11  | 1.96                     | 0.48              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:H:107:LYS:NZ    | 1:H:110:THR:HG21  | 2.29                     | 0.48              |
| 1:H:686:GLY:O     | 1:H:690:ARG:HG2   | 2.14                     | 0.48              |
| 1:I:575:ILE:HD11  | 1:I:635:VAL:HG21  | 1.96                     | 0.48              |
| 1:K:658:VAL:HG11  | 1:M:535:ALA:HA    | 1.96                     | 0.48              |
| 1:M:56:ARG:HB2    | 1:O:127:LEU:HD22  | 1.95                     | 0.48              |
| 1:N:490:ASP:HB3   | 1:N:491:PRO:HD2   | 1.95                     | 0.48              |
| 1:S:686:GLY:O     | 1:S:690:ARG:HG2   | 2.13                     | 0.48              |
| 1:V:466:ALA:HB1   | 1:V:515:CYS:HB2   | 1.95                     | 0.48              |
| 1:W:237:ASP:OD1   | 1:W:241:VAL:N     | 2.35                     | 0.48              |
| 1:AA:490:ASP:HB3  | 1:AA:491:PRO:HD2  | 1.95                     | 0.48              |
| 1:AA:686:GLY:O    | 1:AA:690:ARG:HG2  | 2.13                     | 0.48              |
| 1:DA:107:LYS:NZ   | 1:DA:110:THR:HG21 | 2.29                     | 0.48              |
| 1:GA:490:ASP:HB3  | 1:GA:491:PRO:HD2  | 1.95                     | 0.48              |
| 1:GA:575:ILE:HD11 | 1:GA:635:VAL:HG21 | 1.96                     | 0.48              |
| 1:LA:30:VAL:O     | 1:LA:33:LYS:NZ    | 2.47                     | 0.48              |
| 1:QA:107:LYS:NZ   | 1:QA:110:THR:HG21 | 2.29                     | 0.48              |
| 1:TA:107:LYS:NZ   | 1:TA:110:THR:HG21 | 2.29                     | 0.48              |
| 1:EB:341:GLU:HB3  | 1:EB:344:GLU:HG2  | 1.96                     | 0.48              |
| 1:JB:603:VAL:HG21 | 1:JB:638:VAL:HG11 | 1.96                     | 0.48              |
| 1:MB:490:ASP:HB3  | 1:MB:491:PRO:HD2  | 1.95                     | 0.48              |
| 1:NB:107:LYS:NZ   | 1:NB:110:THR:HG21 | 2.29                     | 0.48              |
| 1:OB:237:ASP:OD1  | 1:OB:241:VAL:N    | 2.35                     | 0.48              |
| 1:OB:466:ALA:HB1  | 1:OB:515:CYS:HB2  | 1.95                     | 0.48              |
| 1:OB:709:LEU:HD13 | 1:PB:701:LYS:HG3  | 1.95                     | 0.48              |
| 1:PB:490:ASP:HB3  | 1:PB:491:PRO:HD2  | 1.95                     | 0.48              |
| 1:QB:655:GLN:CG   | 1:RB:649:ARG:HD3  | 2.44                     | 0.48              |
| 1:UB:203:ALA:HB2  | 1:VB:192:THR:HB   | 1.95                     | 0.48              |
| 1:VB:107:LYS:NZ   | 1:VB:110:THR:HG21 | 2.29                     | 0.48              |
| 1:AC:377:ARG:NH1  | 1:AC:409:THR:O    | 2.30                     | 0.48              |
| 1:B:9:ARG:HE      | 1:D:24:ASN:ND2    | 2.12                     | 0.47              |
| 1:B:299:LYS:NZ    | 1:B:317:GLU:OE2   | 2.38                     | 0.47              |
| 1:D:30:VAL:O      | 1:D:33:LYS:NZ     | 2.46                     | 0.47              |
| 1:E:603:VAL:HG21  | 1:E:638:VAL:HG11  | 1.96                     | 0.47              |
| 1:J:603:VAL:HG21  | 1:J:638:VAL:HG11  | 1.96                     | 0.47              |
| 1:L:603:VAL:HG21  | 1:L:638:VAL:HG11  | 1.96                     | 0.47              |
| 1:P:775:ALA:HB1   | 1:R:770:LEU:HD21  | 1.96                     | 0.47              |
| 1:R:341:GLU:HB3   | 1:R:344:GLU:HG2   | 1.96                     | 0.47              |
| 1:R:686:GLY:O     | 1:R:690:ARG:HG2   | 2.13                     | 0.47              |
| 1:V:694:LEU:O     | 1:V:697:SER:OG    | 2.28                     | 0.47              |
| 1:BA:107:LYS:NZ   | 1:BA:110:THR:HG21 | 2.29                     | 0.47              |
| 1:BA:490:ASP:HB3  | 1:BA:491:PRO:HD2  | 1.95                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:IA:466:ALA:HB1  | 1:IA:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:LA:107:LYS:NZ   | 1:LA:110:THR:HG21 | 2.29                     | 0.47              |
| 1:MA:575:ILE:HD11 | 1:MA:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:RA:107:LYS:NZ   | 1:RA:110:THR:HG21 | 2.29                     | 0.47              |
| 1:RA:490:ASP:HB3  | 1:RA:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:TA:490:ASP:HB3  | 1:TA:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:VA:17:HIS:NE2   | 1:VA:99:LEU:O     | 2.33                     | 0.47              |
| 1:WA:273:ILE:HG13 | 1:WA:308:PHE:O    | 2.15                     | 0.47              |
| 1:XA:466:ALA:HB1  | 1:XA:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:XA:686:GLY:O    | 1:XA:690:ARG:HG2  | 2.13                     | 0.47              |
| 1:YA:107:LYS:NZ   | 1:YA:110:THR:HG21 | 2.29                     | 0.47              |
| 1:CB:107:LYS:NZ   | 1:CB:110:THR:HG21 | 2.29                     | 0.47              |
| 1:EB:67:ARG:NH2   | 1:EB:71:SER:O     | 2.44                     | 0.47              |
| 1:FB:603:VAL:HG21 | 1:FB:638:VAL:HG11 | 1.96                     | 0.47              |
| 1:GB:107:LYS:NZ   | 1:GB:110:THR:HG21 | 2.29                     | 0.47              |
| 1:GB:341:GLU:HB3  | 1:GB:344:GLU:HG2  | 1.96                     | 0.47              |
| 1:GB:686:GLY:O    | 1:GB:690:ARG:HG2  | 2.13                     | 0.47              |
| 1:JB:30:VAL:O     | 1:JB:33:LYS:NZ    | 2.47                     | 0.47              |
| 1:JB:95:ASP:HA    | 1:KB:85:HIS:NE2   | 2.29                     | 0.47              |
| 1:JB:107:LYS:NZ   | 1:JB:110:THR:HG21 | 2.29                     | 0.47              |
| 1:JB:490:ASP:HB3  | 1:JB:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:MB:603:VAL:HG21 | 1:MB:638:VAL:HG11 | 1.96                     | 0.47              |
| 1:MB:757:ALA:CB   | 1:NB:748:ALA:HB1  | 2.44                     | 0.47              |
| 1:NB:603:VAL:HG21 | 1:NB:638:VAL:HG11 | 1.96                     | 0.47              |
| 1:QB:30:VAL:O     | 1:QB:33:LYS:NZ    | 2.46                     | 0.47              |
| 1:QB:490:ASP:HB3  | 1:QB:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:QB:655:GLN:HG3  | 1:RB:649:ARG:HD3  | 1.95                     | 0.47              |
| 1:RB:170:GLN:HB3  | 1:SB:233:GLN:OE1  | 2.13                     | 0.47              |
| 1:SB:466:ALA:HB1  | 1:SB:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:UB:363:LEU:CA   | 1:VB:353:ALA:HB3  | 2.42                     | 0.47              |
| 1:UB:735:ILE:CG2  | 1:VB:726:ALA:C    | 2.82                     | 0.47              |
| 1:VB:643:VAL:H    | 1:WB:580:ARG:NH2  | 2.11                     | 0.47              |
| 1:WB:30:VAL:O     | 1:WB:33:LYS:NZ    | 2.47                     | 0.47              |
| 1:XB:757:ALA:CB   | 1:YB:748:ALA:HB1  | 2.43                     | 0.47              |
| 1:YB:30:VAL:O     | 1:YB:33:LYS:NZ    | 2.47                     | 0.47              |
| 1:YB:575:ILE:HD11 | 1:YB:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:YB:603:VAL:HG21 | 1:YB:638:VAL:HG11 | 1.96                     | 0.47              |
| 1:ZB:107:LYS:NZ   | 1:ZB:110:THR:HG21 | 2.29                     | 0.47              |
| 1:ZB:341:GLU:HB3  | 1:ZB:344:GLU:HG2  | 1.96                     | 0.47              |
| 1:B:52:THR:HG21   | 1:D:85:HIS:CD2    | 2.49                     | 0.47              |
| 1:D:666:THR:HG22  | 1:F:657:SER:HB2   | 1.95                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:I:341:GLU:HB3   | 1:I:344:GLU:HG2   | 1.96                     | 0.47              |
| 1:J:676:GLU:OE2   | 1:J:679:ARG:NH2   | 2.43                     | 0.47              |
| 1:K:341:GLU:HB3   | 1:K:344:GLU:HG2   | 1.96                     | 0.47              |
| 1:M:341:GLU:HB3   | 1:M:344:GLU:HG2   | 1.96                     | 0.47              |
| 1:N:107:LYS:NZ    | 1:N:110:THR:HG21  | 2.29                     | 0.47              |
| 1:O:490:ASP:HB3   | 1:O:491:PRO:HD2   | 1.95                     | 0.47              |
| 1:O:801:ALA:HA    | 1:Q:796:LYS:HZ3   | 1.77                     | 0.47              |
| 1:S:490:ASP:HB3   | 1:S:491:PRO:HD2   | 1.95                     | 0.47              |
| 1:S:575:ILE:HD11  | 1:S:635:VAL:HG21  | 1.96                     | 0.47              |
| 1:S:717:GLU:HB2   | 1:V:707:LEU:HD13  | 1.96                     | 0.47              |
| 1:X:107:LYS:NZ    | 1:X:110:THR:HG21  | 2.29                     | 0.47              |
| 1:X:237:ASP:OD1   | 1:X:241:VAL:N     | 2.35                     | 0.47              |
| 1:X:273:ILE:HG13  | 1:X:308:PHE:O     | 2.15                     | 0.47              |
| 1:X:466:ALA:HB1   | 1:X:515:CYS:HB2   | 1.95                     | 0.47              |
| 1:BA:466:ALA:HB1  | 1:BA:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:FA:54:PRO:HD2   | 1:FA:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:FA:575:ILE:HD11 | 1:FA:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:JA:107:LYS:NZ   | 1:JA:110:THR:HG21 | 2.29                     | 0.47              |
| 1:JA:273:ILE:HG13 | 1:JA:308:PHE:O    | 2.15                     | 0.47              |
| 1:KA:273:ILE:HG13 | 1:KA:308:PHE:O    | 2.15                     | 0.47              |
| 1:KA:720:GLY:HA3  | 1:MA:711:ALA:CB   | 2.44                     | 0.47              |
| 1:MA:54:PRO:HD2   | 1:MA:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:MA:273:ILE:HG13 | 1:MA:308:PHE:O    | 2.15                     | 0.47              |
| 1:NA:67:ARG:NH2   | 1:NA:71:SER:O     | 2.44                     | 0.47              |
| 1:OA:107:LYS:NZ   | 1:OA:110:THR:HG21 | 2.29                     | 0.47              |
| 1:PA:30:VAL:O     | 1:PA:33:LYS:NZ    | 2.47                     | 0.47              |
| 1:PA:170:GLN:HB3  | 1:RA:233:GLN:OE1  | 2.14                     | 0.47              |
| 1:QA:466:ALA:HB1  | 1:QA:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:TA:203:ALA:HB2  | 1:VA:192:THR:HB   | 1.96                     | 0.47              |
| 1:TA:273:ILE:HG13 | 1:TA:308:PHE:O    | 2.15                     | 0.47              |
| 1:YA:54:PRO:HD2   | 1:YA:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:AB:466:ALA:HB1  | 1:AB:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:CB:363:LEU:HA   | 1:DB:353:ALA:HB3  | 1.96                     | 0.47              |
| 1:DB:30:VAL:O     | 1:DB:33:LYS:NZ    | 2.46                     | 0.47              |
| 1:FB:30:VAL:O     | 1:FB:33:LYS:NZ    | 2.46                     | 0.47              |
| 1:FB:575:ILE:HD11 | 1:FB:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:GB:67:ARG:NH2   | 1:GB:71:SER:O     | 2.44                     | 0.47              |
| 1:HB:377:ARG:NH1  | 1:HB:409:THR:O    | 2.30                     | 0.47              |
| 1:HB:461:ARG:HH11 | 1:IB:473:TYR:HE2  | 1.61                     | 0.47              |
| 1:JB:575:ILE:HD11 | 1:JB:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:KB:801:ALA:HA   | 1:LB:796:LYS:NZ   | 2.29                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:LB:170:GLN:HB3  | 1:MB:233:GLN:OE1  | 2.13                     | 0.47              |
| 1:LB:575:ILE:HD11 | 1:LB:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:MB:676:GLU:OE2  | 1:MB:679:ARG:NH2  | 2.43                     | 0.47              |
| 1:NB:686:GLY:O    | 1:NB:690:ARG:HG2  | 2.13                     | 0.47              |
| 1:OB:490:ASP:HB3  | 1:OB:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:PB:273:ILE:HG13 | 1:PB:308:PHE:O    | 2.15                     | 0.47              |
| 1:QB:466:ALA:HB1  | 1:QB:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:RB:17:HIS:NE2   | 1:RB:99:LEU:O     | 2.33                     | 0.47              |
| 1:TB:490:ASP:HB3  | 1:TB:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:UB:30:VAL:O     | 1:UB:33:LYS:NZ    | 2.47                     | 0.47              |
| 1:VB:686:GLY:O    | 1:VB:690:ARG:HG2  | 2.13                     | 0.47              |
| 1:XB:67:ARG:NH2   | 1:XB:71:SER:O     | 2.44                     | 0.47              |
| 1:XB:279:ARG:NH2  | 1:YB:338:GLN:OE1  | 2.43                     | 0.47              |
| 1:XB:341:GLU:HB3  | 1:XB:344:GLU:HG2  | 1.96                     | 0.47              |
| 1:YB:203:ALA:HB2  | 1:ZB:192:THR:HB   | 1.94                     | 0.47              |
| 1:ZB:279:ARG:HD3  | 1:AC:337:LEU:HD13 | 1.95                     | 0.47              |
| 1:ZB:686:GLY:O    | 1:ZB:690:ARG:HG2  | 2.13                     | 0.47              |
| 1:A:341:GLU:HB3   | 1:A:344:GLU:HG2   | 1.95                     | 0.47              |
| 1:B:603:VAL:HG21  | 1:B:638:VAL:HG11  | 1.96                     | 0.47              |
| 1:D:490:ASP:HB3   | 1:D:491:PRO:HD2   | 1.95                     | 0.47              |
| 1:E:30:VAL:O      | 1:E:33:LYS:NZ     | 2.46                     | 0.47              |
| 1:E:575:ILE:HD11  | 1:E:635:VAL:HG21  | 1.96                     | 0.47              |
| 1:G:709:LEU:HD13  | 1:I:701:LYS:HG3   | 1.97                     | 0.47              |
| 1:H:575:ILE:HD11  | 1:H:635:VAL:HG21  | 1.96                     | 0.47              |
| 1:L:341:GLU:HB3   | 1:L:344:GLU:HG2   | 1.96                     | 0.47              |
| 1:N:341:GLU:HB3   | 1:N:344:GLU:HG2   | 1.96                     | 0.47              |
| 1:R:30:VAL:O      | 1:R:33:LYS:NZ     | 2.46                     | 0.47              |
| 1:R:95:ASP:HA     | 1:T:85:HIS:NE2    | 2.29                     | 0.47              |
| 1:R:603:VAL:HG21  | 1:R:638:VAL:HG11  | 1.96                     | 0.47              |
| 1:X:575:ILE:HD11  | 1:X:635:VAL:HG21  | 1.96                     | 0.47              |
| 1:Y:761:ARG:HG2   | 1:AA:755:THR:HG21 | 1.96                     | 0.47              |
| 1:Z:54:PRO:HD2    | 1:Z:109:ILE:HD11  | 1.97                     | 0.47              |
| 1:Z:273:ILE:HG13  | 1:Z:308:PHE:O     | 2.15                     | 0.47              |
| 1:Z:466:ALA:HB1   | 1:Z:515:CYS:HB2   | 1.95                     | 0.47              |
| 1:CA:273:ILE:HG13 | 1:CA:308:PHE:O    | 2.15                     | 0.47              |
| 1:DA:466:ALA:HB1  | 1:DA:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:EA:54:PRO:HD2   | 1:EA:109:ILE:HD11 | 1.96                     | 0.47              |
| 1:GA:30:VAL:O     | 1:GA:33:LYS:NZ    | 2.46                     | 0.47              |
| 1:HA:273:ILE:HG13 | 1:HA:308:PHE:O    | 2.15                     | 0.47              |
| 1:IA:54:PRO:HD2   | 1:IA:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:JA:54:PRO:HD2   | 1:JA:109:ILE:HD11 | 1.97                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:KA:107:LYS:NZ   | 1:KA:110:THR:HG21 | 2.29                     | 0.47              |
| 1:KA:575:ILE:HD11 | 1:KA:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:MA:676:GLU:OE2  | 1:MA:679:ARG:NH2  | 2.43                     | 0.47              |
| 1:MA:686:GLY:O    | 1:MA:690:ARG:HG2  | 2.13                     | 0.47              |
| 1:NA:54:PRO:HD2   | 1:NA:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:NA:466:ALA:HB1  | 1:NA:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:OA:466:ALA:HB1  | 1:OA:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:PA:466:ALA:HB1  | 1:PA:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:PA:490:ASP:HB3  | 1:PA:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:QA:54:PRO:HD2   | 1:QA:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:RA:54:PRO:HD2   | 1:RA:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:RA:466:ALA:HB1  | 1:RA:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:RA:686:GLY:O    | 1:RA:690:ARG:HG2  | 2.13                     | 0.47              |
| 1:SA:575:ILE:HD11 | 1:SA:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:TA:30:VAL:O     | 1:TA:33:LYS:NZ    | 2.47                     | 0.47              |
| 1:UA:54:PRO:HD2   | 1:UA:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:VA:384:GLN:HB2  | 1:XA:474:ARG:HG3  | 1.97                     | 0.47              |
| 1:VA:466:ALA:HB1  | 1:VA:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:XA:30:VAL:O     | 1:XA:33:LYS:NZ    | 2.46                     | 0.47              |
| 1:AB:54:PRO:HD2   | 1:AB:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:AB:67:ARG:NH2   | 1:AB:71:SER:O     | 2.44                     | 0.47              |
| 1:BB:30:VAL:O     | 1:BB:33:LYS:NZ    | 2.46                     | 0.47              |
| 1:GB:603:VAL:HG21 | 1:GB:638:VAL:HG11 | 1.96                     | 0.47              |
| 1:IB:603:VAL:HG21 | 1:IB:638:VAL:HG11 | 1.96                     | 0.47              |
| 1:OB:542:ALA:HB1  | 1:PB:573:LYS:HE2  | 1.96                     | 0.47              |
| 1:PB:384:GLN:HB2  | 1:QB:474:ARG:HG3  | 1.96                     | 0.47              |
| 1:QB:273:ILE:HG13 | 1:QB:308:PHE:O    | 2.15                     | 0.47              |
| 1:RB:54:PRO:HD2   | 1:RB:109:ILE:HD11 | 1.96                     | 0.47              |
| 1:SB:30:VAL:O     | 1:SB:33:LYS:NZ    | 2.47                     | 0.47              |
| 1:WB:676:GLU:OE2  | 1:WB:679:ARG:NH2  | 2.43                     | 0.47              |
| 1:YB:490:ASP:HB3  | 1:YB:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:ZB:67:ARG:NH2   | 1:ZB:71:SER:O     | 2.44                     | 0.47              |
| 1:ZB:603:VAL:HG21 | 1:ZB:638:VAL:HG11 | 1.96                     | 0.47              |
| 1:L:575:ILE:HD11  | 1:L:635:VAL:HG21  | 1.96                     | 0.47              |
| 1:N:676:GLU:OE2   | 1:N:679:ARG:NH2   | 2.43                     | 0.47              |
| 1:W:575:ILE:HD11  | 1:W:635:VAL:HG21  | 1.96                     | 0.47              |
| 1:X:54:PRO:HD2    | 1:X:109:ILE:HD11  | 1.97                     | 0.47              |
| 1:AA:575:ILE:HD11 | 1:AA:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:BA:54:PRO:HD2   | 1:BA:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:DA:54:PRO:HD2   | 1:DA:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:FA:490:ASP:HB3  | 1:FA:491:PRO:HD2  | 1.95                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:HA:54:PRO:HD2   | 1:HA:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:HA:575:ILE:HD11 | 1:HA:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:JA:490:ASP:HB3  | 1:JA:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:LA:54:PRO:HD2   | 1:LA:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:LA:466:ALA:HB1  | 1:LA:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:MA:466:ALA:HB1  | 1:MA:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:PA:54:PRO:HD2   | 1:PA:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:SA:54:PRO:HD2   | 1:SA:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:SA:466:ALA:HB1  | 1:SA:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:SA:686:GLY:O    | 1:SA:690:ARG:HG2  | 2.13                     | 0.47              |
| 1:TA:54:PRO:HD2   | 1:TA:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:TA:383:ASP:OD1  | 1:TA:383:ASP:N    | 2.44                     | 0.47              |
| 1:VA:54:PRO:HD2   | 1:VA:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:WA:54:PRO:HD2   | 1:WA:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:WA:107:LYS:NZ   | 1:WA:110:THR:HG21 | 2.29                     | 0.47              |
| 1:WA:490:ASP:HB3  | 1:WA:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:XA:67:ARG:NH2   | 1:XA:71:SER:O     | 2.44                     | 0.47              |
| 1:YA:273:ILE:HG13 | 1:YA:308:PHE:O    | 2.15                     | 0.47              |
| 1:YA:686:GLY:O    | 1:YA:690:ARG:HG2  | 2.13                     | 0.47              |
| 1:ZA:490:ASP:HB3  | 1:ZA:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:CB:709:LEU:HD13 | 1:DB:701:LYS:HG3  | 1.96                     | 0.47              |
| 1:EB:490:ASP:HB3  | 1:EB:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:FB:490:ASP:HB3  | 1:FB:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:HB:67:ARG:NH2   | 1:HB:71:SER:O     | 2.44                     | 0.47              |
| 1:HB:341:GLU:HB3  | 1:HB:344:GLU:HG2  | 1.96                     | 0.47              |
| 1:IB:56:ARG:HH12  | 1:JB:139:ALA:HB2  | 1.80                     | 0.47              |
| 1:JB:219:VAL:HG21 | 1:JB:227:LEU:HD22 | 1.97                     | 0.47              |
| 1:KB:676:GLU:OE2  | 1:KB:679:ARG:NH2  | 2.43                     | 0.47              |
| 1:OB:405:THR:HG22 | 1:PB:395:THR:HA   | 1.96                     | 0.47              |
| 1:OB:484:PRO:HG2  | 1:PB:471:TYR:CD2  | 2.49                     | 0.47              |
| 1:RB:466:ALA:HB1  | 1:RB:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:YB:220:ILE:HD12 | 1:ZB:245:THR:HG22 | 1.96                     | 0.47              |
| 1:AC:30:VAL:O     | 1:AC:33:LYS:NZ    | 2.46                     | 0.47              |
| 1:AC:67:ARG:NH2   | 1:AC:71:SER:O     | 2.44                     | 0.47              |
| 1:AC:219:VAL:HG21 | 1:AC:227:LEU:HD22 | 1.97                     | 0.47              |
| 1:AC:383:ASP:OD1  | 1:AC:383:ASP:N    | 2.44                     | 0.47              |
| 1:A:575:ILE:HD11  | 1:A:635:VAL:HG21  | 1.96                     | 0.47              |
| 1:C:341:GLU:HB3   | 1:C:344:GLU:HG2   | 1.95                     | 0.47              |
| 1:D:341:GLU:HB3   | 1:D:344:GLU:HG2   | 1.96                     | 0.47              |
| 1:F:341:GLU:HB3   | 1:F:344:GLU:HG2   | 1.96                     | 0.47              |
| 1:G:341:GLU:HB3   | 1:G:344:GLU:HG2   | 1.96                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:K:603:VAL:HG21  | 1:K:638:VAL:HG11  | 1.96                     | 0.47              |
| 1:M:603:VAL:HG21  | 1:M:638:VAL:HG11  | 1.96                     | 0.47              |
| 1:O:575:ILE:HD11  | 1:O:635:VAL:HG21  | 1.96                     | 0.47              |
| 1:S:30:VAL:O      | 1:S:33:LYS:NZ     | 2.47                     | 0.47              |
| 1:T:490:ASP:HB3   | 1:T:491:PRO:HD2   | 1.95                     | 0.47              |
| 1:T:603:VAL:HG21  | 1:T:638:VAL:HG11  | 1.96                     | 0.47              |
| 1:T:666:THR:HG22  | 1:W:657:SER:HB2   | 1.96                     | 0.47              |
| 1:Z:382:LEU:O     | 1:BA:396:GLY:HA3  | 2.13                     | 0.47              |
| 1:FA:466:ALA:HB1  | 1:FA:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:KA:54:PRO:HD2   | 1:KA:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:KA:466:ALA:HB1  | 1:KA:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:LA:273:ILE:HG13 | 1:LA:308:PHE:O    | 2.15                     | 0.47              |
| 1:OA:54:PRO:HD2   | 1:OA:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:PA:17:HIS:NE2   | 1:PA:99:LEU:O     | 2.33                     | 0.47              |
| 1:RA:273:ILE:HG13 | 1:RA:308:PHE:O    | 2.15                     | 0.47              |
| 1:SA:107:LYS:NZ   | 1:SA:110:THR:HG21 | 2.29                     | 0.47              |
| 1:SA:490:ASP:HB3  | 1:SA:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:TA:466:ALA:HB1  | 1:TA:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:UA:273:ILE:HG13 | 1:UA:308:PHE:O    | 2.15                     | 0.47              |
| 1:UA:575:ILE:HD11 | 1:UA:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:WA:717:GLU:HB2  | 1:YA:707:LEU:HD13 | 1.96                     | 0.47              |
| 1:XA:54:PRO:HD2   | 1:XA:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:YA:466:ALA:HB1  | 1:YA:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:ZA:54:PRO:HD2   | 1:ZA:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:AB:107:LYS:NZ   | 1:AB:110:THR:HG21 | 2.29                     | 0.47              |
| 1:AB:575:ILE:HD11 | 1:AB:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:BB:273:ILE:HG13 | 1:BB:308:PHE:O    | 2.14                     | 0.47              |
| 1:BB:710:GLU:HG3  | 1:CB:700:GLU:CD   | 2.35                     | 0.47              |
| 1:CB:273:ILE:HG13 | 1:CB:308:PHE:O    | 2.15                     | 0.47              |
| 1:EB:219:VAL:HG21 | 1:EB:227:LEU:HD22 | 1.97                     | 0.47              |
| 1:HB:30:VAL:O     | 1:HB:33:LYS:NZ    | 2.46                     | 0.47              |
| 1:HB:383:ASP:OD1  | 1:HB:383:ASP:N    | 2.44                     | 0.47              |
| 1:JB:202:GLY:HA2  | 1:KB:191:VAL:HG21 | 1.96                     | 0.47              |
| 1:JB:658:VAL:HG12 | 1:KB:533:ASP:O    | 2.14                     | 0.47              |
| 1:KB:341:GLU:HB3  | 1:KB:344:GLU:HG2  | 1.96                     | 0.47              |
| 1:LB:341:GLU:HB3  | 1:LB:344:GLU:HG2  | 1.96                     | 0.47              |
| 1:LB:772:TYR:CD2  | 1:MB:766:ARG:HD3  | 2.50                     | 0.47              |
| 1:NB:341:GLU:HB3  | 1:NB:344:GLU:HG2  | 1.96                     | 0.47              |
| 1:PB:54:PRO:HD2   | 1:PB:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:PB:686:GLY:O    | 1:PB:690:ARG:HG2  | 2.13                     | 0.47              |
| 1:RB:107:LYS:NZ   | 1:RB:110:THR:HG21 | 2.29                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:RB:273:ILE:HG13 | 1:RB:308:PHE:O    | 2.15                     | 0.47              |
| 1:SB:54:PRO:HD2   | 1:SB:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:SB:67:ARG:NH2   | 1:SB:71:SER:O     | 2.44                     | 0.47              |
| 1:VB:67:ARG:NH2   | 1:VB:71:SER:O     | 2.44                     | 0.47              |
| 1:AC:341:GLU:HB3  | 1:AC:344:GLU:HG2  | 1.96                     | 0.47              |
| 1:A:772:TYR:CG    | 1:C:766:ARG:HD3   | 2.50                     | 0.47              |
| 1:C:490:ASP:HB3   | 1:C:491:PRO:HD2   | 1.95                     | 0.47              |
| 1:D:706:LEU:HD13  | 1:F:693:ILE:HG23  | 1.97                     | 0.47              |
| 1:F:9:ARG:HH21    | 1:H:24:ASN:CG     | 2.17                     | 0.47              |
| 1:G:384:GLN:HB2   | 1:I:474:ARG:HG3   | 1.97                     | 0.47              |
| 1:G:490:ASP:HB3   | 1:G:491:PRO:HD2   | 1.95                     | 0.47              |
| 1:H:219:VAL:HG21  | 1:H:227:LEU:HD22  | 1.97                     | 0.47              |
| 1:H:658:VAL:HG11  | 1:J:535:ALA:HA    | 1.97                     | 0.47              |
| 1:I:654:LEU:HD13  | 1:K:534:HIS:CD2   | 2.50                     | 0.47              |
| 1:N:702:ALA:HB2   | 1:P:690:ARG:HH12  | 1.79                     | 0.47              |
| 1:V:54:PRO:HD2    | 1:V:109:ILE:HD11  | 1.97                     | 0.47              |
| 1:V:273:ILE:HG13  | 1:V:308:PHE:O     | 2.15                     | 0.47              |
| 1:W:676:GLU:OE2   | 1:W:679:ARG:NH2   | 2.43                     | 0.47              |
| 1:Z:686:GLY:O     | 1:Z:690:ARG:HG2   | 2.13                     | 0.47              |
| 1:AA:54:PRO:HD2   | 1:AA:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:AA:273:ILE:HG13 | 1:AA:308:PHE:O    | 2.15                     | 0.47              |
| 1:BA:273:ILE:HG13 | 1:BA:308:PHE:O    | 2.15                     | 0.47              |
| 1:FA:107:LYS:NZ   | 1:FA:110:THR:HG21 | 2.29                     | 0.47              |
| 1:GA:299:LYS:NZ   | 1:GA:317:GLU:OE2  | 2.38                     | 0.47              |
| 1:GA:686:GLY:O    | 1:GA:690:ARG:HG2  | 2.13                     | 0.47              |
| 1:IA:676:GLU:OE2  | 1:IA:679:ARG:NH2  | 2.43                     | 0.47              |
| 1:LA:686:GLY:O    | 1:LA:690:ARG:HG2  | 2.13                     | 0.47              |
| 1:NA:107:LYS:NZ   | 1:NA:110:THR:HG21 | 2.29                     | 0.47              |
| 1:NA:575:ILE:HD11 | 1:NA:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:VA:107:LYS:NZ   | 1:VA:110:THR:HG21 | 2.29                     | 0.47              |
| 1:VA:273:ILE:HG13 | 1:VA:308:PHE:O    | 2.15                     | 0.47              |
| 1:VA:490:ASP:HB3  | 1:VA:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:YA:490:ASP:HB3  | 1:YA:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:BB:54:PRO:HD2   | 1:BB:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:CB:219:VAL:HG21 | 1:CB:227:LEU:HD22 | 1.97                     | 0.47              |
| 1:DB:383:ASP:OD1  | 1:DB:383:ASP:N    | 2.44                     | 0.47              |
| 1:DB:592:HIS:NE2  | 1:EB:531:THR:O    | 2.41                     | 0.47              |
| 1:FB:219:VAL:HG21 | 1:FB:227:LEU:HD22 | 1.97                     | 0.47              |
| 1:GB:219:VAL:HG21 | 1:GB:227:LEU:HD22 | 1.97                     | 0.47              |
| 1:HB:219:VAL:HG21 | 1:HB:227:LEU:HD22 | 1.97                     | 0.47              |
| 1:JB:273:ILE:HG13 | 1:JB:308:PHE:O    | 2.14                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:LB:219:VAL:HG21 | 1:LB:227:LEU:HD22 | 1.97                     | 0.47              |
| 1:NB:575:ILE:HD11 | 1:NB:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:OB:54:PRO:HD2   | 1:OB:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:SB:170:GLN:HB3  | 1:TB:233:GLN:OE1  | 2.14                     | 0.47              |
| 1:TB:54:PRO:HD2   | 1:TB:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:UB:273:ILE:HG13 | 1:UB:308:PHE:O    | 2.15                     | 0.47              |
| 1:VB:219:VAL:HG21 | 1:VB:227:LEU:HD22 | 1.97                     | 0.47              |
| 1:VB:603:VAL:HG21 | 1:VB:638:VAL:HG11 | 1.96                     | 0.47              |
| 1:VB:750:ALA:CA   | 1:WB:741:VAL:HG23 | 2.41                     | 0.47              |
| 1:WB:219:VAL:HG21 | 1:WB:227:LEU:HD22 | 1.97                     | 0.47              |
| 1:XB:575:ILE:HD11 | 1:XB:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:YB:658:VAL:HG12 | 1:ZB:533:ASP:O    | 2.14                     | 0.47              |
| 1:A:281:TYR:CD1   | 1:A:366:VAL:HG23  | 2.50                     | 0.47              |
| 1:B:341:GLU:HB3   | 1:B:344:GLU:HG2   | 1.96                     | 0.47              |
| 1:C:603:VAL:HG21  | 1:C:638:VAL:HG11  | 1.96                     | 0.47              |
| 1:C:658:VAL:HG11  | 1:E:535:ALA:HA    | 1.97                     | 0.47              |
| 1:D:219:VAL:HG21  | 1:D:227:LEU:HD22  | 1.97                     | 0.47              |
| 1:E:341:GLU:HB3   | 1:E:344:GLU:HG2   | 1.96                     | 0.47              |
| 1:E:490:ASP:HB3   | 1:E:491:PRO:HD2   | 1.95                     | 0.47              |
| 1:F:107:LYS:NZ    | 1:F:110:THR:HG21  | 2.29                     | 0.47              |
| 1:F:219:VAL:HG21  | 1:F:227:LEU:HD22  | 1.97                     | 0.47              |
| 1:F:273:ILE:HG13  | 1:F:308:PHE:O     | 2.15                     | 0.47              |
| 1:F:279:ARG:NH2   | 1:H:338:GLN:OE1   | 2.40                     | 0.47              |
| 1:F:281:TYR:CD1   | 1:F:366:VAL:HG23  | 2.50                     | 0.47              |
| 1:F:603:VAL:HG21  | 1:F:638:VAL:HG11  | 1.96                     | 0.47              |
| 1:G:603:VAL:HG21  | 1:G:638:VAL:HG11  | 1.96                     | 0.47              |
| 1:H:281:TYR:CD1   | 1:H:366:VAL:HG23  | 2.50                     | 0.47              |
| 1:H:341:GLU:HB3   | 1:H:344:GLU:HG2   | 1.96                     | 0.47              |
| 1:H:490:ASP:HB3   | 1:H:491:PRO:HD2   | 1.95                     | 0.47              |
| 1:H:681:GLU:OE1   | 1:J:675:HIS:NE2   | 2.46                     | 0.47              |
| 1:J:279:ARG:NH2   | 1:L:338:GLN:OE1   | 2.42                     | 0.47              |
| 1:K:490:ASP:HB3   | 1:K:491:PRO:HD2   | 1.95                     | 0.47              |
| 1:K:717:GLU:HB2   | 1:M:707:LEU:HD13  | 1.97                     | 0.47              |
| 1:L:219:VAL:HG21  | 1:L:227:LEU:HD22  | 1.97                     | 0.47              |
| 1:M:273:ILE:HG13  | 1:M:308:PHE:O     | 2.15                     | 0.47              |
| 1:O:54:PRO:HD2    | 1:O:109:ILE:HD11  | 1.97                     | 0.47              |
| 1:P:341:GLU:HB3   | 1:P:344:GLU:HG2   | 1.96                     | 0.47              |
| 1:R:490:ASP:HB3   | 1:R:491:PRO:HD2   | 1.95                     | 0.47              |
| 1:R:676:GLU:OE2   | 1:R:679:ARG:NH2   | 2.43                     | 0.47              |
| 1:S:54:PRO:HD2    | 1:S:109:ILE:HD11  | 1.97                     | 0.47              |
| 1:V:377:ARG:NH1   | 1:V:409:THR:O     | 2.30                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:W:655:GLN:HG2   | 1:Y:649:ARG:HH11  | 1.79                     | 0.47              |
| 1:Y:490:ASP:HB3   | 1:Y:491:PRO:HD2   | 1.95                     | 0.47              |
| 1:AA:676:GLU:OE2  | 1:AA:679:ARG:NH2  | 2.43                     | 0.47              |
| 1:BA:575:ILE:HD11 | 1:BA:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:CA:54:PRO:HD2   | 1:CA:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:DA:273:ILE:HG13 | 1:DA:308:PHE:O    | 2.15                     | 0.47              |
| 1:EA:273:ILE:HG13 | 1:EA:308:PHE:O    | 2.15                     | 0.47              |
| 1:EA:490:ASP:HB3  | 1:EA:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:EA:676:GLU:OE2  | 1:EA:679:ARG:NH2  | 2.43                     | 0.47              |
| 1:FA:686:GLY:O    | 1:FA:690:ARG:HG2  | 2.13                     | 0.47              |
| 1:GA:95:ASP:HA    | 1:IA:85:HIS:CE1   | 2.49                     | 0.47              |
| 1:HA:394:LYS:HB2  | 1:HA:394:LYS:HE3  | 1.81                     | 0.47              |
| 1:HA:466:ALA:HB1  | 1:HA:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:JA:384:GLN:HB2  | 1:LA:474:ARG:HG3  | 1.95                     | 0.47              |
| 1:JA:466:ALA:HB1  | 1:JA:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:JA:529:ILE:HD12 | 1:JA:583:VAL:HG11 | 1.97                     | 0.47              |
| 1:LA:281:TYR:CD1  | 1:LA:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:LA:490:ASP:HB3  | 1:LA:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:MA:761:ARG:HG2  | 1:OA:755:THR:HG21 | 1.96                     | 0.47              |
| 1:NA:273:ILE:HG13 | 1:NA:308:PHE:O    | 2.15                     | 0.47              |
| 1:NA:281:TYR:CD1  | 1:NA:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:OA:273:ILE:HG13 | 1:OA:308:PHE:O    | 2.15                     | 0.47              |
| 1:OA:575:ILE:HD11 | 1:OA:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:PA:107:LYS:NZ   | 1:PA:110:THR:HG21 | 2.29                     | 0.47              |
| 1:PA:281:TYR:CD1  | 1:PA:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:PA:529:ILE:HD12 | 1:PA:583:VAL:HG11 | 1.97                     | 0.47              |
| 1:QA:273:ILE:HG13 | 1:QA:308:PHE:O    | 2.15                     | 0.47              |
| 1:RA:281:TYR:CD1  | 1:RA:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:TA:281:TYR:CD1  | 1:TA:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:UA:281:TYR:CD1  | 1:UA:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:UA:466:ALA:HB1  | 1:UA:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:UA:490:ASP:HB3  | 1:UA:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:VA:281:TYR:CD1  | 1:VA:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:VA:529:ILE:HD12 | 1:VA:583:VAL:HG11 | 1.97                     | 0.47              |
| 1:WA:281:TYR:CD1  | 1:WA:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:WA:529:ILE:HD12 | 1:WA:583:VAL:HG11 | 1.97                     | 0.47              |
| 1:XA:107:LYS:NZ   | 1:XA:110:THR:HG21 | 2.29                     | 0.47              |
| 1:YA:281:TYR:CD1  | 1:YA:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:ZA:219:VAL:HG21 | 1:ZA:227:LEU:HD22 | 1.97                     | 0.47              |
| 1:AB:273:ILE:HG13 | 1:AB:308:PHE:O    | 2.15                     | 0.47              |
| 1:AB:281:TYR:CD1  | 1:AB:366:VAL:HG23 | 2.50                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:AB:490:ASP:HB3  | 1:AB:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:BB:67:ARG:NH2   | 1:BB:71:SER:O     | 2.44                     | 0.47              |
| 1:BB:281:TYR:CD1  | 1:BB:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:BB:394:LYS:HE3  | 1:BB:394:LYS:HB2  | 1.81                     | 0.47              |
| 1:BB:529:ILE:HD12 | 1:BB:583:VAL:HG11 | 1.97                     | 0.47              |
| 1:BB:575:ILE:HD11 | 1:BB:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:CB:54:PRO:HD2   | 1:CB:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:CB:67:ARG:NH2   | 1:CB:71:SER:O     | 2.44                     | 0.47              |
| 1:CB:575:ILE:HD11 | 1:CB:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:CB:603:VAL:HG21 | 1:CB:638:VAL:HG11 | 1.96                     | 0.47              |
| 1:EB:281:TYR:CD1  | 1:EB:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:EB:529:ILE:HD12 | 1:EB:583:VAL:HG11 | 1.97                     | 0.47              |
| 1:EB:575:ILE:HD11 | 1:EB:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:GB:273:ILE:HG13 | 1:GB:308:PHE:O    | 2.15                     | 0.47              |
| 1:GB:575:ILE:HD11 | 1:GB:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:HB:575:ILE:HD11 | 1:HB:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:IB:299:LYS:NZ   | 1:IB:317:GLU:OE2  | 2.38                     | 0.47              |
| 1:IB:341:GLU:HB3  | 1:IB:344:GLU:HG2  | 1.96                     | 0.47              |
| 1:IB:405:THR:HG22 | 1:JB:395:THR:HA   | 1.96                     | 0.47              |
| 1:JB:67:ARG:NH2   | 1:JB:71:SER:O     | 2.44                     | 0.47              |
| 1:JB:341:GLU:HB3  | 1:JB:344:GLU:HG2  | 1.95                     | 0.47              |
| 1:KB:107:LYS:NZ   | 1:KB:110:THR:HG21 | 2.29                     | 0.47              |
| 1:KB:273:ILE:HG13 | 1:KB:308:PHE:O    | 2.15                     | 0.47              |
| 1:KB:281:TYR:CD1  | 1:KB:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:KB:603:VAL:HG21 | 1:KB:638:VAL:HG11 | 1.96                     | 0.47              |
| 1:LB:281:TYR:CD1  | 1:LB:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:MB:281:TYR:CD1  | 1:MB:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:NB:219:VAL:HG21 | 1:NB:227:LEU:HD22 | 1.97                     | 0.47              |
| 1:NB:273:ILE:HG13 | 1:NB:308:PHE:O    | 2.15                     | 0.47              |
| 1:NB:281:TYR:CD1  | 1:NB:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:OB:107:LYS:NZ   | 1:OB:110:THR:HG21 | 2.29                     | 0.47              |
| 1:OB:281:TYR:CD1  | 1:OB:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:OB:529:ILE:HD12 | 1:OB:583:VAL:HG11 | 1.97                     | 0.47              |
| 1:PB:281:TYR:CD1  | 1:PB:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:QB:54:PRO:HD2   | 1:QB:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:QB:281:TYR:CD1  | 1:QB:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:QB:383:ASP:OD1  | 1:QB:383:ASP:N    | 2.44                     | 0.47              |
| 1:QB:575:ILE:HD11 | 1:QB:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:RB:529:ILE:HD12 | 1:RB:583:VAL:HG11 | 1.97                     | 0.47              |
| 1:RB:575:ILE:HD11 | 1:RB:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:TB:219:VAL:HG21 | 1:TB:227:LEU:HD22 | 1.97                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:UB:54:PRO:HD2   | 1:UB:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:UB:67:ARG:NH2   | 1:UB:71:SER:O     | 2.44                     | 0.47              |
| 1:UB:281:TYR:CD1  | 1:UB:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:UB:305:GLU:OE1  | 1:VB:298:GLN:NE2  | 2.47                     | 0.47              |
| 1:UB:529:ILE:HD12 | 1:UB:583:VAL:HG11 | 1.97                     | 0.47              |
| 1:UB:575:ILE:HD11 | 1:UB:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:UB:764:LYS:HB3  | 1:VB:759:LEU:HD22 | 1.96                     | 0.47              |
| 1:VB:54:PRO:HD2   | 1:VB:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:VB:273:ILE:HG13 | 1:VB:308:PHE:O    | 2.15                     | 0.47              |
| 1:VB:717:GLU:HG3  | 1:WB:707:LEU:HD13 | 1.96                     | 0.47              |
| 1:XB:219:VAL:HG21 | 1:XB:227:LEU:HD22 | 1.97                     | 0.47              |
| 1:XB:281:TYR:CD1  | 1:XB:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:XB:490:ASP:HB3  | 1:XB:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:XB:529:ILE:HD12 | 1:XB:583:VAL:HG11 | 1.97                     | 0.47              |
| 1:XB:658:VAL:HG11 | 1:YB:535:ALA:HA   | 1.97                     | 0.47              |
| 1:XB:702:ALA:HB2  | 1:YB:690:ARG:HH12 | 1.78                     | 0.47              |
| 1:YB:219:VAL:HG21 | 1:YB:227:LEU:HD22 | 1.97                     | 0.47              |
| 1:ZB:219:VAL:HG21 | 1:ZB:227:LEU:HD22 | 1.97                     | 0.47              |
| 1:ZB:220:ILE:HD12 | 1:AC:245:THR:HG22 | 1.95                     | 0.47              |
| 1:ZB:273:ILE:HG13 | 1:ZB:308:PHE:O    | 2.15                     | 0.47              |
| 1:ZB:542:ALA:HB1  | 1:AC:573:LYS:HE2  | 1.95                     | 0.47              |
| 1:ZB:575:ILE:HD11 | 1:ZB:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:AC:575:ILE:HD11 | 1:AC:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:B:219:VAL:HG21  | 1:B:227:LEU:HD22  | 1.97                     | 0.47              |
| 1:B:281:TYR:CD1   | 1:B:366:VAL:HG23  | 2.50                     | 0.47              |
| 1:C:219:VAL:HG21  | 1:C:227:LEU:HD22  | 1.97                     | 0.47              |
| 1:C:281:TYR:CD1   | 1:C:366:VAL:HG23  | 2.50                     | 0.47              |
| 1:D:273:ILE:HG13  | 1:D:308:PHE:O     | 2.15                     | 0.47              |
| 1:D:281:TYR:CD1   | 1:D:366:VAL:HG23  | 2.50                     | 0.47              |
| 1:E:281:TYR:CD1   | 1:E:366:VAL:HG23  | 2.50                     | 0.47              |
| 1:J:281:TYR:CD1   | 1:J:366:VAL:HG23  | 2.50                     | 0.47              |
| 1:J:341:GLU:HB3   | 1:J:344:GLU:HG2   | 1.96                     | 0.47              |
| 1:L:273:ILE:HG13  | 1:L:308:PHE:O     | 2.15                     | 0.47              |
| 1:L:281:TYR:CD1   | 1:L:366:VAL:HG23  | 2.50                     | 0.47              |
| 1:L:400:ALA:HB2   | 1:L:491:PRO:HD3   | 1.97                     | 0.47              |
| 1:M:575:ILE:HD11  | 1:M:635:VAL:HG21  | 1.96                     | 0.47              |
| 1:N:575:ILE:HD11  | 1:N:635:VAL:HG21  | 1.96                     | 0.47              |
| 1:O:273:ILE:HG13  | 1:O:308:PHE:O     | 2.15                     | 0.47              |
| 1:P:490:ASP:HB3   | 1:P:491:PRO:HD2   | 1.95                     | 0.47              |
| 1:T:575:ILE:HD11  | 1:T:635:VAL:HG21  | 1.96                     | 0.47              |
| 1:Z:107:LYS:NZ    | 1:Z:110:THR:HG21  | 2.29                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:AA:761:ARG:HG2  | 1:CA:755:THR:HG21 | 1.96                     | 0.47              |
| 1:DA:575:ILE:HD11 | 1:DA:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:GA:54:PRO:HD2   | 1:GA:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:IA:273:ILE:HG13 | 1:IA:308:PHE:O    | 2.14                     | 0.47              |
| 1:JA:281:TYR:CD1  | 1:JA:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:LA:575:ILE:HD11 | 1:LA:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:MA:257:GLU:HG2  | 1:OA:244:ARG:HB3  | 1.96                     | 0.47              |
| 1:RA:676:GLU:OE2  | 1:RA:679:ARG:NH2  | 2.43                     | 0.47              |
| 1:TA:575:ILE:HD11 | 1:TA:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:VA:575:ILE:HD11 | 1:VA:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:WA:466:ALA:HB1  | 1:WA:515:CYS:HB2  | 1.95                     | 0.47              |
| 1:XA:281:TYR:CD1  | 1:XA:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:EB:54:PRO:HD2   | 1:EB:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:FB:542:ALA:HB1  | 1:GB:573:LYS:HE2  | 1.97                     | 0.47              |
| 1:HB:281:TYR:CD1  | 1:HB:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:IB:219:VAL:HG21 | 1:IB:227:LEU:HD22 | 1.97                     | 0.47              |
| 1:IB:281:TYR:CD1  | 1:IB:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:IB:658:VAL:HG12 | 1:JB:533:ASP:O    | 2.14                     | 0.47              |
| 1:JB:281:TYR:CD1  | 1:JB:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:LB:490:ASP:HB3  | 1:LB:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:MB:341:GLU:HB3  | 1:MB:344:GLU:HG2  | 1.96                     | 0.47              |
| 1:PB:761:ARG:HG2  | 1:QB:755:THR:HG21 | 1.97                     | 0.47              |
| 1:RB:281:TYR:CD1  | 1:RB:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:RB:490:ASP:HB3  | 1:RB:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:SB:107:LYS:NZ   | 1:SB:110:THR:HG21 | 2.29                     | 0.47              |
| 1:VB:575:ILE:HD11 | 1:VB:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:WB:383:ASP:OD1  | 1:WB:383:ASP:N    | 2.44                     | 0.47              |
| 1:AC:281:TYR:CD1  | 1:AC:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:B:56:ARG:HB2    | 1:D:127:LEU:HD22  | 1.96                     | 0.47              |
| 1:D:67:ARG:NH2    | 1:D:71:SER:O      | 2.44                     | 0.47              |
| 1:D:400:ALA:HB2   | 1:D:491:PRO:HD3   | 1.97                     | 0.47              |
| 1:E:405:THR:HG22  | 1:G:395:THR:HA    | 1.97                     | 0.47              |
| 1:F:757:ALA:CB    | 1:H:748:ALA:HB1   | 2.45                     | 0.47              |
| 1:G:219:VAL:HG21  | 1:G:227:LEU:HD22  | 1.97                     | 0.47              |
| 1:G:281:TYR:CD1   | 1:G:366:VAL:HG23  | 2.50                     | 0.47              |
| 1:H:400:ALA:HB2   | 1:H:491:PRO:HD3   | 1.97                     | 0.47              |
| 1:H:736:GLU:OE2   | 1:J:726:ALA:HB1   | 2.15                     | 0.47              |
| 1:J:219:VAL:HG21  | 1:J:227:LEU:HD22  | 1.97                     | 0.47              |
| 1:N:219:VAL:HG21  | 1:N:227:LEU:HD22  | 1.97                     | 0.47              |
| 1:N:281:TYR:CD1   | 1:N:366:VAL:HG23  | 2.50                     | 0.47              |
| 1:N:603:VAL:HG21  | 1:N:638:VAL:HG11  | 1.96                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:P:219:VAL:HG21  | 1:P:227:LEU:HD22  | 1.97                     | 0.47              |
| 1:P:384:GLN:HB2   | 1:R:474:ARG:HG3   | 1.97                     | 0.47              |
| 1:R:273:ILE:HG13  | 1:R:308:PHE:O     | 2.15                     | 0.47              |
| 1:V:640:VAL:HG13  | 1:X:580:ARG:HH11  | 1.80                     | 0.47              |
| 1:AA:603:VAL:HG21 | 1:AA:638:VAL:HG11 | 1.96                     | 0.47              |
| 1:CA:575:ILE:HD11 | 1:CA:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:EA:10:ILE:O     | 1:GA:24:ASN:ND2   | 2.48                     | 0.47              |
| 1:FA:273:ILE:HG13 | 1:FA:308:PHE:O    | 2.15                     | 0.47              |
| 1:FA:281:TYR:CD1  | 1:FA:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:HA:170:GLN:HB3  | 1:JA:233:GLN:OE1  | 2.15                     | 0.47              |
| 1:HA:281:TYR:CD1  | 1:HA:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:HA:490:ASP:HB3  | 1:HA:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:JA:170:GLN:HB3  | 1:LA:233:GLN:OE1  | 2.15                     | 0.47              |
| 1:KA:384:GLN:HB2  | 1:MA:474:ARG:HG3  | 1.96                     | 0.47              |
| 1:MA:490:ASP:HB3  | 1:MA:491:PRO:HD2  | 1.95                     | 0.47              |
| 1:QA:529:ILE:HD12 | 1:QA:583:VAL:HG11 | 1.97                     | 0.47              |
| 1:TA:382:LEU:O    | 1:VA:396:GLY:HA3  | 2.15                     | 0.47              |
| 1:VA:219:VAL:HG21 | 1:VA:227:LEU:HD22 | 1.97                     | 0.47              |
| 1:XA:529:ILE:HD12 | 1:XA:583:VAL:HG11 | 1.97                     | 0.47              |
| 1:ZA:281:TYR:CD1  | 1:ZA:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:DB:54:PRO:HD2   | 1:DB:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:DB:219:VAL:HG21 | 1:DB:227:LEU:HD22 | 1.97                     | 0.47              |
| 1:GB:281:TYR:CD1  | 1:GB:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:KB:219:VAL:HG21 | 1:KB:227:LEU:HD22 | 1.97                     | 0.47              |
| 1:MB:219:VAL:HG21 | 1:MB:227:LEU:HD22 | 1.97                     | 0.47              |
| 1:NB:400:ALA:HB2  | 1:NB:491:PRO:HD3  | 1.97                     | 0.47              |
| 1:OB:273:ILE:HG13 | 1:OB:308:PHE:O    | 2.15                     | 0.47              |
| 1:OB:575:ILE:HD11 | 1:OB:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:RB:219:VAL:HG21 | 1:RB:227:LEU:HD22 | 1.97                     | 0.47              |
| 1:SB:281:TYR:CD1  | 1:SB:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:TB:281:TYR:CD1  | 1:TB:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:UB:394:LYS:HE3  | 1:UB:394:LYS:HB2  | 1.81                     | 0.47              |
| 1:VB:400:ALA:HB2  | 1:VB:491:PRO:HD3  | 1.97                     | 0.47              |
| 1:XB:54:PRO:HD2   | 1:XB:109:ILE:HD11 | 1.97                     | 0.47              |
| 1:XB:400:ALA:HB2  | 1:XB:491:PRO:HD3  | 1.97                     | 0.47              |
| 1:A:219:VAL:HG21  | 1:A:227:LEU:HD22  | 1.97                     | 0.47              |
| 1:A:709:LEU:HD11  | 1:C:701:LYS:HE3   | 1.96                     | 0.47              |
| 1:B:233:GLN:OE1   | 1:AC:170:GLN:HB3  | 2.14                     | 0.47              |
| 1:C:400:ALA:HB2   | 1:C:491:PRO:HD3   | 1.97                     | 0.47              |
| 1:D:203:ALA:HB2   | 1:F:192:THR:HB    | 1.96                     | 0.47              |
| 1:E:273:ILE:HG13  | 1:E:308:PHE:O     | 2.15                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:F:575:ILE:HD11  | 1:F:635:VAL:HG21  | 1.96                     | 0.47              |
| 1:F:676:GLU:OE2   | 1:F:679:ARG:NH2   | 2.43                     | 0.47              |
| 1:G:643:VAL:H     | 1:I:580:ARG:NH2   | 2.13                     | 0.47              |
| 1:I:490:ASP:HB3   | 1:I:491:PRO:HD2   | 1.95                     | 0.47              |
| 1:J:377:ARG:NH1   | 1:J:409:THR:O     | 2.30                     | 0.47              |
| 1:J:394:LYS:HB2   | 1:J:394:LYS:HE3   | 1.80                     | 0.47              |
| 1:K:273:ILE:HG13  | 1:K:308:PHE:O     | 2.15                     | 0.47              |
| 1:P:603:VAL:HG21  | 1:P:638:VAL:HG11  | 1.96                     | 0.47              |
| 1:Q:54:PRO:HD2    | 1:Q:109:ILE:HD11  | 1.97                     | 0.47              |
| 1:W:54:PRO:HD2    | 1:W:109:ILE:HD11  | 1.97                     | 0.47              |
| 1:W:490:ASP:HB3   | 1:W:491:PRO:HD2   | 1.95                     | 0.47              |
| 1:Z:490:ASP:HB3   | 1:Z:491:PRO:HD2   | 1.95                     | 0.47              |
| 1:DA:529:ILE:HD12 | 1:DA:583:VAL:HG11 | 1.97                     | 0.47              |
| 1:EA:384:GLN:HB2  | 1:GA:474:ARG:HG3  | 1.96                     | 0.47              |
| 1:JA:17:HIS:NE2   | 1:JA:99:LEU:O     | 2.33                     | 0.47              |
| 1:NA:95:ASP:HA    | 1:PA:85:HIS:CE1   | 2.50                     | 0.47              |
| 1:PA:575:ILE:HD11 | 1:PA:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:QA:603:VAL:HG21 | 1:QA:638:VAL:HG11 | 1.96                     | 0.47              |
| 1:RA:394:LYS:HB2  | 1:RA:394:LYS:HE3  | 1.81                     | 0.47              |
| 1:RA:529:ILE:HD12 | 1:RA:583:VAL:HG11 | 1.97                     | 0.47              |
| 1:SA:56:ARG:HG3   | 1:UA:127:LEU:HD22 | 1.97                     | 0.47              |
| 1:SA:281:TYR:CD1  | 1:SA:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:TA:67:ARG:NH2   | 1:TA:71:SER:O     | 2.44                     | 0.47              |
| 1:YA:575:ILE:HD11 | 1:YA:635:VAL:HG21 | 1.96                     | 0.47              |
| 1:CB:377:ARG:NH1  | 1:CB:409:THR:O    | 2.30                     | 0.47              |
| 1:CB:529:ILE:HD12 | 1:CB:583:VAL:HG11 | 1.97                     | 0.47              |
| 1:DB:273:ILE:HG13 | 1:DB:308:PHE:O    | 2.15                     | 0.47              |
| 1:DB:281:TYR:CD1  | 1:DB:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:DB:603:VAL:HG21 | 1:DB:638:VAL:HG11 | 1.96                     | 0.47              |
| 1:DB:676:GLU:OE2  | 1:DB:679:ARG:NH2  | 2.43                     | 0.47              |
| 1:FB:67:ARG:NH2   | 1:FB:71:SER:O     | 2.44                     | 0.47              |
| 1:FB:281:TYR:CD1  | 1:FB:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:IB:676:GLU:OE2  | 1:IB:679:ARG:NH2  | 2.43                     | 0.47              |
| 1:LB:400:ALA:HB2  | 1:LB:491:PRO:HD3  | 1.97                     | 0.47              |
| 1:PB:219:VAL:HG21 | 1:PB:227:LEU:HD22 | 1.97                     | 0.47              |
| 1:PB:529:ILE:HD12 | 1:PB:583:VAL:HG11 | 1.97                     | 0.47              |
| 1:QB:67:ARG:NH2   | 1:QB:71:SER:O     | 2.44                     | 0.47              |
| 1:QB:794:LYS:HD3  | 1:RB:788:ALA:HB1  | 1.97                     | 0.47              |
| 1:SB:273:ILE:HG13 | 1:SB:308:PHE:O    | 2.15                     | 0.47              |
| 1:SB:529:ILE:HD12 | 1:SB:583:VAL:HG11 | 1.97                     | 0.47              |
| 1:UB:461:ARG:HH11 | 1:VB:494:GLN:HG3  | 1.80                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:VB:281:TYR:CD1  | 1:VB:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:WB:281:TYR:CD1  | 1:WB:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:XB:603:VAL:HG21 | 1:XB:638:VAL:HG11 | 1.96                     | 0.47              |
| 1:YB:281:TYR:CD1  | 1:YB:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:ZB:281:TYR:CD1  | 1:ZB:366:VAL:HG23 | 2.50                     | 0.47              |
| 1:ZB:400:ALA:HB2  | 1:ZB:491:PRO:HD3  | 1.97                     | 0.47              |
| 1:ZB:706:LEU:HD13 | 1:AC:693:ILE:HG23 | 1.97                     | 0.47              |
| 1:AC:273:ILE:HG13 | 1:AC:308:PHE:O    | 2.15                     | 0.47              |
| 1:C:643:VAL:H     | 1:E:580:ARG:NH2   | 2.13                     | 0.46              |
| 1:D:384:GLN:HB2   | 1:F:474:ARG:HG3   | 1.96                     | 0.46              |
| 1:G:273:ILE:HG13  | 1:G:308:PHE:O     | 2.15                     | 0.46              |
| 1:G:400:ALA:HB2   | 1:G:491:PRO:HD3   | 1.97                     | 0.46              |
| 1:H:717:GLU:CB    | 1:J:707:LEU:HD13  | 2.40                     | 0.46              |
| 1:I:281:TYR:CD1   | 1:I:366:VAL:HG23  | 2.50                     | 0.46              |
| 1:J:273:ILE:HG13  | 1:J:308:PHE:O     | 2.15                     | 0.46              |
| 1:J:813:ALA:HB1   | 1:L:812:VAL:HA    | 1.97                     | 0.46              |
| 1:K:219:VAL:HG21  | 1:K:227:LEU:HD22  | 1.97                     | 0.46              |
| 1:K:658:VAL:HG12  | 1:M:533:ASP:O     | 2.15                     | 0.46              |
| 1:M:279:ARG:HD3   | 1:O:337:LEU:HD13  | 1.97                     | 0.46              |
| 1:M:400:ALA:HB2   | 1:M:491:PRO:HD3   | 1.97                     | 0.46              |
| 1:N:273:ILE:HG13  | 1:N:308:PHE:O     | 2.14                     | 0.46              |
| 1:P:281:TYR:CD1   | 1:P:366:VAL:HG23  | 2.50                     | 0.46              |
| 1:P:400:ALA:HB2   | 1:P:491:PRO:HD3   | 1.97                     | 0.46              |
| 1:Q:490:ASP:HB3   | 1:Q:491:PRO:HD2   | 1.95                     | 0.46              |
| 1:Q:506:LYS:HD3   | 1:Q:506:LYS:HA    | 1.78                     | 0.46              |
| 1:R:219:VAL:HG21  | 1:R:227:LEU:HD22  | 1.97                     | 0.46              |
| 1:S:603:VAL:HG21  | 1:S:638:VAL:HG11  | 1.96                     | 0.46              |
| 1:T:273:ILE:HG13  | 1:T:308:PHE:O     | 2.15                     | 0.46              |
| 1:V:655:GLN:HG2   | 1:X:649:ARG:NH1   | 2.17                     | 0.46              |
| 1:W:400:ALA:HB2   | 1:W:491:PRO:HD3   | 1.97                     | 0.46              |
| 1:X:798:MET:SD    | 1:Z:795:PHE:CG    | 3.08                     | 0.46              |
| 1:Y:603:VAL:HG21  | 1:Y:638:VAL:HG11  | 1.96                     | 0.46              |
| 1:Z:694:LEU:O     | 1:Z:697:SER:OG    | 2.28                     | 0.46              |
| 1:AA:400:ALA:HB2  | 1:AA:491:PRO:HD3  | 1.97                     | 0.46              |
| 1:AA:506:LYS:HD3  | 1:AA:506:LYS:HA   | 1.78                     | 0.46              |
| 1:DA:257:GLU:HG2  | 1:FA:244:ARG:HB3  | 1.98                     | 0.46              |
| 1:DA:603:VAL:HG21 | 1:DA:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:FA:603:VAL:HG21 | 1:FA:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:HA:107:LYS:NZ   | 1:HA:110:THR:HG21 | 2.29                     | 0.46              |
| 1:IA:575:ILE:HD11 | 1:IA:635:VAL:HG21 | 1.96                     | 0.46              |
| 1:JA:506:LYS:HD3  | 1:JA:506:LYS:HA   | 1.78                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:JA:603:VAL:HG21 | 1:JA:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:LA:529:ILE:HD12 | 1:LA:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:MA:107:LYS:NZ   | 1:MA:110:THR:HG21 | 2.29                     | 0.46              |
| 1:MA:384:GLN:HB2  | 1:OA:474:ARG:HG3  | 1.96                     | 0.46              |
| 1:NA:203:ALA:HB2  | 1:PA:192:THR:HB   | 1.96                     | 0.46              |
| 1:NA:490:ASP:HB3  | 1:NA:491:PRO:HD2  | 1.95                     | 0.46              |
| 1:QA:281:TYR:CD1  | 1:QA:366:VAL:HG23 | 2.50                     | 0.46              |
| 1:QA:575:ILE:HD11 | 1:QA:635:VAL:HG21 | 1.96                     | 0.46              |
| 1:RA:32:PRO:HB2   | 1:TA:24:ASN:HB2   | 1.96                     | 0.46              |
| 1:SA:273:ILE:HG13 | 1:SA:308:PHE:O    | 2.15                     | 0.46              |
| 1:UA:394:LYS:HB2  | 1:UA:394:LYS:HE3  | 1.81                     | 0.46              |
| 1:UA:603:VAL:HG21 | 1:UA:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:WA:17:HIS:NE2   | 1:WA:99:LEU:O     | 2.33                     | 0.46              |
| 1:XA:219:VAL:HG21 | 1:XA:227:LEU:HD22 | 1.97                     | 0.46              |
| 1:ZA:273:ILE:HG13 | 1:ZA:308:PHE:O    | 2.15                     | 0.46              |
| 1:FB:529:ILE:HD12 | 1:FB:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:GB:400:ALA:HB2  | 1:GB:491:PRO:HD3  | 1.97                     | 0.46              |
| 1:HB:273:ILE:HG13 | 1:HB:308:PHE:O    | 2.15                     | 0.46              |
| 1:HB:757:ALA:CB   | 1:IB:748:ALA:HB1  | 2.45                     | 0.46              |
| 1:IB:757:ALA:CB   | 1:JB:748:ALA:HB1  | 2.46                     | 0.46              |
| 1:LB:603:VAL:HG21 | 1:LB:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:LB:761:ARG:HG2  | 1:MB:755:THR:HG21 | 1.98                     | 0.46              |
| 1:MB:377:ARG:NH1  | 1:MB:409:THR:O    | 2.30                     | 0.46              |
| 1:QB:655:GLN:OE1  | 1:RB:649:ARG:HB2  | 2.15                     | 0.46              |
| 1:TB:273:ILE:HG13 | 1:TB:308:PHE:O    | 2.15                     | 0.46              |
| 1:UB:219:VAL:HG21 | 1:UB:227:LEU:HD22 | 1.97                     | 0.46              |
| 1:VB:529:ILE:HD12 | 1:VB:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:YB:465:ASN:OD1  | 1:ZB:563:SER:HA   | 2.15                     | 0.46              |
| 1:B:377:ARG:NH1   | 1:B:409:THR:O     | 2.31                     | 0.46              |
| 1:E:219:VAL:HG21  | 1:E:227:LEU:HD22  | 1.97                     | 0.46              |
| 1:G:575:ILE:HD11  | 1:G:635:VAL:HG21  | 1.96                     | 0.46              |
| 1:H:603:VAL:HG21  | 1:H:638:VAL:HG11  | 1.96                     | 0.46              |
| 1:K:506:LYS:HD3   | 1:K:506:LYS:HA    | 1.78                     | 0.46              |
| 1:M:54:PRO:HD2    | 1:M:109:ILE:HD11  | 1.97                     | 0.46              |
| 1:P:136:LYS:HA    | 1:P:136:LYS:HD2   | 1.76                     | 0.46              |
| 1:P:273:ILE:HG13  | 1:P:308:PHE:O     | 2.15                     | 0.46              |
| 1:Q:400:ALA:HB2   | 1:Q:491:PRO:HD3   | 1.97                     | 0.46              |
| 1:R:54:PRO:HD2    | 1:R:109:ILE:HD11  | 1.97                     | 0.46              |
| 1:R:400:ALA:HB2   | 1:R:491:PRO:HD3   | 1.97                     | 0.46              |
| 1:S:273:ILE:HG13  | 1:S:308:PHE:O     | 2.15                     | 0.46              |
| 1:V:655:GLN:HG3   | 1:X:649:ARG:HD3   | 1.97                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:Y:54:PRO:HD2    | 1:Y:109:ILE:HD11  | 1.97                     | 0.46              |
| 1:BA:603:VAL:HG21 | 1:BA:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:DA:281:TYR:CD1  | 1:DA:366:VAL:HG23 | 2.50                     | 0.46              |
| 1:HA:603:VAL:HG21 | 1:HA:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:MA:603:VAL:HG21 | 1:MA:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:NA:603:VAL:HG21 | 1:NA:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:PA:273:ILE:HG13 | 1:PA:308:PHE:O    | 2.15                     | 0.46              |
| 1:RA:219:VAL:HG21 | 1:RA:227:LEU:HD22 | 1.97                     | 0.46              |
| 1:SA:603:VAL:HG21 | 1:SA:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:UA:107:LYS:NZ   | 1:UA:110:THR:HG21 | 2.29                     | 0.46              |
| 1:XA:273:ILE:HG13 | 1:XA:308:PHE:O    | 2.15                     | 0.46              |
| 1:YA:529:ILE:HD12 | 1:YA:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:BB:219:VAL:HG21 | 1:BB:227:LEU:HD22 | 1.97                     | 0.46              |
| 1:BB:377:ARG:NH1  | 1:BB:409:THR:O    | 2.30                     | 0.46              |
| 1:BB:603:VAL:HG21 | 1:BB:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:BB:768:MET:CB   | 1:CB:759:LEU:HD11 | 2.45                     | 0.46              |
| 1:CB:281:TYR:CD1  | 1:CB:366:VAL:HG23 | 2.50                     | 0.46              |
| 1:CB:400:ALA:HB2  | 1:CB:491:PRO:HD3  | 1.97                     | 0.46              |
| 1:EB:400:ALA:HB2  | 1:EB:491:PRO:HD3  | 1.97                     | 0.46              |
| 1:FB:279:ARG:NH2  | 1:GB:338:GLN:OE1  | 2.41                     | 0.46              |
| 1:HB:529:ILE:HD12 | 1:HB:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:HB:658:VAL:HG12 | 1:IB:533:ASP:O    | 2.15                     | 0.46              |
| 1:HB:658:VAL:HG11 | 1:IB:535:ALA:HA   | 1.97                     | 0.46              |
| 1:IB:377:ARG:NH1  | 1:IB:409:THR:O    | 2.30                     | 0.46              |
| 1:MB:273:ILE:HG13 | 1:MB:308:PHE:O    | 2.15                     | 0.46              |
| 1:QB:219:VAL:HG21 | 1:QB:227:LEU:HD22 | 1.97                     | 0.46              |
| 1:RB:383:ASP:OD1  | 1:RB:383:ASP:N    | 2.44                     | 0.46              |
| 1:SB:219:VAL:HG21 | 1:SB:227:LEU:HD22 | 1.97                     | 0.46              |
| 1:UB:377:ARG:NH1  | 1:UB:409:THR:O    | 2.30                     | 0.46              |
| 1:UB:484:PRO:HG2  | 1:VB:471:TYR:HD2  | 1.78                     | 0.46              |
| 1:UB:786:GLN:HB2  | 1:VB:781:VAL:HG12 | 1.97                     | 0.46              |
| 1:VB:377:ARG:NH1  | 1:VB:409:THR:O    | 2.30                     | 0.46              |
| 1:VB:666:THR:CG2  | 1:WB:657:SER:HB2  | 2.45                     | 0.46              |
| 1:WB:273:ILE:HG13 | 1:WB:308:PHE:O    | 2.15                     | 0.46              |
| 1:YB:67:ARG:NH2   | 1:YB:71:SER:O     | 2.44                     | 0.46              |
| 1:YB:529:ILE:HD12 | 1:YB:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:C:273:ILE:HG13  | 1:C:308:PHE:O     | 2.15                     | 0.46              |
| 1:H:279:ARG:HD3   | 1:J:337:LEU:HD13  | 1.97                     | 0.46              |
| 1:H:706:LEU:HD12  | 1:J:693:ILE:O     | 2.16                     | 0.46              |
| 1:H:772:TYR:CG    | 1:J:766:ARG:HD3   | 2.50                     | 0.46              |
| 1:I:136:LYS:HD2   | 1:I:136:LYS:HA    | 1.76                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:I:219:VAL:HG21  | 1:I:227:LEU:HD22  | 1.97                     | 0.46              |
| 1:K:54:PRO:HD2    | 1:K:109:ILE:HD11  | 1.97                     | 0.46              |
| 1:K:281:TYR:CD1   | 1:K:366:VAL:HG23  | 2.50                     | 0.46              |
| 1:M:338:GLN:HB3   | 1:M:370:LYS:HB3   | 1.98                     | 0.46              |
| 1:O:39:ASP:HB2    | 1:SB:39:ASP:HB2   | 1.96                     | 0.46              |
| 1:T:219:VAL:HG21  | 1:T:227:LEU:HD22  | 1.97                     | 0.46              |
| 1:V:540:GLN:HB2   | 1:V:641:GLN:HB2   | 1.98                     | 0.46              |
| 1:V:575:ILE:HD11  | 1:V:635:VAL:HG21  | 1.96                     | 0.46              |
| 1:Y:273:ILE:HG13  | 1:Y:308:PHE:O     | 2.15                     | 0.46              |
| 1:Z:603:VAL:HG21  | 1:Z:638:VAL:HG11  | 1.96                     | 0.46              |
| 1:AA:540:GLN:HB2  | 1:AA:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:BA:666:THR:HG22 | 1:DA:657:SER:HB2  | 1.97                     | 0.46              |
| 1:KA:529:ILE:HD12 | 1:KA:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:LA:603:VAL:HG21 | 1:LA:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:OA:281:TYR:CD1  | 1:OA:366:VAL:HG23 | 2.50                     | 0.46              |
| 1:OA:603:VAL:HG21 | 1:OA:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:PA:761:ARG:HG2  | 1:RA:755:THR:HG21 | 1.98                     | 0.46              |
| 1:VA:383:ASP:OD1  | 1:VA:383:ASP:N    | 2.44                     | 0.46              |
| 1:WA:603:VAL:HG21 | 1:WA:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:YA:603:VAL:HG21 | 1:YA:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:ZA:400:ALA:HB2  | 1:ZA:491:PRO:HD3  | 1.97                     | 0.46              |
| 1:AB:219:VAL:HG21 | 1:AB:227:LEU:HD22 | 1.97                     | 0.46              |
| 1:AB:603:VAL:HG21 | 1:AB:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:BB:17:HIS:NE2   | 1:BB:99:LEU:O     | 2.33                     | 0.46              |
| 1:CB:56:ARG:HG3   | 1:DB:127:LEU:HD22 | 1.97                     | 0.46              |
| 1:CB:338:GLN:HB3  | 1:CB:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:DB:465:ASN:OD1  | 1:EB:563:SER:HA   | 2.16                     | 0.46              |
| 1:DB:540:GLN:HB2  | 1:DB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:EB:540:GLN:HB2  | 1:EB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:EB:603:VAL:HG21 | 1:EB:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:HB:400:ALA:HB2  | 1:HB:491:PRO:HD3  | 1.97                     | 0.46              |
| 1:JB:52:THR:HG21  | 1:KB:85:HIS:CD2   | 2.50                     | 0.46              |
| 1:JB:400:ALA:HB2  | 1:JB:491:PRO:HD3  | 1.97                     | 0.46              |
| 1:KB:490:ASP:HB3  | 1:KB:491:PRO:HD2  | 1.95                     | 0.46              |
| 1:KB:575:ILE:HD11 | 1:KB:635:VAL:HG21 | 1.96                     | 0.46              |
| 1:TB:400:ALA:HB2  | 1:TB:491:PRO:HD3  | 1.97                     | 0.46              |
| 1:UB:603:VAL:HG21 | 1:UB:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:VB:338:GLN:HB3  | 1:VB:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:WB:603:VAL:HG21 | 1:WB:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:XB:540:GLN:HB2  | 1:XB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:AC:400:ALA:HB2  | 1:AC:491:PRO:HD3  | 1.97                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:273:ILE:HG13  | 1:A:308:PHE:O     | 2.15                     | 0.46              |
| 1:A:603:VAL:HG21  | 1:A:638:VAL:HG11  | 1.96                     | 0.46              |
| 1:A:801:ALA:HA    | 1:C:796:LYS:HZ1   | 1.79                     | 0.46              |
| 1:B:67:ARG:NH2    | 1:B:71:SER:O      | 2.44                     | 0.46              |
| 1:B:529:ILE:HD12  | 1:B:583:VAL:HG11  | 1.97                     | 0.46              |
| 1:E:136:LYS:HD2   | 1:E:136:LYS:HA    | 1.76                     | 0.46              |
| 1:F:490:ASP:HB3   | 1:F:491:PRO:HD2   | 1.95                     | 0.46              |
| 1:G:54:PRO:HD2    | 1:G:109:ILE:HD11  | 1.97                     | 0.46              |
| 1:I:400:ALA:HB2   | 1:I:491:PRO:HD3   | 1.97                     | 0.46              |
| 1:J:56:ARG:HH11   | 1:L:128:ASP:H     | 1.64                     | 0.46              |
| 1:K:377:ARG:NH1   | 1:K:409:THR:O     | 2.30                     | 0.46              |
| 1:O:219:VAL:HG21  | 1:O:227:LEU:HD22  | 1.97                     | 0.46              |
| 1:O:540:GLN:HB2   | 1:O:641:GLN:HB2   | 1.98                     | 0.46              |
| 1:P:377:ARG:NH1   | 1:P:409:THR:O     | 2.30                     | 0.46              |
| 1:Q:603:VAL:HG21  | 1:Q:638:VAL:HG11  | 1.96                     | 0.46              |
| 1:S:338:GLN:HB3   | 1:S:370:LYS:HB3   | 1.98                     | 0.46              |
| 1:T:54:PRO:HD2    | 1:T:109:ILE:HD11  | 1.97                     | 0.46              |
| 1:T:338:GLN:HB3   | 1:T:370:LYS:HB3   | 1.98                     | 0.46              |
| 1:W:219:VAL:HG21  | 1:W:227:LEU:HD22  | 1.97                     | 0.46              |
| 1:Y:219:VAL:HG21  | 1:Y:227:LEU:HD22  | 1.97                     | 0.46              |
| 1:AA:338:GLN:HB3  | 1:AA:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:CA:603:VAL:HG21 | 1:CA:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:FA:529:ILE:HD12 | 1:FA:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:GA:540:GLN:HB2  | 1:GA:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:IA:603:VAL:HG21 | 1:IA:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:JA:383:ASP:OD1  | 1:JA:383:ASP:N    | 2.44                     | 0.46              |
| 1:QA:136:LYS:HA   | 1:QA:136:LYS:HD2  | 1.76                     | 0.46              |
| 1:RA:603:VAL:HG21 | 1:RA:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:ZA:377:ARG:NH1  | 1:ZA:409:THR:O    | 2.30                     | 0.46              |
| 1:ZA:575:ILE:HD11 | 1:ZA:635:VAL:HG21 | 1.96                     | 0.46              |
| 1:FB:540:GLN:HB2  | 1:FB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:IB:400:ALA:HB2  | 1:IB:491:PRO:HD3  | 1.97                     | 0.46              |
| 1:IB:529:ILE:HD12 | 1:IB:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:OB:17:HIS:NE2   | 1:OB:99:LEU:O     | 2.33                     | 0.46              |
| 1:PB:575:ILE:HD11 | 1:PB:635:VAL:HG21 | 1.96                     | 0.46              |
| 1:QB:540:GLN:HB2  | 1:QB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:QB:592:HIS:NE2  | 1:RB:534:HIS:CD2  | 2.84                     | 0.46              |
| 1:SB:490:ASP:HB3  | 1:SB:491:PRO:HD2  | 1.95                     | 0.46              |
| 1:SB:603:VAL:HG21 | 1:SB:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:TB:377:ARG:NH1  | 1:TB:409:THR:O    | 2.30                     | 0.46              |
| 1:UB:17:HIS:NE2   | 1:UB:99:LEU:O     | 2.33                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:WB:54:PRO:HD2   | 1:WB:109:ILE:HD11 | 1.97                     | 0.46              |
| 1:YB:400:ALA:HB2  | 1:YB:491:PRO:HD3  | 1.97                     | 0.46              |
| 1:YB:540:GLN:HB2  | 1:YB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:AC:529:ILE:HD12 | 1:AC:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:A:394:LYS:HE3   | 1:A:394:LYS:HB2   | 1.81                     | 0.46              |
| 1:D:228:HIS:HE1   | 1:D:248:GLU:HB3   | 1.81                     | 0.46              |
| 1:H:273:ILE:HG13  | 1:H:308:PHE:O     | 2.15                     | 0.46              |
| 1:H:753:ILE:HD11  | 1:J:745:LYS:NZ    | 2.30                     | 0.46              |
| 1:I:54:PRO:HD2    | 1:I:109:ILE:HD11  | 1.97                     | 0.46              |
| 1:I:603:VAL:HG21  | 1:I:638:VAL:HG11  | 1.96                     | 0.46              |
| 1:K:400:ALA:HB2   | 1:K:491:PRO:HD3   | 1.97                     | 0.46              |
| 1:M:540:GLN:HB2   | 1:M:641:GLN:HB2   | 1.98                     | 0.46              |
| 1:O:331:GLY:O     | 1:O:332:LEU:HD22  | 2.16                     | 0.46              |
| 1:Q:273:ILE:HG13  | 1:Q:308:PHE:O     | 2.15                     | 0.46              |
| 1:Q:540:GLN:HB2   | 1:Q:641:GLN:HB2   | 1.98                     | 0.46              |
| 1:R:281:TYR:CD1   | 1:R:366:VAL:HG23  | 2.50                     | 0.46              |
| 1:S:540:GLN:HB2   | 1:S:641:GLN:HB2   | 1.98                     | 0.46              |
| 1:T:540:GLN:HB2   | 1:T:641:GLN:HB2   | 1.98                     | 0.46              |
| 1:V:170:GLN:HB3   | 1:X:233:GLN:OE1   | 2.16                     | 0.46              |
| 1:V:338:GLN:HB3   | 1:V:370:LYS:HB3   | 1.98                     | 0.46              |
| 1:X:529:ILE:HD12  | 1:X:583:VAL:HG11  | 1.97                     | 0.46              |
| 1:Y:540:GLN:HB2   | 1:Y:641:GLN:HB2   | 1.98                     | 0.46              |
| 1:Z:281:TYR:CD1   | 1:Z:366:VAL:HG23  | 2.50                     | 0.46              |
| 1:BA:281:TYR:CD1  | 1:BA:366:VAL:HG23 | 2.50                     | 0.46              |
| 1:BA:540:GLN:HB2  | 1:BA:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:CA:338:GLN:HB3  | 1:CA:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:CA:540:GLN:HB2  | 1:CA:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:EA:400:ALA:HB2  | 1:EA:491:PRO:HD3  | 1.97                     | 0.46              |
| 1:IA:540:GLN:HB2  | 1:IA:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:KA:603:VAL:HG21 | 1:KA:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:KA:709:LEU:HD11 | 1:MA:701:LYS:HE3  | 1.96                     | 0.46              |
| 1:MA:281:TYR:CD1  | 1:MA:366:VAL:HG23 | 2.50                     | 0.46              |
| 1:NA:219:VAL:HG21 | 1:NA:227:LEU:HD22 | 1.97                     | 0.46              |
| 1:OA:540:GLN:HB2  | 1:OA:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:PA:219:VAL:HG21 | 1:PA:227:LEU:HD22 | 1.97                     | 0.46              |
| 1:PA:603:VAL:HG21 | 1:PA:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:TA:219:VAL:HG21 | 1:TA:227:LEU:HD22 | 1.97                     | 0.46              |
| 1:VA:603:VAL:HG21 | 1:VA:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:WA:219:VAL:HG21 | 1:WA:227:LEU:HD22 | 1.97                     | 0.46              |
| 1:WA:575:ILE:HD11 | 1:WA:635:VAL:HG21 | 1.96                     | 0.46              |
| 1:ZA:540:GLN:HB2  | 1:ZA:641:GLN:HB2  | 1.98                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:BB:540:GLN:HB2  | 1:BB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:DB:377:ARG:NH1  | 1:DB:409:THR:O    | 2.30                     | 0.46              |
| 1:FB:54:PRO:HD2   | 1:FB:109:ILE:HD11 | 1.97                     | 0.46              |
| 1:FB:273:ILE:HG13 | 1:FB:308:PHE:O    | 2.15                     | 0.46              |
| 1:FB:338:GLN:HB3  | 1:FB:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:GB:658:VAL:HG12 | 1:HB:533:ASP:O    | 2.15                     | 0.46              |
| 1:HB:540:GLN:HB2  | 1:HB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:HB:603:VAL:HG21 | 1:HB:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:IB:67:ARG:NH2   | 1:IB:71:SER:O     | 2.44                     | 0.46              |
| 1:JB:56:ARG:CB    | 1:KB:127:LEU:HD22 | 2.45                     | 0.46              |
| 1:PB:540:GLN:HB2  | 1:PB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:QB:96:PRO:HD3   | 1:RB:85:HIS:ND1   | 2.31                     | 0.46              |
| 1:QB:400:ALA:HB2  | 1:QB:491:PRO:HD3  | 1.97                     | 0.46              |
| 1:RB:400:ALA:HB2  | 1:RB:491:PRO:HD3  | 1.97                     | 0.46              |
| 1:SB:331:GLY:O    | 1:SB:332:LEU:HD22 | 2.16                     | 0.46              |
| 1:SB:575:ILE:HD11 | 1:SB:635:VAL:HG21 | 1.96                     | 0.46              |
| 1:TB:540:GLN:HB2  | 1:TB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:VB:540:GLN:HB2  | 1:VB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:WB:377:ARG:NH1  | 1:WB:409:THR:O    | 2.30                     | 0.46              |
| 1:WB:540:GLN:HB2  | 1:WB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:YB:338:GLN:HB3  | 1:YB:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:B:383:ASP:OD1   | 1:B:383:ASP:N     | 2.44                     | 0.46              |
| 1:B:400:ALA:HB2   | 1:B:491:PRO:HD3   | 1.97                     | 0.46              |
| 1:B:540:GLN:HB2   | 1:B:641:GLN:HB2   | 1.98                     | 0.46              |
| 1:B:676:GLU:OE2   | 1:B:679:ARG:NH2   | 2.43                     | 0.46              |
| 1:C:136:LYS:HD2   | 1:C:136:LYS:HA    | 1.76                     | 0.46              |
| 1:C:658:VAL:HG12  | 1:E:533:ASP:O     | 2.16                     | 0.46              |
| 1:D:506:LYS:HA    | 1:D:506:LYS:HD3   | 1.78                     | 0.46              |
| 1:E:54:PRO:HD2    | 1:E:109:ILE:HD11  | 1.97                     | 0.46              |
| 1:E:338:GLN:HB3   | 1:E:370:LYS:HB3   | 1.98                     | 0.46              |
| 1:E:400:ALA:HB2   | 1:E:491:PRO:HD3   | 1.97                     | 0.46              |
| 1:F:540:GLN:HB2   | 1:F:641:GLN:HB2   | 1.98                     | 0.46              |
| 1:H:228:HIS:HE1   | 1:H:248:GLU:HB3   | 1.81                     | 0.46              |
| 1:H:540:GLN:HB2   | 1:H:641:GLN:HB2   | 1.98                     | 0.46              |
| 1:L:338:GLN:HB3   | 1:L:370:LYS:HB3   | 1.98                     | 0.46              |
| 1:M:281:TYR:CD1   | 1:M:366:VAL:HG23  | 2.50                     | 0.46              |
| 1:N:54:PRO:HD2    | 1:N:109:ILE:HD11  | 1.97                     | 0.46              |
| 1:O:603:VAL:HG21  | 1:O:638:VAL:HG11  | 1.96                     | 0.46              |
| 1:R:338:GLN:HB3   | 1:R:370:LYS:HB3   | 1.98                     | 0.46              |
| 1:R:540:GLN:HB2   | 1:R:641:GLN:HB2   | 1.98                     | 0.46              |
| 1:S:331:GLY:O     | 1:S:332:LEU:HD22  | 2.16                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:V:400:ALA:HB2   | 1:V:491:PRO:HD3   | 1.97                     | 0.46              |
| 1:W:281:TYR:CD1   | 1:W:366:VAL:HG23  | 2.50                     | 0.46              |
| 1:W:540:GLN:HB2   | 1:W:641:GLN:HB2   | 1.98                     | 0.46              |
| 1:W:603:VAL:HG21  | 1:W:638:VAL:HG11  | 1.96                     | 0.46              |
| 1:X:281:TYR:CD1   | 1:X:366:VAL:HG23  | 2.50                     | 0.46              |
| 1:Y:331:GLY:O     | 1:Y:332:LEU:HD22  | 2.16                     | 0.46              |
| 1:AA:219:VAL:HG21 | 1:AA:227:LEU:HD22 | 1.97                     | 0.46              |
| 1:AA:694:LEU:O    | 1:AA:697:SER:OG   | 2.28                     | 0.46              |
| 1:BA:299:LYS:NZ   | 1:BA:317:GLU:OE2  | 2.38                     | 0.46              |
| 1:CA:331:GLY:O    | 1:CA:332:LEU:HD22 | 2.16                     | 0.46              |
| 1:DA:540:GLN:HB2  | 1:DA:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:EA:540:GLN:HB2  | 1:EA:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:GA:273:ILE:HG13 | 1:GA:308:PHE:O    | 2.15                     | 0.46              |
| 1:GA:603:VAL:HG21 | 1:GA:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:GA:694:LEU:O    | 1:GA:697:SER:OG   | 2.28                     | 0.46              |
| 1:IA:338:GLN:HB3  | 1:IA:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:IA:383:ASP:HB3  | 1:KA:396:GLY:O    | 2.16                     | 0.46              |
| 1:JA:540:GLN:HB2  | 1:JA:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:JA:575:ILE:HD11 | 1:JA:635:VAL:HG21 | 1.96                     | 0.46              |
| 1:KA:540:GLN:HB2  | 1:KA:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:MA:540:GLN:HB2  | 1:MA:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:PA:338:GLN:HB3  | 1:PA:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:QA:540:GLN:HB2  | 1:QA:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:RA:540:GLN:HB2  | 1:RA:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:SA:529:ILE:HD12 | 1:SA:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:TA:540:GLN:HB2  | 1:TA:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:WA:377:ARG:NH1  | 1:WA:409:THR:O    | 2.30                     | 0.46              |
| 1:XA:331:GLY:O    | 1:XA:332:LEU:HD22 | 2.16                     | 0.46              |
| 1:XA:338:GLN:HB3  | 1:XA:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:XA:490:ASP:HB3  | 1:XA:491:PRO:HD2  | 1.95                     | 0.46              |
| 1:XA:540:GLN:HB2  | 1:XA:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:XA:575:ILE:HD11 | 1:XA:635:VAL:HG21 | 1.96                     | 0.46              |
| 1:XA:603:VAL:HG21 | 1:XA:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:CB:228:HIS:HE1  | 1:CB:248:GLU:HB3  | 1.81                     | 0.46              |
| 1:CB:540:GLN:HB2  | 1:CB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:DB:575:ILE:HD11 | 1:DB:635:VAL:HG21 | 1.96                     | 0.46              |
| 1:FB:716:VAL:HG21 | 1:GB:708:GLU:HG2  | 1.98                     | 0.46              |
| 1:GB:54:PRO:HD2   | 1:GB:109:ILE:HD11 | 1.97                     | 0.46              |
| 1:GB:717:GLU:HB2  | 1:HB:707:LEU:HD13 | 1.98                     | 0.46              |
| 1:HB:405:THR:HG22 | 1:IB:395:THR:HA   | 1.97                     | 0.46              |
| 1:IB:273:ILE:HG13 | 1:IB:308:PHE:O    | 2.15                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:IB:540:GLN:HB2  | 1:IB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:LB:273:ILE:HG13 | 1:LB:308:PHE:O    | 2.15                     | 0.46              |
| 1:OB:219:VAL:HG21 | 1:OB:227:LEU:HD22 | 1.97                     | 0.46              |
| 1:OB:338:GLN:HB3  | 1:OB:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:OB:400:ALA:HB2  | 1:OB:491:PRO:HD3  | 1.97                     | 0.46              |
| 1:OB:603:VAL:HG21 | 1:OB:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:PB:486:LEU:HB2  | 1:QB:473:TYR:HB3  | 1.98                     | 0.46              |
| 1:RB:603:VAL:HG21 | 1:RB:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:SB:338:GLN:HB3  | 1:SB:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:SB:540:GLN:HB2  | 1:SB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:TB:529:ILE:HD12 | 1:TB:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:TB:575:ILE:HD11 | 1:TB:635:VAL:HG21 | 1.96                     | 0.46              |
| 1:UB:540:GLN:HB2  | 1:UB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:VB:228:HIS:HE1  | 1:VB:248:GLU:HB3  | 1.81                     | 0.46              |
| 1:XB:331:GLY:O    | 1:XB:332:LEU:HD22 | 2.16                     | 0.46              |
| 1:YB:54:PRO:HD2   | 1:YB:109:ILE:HD11 | 1.97                     | 0.46              |
| 1:YB:273:ILE:HG13 | 1:YB:308:PHE:O    | 2.15                     | 0.46              |
| 1:ZB:54:PRO:HD2   | 1:ZB:109:ILE:HD11 | 1.97                     | 0.46              |
| 1:AC:603:VAL:HG21 | 1:AC:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:A:540:GLN:HB2   | 1:A:641:GLN:HB2   | 1.98                     | 0.46              |
| 1:B:54:PRO:HD2    | 1:B:109:ILE:HD11  | 1.96                     | 0.46              |
| 1:C:54:PRO:HD2    | 1:C:109:ILE:HD11  | 1.97                     | 0.46              |
| 1:D:338:GLN:HB3   | 1:D:370:LYS:HB3   | 1.98                     | 0.46              |
| 1:E:486:LEU:HB2   | 1:G:473:TYR:HB3   | 1.98                     | 0.46              |
| 1:E:600:ARG:HG2   | 1:E:604:PHE:HE1   | 1.81                     | 0.46              |
| 1:F:54:PRO:HD2    | 1:F:109:ILE:HD11  | 1.97                     | 0.46              |
| 1:F:529:ILE:HD12  | 1:F:583:VAL:HG11  | 1.97                     | 0.46              |
| 1:F:797:GLU:CG    | 1:H:792:ALA:HB1   | 2.46                     | 0.46              |
| 1:G:331:GLY:O     | 1:G:332:LEU:HD22  | 2.16                     | 0.46              |
| 1:H:529:ILE:HD12  | 1:H:583:VAL:HG11  | 1.97                     | 0.46              |
| 1:I:540:GLN:HB2   | 1:I:641:GLN:HB2   | 1.98                     | 0.46              |
| 1:K:331:GLY:O     | 1:K:332:LEU:HD22  | 2.16                     | 0.46              |
| 1:K:338:GLN:HB3   | 1:K:370:LYS:HB3   | 1.98                     | 0.46              |
| 1:L:540:GLN:HB2   | 1:L:641:GLN:HB2   | 1.98                     | 0.46              |
| 1:M:219:VAL:HG21  | 1:M:227:LEU:HD22  | 1.97                     | 0.46              |
| 1:M:228:HIS:HE1   | 1:M:248:GLU:HB3   | 1.81                     | 0.46              |
| 1:N:540:GLN:HB2   | 1:N:641:GLN:HB2   | 1.98                     | 0.46              |
| 1:Q:56:ARG:HB2    | 1:S:127:LEU:HD22  | 1.97                     | 0.46              |
| 1:R:600:ARG:HG2   | 1:R:604:PHE:HE1   | 1.81                     | 0.46              |
| 1:R:768:MET:SD    | 1:T:766:ARG:HD2   | 2.56                     | 0.46              |
| 1:S:219:VAL:HG21  | 1:S:227:LEU:HD22  | 1.97                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:T:281:TYR:CD1   | 1:T:366:VAL:HG23  | 2.50                     | 0.46              |
| 1:T:331:GLY:O     | 1:T:332:LEU:HD22  | 2.16                     | 0.46              |
| 1:V:603:VAL:HG21  | 1:V:638:VAL:HG11  | 1.96                     | 0.46              |
| 1:X:228:HIS:HE1   | 1:X:248:GLU:HB3   | 1.81                     | 0.46              |
| 1:X:540:GLN:HB2   | 1:X:641:GLN:HB2   | 1.98                     | 0.46              |
| 1:X:603:VAL:HG21  | 1:X:638:VAL:HG11  | 1.96                     | 0.46              |
| 1:Y:600:ARG:HG2   | 1:Y:604:PHE:HE1   | 1.81                     | 0.46              |
| 1:Z:540:GLN:HB2   | 1:Z:641:GLN:HB2   | 1.98                     | 0.46              |
| 1:BA:338:GLN:HB3  | 1:BA:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:BA:529:ILE:HD12 | 1:BA:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:CA:529:ILE:HD12 | 1:CA:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:GA:203:ALA:HB2  | 1:IA:192:THR:HB   | 1.97                     | 0.46              |
| 1:GA:228:HIS:HE1  | 1:GA:248:GLU:HB3  | 1.81                     | 0.46              |
| 1:GA:331:GLY:O    | 1:GA:332:LEU:HD22 | 2.16                     | 0.46              |
| 1:GA:600:ARG:HG2  | 1:GA:604:PHE:HE1  | 1.81                     | 0.46              |
| 1:IA:529:ILE:HD12 | 1:IA:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:LA:540:GLN:HB2  | 1:LA:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:NA:331:GLY:O    | 1:NA:332:LEU:HD22 | 2.16                     | 0.46              |
| 1:NA:600:ARG:HG2  | 1:NA:604:PHE:HE1  | 1.81                     | 0.46              |
| 1:OA:299:LYS:NZ   | 1:OA:317:GLU:OE2  | 2.38                     | 0.46              |
| 1:OA:529:ILE:HD12 | 1:OA:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:QA:228:HIS:HE1  | 1:QA:248:GLU:HB3  | 1.81                     | 0.46              |
| 1:RA:331:GLY:O    | 1:RA:332:LEU:HD22 | 2.16                     | 0.46              |
| 1:UA:529:ILE:HD12 | 1:UA:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:VA:400:ALA:HB2  | 1:VA:491:PRO:HD3  | 1.97                     | 0.46              |
| 1:WA:540:GLN:HB2  | 1:WA:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:AB:331:GLY:O    | 1:AB:332:LEU:HD22 | 2.16                     | 0.46              |
| 1:CB:331:GLY:O    | 1:CB:332:LEU:HD22 | 2.16                     | 0.46              |
| 1:DB:400:ALA:HB2  | 1:DB:491:PRO:HD3  | 1.97                     | 0.46              |
| 1:EB:203:ALA:HB2  | 1:FB:192:THR:HB   | 1.97                     | 0.46              |
| 1:EB:273:ILE:HG13 | 1:EB:308:PHE:O    | 2.15                     | 0.46              |
| 1:EB:331:GLY:O    | 1:EB:332:LEU:HD22 | 2.16                     | 0.46              |
| 1:FB:400:ALA:HB2  | 1:FB:491:PRO:HD3  | 1.97                     | 0.46              |
| 1:GB:338:GLN:HB3  | 1:GB:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:IB:383:ASP:OD1  | 1:IB:383:ASP:N    | 2.44                     | 0.46              |
| 1:JB:228:HIS:HE1  | 1:JB:248:GLU:HB3  | 1.81                     | 0.46              |
| 1:KB:331:GLY:O    | 1:KB:332:LEU:HD22 | 2.16                     | 0.46              |
| 1:LB:529:ILE:HD12 | 1:LB:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:LB:540:GLN:HB2  | 1:LB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:LB:753:ILE:HD11 | 1:MB:745:LYS:NZ   | 2.30                     | 0.46              |
| 1:MB:54:PRO:HD2   | 1:MB:109:ILE:HD11 | 1.97                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:MB:331:GLY:O    | 1:MB:332:LEU:HD22 | 2.16                     | 0.46              |
| 1:MB:338:GLN:HB3  | 1:MB:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:NB:54:PRO:HD2   | 1:NB:109:ILE:HD11 | 1.96                     | 0.46              |
| 1:NB:338:GLN:HB3  | 1:NB:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:RB:67:ARG:NH2   | 1:RB:71:SER:O     | 2.44                     | 0.46              |
| 1:RB:228:HIS:HE1  | 1:RB:248:GLU:HB3  | 1.81                     | 0.46              |
| 1:TB:228:HIS:HE1  | 1:TB:248:GLU:HB3  | 1.81                     | 0.46              |
| 1:WB:529:ILE:HD12 | 1:WB:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:WB:658:VAL:HG11 | 1:XB:535:ALA:HA   | 1.98                     | 0.46              |
| 1:XB:273:ILE:HG13 | 1:XB:308:PHE:O    | 2.15                     | 0.46              |
| 1:ZB:338:GLN:HB3  | 1:ZB:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:AC:540:GLN:HB2  | 1:AC:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:A:54:PRO:HD2    | 1:A:109:ILE:HD11  | 1.97                     | 0.46              |
| 1:B:331:GLY:O     | 1:B:332:LEU:HD22  | 2.16                     | 0.46              |
| 1:C:540:GLN:HB2   | 1:C:641:GLN:HB2   | 1.98                     | 0.46              |
| 1:D:220:ILE:HD12  | 1:F:245:THR:HG22  | 1.97                     | 0.46              |
| 1:E:542:ALA:HB1   | 1:G:573:LYS:HE2   | 1.98                     | 0.46              |
| 1:F:331:GLY:O     | 1:F:332:LEU:HD22  | 2.16                     | 0.46              |
| 1:G:338:GLN:HB3   | 1:G:370:LYS:HB3   | 1.98                     | 0.46              |
| 1:G:540:GLN:HB2   | 1:G:641:GLN:HB2   | 1.98                     | 0.46              |
| 1:H:768:MET:HB2   | 1:J:759:LEU:HD11  | 1.97                     | 0.46              |
| 1:J:9:ARG:HH12    | 1:L:21:GLN:HA     | 1.80                     | 0.46              |
| 1:J:331:GLY:O     | 1:J:332:LEU:HD22  | 2.16                     | 0.46              |
| 1:J:338:GLN:HB3   | 1:J:370:LYS:HB3   | 1.98                     | 0.46              |
| 1:K:540:GLN:HB2   | 1:K:641:GLN:HB2   | 1.98                     | 0.46              |
| 1:K:600:ARG:HG2   | 1:K:604:PHE:HE1   | 1.81                     | 0.46              |
| 1:N:400:ALA:HB2   | 1:N:491:PRO:HD3   | 1.97                     | 0.46              |
| 1:P:54:PRO:HD2    | 1:P:109:ILE:HD11  | 1.97                     | 0.46              |
| 1:P:640:VAL:HG13  | 1:R:580:ARG:HH11  | 1.80                     | 0.46              |
| 1:Q:219:VAL:HG21  | 1:Q:227:LEU:HD22  | 1.97                     | 0.46              |
| 1:S:600:ARG:HG2   | 1:S:604:PHE:HE1   | 1.81                     | 0.46              |
| 1:T:400:ALA:HB2   | 1:T:491:PRO:HD3   | 1.98                     | 0.46              |
| 1:X:394:LYS:HE3   | 1:X:394:LYS:HB2   | 1.81                     | 0.46              |
| 1:Y:281:TYR:CD1   | 1:Y:366:VAL:HG23  | 2.50                     | 0.46              |
| 1:AA:228:HIS:HE1  | 1:AA:248:GLU:HB3  | 1.81                     | 0.46              |
| 1:BA:600:ARG:HG2  | 1:BA:604:PHE:HE1  | 1.81                     | 0.46              |
| 1:CA:219:VAL:HG21 | 1:CA:227:LEU:HD22 | 1.97                     | 0.46              |
| 1:DA:17:HIS:NE2   | 1:DA:99:LEU:O     | 2.33                     | 0.46              |
| 1:EA:600:ARG:HG2  | 1:EA:604:PHE:HE1  | 1.81                     | 0.46              |
| 1:GA:338:GLN:HB3  | 1:GA:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:HA:529:ILE:HD12 | 1:HA:583:VAL:HG11 | 1.97                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:HA:600:ARG:HG2  | 1:HA:604:PHE:HE1  | 1.81                     | 0.46              |
| 1:JA:219:VAL:HG21 | 1:JA:227:LEU:HD22 | 1.97                     | 0.46              |
| 1:KA:228:HIS:HE1  | 1:KA:248:GLU:HB3  | 1.81                     | 0.46              |
| 1:KA:394:LYS:HE3  | 1:KA:394:LYS:HB2  | 1.81                     | 0.46              |
| 1:KA:772:TYR:CD1  | 1:MA:766:ARG:HB3  | 2.50                     | 0.46              |
| 1:NA:529:ILE:HD12 | 1:NA:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:OA:338:GLN:HB3  | 1:OA:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:OA:600:ARG:HG2  | 1:OA:604:PHE:HE1  | 1.81                     | 0.46              |
| 1:PA:540:GLN:HB2  | 1:PA:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:QA:17:HIS:NE2   | 1:QA:99:LEU:O     | 2.33                     | 0.46              |
| 1:TA:603:VAL:HG21 | 1:TA:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:UA:540:GLN:HB2  | 1:UA:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:UA:757:ALA:CB   | 1:WA:748:ALA:HB1  | 2.46                     | 0.46              |
| 1:VA:67:ARG:NH2   | 1:VA:71:SER:O     | 2.44                     | 0.46              |
| 1:VA:338:GLN:HB3  | 1:VA:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:WA:338:GLN:HB3  | 1:WA:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:WA:600:ARG:HG2  | 1:WA:604:PHE:HE1  | 1.81                     | 0.46              |
| 1:YA:219:VAL:HG21 | 1:YA:227:LEU:HD22 | 1.97                     | 0.46              |
| 1:YA:540:GLN:HB2  | 1:YA:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:ZA:228:HIS:HE1  | 1:ZA:248:GLU:HB3  | 1.81                     | 0.46              |
| 1:ZA:529:ILE:HD12 | 1:ZA:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:AB:529:ILE:HD12 | 1:AB:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:AB:600:ARG:HG2  | 1:AB:604:PHE:HE1  | 1.81                     | 0.46              |
| 1:DB:338:GLN:HB3  | 1:DB:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:DB:529:ILE:HD12 | 1:DB:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:JB:54:PRO:HD2   | 1:JB:109:ILE:HD11 | 1.97                     | 0.46              |
| 1:JB:338:GLN:HB3  | 1:JB:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:LB:228:HIS:HE1  | 1:LB:248:GLU:HB3  | 1.81                     | 0.46              |
| 1:NB:228:HIS:HE1  | 1:NB:248:GLU:HB3  | 1.81                     | 0.46              |
| 1:NB:299:LYS:NZ   | 1:NB:317:GLU:OE2  | 2.38                     | 0.46              |
| 1:NB:600:ARG:HG2  | 1:NB:604:PHE:HE1  | 1.81                     | 0.46              |
| 1:PB:331:GLY:O    | 1:PB:332:LEU:HD22 | 2.16                     | 0.46              |
| 1:QB:529:ILE:HD12 | 1:QB:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:QB:603:VAL:HG21 | 1:QB:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:VB:331:GLY:O    | 1:VB:332:LEU:HD22 | 2.16                     | 0.46              |
| 1:WB:400:ALA:HB2  | 1:WB:491:PRO:HD3  | 1.97                     | 0.46              |
| 1:WB:575:ILE:HD11 | 1:WB:635:VAL:HG21 | 1.96                     | 0.46              |
| 1:YB:136:LYS:HD2  | 1:YB:136:LYS:HA   | 1.76                     | 0.46              |
| 1:A:331:GLY:O     | 1:A:332:LEU:HD22  | 2.16                     | 0.46              |
| 1:A:768:MET:HB2   | 1:C:759:LEU:HD11  | 1.98                     | 0.46              |
| 1:B:273:ILE:HG13  | 1:B:308:PHE:O     | 2.15                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:E:709:LEU:HD11  | 1:G:701:LYS:HE3   | 1.98                     | 0.46              |
| 1:G:136:LYS:HD2   | 1:G:136:LYS:HA    | 1.76                     | 0.46              |
| 1:G:228:HIS:HE1   | 1:G:248:GLU:HB3   | 1.81                     | 0.46              |
| 1:I:273:ILE:HG13  | 1:I:308:PHE:O     | 2.15                     | 0.46              |
| 1:I:600:ARG:HG2   | 1:I:604:PHE:HE1   | 1.81                     | 0.46              |
| 1:J:54:PRO:HD2    | 1:J:109:ILE:HD11  | 1.97                     | 0.46              |
| 1:L:54:PRO:HD2    | 1:L:109:ILE:HD11  | 1.97                     | 0.46              |
| 1:L:228:HIS:HE1   | 1:L:248:GLU:HB3   | 1.81                     | 0.46              |
| 1:M:384:GLN:HB2   | 1:O:474:ARG:HG3   | 1.98                     | 0.46              |
| 1:N:529:ILE:HD12  | 1:N:583:VAL:HG11  | 1.97                     | 0.46              |
| 1:N:757:ALA:CB    | 1:P:748:ALA:HB1   | 2.46                     | 0.46              |
| 1:O:775:ALA:HB3   | 1:Q:770:LEU:HD21  | 1.97                     | 0.46              |
| 1:P:331:GLY:O     | 1:P:332:LEU:HD22  | 2.16                     | 0.46              |
| 1:P:540:GLN:HB2   | 1:P:641:GLN:HB2   | 1.98                     | 0.46              |
| 1:P:793:LYS:NZ    | 1:R:789:ASN:OD1   | 2.46                     | 0.46              |
| 1:P:801:ALA:HA    | 1:R:796:LYS:HZ1   | 1.78                     | 0.46              |
| 1:Q:600:ARG:HG2   | 1:Q:604:PHE:HE1   | 1.81                     | 0.46              |
| 1:S:228:HIS:HE1   | 1:S:248:GLU:HB3   | 1.81                     | 0.46              |
| 1:S:281:TYR:CD1   | 1:S:366:VAL:HG23  | 2.50                     | 0.46              |
| 1:V:529:ILE:HD12  | 1:V:583:VAL:HG11  | 1.97                     | 0.46              |
| 1:W:273:ILE:HG13  | 1:W:308:PHE:O     | 2.15                     | 0.46              |
| 1:X:377:ARG:NH1   | 1:X:409:THR:O     | 2.30                     | 0.46              |
| 1:X:400:ALA:HB2   | 1:X:491:PRO:HD3   | 1.97                     | 0.46              |
| 1:BA:400:ALA:HB2  | 1:BA:491:PRO:HD3  | 1.97                     | 0.46              |
| 1:DA:228:HIS:HE1  | 1:DA:248:GLU:HB3  | 1.81                     | 0.46              |
| 1:EA:281:TYR:CD1  | 1:EA:366:VAL:HG23 | 2.50                     | 0.46              |
| 1:EA:603:VAL:HG21 | 1:EA:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:GA:281:TYR:CD1  | 1:GA:366:VAL:HG23 | 2.50                     | 0.46              |
| 1:HA:136:LYS:HA   | 1:HA:136:LYS:HD2  | 1.76                     | 0.46              |
| 1:HA:331:GLY:O    | 1:HA:332:LEU:HD22 | 2.16                     | 0.46              |
| 1:HA:540:GLN:HB2  | 1:HA:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:IA:281:TYR:CD1  | 1:IA:366:VAL:HG23 | 2.50                     | 0.46              |
| 1:JA:338:GLN:HB3  | 1:JA:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:KA:281:TYR:CD1  | 1:KA:366:VAL:HG23 | 2.50                     | 0.46              |
| 1:KA:377:ARG:NH1  | 1:KA:409:THR:O    | 2.30                     | 0.46              |
| 1:KA:702:ALA:CB   | 1:MA:690:ARG:HH12 | 2.26                     | 0.46              |
| 1:LA:219:VAL:HG21 | 1:LA:227:LEU:HD22 | 1.97                     | 0.46              |
| 1:NA:56:ARG:HG3   | 1:PA:127:LEU:HD22 | 1.98                     | 0.46              |
| 1:NA:540:GLN:HB2  | 1:NA:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:NA:676:GLU:OE2  | 1:NA:679:ARG:NH2  | 2.43                     | 0.46              |
| 1:PA:400:ALA:HB2  | 1:PA:491:PRO:HD3  | 1.97                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:QA:331:GLY:O    | 1:QA:332:LEU:HD22 | 2.16                     | 0.46              |
| 1:UA:331:GLY:O    | 1:UA:332:LEU:HD22 | 2.16                     | 0.46              |
| 1:VA:228:HIS:HE1  | 1:VA:248:GLU:HB3  | 1.81                     | 0.46              |
| 1:WA:228:HIS:HE1  | 1:WA:248:GLU:HB3  | 1.81                     | 0.46              |
| 1:WA:506:LYS:HD3  | 1:WA:506:LYS:HA   | 1.78                     | 0.46              |
| 1:XA:377:ARG:NH1  | 1:XA:409:THR:O    | 2.30                     | 0.46              |
| 1:XA:600:ARG:HG2  | 1:XA:604:PHE:HE1  | 1.81                     | 0.46              |
| 1:AB:676:GLU:OE2  | 1:AB:679:ARG:NH2  | 2.43                     | 0.46              |
| 1:BB:331:GLY:O    | 1:BB:332:LEU:HD22 | 2.16                     | 0.46              |
| 1:BB:783:LYS:HA   | 1:CB:777:LEU:CD1  | 2.46                     | 0.46              |
| 1:EB:228:HIS:HE1  | 1:EB:248:GLU:HB3  | 1.81                     | 0.46              |
| 1:GB:540:GLN:HB2  | 1:GB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:HB:228:HIS:HE1  | 1:HB:248:GLU:HB3  | 1.81                     | 0.46              |
| 1:IB:331:GLY:O    | 1:IB:332:LEU:HD22 | 2.16                     | 0.46              |
| 1:JB:202:GLY:HA2  | 1:KB:191:VAL:HB   | 1.97                     | 0.46              |
| 1:KB:54:PRO:HD2   | 1:KB:109:ILE:HD11 | 1.97                     | 0.46              |
| 1:KB:400:ALA:HB2  | 1:KB:491:PRO:HD3  | 1.97                     | 0.46              |
| 1:KB:540:GLN:HB2  | 1:KB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:MB:540:GLN:HB2  | 1:MB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:NB:540:GLN:HB2  | 1:NB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:OB:540:GLN:HB2  | 1:OB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:PB:603:VAL:HG21 | 1:PB:638:VAL:HG11 | 1.96                     | 0.46              |
| 1:RB:338:GLN:HB3  | 1:RB:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:SB:377:ARG:NH1  | 1:SB:409:THR:O    | 2.30                     | 0.46              |
| 1:UB:331:GLY:O    | 1:UB:332:LEU:HD22 | 2.16                     | 0.46              |
| 1:XB:706:LEU:HD12 | 1:YB:693:ILE:O    | 2.16                     | 0.46              |
| 1:ZB:540:GLN:HB2  | 1:ZB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:AC:228:HIS:HE1  | 1:AC:248:GLU:HB3  | 1.81                     | 0.46              |
| 1:AC:299:LYS:NZ   | 1:AC:317:GLU:OE2  | 2.38                     | 0.46              |
| 1:C:228:HIS:HE1   | 1:C:248:GLU:HB3   | 1.81                     | 0.46              |
| 1:C:279:ARG:HD3   | 1:E:337:LEU:HD13  | 1.98                     | 0.46              |
| 1:C:331:GLY:O     | 1:C:332:LEU:HD22  | 2.16                     | 0.46              |
| 1:C:600:ARG:HG2   | 1:C:604:PHE:HE1   | 1.81                     | 0.46              |
| 1:E:540:GLN:HB2   | 1:E:641:GLN:HB2   | 1.98                     | 0.46              |
| 1:H:54:PRO:HD2    | 1:H:109:ILE:HD11  | 1.97                     | 0.46              |
| 1:H:385:ASN:ND2   | 1:J:473:TYR:O     | 2.49                     | 0.46              |
| 1:J:540:GLN:HB2   | 1:J:641:GLN:HB2   | 1.98                     | 0.46              |
| 1:M:95:ASP:HA     | 1:O:85:HIS:CE1    | 2.51                     | 0.46              |
| 1:N:331:GLY:O     | 1:N:332:LEU:HD22  | 2.16                     | 0.46              |
| 1:O:281:TYR:CD1   | 1:O:366:VAL:HG23  | 2.50                     | 0.46              |
| 1:O:338:GLN:HB3   | 1:O:370:LYS:HB3   | 1.98                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:O:600:ARG:HG2   | 1:O:604:PHE:HE1   | 1.81                     | 0.46              |
| 1:P:600:ARG:HG2   | 1:P:604:PHE:HE1   | 1.81                     | 0.46              |
| 1:Q:228:HIS:HE1   | 1:Q:248:GLU:HB3   | 1.81                     | 0.46              |
| 1:Q:706:LEU:HD13  | 1:S:693:ILE:HG23  | 1.98                     | 0.46              |
| 1:T:228:HIS:HE1   | 1:T:248:GLU:HB3   | 1.81                     | 0.46              |
| 1:V:600:ARG:HG2   | 1:V:604:PHE:HE1   | 1.81                     | 0.46              |
| 1:W:228:HIS:HE1   | 1:W:248:GLU:HB3   | 1.81                     | 0.46              |
| 1:X:331:GLY:O     | 1:X:332:LEU:HD22  | 2.16                     | 0.46              |
| 1:Z:600:ARG:HG2   | 1:Z:604:PHE:HE1   | 1.81                     | 0.46              |
| 1:AA:377:ARG:NH1  | 1:AA:409:THR:O    | 2.31                     | 0.46              |
| 1:DA:331:GLY:O    | 1:DA:332:LEU:HD22 | 2.16                     | 0.46              |
| 1:EA:219:VAL:HG21 | 1:EA:227:LEU:HD22 | 1.97                     | 0.46              |
| 1:FA:540:GLN:HB2  | 1:FA:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:GA:400:ALA:HB2  | 1:GA:491:PRO:HD3  | 1.97                     | 0.46              |
| 1:HA:338:GLN:HB3  | 1:HA:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:JA:228:HIS:HE1  | 1:JA:248:GLU:HB3  | 1.81                     | 0.46              |
| 1:JA:600:ARG:HG2  | 1:JA:604:PHE:HE1  | 1.81                     | 0.46              |
| 1:KA:331:GLY:O    | 1:KA:332:LEU:HD22 | 2.16                     | 0.46              |
| 1:MA:219:VAL:HG21 | 1:MA:227:LEU:HD22 | 1.97                     | 0.46              |
| 1:MA:228:HIS:HE1  | 1:MA:248:GLU:HB3  | 1.81                     | 0.46              |
| 1:MA:331:GLY:O    | 1:MA:332:LEU:HD22 | 2.16                     | 0.46              |
| 1:PA:600:ARG:HG2  | 1:PA:604:PHE:HE1  | 1.81                     | 0.46              |
| 1:QA:338:GLN:HB3  | 1:QA:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:RA:338:GLN:HB3  | 1:RA:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:RA:575:ILE:HD11 | 1:RA:635:VAL:HG21 | 1.96                     | 0.46              |
| 1:TA:400:ALA:HB2  | 1:TA:491:PRO:HD3  | 1.97                     | 0.46              |
| 1:TA:529:ILE:HD12 | 1:TA:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:TA:600:ARG:HG2  | 1:TA:604:PHE:HE1  | 1.81                     | 0.46              |
| 1:UA:219:VAL:HG21 | 1:UA:227:LEU:HD22 | 1.97                     | 0.46              |
| 1:UA:600:ARG:HG2  | 1:UA:604:PHE:HE1  | 1.81                     | 0.46              |
| 1:VA:540:GLN:HB2  | 1:VA:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:XA:482:PHE:CZ   | 1:XA:552:ARG:HB3  | 2.52                     | 0.46              |
| 1:YA:383:ASP:OD1  | 1:YA:383:ASP:N    | 2.44                     | 0.46              |
| 1:YA:400:ALA:HB2  | 1:YA:491:PRO:HD3  | 1.97                     | 0.46              |
| 1:AB:540:GLN:HB2  | 1:AB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:BB:338:GLN:HB3  | 1:BB:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:BB:790:VAL:CG2  | 1:CB:785:GLN:HA   | 2.44                     | 0.46              |
| 1:EB:220:ILE:HD12 | 1:FB:245:THR:HG22 | 1.98                     | 0.46              |
| 1:HB:54:PRO:HD2   | 1:HB:109:ILE:HD11 | 1.97                     | 0.46              |
| 1:HB:299:LYS:NZ   | 1:HB:317:GLU:OE2  | 2.38                     | 0.46              |
| 1:IB:54:PRO:HD2   | 1:IB:109:ILE:HD11 | 1.97                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:IB:338:GLN:HB3  | 1:IB:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:JB:540:GLN:HB2  | 1:JB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:KB:529:ILE:HD12 | 1:KB:583:VAL:HG11 | 1.97                     | 0.46              |
| 1:KB:600:ARG:HG2  | 1:KB:604:PHE:HE1  | 1.81                     | 0.46              |
| 1:LB:54:PRO:HD2   | 1:LB:109:ILE:HD11 | 1.97                     | 0.46              |
| 1:LB:592:HIS:NE2  | 1:MB:531:THR:O    | 2.40                     | 0.46              |
| 1:LB:600:ARG:HG2  | 1:LB:604:PHE:HE1  | 1.81                     | 0.46              |
| 1:OB:600:ARG:HG2  | 1:OB:604:PHE:HE1  | 1.81                     | 0.46              |
| 1:PB:600:ARG:HG2  | 1:PB:604:PHE:HE1  | 1.81                     | 0.46              |
| 1:QB:9:ARG:HH22   | 1:RB:21:GLN:HA    | 1.80                     | 0.46              |
| 1:RB:540:GLN:HB2  | 1:RB:641:GLN:HB2  | 1.98                     | 0.46              |
| 1:TB:388:ILE:HA   | 1:TB:456:ARG:HA   | 1.98                     | 0.46              |
| 1:VB:279:ARG:NH2  | 1:WB:338:GLN:OE1  | 2.42                     | 0.46              |
| 1:WB:338:GLN:HB3  | 1:WB:370:LYS:HB3  | 1.98                     | 0.46              |
| 1:A:233:GLN:HA    | 1:A:245:THR:HG23  | 1.98                     | 0.45              |
| 1:A:482:PHE:CZ    | 1:A:552:ARG:HB3   | 2.52                     | 0.45              |
| 1:A:529:ILE:HD12  | 1:A:583:VAL:HG11  | 1.97                     | 0.45              |
| 1:B:338:GLN:HB3   | 1:B:370:LYS:HB3   | 1.98                     | 0.45              |
| 1:B:600:ARG:HG2   | 1:B:604:PHE:HE1   | 1.81                     | 0.45              |
| 1:D:54:PRO:HD2    | 1:D:109:ILE:HD11  | 1.97                     | 0.45              |
| 1:D:540:GLN:HB2   | 1:D:641:GLN:HB2   | 1.98                     | 0.45              |
| 1:E:592:HIS:NE2   | 1:G:531:THR:O     | 2.38                     | 0.45              |
| 1:F:338:GLN:HB3   | 1:F:370:LYS:HB3   | 1.98                     | 0.45              |
| 1:F:400:ALA:HB2   | 1:F:491:PRO:HD3   | 1.97                     | 0.45              |
| 1:G:233:GLN:HA    | 1:G:245:THR:HG23  | 1.98                     | 0.45              |
| 1:G:482:PHE:CZ    | 1:G:552:ARG:HB3   | 2.52                     | 0.45              |
| 1:H:600:ARG:HG2   | 1:H:604:PHE:HE1   | 1.81                     | 0.45              |
| 1:I:542:ALA:HB3   | 1:I:639:ASP:HB2   | 1.99                     | 0.45              |
| 1:L:331:GLY:O     | 1:L:332:LEU:HD22  | 2.16                     | 0.45              |
| 1:L:600:ARG:HG2   | 1:L:604:PHE:HE1   | 1.81                     | 0.45              |
| 1:N:482:PHE:CZ    | 1:N:552:ARG:HB3   | 2.52                     | 0.45              |
| 1:N:600:ARG:HG2   | 1:N:604:PHE:HE1   | 1.81                     | 0.45              |
| 1:O:529:ILE:HD12  | 1:O:583:VAL:HG11  | 1.97                     | 0.45              |
| 1:Q:281:TYR:CD1   | 1:Q:366:VAL:HG23  | 2.50                     | 0.45              |
| 1:T:529:ILE:HD12  | 1:T:583:VAL:HG11  | 1.97                     | 0.45              |
| 1:V:736:GLU:OE2   | 1:X:726:ALA:HB1   | 2.16                     | 0.45              |
| 1:W:529:ILE:HD12  | 1:W:583:VAL:HG11  | 1.97                     | 0.45              |
| 1:X:600:ARG:HG2   | 1:X:604:PHE:HE1   | 1.81                     | 0.45              |
| 1:Z:219:VAL:HG21  | 1:Z:227:LEU:HD22  | 1.97                     | 0.45              |
| 1:Z:331:GLY:O     | 1:Z:332:LEU:HD22  | 2.16                     | 0.45              |
| 1:AA:600:ARG:HG2  | 1:AA:604:PHE:HE1  | 1.81                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:FA:219:VAL:HG21 | 1:FA:227:LEU:HD22 | 1.97                     | 0.45              |
| 1:IA:400:ALA:HB2  | 1:IA:491:PRO:HD3  | 1.97                     | 0.45              |
| 1:KA:400:ALA:HB2  | 1:KA:491:PRO:HD3  | 1.98                     | 0.45              |
| 1:KA:600:ARG:HG2  | 1:KA:604:PHE:HE1  | 1.81                     | 0.45              |
| 1:LA:400:ALA:HB2  | 1:LA:491:PRO:HD3  | 1.98                     | 0.45              |
| 1:NA:228:HIS:HE1  | 1:NA:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:QA:482:PHE:CZ   | 1:QA:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:QA:757:ALA:CB   | 1:SA:748:ALA:HB1  | 2.46                     | 0.45              |
| 1:RA:228:HIS:HE1  | 1:RA:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:RA:600:ARG:HG2  | 1:RA:604:PHE:HE1  | 1.81                     | 0.45              |
| 1:SA:540:GLN:HB2  | 1:SA:641:GLN:HB2  | 1.98                     | 0.45              |
| 1:TA:331:GLY:O    | 1:TA:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:UA:338:GLN:HB3  | 1:UA:370:LYS:HB3  | 1.98                     | 0.45              |
| 1:WA:331:GLY:O    | 1:WA:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:ZA:388:ILE:HA   | 1:ZA:456:ARG:HA   | 1.98                     | 0.45              |
| 1:ZA:603:VAL:HG21 | 1:ZA:638:VAL:HG11 | 1.96                     | 0.45              |
| 1:CB:600:ARG:HG2  | 1:CB:604:PHE:HE1  | 1.81                     | 0.45              |
| 1:DB:388:ILE:HA   | 1:DB:456:ARG:HA   | 1.98                     | 0.45              |
| 1:FB:136:LYS:HD2  | 1:FB:136:LYS:HA   | 1.76                     | 0.45              |
| 1:FB:170:GLN:HB3  | 1:GB:233:GLN:OE1  | 2.16                     | 0.45              |
| 1:MB:797:GLU:CB   | 1:NB:792:ALA:HB1  | 2.45                     | 0.45              |
| 1:PB:228:HIS:HE1  | 1:PB:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:PB:484:PRO:HG2  | 1:QB:471:TYR:CD2  | 2.51                     | 0.45              |
| 1:QB:331:GLY:O    | 1:QB:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:SB:482:PHE:CZ   | 1:SB:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:SB:600:ARG:HG2  | 1:SB:604:PHE:HE1  | 1.81                     | 0.45              |
| 1:UB:338:GLN:HB3  | 1:UB:370:LYS:HB3  | 1.98                     | 0.45              |
| 1:UB:753:ILE:HG23 | 1:VB:744:ALA:HB1  | 1.98                     | 0.45              |
| 1:XB:228:HIS:HE1  | 1:XB:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:YB:600:ARG:HG2  | 1:YB:604:PHE:HE1  | 1.81                     | 0.45              |
| 1:ZB:665:THR:OG1  | 1:AC:589:ASP:OD2  | 2.25                     | 0.45              |
| 1:AC:54:PRO:HD2   | 1:AC:109:ILE:HD11 | 1.97                     | 0.45              |
| 1:A:228:HIS:HE1   | 1:A:248:GLU:HB3   | 1.81                     | 0.45              |
| 1:A:400:ALA:HB2   | 1:A:491:PRO:HD3   | 1.97                     | 0.45              |
| 1:B:533:ASP:OD2   | 1:B:587:THR:OG1   | 2.35                     | 0.45              |
| 1:E:331:GLY:O     | 1:E:332:LEU:HD22  | 2.16                     | 0.45              |
| 1:E:658:VAL:HG12  | 1:G:533:ASP:O     | 2.16                     | 0.45              |
| 1:F:482:PHE:CZ    | 1:F:552:ARG:HB3   | 2.52                     | 0.45              |
| 1:F:600:ARG:HG2   | 1:F:604:PHE:HE1   | 1.81                     | 0.45              |
| 1:H:233:GLN:HA    | 1:H:245:THR:HG23  | 1.98                     | 0.45              |
| 1:I:579:VAL:HG13  | 1:I:599:ILE:HG13  | 1.99                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:J:56:ARG:HG3    | 1:L:127:LEU:HB3   | 1.97                     | 0.45              |
| 1:L:136:LYS:HD2   | 1:L:136:LYS:HA    | 1.76                     | 0.45              |
| 1:L:377:ARG:NH1   | 1:L:409:THR:O     | 2.30                     | 0.45              |
| 1:M:579:VAL:HG13  | 1:M:599:ILE:HG13  | 1.99                     | 0.45              |
| 1:N:338:GLN:HB3   | 1:N:370:LYS:HB3   | 1.98                     | 0.45              |
| 1:O:233:GLN:HA    | 1:O:245:THR:HG23  | 1.98                     | 0.45              |
| 1:O:779:LEU:HD21  | 1:Q:773:ALA:HB1   | 1.98                     | 0.45              |
| 1:P:228:HIS:HE1   | 1:P:248:GLU:HB3   | 1.81                     | 0.45              |
| 1:R:542:ALA:HB3   | 1:R:639:ASP:HB2   | 1.99                     | 0.45              |
| 1:S:482:PHE:CZ    | 1:S:552:ARG:HB3   | 2.52                     | 0.45              |
| 1:T:482:PHE:CZ    | 1:T:552:ARG:HB3   | 2.52                     | 0.45              |
| 1:T:600:ARG:HG2   | 1:T:604:PHE:HE1   | 1.81                     | 0.45              |
| 1:V:482:PHE:CZ    | 1:V:552:ARG:HB3   | 2.51                     | 0.45              |
| 1:W:338:GLN:HB3   | 1:W:370:LYS:HB3   | 1.98                     | 0.45              |
| 1:W:542:ALA:HB3   | 1:W:639:ASP:HB2   | 1.99                     | 0.45              |
| 1:W:579:VAL:HG13  | 1:W:599:ILE:HG13  | 1.99                     | 0.45              |
| 1:X:219:VAL:HG21  | 1:X:227:LEU:HD22  | 1.97                     | 0.45              |
| 1:Z:228:HIS:HE1   | 1:Z:248:GLU:HB3   | 1.81                     | 0.45              |
| 1:Z:529:ILE:HD12  | 1:Z:583:VAL:HG11  | 1.97                     | 0.45              |
| 1:AA:281:TYR:CD1  | 1:AA:366:VAL:HG23 | 2.50                     | 0.45              |
| 1:AA:579:VAL:HG13 | 1:AA:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:DA:482:PHE:CZ   | 1:DA:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:DA:600:ARG:HG2  | 1:DA:604:PHE:HE1  | 1.81                     | 0.45              |
| 1:EA:529:ILE:HD12 | 1:EA:583:VAL:HG11 | 1.97                     | 0.45              |
| 1:FA:482:PHE:CZ   | 1:FA:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:GA:219:VAL:HG21 | 1:GA:227:LEU:HD22 | 1.97                     | 0.45              |
| 1:GA:482:PHE:CZ   | 1:GA:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:HA:219:VAL:HG21 | 1:HA:227:LEU:HD22 | 1.97                     | 0.45              |
| 1:HA:228:HIS:HE1  | 1:HA:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:IA:331:GLY:O    | 1:IA:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:JA:377:ARG:NH1  | 1:JA:409:THR:O    | 2.30                     | 0.45              |
| 1:KA:779:LEU:HD21 | 1:MA:773:ALA:HB1  | 1.97                     | 0.45              |
| 1:KA:783:LYS:HA   | 1:MA:777:LEU:CD1  | 2.46                     | 0.45              |
| 1:LA:228:HIS:HE1  | 1:LA:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:LA:383:ASP:OD1  | 1:LA:383:ASP:N    | 2.44                     | 0.45              |
| 1:MA:600:ARG:HG2  | 1:MA:604:PHE:HE1  | 1.81                     | 0.45              |
| 1:OA:400:ALA:HB2  | 1:OA:491:PRO:HD3  | 1.98                     | 0.45              |
| 1:PA:56:ARG:HG3   | 1:RA:127:LEU:HD22 | 1.99                     | 0.45              |
| 1:QA:600:ARG:HG2  | 1:QA:604:PHE:HE1  | 1.81                     | 0.45              |
| 1:SA:219:VAL:HG21 | 1:SA:227:LEU:HD22 | 1.97                     | 0.45              |
| 1:SA:482:PHE:CZ   | 1:SA:552:ARG:HB3  | 2.51                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:TA:542:ALA:HB3  | 1:TA:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:XA:506:LYS:HD3  | 1:XA:506:LYS:HA   | 1.78                     | 0.45              |
| 1:AB:484:PRO:HG2  | 1:OB:471:TYR:CD2  | 2.52                     | 0.45              |
| 1:EB:383:ASP:OD1  | 1:EB:383:ASP:N    | 2.44                     | 0.45              |
| 1:EB:579:VAL:HG13 | 1:EB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:GB:228:HIS:HE1  | 1:GB:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:GB:533:ASP:OD2  | 1:GB:587:THR:OG1  | 2.35                     | 0.45              |
| 1:GB:579:VAL:HG13 | 1:GB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:KB:338:GLN:HB3  | 1:KB:370:LYS:HB3  | 1.98                     | 0.45              |
| 1:KB:482:PHE:CZ   | 1:KB:552:ARG:HB3  | 2.51                     | 0.45              |
| 1:KB:533:ASP:OD2  | 1:KB:587:THR:OG1  | 2.35                     | 0.45              |
| 1:PB:482:PHE:CZ   | 1:PB:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:QB:136:LYS:HD2  | 1:QB:136:LYS:HA   | 1.76                     | 0.45              |
| 1:QB:338:GLN:HB3  | 1:QB:370:LYS:HB3  | 1.98                     | 0.45              |
| 1:QB:600:ARG:HG2  | 1:QB:604:PHE:HE1  | 1.81                     | 0.45              |
| 1:TB:600:ARG:HG2  | 1:TB:604:PHE:HE1  | 1.81                     | 0.45              |
| 1:TB:603:VAL:HG21 | 1:TB:638:VAL:HG11 | 1.96                     | 0.45              |
| 1:VB:600:ARG:HG2  | 1:VB:604:PHE:HE1  | 1.81                     | 0.45              |
| 1:WB:388:ILE:HA   | 1:WB:456:ARG:HA   | 1.99                     | 0.45              |
| 1:XB:579:VAL:HG13 | 1:XB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:YB:486:LEU:HB2  | 1:ZB:473:TYR:HB3  | 1.99                     | 0.45              |
| 1:ZB:385:ASN:ND2  | 1:AC:474:ARG:HA   | 2.30                     | 0.45              |
| 1:ZB:484:PRO:HG2  | 1:AC:471:TYR:CD2  | 2.51                     | 0.45              |
| 1:ZB:529:ILE:HD12 | 1:ZB:583:VAL:HG11 | 1.97                     | 0.45              |
| 1:ZB:681:GLU:OE1  | 1:AC:675:HIS:NE2  | 2.49                     | 0.45              |
| 1:A:579:VAL:HG13  | 1:A:599:ILE:HG13  | 1.99                     | 0.45              |
| 1:A:600:ARG:HG2   | 1:A:604:PHE:HE1   | 1.81                     | 0.45              |
| 1:C:338:GLN:HB3   | 1:C:370:LYS:HB3   | 1.98                     | 0.45              |
| 1:C:529:ILE:HD12  | 1:C:583:VAL:HG11  | 1.97                     | 0.45              |
| 1:C:720:GLY:HA3   | 1:E:711:ALA:HB1   | 1.98                     | 0.45              |
| 1:E:542:ALA:HB3   | 1:E:639:ASP:HB2   | 1.99                     | 0.45              |
| 1:I:233:GLN:HA    | 1:I:245:THR:HG23  | 1.99                     | 0.45              |
| 1:L:482:PHE:CZ    | 1:L:552:ARG:HB3   | 2.52                     | 0.45              |
| 1:N:233:GLN:HA    | 1:N:245:THR:HG23  | 1.99                     | 0.45              |
| 1:O:400:ALA:HB2   | 1:O:491:PRO:HD3   | 1.97                     | 0.45              |
| 1:P:95:ASP:HA     | 1:R:85:HIS:CE1    | 2.51                     | 0.45              |
| 1:R:228:HIS:HE1   | 1:R:248:GLU:HB3   | 1.81                     | 0.45              |
| 1:R:331:GLY:O     | 1:R:332:LEU:HD22  | 2.16                     | 0.45              |
| 1:R:579:VAL:HG13  | 1:R:599:ILE:HG13  | 1.99                     | 0.45              |
| 1:S:506:LYS:HD3   | 1:S:506:LYS:HA    | 1.78                     | 0.45              |
| 1:T:579:VAL:HG13  | 1:T:599:ILE:HG13  | 1.99                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:V:203:ALA:HB2   | 1:X:192:THR:HB    | 1.98                     | 0.45              |
| 1:V:579:VAL:HG13  | 1:V:599:ILE:HG13  | 1.99                     | 0.45              |
| 1:Y:338:GLN:HB3   | 1:Y:370:LYS:HB3   | 1.98                     | 0.45              |
| 1:Y:400:ALA:HB2   | 1:Y:491:PRO:HD3   | 1.97                     | 0.45              |
| 1:BA:219:VAL:HG21 | 1:BA:227:LEU:HD22 | 1.97                     | 0.45              |
| 1:DA:338:GLN:HB3  | 1:DA:370:LYS:HB3  | 1.98                     | 0.45              |
| 1:EA:228:HIS:HE1  | 1:EA:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:IA:219:VAL:HG21 | 1:IA:227:LEU:HD22 | 1.97                     | 0.45              |
| 1:IA:600:ARG:HG2  | 1:IA:604:PHE:HE1  | 1.81                     | 0.45              |
| 1:JA:331:GLY:O    | 1:JA:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:KA:338:GLN:HB3  | 1:KA:370:LYS:HB3  | 1.98                     | 0.45              |
| 1:LA:331:GLY:O    | 1:LA:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:MA:529:ILE:HD12 | 1:MA:583:VAL:HG11 | 1.97                     | 0.45              |
| 1:OA:219:VAL:HG21 | 1:OA:227:LEU:HD22 | 1.97                     | 0.45              |
| 1:OA:542:ALA:HB3  | 1:OA:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:PA:228:HIS:HE1  | 1:PA:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:PA:542:ALA:HB3  | 1:PA:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:QA:219:VAL:HG21 | 1:QA:227:LEU:HD22 | 1.97                     | 0.45              |
| 1:TA:388:ILE:HA   | 1:TA:456:ARG:HA   | 1.99                     | 0.45              |
| 1:UA:228:HIS:HE1  | 1:UA:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:UA:400:ALA:HB2  | 1:UA:491:PRO:HD3  | 1.97                     | 0.45              |
| 1:XA:542:ALA:HB3  | 1:XA:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:YA:228:HIS:HE1  | 1:YA:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:ZA:600:ARG:HG2  | 1:ZA:604:PHE:HE1  | 1.81                     | 0.45              |
| 1:AB:228:HIS:HE1  | 1:AB:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:BB:299:LYS:NZ   | 1:BB:317:GLU:OE2  | 2.38                     | 0.45              |
| 1:CB:482:PHE:CZ   | 1:CB:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:DB:482:PHE:CZ   | 1:DB:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:DB:579:VAL:HG13 | 1:DB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:FB:600:ARG:HG2  | 1:FB:604:PHE:HE1  | 1.81                     | 0.45              |
| 1:HB:331:GLY:O    | 1:HB:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:IB:600:ARG:HG2  | 1:IB:604:PHE:HE1  | 1.81                     | 0.45              |
| 1:KB:233:GLN:HA   | 1:KB:245:THR:HG23 | 1.98                     | 0.45              |
| 1:LB:233:GLN:HA   | 1:LB:245:THR:HG23 | 1.99                     | 0.45              |
| 1:LB:506:LYS:HD3  | 1:LB:506:LYS:HA   | 1.78                     | 0.45              |
| 1:LB:782:SER:HB2  | 1:MB:777:LEU:HD21 | 1.98                     | 0.45              |
| 1:NB:331:GLY:O    | 1:NB:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:NB:377:ARG:NH1  | 1:NB:409:THR:O    | 2.30                     | 0.45              |
| 1:PB:388:ILE:HA   | 1:PB:456:ARG:HA   | 1.98                     | 0.45              |
| 1:PB:400:ALA:HB2  | 1:PB:491:PRO:HD3  | 1.97                     | 0.45              |
| 1:QB:228:HIS:HE1  | 1:QB:248:GLU:HB3  | 1.81                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:VB:579:VAL:HG13 | 1:VB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:XB:338:GLN:HB3  | 1:XB:370:LYS:HB3  | 1.98                     | 0.45              |
| 1:XB:681:GLU:OE1  | 1:YB:675:HIS:NE2  | 2.46                     | 0.45              |
| 1:YB:228:HIS:HE1  | 1:YB:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:ZB:228:HIS:HE1  | 1:ZB:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:ZB:331:GLY:O    | 1:ZB:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:ZB:533:ASP:OD2  | 1:ZB:587:THR:OG1  | 2.35                     | 0.45              |
| 1:ZB:579:VAL:HG13 | 1:ZB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:AC:482:PHE:CZ   | 1:AC:552:ARG:HB3  | 2.51                     | 0.45              |
| 1:A:533:ASP:O     | 1:NB:658:VAL:HG12 | 2.16                     | 0.45              |
| 1:B:579:VAL:HG13  | 1:B:599:ILE:HG13  | 1.99                     | 0.45              |
| 1:C:233:GLN:HA    | 1:C:245:THR:HG23  | 1.98                     | 0.45              |
| 1:D:527:ILE:HD11  | 1:D:543:TYR:OH    | 2.17                     | 0.45              |
| 1:E:527:ILE:HD11  | 1:E:543:TYR:OH    | 2.17                     | 0.45              |
| 1:E:529:ILE:HD12  | 1:E:583:VAL:HG11  | 1.97                     | 0.45              |
| 1:F:579:VAL:HG13  | 1:F:599:ILE:HG13  | 1.99                     | 0.45              |
| 1:G:529:ILE:HD12  | 1:G:583:VAL:HG11  | 1.97                     | 0.45              |
| 1:H:692:LYS:HG3   | 1:J:682:GLN:HG2   | 1.99                     | 0.45              |
| 1:I:529:ILE:HD12  | 1:I:583:VAL:HG11  | 1.97                     | 0.45              |
| 1:J:228:HIS:HE1   | 1:J:248:GLU:HB3   | 1.81                     | 0.45              |
| 1:M:482:PHE:CZ    | 1:M:552:ARG:HB3   | 2.51                     | 0.45              |
| 1:M:529:ILE:HD12  | 1:M:583:VAL:HG11  | 1.97                     | 0.45              |
| 1:M:542:ALA:HB3   | 1:M:639:ASP:HB2   | 1.99                     | 0.45              |
| 1:N:228:HIS:HE1   | 1:N:248:GLU:HB3   | 1.81                     | 0.45              |
| 1:N:394:LYS:HE3   | 1:N:394:LYS:HB2   | 1.81                     | 0.45              |
| 1:N:579:VAL:HG13  | 1:N:599:ILE:HG13  | 1.99                     | 0.45              |
| 1:O:579:VAL:HG13  | 1:O:599:ILE:HG13  | 1.99                     | 0.45              |
| 1:P:233:GLN:HA    | 1:P:245:THR:HG23  | 1.98                     | 0.45              |
| 1:P:529:ILE:HD12  | 1:P:583:VAL:HG11  | 1.97                     | 0.45              |
| 1:Q:338:GLN:HB3   | 1:Q:370:LYS:HB3   | 1.98                     | 0.45              |
| 1:Q:579:VAL:HG13  | 1:Q:599:ILE:HG13  | 1.99                     | 0.45              |
| 1:S:542:ALA:HB3   | 1:S:639:ASP:HB2   | 1.99                     | 0.45              |
| 1:V:331:GLY:O     | 1:V:332:LEU:HD22  | 2.16                     | 0.45              |
| 1:W:233:GLN:HA    | 1:W:245:THR:HG23  | 1.99                     | 0.45              |
| 1:X:542:ALA:HB3   | 1:X:639:ASP:HB2   | 1.99                     | 0.45              |
| 1:Y:579:VAL:HG13  | 1:Y:599:ILE:HG13  | 1.99                     | 0.45              |
| 1:Z:338:GLN:HB3   | 1:Z:370:LYS:HB3   | 1.98                     | 0.45              |
| 1:CA:233:GLN:HA   | 1:CA:245:THR:HG23 | 1.98                     | 0.45              |
| 1:CA:281:TYR:CD1  | 1:CA:366:VAL:HG23 | 2.50                     | 0.45              |
| 1:CA:400:ALA:HB2  | 1:CA:491:PRO:HD3  | 1.97                     | 0.45              |
| 1:CA:579:VAL:HG13 | 1:CA:599:ILE:HG13 | 1.99                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:DA:219:VAL:HG21 | 1:DA:227:LEU:HD22 | 1.97                     | 0.45              |
| 1:EA:482:PHE:CZ   | 1:EA:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:EA:579:VAL:HG13 | 1:EA:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:FA:400:ALA:HB2  | 1:FA:491:PRO:HD3  | 1.97                     | 0.45              |
| 1:FA:542:ALA:HB3  | 1:FA:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:HA:400:ALA:HB2  | 1:HA:491:PRO:HD3  | 1.97                     | 0.45              |
| 1:IA:482:PHE:CZ   | 1:IA:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:KA:542:ALA:HB3  | 1:KA:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:LA:388:ILE:HA   | 1:LA:456:ARG:HA   | 1.98                     | 0.45              |
| 1:LA:600:ARG:HG2  | 1:LA:604:PHE:HE1  | 1.81                     | 0.45              |
| 1:MA:40:ASN:ND2   | 1:NA:38:GLN:HG3   | 2.32                     | 0.45              |
| 1:NA:338:GLN:HB3  | 1:NA:370:LYS:HB3  | 1.98                     | 0.45              |
| 1:OA:676:GLU:OE2  | 1:OA:679:ARG:NH2  | 2.43                     | 0.45              |
| 1:PA:482:PHE:CZ   | 1:PA:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:RA:388:ILE:HA   | 1:RA:456:ARG:HA   | 1.99                     | 0.45              |
| 1:RA:400:ALA:HB2  | 1:RA:491:PRO:HD3  | 1.98                     | 0.45              |
| 1:RA:482:PHE:CZ   | 1:RA:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:SA:400:ALA:HB2  | 1:SA:491:PRO:HD3  | 1.97                     | 0.45              |
| 1:SA:542:ALA:HB3  | 1:SA:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:TA:228:HIS:HE1  | 1:TA:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:UA:136:LYS:HA   | 1:UA:136:LYS:HD2  | 1.76                     | 0.45              |
| 1:VA:482:PHE:CZ   | 1:VA:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:XA:382:LEU:O    | 1:ZA:396:GLY:HA3  | 2.17                     | 0.45              |
| 1:XA:388:ILE:HA   | 1:XA:456:ARG:HA   | 1.98                     | 0.45              |
| 1:YA:388:ILE:HA   | 1:YA:456:ARG:HA   | 1.98                     | 0.45              |
| 1:AB:338:GLN:HB3  | 1:AB:370:LYS:HB3  | 1.98                     | 0.45              |
| 1:BB:579:VAL:HG13 | 1:BB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:BB:757:ALA:HB3  | 1:CB:748:ALA:HB1  | 1.96                     | 0.45              |
| 1:CB:579:VAL:HG13 | 1:CB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:FB:228:HIS:HE1  | 1:FB:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:FB:331:GLY:O    | 1:FB:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:GB:331:GLY:O    | 1:GB:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:GB:388:ILE:HA   | 1:GB:456:ARG:HA   | 1.98                     | 0.45              |
| 1:GB:529:ILE:HD12 | 1:GB:583:VAL:HG11 | 1.97                     | 0.45              |
| 1:HB:136:LYS:HD2  | 1:HB:136:LYS:HA   | 1.76                     | 0.45              |
| 1:HB:482:PHE:CZ   | 1:HB:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:IB:579:VAL:HG13 | 1:IB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:KB:579:VAL:HG13 | 1:KB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:MB:228:HIS:HE1  | 1:MB:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:MB:579:VAL:HG13 | 1:MB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:MB:713:SER:OG   | 1:NB:707:LEU:HD12 | 2.15                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:OB:228:HIS:HE1  | 1:OB:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:OB:482:PHE:CZ   | 1:OB:552:ARG:HB3  | 2.51                     | 0.45              |
| 1:OB:542:ALA:HB3  | 1:OB:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:PB:338:GLN:HB3  | 1:PB:370:LYS:HB3  | 1.98                     | 0.45              |
| 1:QB:542:ALA:HB3  | 1:QB:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:RB:482:PHE:CZ   | 1:RB:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:SB:382:LEU:O    | 1:TB:396:GLY:HA3  | 2.16                     | 0.45              |
| 1:SB:542:ALA:HB3  | 1:SB:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:TB:338:GLN:HB3  | 1:TB:370:LYS:HB3  | 1.98                     | 0.45              |
| 1:VB:482:PHE:CZ   | 1:VB:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:WB:482:PHE:CZ   | 1:WB:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:WB:579:VAL:HG13 | 1:WB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:AC:331:GLY:O    | 1:AC:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:D:331:GLY:O     | 1:D:332:LEU:HD22  | 2.16                     | 0.45              |
| 1:D:377:ARG:NH1   | 1:D:409:THR:O     | 2.30                     | 0.45              |
| 1:E:377:ARG:NH1   | 1:E:409:THR:O     | 2.30                     | 0.45              |
| 1:E:579:VAL:HG13  | 1:E:599:ILE:HG13  | 1.99                     | 0.45              |
| 1:G:527:ILE:HD11  | 1:G:543:TYR:OH    | 2.17                     | 0.45              |
| 1:H:527:ILE:HD11  | 1:H:543:TYR:OH    | 2.17                     | 0.45              |
| 1:H:542:ALA:HB3   | 1:H:639:ASP:HB2   | 1.99                     | 0.45              |
| 1:I:228:HIS:HE1   | 1:I:248:GLU:HB3   | 1.81                     | 0.45              |
| 1:I:482:PHE:CZ    | 1:I:552:ARG:HB3   | 2.52                     | 0.45              |
| 1:J:579:VAL:HG13  | 1:J:599:ILE:HG13  | 1.99                     | 0.45              |
| 1:K:228:HIS:HE1   | 1:K:248:GLU:HB3   | 1.81                     | 0.45              |
| 1:L:529:ILE:HD12  | 1:L:583:VAL:HG11  | 1.97                     | 0.45              |
| 1:N:542:ALA:HB3   | 1:N:639:ASP:HB2   | 1.99                     | 0.45              |
| 1:O:702:ALA:HB2   | 1:Q:690:ARG:HH12  | 1.82                     | 0.45              |
| 1:Q:529:ILE:HD12  | 1:Q:583:VAL:HG11  | 1.97                     | 0.45              |
| 1:R:482:PHE:CZ    | 1:R:552:ARG:HB3   | 2.52                     | 0.45              |
| 1:S:400:ALA:HB2   | 1:S:491:PRO:HD3   | 1.98                     | 0.45              |
| 1:T:527:ILE:HD11  | 1:T:543:TYR:OH    | 2.17                     | 0.45              |
| 1:V:219:VAL:HG21  | 1:V:227:LEU:HD22  | 1.97                     | 0.45              |
| 1:V:228:HIS:HE1   | 1:V:248:GLU:HB3   | 1.81                     | 0.45              |
| 1:V:281:TYR:CD1   | 1:V:366:VAL:HG23  | 2.50                     | 0.45              |
| 1:W:600:ARG:HG2   | 1:W:604:PHE:HE1   | 1.81                     | 0.45              |
| 1:X:338:GLN:HB3   | 1:X:370:LYS:HB3   | 1.98                     | 0.45              |
| 1:AA:527:ILE:HD11 | 1:AA:543:TYR:OH   | 2.17                     | 0.45              |
| 1:AA:542:ALA:HB3  | 1:AA:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:BA:482:PHE:CZ   | 1:BA:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:BA:542:ALA:HB3  | 1:BA:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:CA:600:ARG:HG2  | 1:CA:604:PHE:HE1  | 1.81                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:EA:331:GLY:O    | 1:EA:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:FA:709:LEU:HD13 | 1:HA:701:LYS:HG3  | 1.98                     | 0.45              |
| 1:GA:542:ALA:HB3  | 1:GA:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:IA:228:HIS:HE1  | 1:IA:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:JA:542:ALA:HB3  | 1:JA:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:KA:219:VAL:HG21 | 1:KA:227:LEU:HD22 | 1.97                     | 0.45              |
| 1:LA:136:LYS:HA   | 1:LA:136:LYS:HD2  | 1.76                     | 0.45              |
| 1:MA:579:VAL:HG13 | 1:MA:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:NA:299:LYS:NZ   | 1:NA:317:GLU:OE2  | 2.38                     | 0.45              |
| 1:OA:363:LEU:HA   | 1:QA:353:ALA:HB3  | 1.97                     | 0.45              |
| 1:OA:482:PHE:CZ   | 1:OA:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:SA:145:PHE:CE2  | 1:SA:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:VA:331:GLY:O    | 1:VA:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:XA:383:ASP:OD1  | 1:XA:383:ASP:N    | 2.44                     | 0.45              |
| 1:XA:400:ALA:HB2  | 1:XA:491:PRO:HD3  | 1.97                     | 0.45              |
| 1:YA:382:LEU:O    | 1:AB:396:GLY:HA3  | 2.16                     | 0.45              |
| 1:YA:542:ALA:HB3  | 1:YA:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:ZA:579:VAL:HG13 | 1:ZA:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:AB:299:LYS:NZ   | 1:AB:317:GLU:OE2  | 2.38                     | 0.45              |
| 1:BB:388:ILE:HA   | 1:BB:456:ARG:HA   | 1.98                     | 0.45              |
| 1:EB:338:GLN:HB3  | 1:EB:370:LYS:HB3  | 1.98                     | 0.45              |
| 1:EB:388:ILE:HA   | 1:EB:456:ARG:HA   | 1.98                     | 0.45              |
| 1:EB:542:ALA:HB3  | 1:EB:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:GB:279:ARG:HD3  | 1:HB:337:LEU:HD13 | 1.97                     | 0.45              |
| 1:GB:482:PHE:CZ   | 1:GB:552:ARG:HB3  | 2.51                     | 0.45              |
| 1:HB:233:GLN:HA   | 1:HB:245:THR:HG23 | 1.98                     | 0.45              |
| 1:HB:709:LEU:HD11 | 1:IB:701:LYS:HE3  | 1.99                     | 0.45              |
| 1:IB:220:ILE:CD1  | 1:JB:245:THR:HG22 | 2.46                     | 0.45              |
| 1:IB:720:GLY:HA3  | 1:JB:711:ALA:HB1  | 1.99                     | 0.45              |
| 1:JB:331:GLY:O    | 1:JB:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:LB:482:PHE:CZ   | 1:LB:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:MB:136:LYS:HA   | 1:MB:136:LYS:HD2  | 1.76                     | 0.45              |
| 1:MB:400:ALA:HB2  | 1:MB:491:PRO:HD3  | 1.97                     | 0.45              |
| 1:NB:482:PHE:CZ   | 1:NB:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:QB:388:ILE:HA   | 1:QB:456:ARG:HA   | 1.98                     | 0.45              |
| 1:QB:717:GLU:HG3  | 1:RB:707:LEU:HD13 | 1.98                     | 0.45              |
| 1:RB:382:LEU:O    | 1:SB:396:GLY:HA3  | 2.16                     | 0.45              |
| 1:SB:383:ASP:OD1  | 1:SB:383:ASP:N    | 2.44                     | 0.45              |
| 1:SB:400:ALA:HB2  | 1:SB:491:PRO:HD3  | 1.97                     | 0.45              |
| 1:SB:506:LYS:HD3  | 1:SB:506:LYS:HA   | 1.78                     | 0.45              |
| 1:UB:363:LEU:C    | 1:VB:353:ALA:HB3  | 2.37                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:UB:388:ILE:HA   | 1:UB:456:ARG:HA   | 1.98                     | 0.45              |
| 1:UB:400:ALA:HB2  | 1:UB:491:PRO:HD3  | 1.98                     | 0.45              |
| 1:UB:484:PRO:HB2  | 1:VB:471:TYR:CD2  | 2.51                     | 0.45              |
| 1:UB:579:VAL:HG13 | 1:UB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:WB:331:GLY:O    | 1:WB:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:XB:383:ASP:OD1  | 1:XB:383:ASP:N    | 2.44                     | 0.45              |
| 1:YB:331:GLY:O    | 1:YB:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:YB:579:VAL:HG13 | 1:YB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:ZB:388:ILE:HA   | 1:ZB:456:ARG:HA   | 1.98                     | 0.45              |
| 1:ZB:482:PHE:CZ   | 1:ZB:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:AC:233:GLN:HA   | 1:AC:245:THR:HG23 | 1.98                     | 0.45              |
| 1:A:338:GLN:HB3   | 1:A:370:LYS:HB3   | 1.98                     | 0.45              |
| 1:A:542:ALA:HB3   | 1:A:639:ASP:HB2   | 1.99                     | 0.45              |
| 1:A:797:GLU:CG    | 1:C:792:ALA:HB1   | 2.47                     | 0.45              |
| 1:C:377:ARG:NH1   | 1:C:409:THR:O     | 2.30                     | 0.45              |
| 1:C:654:LEU:HD13  | 1:E:534:HIS:CD2   | 2.51                     | 0.45              |
| 1:E:228:HIS:HE1   | 1:E:248:GLU:HB3   | 1.81                     | 0.45              |
| 1:F:233:GLN:HA    | 1:F:245:THR:HG23  | 1.98                     | 0.45              |
| 1:G:579:VAL:HG13  | 1:G:599:ILE:HG13  | 1.99                     | 0.45              |
| 1:H:482:PHE:CZ    | 1:H:552:ARG:HB3   | 2.52                     | 0.45              |
| 1:I:331:GLY:O     | 1:I:332:LEU:HD22  | 2.16                     | 0.45              |
| 1:J:400:ALA:HB2   | 1:J:491:PRO:HD3   | 1.97                     | 0.45              |
| 1:J:600:ARG:HG2   | 1:J:604:PHE:HE1   | 1.81                     | 0.45              |
| 1:K:529:ILE:HD12  | 1:K:583:VAL:HG11  | 1.97                     | 0.45              |
| 1:K:579:VAL:HG13  | 1:K:599:ILE:HG13  | 1.99                     | 0.45              |
| 1:L:299:LYS:NZ    | 1:L:317:GLU:OE2   | 2.38                     | 0.45              |
| 1:L:527:ILE:HD11  | 1:L:543:TYR:OH    | 2.17                     | 0.45              |
| 1:L:579:VAL:HG13  | 1:L:599:ILE:HG13  | 1.99                     | 0.45              |
| 1:M:233:GLN:HA    | 1:M:245:THR:HG23  | 1.98                     | 0.45              |
| 1:O:482:PHE:CZ    | 1:O:552:ARG:HB3   | 2.51                     | 0.45              |
| 1:P:579:VAL:HG13  | 1:P:599:ILE:HG13  | 1.99                     | 0.45              |
| 1:Q:527:ILE:HD11  | 1:Q:543:TYR:OH    | 2.17                     | 0.45              |
| 1:R:527:ILE:HD11  | 1:R:543:TYR:OH    | 2.17                     | 0.45              |
| 1:S:527:ILE:HD11  | 1:S:543:TYR:OH    | 2.17                     | 0.45              |
| 1:S:579:VAL:HG13  | 1:S:599:ILE:HG13  | 1.99                     | 0.45              |
| 1:BA:331:GLY:O    | 1:BA:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:BA:506:LYS:HD3  | 1:BA:506:LYS:HA   | 1.78                     | 0.45              |
| 1:BA:527:ILE:HD11 | 1:BA:543:TYR:OH   | 2.17                     | 0.45              |
| 1:CA:145:PHE:CE2  | 1:CA:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:CA:542:ALA:HB3  | 1:CA:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:DA:145:PHE:CE2  | 1:DA:151:TYR:HB2  | 2.52                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:FA:145:PHE:CE2  | 1:FA:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:GA:527:ILE:HD11 | 1:GA:543:TYR:OH   | 2.17                     | 0.45              |
| 1:GA:579:VAL:HG13 | 1:GA:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:IA:145:PHE:CE2  | 1:IA:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:IA:579:VAL:HG13 | 1:IA:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:NA:388:ILE:HA   | 1:NA:456:ARG:HA   | 1.98                     | 0.45              |
| 1:OA:527:ILE:HD11 | 1:OA:543:TYR:OH   | 2.17                     | 0.45              |
| 1:RA:145:PHE:CE2  | 1:RA:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:WA:542:ALA:HB3  | 1:WA:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:YA:331:GLY:O    | 1:YA:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:YA:600:ARG:HG2  | 1:YA:604:PHE:HE1  | 1.81                     | 0.45              |
| 1:AB:388:ILE:HA   | 1:AB:456:ARG:HA   | 1.98                     | 0.45              |
| 1:BB:400:ALA:HB2  | 1:BB:491:PRO:HD3  | 1.97                     | 0.45              |
| 1:BB:684:ALA:HB1  | 1:CB:675:HIS:HB3  | 1.97                     | 0.45              |
| 1:DB:228:HIS:HE1  | 1:DB:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:EB:377:ARG:NH1  | 1:EB:409:THR:O    | 2.30                     | 0.45              |
| 1:FB:579:VAL:HG13 | 1:FB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:GB:136:LYS:HD2  | 1:GB:136:LYS:HA   | 1.76                     | 0.45              |
| 1:HB:600:ARG:HG2  | 1:HB:604:PHE:HE1  | 1.81                     | 0.45              |
| 1:IB:228:HIS:HE1  | 1:IB:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:IB:233:GLN:HA   | 1:IB:245:THR:HG23 | 1.98                     | 0.45              |
| 1:JB:527:ILE:HD11 | 1:JB:543:TYR:OH   | 2.17                     | 0.45              |
| 1:KB:527:ILE:HD11 | 1:KB:543:TYR:OH   | 2.17                     | 0.45              |
| 1:LB:527:ILE:HD11 | 1:LB:543:TYR:OH   | 2.17                     | 0.45              |
| 1:LB:542:ALA:HB3  | 1:LB:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:OB:136:LYS:HA   | 1:OB:136:LYS:HD2  | 1.76                     | 0.45              |
| 1:OB:145:PHE:CE2  | 1:OB:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:OB:579:VAL:HG13 | 1:OB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:PB:145:PHE:CE2  | 1:PB:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:PB:579:VAL:HG13 | 1:PB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:QB:377:ARG:NH1  | 1:QB:409:THR:O    | 2.30                     | 0.45              |
| 1:RB:331:GLY:O    | 1:RB:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:SB:579:VAL:HG13 | 1:SB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:TB:331:GLY:O    | 1:TB:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:TB:579:VAL:HG13 | 1:TB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:UB:299:LYS:NZ   | 1:UB:317:GLU:OE2  | 2.38                     | 0.45              |
| 1:WB:394:LYS:HE3  | 1:WB:394:LYS:HB2  | 1.81                     | 0.45              |
| 1:XB:388:ILE:HA   | 1:XB:456:ARG:HA   | 1.98                     | 0.45              |
| 1:ZB:136:LYS:HD2  | 1:ZB:136:LYS:HA   | 1.76                     | 0.45              |
| 1:ZB:527:ILE:HD11 | 1:ZB:543:TYR:OH   | 2.17                     | 0.45              |
| 1:AC:600:ARG:HG2  | 1:AC:604:PHE:HE1  | 1.81                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:245:THR:HG22  | 1:NB:220:ILE:CD1  | 2.46                     | 0.45              |
| 1:A:717:GLU:CB    | 1:C:707:LEU:HD13  | 2.42                     | 0.45              |
| 1:A:750:ALA:HA    | 1:C:741:VAL:HG23  | 1.99                     | 0.45              |
| 1:B:136:LYS:HD2   | 1:B:136:LYS:HA    | 1.76                     | 0.45              |
| 1:B:139:ALA:HB2   | 1:AC:56:ARG:HH12  | 1.82                     | 0.45              |
| 1:B:233:GLN:HA    | 1:B:245:THR:HG23  | 1.99                     | 0.45              |
| 1:C:579:VAL:HG13  | 1:C:599:ILE:HG13  | 1.99                     | 0.45              |
| 1:D:542:ALA:HB3   | 1:D:639:ASP:HB2   | 1.99                     | 0.45              |
| 1:D:579:VAL:HG13  | 1:D:599:ILE:HG13  | 1.99                     | 0.45              |
| 1:F:527:ILE:HD11  | 1:F:543:TYR:OH    | 2.17                     | 0.45              |
| 1:G:600:ARG:HG2   | 1:G:604:PHE:HE1   | 1.81                     | 0.45              |
| 1:H:136:LYS:HD2   | 1:H:136:LYS:HA    | 1.76                     | 0.45              |
| 1:H:331:GLY:O     | 1:H:332:LEU:HD22  | 2.16                     | 0.45              |
| 1:H:506:LYS:HD3   | 1:H:506:LYS:HA    | 1.78                     | 0.45              |
| 1:J:529:ILE:HD12  | 1:J:583:VAL:HG11  | 1.97                     | 0.45              |
| 1:K:676:GLU:OE2   | 1:K:679:ARG:NH2   | 2.43                     | 0.45              |
| 1:N:136:LYS:HD2   | 1:N:136:LYS:HA    | 1.76                     | 0.45              |
| 1:N:655:GLN:HG2   | 1:P:649:ARG:HH11  | 1.81                     | 0.45              |
| 1:P:338:GLN:HB3   | 1:P:370:LYS:HB3   | 1.98                     | 0.45              |
| 1:Q:542:ALA:HB3   | 1:Q:639:ASP:HB2   | 1.99                     | 0.45              |
| 1:S:145:PHE:CE2   | 1:S:151:TYR:HB2   | 2.52                     | 0.45              |
| 1:S:694:LEU:O     | 1:S:697:SER:OG    | 2.28                     | 0.45              |
| 1:T:233:GLN:HA    | 1:T:245:THR:HG23  | 1.98                     | 0.45              |
| 1:V:10:ILE:O      | 1:X:24:ASN:CG     | 2.55                     | 0.45              |
| 1:V:145:PHE:CE2   | 1:V:151:TYR:HB2   | 2.52                     | 0.45              |
| 1:W:527:ILE:HD11  | 1:W:543:TYR:OH    | 2.17                     | 0.45              |
| 1:Z:579:VAL:HG13  | 1:Z:599:ILE:HG13  | 1.99                     | 0.45              |
| 1:AA:482:PHE:CZ   | 1:AA:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:AA:529:ILE:HD12 | 1:AA:583:VAL:HG11 | 1.97                     | 0.45              |
| 1:BA:145:PHE:CE2  | 1:BA:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:CA:228:HIS:HE1  | 1:CA:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:DA:203:ALA:HB2  | 1:FA:192:THR:HB   | 1.99                     | 0.45              |
| 1:FA:388:ILE:HA   | 1:FA:456:ARG:HA   | 1.98                     | 0.45              |
| 1:GA:145:PHE:CE2  | 1:GA:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:HA:527:ILE:HD11 | 1:HA:543:TYR:OH   | 2.17                     | 0.45              |
| 1:JA:400:ALA:HB2  | 1:JA:491:PRO:HD3  | 1.97                     | 0.45              |
| 1:MA:145:PHE:CE2  | 1:MA:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:MA:338:GLN:HB3  | 1:MA:370:LYS:HB3  | 1.98                     | 0.45              |
| 1:MA:527:ILE:HD11 | 1:MA:543:TYR:OH   | 2.17                     | 0.45              |
| 1:NA:145:PHE:CE2  | 1:NA:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:OA:331:GLY:O    | 1:OA:332:LEU:HD22 | 2.16                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:PA:145:PHE:CE2  | 1:PA:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:QA:145:PHE:CE2  | 1:QA:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:QA:170:GLN:HB3  | 1:SA:233:GLN:OE1  | 2.15                     | 0.45              |
| 1:SA:388:ILE:HA   | 1:SA:456:ARG:HA   | 1.98                     | 0.45              |
| 1:UA:527:ILE:HD11 | 1:UA:543:TYR:OH   | 2.17                     | 0.45              |
| 1:VA:377:ARG:NH1  | 1:VA:409:THR:O    | 2.30                     | 0.45              |
| 1:VA:579:VAL:HG13 | 1:VA:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:WA:145:PHE:CE2  | 1:WA:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:WA:482:PHE:CZ   | 1:WA:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:XA:145:PHE:CE2  | 1:XA:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:XA:579:VAL:HG13 | 1:XA:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:YA:233:GLN:HA   | 1:YA:245:THR:HG23 | 1.98                     | 0.45              |
| 1:YA:338:GLN:HB3  | 1:YA:370:LYS:HB3  | 1.98                     | 0.45              |
| 1:YA:579:VAL:HG13 | 1:YA:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:ZA:331:GLY:O    | 1:ZA:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:AB:145:PHE:CE2  | 1:AB:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:AB:542:ALA:HB1  | 1:OB:573:LYS:HE2  | 1.97                     | 0.45              |
| 1:BB:145:PHE:CE2  | 1:BB:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:BB:542:ALA:HB3  | 1:BB:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:CB:542:ALA:HB3  | 1:CB:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:DB:331:GLY:O    | 1:DB:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:DB:394:LYS:HE3  | 1:DB:394:LYS:HB2  | 1.81                     | 0.45              |
| 1:DB:600:ARG:HG2  | 1:DB:604:PHE:HE1  | 1.81                     | 0.45              |
| 1:GB:527:ILE:HD11 | 1:GB:543:TYR:OH   | 2.17                     | 0.45              |
| 1:GB:676:GLU:OE2  | 1:GB:679:ARG:NH2  | 2.43                     | 0.45              |
| 1:HB:388:ILE:HA   | 1:HB:456:ARG:HA   | 1.98                     | 0.45              |
| 1:JB:377:ARG:NH1  | 1:JB:409:THR:O    | 2.30                     | 0.45              |
| 1:JB:542:ALA:HB3  | 1:JB:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:LB:136:LYS:HD2  | 1:LB:136:LYS:HA   | 1.76                     | 0.45              |
| 1:MB:527:ILE:HD11 | 1:MB:543:TYR:OH   | 2.17                     | 0.45              |
| 1:NB:527:ILE:HD11 | 1:NB:543:TYR:OH   | 2.17                     | 0.45              |
| 1:NB:542:ALA:HB3  | 1:NB:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:QB:579:VAL:HG13 | 1:QB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:RB:32:PRO:HB2   | 1:SB:24:ASN:HB2   | 1.98                     | 0.45              |
| 1:RB:579:VAL:HG13 | 1:RB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:SB:145:PHE:CE2  | 1:SB:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:SB:388:ILE:HA   | 1:SB:456:ARG:HA   | 1.98                     | 0.45              |
| 1:VB:542:ALA:HB3  | 1:VB:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:WB:228:HIS:HE1  | 1:WB:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:WB:533:ASP:OD2  | 1:WB:587:THR:OG1  | 2.35                     | 0.45              |
| 1:A:136:LYS:HD2   | 1:A:136:LYS:HA    | 1.76                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:55:PRO:HD3    | 1:D:86:ALA:O      | 2.16                     | 0.45              |
| 1:B:228:HIS:HE1   | 1:B:248:GLU:HB3   | 1.81                     | 0.45              |
| 1:C:299:LYS:NZ    | 1:C:317:GLU:OE2   | 2.38                     | 0.45              |
| 1:G:9:ARG:HH21    | 1:I:24:ASN:CG     | 2.18                     | 0.45              |
| 1:H:542:ALA:HB1   | 1:J:573:LYS:HE2   | 1.99                     | 0.45              |
| 1:J:136:LYS:HD2   | 1:J:136:LYS:HA    | 1.76                     | 0.45              |
| 1:J:527:ILE:HD11  | 1:J:543:TYR:OH    | 2.17                     | 0.45              |
| 1:K:527:ILE:HD11  | 1:K:543:TYR:OH    | 2.17                     | 0.45              |
| 1:L:383:ASP:OD1   | 1:L:383:ASP:N     | 2.44                     | 0.45              |
| 1:L:542:ALA:HB3   | 1:L:639:ASP:HB2   | 1.99                     | 0.45              |
| 1:L:666:THR:HG22  | 1:N:657:SER:HB2   | 1.97                     | 0.45              |
| 1:M:527:ILE:HD11  | 1:M:543:TYR:OH    | 2.17                     | 0.45              |
| 1:O:145:PHE:CE2   | 1:O:151:TYR:HB2   | 2.52                     | 0.45              |
| 1:O:527:ILE:HD11  | 1:O:543:TYR:OH    | 2.17                     | 0.45              |
| 1:O:542:ALA:HB3   | 1:O:639:ASP:HB2   | 1.99                     | 0.45              |
| 1:P:794:LYS:HB2   | 1:R:788:ALA:HB1   | 1.99                     | 0.45              |
| 1:Q:331:GLY:O     | 1:Q:332:LEU:HD22  | 2.16                     | 0.45              |
| 1:Q:482:PHE:CZ    | 1:Q:552:ARG:HB3   | 2.52                     | 0.45              |
| 1:R:529:ILE:HD12  | 1:R:583:VAL:HG11  | 1.97                     | 0.45              |
| 1:V:802:LEU:HG    | 1:X:795:PHE:HE2   | 1.82                     | 0.45              |
| 1:Y:542:ALA:HB3   | 1:Y:639:ASP:HB2   | 1.99                     | 0.45              |
| 1:Z:145:PHE:CE2   | 1:Z:151:TYR:HB2   | 2.52                     | 0.45              |
| 1:Z:527:ILE:HD11  | 1:Z:543:TYR:OH    | 2.17                     | 0.45              |
| 1:BA:228:HIS:HE1  | 1:BA:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:DA:579:VAL:HG13 | 1:DA:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:EA:145:PHE:CE2  | 1:EA:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:EA:527:ILE:HD11 | 1:EA:543:TYR:OH   | 2.17                     | 0.45              |
| 1:FA:600:ARG:HG2  | 1:FA:604:PHE:HE1  | 1.81                     | 0.45              |
| 1:HA:482:PHE:CZ   | 1:HA:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:IA:527:ILE:HD11 | 1:IA:543:TYR:OH   | 2.17                     | 0.45              |
| 1:JA:482:PHE:CZ   | 1:JA:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:KA:579:VAL:HG13 | 1:KA:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:LA:145:PHE:CE2  | 1:LA:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:LA:482:PHE:CZ   | 1:LA:552:ARG:HB3  | 2.51                     | 0.45              |
| 1:LA:542:ALA:HB3  | 1:LA:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:OA:145:PHE:CE2  | 1:OA:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:PA:579:VAL:HG13 | 1:PA:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:QA:579:VAL:HG13 | 1:QA:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:SA:228:HIS:HE1  | 1:SA:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:TA:145:PHE:CE2  | 1:TA:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:TA:579:VAL:HG13 | 1:TA:599:ILE:HG13 | 1.99                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:UA:482:PHE:CZ   | 1:UA:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:YA:145:PHE:CE2  | 1:YA:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:ZA:145:PHE:CE2  | 1:ZA:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:ZA:482:PHE:CZ   | 1:ZA:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:AB:482:PHE:CZ   | 1:AB:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:BB:676:GLU:OE2  | 1:BB:679:ARG:NH2  | 2.43                     | 0.45              |
| 1:CB:527:ILE:HD11 | 1:CB:543:TYR:OH   | 2.17                     | 0.45              |
| 1:FB:527:ILE:HD11 | 1:FB:543:TYR:OH   | 2.17                     | 0.45              |
| 1:GB:203:ALA:HB2  | 1:HB:192:THR:HB   | 1.99                     | 0.45              |
| 1:HB:579:VAL:HG13 | 1:HB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:JB:579:VAL:HG13 | 1:JB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:LB:331:GLY:O    | 1:LB:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:MB:529:ILE:HD12 | 1:MB:583:VAL:HG11 | 1.97                     | 0.45              |
| 1:NB:233:GLN:HA   | 1:NB:245:THR:HG23 | 1.98                     | 0.45              |
| 1:NB:579:VAL:HG13 | 1:NB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:OB:527:ILE:HD11 | 1:OB:543:TYR:OH   | 2.17                     | 0.45              |
| 1:OB:654:LEU:HD13 | 1:PB:534:HIS:CD2  | 2.52                     | 0.45              |
| 1:RB:377:ARG:NH1  | 1:RB:409:THR:O    | 2.30                     | 0.45              |
| 1:UB:145:PHE:CE2  | 1:UB:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:UB:542:ALA:HB3  | 1:UB:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:VB:388:ILE:HA   | 1:VB:456:ARG:HA   | 1.98                     | 0.45              |
| 1:VB:527:ILE:HD11 | 1:VB:543:TYR:OH   | 2.17                     | 0.45              |
| 1:WB:600:ARG:HG2  | 1:WB:604:PHE:HE1  | 1.81                     | 0.45              |
| 1:WB:706:LEU:CD1  | 1:XB:693:ILE:HG23 | 2.47                     | 0.45              |
| 1:XB:377:ARG:NH1  | 1:XB:409:THR:O    | 2.30                     | 0.45              |
| 1:XB:542:ALA:HB3  | 1:XB:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:YB:527:ILE:HD11 | 1:YB:543:TYR:OH   | 2.17                     | 0.45              |
| 1:ZB:318:ARG:HB2  | 1:ZB:321:GLN:OE1  | 2.17                     | 0.45              |
| 1:AC:388:ILE:HA   | 1:AC:456:ARG:HA   | 1.98                     | 0.45              |
| 1:B:85:HIS:HD2    | 1:AC:52:THR:HG21  | 1.82                     | 0.45              |
| 1:C:527:ILE:HD11  | 1:C:543:TYR:OH    | 2.17                     | 0.45              |
| 1:H:579:VAL:HG13  | 1:H:599:ILE:HG13  | 1.99                     | 0.45              |
| 1:I:338:GLN:HB3   | 1:I:370:LYS:HB3   | 1.98                     | 0.45              |
| 1:I:643:VAL:H     | 1:K:580:ARG:NH2   | 2.15                     | 0.45              |
| 1:I:706:LEU:HD13  | 1:K:693:ILE:HG23  | 1.99                     | 0.45              |
| 1:J:233:GLN:HA    | 1:J:245:THR:HG23  | 1.98                     | 0.45              |
| 1:M:600:ARG:HG2   | 1:M:604:PHE:HE1   | 1.81                     | 0.45              |
| 1:M:694:LEU:O     | 1:M:697:SER:OG    | 2.28                     | 0.45              |
| 1:Q:145:PHE:CE2   | 1:Q:151:TYR:HB2   | 2.52                     | 0.45              |
| 1:S:529:ILE:HD12  | 1:S:583:VAL:HG11  | 1.97                     | 0.45              |
| 1:T:136:LYS:HD2   | 1:T:136:LYS:HA    | 1.76                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:V:233:GLN:HA    | 1:V:245:THR:HG23  | 1.98                     | 0.45              |
| 1:V:527:ILE:HD11  | 1:V:543:TYR:OH    | 2.17                     | 0.45              |
| 1:W:331:GLY:O     | 1:W:332:LEU:HD22  | 2.16                     | 0.45              |
| 1:W:482:PHE:CZ    | 1:W:552:ARG:HB3   | 2.52                     | 0.45              |
| 1:X:482:PHE:CZ    | 1:X:552:ARG:HB3   | 2.51                     | 0.45              |
| 1:Y:482:PHE:CZ    | 1:Y:552:ARG:HB3   | 2.51                     | 0.45              |
| 1:Y:527:ILE:HD11  | 1:Y:543:TYR:OH    | 2.17                     | 0.45              |
| 1:Z:400:ALA:HB2   | 1:Z:491:PRO:HD3   | 1.97                     | 0.45              |
| 1:AA:331:GLY:O    | 1:AA:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:CA:318:ARG:HB2  | 1:CA:321:GLN:OE1  | 2.17                     | 0.45              |
| 1:CA:482:PHE:CZ   | 1:CA:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:DA:388:ILE:HA   | 1:DA:456:ARG:HA   | 1.98                     | 0.45              |
| 1:EA:233:GLN:HA   | 1:EA:245:THR:HG23 | 1.98                     | 0.45              |
| 1:GA:702:ALA:HB2  | 1:IA:690:ARG:HH12 | 1.81                     | 0.45              |
| 1:GA:713:SER:OG   | 1:IA:707:LEU:HD12 | 2.17                     | 0.45              |
| 1:HA:145:PHE:CE2  | 1:HA:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:HA:579:VAL:HG13 | 1:HA:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:JA:145:PHE:CE2  | 1:JA:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:LA:233:GLN:HA   | 1:LA:245:THR:HG23 | 1.98                     | 0.45              |
| 1:LA:338:GLN:HB3  | 1:LA:370:LYS:HB3  | 1.98                     | 0.45              |
| 1:LA:579:VAL:HG13 | 1:LA:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:NA:233:GLN:HA   | 1:NA:245:THR:HG23 | 1.98                     | 0.45              |
| 1:NA:542:ALA:HB3  | 1:NA:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:OA:228:HIS:HE1  | 1:OA:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:QA:400:ALA:HB2  | 1:QA:491:PRO:HD3  | 1.97                     | 0.45              |
| 1:RA:233:GLN:HA   | 1:RA:245:THR:HG23 | 1.98                     | 0.45              |
| 1:TA:338:GLN:HB3  | 1:TA:370:LYS:HB3  | 1.98                     | 0.45              |
| 1:UA:145:PHE:CE2  | 1:UA:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:UA:579:VAL:HG13 | 1:UA:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:YA:482:PHE:CZ   | 1:YA:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:ZA:338:GLN:HB3  | 1:ZA:370:LYS:HB3  | 1.98                     | 0.45              |
| 1:AB:542:ALA:HB3  | 1:AB:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:AB:579:VAL:HG13 | 1:AB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:BB:655:GLN:OE1  | 1:CB:649:ARG:HB2  | 2.17                     | 0.45              |
| 1:DB:389:TYR:CE1  | 1:DB:457:VAL:HA   | 2.52                     | 0.45              |
| 1:GB:318:ARG:HB2  | 1:GB:321:GLN:OE1  | 2.17                     | 0.45              |
| 1:LB:203:ALA:HB2  | 1:MB:192:THR:HB   | 1.98                     | 0.45              |
| 1:LB:338:GLN:HB3  | 1:LB:370:LYS:HB3  | 1.98                     | 0.45              |
| 1:LB:579:VAL:HG13 | 1:LB:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:MB:600:ARG:HG2  | 1:MB:604:PHE:HE1  | 1.81                     | 0.45              |
| 1:NB:529:ILE:HD12 | 1:NB:583:VAL:HG11 | 1.97                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:OB:658:VAL:HG11 | 1:PB:535:ALA:HA   | 1.98                     | 0.45              |
| 1:TB:145:PHE:CE2  | 1:TB:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:UB:482:PHE:CZ   | 1:UB:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:UB:735:ILE:HG21 | 1:VB:727:GLU:HA   | 1.98                     | 0.45              |
| 1:UB:786:GLN:HB2  | 1:VB:781:VAL:CG1  | 2.46                     | 0.45              |
| 1:ZB:520:PRO:HD2  | 1:AC:563:SER:HB3  | 1.99                     | 0.45              |
| 1:AC:579:VAL:HG13 | 1:AC:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:B:318:ARG:HB2   | 1:B:321:GLN:OE1   | 2.17                     | 0.45              |
| 1:C:318:ARG:HB2   | 1:C:321:GLN:OE1   | 2.17                     | 0.45              |
| 1:C:389:TYR:CE1   | 1:C:457:VAL:HA    | 2.52                     | 0.45              |
| 1:C:482:PHE:CZ    | 1:C:552:ARG:HB3   | 2.52                     | 0.45              |
| 1:D:482:PHE:CZ    | 1:D:552:ARG:HB3   | 2.51                     | 0.45              |
| 1:E:394:LYS:HE3   | 1:E:394:LYS:HB2   | 1.81                     | 0.45              |
| 1:E:482:PHE:CZ    | 1:E:552:ARG:HB3   | 2.52                     | 0.45              |
| 1:F:388:ILE:HA    | 1:F:456:ARG:HA    | 1.98                     | 0.45              |
| 1:I:384:GLN:HB2   | 1:K:474:ARG:HG3   | 1.99                     | 0.45              |
| 1:I:389:TYR:CE1   | 1:I:457:VAL:HA    | 2.52                     | 0.45              |
| 1:K:389:TYR:CE1   | 1:K:457:VAL:HA    | 2.52                     | 0.45              |
| 1:L:318:ARG:HB2   | 1:L:321:GLN:OE1   | 2.17                     | 0.45              |
| 1:M:331:GLY:O     | 1:M:332:LEU:HD22  | 2.16                     | 0.45              |
| 1:P:318:ARG:HB2   | 1:P:321:GLN:OE1   | 2.17                     | 0.45              |
| 1:Q:233:GLN:HA    | 1:Q:245:THR:HG23  | 1.99                     | 0.45              |
| 1:Q:389:TYR:CE1   | 1:Q:457:VAL:HA    | 2.52                     | 0.45              |
| 1:S:389:TYR:CE1   | 1:S:457:VAL:HA    | 2.52                     | 0.45              |
| 1:T:318:ARG:HB2   | 1:T:321:GLN:OE1   | 2.17                     | 0.45              |
| 1:V:55:PRO:HD3    | 1:X:86:ALA:O      | 2.17                     | 0.45              |
| 1:V:318:ARG:HB2   | 1:V:321:GLN:OE1   | 2.17                     | 0.45              |
| 1:W:145:PHE:CE2   | 1:W:151:TYR:HB2   | 2.52                     | 0.45              |
| 1:X:145:PHE:CE2   | 1:X:151:TYR:HB2   | 2.52                     | 0.45              |
| 1:X:579:VAL:HG13  | 1:X:599:ILE:HG13  | 1.99                     | 0.45              |
| 1:Y:233:GLN:HA    | 1:Y:245:THR:HG23  | 1.98                     | 0.45              |
| 1:Y:318:ARG:HB2   | 1:Y:321:GLN:OE1   | 2.17                     | 0.45              |
| 1:Y:389:TYR:CE1   | 1:Y:457:VAL:HA    | 2.52                     | 0.45              |
| 1:Y:529:ILE:HD12  | 1:Y:583:VAL:HG11  | 1.97                     | 0.45              |
| 1:DA:318:ARG:HB2  | 1:DA:321:GLN:OE1  | 2.17                     | 0.45              |
| 1:EA:338:GLN:HB3  | 1:EA:370:LYS:HB3  | 1.98                     | 0.45              |
| 1:EA:542:ALA:HB3  | 1:EA:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:FA:228:HIS:HE1  | 1:FA:248:GLU:HB3  | 1.81                     | 0.45              |
| 1:GA:389:TYR:CE1  | 1:GA:457:VAL:HA   | 2.52                     | 0.45              |
| 1:IA:203:ALA:HB2  | 1:KA:192:THR:CB   | 2.46                     | 0.45              |
| 1:JA:676:GLU:OE2  | 1:JA:679:ARG:NH2  | 2.43                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:MA:318:ARG:HB2  | 1:MA:321:GLN:OE1  | 2.17                     | 0.45              |
| 1:MA:482:PHE:CZ   | 1:MA:552:ARG:HB3  | 2.51                     | 0.45              |
| 1:NA:482:PHE:CZ   | 1:NA:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:NA:579:VAL:HG13 | 1:NA:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:PA:527:ILE:HD11 | 1:PA:543:TYR:OH   | 2.17                     | 0.45              |
| 1:QA:318:ARG:HB2  | 1:QA:321:GLN:OE1  | 2.17                     | 0.45              |
| 1:RA:579:VAL:HG13 | 1:RA:599:ILE:HG13 | 1.99                     | 0.45              |
| 1:TA:233:GLN:HA   | 1:TA:245:THR:HG23 | 1.99                     | 0.45              |
| 1:TA:482:PHE:CZ   | 1:TA:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:UA:790:VAL:HG21 | 1:WA:785:GLN:HA   | 1.97                     | 0.45              |
| 1:VA:145:PHE:CE2  | 1:VA:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:VA:600:ARG:HG2  | 1:VA:604:PHE:HE1  | 1.81                     | 0.45              |
| 1:WA:400:ALA:HB2  | 1:WA:491:PRO:HD3  | 1.97                     | 0.45              |
| 1:WA:527:ILE:HD11 | 1:WA:543:TYR:OH   | 2.17                     | 0.45              |
| 1:XA:233:GLN:HA   | 1:XA:245:THR:HG23 | 1.98                     | 0.45              |
| 1:XA:389:TYR:CE1  | 1:XA:457:VAL:HA   | 2.52                     | 0.45              |
| 1:BB:482:PHE:CZ   | 1:BB:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:CB:145:PHE:CE2  | 1:CB:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:GB:542:ALA:HB3  | 1:GB:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:IB:318:ARG:HB2  | 1:IB:321:GLN:OE1  | 2.17                     | 0.45              |
| 1:IB:527:ILE:HD11 | 1:IB:543:TYR:OH   | 2.17                     | 0.45              |
| 1:JB:529:ILE:HD12 | 1:JB:583:VAL:HG11 | 1.97                     | 0.45              |
| 1:LB:757:ALA:HB3  | 1:MB:748:ALA:HB1  | 1.94                     | 0.45              |
| 1:MB:233:GLN:HA   | 1:MB:245:THR:HG23 | 1.98                     | 0.45              |
| 1:MB:279:ARG:HD3  | 1:NB:337:LEU:HD13 | 1.98                     | 0.45              |
| 1:NB:136:LYS:HD2  | 1:NB:136:LYS:HA   | 1.76                     | 0.45              |
| 1:NB:318:ARG:HB2  | 1:NB:321:GLN:OE1  | 2.17                     | 0.45              |
| 1:OB:331:GLY:O    | 1:OB:332:LEU:HD22 | 2.16                     | 0.45              |
| 1:QB:145:PHE:CE2  | 1:QB:151:TYR:HB2  | 2.52                     | 0.45              |
| 1:QB:482:PHE:CZ   | 1:QB:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:RB:388:ILE:HA   | 1:RB:456:ARG:HA   | 1.98                     | 0.45              |
| 1:RB:527:ILE:HD11 | 1:RB:543:TYR:OH   | 2.17                     | 0.45              |
| 1:SB:233:GLN:HA   | 1:SB:245:THR:HG23 | 1.98                     | 0.45              |
| 1:SB:389:TYR:CE1  | 1:SB:457:VAL:HA   | 2.52                     | 0.45              |
| 1:SB:527:ILE:HD11 | 1:SB:543:TYR:OH   | 2.17                     | 0.45              |
| 1:TB:233:GLN:HA   | 1:TB:245:THR:HG23 | 1.98                     | 0.45              |
| 1:TB:389:TYR:CE1  | 1:TB:457:VAL:HA   | 2.52                     | 0.45              |
| 1:TB:482:PHE:CZ   | 1:TB:552:ARG:HB3  | 2.52                     | 0.45              |
| 1:TB:542:ALA:HB3  | 1:TB:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:WB:389:TYR:CE1  | 1:WB:457:VAL:HA   | 2.52                     | 0.45              |
| 1:XB:600:ARG:HG2  | 1:XB:604:PHE:HE1  | 1.81                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:ZB:486:LEU:H    | 1:AC:476:LYS:HZ2  | 1.64                     | 0.45              |
| 1:ZB:542:ALA:HB3  | 1:ZB:639:ASP:HB2  | 1.99                     | 0.45              |
| 1:AC:136:LYS:HA   | 1:AC:136:LYS:HD2  | 1.76                     | 0.45              |
| 1:AC:338:GLN:HB3  | 1:AC:370:LYS:HB3  | 1.98                     | 0.45              |
| 1:B:527:ILE:HD11  | 1:B:543:TYR:OH    | 2.17                     | 0.44              |
| 1:E:506:LYS:HD3   | 1:E:506:LYS:HA    | 1.78                     | 0.44              |
| 1:F:136:LYS:HA    | 1:F:136:LYS:HD2   | 1.76                     | 0.44              |
| 1:G:318:ARG:HB2   | 1:G:321:GLN:OE1   | 2.17                     | 0.44              |
| 1:H:338:GLN:HB3   | 1:H:370:LYS:HB3   | 1.98                     | 0.44              |
| 1:I:527:ILE:HD11  | 1:I:543:TYR:OH    | 2.17                     | 0.44              |
| 1:K:482:PHE:CZ    | 1:K:552:ARG:HB3   | 2.52                     | 0.44              |
| 1:L:233:GLN:HA    | 1:L:245:THR:HG23  | 1.98                     | 0.44              |
| 1:M:388:ILE:HA    | 1:M:456:ARG:HA    | 1.98                     | 0.44              |
| 1:O:228:HIS:HE1   | 1:O:248:GLU:HB3   | 1.81                     | 0.44              |
| 1:O:388:ILE:HA    | 1:O:456:ARG:HA    | 1.98                     | 0.44              |
| 1:P:389:TYR:CE1   | 1:P:457:VAL:HA    | 2.53                     | 0.44              |
| 1:P:621:LYS:HD3   | 1:P:621:LYS:HA    | 1.81                     | 0.44              |
| 1:Q:676:GLU:OE2   | 1:Q:679:ARG:NH2   | 2.43                     | 0.44              |
| 1:R:389:TYR:CE1   | 1:R:457:VAL:HA    | 2.52                     | 0.44              |
| 1:W:203:ALA:HB2   | 1:Y:192:THR:HB    | 2.00                     | 0.44              |
| 1:Y:228:HIS:HE1   | 1:Y:248:GLU:HB3   | 1.81                     | 0.44              |
| 1:Z:318:ARG:HB2   | 1:Z:321:GLN:OE1   | 2.17                     | 0.44              |
| 1:AA:145:PHE:CE2  | 1:AA:151:TYR:HB2  | 2.52                     | 0.44              |
| 1:DA:400:ALA:HB2  | 1:DA:491:PRO:HD3  | 1.97                     | 0.44              |
| 1:EA:377:ARG:HD3  | 1:EA:377:ARG:HA   | 1.84                     | 0.44              |
| 1:FA:389:TYR:CE1  | 1:FA:457:VAL:HA   | 2.52                     | 0.44              |
| 1:GA:813:ALA:HB1  | 1:IA:812:VAL:HA   | 1.98                     | 0.44              |
| 1:HA:233:GLN:HA   | 1:HA:245:THR:HG23 | 1.98                     | 0.44              |
| 1:HA:389:TYR:CE1  | 1:HA:457:VAL:HA   | 2.52                     | 0.44              |
| 1:JA:233:GLN:HE21 | 1:JA:264:TYR:HD2  | 1.65                     | 0.44              |
| 1:JA:388:ILE:HA   | 1:JA:456:ARG:HA   | 1.98                     | 0.44              |
| 1:JA:527:ILE:HD11 | 1:JA:543:TYR:OH   | 2.17                     | 0.44              |
| 1:KA:482:PHE:CZ   | 1:KA:552:ARG:HB3  | 2.52                     | 0.44              |
| 1:OA:579:VAL:HG13 | 1:OA:599:ILE:HG13 | 1.99                     | 0.44              |
| 1:PA:331:GLY:O    | 1:PA:332:LEU:HD22 | 2.16                     | 0.44              |
| 1:QA:388:ILE:HA   | 1:QA:456:ARG:HA   | 1.98                     | 0.44              |
| 1:QA:389:TYR:CE1  | 1:QA:457:VAL:HA   | 2.52                     | 0.44              |
| 1:SA:233:GLN:HA   | 1:SA:245:THR:HG23 | 1.98                     | 0.44              |
| 1:SA:600:ARG:HG2  | 1:SA:604:PHE:HE1  | 1.81                     | 0.44              |
| 1:UA:542:ALA:HB3  | 1:UA:639:ASP:HB2  | 1.99                     | 0.44              |
| 1:VA:527:ILE:HD11 | 1:VA:543:TYR:OH   | 2.17                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:WA:233:GLN:HE21 | 1:WA:264:TYR:HD2  | 1.65                     | 0.44              |
| 1:XA:228:HIS:HE1  | 1:XA:248:GLU:HB3  | 1.81                     | 0.44              |
| 1:XA:527:ILE:HD11 | 1:XA:543:TYR:OH   | 2.17                     | 0.44              |
| 1:YA:136:LYS:HA   | 1:YA:136:LYS:HD2  | 1.76                     | 0.44              |
| 1:ZA:233:GLN:HA   | 1:ZA:245:THR:HG23 | 1.98                     | 0.44              |
| 1:AB:233:GLN:HA   | 1:AB:245:THR:HG23 | 1.98                     | 0.44              |
| 1:BB:389:TYR:CE1  | 1:BB:457:VAL:HA   | 2.52                     | 0.44              |
| 1:CB:389:TYR:CE1  | 1:CB:457:VAL:HA   | 2.52                     | 0.44              |
| 1:DB:527:ILE:HD11 | 1:DB:543:TYR:OH   | 2.17                     | 0.44              |
| 1:GB:643:VAL:H    | 1:HB:580:ARG:NH2  | 2.15                     | 0.44              |
| 1:HB:542:ALA:HB3  | 1:HB:639:ASP:HB2  | 1.99                     | 0.44              |
| 1:IB:136:LYS:HD2  | 1:IB:136:LYS:HA   | 1.76                     | 0.44              |
| 1:IB:486:LEU:HB2  | 1:JB:473:TYR:HB3  | 1.99                     | 0.44              |
| 1:JB:279:ARG:HD3  | 1:KB:337:LEU:HD13 | 1.98                     | 0.44              |
| 1:KB:228:HIS:HE1  | 1:KB:248:GLU:HB3  | 1.81                     | 0.44              |
| 1:KB:388:ILE:HA   | 1:KB:456:ARG:HA   | 1.98                     | 0.44              |
| 1:LB:318:ARG:HB2  | 1:LB:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:LB:389:TYR:CE1  | 1:LB:457:VAL:HA   | 2.52                     | 0.44              |
| 1:MB:233:GLN:HE21 | 1:MB:264:TYR:HD2  | 1.65                     | 0.44              |
| 1:MB:542:ALA:HB3  | 1:MB:639:ASP:HB2  | 1.99                     | 0.44              |
| 1:NB:383:ASP:OD1  | 1:NB:383:ASP:N    | 2.44                     | 0.44              |
| 1:RB:145:PHE:CE2  | 1:RB:151:TYR:HB2  | 2.52                     | 0.44              |
| 1:RB:600:ARG:HG2  | 1:RB:604:PHE:HE1  | 1.81                     | 0.44              |
| 1:SB:228:HIS:HE1  | 1:SB:248:GLU:HB3  | 1.81                     | 0.44              |
| 1:UB:676:GLU:OE2  | 1:UB:679:ARG:NH2  | 2.43                     | 0.44              |
| 1:VB:145:PHE:CE2  | 1:VB:151:TYR:HB2  | 2.52                     | 0.44              |
| 1:XB:233:GLN:HA   | 1:XB:245:THR:HG23 | 1.98                     | 0.44              |
| 1:XB:482:PHE:CZ   | 1:XB:552:ARG:HB3  | 2.51                     | 0.44              |
| 1:ZB:676:GLU:OE2  | 1:ZB:679:ARG:NH2  | 2.43                     | 0.44              |
| 1:AC:542:ALA:HB3  | 1:AC:639:ASP:HB2  | 1.99                     | 0.44              |
| 1:A:389:TYR:CE1   | 1:A:457:VAL:HA    | 2.52                     | 0.44              |
| 1:B:95:ASP:HA     | 1:D:85:HIS:CE1    | 2.52                     | 0.44              |
| 1:C:542:ALA:HB3   | 1:C:639:ASP:HB2   | 1.99                     | 0.44              |
| 1:D:136:LYS:HD2   | 1:D:136:LYS:HA    | 1.76                     | 0.44              |
| 1:D:529:ILE:HD12  | 1:D:583:VAL:HG11  | 1.97                     | 0.44              |
| 1:F:233:GLN:HE21  | 1:F:264:TYR:HD2   | 1.65                     | 0.44              |
| 1:F:318:ARG:HB2   | 1:F:321:GLN:OE1   | 2.17                     | 0.44              |
| 1:G:377:ARG:NH1   | 1:G:409:THR:O     | 2.30                     | 0.44              |
| 1:H:318:ARG:HB2   | 1:H:321:GLN:OE1   | 2.17                     | 0.44              |
| 1:H:389:TYR:CE1   | 1:H:457:VAL:HA    | 2.52                     | 0.44              |
| 1:I:96:PRO:HD3    | 1:K:85:HIS:CE1    | 2.52                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:I:318:ARG:HB2   | 1:I:321:GLN:OE1   | 2.17                     | 0.44              |
| 1:I:388:ILE:HA    | 1:I:456:ARG:HA    | 1.98                     | 0.44              |
| 1:J:233:GLN:HE21  | 1:J:264:TYR:HD2   | 1.65                     | 0.44              |
| 1:J:542:ALA:HB3   | 1:J:639:ASP:HB2   | 1.99                     | 0.44              |
| 1:K:318:ARG:HB2   | 1:K:321:GLN:OE1   | 2.17                     | 0.44              |
| 1:M:706:LEU:HD13  | 1:O:693:ILE:HG23  | 1.99                     | 0.44              |
| 1:P:482:PHE:CZ    | 1:P:552:ARG:HB3   | 2.52                     | 0.44              |
| 1:P:527:ILE:HD11  | 1:P:543:TYR:OH    | 2.17                     | 0.44              |
| 1:Q:318:ARG:HB2   | 1:Q:321:GLN:OE1   | 2.17                     | 0.44              |
| 1:S:384:GLN:HB2   | 1:V:474:ARG:HG3   | 1.99                     | 0.44              |
| 1:T:145:PHE:CE2   | 1:T:151:TYR:HB2   | 2.52                     | 0.44              |
| 1:V:652:ASP:N     | 1:V:652:ASP:OD1   | 2.51                     | 0.44              |
| 1:X:233:GLN:HA    | 1:X:245:THR:HG23  | 1.98                     | 0.44              |
| 1:Y:56:ARG:HG3    | 1:AA:127:LEU:HD22 | 1.99                     | 0.44              |
| 1:Y:145:PHE:CE2   | 1:Y:151:TYR:HB2   | 2.52                     | 0.44              |
| 1:AA:136:LYS:HA   | 1:AA:136:LYS:HD2  | 1.76                     | 0.44              |
| 1:AA:389:TYR:CE1  | 1:AA:457:VAL:HA   | 2.52                     | 0.44              |
| 1:BA:389:TYR:CE1  | 1:BA:457:VAL:HA   | 2.52                     | 0.44              |
| 1:BA:579:VAL:HG13 | 1:BA:599:ILE:HG13 | 1.99                     | 0.44              |
| 1:CA:652:ASP:N    | 1:CA:652:ASP:OD1  | 2.51                     | 0.44              |
| 1:DA:389:TYR:CE1  | 1:DA:457:VAL:HA   | 2.52                     | 0.44              |
| 1:FA:233:GLN:HA   | 1:FA:245:THR:HG23 | 1.98                     | 0.44              |
| 1:FA:338:GLN:HB3  | 1:FA:370:LYS:HB3  | 1.98                     | 0.44              |
| 1:FA:579:VAL:HG13 | 1:FA:599:ILE:HG13 | 1.99                     | 0.44              |
| 1:GA:318:ARG:HB2  | 1:GA:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:GA:529:ILE:HD12 | 1:GA:583:VAL:HG11 | 1.97                     | 0.44              |
| 1:HA:542:ALA:HB3  | 1:HA:639:ASP:HB2  | 1.99                     | 0.44              |
| 1:IA:318:ARG:HB2  | 1:IA:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:JA:389:TYR:CE1  | 1:JA:457:VAL:HA   | 2.52                     | 0.44              |
| 1:JA:579:VAL:HG13 | 1:JA:599:ILE:HG13 | 1.99                     | 0.44              |
| 1:KA:145:PHE:CE2  | 1:KA:151:TYR:HB2  | 2.52                     | 0.44              |
| 1:KA:768:MET:CB   | 1:MA:759:LEU:HD11 | 2.48                     | 0.44              |
| 1:LA:299:LYS:NZ   | 1:LA:317:GLU:OE2  | 2.38                     | 0.44              |
| 1:MA:389:TYR:CE1  | 1:MA:457:VAL:HA   | 2.52                     | 0.44              |
| 1:NA:527:ILE:HD11 | 1:NA:543:TYR:OH   | 2.17                     | 0.44              |
| 1:NA:652:ASP:N    | 1:NA:652:ASP:OD1  | 2.51                     | 0.44              |
| 1:OA:389:TYR:CE1  | 1:OA:457:VAL:HA   | 2.52                     | 0.44              |
| 1:PA:389:TYR:CE1  | 1:PA:457:VAL:HA   | 2.52                     | 0.44              |
| 1:SA:331:GLY:O    | 1:SA:332:LEU:HD22 | 2.16                     | 0.44              |
| 1:TA:652:ASP:N    | 1:TA:652:ASP:OD1  | 2.51                     | 0.44              |
| 1:UA:389:TYR:CE1  | 1:UA:457:VAL:HA   | 2.52                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:WA:233:GLN:HA   | 1:WA:245:THR:HG23 | 1.98                     | 0.44              |
| 1:WA:388:ILE:HA   | 1:WA:456:ARG:HA   | 1.98                     | 0.44              |
| 1:ZA:384:GLN:HB2  | 1:BB:474:ARG:HG3  | 1.99                     | 0.44              |
| 1:ZA:389:TYR:CE1  | 1:ZA:457:VAL:HA   | 2.52                     | 0.44              |
| 1:ZA:542:ALA:HB3  | 1:ZA:639:ASP:HB2  | 1.99                     | 0.44              |
| 1:AB:400:ALA:HB2  | 1:AB:491:PRO:HD3  | 1.98                     | 0.44              |
| 1:AB:527:ILE:HD11 | 1:AB:543:TYR:OH   | 2.17                     | 0.44              |
| 1:AB:652:ASP:OD1  | 1:AB:652:ASP:N    | 2.51                     | 0.44              |
| 1:CB:388:ILE:HA   | 1:CB:456:ARG:HA   | 1.98                     | 0.44              |
| 1:DB:652:ASP:OD1  | 1:DB:652:ASP:N    | 2.51                     | 0.44              |
| 1:EB:233:GLN:HA   | 1:EB:245:THR:HG23 | 1.98                     | 0.44              |
| 1:EB:318:ARG:HB2  | 1:EB:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:EB:389:TYR:CE1  | 1:EB:457:VAL:HA   | 2.52                     | 0.44              |
| 1:EB:600:ARG:HG2  | 1:EB:604:PHE:HE1  | 1.81                     | 0.44              |
| 1:GB:573:LYS:HG3  | 1:GB:574:ALA:N    | 2.32                     | 0.44              |
| 1:GB:600:ARG:HG2  | 1:GB:604:PHE:HE1  | 1.81                     | 0.44              |
| 1:HB:338:GLN:HB3  | 1:HB:370:LYS:HB3  | 1.98                     | 0.44              |
| 1:HB:389:TYR:CE1  | 1:HB:457:VAL:HA   | 2.52                     | 0.44              |
| 1:IB:482:PHE:CZ   | 1:IB:552:ARG:HB3  | 2.52                     | 0.44              |
| 1:JB:388:ILE:HA   | 1:JB:456:ARG:HA   | 1.99                     | 0.44              |
| 1:KB:666:THR:HG22 | 1:LB:657:SER:HB2  | 1.98                     | 0.44              |
| 1:OB:389:TYR:CE1  | 1:OB:457:VAL:HA   | 2.52                     | 0.44              |
| 1:QB:233:GLN:HA   | 1:QB:245:THR:HG23 | 1.98                     | 0.44              |
| 1:TB:652:ASP:OD1  | 1:TB:652:ASP:N    | 2.51                     | 0.44              |
| 1:UB:228:HIS:HE1  | 1:UB:248:GLU:HB3  | 1.81                     | 0.44              |
| 1:UB:318:ARG:HB2  | 1:UB:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:UB:389:TYR:CE1  | 1:UB:457:VAL:HA   | 2.52                     | 0.44              |
| 1:UB:658:VAL:HG11 | 1:VB:535:ALA:HA   | 1.99                     | 0.44              |
| 1:UB:732:ALA:HB2  | 1:VB:722:ALA:HB1  | 2.00                     | 0.44              |
| 1:VB:389:TYR:CE1  | 1:VB:457:VAL:HA   | 2.52                     | 0.44              |
| 1:WB:377:ARG:HD3  | 1:WB:377:ARG:HA   | 1.84                     | 0.44              |
| 1:WB:527:ILE:HD11 | 1:WB:543:TYR:OH   | 2.17                     | 0.44              |
| 1:XB:318:ARG:HB2  | 1:XB:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:ZB:573:LYS:HG3  | 1:ZB:574:ALA:N    | 2.33                     | 0.44              |
| 1:ZB:600:ARG:HG2  | 1:ZB:604:PHE:HE1  | 1.81                     | 0.44              |
| 1:AC:389:TYR:CE1  | 1:AC:457:VAL:HA   | 2.52                     | 0.44              |
| 1:A:233:GLN:HE21  | 1:A:264:TYR:HD2   | 1.65                     | 0.44              |
| 1:D:573:LYS:HG3   | 1:D:574:ALA:N     | 2.32                     | 0.44              |
| 1:D:600:ARG:HG2   | 1:D:604:PHE:HE1   | 1.81                     | 0.44              |
| 1:E:318:ARG:HB2   | 1:E:321:GLN:OE1   | 2.17                     | 0.44              |
| 1:G:388:ILE:HA    | 1:G:456:ARG:HA    | 1.98                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:G:652:ASP:OD1   | 1:G:652:ASP:N     | 2.51                     | 0.44              |
| 1:H:377:ARG:HD3   | 1:H:377:ARG:HA    | 1.84                     | 0.44              |
| 1:H:573:LYS:HG3   | 1:H:574:ALA:N     | 2.33                     | 0.44              |
| 1:J:118:ASN:OD1   | 1:L:180:LYS:HA    | 2.18                     | 0.44              |
| 1:K:542:ALA:HB3   | 1:K:639:ASP:HB2   | 1.99                     | 0.44              |
| 1:M:145:PHE:CE2   | 1:M:151:TYR:HB2   | 2.52                     | 0.44              |
| 1:M:318:ARG:HB2   | 1:M:321:GLN:OE1   | 2.17                     | 0.44              |
| 1:N:652:ASP:N     | 1:N:652:ASP:OD1   | 2.51                     | 0.44              |
| 1:N:716:VAL:HG21  | 1:P:708:GLU:HG2   | 1.99                     | 0.44              |
| 1:O:318:ARG:HB2   | 1:O:321:GLN:OE1   | 2.17                     | 0.44              |
| 1:O:652:ASP:OD1   | 1:O:652:ASP:N     | 2.51                     | 0.44              |
| 1:R:233:GLN:HA    | 1:R:245:THR:HG23  | 1.98                     | 0.44              |
| 1:R:382:LEU:HD11  | 1:R:388:ILE:HG23  | 2.00                     | 0.44              |
| 1:R:506:LYS:HD3   | 1:R:506:LYS:HA    | 1.78                     | 0.44              |
| 1:S:95:ASP:HA     | 1:V:85:HIS:NE2    | 2.32                     | 0.44              |
| 1:S:382:LEU:HD11  | 1:S:388:ILE:HG23  | 2.00                     | 0.44              |
| 1:V:542:ALA:HB3   | 1:V:639:ASP:HB2   | 1.99                     | 0.44              |
| 1:W:389:TYR:CE1   | 1:W:457:VAL:HA    | 2.52                     | 0.44              |
| 1:X:136:LYS:HA    | 1:X:136:LYS:HD2   | 1.76                     | 0.44              |
| 1:X:388:ILE:HA    | 1:X:456:ARG:HA    | 1.98                     | 0.44              |
| 1:Y:388:ILE:HA    | 1:Y:456:ARG:HA    | 1.98                     | 0.44              |
| 1:Z:299:LYS:NZ    | 1:Z:317:GLU:OE2   | 2.38                     | 0.44              |
| 1:Z:389:TYR:CE1   | 1:Z:457:VAL:HA    | 2.52                     | 0.44              |
| 1:Z:482:PHE:CZ    | 1:Z:552:ARG:HB3   | 2.52                     | 0.44              |
| 1:Z:702:ALA:HB2   | 1:BA:690:ARG:HH12 | 1.82                     | 0.44              |
| 1:CA:382:LEU:HD11 | 1:CA:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:CA:527:ILE:HD11 | 1:CA:543:TYR:OH   | 2.17                     | 0.44              |
| 1:EA:389:TYR:CE1  | 1:EA:457:VAL:HA   | 2.52                     | 0.44              |
| 1:FA:331:GLY:O    | 1:FA:332:LEU:HD22 | 2.16                     | 0.44              |
| 1:FA:527:ILE:HD11 | 1:FA:543:TYR:OH   | 2.17                     | 0.44              |
| 1:JA:233:GLN:HA   | 1:JA:245:THR:HG23 | 1.98                     | 0.44              |
| 1:KA:233:GLN:HA   | 1:KA:245:THR:HG23 | 1.98                     | 0.44              |
| 1:LA:394:LYS:HE3  | 1:LA:394:LYS:HB2  | 1.81                     | 0.44              |
| 1:MA:233:GLN:HE21 | 1:MA:264:TYR:HD2  | 1.65                     | 0.44              |
| 1:MA:400:ALA:HB2  | 1:MA:491:PRO:HD3  | 1.97                     | 0.44              |
| 1:NA:318:ARG:HB2  | 1:NA:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:NA:400:ALA:HB2  | 1:NA:491:PRO:HD3  | 1.97                     | 0.44              |
| 1:PA:233:GLN:HA   | 1:PA:245:THR:HG23 | 1.98                     | 0.44              |
| 1:PA:666:THR:HG22 | 1:RA:657:SER:HB2  | 1.99                     | 0.44              |
| 1:RA:389:TYR:CE1  | 1:RA:457:VAL:HA   | 2.52                     | 0.44              |
| 1:SA:233:GLN:HE21 | 1:SA:264:TYR:HD2  | 1.65                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:SA:338:GLN:HB3  | 1:SA:370:LYS:HB3  | 1.98                     | 0.44              |
| 1:SA:389:TYR:CE1  | 1:SA:457:VAL:HA   | 2.53                     | 0.44              |
| 1:SA:579:VAL:HG13 | 1:SA:599:ILE:HG13 | 1.99                     | 0.44              |
| 1:UA:233:GLN:HA   | 1:UA:245:THR:HG23 | 1.98                     | 0.44              |
| 1:UA:388:ILE:HA   | 1:UA:456:ARG:HA   | 1.98                     | 0.44              |
| 1:VA:233:GLN:HA   | 1:VA:245:THR:HG23 | 1.98                     | 0.44              |
| 1:VA:388:ILE:HA   | 1:VA:456:ARG:HA   | 1.98                     | 0.44              |
| 1:ZA:676:GLU:OE2  | 1:ZA:679:ARG:NH2  | 2.43                     | 0.44              |
| 1:AB:318:ARG:HB2  | 1:AB:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:BB:318:ARG:HB2  | 1:BB:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:BB:600:ARG:HG2  | 1:BB:604:PHE:HE1  | 1.81                     | 0.44              |
| 1:EB:145:PHE:CE2  | 1:EB:151:TYR:HB2  | 2.52                     | 0.44              |
| 1:EB:329:GLN:OE1  | 1:FB:393:VAL:HG23 | 2.17                     | 0.44              |
| 1:EB:482:PHE:CZ   | 1:EB:552:ARG:HB3  | 2.52                     | 0.44              |
| 1:FB:388:ILE:HA   | 1:FB:456:ARG:HA   | 1.98                     | 0.44              |
| 1:FB:652:ASP:N    | 1:FB:652:ASP:OD1  | 2.51                     | 0.44              |
| 1:GB:389:TYR:CE1  | 1:GB:457:VAL:HA   | 2.52                     | 0.44              |
| 1:HB:382:LEU:HD11 | 1:HB:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:IB:573:LYS:HG3  | 1:IB:574:ALA:N    | 2.32                     | 0.44              |
| 1:JB:318:ARG:HB2  | 1:JB:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:JB:382:LEU:HD11 | 1:JB:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:JB:573:LYS:HG3  | 1:JB:574:ALA:N    | 2.32                     | 0.44              |
| 1:KB:233:GLN:HE21 | 1:KB:264:TYR:HD2  | 1.65                     | 0.44              |
| 1:KB:389:TYR:CE1  | 1:KB:457:VAL:HA   | 2.52                     | 0.44              |
| 1:LB:573:LYS:HG3  | 1:LB:574:ALA:N    | 2.33                     | 0.44              |
| 1:PB:233:GLN:HA   | 1:PB:245:THR:HG23 | 1.98                     | 0.44              |
| 1:PB:389:TYR:CE1  | 1:PB:457:VAL:HA   | 2.52                     | 0.44              |
| 1:PB:652:ASP:N    | 1:PB:652:ASP:OD1  | 2.51                     | 0.44              |
| 1:VB:768:MET:CB   | 1:WB:759:LEU:HD11 | 2.47                     | 0.44              |
| 1:XB:389:TYR:CE1  | 1:XB:457:VAL:HA   | 2.52                     | 0.44              |
| 1:YB:482:PHE:CZ   | 1:YB:552:ARG:HB3  | 2.52                     | 0.44              |
| 1:ZB:389:TYR:CE1  | 1:ZB:457:VAL:HA   | 2.52                     | 0.44              |
| 1:AC:382:LEU:HD11 | 1:AC:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:A:527:ILE:HD11  | 1:A:543:TYR:OH    | 2.17                     | 0.44              |
| 1:B:482:PHE:CZ    | 1:B:552:ARG:HB3   | 2.52                     | 0.44              |
| 1:B:542:ALA:HB3   | 1:B:639:ASP:HB2   | 1.99                     | 0.44              |
| 1:D:382:LEU:HD11  | 1:D:388:ILE:HG23  | 2.00                     | 0.44              |
| 1:D:383:ASP:OD1   | 1:D:383:ASP:N     | 2.44                     | 0.44              |
| 1:D:388:ILE:HA    | 1:D:456:ARG:HA    | 1.98                     | 0.44              |
| 1:E:233:GLN:HE21  | 1:E:264:TYR:HD2   | 1.65                     | 0.44              |
| 1:E:720:GLY:HA3   | 1:G:711:ALA:HB1   | 1.98                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:F:382:LEU:HD11  | 1:F:388:ILE:HG23  | 2.00                     | 0.44              |
| 1:F:389:TYR:CE1   | 1:F:457:VAL:HA    | 2.52                     | 0.44              |
| 1:H:757:ALA:HB3   | 1:J:748:ALA:HB1   | 1.93                     | 0.44              |
| 1:I:717:GLU:HB2   | 1:K:707:LEU:HD13  | 2.00                     | 0.44              |
| 1:L:382:LEU:HD11  | 1:L:388:ILE:HG23  | 2.00                     | 0.44              |
| 1:N:233:GLN:HE21  | 1:N:264:TYR:HD2   | 1.65                     | 0.44              |
| 1:N:389:TYR:CE1   | 1:N:457:VAL:HA    | 2.52                     | 0.44              |
| 1:N:527:ILE:HD11  | 1:N:543:TYR:OH    | 2.17                     | 0.44              |
| 1:N:573:LYS:HG3   | 1:N:574:ALA:N     | 2.32                     | 0.44              |
| 1:P:542:ALA:HB3   | 1:P:639:ASP:HB2   | 1.99                     | 0.44              |
| 1:P:592:HIS:CD2   | 1:R:534:HIS:CD2   | 3.05                     | 0.44              |
| 1:R:299:LYS:NZ    | 1:R:317:GLU:OE2   | 2.38                     | 0.44              |
| 1:R:377:ARG:NH1   | 1:R:409:THR:O     | 2.30                     | 0.44              |
| 1:S:388:ILE:HA    | 1:S:456:ARG:HA    | 1.98                     | 0.44              |
| 1:X:389:TYR:CE1   | 1:X:457:VAL:HA    | 2.52                     | 0.44              |
| 1:X:527:ILE:HD11  | 1:X:543:TYR:OH    | 2.17                     | 0.44              |
| 1:Z:233:GLN:HE21  | 1:Z:264:TYR:HD2   | 1.65                     | 0.44              |
| 1:AA:233:GLN:HA   | 1:AA:245:THR:HG23 | 1.98                     | 0.44              |
| 1:AA:388:ILE:HA   | 1:AA:456:ARG:HA   | 1.98                     | 0.44              |
| 1:DA:233:GLN:HE21 | 1:DA:264:TYR:HD2  | 1.65                     | 0.44              |
| 1:DA:573:LYS:HG3  | 1:DA:574:ALA:N    | 2.33                     | 0.44              |
| 1:GA:382:LEU:HD11 | 1:GA:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:HA:652:ASP:OD1  | 1:HA:652:ASP:N    | 2.51                     | 0.44              |
| 1:IA:542:ALA:HB3  | 1:IA:639:ASP:HB2  | 1.99                     | 0.44              |
| 1:KA:527:ILE:HD11 | 1:KA:543:TYR:OH   | 2.17                     | 0.44              |
| 1:LA:318:ARG:HB2  | 1:LA:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:LA:389:TYR:CE1  | 1:LA:457:VAL:HA   | 2.52                     | 0.44              |
| 1:OA:506:LYS:HD3  | 1:OA:506:LYS:HA   | 1.78                     | 0.44              |
| 1:QA:527:ILE:HD11 | 1:QA:543:TYR:OH   | 2.17                     | 0.44              |
| 1:QA:573:LYS:HG3  | 1:QA:574:ALA:N    | 2.32                     | 0.44              |
| 1:RA:542:ALA:HB3  | 1:RA:639:ASP:HB2  | 1.99                     | 0.44              |
| 1:TA:233:GLN:HE21 | 1:TA:264:TYR:HD2  | 1.65                     | 0.44              |
| 1:UA:318:ARG:HB2  | 1:UA:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:UA:652:ASP:OD1  | 1:UA:652:ASP:N    | 2.51                     | 0.44              |
| 1:WA:257:GLU:HG2  | 1:YA:244:ARG:HB3  | 1.99                     | 0.44              |
| 1:WA:389:TYR:CE1  | 1:WA:457:VAL:HA   | 2.52                     | 0.44              |
| 1:WA:579:VAL:HG13 | 1:WA:599:ILE:HG13 | 1.99                     | 0.44              |
| 1:XA:318:ARG:HB2  | 1:XA:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:ZA:318:ARG:HB2  | 1:ZA:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:AB:383:ASP:OD1  | 1:AB:383:ASP:N    | 2.44                     | 0.44              |
| 1:BB:228:HIS:HE1  | 1:BB:248:GLU:HB3  | 1.81                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:DB:542:ALA:HB1  | 1:EB:573:LYS:HE2  | 1.98                     | 0.44              |
| 1:EB:520:PRO:HD2  | 1:FB:563:SER:HB3  | 1.99                     | 0.44              |
| 1:GB:652:ASP:OD1  | 1:GB:652:ASP:N    | 2.51                     | 0.44              |
| 1:GB:654:LEU:HD13 | 1:HB:534:HIS:CD2  | 2.52                     | 0.44              |
| 1:HB:486:LEU:HB2  | 1:IB:473:TYR:HB3  | 2.00                     | 0.44              |
| 1:HB:573:LYS:HG3  | 1:HB:574:ALA:N    | 2.32                     | 0.44              |
| 1:HB:764:LYS:HB2  | 1:HB:764:LYS:HE3  | 1.84                     | 0.44              |
| 1:IB:542:ALA:HB3  | 1:IB:639:ASP:HB2  | 1.99                     | 0.44              |
| 1:KB:318:ARG:HB2  | 1:KB:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:OB:388:ILE:HA   | 1:OB:456:ARG:HA   | 1.98                     | 0.44              |
| 1:PB:318:ARG:HB2  | 1:PB:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:RB:318:ARG:HB2  | 1:RB:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:TB:318:ARG:HB2  | 1:TB:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:UB:233:GLN:HA   | 1:UB:245:THR:HG23 | 1.98                     | 0.44              |
| 1:VB:652:ASP:N    | 1:VB:652:ASP:OD1  | 2.51                     | 0.44              |
| 1:XB:145:PHE:CE2  | 1:XB:151:TYR:HB2  | 2.52                     | 0.44              |
| 1:XB:527:ILE:HD11 | 1:XB:543:TYR:OH   | 2.17                     | 0.44              |
| 1:XB:717:GLU:CB   | 1:YB:707:LEU:HD13 | 2.46                     | 0.44              |
| 1:YB:233:GLN:HA   | 1:YB:245:THR:HG23 | 1.98                     | 0.44              |
| 1:YB:382:LEU:HD11 | 1:YB:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:YB:652:ASP:OD1  | 1:YB:652:ASP:N    | 2.51                     | 0.44              |
| 1:YB:706:LEU:HD13 | 1:ZB:693:ILE:HG23 | 2.00                     | 0.44              |
| 1:ZB:652:ASP:OD1  | 1:ZB:652:ASP:N    | 2.51                     | 0.44              |
| 1:A:9:ARG:HE      | 1:C:24:ASN:ND2    | 2.16                     | 0.44              |
| 1:A:318:ARG:HB2   | 1:A:321:GLN:OE1   | 2.17                     | 0.44              |
| 1:A:573:LYS:HG3   | 1:A:574:ALA:N     | 2.33                     | 0.44              |
| 1:A:652:ASP:N     | 1:A:652:ASP:OD1   | 2.51                     | 0.44              |
| 1:B:233:GLN:HE21  | 1:B:264:TYR:HD2   | 1.65                     | 0.44              |
| 1:B:573:LYS:HG3   | 1:B:574:ALA:N     | 2.33                     | 0.44              |
| 1:C:382:LEU:HD11  | 1:C:388:ILE:HG23  | 2.00                     | 0.44              |
| 1:C:385:ASN:ND2   | 1:E:473:TYR:O     | 2.50                     | 0.44              |
| 1:C:461:ARG:HH11  | 1:E:473:TYR:HE2   | 1.66                     | 0.44              |
| 1:C:465:ASN:OD1   | 1:E:563:SER:HA    | 2.16                     | 0.44              |
| 1:D:318:ARG:HB2   | 1:D:321:GLN:OE1   | 2.17                     | 0.44              |
| 1:D:652:ASP:OD1   | 1:D:652:ASP:N     | 2.51                     | 0.44              |
| 1:E:233:GLN:HA    | 1:E:245:THR:HG23  | 1.98                     | 0.44              |
| 1:F:228:HIS:HE1   | 1:F:248:GLU:HB3   | 1.81                     | 0.44              |
| 1:G:382:LEU:HD11  | 1:G:388:ILE:HG23  | 2.00                     | 0.44              |
| 1:H:382:LEU:HD11  | 1:H:388:ILE:HG23  | 2.00                     | 0.44              |
| 1:H:388:ILE:HA    | 1:H:456:ARG:HA    | 1.98                     | 0.44              |
| 1:I:145:PHE:CE2   | 1:I:151:TYR:HB2   | 2.52                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:J:9:ARG:HH12    | 1:L:21:GLN:CA     | 2.31                     | 0.44              |
| 1:J:95:ASP:HA     | 1:L:85:HIS:NE2    | 2.32                     | 0.44              |
| 1:K:233:GLN:HA    | 1:K:245:THR:HG23  | 1.99                     | 0.44              |
| 1:L:388:ILE:HA    | 1:L:456:ARG:HA    | 1.98                     | 0.44              |
| 1:M:96:PRO:HD3    | 1:O:85:HIS:CE1    | 2.52                     | 0.44              |
| 1:M:136:LYS:HD2   | 1:M:136:LYS:HA    | 1.76                     | 0.44              |
| 1:M:389:TYR:CE1   | 1:M:457:VAL:HA    | 2.52                     | 0.44              |
| 1:O:382:LEU:HD11  | 1:O:388:ILE:HG23  | 2.00                     | 0.44              |
| 1:O:592:HIS:NE2   | 1:Q:531:THR:O     | 2.40                     | 0.44              |
| 1:P:775:ALA:HB3   | 1:R:770:LEU:HD21  | 1.99                     | 0.44              |
| 1:R:145:PHE:CE2   | 1:R:151:TYR:HB2   | 2.52                     | 0.44              |
| 1:S:318:ARG:HB2   | 1:S:321:GLN:OE1   | 2.17                     | 0.44              |
| 1:T:382:LEU:HD11  | 1:T:388:ILE:HG23  | 2.00                     | 0.44              |
| 1:T:389:TYR:CE1   | 1:T:457:VAL:HA    | 2.52                     | 0.44              |
| 1:V:388:ILE:HA    | 1:V:456:ARG:HA    | 1.98                     | 0.44              |
| 1:W:652:ASP:OD1   | 1:W:652:ASP:N     | 2.51                     | 0.44              |
| 1:X:506:LYS:HD3   | 1:X:506:LYS:HA    | 1.78                     | 0.44              |
| 1:Y:382:LEU:HD11  | 1:Y:388:ILE:HG23  | 2.00                     | 0.44              |
| 1:AA:382:LEU:HD11 | 1:AA:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:EA:382:LEU:HD11 | 1:EA:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:EA:388:ILE:HA   | 1:EA:456:ARG:HA   | 1.98                     | 0.44              |
| 1:FA:39:ASP:HB2   | 1:UA:39:ASP:CB    | 2.43                     | 0.44              |
| 1:FA:233:GLN:HE21 | 1:FA:264:TYR:HD2  | 1.65                     | 0.44              |
| 1:FA:652:ASP:N    | 1:FA:652:ASP:OD1  | 2.51                     | 0.44              |
| 1:HA:318:ARG:HB2  | 1:HA:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:IA:233:GLN:HA   | 1:IA:245:THR:HG23 | 1.98                     | 0.44              |
| 1:IA:573:LYS:HG3  | 1:IA:574:ALA:N    | 2.32                     | 0.44              |
| 1:JA:318:ARG:HB2  | 1:JA:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:JA:573:LYS:HG3  | 1:JA:574:ALA:N    | 2.33                     | 0.44              |
| 1:JA:709:LEU:HD13 | 1:LA:701:LYS:HG3  | 1.99                     | 0.44              |
| 1:KA:318:ARG:HB2  | 1:KA:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:KA:382:LEU:HD11 | 1:KA:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:KA:389:TYR:CE1  | 1:KA:457:VAL:HA   | 2.52                     | 0.44              |
| 1:KA:506:LYS:HD3  | 1:KA:506:LYS:HA   | 1.78                     | 0.44              |
| 1:KA:573:LYS:HG3  | 1:KA:574:ALA:N    | 2.33                     | 0.44              |
| 1:KA:652:ASP:OD1  | 1:KA:652:ASP:N    | 2.51                     | 0.44              |
| 1:KA:713:SER:OG   | 1:MA:707:LEU:HD12 | 2.17                     | 0.44              |
| 1:LA:652:ASP:N    | 1:LA:652:ASP:OD1  | 2.51                     | 0.44              |
| 1:MA:299:LYS:NZ   | 1:MA:317:GLU:OE2  | 2.38                     | 0.44              |
| 1:NA:233:GLN:HE21 | 1:NA:264:TYR:HD2  | 1.65                     | 0.44              |
| 1:OA:383:ASP:OD1  | 1:OA:383:ASP:N    | 2.44                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:PA:233:GLN:HE21 | 1:PA:264:TYR:HD2  | 1.65                     | 0.44              |
| 1:QA:233:GLN:HA   | 1:QA:245:THR:HG23 | 1.98                     | 0.44              |
| 1:RA:318:ARG:HB2  | 1:RA:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:RA:652:ASP:OD1  | 1:RA:652:ASP:N    | 2.51                     | 0.44              |
| 1:SA:527:ILE:HD11 | 1:SA:543:TYR:OH   | 2.17                     | 0.44              |
| 1:VA:318:ARG:HB2  | 1:VA:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:VA:394:LYS:HE3  | 1:VA:394:LYS:HB2  | 1.81                     | 0.44              |
| 1:VA:542:ALA:HB3  | 1:VA:639:ASP:HB2  | 1.99                     | 0.44              |
| 1:WA:573:LYS:HG3  | 1:WA:574:ALA:N    | 2.32                     | 0.44              |
| 1:YA:299:LYS:NZ   | 1:YA:317:GLU:OE2  | 2.38                     | 0.44              |
| 1:YA:318:ARG:HB2  | 1:YA:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:BB:527:ILE:HD11 | 1:BB:543:TYR:OH   | 2.17                     | 0.44              |
| 1:CB:233:GLN:HA   | 1:CB:245:THR:HG23 | 1.98                     | 0.44              |
| 1:DB:318:ARG:HB2  | 1:DB:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:EB:527:ILE:HD11 | 1:EB:543:TYR:OH   | 2.17                     | 0.44              |
| 1:FB:382:LEU:HD11 | 1:FB:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:FB:573:LYS:HG3  | 1:FB:574:ALA:N    | 2.32                     | 0.44              |
| 1:FB:706:LEU:HD12 | 1:GB:693:ILE:O    | 2.18                     | 0.44              |
| 1:HB:527:ILE:HD11 | 1:HB:543:TYR:OH   | 2.17                     | 0.44              |
| 1:LB:382:LEU:HD11 | 1:LB:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:NB:388:ILE:HA   | 1:NB:456:ARG:HA   | 1.98                     | 0.44              |
| 1:PB:542:ALA:HB3  | 1:PB:639:ASP:HB2  | 1.99                     | 0.44              |
| 1:QB:318:ARG:HB2  | 1:QB:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:QB:527:ILE:HD11 | 1:QB:543:TYR:OH   | 2.17                     | 0.44              |
| 1:RB:233:GLN:HA   | 1:RB:245:THR:HG23 | 1.99                     | 0.44              |
| 1:RB:299:LYS:NZ   | 1:RB:317:GLU:OE2  | 2.38                     | 0.44              |
| 1:UB:600:ARG:HG2  | 1:UB:604:PHE:HE1  | 1.81                     | 0.44              |
| 1:UB:761:ARG:CG   | 1:VB:755:THR:OG1  | 2.65                     | 0.44              |
| 1:UB:768:MET:CE   | 1:VB:762:VAL:HG12 | 2.46                     | 0.44              |
| 1:WB:542:ALA:HB3  | 1:WB:639:ASP:HB2  | 1.99                     | 0.44              |
| 1:XB:542:ALA:HB1  | 1:YB:573:LYS:HE2  | 1.99                     | 0.44              |
| 1:YB:573:LYS:HG3  | 1:YB:574:ALA:N    | 2.32                     | 0.44              |
| 1:ZB:506:LYS:HD3  | 1:ZB:506:LYS:HA   | 1.78                     | 0.44              |
| 1:AC:573:LYS:HG3  | 1:AC:574:ALA:N    | 2.33                     | 0.44              |
| 1:B:382:LEU:HD11  | 1:B:388:ILE:HG23  | 2.00                     | 0.44              |
| 1:B:389:TYR:CE1   | 1:B:457:VAL:HA    | 2.52                     | 0.44              |
| 1:E:389:TYR:CE1   | 1:E:457:VAL:HA    | 2.52                     | 0.44              |
| 1:E:573:LYS:HG3   | 1:E:574:ALA:N     | 2.33                     | 0.44              |
| 1:I:299:LYS:NZ    | 1:I:317:GLU:OE2   | 2.38                     | 0.44              |
| 1:J:382:LEU:HD11  | 1:J:388:ILE:HG23  | 2.00                     | 0.44              |
| 1:J:389:TYR:CE1   | 1:J:457:VAL:HA    | 2.52                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:K:145:PHE:CE2   | 1:K:151:TYR:HB2   | 2.52                     | 0.44              |
| 1:K:382:LEU:HD11  | 1:K:388:ILE:HG23  | 2.00                     | 0.44              |
| 1:N:137:VAL:HG12  | 1:N:138:MET:O     | 2.18                     | 0.44              |
| 1:N:388:ILE:HA    | 1:N:456:ARG:HA    | 1.98                     | 0.44              |
| 1:O:465:ASN:OD1   | 1:Q:563:SER:HA    | 2.18                     | 0.44              |
| 1:P:145:PHE:CE2   | 1:P:151:TYR:HB2   | 2.52                     | 0.44              |
| 1:P:382:LEU:HD11  | 1:P:388:ILE:HG23  | 2.00                     | 0.44              |
| 1:Q:136:LYS:HA    | 1:Q:136:LYS:HD2   | 1.76                     | 0.44              |
| 1:Q:388:ILE:HA    | 1:Q:456:ARG:HA    | 1.98                     | 0.44              |
| 1:R:388:ILE:HA    | 1:R:456:ARG:HA    | 1.98                     | 0.44              |
| 1:T:542:ALA:HB3   | 1:T:639:ASP:HB2   | 1.99                     | 0.44              |
| 1:W:382:LEU:HD11  | 1:W:388:ILE:HG23  | 2.00                     | 0.44              |
| 1:W:709:LEU:HD13  | 1:Y:701:LYS:HG3   | 1.98                     | 0.44              |
| 1:X:257:GLU:HG2   | 1:Z:244:ARG:HB3   | 1.99                     | 0.44              |
| 1:X:382:LEU:HD11  | 1:X:388:ILE:HG23  | 2.00                     | 0.44              |
| 1:X:573:LYS:HG3   | 1:X:574:ALA:N     | 2.32                     | 0.44              |
| 1:X:652:ASP:OD1   | 1:X:652:ASP:N     | 2.51                     | 0.44              |
| 1:Y:299:LYS:NZ    | 1:Y:317:GLU:OE2   | 2.38                     | 0.44              |
| 1:Z:573:LYS:HG3   | 1:Z:574:ALA:N     | 2.32                     | 0.44              |
| 1:Z:652:ASP:OD1   | 1:Z:652:ASP:N     | 2.51                     | 0.44              |
| 1:BA:363:LEU:HA   | 1:DA:353:ALA:HB3  | 1.98                     | 0.44              |
| 1:BA:382:LEU:HD11 | 1:BA:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:BA:383:ASP:OD1  | 1:BA:383:ASP:N    | 2.44                     | 0.44              |
| 1:CA:32:PRO:HB2   | 1:EA:24:ASN:HB2   | 2.00                     | 0.44              |
| 1:DA:233:GLN:HA   | 1:DA:245:THR:HG23 | 1.98                     | 0.44              |
| 1:EA:318:ARG:HB2  | 1:EA:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:EA:506:LYS:HD3  | 1:EA:506:LYS:HA   | 1.78                     | 0.44              |
| 1:HA:388:ILE:HA   | 1:HA:456:ARG:HA   | 1.98                     | 0.44              |
| 1:IA:382:LEU:HD11 | 1:IA:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:IA:389:TYR:CE1  | 1:IA:457:VAL:HA   | 2.53                     | 0.44              |
| 1:KA:388:ILE:HA   | 1:KA:456:ARG:HA   | 1.99                     | 0.44              |
| 1:MA:382:LEU:HD11 | 1:MA:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:MA:573:LYS:HG3  | 1:MA:574:ALA:N    | 2.32                     | 0.44              |
| 1:NA:383:ASP:OD1  | 1:NA:383:ASP:N    | 2.44                     | 0.44              |
| 1:NA:573:LYS:HG3  | 1:NA:574:ALA:N    | 2.33                     | 0.44              |
| 1:PA:136:LYS:HA   | 1:PA:136:LYS:HD2  | 1.76                     | 0.44              |
| 1:PA:318:ARG:HB2  | 1:PA:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:PA:388:ILE:HA   | 1:PA:456:ARG:HA   | 1.98                     | 0.44              |
| 1:QA:233:GLN:HE21 | 1:QA:264:TYR:HD2  | 1.65                     | 0.44              |
| 1:QA:542:ALA:HB3  | 1:QA:639:ASP:HB2  | 1.99                     | 0.44              |
| 1:RA:527:ILE:HD11 | 1:RA:543:TYR:OH   | 2.17                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:SA:382:LEU:HD11 | 1:SA:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:SA:652:ASP:OD1  | 1:SA:652:ASP:N    | 2.51                     | 0.44              |
| 1:UA:502:ALA:HB3  | 1:UA:510:ALA:HB3  | 2.00                     | 0.44              |
| 1:VA:299:LYS:NZ   | 1:VA:317:GLU:OE2  | 2.38                     | 0.44              |
| 1:WA:318:ARG:HB2  | 1:WA:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:WA:676:GLU:OE2  | 1:WA:679:ARG:NH2  | 2.43                     | 0.44              |
| 1:XA:652:ASP:OD1  | 1:XA:652:ASP:N    | 2.51                     | 0.44              |
| 1:YA:389:TYR:CE1  | 1:YA:457:VAL:HA   | 2.52                     | 0.44              |
| 1:YA:652:ASP:N    | 1:YA:652:ASP:OD1  | 2.51                     | 0.44              |
| 1:AB:389:TYR:CE1  | 1:AB:457:VAL:HA   | 2.52                     | 0.44              |
| 1:AB:806:THR:HG22 | 1:OB:808:ARG:NH1  | 2.32                     | 0.44              |
| 1:BB:233:GLN:HA   | 1:BB:245:THR:HG23 | 1.99                     | 0.44              |
| 1:BB:772:TYR:CD1  | 1:CB:766:ARG:HB3  | 2.52                     | 0.44              |
| 1:CB:318:ARG:HB2  | 1:CB:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:CB:652:ASP:N    | 1:CB:652:ASP:OD1  | 2.51                     | 0.44              |
| 1:DB:233:GLN:HA   | 1:DB:245:THR:HG23 | 1.98                     | 0.44              |
| 1:DB:542:ALA:HB3  | 1:DB:639:ASP:HB2  | 1.99                     | 0.44              |
| 1:EB:382:LEU:HD11 | 1:EB:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:FB:233:GLN:HE21 | 1:FB:264:TYR:HD2  | 1.65                     | 0.44              |
| 1:FB:394:LYS:HB2  | 1:FB:394:LYS:HE3  | 1.81                     | 0.44              |
| 1:FB:482:PHE:CZ   | 1:FB:552:ARG:HB3  | 2.52                     | 0.44              |
| 1:FB:724:ALA:HB1  | 1:GB:715:ALA:HA   | 2.00                     | 0.44              |
| 1:GB:233:GLN:HA   | 1:GB:245:THR:HG23 | 1.99                     | 0.44              |
| 1:HB:233:GLN:HE21 | 1:HB:264:TYR:HD2  | 1.65                     | 0.44              |
| 1:IB:233:GLN:HE21 | 1:IB:264:TYR:HD2  | 1.65                     | 0.44              |
| 1:IB:382:LEU:HD11 | 1:IB:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:IB:652:ASP:OD1  | 1:IB:652:ASP:N    | 2.51                     | 0.44              |
| 1:JB:482:PHE:CZ   | 1:JB:552:ARG:HB3  | 2.52                     | 0.44              |
| 1:KB:136:LYS:HD2  | 1:KB:136:LYS:HA   | 1.76                     | 0.44              |
| 1:KB:652:ASP:N    | 1:KB:652:ASP:OD1  | 2.51                     | 0.44              |
| 1:KB:790:VAL:HG21 | 1:LB:785:GLN:HA   | 2.00                     | 0.44              |
| 1:MB:382:LEU:HD11 | 1:MB:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:MB:389:TYR:CE1  | 1:MB:457:VAL:HA   | 2.52                     | 0.44              |
| 1:NB:382:LEU:HD11 | 1:NB:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:OB:233:GLN:HE21 | 1:OB:264:TYR:HD2  | 1.65                     | 0.44              |
| 1:OB:318:ARG:HB2  | 1:OB:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:PB:382:LEU:O    | 1:QB:396:GLY:HA3  | 2.18                     | 0.44              |
| 1:PB:702:ALA:HB2  | 1:QB:690:ARG:HH12 | 1.83                     | 0.44              |
| 1:QB:233:GLN:HE21 | 1:QB:264:TYR:HD2  | 1.65                     | 0.44              |
| 1:RB:542:ALA:HB3  | 1:RB:639:ASP:HB2  | 1.99                     | 0.44              |
| 1:SB:318:ARG:HB2  | 1:SB:321:GLN:OE1  | 2.17                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:SB:652:ASP:N    | 1:SB:652:ASP:OD1  | 2.51                     | 0.44              |
| 1:TB:676:GLU:OE2  | 1:TB:679:ARG:NH2  | 2.43                     | 0.44              |
| 1:UB:329:GLN:OE1  | 1:VB:393:VAL:HG23 | 2.18                     | 0.44              |
| 1:UB:527:ILE:HD11 | 1:UB:543:TYR:OH   | 2.17                     | 0.44              |
| 1:VB:506:LYS:HD3  | 1:VB:506:LYS:HA   | 1.78                     | 0.44              |
| 1:WB:318:ARG:HB2  | 1:WB:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:WB:573:LYS:HG3  | 1:WB:574:ALA:N    | 2.33                     | 0.44              |
| 1:WB:764:LYS:HB2  | 1:WB:764:LYS:HE3  | 1.84                     | 0.44              |
| 1:ZB:233:GLN:HA   | 1:ZB:245:THR:HG23 | 1.98                     | 0.44              |
| 1:ZB:382:LEU:HD11 | 1:ZB:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:AC:233:GLN:HE21 | 1:AC:264:TYR:HD2  | 1.65                     | 0.44              |
| 1:AC:527:ILE:HD11 | 1:AC:543:TYR:OH   | 2.17                     | 0.44              |
| 1:AC:764:LYS:HB2  | 1:AC:764:LYS:HE3  | 1.84                     | 0.44              |
| 1:A:137:VAL:HG12  | 1:A:138:MET:O     | 2.18                     | 0.44              |
| 1:A:388:ILE:HA    | 1:A:456:ARG:HA    | 1.98                     | 0.44              |
| 1:A:786:GLN:HB2   | 1:C:781:VAL:HG11  | 2.00                     | 0.44              |
| 1:B:137:VAL:HG12  | 1:B:138:MET:O     | 2.18                     | 0.44              |
| 1:B:652:ASP:OD1   | 1:B:652:ASP:N     | 2.51                     | 0.44              |
| 1:C:145:PHE:CE2   | 1:C:151:TYR:HB2   | 2.52                     | 0.44              |
| 1:D:137:VAL:HG12  | 1:D:138:MET:O     | 2.18                     | 0.44              |
| 1:E:40:ASN:ND2    | 1:XB:40:ASN:ND2   | 2.66                     | 0.44              |
| 1:E:278:PRO:HB2   | 1:G:338:GLN:NE2   | 2.32                     | 0.44              |
| 1:F:137:VAL:HG12  | 1:F:138:MET:O     | 2.18                     | 0.44              |
| 1:F:145:PHE:CE2   | 1:F:151:TYR:HB2   | 2.52                     | 0.44              |
| 1:F:652:ASP:N     | 1:F:652:ASP:OD1   | 2.51                     | 0.44              |
| 1:G:145:PHE:CE2   | 1:G:151:TYR:HB2   | 2.52                     | 0.44              |
| 1:G:542:ALA:HB3   | 1:G:639:ASP:HB2   | 1.99                     | 0.44              |
| 1:G:599:ILE:O     | 1:G:603:VAL:HG23  | 2.18                     | 0.44              |
| 1:H:377:ARG:NH1   | 1:H:409:THR:O     | 2.30                     | 0.44              |
| 1:I:137:VAL:HG12  | 1:I:138:MET:O     | 2.18                     | 0.44              |
| 1:J:318:ARG:HB2   | 1:J:321:GLN:OE1   | 2.17                     | 0.44              |
| 1:J:573:LYS:HG3   | 1:J:574:ALA:N     | 2.33                     | 0.44              |
| 1:K:388:ILE:HA    | 1:K:456:ARG:HA    | 1.98                     | 0.44              |
| 1:L:720:GLY:HA3   | 1:N:711:ALA:HB1   | 1.99                     | 0.44              |
| 1:N:299:LYS:NZ    | 1:N:317:GLU:OE2   | 2.38                     | 0.44              |
| 1:N:318:ARG:HB2   | 1:N:321:GLN:OE1   | 2.17                     | 0.44              |
| 1:N:377:ARG:NH1   | 1:N:409:THR:O     | 2.30                     | 0.44              |
| 1:N:382:LEU:HD11  | 1:N:388:ILE:HG23  | 2.00                     | 0.44              |
| 1:O:389:TYR:CE1   | 1:O:457:VAL:HA    | 2.53                     | 0.44              |
| 1:P:797:GLU:HB3   | 1:R:792:ALA:HB1   | 2.00                     | 0.44              |
| 1:Q:137:VAL:HG12  | 1:Q:138:MET:O     | 2.18                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:R:694:LEU:O     | 1:R:697:SER:OG    | 2.28                     | 0.44              |
| 1:S:63:ASN:HA     | 1:S:84:ARG:O      | 2.18                     | 0.44              |
| 1:T:137:VAL:HG12  | 1:T:138:MET:O     | 2.18                     | 0.44              |
| 1:V:63:ASN:HA     | 1:V:84:ARG:O      | 2.18                     | 0.44              |
| 1:V:382:LEU:HD11  | 1:V:388:ILE:HG23  | 2.00                     | 0.44              |
| 1:V:389:TYR:CE1   | 1:V:457:VAL:HA    | 2.52                     | 0.44              |
| 1:V:573:LYS:HG3   | 1:V:574:ALA:N     | 2.32                     | 0.44              |
| 1:W:318:ARG:HB2   | 1:W:321:GLN:OE1   | 2.17                     | 0.44              |
| 1:W:388:ILE:HA    | 1:W:456:ARG:HA    | 1.98                     | 0.44              |
| 1:X:63:ASN:HA     | 1:X:84:ARG:O      | 2.18                     | 0.44              |
| 1:Z:388:ILE:HA    | 1:Z:456:ARG:HA    | 1.99                     | 0.44              |
| 1:Z:502:ALA:HB3   | 1:Z:510:ALA:HB3   | 2.00                     | 0.44              |
| 1:Z:599:ILE:O     | 1:Z:603:VAL:HG23  | 2.18                     | 0.44              |
| 1:CA:63:ASN:HA    | 1:CA:84:ARG:O     | 2.18                     | 0.44              |
| 1:DA:502:ALA:HB3  | 1:DA:510:ALA:HB3  | 2.00                     | 0.44              |
| 1:DA:527:ILE:HD11 | 1:DA:543:TYR:OH   | 2.17                     | 0.44              |
| 1:EA:652:ASP:OD1  | 1:EA:652:ASP:N    | 2.51                     | 0.44              |
| 1:GA:388:ILE:HA   | 1:GA:456:ARG:HA   | 1.99                     | 0.44              |
| 1:HA:502:ALA:HB3  | 1:HA:510:ALA:HB3  | 2.00                     | 0.44              |
| 1:IA:63:ASN:HA    | 1:IA:84:ARG:O     | 2.18                     | 0.44              |
| 1:IA:233:GLN:HE21 | 1:IA:264:TYR:HD2  | 1.65                     | 0.44              |
| 1:KA:63:ASN:HA    | 1:KA:84:ARG:O     | 2.18                     | 0.44              |
| 1:KA:136:LYS:HA   | 1:KA:136:LYS:HD2  | 1.76                     | 0.44              |
| 1:LA:502:ALA:HB3  | 1:LA:510:ALA:HB3  | 2.00                     | 0.44              |
| 1:MA:388:ILE:HA   | 1:MA:456:ARG:HA   | 1.99                     | 0.44              |
| 1:MA:599:ILE:O    | 1:MA:603:VAL:HG23 | 2.18                     | 0.44              |
| 1:MA:652:ASP:OD1  | 1:MA:652:ASP:N    | 2.51                     | 0.44              |
| 1:NA:389:TYR:CE1  | 1:NA:457:VAL:HA   | 2.52                     | 0.44              |
| 1:OA:382:LEU:HD11 | 1:OA:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:OA:652:ASP:N    | 1:OA:652:ASP:OD1  | 2.51                     | 0.44              |
| 1:QA:382:LEU:HD11 | 1:QA:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:QA:502:ALA:HB3  | 1:QA:510:ALA:HB3  | 2.00                     | 0.44              |
| 1:SA:63:ASN:HA    | 1:SA:84:ARG:O     | 2.18                     | 0.44              |
| 1:VA:363:LEU:HA   | 1:XA:353:ALA:HB3  | 1.98                     | 0.44              |
| 1:VA:389:TYR:CE1  | 1:VA:457:VAL:HA   | 2.52                     | 0.44              |
| 1:YA:502:ALA:HB3  | 1:YA:510:ALA:HB3  | 2.00                     | 0.44              |
| 1:AB:233:GLN:HE21 | 1:AB:264:TYR:HD2  | 1.65                     | 0.44              |
| 1:AB:573:LYS:HG3  | 1:AB:574:ALA:N    | 2.33                     | 0.44              |
| 1:BB:750:ALA:CA   | 1:CB:741:VAL:HG23 | 2.45                     | 0.44              |
| 1:DB:145:PHE:CE2  | 1:DB:151:TYR:HB2  | 2.52                     | 0.44              |
| 1:DB:573:LYS:HG3  | 1:DB:574:ALA:N    | 2.32                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:FB:694:LEU:O    | 1:FB:697:SER:OG   | 2.28                     | 0.44              |
| 1:GB:137:VAL:HG12 | 1:GB:138:MET:O    | 2.18                     | 0.44              |
| 1:GB:382:LEU:HD11 | 1:GB:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:IB:389:TYR:CE1  | 1:IB:457:VAL:HA   | 2.52                     | 0.44              |
| 1:JB:233:GLN:HA   | 1:JB:245:THR:HG23 | 1.98                     | 0.44              |
| 1:JB:233:GLN:HE21 | 1:JB:264:TYR:HD2  | 1.65                     | 0.44              |
| 1:JB:652:ASP:OD1  | 1:JB:652:ASP:N    | 2.51                     | 0.44              |
| 1:KB:137:VAL:HG12 | 1:KB:138:MET:O    | 2.18                     | 0.44              |
| 1:KB:145:PHE:CE2  | 1:KB:151:TYR:HB2  | 2.52                     | 0.44              |
| 1:LB:388:ILE:HA   | 1:LB:456:ARG:HA   | 1.98                     | 0.44              |
| 1:MB:482:PHE:CZ   | 1:MB:552:ARG:HB3  | 2.52                     | 0.44              |
| 1:MB:573:LYS:HG3  | 1:MB:574:ALA:N    | 2.33                     | 0.44              |
| 1:OB:233:GLN:HA   | 1:OB:245:THR:HG23 | 1.98                     | 0.44              |
| 1:OB:506:LYS:HD3  | 1:OB:506:LYS:HA   | 1.78                     | 0.44              |
| 1:PB:527:ILE:HD11 | 1:PB:543:TYR:OH   | 2.17                     | 0.44              |
| 1:RB:389:TYR:CE1  | 1:RB:457:VAL:HA   | 2.52                     | 0.44              |
| 1:RB:394:LYS:HB2  | 1:RB:394:LYS:HE3  | 1.81                     | 0.44              |
| 1:UB:764:LYS:HZ1  | 1:VB:756:GLU:N    | 2.16                     | 0.44              |
| 1:VB:318:ARG:HB2  | 1:VB:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:VB:676:GLU:OE2  | 1:VB:679:ARG:NH2  | 2.43                     | 0.44              |
| 1:WB:233:GLN:HA   | 1:WB:245:THR:HG23 | 1.98                     | 0.44              |
| 1:WB:681:GLU:OE2  | 1:WB:685:ARG:NH1  | 2.51                     | 0.44              |
| 1:XB:382:LEU:HD11 | 1:XB:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:XB:790:VAL:HG21 | 1:YB:785:GLN:HA   | 2.00                     | 0.44              |
| 1:YB:233:GLN:HE21 | 1:YB:264:TYR:HD2  | 1.65                     | 0.44              |
| 1:YB:388:ILE:HA   | 1:YB:456:ARG:HA   | 1.99                     | 0.44              |
| 1:YB:542:ALA:HB3  | 1:YB:639:ASP:HB2  | 1.99                     | 0.44              |
| 1:ZB:137:VAL:HG12 | 1:ZB:138:MET:O    | 2.18                     | 0.44              |
| 1:AC:145:PHE:CE2  | 1:AC:151:TYR:HB2  | 2.52                     | 0.44              |
| 1:B:388:ILE:HA    | 1:B:456:ARG:HA    | 1.98                     | 0.44              |
| 1:C:388:ILE:HA    | 1:C:456:ARG:HA    | 1.98                     | 0.44              |
| 1:E:137:VAL:HG12  | 1:E:138:MET:O     | 2.18                     | 0.44              |
| 1:E:382:LEU:HD11  | 1:E:388:ILE:HG23  | 2.00                     | 0.44              |
| 1:E:681:GLU:OE1   | 1:G:675:HIS:NE2   | 2.50                     | 0.44              |
| 1:G:137:VAL:HG12  | 1:G:138:MET:O     | 2.18                     | 0.44              |
| 1:G:389:TYR:CE1   | 1:G:457:VAL:HA    | 2.52                     | 0.44              |
| 1:I:233:GLN:HE21  | 1:I:264:TYR:HD2   | 1.65                     | 0.44              |
| 1:J:482:PHE:CZ    | 1:J:552:ARG:HB3   | 2.52                     | 0.44              |
| 1:J:652:ASP:OD1   | 1:J:652:ASP:N     | 2.51                     | 0.44              |
| 1:K:599:ILE:O     | 1:K:603:VAL:HG23  | 2.18                     | 0.44              |
| 1:L:145:PHE:CE2   | 1:L:151:TYR:HB2   | 2.52                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:M:63:ASN:HA     | 1:M:84:ARG:O      | 2.18                     | 0.44              |
| 1:O:137:VAL:HG12  | 1:O:138:MET:O     | 2.18                     | 0.44              |
| 1:Q:63:ASN:HA     | 1:Q:84:ARG:O      | 2.18                     | 0.44              |
| 1:R:137:VAL:HG12  | 1:R:138:MET:O     | 2.18                     | 0.44              |
| 1:S:56:ARG:HB2    | 1:V:127:LEU:HD22  | 1.98                     | 0.44              |
| 1:S:233:GLN:HA    | 1:S:245:THR:HG23  | 1.98                     | 0.44              |
| 1:S:621:LYS:HD3   | 1:S:621:LYS:HA    | 1.81                     | 0.44              |
| 1:T:388:ILE:HA    | 1:T:456:ARG:HA    | 1.99                     | 0.44              |
| 1:T:599:ILE:O     | 1:T:603:VAL:HG23  | 2.18                     | 0.44              |
| 1:T:681:GLU:OE2   | 1:T:685:ARG:NH1   | 2.51                     | 0.44              |
| 1:V:681:GLU:OE2   | 1:V:685:ARG:NH1   | 2.51                     | 0.44              |
| 1:W:137:VAL:HG12  | 1:W:138:MET:O     | 2.18                     | 0.44              |
| 1:X:318:ARG:HB2   | 1:X:321:GLN:OE1   | 2.17                     | 0.44              |
| 1:Y:599:ILE:O     | 1:Y:603:VAL:HG23  | 2.18                     | 0.44              |
| 1:Z:382:LEU:HD11  | 1:Z:388:ILE:HG23  | 2.00                     | 0.44              |
| 1:AA:318:ARG:HB2  | 1:AA:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:BA:233:GLN:HA   | 1:BA:245:THR:HG23 | 1.98                     | 0.44              |
| 1:BA:652:ASP:OD1  | 1:BA:652:ASP:N    | 2.51                     | 0.44              |
| 1:DA:652:ASP:N    | 1:DA:652:ASP:OD1  | 2.51                     | 0.44              |
| 1:EA:573:LYS:HG3  | 1:EA:574:ALA:N    | 2.33                     | 0.44              |
| 1:FA:63:ASN:HA    | 1:FA:84:ARG:O     | 2.18                     | 0.44              |
| 1:FA:382:LEU:HD11 | 1:FA:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:GA:257:GLU:HG2  | 1:IA:244:ARG:HB3  | 2.00                     | 0.44              |
| 1:JA:382:LEU:HD11 | 1:JA:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:JA:502:ALA:HB3  | 1:JA:510:ALA:HB3  | 2.00                     | 0.44              |
| 1:LA:63:ASN:HA    | 1:LA:84:ARG:O     | 2.18                     | 0.44              |
| 1:MA:377:ARG:NH1  | 1:MA:409:THR:O    | 2.30                     | 0.44              |
| 1:MA:502:ALA:HB3  | 1:MA:510:ALA:HB3  | 2.00                     | 0.44              |
| 1:NA:681:GLU:OE2  | 1:NA:685:ARG:NH1  | 2.51                     | 0.44              |
| 1:PA:573:LYS:HG3  | 1:PA:574:ALA:N    | 2.33                     | 0.44              |
| 1:QA:652:ASP:N    | 1:QA:652:ASP:OD1  | 2.51                     | 0.44              |
| 1:QA:681:GLU:OE2  | 1:QA:685:ARG:NH1  | 2.51                     | 0.44              |
| 1:RA:573:LYS:HG3  | 1:RA:574:ALA:N    | 2.33                     | 0.44              |
| 1:TA:377:ARG:NH1  | 1:TA:409:THR:O    | 2.30                     | 0.44              |
| 1:TA:681:GLU:OE2  | 1:TA:685:ARG:NH1  | 2.51                     | 0.44              |
| 1:YA:394:LYS:HE3  | 1:YA:394:LYS:HB2  | 1.81                     | 0.44              |
| 1:AB:658:VAL:HG12 | 1:OB:533:ASP:O    | 2.18                     | 0.44              |
| 1:BB:801:ALA:HA   | 1:CB:796:LYS:HZ1  | 1.83                     | 0.44              |
| 1:CB:382:LEU:HD11 | 1:CB:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:DB:681:GLU:OE2  | 1:DB:685:ARG:NH1  | 2.51                     | 0.44              |
| 1:EB:599:ILE:O    | 1:EB:603:VAL:HG23 | 2.18                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:FB:233:GLN:HA   | 1:FB:245:THR:HG23 | 1.99                     | 0.44              |
| 1:FB:681:GLU:OE2  | 1:FB:685:ARG:NH1  | 2.51                     | 0.44              |
| 1:HB:318:ARG:HB2  | 1:HB:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:IB:137:VAL:HG12 | 1:IB:138:MET:O    | 2.18                     | 0.44              |
| 1:JB:9:ARG:HH21   | 1:KB:24:ASN:CG    | 2.21                     | 0.44              |
| 1:JB:137:VAL:HG12 | 1:JB:138:MET:O    | 2.18                     | 0.44              |
| 1:JB:383:ASP:OD1  | 1:JB:383:ASP:N    | 2.44                     | 0.44              |
| 1:KB:382:LEU:HD11 | 1:KB:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:KB:573:LYS:HG3  | 1:KB:574:ALA:N    | 2.32                     | 0.44              |
| 1:LB:377:ARG:HD3  | 1:LB:377:ARG:HA   | 1.84                     | 0.44              |
| 1:LB:709:LEU:HD11 | 1:MB:701:LYS:HE3  | 1.99                     | 0.44              |
| 1:LB:764:LYS:NZ   | 1:MB:756:GLU:HB2  | 2.33                     | 0.44              |
| 1:MB:318:ARG:HB2  | 1:MB:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:MB:506:LYS:HD3  | 1:MB:506:LYS:HA   | 1.78                     | 0.44              |
| 1:MB:652:ASP:N    | 1:MB:652:ASP:OD1  | 2.51                     | 0.44              |
| 1:NB:36:ILE:HD13  | 1:ZB:36:ILE:HD13  | 1.99                     | 0.44              |
| 1:NB:573:LYS:HG3  | 1:NB:574:ALA:N    | 2.33                     | 0.44              |
| 1:TB:233:GLN:HE21 | 1:TB:264:TYR:HD2  | 1.65                     | 0.44              |
| 1:UB:385:ASN:ND2  | 1:VB:473:TYR:O    | 2.49                     | 0.44              |
| 1:VB:233:GLN:HA   | 1:VB:245:THR:HG23 | 1.98                     | 0.44              |
| 1:VB:382:LEU:HD11 | 1:VB:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:WB:145:PHE:CE2  | 1:WB:151:TYR:HB2  | 2.52                     | 0.44              |
| 1:WB:382:LEU:HD11 | 1:WB:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:XB:170:GLN:HB3  | 1:YB:233:GLN:OE1  | 2.18                     | 0.44              |
| 1:XB:573:LYS:HG3  | 1:XB:574:ALA:N    | 2.32                     | 0.44              |
| 1:XB:706:LEU:HD13 | 1:YB:693:ILE:HG23 | 2.00                     | 0.44              |
| 1:YB:394:LYS:HB2  | 1:YB:394:LYS:HE3  | 1.81                     | 0.44              |
| 1:YB:681:GLU:OE2  | 1:YB:685:ARG:NH1  | 2.51                     | 0.44              |
| 1:AC:694:LEU:O    | 1:AC:697:SER:OG   | 2.28                     | 0.44              |
| 1:A:230:ARG:NH1   | 1:A:266:GLU:OE1   | 2.51                     | 0.44              |
| 1:A:377:ARG:NH1   | 1:A:409:THR:O     | 2.30                     | 0.44              |
| 1:A:382:LEU:HD11  | 1:A:388:ILE:HG23  | 2.00                     | 0.44              |
| 1:C:63:ASN:HA     | 1:C:84:ARG:O      | 2.18                     | 0.44              |
| 1:D:233:GLN:HA    | 1:D:245:THR:HG23  | 1.99                     | 0.44              |
| 1:E:388:ILE:HA    | 1:E:456:ARG:HA    | 1.99                     | 0.44              |
| 1:E:706:LEU:HD13  | 1:G:693:ILE:HG23  | 2.00                     | 0.44              |
| 1:F:681:GLU:OE2   | 1:F:685:ARG:NH1   | 2.51                     | 0.44              |
| 1:G:676:GLU:OE2   | 1:G:679:ARG:NH2   | 2.43                     | 0.44              |
| 1:H:652:ASP:N     | 1:H:652:ASP:OD1   | 2.51                     | 0.44              |
| 1:H:724:ALA:CB    | 1:J:715:ALA:HA    | 2.48                     | 0.44              |
| 1:I:382:LEU:HD11  | 1:I:388:ILE:HG23  | 2.00                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:I:652:ASP:N     | 1:I:652:ASP:OD1   | 2.51                     | 0.44              |
| 1:K:377:ARG:HD3   | 1:K:377:ARG:HA    | 1.84                     | 0.44              |
| 1:K:681:GLU:OE2   | 1:K:685:ARG:NH1   | 2.51                     | 0.44              |
| 1:L:573:LYS:HG3   | 1:L:574:ALA:N     | 2.32                     | 0.44              |
| 1:M:382:LEU:HD11  | 1:M:388:ILE:HG23  | 2.00                     | 0.44              |
| 1:N:794:LYS:HD3   | 1:P:788:ALA:HB1   | 1.99                     | 0.44              |
| 1:O:681:GLU:OE2   | 1:O:685:ARG:NH1   | 2.51                     | 0.44              |
| 1:P:388:ILE:HA    | 1:P:456:ARG:HA    | 1.98                     | 0.44              |
| 1:Q:382:LEU:HD11  | 1:Q:388:ILE:HG23  | 2.00                     | 0.44              |
| 1:Q:681:GLU:OE2   | 1:Q:685:ARG:NH1   | 2.51                     | 0.44              |
| 1:R:63:ASN:HA     | 1:R:84:ARG:O      | 2.18                     | 0.44              |
| 1:R:318:ARG:HB2   | 1:R:321:GLN:OE1   | 2.17                     | 0.44              |
| 1:R:573:LYS:HG3   | 1:R:574:ALA:N     | 2.33                     | 0.44              |
| 1:T:63:ASN:HA     | 1:T:84:ARG:O      | 2.18                     | 0.44              |
| 1:V:137:VAL:HG12  | 1:V:138:MET:O     | 2.18                     | 0.44              |
| 1:V:599:ILE:O     | 1:V:603:VAL:HG23  | 2.18                     | 0.44              |
| 1:Y:137:VAL:HG12  | 1:Y:138:MET:O     | 2.18                     | 0.44              |
| 1:Y:681:GLU:OE2   | 1:Y:685:ARG:NH1   | 2.51                     | 0.44              |
| 1:Z:233:GLN:HA    | 1:Z:245:THR:HG23  | 1.98                     | 0.44              |
| 1:Z:542:ALA:HB3   | 1:Z:639:ASP:HB2   | 1.99                     | 0.44              |
| 1:BA:394:LYS:HB2  | 1:BA:394:LYS:HE3  | 1.81                     | 0.44              |
| 1:BA:502:ALA:HB3  | 1:BA:510:ALA:HB3  | 2.00                     | 0.44              |
| 1:CA:388:ILE:HA   | 1:CA:456:ARG:HA   | 1.99                     | 0.44              |
| 1:DA:63:ASN:HA    | 1:DA:84:ARG:O     | 2.18                     | 0.44              |
| 1:DA:382:LEU:HD11 | 1:DA:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:DA:542:ALA:HB3  | 1:DA:639:ASP:HB2  | 1.99                     | 0.44              |
| 1:DA:599:ILE:O    | 1:DA:603:VAL:HG23 | 2.18                     | 0.44              |
| 1:DA:681:GLU:OE2  | 1:DA:685:ARG:NH1  | 2.51                     | 0.44              |
| 1:EA:681:GLU:OE2  | 1:EA:685:ARG:NH1  | 2.51                     | 0.44              |
| 1:GA:63:ASN:HA    | 1:GA:84:ARG:O     | 2.18                     | 0.44              |
| 1:IA:502:ALA:HB3  | 1:IA:510:ALA:HB3  | 2.00                     | 0.44              |
| 1:IA:599:ILE:O    | 1:IA:603:VAL:HG23 | 2.18                     | 0.44              |
| 1:IA:681:GLU:OE2  | 1:IA:685:ARG:NH1  | 2.51                     | 0.44              |
| 1:JA:63:ASN:HA    | 1:JA:84:ARG:O     | 2.18                     | 0.44              |
| 1:JA:681:GLU:OE2  | 1:JA:685:ARG:NH1  | 2.51                     | 0.44              |
| 1:MA:233:GLN:HA   | 1:MA:245:THR:HG23 | 1.98                     | 0.44              |
| 1:NA:502:ALA:HB3  | 1:NA:510:ALA:HB3  | 2.00                     | 0.44              |
| 1:PA:502:ALA:HB3  | 1:PA:510:ALA:HB3  | 2.00                     | 0.44              |
| 1:QA:63:ASN:HA    | 1:QA:84:ARG:O     | 2.18                     | 0.44              |
| 1:QA:599:ILE:O    | 1:QA:603:VAL:HG23 | 2.18                     | 0.44              |
| 1:RA:56:ARG:HG3   | 1:TA:127:LEU:HD22 | 2.00                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:RA:502:ALA:HB3  | 1:RA:510:ALA:HB3  | 2.00                     | 0.44              |
| 1:TA:318:ARG:HB2  | 1:TA:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:TA:527:ILE:HD11 | 1:TA:543:TYR:OH   | 2.17                     | 0.44              |
| 1:WA:382:LEU:HD11 | 1:WA:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:WA:681:GLU:OE2  | 1:WA:685:ARG:NH1  | 2.51                     | 0.44              |
| 1:XA:10:ILE:O     | 1:ZA:24:ASN:ND2   | 2.50                     | 0.44              |
| 1:XA:681:GLU:OE2  | 1:XA:685:ARG:NH1  | 2.51                     | 0.44              |
| 1:ZA:382:LEU:HD11 | 1:ZA:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:AB:382:LEU:HD11 | 1:AB:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:AB:502:ALA:HB3  | 1:AB:510:ALA:HB3  | 2.00                     | 0.44              |
| 1:AB:681:GLU:OE2  | 1:AB:685:ARG:NH1  | 2.51                     | 0.44              |
| 1:EB:573:LYS:HG3  | 1:EB:574:ALA:N    | 2.33                     | 0.44              |
| 1:FB:389:TYR:CE1  | 1:FB:457:VAL:HA   | 2.52                     | 0.44              |
| 1:GB:599:ILE:O    | 1:GB:603:VAL:HG23 | 2.18                     | 0.44              |
| 1:HB:145:PHE:CE2  | 1:HB:151:TYR:HB2  | 2.52                     | 0.44              |
| 1:IB:362:PRO:O    | 1:JB:352:GLN:HB3  | 2.18                     | 0.44              |
| 1:JB:145:PHE:CE2  | 1:JB:151:TYR:HB2  | 2.52                     | 0.44              |
| 1:JB:600:ARG:HG2  | 1:JB:604:PHE:HE1  | 1.81                     | 0.44              |
| 1:LB:652:ASP:OD1  | 1:LB:652:ASP:N    | 2.51                     | 0.44              |
| 1:LB:753:ILE:HG12 | 1:MB:745:LYS:CE   | 2.46                     | 0.44              |
| 1:LB:802:LEU:HG   | 1:MB:795:PHE:CE2  | 2.50                     | 0.44              |
| 1:NB:145:PHE:CE2  | 1:NB:151:TYR:HB2  | 2.52                     | 0.44              |
| 1:PB:382:LEU:HD11 | 1:PB:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:PB:502:ALA:HB3  | 1:PB:510:ALA:HB3  | 2.00                     | 0.44              |
| 1:PB:709:LEU:HD13 | 1:QB:701:LYS:HG3  | 1.99                     | 0.44              |
| 1:QB:389:TYR:CE1  | 1:QB:457:VAL:HA   | 2.52                     | 0.44              |
| 1:RB:382:LEU:HD11 | 1:RB:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:TB:382:LEU:HD11 | 1:TB:388:ILE:HG23 | 2.00                     | 0.44              |
| 1:TB:527:ILE:HD11 | 1:TB:543:TYR:OH   | 2.17                     | 0.44              |
| 1:VB:230:ARG:NH1  | 1:VB:266:GLU:OE1  | 2.51                     | 0.44              |
| 1:XB:599:ILE:O    | 1:XB:603:VAL:HG23 | 2.18                     | 0.44              |
| 1:YB:389:TYR:CE1  | 1:YB:457:VAL:HA   | 2.52                     | 0.44              |
| 1:ZB:145:PHE:CE2  | 1:ZB:151:TYR:HB2  | 2.52                     | 0.44              |
| 1:ZB:599:ILE:O    | 1:ZB:603:VAL:HG23 | 2.18                     | 0.44              |
| 1:AC:137:VAL:HG12 | 1:AC:138:MET:O    | 2.18                     | 0.44              |
| 1:AC:318:ARG:HB2  | 1:AC:321:GLN:OE1  | 2.17                     | 0.44              |
| 1:A:60:ILE:HG22   | 1:A:106:GLU:HB3   | 2.00                     | 0.43              |
| 1:A:85:HIS:CE1    | 1:NB:96:PRO:HD3   | 2.53                     | 0.43              |
| 1:B:26:SER:O      | 1:B:101:PRO:HG2   | 2.19                     | 0.43              |
| 1:B:535:ALA:HA    | 1:AC:658:VAL:HG11 | 2.00                     | 0.43              |
| 1:B:599:ILE:O     | 1:B:603:VAL:HG23  | 2.18                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:137:VAL:HG12  | 1:C:138:MET:O     | 2.18                     | 0.43              |
| 1:D:145:PHE:CE2   | 1:D:151:TYR:HB2   | 2.52                     | 0.43              |
| 1:E:63:ASN:HA     | 1:E:84:ARG:O      | 2.18                     | 0.43              |
| 1:E:230:ARG:NH1   | 1:E:266:GLU:OE1   | 2.51                     | 0.43              |
| 1:F:26:SER:O      | 1:F:101:PRO:HG2   | 2.19                     | 0.43              |
| 1:F:542:ALA:HB3   | 1:F:639:ASP:HB2   | 1.99                     | 0.43              |
| 1:F:573:LYS:HG3   | 1:F:574:ALA:N     | 2.33                     | 0.43              |
| 1:G:233:GLN:HE21  | 1:G:264:TYR:HD2   | 1.65                     | 0.43              |
| 1:G:299:LYS:NZ    | 1:G:317:GLU:OE2   | 2.38                     | 0.43              |
| 1:G:681:GLU:OE2   | 1:G:685:ARG:NH1   | 2.51                     | 0.43              |
| 1:J:52:THR:HG21   | 1:L:85:HIS:CD2    | 2.53                     | 0.43              |
| 1:J:506:LYS:HD3   | 1:J:506:LYS:HA    | 1.78                     | 0.43              |
| 1:K:233:GLN:HE21  | 1:K:264:TYR:HD2   | 1.65                     | 0.43              |
| 1:N:230:ARG:NH1   | 1:N:266:GLU:OE1   | 2.51                     | 0.43              |
| 1:O:60:ILE:HG22   | 1:O:106:GLU:HB3   | 2.01                     | 0.43              |
| 1:O:63:ASN:HA     | 1:O:84:ARG:O      | 2.18                     | 0.43              |
| 1:O:599:ILE:O     | 1:O:603:VAL:HG23  | 2.18                     | 0.43              |
| 1:P:63:ASN:HA     | 1:P:84:ARG:O      | 2.18                     | 0.43              |
| 1:P:137:VAL:HG12  | 1:P:138:MET:O     | 2.18                     | 0.43              |
| 1:P:652:ASP:N     | 1:P:652:ASP:OD1   | 2.51                     | 0.43              |
| 1:P:681:GLU:OE2   | 1:P:685:ARG:NH1   | 2.51                     | 0.43              |
| 1:R:230:ARG:NH1   | 1:R:266:GLU:OE1   | 2.51                     | 0.43              |
| 1:R:394:LYS:HE3   | 1:R:394:LYS:HB2   | 1.81                     | 0.43              |
| 1:S:137:VAL:HG12  | 1:S:138:MET:O     | 2.18                     | 0.43              |
| 1:T:60:ILE:HG22   | 1:T:106:GLU:HB3   | 2.01                     | 0.43              |
| 1:T:377:ARG:NH1   | 1:T:409:THR:O     | 2.30                     | 0.43              |
| 1:V:60:ILE:HG22   | 1:V:106:GLU:HB3   | 2.00                     | 0.43              |
| 1:X:592:HIS:CD2   | 1:Z:534:HIS:CD2   | 3.06                     | 0.43              |
| 1:AA:60:ILE:HG22  | 1:AA:106:GLU:HB3  | 2.01                     | 0.43              |
| 1:EA:137:VAL:HG12 | 1:EA:138:MET:O    | 2.18                     | 0.43              |
| 1:EA:599:ILE:O    | 1:EA:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:FA:318:ARG:HB2  | 1:FA:321:GLN:OE1  | 2.17                     | 0.43              |
| 1:FA:502:ALA:HB3  | 1:FA:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:GA:26:SER:O     | 1:GA:101:PRO:HG2  | 2.18                     | 0.43              |
| 1:GA:60:ILE:HG22  | 1:GA:106:GLU:HB3  | 2.00                     | 0.43              |
| 1:GA:233:GLN:HE21 | 1:GA:264:TYR:HD2  | 1.65                     | 0.43              |
| 1:GA:652:ASP:N    | 1:GA:652:ASP:OD1  | 2.51                     | 0.43              |
| 1:HA:573:LYS:HG3  | 1:HA:574:ALA:N    | 2.33                     | 0.43              |
| 1:HA:681:GLU:OE2  | 1:HA:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:IA:388:ILE:HA   | 1:IA:456:ARG:HA   | 1.98                     | 0.43              |
| 1:JA:599:ILE:O    | 1:JA:603:VAL:HG23 | 2.18                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:KA:694:LEU:O    | 1:KA:697:SER:OG   | 2.28                     | 0.43              |
| 1:MA:63:ASN:HA    | 1:MA:84:ARG:O     | 2.18                     | 0.43              |
| 1:MA:542:ALA:HB3  | 1:MA:639:ASP:HB2  | 1.99                     | 0.43              |
| 1:NA:382:LEU:HD11 | 1:NA:388:ILE:HG23 | 2.00                     | 0.43              |
| 1:RA:382:LEU:HD11 | 1:RA:388:ILE:HG23 | 2.00                     | 0.43              |
| 1:SA:377:ARG:HA   | 1:SA:377:ARG:HD3  | 1.84                     | 0.43              |
| 1:SA:502:ALA:HB3  | 1:SA:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:TA:389:TYR:CE1  | 1:TA:457:VAL:HA   | 2.53                     | 0.43              |
| 1:UA:26:SER:O     | 1:UA:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:UA:382:LEU:HD11 | 1:UA:388:ILE:HG23 | 2.00                     | 0.43              |
| 1:VA:382:LEU:HD11 | 1:VA:388:ILE:HG23 | 2.00                     | 0.43              |
| 1:VA:573:LYS:HG3  | 1:VA:574:ALA:N    | 2.32                     | 0.43              |
| 1:VA:652:ASP:N    | 1:VA:652:ASP:OD1  | 2.51                     | 0.43              |
| 1:WA:63:ASN:HA    | 1:WA:84:ARG:O     | 2.18                     | 0.43              |
| 1:WA:502:ALA:HB3  | 1:WA:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:XA:233:GLN:HE21 | 1:XA:264:TYR:HD2  | 1.65                     | 0.43              |
| 1:YA:63:ASN:HA    | 1:YA:84:ARG:O     | 2.18                     | 0.43              |
| 1:ZA:230:ARG:NH1  | 1:ZA:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:ZA:233:GLN:HE21 | 1:ZA:264:TYR:HD2  | 1.65                     | 0.43              |
| 1:ZA:527:ILE:HD11 | 1:ZA:543:TYR:OH   | 2.17                     | 0.43              |
| 1:CB:230:ARG:NH1  | 1:CB:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:CB:599:ILE:O    | 1:CB:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:FB:230:ARG:NH1  | 1:FB:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:FB:542:ALA:HB3  | 1:FB:639:ASP:HB2  | 1.99                     | 0.43              |
| 1:GB:26:SER:O     | 1:GB:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:HB:137:VAL:HG12 | 1:HB:138:MET:O    | 2.18                     | 0.43              |
| 1:HB:230:ARG:NH1  | 1:HB:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:HB:694:LEU:O    | 1:HB:697:SER:OG   | 2.28                     | 0.43              |
| 1:IB:26:SER:O     | 1:IB:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:IB:145:PHE:CE2  | 1:IB:151:TYR:HB2  | 2.52                     | 0.43              |
| 1:IB:599:ILE:O    | 1:IB:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:JB:9:ARG:HE     | 1:KB:24:ASN:ND2   | 2.16                     | 0.43              |
| 1:KB:542:ALA:HB3  | 1:KB:639:ASP:HB2  | 1.99                     | 0.43              |
| 1:KB:600:ARG:HG2  | 1:KB:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:KB:681:GLU:OE2  | 1:KB:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:KB:794:LYS:HD3  | 1:LB:788:ALA:HB1  | 1.99                     | 0.43              |
| 1:LB:145:PHE:CE2  | 1:LB:151:TYR:HB2  | 2.52                     | 0.43              |
| 1:MB:230:ARG:NH1  | 1:MB:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:NB:137:VAL:HG12 | 1:NB:138:MET:O    | 2.18                     | 0.43              |
| 1:OB:573:LYS:HG3  | 1:OB:574:ALA:N    | 2.32                     | 0.43              |
| 1:PB:405:THR:HG22 | 1:QB:395:THR:HA   | 2.00                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:PB:573:LYS:HG3  | 1:PB:574:ALA:N    | 2.33                     | 0.43              |
| 1:QB:382:LEU:HD11 | 1:QB:388:ILE:HG23 | 2.00                     | 0.43              |
| 1:RB:10:ILE:O     | 1:SB:24:ASN:ND2   | 2.51                     | 0.43              |
| 1:RB:230:ARG:NH1  | 1:RB:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:RB:573:LYS:HG3  | 1:RB:574:ALA:N    | 2.32                     | 0.43              |
| 1:RB:652:ASP:OD1  | 1:RB:652:ASP:N    | 2.51                     | 0.43              |
| 1:SB:502:ALA:HB3  | 1:SB:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:SB:681:GLU:OE2  | 1:SB:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:UB:573:LYS:HG3  | 1:UB:574:ALA:N    | 2.32                     | 0.43              |
| 1:UB:742:LEU:HD23 | 1:VB:734:ARG:CG   | 2.47                     | 0.43              |
| 1:VB:26:SER:O     | 1:VB:101:PRO:HG2  | 2.18                     | 0.43              |
| 1:VB:137:VAL:HG12 | 1:VB:138:MET:O    | 2.18                     | 0.43              |
| 1:VB:465:ASN:OD1  | 1:WB:563:SER:HA   | 2.18                     | 0.43              |
| 1:VB:599:ILE:O    | 1:VB:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:WB:233:GLN:HE21 | 1:WB:264:TYR:HD2  | 1.65                     | 0.43              |
| 1:YB:230:ARG:NH1  | 1:YB:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:AC:230:ARG:NH1  | 1:AC:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:A:52:THR:HG21   | 1:C:85:HIS:CD2    | 2.53                     | 0.43              |
| 1:A:63:ASN:HA     | 1:A:84:ARG:O      | 2.18                     | 0.43              |
| 1:B:681:GLU:OE2   | 1:B:685:ARG:NH1   | 2.51                     | 0.43              |
| 1:B:707:LEU:HD13  | 1:AC:717:GLU:HB2  | 1.99                     | 0.43              |
| 1:B:814:GLY:HA2   | 1:B:815:PRO:HD3   | 1.91                     | 0.43              |
| 1:C:652:ASP:N     | 1:C:652:ASP:OD1   | 2.51                     | 0.43              |
| 1:C:681:GLU:OE2   | 1:C:685:ARG:NH1   | 2.51                     | 0.43              |
| 1:D:230:ARG:NH1   | 1:D:266:GLU:OE1   | 2.51                     | 0.43              |
| 1:G:40:ASN:ND2    | 1:WB:40:ASN:HD22  | 2.15                     | 0.43              |
| 1:G:63:ASN:HA     | 1:G:84:ARG:O      | 2.18                     | 0.43              |
| 1:G:706:LEU:HD13  | 1:I:693:ILE:HG23  | 2.00                     | 0.43              |
| 1:H:137:VAL:HG12  | 1:H:138:MET:O     | 2.18                     | 0.43              |
| 1:H:145:PHE:CE2   | 1:H:151:TYR:HB2   | 2.52                     | 0.43              |
| 1:H:743:GLN:CD    | 1:J:733:ALA:HB1   | 2.37                     | 0.43              |
| 1:I:26:SER:O      | 1:I:101:PRO:HG2   | 2.19                     | 0.43              |
| 1:I:60:ILE:HG22   | 1:I:106:GLU:HB3   | 2.01                     | 0.43              |
| 1:I:394:LYS:HE3   | 1:I:394:LYS:HB2   | 1.81                     | 0.43              |
| 1:J:230:ARG:NH1   | 1:J:266:GLU:OE1   | 2.51                     | 0.43              |
| 1:J:681:GLU:OE2   | 1:J:685:ARG:NH1   | 2.51                     | 0.43              |
| 1:K:136:LYS:HA    | 1:K:136:LYS:HD2   | 1.76                     | 0.43              |
| 1:K:573:LYS:HG3   | 1:K:574:ALA:N     | 2.33                     | 0.43              |
| 1:L:137:VAL:HG12  | 1:L:138:MET:O     | 2.18                     | 0.43              |
| 1:N:60:ILE:HG22   | 1:N:106:GLU:HB3   | 2.01                     | 0.43              |
| 1:N:709:LEU:HD11  | 1:P:701:LYS:HE3   | 2.00                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:O:716:VAL:HG21  | 1:Q:708:GLU:HG2   | 1.99                     | 0.43              |
| 1:P:599:ILE:O     | 1:P:603:VAL:HG23  | 2.18                     | 0.43              |
| 1:Q:599:ILE:O     | 1:Q:603:VAL:HG23  | 2.18                     | 0.43              |
| 1:R:233:GLN:HE21  | 1:R:264:TYR:HD2   | 1.65                     | 0.43              |
| 1:R:652:ASP:OD1   | 1:R:652:ASP:N     | 2.51                     | 0.43              |
| 1:S:26:SER:O      | 1:S:101:PRO:HG2   | 2.19                     | 0.43              |
| 1:S:230:ARG:NH1   | 1:S:266:GLU:OE1   | 2.52                     | 0.43              |
| 1:S:523:PHE:HB2   | 1:S:543:TYR:HD2   | 1.84                     | 0.43              |
| 1:W:63:ASN:HA     | 1:W:84:ARG:O      | 2.18                     | 0.43              |
| 1:W:230:ARG:NH1   | 1:W:266:GLU:OE1   | 2.51                     | 0.43              |
| 1:W:383:ASP:OD1   | 1:W:383:ASP:N     | 2.44                     | 0.43              |
| 1:Y:506:LYS:HD3   | 1:Y:506:LYS:HA    | 1.78                     | 0.43              |
| 1:Z:63:ASN:HA     | 1:Z:84:ARG:O      | 2.18                     | 0.43              |
| 1:Z:377:ARG:NH1   | 1:Z:409:THR:O     | 2.30                     | 0.43              |
| 1:AA:63:ASN:HA    | 1:AA:84:ARG:O     | 2.18                     | 0.43              |
| 1:AA:681:GLU:OE2  | 1:AA:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:BA:573:LYS:HG3  | 1:BA:574:ALA:N    | 2.33                     | 0.43              |
| 1:CA:299:LYS:NZ   | 1:CA:317:GLU:OE2  | 2.38                     | 0.43              |
| 1:DA:26:SER:O     | 1:DA:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:EA:502:ALA:HB3  | 1:EA:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:FA:523:PHE:HB2  | 1:FA:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:FA:676:GLU:OE2  | 1:FA:679:ARG:NH2  | 2.43                     | 0.43              |
| 1:HA:26:SER:O     | 1:HA:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:HA:63:ASN:HA    | 1:HA:84:ARG:O     | 2.18                     | 0.43              |
| 1:IA:17:HIS:HB3   | 1:IA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:IA:394:LYS:HB2  | 1:IA:394:LYS:HE3  | 1.81                     | 0.43              |
| 1:KA:26:SER:O     | 1:KA:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:KA:640:VAL:HG13 | 1:MA:580:ARG:NH1  | 2.33                     | 0.43              |
| 1:KA:655:GLN:OE1  | 1:MA:649:ARG:HB2  | 2.18                     | 0.43              |
| 1:KA:706:LEU:HD12 | 1:MA:693:ILE:O    | 2.18                     | 0.43              |
| 1:LA:382:LEU:HD11 | 1:LA:388:ILE:HG23 | 2.00                     | 0.43              |
| 1:MA:17:HIS:HB3   | 1:MA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:NA:63:ASN:HA    | 1:NA:84:ARG:O     | 2.18                     | 0.43              |
| 1:NA:230:ARG:NH1  | 1:NA:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:NA:599:ILE:O    | 1:NA:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:OA:233:GLN:HA   | 1:OA:245:THR:HG23 | 1.98                     | 0.43              |
| 1:OA:502:ALA:HB3  | 1:OA:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:OA:573:LYS:HG3  | 1:OA:574:ALA:N    | 2.32                     | 0.43              |
| 1:RA:230:ARG:NH1  | 1:RA:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:SA:573:LYS:HG3  | 1:SA:574:ALA:N    | 2.33                     | 0.43              |
| 1:TA:502:ALA:HB3  | 1:TA:510:ALA:HB3  | 2.00                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:UA:573:LYS:HG3  | 1:UA:574:ALA:N    | 2.32                     | 0.43              |
| 1:UA:681:GLU:OE2  | 1:UA:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:VA:230:ARG:NH1  | 1:VA:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:VA:502:ALA:HB3  | 1:VA:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:VA:681:GLU:OE2  | 1:VA:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:WA:599:ILE:O    | 1:WA:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:XA:129:PHE:CG   | 1:XA:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:XA:600:ARG:HG2  | 1:XA:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:YA:233:GLN:HE21 | 1:YA:264:TYR:HD2  | 1.65                     | 0.43              |
| 1:YA:377:ARG:NH1  | 1:YA:409:THR:O    | 2.30                     | 0.43              |
| 1:YA:527:ILE:HD11 | 1:YA:543:TYR:OH   | 2.17                     | 0.43              |
| 1:ZA:26:SER:O     | 1:ZA:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:ZA:599:ILE:O    | 1:ZA:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:ZA:702:ALA:CB   | 1:BB:690:ARG:HH12 | 2.31                     | 0.43              |
| 1:AB:599:ILE:O    | 1:AB:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:BB:382:LEU:HD11 | 1:BB:388:ILE:HG23 | 2.00                     | 0.43              |
| 1:BB:681:GLU:OE2  | 1:BB:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:CB:17:HIS:HB3   | 1:CB:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:CB:26:SER:O     | 1:CB:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:CB:137:VAL:HG12 | 1:CB:138:MET:O    | 2.18                     | 0.43              |
| 1:DB:56:ARG:HG3   | 1:EB:127:LEU:HD22 | 2.00                     | 0.43              |
| 1:DB:137:VAL:HG12 | 1:DB:138:MET:O    | 2.18                     | 0.43              |
| 1:DB:382:LEU:HD11 | 1:DB:388:ILE:HG23 | 2.00                     | 0.43              |
| 1:DB:600:ARG:HG2  | 1:DB:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:DB:621:LYS:HD3  | 1:DB:621:LYS:HA   | 1.81                     | 0.43              |
| 1:EB:17:HIS:HB3   | 1:EB:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:EB:26:SER:O     | 1:EB:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:FB:137:VAL:HG12 | 1:FB:138:MET:O    | 2.18                     | 0.43              |
| 1:FB:145:PHE:CE2  | 1:FB:151:TYR:HB2  | 2.52                     | 0.43              |
| 1:FB:465:ASN:OD1  | 1:GB:563:SER:HA   | 2.18                     | 0.43              |
| 1:GB:145:PHE:CE2  | 1:GB:151:TYR:HB2  | 2.52                     | 0.43              |
| 1:GB:299:LYS:NZ   | 1:GB:317:GLU:OE2  | 2.38                     | 0.43              |
| 1:HB:461:ARG:HH11 | 1:IB:494:GLN:HG3  | 1.83                     | 0.43              |
| 1:HB:652:ASP:N    | 1:HB:652:ASP:OD1  | 2.51                     | 0.43              |
| 1:HB:681:GLU:OE2  | 1:HB:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:IB:681:GLU:OE2  | 1:IB:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:LB:60:ILE:HG22  | 1:LB:106:GLU:HB3  | 2.00                     | 0.43              |
| 1:LB:137:VAL:HG12 | 1:LB:138:MET:O    | 2.18                     | 0.43              |
| 1:MB:681:GLU:OE2  | 1:MB:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:OB:502:ALA:HB3  | 1:OB:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:PB:230:ARG:NH1  | 1:PB:266:GLU:OE1  | 2.52                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:PB:523:PHE:HB2  | 1:PB:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:QB:599:ILE:O    | 1:QB:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:QB:681:GLU:OE2  | 1:QB:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:RB:502:ALA:HB3  | 1:RB:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:RB:681:GLU:OE2  | 1:RB:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:TB:26:SER:O     | 1:TB:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:TB:230:ARG:NH1  | 1:TB:266:GLU:OE1  | 2.52                     | 0.43              |
| 1:TB:502:ALA:HB3  | 1:TB:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:TB:599:ILE:O    | 1:TB:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:UB:681:GLU:OE2  | 1:UB:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:VB:768:MET:HE2  | 1:WB:759:LEU:HD12 | 2.00                     | 0.43              |
| 1:WB:137:VAL:HG12 | 1:WB:138:MET:O    | 2.18                     | 0.43              |
| 1:XB:26:SER:O     | 1:XB:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:YB:377:ARG:NH1  | 1:YB:409:THR:O    | 2.30                     | 0.43              |
| 1:ZB:26:SER:O     | 1:ZB:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:ZB:600:ARG:HG2  | 1:ZB:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:AC:652:ASP:OD1  | 1:AC:652:ASP:N    | 2.51                     | 0.43              |
| 1:A:145:PHE:CE2   | 1:A:151:TYR:HB2   | 2.52                     | 0.43              |
| 1:A:599:ILE:O     | 1:A:603:VAL:HG23  | 2.18                     | 0.43              |
| 1:A:600:ARG:HG2   | 1:A:604:PHE:CE1   | 2.54                     | 0.43              |
| 1:A:681:GLU:OE2   | 1:A:685:ARG:NH1   | 2.51                     | 0.43              |
| 1:B:145:PHE:CE2   | 1:B:151:TYR:HB2   | 2.52                     | 0.43              |
| 1:D:600:ARG:HG2   | 1:D:604:PHE:CE1   | 2.53                     | 0.43              |
| 1:F:60:ILE:HG22   | 1:F:106:GLU:HB3   | 2.00                     | 0.43              |
| 1:F:377:ARG:NH1   | 1:F:409:THR:O     | 2.30                     | 0.43              |
| 1:F:600:ARG:HG2   | 1:F:604:PHE:CE1   | 2.54                     | 0.43              |
| 1:F:797:GLU:HG2   | 1:H:792:ALA:HB1   | 1.99                     | 0.43              |
| 1:G:60:ILE:HG22   | 1:G:106:GLU:HB3   | 2.01                     | 0.43              |
| 1:G:394:LYS:HB2   | 1:G:394:LYS:HE3   | 1.81                     | 0.43              |
| 1:H:60:ILE:HG22   | 1:H:106:GLU:HB3   | 2.01                     | 0.43              |
| 1:I:573:LYS:HG3   | 1:I:574:ALA:N     | 2.32                     | 0.43              |
| 1:J:26:SER:O      | 1:J:101:PRO:HG2   | 2.19                     | 0.43              |
| 1:L:60:ILE:HG22   | 1:L:106:GLU:HB3   | 2.01                     | 0.43              |
| 1:L:63:ASN:HA     | 1:L:84:ARG:O      | 2.18                     | 0.43              |
| 1:L:652:ASP:OD1   | 1:L:652:ASP:N     | 2.51                     | 0.43              |
| 1:L:709:LEU:HD11  | 1:N:701:LYS:HE3   | 2.01                     | 0.43              |
| 1:O:230:ARG:NH1   | 1:O:266:GLU:OE1   | 2.51                     | 0.43              |
| 1:O:278:PRO:HB2   | 1:Q:338:GLN:NE2   | 2.33                     | 0.43              |
| 1:O:676:GLU:OE2   | 1:O:679:ARG:NH2   | 2.43                     | 0.43              |
| 1:P:233:GLN:HE21  | 1:P:264:TYR:HD2   | 1.65                     | 0.43              |
| 1:R:60:ILE:HG22   | 1:R:106:GLU:HB3   | 2.01                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:R:523:PHE:HB2   | 1:R:543:TYR:HD2   | 1.84                     | 0.43              |
| 1:S:17:HIS:HB3    | 1:S:44:LEU:HD12   | 2.00                     | 0.43              |
| 1:S:60:ILE:HG22   | 1:S:106:GLU:HB3   | 2.01                     | 0.43              |
| 1:T:233:GLN:HE21  | 1:T:264:TYR:HD2   | 1.65                     | 0.43              |
| 1:V:502:ALA:HB3   | 1:V:510:ALA:HB3   | 2.00                     | 0.43              |
| 1:W:26:SER:O      | 1:W:101:PRO:HG2   | 2.19                     | 0.43              |
| 1:X:26:SER:O      | 1:X:101:PRO:HG2   | 2.19                     | 0.43              |
| 1:X:137:VAL:HG12  | 1:X:138:MET:O     | 2.18                     | 0.43              |
| 1:X:502:ALA:HB3   | 1:X:510:ALA:HB3   | 2.00                     | 0.43              |
| 1:X:694:LEU:O     | 1:X:697:SER:OG    | 2.28                     | 0.43              |
| 1:Y:60:ILE:HG22   | 1:Y:106:GLU:HB3   | 2.01                     | 0.43              |
| 1:Y:233:GLN:HE21  | 1:Y:264:TYR:HD2   | 1.65                     | 0.43              |
| 1:Y:523:PHE:HB2   | 1:Y:543:TYR:HD2   | 1.84                     | 0.43              |
| 1:Y:652:ASP:N     | 1:Y:652:ASP:OD1   | 2.51                     | 0.43              |
| 1:Z:17:HIS:HB3    | 1:Z:44:LEU:HD12   | 2.01                     | 0.43              |
| 1:Z:60:ILE:HG22   | 1:Z:106:GLU:HB3   | 2.00                     | 0.43              |
| 1:Z:681:GLU:OE2   | 1:Z:685:ARG:NH1   | 2.51                     | 0.43              |
| 1:AA:26:SER:O     | 1:AA:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:AA:137:VAL:HG12 | 1:AA:138:MET:O    | 2.18                     | 0.43              |
| 1:AA:230:ARG:NH1  | 1:AA:266:GLU:OE1  | 2.52                     | 0.43              |
| 1:BA:17:HIS:HB3   | 1:BA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:BA:388:ILE:HA   | 1:BA:456:ARG:HA   | 1.98                     | 0.43              |
| 1:BA:681:GLU:OE2  | 1:BA:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:CA:60:ILE:HG22  | 1:CA:106:GLU:HB3  | 2.00                     | 0.43              |
| 1:CA:599:ILE:O    | 1:CA:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:CA:681:GLU:OE2  | 1:CA:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:EA:60:ILE:HG22  | 1:EA:106:GLU:HB3  | 2.00                     | 0.43              |
| 1:EA:63:ASN:HA    | 1:EA:84:ARG:O     | 2.18                     | 0.43              |
| 1:FA:17:HIS:HB3   | 1:FA:44:LEU:HD12  | 2.00                     | 0.43              |
| 1:FA:681:GLU:OE2  | 1:FA:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:GA:233:GLN:HA   | 1:GA:245:THR:HG23 | 1.98                     | 0.43              |
| 1:HA:382:LEU:HD11 | 1:HA:388:ILE:HG23 | 2.00                     | 0.43              |
| 1:HA:382:LEU:O    | 1:JA:396:GLY:HA3  | 2.17                     | 0.43              |
| 1:HA:706:LEU:HD13 | 1:JA:693:ILE:HG23 | 1.99                     | 0.43              |
| 1:IA:60:ILE:HG22  | 1:IA:106:GLU:HB3  | 2.00                     | 0.43              |
| 1:IA:230:ARG:NH1  | 1:IA:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:JA:230:ARG:NH1  | 1:JA:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:KA:137:VAL:HG12 | 1:KA:138:MET:O    | 2.18                     | 0.43              |
| 1:KA:681:GLU:OE2  | 1:KA:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:LA:233:GLN:HE21 | 1:LA:264:TYR:HD2  | 1.65                     | 0.43              |
| 1:LA:523:PHE:HB2  | 1:LA:543:TYR:HD2  | 1.84                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:MA:382:LEU:O    | 1:OA:396:GLY:HA3  | 2.18                     | 0.43              |
| 1:MA:764:LYS:HB2  | 1:MA:764:LYS:HE3  | 1.84                     | 0.43              |
| 1:OA:17:HIS:HB3   | 1:OA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:OA:233:GLN:HE21 | 1:OA:264:TYR:HD2  | 1.65                     | 0.43              |
| 1:OA:318:ARG:HB2  | 1:OA:321:GLN:OE1  | 2.17                     | 0.43              |
| 1:OA:394:LYS:HB2  | 1:OA:394:LYS:HE3  | 1.81                     | 0.43              |
| 1:OA:681:GLU:OE2  | 1:OA:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:PA:599:ILE:O    | 1:PA:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:QA:26:SER:O     | 1:QA:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:RA:26:SER:O     | 1:RA:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:RA:523:PHE:HB2  | 1:RA:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:SA:523:PHE:HB2  | 1:SA:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:SA:599:ILE:O    | 1:SA:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:SA:681:GLU:OE2  | 1:SA:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:TA:129:PHE:CG   | 1:TA:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:TA:599:ILE:O    | 1:TA:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:UA:63:ASN:HA    | 1:UA:84:ARG:O     | 2.18                     | 0.43              |
| 1:UA:769:GLU:HG2  | 1:WA:766:ARG:HH12 | 1.83                     | 0.43              |
| 1:VA:26:SER:O     | 1:VA:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:VA:170:GLN:HB3  | 1:XA:233:GLN:OE1  | 2.18                     | 0.43              |
| 1:WA:363:LEU:HA   | 1:YA:353:ALA:HB3  | 1.99                     | 0.43              |
| 1:XA:502:ALA:HB3  | 1:XA:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:XA:523:PHE:HB2  | 1:XA:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:YA:26:SER:O     | 1:YA:101:PRO:HG2  | 2.18                     | 0.43              |
| 1:YA:382:LEU:HD11 | 1:YA:388:ILE:HG23 | 2.00                     | 0.43              |
| 1:YA:523:PHE:HB2  | 1:YA:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:ZA:17:HIS:HB3   | 1:ZA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:ZA:129:PHE:CG   | 1:ZA:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:ZA:299:LYS:NZ   | 1:ZA:317:GLU:OE2  | 2.38                     | 0.43              |
| 1:ZA:502:ALA:HB3  | 1:ZA:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:ZA:681:GLU:OE2  | 1:ZA:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:AB:63:ASN:HA    | 1:AB:84:ARG:O     | 2.18                     | 0.43              |
| 1:AB:230:ARG:NH1  | 1:AB:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:BB:573:LYS:HG3  | 1:BB:574:ALA:N    | 2.32                     | 0.43              |
| 1:CB:681:GLU:OE2  | 1:CB:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:GB:523:PHE:HB2  | 1:GB:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:GB:600:ARG:HG2  | 1:GB:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:IB:388:ILE:HA   | 1:IB:456:ARG:HA   | 1.98                     | 0.43              |
| 1:JB:389:TYR:CE1  | 1:JB:457:VAL:HA   | 2.52                     | 0.43              |
| 1:JB:523:PHE:HB2  | 1:JB:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:KB:26:SER:O     | 1:KB:101:PRO:HG2  | 2.19                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:KB:230:ARG:NH1  | 1:KB:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:KB:694:LEU:O    | 1:KB:697:SER:OG   | 2.28                     | 0.43              |
| 1:LB:377:ARG:NH1  | 1:LB:409:THR:O    | 2.30                     | 0.43              |
| 1:MB:26:SER:O     | 1:MB:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:NB:63:ASN:HA    | 1:NB:84:ARG:O     | 2.18                     | 0.43              |
| 1:NB:389:TYR:CE1  | 1:NB:457:VAL:HA   | 2.53                     | 0.43              |
| 1:NB:523:PHE:HB2  | 1:NB:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:OB:382:LEU:HD11 | 1:OB:388:ILE:HG23 | 2.00                     | 0.43              |
| 1:OB:599:ILE:O    | 1:OB:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:OB:600:ARG:HG2  | 1:OB:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:OB:681:GLU:OE2  | 1:OB:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:PB:17:HIS:HB3   | 1:PB:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:PB:26:SER:O     | 1:PB:101:PRO:HG2  | 2.18                     | 0.43              |
| 1:RB:26:SER:O     | 1:RB:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:RB:129:PHE:CG   | 1:RB:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:SB:129:PHE:CG   | 1:SB:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:SB:233:GLN:HE21 | 1:SB:264:TYR:HD2  | 1.65                     | 0.43              |
| 1:SB:523:PHE:HB2  | 1:SB:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:SB:600:ARG:HG2  | 1:SB:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:TB:17:HIS:HB3   | 1:TB:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:TB:129:PHE:CG   | 1:TB:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:TB:383:ASP:OD1  | 1:TB:383:ASP:N    | 2.44                     | 0.43              |
| 1:UB:382:LEU:HD11 | 1:UB:388:ILE:HG23 | 2.00                     | 0.43              |
| 1:VB:17:HIS:HB3   | 1:VB:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:WB:136:LYS:HD2  | 1:WB:136:LYS:HA   | 1.76                     | 0.43              |
| 1:YB:137:VAL:HG12 | 1:YB:138:MET:O    | 2.18                     | 0.43              |
| 1:YB:145:PHE:CE2  | 1:YB:151:TYR:HB2  | 2.52                     | 0.43              |
| 1:YB:318:ARG:HB2  | 1:YB:321:GLN:OE1  | 2.17                     | 0.43              |
| 1:ZB:233:GLN:HE21 | 1:ZB:264:TYR:HD2  | 1.65                     | 0.43              |
| 1:AC:681:GLU:OE2  | 1:AC:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:C:60:ILE:HG22   | 1:C:106:GLU:HB3   | 2.01                     | 0.43              |
| 1:D:233:GLN:HE21  | 1:D:264:TYR:HD2   | 1.65                     | 0.43              |
| 1:D:389:TYR:CE1   | 1:D:457:VAL:HA    | 2.52                     | 0.43              |
| 1:D:523:PHE:HB2   | 1:D:543:TYR:HD2   | 1.84                     | 0.43              |
| 1:D:720:GLY:HA3   | 1:F:711:ALA:HB1   | 1.99                     | 0.43              |
| 1:E:26:SER:O      | 1:E:101:PRO:HG2   | 2.19                     | 0.43              |
| 1:E:145:PHE:CE2   | 1:E:151:TYR:HB2   | 2.52                     | 0.43              |
| 1:E:220:ILE:CD1   | 1:G:245:THR:HG22  | 2.49                     | 0.43              |
| 1:E:523:PHE:HB2   | 1:E:543:TYR:HD2   | 1.84                     | 0.43              |
| 1:E:681:GLU:OE2   | 1:E:685:ARG:NH1   | 2.51                     | 0.43              |
| 1:F:599:ILE:O     | 1:F:603:VAL:HG23  | 2.18                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:F:694:LEU:O     | 1:F:697:SER:OG    | 2.28                     | 0.43              |
| 1:H:600:ARG:HG2   | 1:H:604:PHE:CE1   | 2.54                     | 0.43              |
| 1:H:681:GLU:OE2   | 1:H:685:ARG:NH1   | 2.51                     | 0.43              |
| 1:I:230:ARG:NH1   | 1:I:266:GLU:OE1   | 2.51                     | 0.43              |
| 1:I:600:ARG:HG2   | 1:I:604:PHE:CE1   | 2.54                     | 0.43              |
| 1:J:36:ILE:HD13   | 1:HB:36:ILE:CD1   | 2.45                     | 0.43              |
| 1:K:60:ILE:HG22   | 1:K:106:GLU:HB3   | 2.01                     | 0.43              |
| 1:K:230:ARG:NH1   | 1:K:266:GLU:OE1   | 2.51                     | 0.43              |
| 1:L:523:PHE:HB2   | 1:L:543:TYR:HD2   | 1.84                     | 0.43              |
| 1:M:26:SER:O      | 1:M:101:PRO:HG2   | 2.19                     | 0.43              |
| 1:M:523:PHE:HB2   | 1:M:543:TYR:HD2   | 1.84                     | 0.43              |
| 1:N:600:ARG:HG2   | 1:N:604:PHE:CE1   | 2.54                     | 0.43              |
| 1:N:681:GLU:OE2   | 1:N:685:ARG:NH1   | 2.51                     | 0.43              |
| 1:O:233:GLN:HE21  | 1:O:264:TYR:HD2   | 1.65                     | 0.43              |
| 1:Q:60:ILE:HG22   | 1:Q:106:GLU:HB3   | 2.01                     | 0.43              |
| 1:S:136:LYS:HD2   | 1:S:136:LYS:HA    | 1.76                     | 0.43              |
| 1:S:652:ASP:N     | 1:S:652:ASP:OD1   | 2.51                     | 0.43              |
| 1:T:299:LYS:NZ    | 1:T:317:GLU:OE2   | 2.38                     | 0.43              |
| 1:V:129:PHE:CG    | 1:V:156:GLU:HG3   | 2.53                     | 0.43              |
| 1:V:233:GLN:HE21  | 1:V:264:TYR:HD2   | 1.65                     | 0.43              |
| 1:X:230:ARG:NH1   | 1:X:266:GLU:OE1   | 2.52                     | 0.43              |
| 1:X:681:GLU:OE2   | 1:X:685:ARG:NH1   | 2.51                     | 0.43              |
| 1:Z:94:GLN:C      | 1:BA:85:HIS:HE2   | 2.17                     | 0.43              |
| 1:Z:230:ARG:NH1   | 1:Z:266:GLU:OE1   | 2.51                     | 0.43              |
| 1:Z:523:PHE:HB2   | 1:Z:543:TYR:HD2   | 1.84                     | 0.43              |
| 1:BA:230:ARG:NH1  | 1:BA:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:BA:662:ILE:O    | 1:BA:666:THR:HG23 | 2.19                     | 0.43              |
| 1:CA:174:LEU:HD11 | 1:CA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:CA:389:TYR:CE1  | 1:CA:457:VAL:HA   | 2.52                     | 0.43              |
| 1:DA:17:HIS:HB3   | 1:DA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:EA:17:HIS:HB3   | 1:EA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:EA:174:LEU:HD11 | 1:EA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:EA:230:ARG:NH1  | 1:EA:266:GLU:OE1  | 2.52                     | 0.43              |
| 1:FA:230:ARG:NH1  | 1:FA:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:FA:599:ILE:O    | 1:FA:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:GA:17:HIS:HB3   | 1:GA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:GA:137:VAL:HG12 | 1:GA:138:MET:O    | 2.18                     | 0.43              |
| 1:GA:523:PHE:HB2  | 1:GA:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:HA:599:ILE:O    | 1:HA:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:IA:129:PHE:CG   | 1:IA:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:IA:652:ASP:N    | 1:IA:652:ASP:OD1  | 2.51                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:JA:17:HIS:HB3   | 1:JA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:JA:621:LYS:HD3  | 1:JA:621:LYS:HA   | 1.81                     | 0.43              |
| 1:KA:502:ALA:HB3  | 1:KA:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:LA:26:SER:O     | 1:LA:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:LA:681:GLU:OE2  | 1:LA:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:MA:230:ARG:NH1  | 1:MA:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:MA:523:PHE:HB2  | 1:MA:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:MA:681:GLU:OE2  | 1:MA:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:NA:17:HIS:HB3   | 1:NA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:OA:230:ARG:NH1  | 1:OA:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:OA:662:ILE:O    | 1:OA:666:THR:HG23 | 2.19                     | 0.43              |
| 1:PA:129:PHE:CG   | 1:PA:156:GLU:HG3  | 2.53                     | 0.43              |
| 1:PA:600:ARG:HG2  | 1:PA:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:PA:681:GLU:OE2  | 1:PA:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:QA:17:HIS:HB3   | 1:QA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:QA:230:ARG:NH1  | 1:QA:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:RA:17:HIS:HB3   | 1:RA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:RA:129:PHE:CG   | 1:RA:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:RA:681:GLU:OE2  | 1:RA:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:SA:318:ARG:HB2  | 1:SA:321:GLN:OE1  | 2.17                     | 0.43              |
| 1:TA:63:ASN:HA    | 1:TA:84:ARG:O     | 2.18                     | 0.43              |
| 1:TA:136:LYS:HA   | 1:TA:136:LYS:HD2  | 1.76                     | 0.43              |
| 1:UA:17:HIS:HB3   | 1:UA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:UA:230:ARG:NH1  | 1:UA:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:VA:17:HIS:HB3   | 1:VA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:VA:129:PHE:CG   | 1:VA:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:WA:17:HIS:HB3   | 1:WA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:YA:573:LYS:HG3  | 1:YA:574:ALA:N    | 2.33                     | 0.43              |
| 1:YA:681:GLU:OE2  | 1:YA:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:AB:17:HIS:HB3   | 1:AB:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:AB:746:LEU:HD13 | 1:OB:737:GLY:HA3  | 1.99                     | 0.43              |
| 1:BB:137:VAL:HG12 | 1:BB:138:MET:O    | 2.18                     | 0.43              |
| 1:CB:233:GLN:HE21 | 1:CB:264:TYR:HD2  | 1.65                     | 0.43              |
| 1:CB:523:PHE:HB2  | 1:CB:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:EB:230:ARG:NH1  | 1:EB:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:FB:17:HIS:HB3   | 1:FB:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:GB:681:GLU:OE2  | 1:GB:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:GB:707:LEU:HD23 | 1:GB:707:LEU:HA   | 1.89                     | 0.43              |
| 1:HB:600:ARG:HG2  | 1:HB:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:HB:716:VAL:HG21 | 1:IB:708:GLU:HG2  | 2.00                     | 0.43              |
| 1:JB:230:ARG:NH1  | 1:JB:266:GLU:OE1  | 2.51                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:LB:9:ARG:HE     | 1:MB:24:ASN:HD21  | 1.66                     | 0.43              |
| 1:LB:600:ARG:HG2  | 1:LB:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:LB:802:LEU:HD23 | 1:MB:799:THR:HG21 | 1.99                     | 0.43              |
| 1:MB:599:ILE:O    | 1:MB:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:NB:60:ILE:HG22  | 1:NB:106:GLU:HB3  | 2.01                     | 0.43              |
| 1:NB:681:GLU:OE2  | 1:NB:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:PB:681:GLU:OE2  | 1:PB:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:QB:32:PRO:HG3   | 1:RB:78:THR:CG2   | 2.25                     | 0.43              |
| 1:QB:34:THR:HG23  | 1:RB:22:ASN:C     | 2.37                     | 0.43              |
| 1:QB:652:ASP:OD1  | 1:QB:652:ASP:N    | 2.51                     | 0.43              |
| 1:TB:681:GLU:OE2  | 1:TB:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:UB:129:PHE:CG   | 1:UB:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:UB:137:VAL:HG12 | 1:UB:138:MET:O    | 2.18                     | 0.43              |
| 1:VB:523:PHE:HB2  | 1:VB:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:VB:600:ARG:HG2  | 1:VB:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:WB:17:HIS:HB3   | 1:WB:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:WB:600:ARG:HG2  | 1:WB:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:XB:17:HIS:HB3   | 1:XB:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:YB:17:HIS:HB3   | 1:YB:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:ZB:523:PHE:HB2  | 1:ZB:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:ZB:681:GLU:OE2  | 1:ZB:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:AC:600:ARG:HG2  | 1:AC:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:A:85:HIS:CE1    | 1:NB:95:ASP:HA    | 2.53                     | 0.43              |
| 1:A:681:GLU:OE1   | 1:C:675:HIS:NE2   | 2.51                     | 0.43              |
| 1:B:600:ARG:HG2   | 1:B:604:PHE:CE1   | 2.54                     | 0.43              |
| 1:C:599:ILE:O     | 1:C:603:VAL:HG23  | 2.18                     | 0.43              |
| 1:D:707:LEU:HD23  | 1:D:707:LEU:HA    | 1.89                     | 0.43              |
| 1:E:652:ASP:OD1   | 1:E:652:ASP:N     | 2.51                     | 0.43              |
| 1:F:230:ARG:NH1   | 1:F:266:GLU:OE1   | 2.51                     | 0.43              |
| 1:G:56:ARG:HH12   | 1:I:139:ALA:HB2   | 1.84                     | 0.43              |
| 1:G:573:LYS:HG3   | 1:G:574:ALA:N     | 2.33                     | 0.43              |
| 1:I:377:ARG:NH1   | 1:I:409:THR:O     | 2.30                     | 0.43              |
| 1:J:388:ILE:HA    | 1:J:456:ARG:HA    | 1.98                     | 0.43              |
| 1:J:523:PHE:HB2   | 1:J:543:TYR:HD2   | 1.84                     | 0.43              |
| 1:J:599:ILE:O     | 1:J:603:VAL:HG23  | 2.18                     | 0.43              |
| 1:K:63:ASN:HA     | 1:K:84:ARG:O      | 2.18                     | 0.43              |
| 1:K:137:VAL:HG12  | 1:K:138:MET:O     | 2.18                     | 0.43              |
| 1:K:523:PHE:HB2   | 1:K:543:TYR:HD2   | 1.84                     | 0.43              |
| 1:L:26:SER:O      | 1:L:101:PRO:HG2   | 2.18                     | 0.43              |
| 1:L:389:TYR:CE1   | 1:L:457:VAL:HA    | 2.52                     | 0.43              |
| 1:L:599:ILE:O     | 1:L:603:VAL:HG23  | 2.18                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:L:681:GLU:OE2   | 1:L:685:ARG:NH1   | 2.51                     | 0.43              |
| 1:M:60:ILE:HG22   | 1:M:106:GLU:HB3   | 2.01                     | 0.43              |
| 1:M:377:ARG:NH1   | 1:M:409:THR:O     | 2.30                     | 0.43              |
| 1:N:63:ASN:HA     | 1:N:84:ARG:O      | 2.18                     | 0.43              |
| 1:N:145:PHE:CE2   | 1:N:151:TYR:HB2   | 2.52                     | 0.43              |
| 1:N:599:ILE:O     | 1:N:603:VAL:HG23  | 2.18                     | 0.43              |
| 1:O:573:LYS:HG3   | 1:O:574:ALA:N     | 2.32                     | 0.43              |
| 1:P:600:ARG:HG2   | 1:P:604:PHE:CE1   | 2.54                     | 0.43              |
| 1:Q:652:ASP:N     | 1:Q:652:ASP:OD1   | 2.51                     | 0.43              |
| 1:R:26:SER:O      | 1:R:101:PRO:HG2   | 2.19                     | 0.43              |
| 1:S:129:PHE:CG    | 1:S:156:GLU:HG3   | 2.54                     | 0.43              |
| 1:S:233:GLN:HE21  | 1:S:264:TYR:HD2   | 1.65                     | 0.43              |
| 1:S:676:GLU:OE2   | 1:S:679:ARG:NH2   | 2.43                     | 0.43              |
| 1:T:573:LYS:HG3   | 1:T:574:ALA:N     | 2.32                     | 0.43              |
| 1:V:17:HIS:HB3    | 1:V:44:LEU:HD12   | 2.01                     | 0.43              |
| 1:W:60:ILE:HG22   | 1:W:106:GLU:HB3   | 2.01                     | 0.43              |
| 1:W:573:LYS:HG3   | 1:W:574:ALA:N     | 2.33                     | 0.43              |
| 1:X:17:HIS:HB3    | 1:X:44:LEU:HD12   | 2.01                     | 0.43              |
| 1:Z:137:VAL:HG12  | 1:Z:138:MET:O     | 2.18                     | 0.43              |
| 1:Z:764:LYS:HB2   | 1:Z:764:LYS:HE3   | 1.84                     | 0.43              |
| 1:AA:17:HIS:HB3   | 1:AA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:AA:129:PHE:CG   | 1:AA:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:AA:599:ILE:O    | 1:AA:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:AA:652:ASP:N    | 1:AA:652:ASP:OD1  | 2.51                     | 0.43              |
| 1:BA:60:ILE:HG22  | 1:BA:106:GLU:HB3  | 2.00                     | 0.43              |
| 1:BA:129:PHE:CG   | 1:BA:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:BA:174:LEU:HD11 | 1:BA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:BA:318:ARG:HB2  | 1:BA:321:GLN:OE1  | 2.17                     | 0.43              |
| 1:CA:137:VAL:HG12 | 1:CA:138:MET:O    | 2.18                     | 0.43              |
| 1:CA:233:GLN:HE21 | 1:CA:264:TYR:HD2  | 1.65                     | 0.43              |
| 1:DA:506:LYS:HD3  | 1:DA:506:LYS:HA   | 1.78                     | 0.43              |
| 1:DA:662:ILE:O    | 1:DA:666:THR:HG23 | 2.19                     | 0.43              |
| 1:FA:573:LYS:HG3  | 1:FA:574:ALA:N    | 2.33                     | 0.43              |
| 1:FA:702:ALA:HB2  | 1:HA:690:ARG:HH12 | 1.83                     | 0.43              |
| 1:GA:230:ARG:NH1  | 1:GA:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:GA:502:ALA:HB3  | 1:GA:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:GA:573:LYS:HG3  | 1:GA:574:ALA:N    | 2.33                     | 0.43              |
| 1:GA:681:GLU:OE2  | 1:GA:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:HA:17:HIS:HB3   | 1:HA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:HA:230:ARG:NH1  | 1:HA:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:HA:233:GLN:HE21 | 1:HA:264:TYR:HD2  | 1.65                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:HA:676:GLU:OE2  | 1:HA:679:ARG:NH2  | 2.43                     | 0.43              |
| 1:IA:137:VAL:HG12 | 1:IA:138:MET:O    | 2.18                     | 0.43              |
| 1:JA:652:ASP:OD1  | 1:JA:652:ASP:N    | 2.51                     | 0.43              |
| 1:KA:17:HIS:HB3   | 1:KA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:KA:60:ILE:HG22  | 1:KA:106:GLU:HB3  | 2.00                     | 0.43              |
| 1:KA:230:ARG:NH1  | 1:KA:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:LA:527:ILE:HD11 | 1:LA:543:TYR:OH   | 2.17                     | 0.43              |
| 1:LA:573:LYS:HG3  | 1:LA:574:ALA:N    | 2.32                     | 0.43              |
| 1:LA:599:ILE:O    | 1:LA:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:MA:60:ILE:HG22  | 1:MA:106:GLU:HB3  | 2.01                     | 0.43              |
| 1:MA:137:VAL:HG12 | 1:MA:138:MET:O    | 2.18                     | 0.43              |
| 1:MA:387:GLY:HA3  | 1:MA:402:ILE:HG22 | 2.01                     | 0.43              |
| 1:MA:662:ILE:O    | 1:MA:666:THR:HG23 | 2.19                     | 0.43              |
| 1:OA:60:ILE:HG22  | 1:OA:106:GLU:HB3  | 2.01                     | 0.43              |
| 1:OA:129:PHE:CG   | 1:OA:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:OA:388:ILE:HA   | 1:OA:456:ARG:HA   | 1.98                     | 0.43              |
| 1:PA:662:ILE:O    | 1:PA:666:THR:HG23 | 2.19                     | 0.43              |
| 1:QA:174:LEU:HD11 | 1:QA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:QA:662:ILE:O    | 1:QA:666:THR:HG23 | 2.19                     | 0.43              |
| 1:SA:17:HIS:HB3   | 1:SA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:SA:230:ARG:NH1  | 1:SA:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:TA:382:LEU:HD11 | 1:TA:388:ILE:HG23 | 2.00                     | 0.43              |
| 1:VA:233:GLN:HE21 | 1:VA:264:TYR:HD2  | 1.65                     | 0.43              |
| 1:WA:230:ARG:NH1  | 1:WA:266:GLU:OE1  | 2.52                     | 0.43              |
| 1:WA:652:ASP:N    | 1:WA:652:ASP:OD1  | 2.51                     | 0.43              |
| 1:XA:382:LEU:HD11 | 1:XA:388:ILE:HG23 | 2.00                     | 0.43              |
| 1:XA:599:ILE:O    | 1:XA:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:YA:17:HIS:HB3   | 1:YA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:YA:230:ARG:NH1  | 1:YA:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:ZA:174:LEU:HD11 | 1:ZA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:BB:129:PHE:CG   | 1:BB:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:BB:174:LEU:HD11 | 1:BB:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:CB:129:PHE:CG   | 1:CB:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:CB:676:GLU:OE2  | 1:CB:679:ARG:NH2  | 2.43                     | 0.43              |
| 1:DB:233:GLN:HE21 | 1:DB:264:TYR:HD2  | 1.65                     | 0.43              |
| 1:EB:136:LYS:HD2  | 1:EB:136:LYS:HA   | 1.76                     | 0.43              |
| 1:FB:318:ARG:HB2  | 1:FB:321:GLN:OE1  | 2.17                     | 0.43              |
| 1:FB:523:PHE:HB2  | 1:FB:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:GB:17:HIS:HB3   | 1:GB:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:GB:233:GLN:HE21 | 1:GB:264:TYR:HD2  | 1.65                     | 0.43              |
| 1:HB:17:HIS:HB3   | 1:HB:44:LEU:HD12  | 2.01                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:IB:761:ARG:HG2  | 1:JB:755:THR:HG21 | 2.00                     | 0.43              |
| 1:JB:136:LYS:HD2  | 1:JB:136:LYS:HA   | 1.76                     | 0.43              |
| 1:JB:600:ARG:HG2  | 1:JB:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:KB:60:ILE:HG22  | 1:KB:106:GLU:HB3  | 2.01                     | 0.43              |
| 1:KB:599:ILE:O    | 1:KB:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:LB:9:ARG:NH2    | 1:MB:24:ASN:ND2   | 2.57                     | 0.43              |
| 1:LB:502:ALA:HB3  | 1:LB:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:LB:599:ILE:O    | 1:LB:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:LB:681:GLU:OE2  | 1:LB:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:MB:52:THR:HG21  | 1:NB:85:HIS:HD2   | 1.83                     | 0.43              |
| 1:MB:145:PHE:CE2  | 1:MB:151:TYR:HB2  | 2.52                     | 0.43              |
| 1:MB:388:ILE:HA   | 1:MB:456:ARG:HA   | 1.98                     | 0.43              |
| 1:MB:523:PHE:HB2  | 1:MB:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:NB:599:ILE:O    | 1:NB:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:PB:764:LYS:HB2  | 1:PB:764:LYS:HE3  | 1.84                     | 0.43              |
| 1:QB:17:HIS:HB3   | 1:QB:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:QB:63:ASN:HA    | 1:QB:84:ARG:O     | 2.18                     | 0.43              |
| 1:RB:17:HIS:HB3   | 1:RB:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:RB:233:GLN:HE21 | 1:RB:264:TYR:HD2  | 1.65                     | 0.43              |
| 1:SB:599:ILE:O    | 1:SB:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:TB:174:LEU:HD11 | 1:TB:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:TB:600:ARG:HG2  | 1:TB:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:VB:233:GLN:HE21 | 1:VB:264:TYR:HD2  | 1.65                     | 0.43              |
| 1:VB:681:GLU:OE2  | 1:VB:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:WB:230:ARG:NH1  | 1:WB:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:XB:136:LYS:HD2  | 1:XB:136:LYS:HA   | 1.76                     | 0.43              |
| 1:XB:230:ARG:NH1  | 1:XB:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:YB:383:ASP:OD1  | 1:YB:383:ASP:N    | 2.44                     | 0.43              |
| 1:YB:523:PHE:HB2  | 1:YB:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:ZB:17:HIS:HB3   | 1:ZB:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:A:26:SER:O      | 1:A:101:PRO:HG2   | 2.18                     | 0.43              |
| 1:A:797:GLU:HB3   | 1:C:792:ALA:HB1   | 2.01                     | 0.43              |
| 1:C:508:PRO:O     | 1:C:509:HIS:ND1   | 2.52                     | 0.43              |
| 1:C:600:ARG:HG2   | 1:C:604:PHE:CE1   | 2.54                     | 0.43              |
| 1:E:60:ILE:HG22   | 1:E:106:GLU:HB3   | 2.01                     | 0.43              |
| 1:E:362:PRO:O     | 1:G:352:GLN:HB3   | 2.18                     | 0.43              |
| 1:G:600:ARG:HG2   | 1:G:604:PHE:CE1   | 2.54                     | 0.43              |
| 1:H:26:SER:O      | 1:H:101:PRO:HG2   | 2.19                     | 0.43              |
| 1:H:88:GLN:O      | 1:H:155:LYS:HE2   | 2.19                     | 0.43              |
| 1:H:230:ARG:NH1   | 1:H:266:GLU:OE1   | 2.51                     | 0.43              |
| 1:H:502:ALA:HB3   | 1:H:510:ALA:HB3   | 2.00                     | 0.43              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:I:56:ARG:HB2   | 1:K:127:LEU:HD22  | 2.00                     | 0.43              |
| 1:J:60:ILE:HG22  | 1:J:106:GLU:HB3   | 2.01                     | 0.43              |
| 1:J:145:PHE:CE2  | 1:J:151:TYR:HB2   | 2.52                     | 0.43              |
| 1:J:299:LYS:NZ   | 1:J:317:GLU:OE2   | 2.38                     | 0.43              |
| 1:K:652:ASP:N    | 1:K:652:ASP:OD1   | 2.51                     | 0.43              |
| 1:M:230:ARG:NH1  | 1:M:266:GLU:OE1   | 2.51                     | 0.43              |
| 1:M:599:ILE:O    | 1:M:603:VAL:HG23  | 2.18                     | 0.43              |
| 1:M:662:ILE:O    | 1:M:666:THR:HG23  | 2.19                     | 0.43              |
| 1:M:681:GLU:OE2  | 1:M:685:ARG:NH1   | 2.51                     | 0.43              |
| 1:N:26:SER:O     | 1:N:101:PRO:HG2   | 2.19                     | 0.43              |
| 1:O:17:HIS:HB3   | 1:O:44:LEU:HD12   | 2.01                     | 0.43              |
| 1:O:26:SER:O     | 1:O:101:PRO:HG2   | 2.19                     | 0.43              |
| 1:O:174:LEU:HD11 | 1:O:212:VAL:HG13  | 2.01                     | 0.43              |
| 1:P:640:VAL:HG13 | 1:R:580:ARG:NH1   | 2.33                     | 0.43              |
| 1:Q:174:LEU:HD11 | 1:Q:212:VAL:HG13  | 2.01                     | 0.43              |
| 1:Q:573:LYS:HG3  | 1:Q:574:ALA:N     | 2.32                     | 0.43              |
| 1:R:508:PRO:O    | 1:R:509:HIS:ND1   | 2.52                     | 0.43              |
| 1:R:798:MET:SD   | 1:T:795:PHE:CG    | 3.12                     | 0.43              |
| 1:S:502:ALA:HB3  | 1:S:510:ALA:HB3   | 2.00                     | 0.43              |
| 1:S:599:ILE:O    | 1:S:603:VAL:HG23  | 2.18                     | 0.43              |
| 1:S:681:GLU:OE2  | 1:S:685:ARG:NH1   | 2.51                     | 0.43              |
| 1:T:129:PHE:CG   | 1:T:156:GLU:HG3   | 2.54                     | 0.43              |
| 1:V:702:ALA:HB2  | 1:X:690:ARG:HH12  | 1.83                     | 0.43              |
| 1:V:706:LEU:HD13 | 1:X:693:ILE:HG23  | 1.99                     | 0.43              |
| 1:W:129:PHE:CG   | 1:W:156:GLU:HG3   | 2.54                     | 0.43              |
| 1:W:600:ARG:HG2  | 1:W:604:PHE:CE1   | 2.54                     | 0.43              |
| 1:X:60:ILE:HG22  | 1:X:106:GLU:HB3   | 2.01                     | 0.43              |
| 1:Y:63:ASN:HA    | 1:Y:84:ARG:O      | 2.18                     | 0.43              |
| 1:Y:129:PHE:CG   | 1:Y:156:GLU:HG3   | 2.54                     | 0.43              |
| 1:Y:573:LYS:HG3  | 1:Y:574:ALA:N     | 2.33                     | 0.43              |
| 1:Y:694:LEU:O    | 1:Y:697:SER:OG    | 2.28                     | 0.43              |
| 1:Z:95:ASP:HA    | 1:BA:85:HIS:NE2   | 2.34                     | 0.43              |
| 1:Z:662:ILE:O    | 1:Z:666:THR:HG23  | 2.19                     | 0.43              |
| 1:AA:523:PHE:HB2 | 1:AA:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:AA:662:ILE:O   | 1:AA:666:THR:HG23 | 2.19                     | 0.43              |
| 1:CA:26:SER:O    | 1:CA:101:PRO:HG2  | 2.18                     | 0.43              |
| 1:CA:230:ARG:NH1 | 1:CA:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:CA:662:ILE:O   | 1:CA:666:THR:HG23 | 2.19                     | 0.43              |
| 1:DA:129:PHE:CG  | 1:DA:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:DA:230:ARG:NH1 | 1:DA:266:GLU:OE1  | 2.52                     | 0.43              |
| 1:EA:523:PHE:HB2 | 1:EA:543:TYR:HD2  | 1.84                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:FA:387:GLY:HA3  | 1:FA:402:ILE:HG22 | 2.01                     | 0.43              |
| 1:GA:129:PHE:CG   | 1:GA:156:GLU:HG3  | 2.53                     | 0.43              |
| 1:GA:174:LEU:HD11 | 1:GA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:GA:599:ILE:O    | 1:GA:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:HA:600:ARG:HG2  | 1:HA:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:JA:299:LYS:NZ   | 1:JA:317:GLU:OE2  | 2.38                     | 0.43              |
| 1:LA:17:HIS:HB3   | 1:LA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:LA:230:ARG:NH1  | 1:LA:266:GLU:OE1  | 2.52                     | 0.43              |
| 1:NA:26:SER:O     | 1:NA:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:NA:129:PHE:CG   | 1:NA:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:NA:394:LYS:HB2  | 1:NA:394:LYS:HE3  | 1.81                     | 0.43              |
| 1:OA:26:SER:O     | 1:OA:101:PRO:HG2  | 2.18                     | 0.43              |
| 1:PA:17:HIS:HB3   | 1:PA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:PA:230:ARG:NH1  | 1:PA:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:PA:382:LEU:HD11 | 1:PA:388:ILE:HG23 | 2.00                     | 0.43              |
| 1:QA:129:PHE:CG   | 1:QA:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:RA:600:ARG:HG2  | 1:RA:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:SA:387:GLY:HA3  | 1:SA:402:ILE:HG22 | 2.01                     | 0.43              |
| 1:VA:599:ILE:O    | 1:VA:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:VA:600:ARG:HG2  | 1:VA:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:WA:600:ARG:HG2  | 1:WA:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:YA:174:LEU:HD11 | 1:YA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:ZA:600:ARG:HG2  | 1:ZA:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:CB:174:LEU:HD11 | 1:CB:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:CB:600:ARG:HG2  | 1:CB:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:DB:17:HIS:HB3   | 1:DB:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:DB:508:PRO:O    | 1:DB:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:EB:137:VAL:HG12 | 1:EB:138:MET:O    | 2.18                     | 0.43              |
| 1:FB:377:ARG:NH1  | 1:FB:409:THR:O    | 2.30                     | 0.43              |
| 1:FB:736:GLU:OE2  | 1:GB:726:ALA:HB1  | 2.18                     | 0.43              |
| 1:GB:129:PHE:CG   | 1:GB:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:IB:60:ILE:HG22  | 1:IB:106:GLU:HB3  | 2.01                     | 0.43              |
| 1:IB:506:LYS:HD3  | 1:IB:506:LYS:HA   | 1.78                     | 0.43              |
| 1:IB:600:ARG:HG2  | 1:IB:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:JB:60:ILE:HG22  | 1:JB:106:GLU:HB3  | 2.00                     | 0.43              |
| 1:LB:26:SER:O     | 1:LB:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:LB:230:ARG:NH1  | 1:LB:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:MB:60:ILE:HG22  | 1:MB:106:GLU:HB3  | 2.01                     | 0.43              |
| 1:MB:63:ASN:HA    | 1:MB:84:ARG:O     | 2.18                     | 0.43              |
| 1:MB:299:LYS:NZ   | 1:MB:317:GLU:OE2  | 2.38                     | 0.43              |
| 1:NB:26:SER:O     | 1:NB:101:PRO:HG2  | 2.19                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:NB:652:ASP:OD1  | 1:NB:652:ASP:N    | 2.51                     | 0.43              |
| 1:OB:174:LEU:HD11 | 1:OB:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:QB:502:ALA:HB3  | 1:QB:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:SB:17:HIS:HB3   | 1:SB:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:SB:382:LEU:HD11 | 1:SB:388:ILE:HG23 | 2.00                     | 0.43              |
| 1:SB:764:LYS:HB2  | 1:SB:764:LYS:HE3  | 1.84                     | 0.43              |
| 1:UB:174:LEU:HD11 | 1:UB:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:UB:502:ALA:HB3  | 1:UB:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:UB:599:ILE:O    | 1:UB:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:UB:702:ALA:HB2  | 1:VB:690:ARG:NH1  | 2.31                     | 0.43              |
| 1:VB:129:PHE:CG   | 1:VB:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:WB:129:PHE:CG   | 1:WB:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:WB:508:PRO:O    | 1:WB:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:YB:129:PHE:CG   | 1:YB:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:ZB:461:ARG:NH1  | 1:AC:473:TYR:HE2  | 2.15                     | 0.43              |
| 1:AC:129:PHE:CG   | 1:AC:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:AC:502:ALA:HB3  | 1:AC:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:A:96:PRO:HD3    | 1:C:85:HIS:CE1    | 2.52                     | 0.43              |
| 1:B:17:HIS:HB3    | 1:B:44:LEU:HD12   | 2.01                     | 0.43              |
| 1:B:60:ILE:HG22   | 1:B:106:GLU:HB3   | 2.01                     | 0.43              |
| 1:B:129:PHE:CG    | 1:B:156:GLU:HG3   | 2.54                     | 0.43              |
| 1:C:233:GLN:HE21  | 1:C:264:TYR:HD2   | 1.65                     | 0.43              |
| 1:D:129:PHE:CG    | 1:D:156:GLU:HG3   | 2.54                     | 0.43              |
| 1:E:88:GLN:O      | 1:E:155:LYS:HE2   | 2.19                     | 0.43              |
| 1:E:508:PRO:O     | 1:E:509:HIS:ND1   | 2.52                     | 0.43              |
| 1:F:88:GLN:O      | 1:F:155:LYS:HE2   | 2.19                     | 0.43              |
| 1:G:88:GLN:O      | 1:G:155:LYS:HE2   | 2.19                     | 0.43              |
| 1:G:230:ARG:NH1   | 1:G:266:GLU:OE1   | 2.51                     | 0.43              |
| 1:H:599:ILE:O     | 1:H:603:VAL:HG23  | 2.18                     | 0.43              |
| 1:J:63:ASN:HA     | 1:J:84:ARG:O      | 2.18                     | 0.43              |
| 1:J:621:LYS:HA    | 1:J:621:LYS:HD3   | 1.81                     | 0.43              |
| 1:L:230:ARG:NH1   | 1:L:266:GLU:OE1   | 2.51                     | 0.43              |
| 1:L:706:LEU:HD13  | 1:N:693:ILE:HG23  | 2.01                     | 0.43              |
| 1:M:129:PHE:CG    | 1:M:156:GLU:HG3   | 2.54                     | 0.43              |
| 1:M:174:LEU:HD11  | 1:M:212:VAL:HG13  | 2.01                     | 0.43              |
| 1:M:508:PRO:O     | 1:M:509:HIS:ND1   | 2.52                     | 0.43              |
| 1:O:772:TYR:CD1   | 1:Q:766:ARG:HB3   | 2.54                     | 0.43              |
| 1:P:60:ILE:HG22   | 1:P:106:GLU:HB3   | 2.01                     | 0.43              |
| 1:P:508:PRO:O     | 1:P:509:HIS:ND1   | 2.52                     | 0.43              |
| 1:Q:129:PHE:CG    | 1:Q:156:GLU:HG3   | 2.54                     | 0.43              |
| 1:Q:600:ARG:HG2   | 1:Q:604:PHE:CE1   | 2.54                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:R:88:GLN:O      | 1:R:155:LYS:HE2   | 2.19                     | 0.43              |
| 1:R:129:PHE:CG    | 1:R:156:GLU:HG3   | 2.54                     | 0.43              |
| 1:S:174:LEU:HD11  | 1:S:212:VAL:HG13  | 2.01                     | 0.43              |
| 1:T:17:HIS:HB3    | 1:T:44:LEU:HD12   | 2.00                     | 0.43              |
| 1:V:230:ARG:NH1   | 1:V:266:GLU:OE1   | 2.51                     | 0.43              |
| 1:X:388:ILE:HG13  | 1:X:390:VAL:HG13  | 2.01                     | 0.43              |
| 1:Y:600:ARG:HG2   | 1:Y:604:PHE:CE1   | 2.54                     | 0.43              |
| 1:Z:26:SER:O      | 1:Z:101:PRO:HG2   | 2.19                     | 0.43              |
| 1:Z:174:LEU:HD11  | 1:Z:212:VAL:HG13  | 2.01                     | 0.43              |
| 1:Z:387:GLY:HA3   | 1:Z:402:ILE:HG22  | 2.01                     | 0.43              |
| 1:AA:174:LEU:HD11 | 1:AA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:AA:502:ALA:HB3  | 1:AA:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:AA:508:PRO:O    | 1:AA:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:BA:233:GLN:HE21 | 1:BA:264:TYR:HD2  | 1.65                     | 0.43              |
| 1:BA:387:GLY:HA3  | 1:BA:402:ILE:HG22 | 2.01                     | 0.43              |
| 1:CA:17:HIS:HB3   | 1:CA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:CA:129:PHE:CG   | 1:CA:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:CA:377:ARG:HA   | 1:CA:377:ARG:HD3  | 1.84                     | 0.43              |
| 1:DA:60:ILE:HG22  | 1:DA:106:GLU:HB3  | 2.00                     | 0.43              |
| 1:DA:174:LEU:HD11 | 1:DA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:EA:694:LEU:O    | 1:EA:697:SER:OG   | 2.28                     | 0.43              |
| 1:FA:508:PRO:O    | 1:FA:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:FA:662:ILE:O    | 1:FA:666:THR:HG23 | 2.19                     | 0.43              |
| 1:GA:136:LYS:HD2  | 1:GA:136:LYS:HA   | 1.76                     | 0.43              |
| 1:GA:387:GLY:HA3  | 1:GA:402:ILE:HG22 | 2.01                     | 0.43              |
| 1:HA:387:GLY:HA3  | 1:HA:402:ILE:HG22 | 2.01                     | 0.43              |
| 1:HA:621:LYS:HD3  | 1:HA:621:LYS:HA   | 1.81                     | 0.43              |
| 1:IA:174:LEU:HD11 | 1:IA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:JA:129:PHE:CG   | 1:JA:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:KA:129:PHE:CG   | 1:KA:156:GLU:HG3  | 2.53                     | 0.43              |
| 1:KA:377:ARG:HD3  | 1:KA:377:ARG:HA   | 1.84                     | 0.43              |
| 1:LA:387:GLY:HA3  | 1:LA:402:ILE:HG22 | 2.01                     | 0.43              |
| 1:MA:56:ARG:HG3   | 1:OA:127:LEU:HD22 | 2.01                     | 0.43              |
| 1:NA:94:GLN:C     | 1:PA:85:HIS:HE2   | 2.22                     | 0.43              |
| 1:NA:174:LEU:HD11 | 1:NA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:NA:387:GLY:HA3  | 1:NA:402:ILE:HG22 | 2.01                     | 0.43              |
| 1:NA:508:PRO:O    | 1:NA:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:NA:662:ILE:O    | 1:NA:666:THR:HG23 | 2.19                     | 0.43              |
| 1:OA:63:ASN:HA    | 1:OA:84:ARG:O     | 2.18                     | 0.43              |
| 1:OA:174:LEU:HD11 | 1:OA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:PA:63:ASN:HA    | 1:PA:84:ARG:O     | 2.18                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:PA:174:LEU:HD11 | 1:PA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:PA:506:LYS:HD3  | 1:PA:506:LYS:HA   | 1.78                     | 0.43              |
| 1:PA:508:PRO:O    | 1:PA:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:QA:506:LYS:HD3  | 1:QA:506:LYS:HA   | 1.78                     | 0.43              |
| 1:RA:174:LEU:HD11 | 1:RA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:RA:387:GLY:HA3  | 1:RA:402:ILE:HG22 | 2.01                     | 0.43              |
| 1:RA:666:THR:HG22 | 1:TA:657:SER:HB2  | 2.00                     | 0.43              |
| 1:SA:508:PRO:O    | 1:SA:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:SA:533:ASP:CG   | 1:SA:587:THR:HG1  | 2.22                     | 0.43              |
| 1:UA:233:GLN:HE21 | 1:UA:264:TYR:HD2  | 1.65                     | 0.43              |
| 1:UA:599:ILE:O    | 1:UA:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:WA:129:PHE:CG   | 1:WA:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:XA:17:HIS:HB3   | 1:XA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:XA:137:VAL:HG12 | 1:XA:138:MET:O    | 2.18                     | 0.43              |
| 1:XA:203:ALA:HB2  | 1:ZA:192:THR:HB   | 2.01                     | 0.43              |
| 1:XA:676:GLU:OE2  | 1:XA:679:ARG:NH2  | 2.43                     | 0.43              |
| 1:YA:387:GLY:HA3  | 1:YA:402:ILE:HG22 | 2.01                     | 0.43              |
| 1:YA:599:ILE:O    | 1:YA:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:ZA:383:ASP:OD1  | 1:ZA:383:ASP:N    | 2.44                     | 0.43              |
| 1:AB:26:SER:O     | 1:AB:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:AB:129:PHE:CG   | 1:AB:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:AB:174:LEU:HD11 | 1:AB:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:AB:387:GLY:HA3  | 1:AB:402:ILE:HG22 | 2.01                     | 0.43              |
| 1:AB:662:ILE:O    | 1:AB:666:THR:HG23 | 2.19                     | 0.43              |
| 1:BB:502:ALA:HB3  | 1:BB:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:BB:599:ILE:O    | 1:BB:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:CB:502:ALA:HB3  | 1:CB:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:DB:129:PHE:CG   | 1:DB:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:DB:174:LEU:HD11 | 1:DB:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:DB:230:ARG:NH1  | 1:DB:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:EB:129:PHE:CG   | 1:EB:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:EB:694:LEU:O    | 1:EB:697:SER:OG   | 2.28                     | 0.43              |
| 1:FB:129:PHE:CG   | 1:FB:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:GB:508:PRO:O    | 1:GB:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:HB:60:ILE:HG22  | 1:HB:106:GLU:HB3  | 2.01                     | 0.43              |
| 1:HB:129:PHE:CG   | 1:HB:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:HB:203:ALA:HB2  | 1:IB:192:THR:HB   | 2.01                     | 0.43              |
| 1:HB:502:ALA:HB3  | 1:HB:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:IB:17:HIS:HB3   | 1:IB:44:LEU:HD12  | 2.00                     | 0.43              |
| 1:IB:814:GLY:HA2  | 1:IB:815:PRO:HD3  | 1.91                     | 0.43              |
| 1:JB:17:HIS:HB3   | 1:JB:44:LEU:HD12  | 2.01                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:JB:129:PHE:CG   | 1:JB:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:JB:676:GLU:OE2  | 1:JB:679:ARG:NH2  | 2.43                     | 0.43              |
| 1:JB:694:LEU:O    | 1:JB:697:SER:OG   | 2.28                     | 0.43              |
| 1:KB:88:GLN:O     | 1:KB:155:LYS:HE2  | 2.19                     | 0.43              |
| 1:KB:129:PHE:CG   | 1:KB:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:KB:502:ALA:HB3  | 1:KB:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:LB:88:GLN:O     | 1:LB:155:LYS:HE2  | 2.19                     | 0.43              |
| 1:NB:600:ARG:HG2  | 1:NB:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:OB:17:HIS:HB3   | 1:OB:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:OB:508:PRO:O    | 1:OB:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:OB:662:ILE:O    | 1:OB:666:THR:HG23 | 2.19                     | 0.43              |
| 1:PB:174:LEU:HD11 | 1:PB:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:PB:600:ARG:HG2  | 1:PB:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:QB:676:GLU:OE2  | 1:QB:679:ARG:NH2  | 2.43                     | 0.43              |
| 1:RB:63:ASN:HA    | 1:RB:84:ARG:O     | 2.18                     | 0.43              |
| 1:RB:257:GLU:HG2  | 1:SB:244:ARG:HB3  | 1.99                     | 0.43              |
| 1:RB:600:ARG:HG2  | 1:RB:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:SB:137:VAL:HG12 | 1:SB:138:MET:O    | 2.18                     | 0.43              |
| 1:SB:174:LEU:HD11 | 1:SB:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:TB:299:LYS:NZ   | 1:TB:317:GLU:OE2  | 2.38                     | 0.43              |
| 1:TB:508:PRO:O    | 1:TB:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:UB:757:ALA:CB   | 1:VB:748:ALA:HB1  | 2.46                     | 0.43              |
| 1:VB:694:LEU:O    | 1:VB:697:SER:OG   | 2.28                     | 0.43              |
| 1:XB:129:PHE:CG   | 1:XB:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:XB:137:VAL:HG12 | 1:XB:138:MET:O    | 2.18                     | 0.43              |
| 1:XB:652:ASP:N    | 1:XB:652:ASP:OD1  | 2.51                     | 0.43              |
| 1:YB:385:ASN:ND2  | 1:ZB:473:TYR:O    | 2.51                     | 0.43              |
| 1:ZB:299:LYS:NZ   | 1:ZB:317:GLU:OE2  | 2.38                     | 0.43              |
| 1:AC:17:HIS:HB3   | 1:AC:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:AC:60:ILE:HG22  | 1:AC:106:GLU:HB3  | 2.01                     | 0.43              |
| 1:A:502:ALA:HB3   | 1:A:510:ALA:HB3   | 2.00                     | 0.43              |
| 1:B:63:ASN:HA     | 1:B:84:ARG:O      | 2.18                     | 0.43              |
| 1:C:26:SER:O      | 1:C:101:PRO:HG2   | 2.19                     | 0.43              |
| 1:C:676:GLU:OE2   | 1:C:679:ARG:NH2   | 2.43                     | 0.43              |
| 1:D:17:HIS:HB3    | 1:D:44:LEU:HD12   | 2.01                     | 0.43              |
| 1:D:26:SER:O      | 1:D:101:PRO:HG2   | 2.19                     | 0.43              |
| 1:D:63:ASN:HA     | 1:D:84:ARG:O      | 2.18                     | 0.43              |
| 1:D:694:LEU:O     | 1:D:697:SER:OG    | 2.28                     | 0.43              |
| 1:E:599:ILE:O     | 1:E:603:VAL:HG23  | 2.18                     | 0.43              |
| 1:F:17:HIS:HB3    | 1:F:44:LEU:HD12   | 2.01                     | 0.43              |
| 1:F:508:PRO:O     | 1:F:509:HIS:ND1   | 2.52                     | 0.43              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:G:26:SER:O     | 1:G:101:PRO:HG2   | 2.19                     | 0.43              |
| 1:G:523:PHE:HB2  | 1:G:543:TYR:HD2   | 1.84                     | 0.43              |
| 1:H:17:HIS:HB3   | 1:H:44:LEU:HD12   | 2.01                     | 0.43              |
| 1:H:508:PRO:O    | 1:H:509:HIS:ND1   | 2.52                     | 0.43              |
| 1:J:600:ARG:HG2  | 1:J:604:PHE:CE1   | 2.54                     | 0.43              |
| 1:K:17:HIS:HB3   | 1:K:44:LEU:HD12   | 2.01                     | 0.43              |
| 1:K:96:PRO:HD3   | 1:M:85:HIS:CE1    | 2.54                     | 0.43              |
| 1:K:129:PHE:CG   | 1:K:156:GLU:HG3   | 2.54                     | 0.43              |
| 1:K:174:LEU:HD11 | 1:K:212:VAL:HG13  | 2.01                     | 0.43              |
| 1:K:662:ILE:O    | 1:K:666:THR:HG23  | 2.19                     | 0.43              |
| 1:M:137:VAL:HG12 | 1:M:138:MET:O     | 2.18                     | 0.43              |
| 1:M:233:GLN:HE21 | 1:M:264:TYR:HD2   | 1.65                     | 0.43              |
| 1:M:471:TYR:CD2  | 1:M:478:ALA:HB2   | 2.54                     | 0.43              |
| 1:N:17:HIS:HB3   | 1:N:44:LEU:HD12   | 2.01                     | 0.43              |
| 1:N:383:ASP:OD1  | 1:N:383:ASP:N     | 2.44                     | 0.43              |
| 1:O:388:ILE:HG13 | 1:O:390:VAL:HG13  | 2.01                     | 0.43              |
| 1:O:709:LEU:HD11 | 1:Q:701:LYS:HE3   | 2.01                     | 0.43              |
| 1:P:26:SER:O     | 1:P:101:PRO:HG2   | 2.19                     | 0.43              |
| 1:P:88:GLN:O     | 1:P:155:LYS:HE2   | 2.19                     | 0.43              |
| 1:P:523:PHE:HB2  | 1:P:543:TYR:HD2   | 1.84                     | 0.43              |
| 1:Q:17:HIS:HB3   | 1:Q:44:LEU:HD12   | 2.01                     | 0.43              |
| 1:Q:230:ARG:NH1  | 1:Q:266:GLU:OE1   | 2.51                     | 0.43              |
| 1:Q:502:ALA:HB3  | 1:Q:510:ALA:HB3   | 2.00                     | 0.43              |
| 1:Q:523:PHE:HB2  | 1:Q:543:TYR:HD2   | 1.84                     | 0.43              |
| 1:R:17:HIS:HB3   | 1:R:44:LEU:HD12   | 2.01                     | 0.43              |
| 1:R:769:GLU:HG2  | 1:T:766:ARG:HH12  | 1.83                     | 0.43              |
| 1:T:652:ASP:N    | 1:T:652:ASP:OD1   | 2.51                     | 0.43              |
| 1:V:387:GLY:HA3  | 1:V:402:ILE:HG22  | 2.01                     | 0.43              |
| 1:W:17:HIS:HB3   | 1:W:44:LEU:HD12   | 2.01                     | 0.43              |
| 1:W:681:GLU:OE2  | 1:W:685:ARG:NH1   | 2.51                     | 0.43              |
| 1:X:174:LEU:HD11 | 1:X:212:VAL:HG13  | 2.01                     | 0.43              |
| 1:X:233:GLN:HE21 | 1:X:264:TYR:HD2   | 1.65                     | 0.43              |
| 1:X:377:ARG:HD3  | 1:X:377:ARG:HA    | 1.84                     | 0.43              |
| 1:Y:17:HIS:HB3   | 1:Y:44:LEU:HD12   | 2.01                     | 0.43              |
| 1:Y:174:LEU:HD11 | 1:Y:212:VAL:HG13  | 2.01                     | 0.43              |
| 1:AA:387:GLY:HA3 | 1:AA:402:ILE:HG22 | 2.01                     | 0.43              |
| 1:BA:26:SER:O    | 1:BA:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:BA:63:ASN:HA   | 1:BA:84:ARG:O     | 2.18                     | 0.43              |
| 1:BA:533:ASP:CG  | 1:BA:587:THR:HG1  | 2.22                     | 0.43              |
| 1:EA:26:SER:O    | 1:EA:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:EA:662:ILE:O   | 1:EA:666:THR:HG23 | 2.19                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:IA:387:GLY:HA3  | 1:IA:402:ILE:HG22 | 2.01                     | 0.43              |
| 1:JA:388:ILE:HG13 | 1:JA:390:VAL:HG13 | 2.01                     | 0.43              |
| 1:JA:600:ARG:HG2  | 1:JA:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:KA:508:PRO:O    | 1:KA:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:LA:174:LEU:HD11 | 1:LA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:LA:377:ARG:NH1  | 1:LA:409:THR:O    | 2.30                     | 0.43              |
| 1:MA:26:SER:O     | 1:MA:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:MA:174:LEU:HD11 | 1:MA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:NA:388:ILE:HG13 | 1:NA:390:VAL:HG13 | 2.01                     | 0.43              |
| 1:OA:387:GLY:HA3  | 1:OA:402:ILE:HG22 | 2.01                     | 0.43              |
| 1:QA:363:LEU:HA   | 1:SA:353:ALA:HB3  | 1.99                     | 0.43              |
| 1:RA:203:ALA:HB2  | 1:TA:192:THR:HB   | 2.01                     | 0.43              |
| 1:RA:233:GLN:HE21 | 1:RA:264:TYR:HD2  | 1.65                     | 0.43              |
| 1:RA:599:ILE:O    | 1:RA:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:SA:88:GLN:O     | 1:SA:155:LYS:HE2  | 2.19                     | 0.43              |
| 1:SA:174:LEU:HD11 | 1:SA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:SA:388:ILE:HG13 | 1:SA:390:VAL:HG13 | 2.01                     | 0.43              |
| 1:SA:676:GLU:OE2  | 1:SA:679:ARG:NH2  | 2.43                     | 0.43              |
| 1:TA:17:HIS:HB3   | 1:TA:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:TA:387:GLY:HA3  | 1:TA:402:ILE:HG22 | 2.01                     | 0.43              |
| 1:TA:573:LYS:HG3  | 1:TA:574:ALA:N    | 2.33                     | 0.43              |
| 1:UA:387:GLY:HA3  | 1:UA:402:ILE:HG22 | 2.01                     | 0.43              |
| 1:UA:508:PRO:O    | 1:UA:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:UA:600:ARG:HG2  | 1:UA:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:UA:662:ILE:O    | 1:UA:666:THR:HG23 | 2.19                     | 0.43              |
| 1:VA:63:ASN:HA    | 1:VA:84:ARG:O     | 2.18                     | 0.43              |
| 1:VA:137:VAL:HG12 | 1:VA:138:MET:O    | 2.18                     | 0.43              |
| 1:XA:32:PRO:HB2   | 1:ZA:24:ASN:HB2   | 2.00                     | 0.43              |
| 1:XA:174:LEU:HD11 | 1:XA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:XA:299:LYS:NZ   | 1:XA:317:GLU:OE2  | 2.38                     | 0.43              |
| 1:ZA:63:ASN:HA    | 1:ZA:84:ARG:O     | 2.18                     | 0.43              |
| 1:ZA:137:VAL:HG12 | 1:ZA:138:MET:O    | 2.18                     | 0.43              |
| 1:ZA:508:PRO:O    | 1:ZA:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:ZA:573:LYS:HG3  | 1:ZA:574:ALA:N    | 2.33                     | 0.43              |
| 1:ZA:736:GLU:OE2  | 1:BB:726:ALA:HB1  | 2.19                     | 0.43              |
| 1:AB:508:PRO:O    | 1:AB:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:BB:63:ASN:HA    | 1:BB:84:ARG:O     | 2.18                     | 0.43              |
| 1:EB:600:ARG:HG2  | 1:EB:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:EB:681:GLU:OE2  | 1:EB:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:FB:174:LEU:HD11 | 1:FB:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:HB:508:PRO:O    | 1:HB:509:HIS:ND1  | 2.52                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:IB:129:PHE:CG   | 1:IB:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:IB:230:ARG:NH1  | 1:IB:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:IB:502:ALA:HB3  | 1:IB:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:JB:63:ASN:HA    | 1:JB:84:ARG:O     | 2.18                     | 0.43              |
| 1:JB:599:ILE:O    | 1:JB:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:JB:681:GLU:OE2  | 1:JB:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:KB:17:HIS:HB3   | 1:KB:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:KB:377:ARG:NH1  | 1:KB:409:THR:O    | 2.30                     | 0.43              |
| 1:KB:508:PRO:O    | 1:KB:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:KB:736:GLU:OE2  | 1:LB:726:ALA:HB1  | 2.19                     | 0.43              |
| 1:LB:17:HIS:HB3   | 1:LB:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:LB:129:PHE:CG   | 1:LB:156:GLU:HG3  | 2.53                     | 0.43              |
| 1:LB:233:GLN:HE21 | 1:LB:264:TYR:HD2  | 1.65                     | 0.43              |
| 1:LB:508:PRO:O    | 1:LB:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:OB:129:PHE:CG   | 1:OB:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:OB:137:VAL:HG12 | 1:OB:138:MET:O    | 2.18                     | 0.43              |
| 1:OB:377:ARG:NH1  | 1:OB:409:THR:O    | 2.30                     | 0.43              |
| 1:OB:652:ASP:OD1  | 1:OB:652:ASP:N    | 2.51                     | 0.43              |
| 1:PB:377:ARG:NH1  | 1:PB:409:THR:O    | 2.30                     | 0.43              |
| 1:QB:129:PHE:CG   | 1:QB:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:RB:137:VAL:HG12 | 1:RB:138:MET:O    | 2.18                     | 0.43              |
| 1:RB:599:ILE:O    | 1:RB:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:SB:299:LYS:NZ   | 1:SB:317:GLU:OE2  | 2.38                     | 0.43              |
| 1:TB:63:ASN:HA    | 1:TB:84:ARG:O     | 2.18                     | 0.43              |
| 1:TB:573:LYS:HG3  | 1:TB:574:ALA:N    | 2.32                     | 0.43              |
| 1:UB:17:HIS:HB3   | 1:UB:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:UB:753:ILE:HG12 | 1:VB:745:LYS:HE2  | 2.01                     | 0.43              |
| 1:VB:174:LEU:HD11 | 1:VB:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:WB:523:PHE:HB2  | 1:WB:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:XB:694:LEU:O    | 1:XB:697:SER:OG   | 2.28                     | 0.43              |
| 1:ZB:129:PHE:CG   | 1:ZB:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:ZB:508:PRO:O    | 1:ZB:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:ZB:720:GLY:HA3  | 1:AC:711:ALA:HB1  | 2.00                     | 0.43              |
| 1:AC:377:ARG:HA   | 1:AC:377:ARG:HD3  | 1.84                     | 0.43              |
| 1:AC:508:PRO:O    | 1:AC:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:A:191:VAL:HB    | 1:NB:202:GLY:HA2  | 2.01                     | 0.43              |
| 1:A:471:TYR:CD2   | 1:A:478:ALA:HB2   | 2.54                     | 0.43              |
| 1:B:228:HIS:CE1   | 1:B:248:GLU:HB3   | 2.54                     | 0.43              |
| 1:B:502:ALA:HB3   | 1:B:510:ALA:HB3   | 2.00                     | 0.43              |
| 1:B:506:LYS:HD3   | 1:B:506:LYS:HA    | 1.78                     | 0.43              |
| 1:B:761:ARG:HG2   | 1:D:755:THR:HG21  | 2.00                     | 0.43              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:17:HIS:HB3   | 1:C:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:C:502:ALA:HB3  | 1:C:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:C:523:PHE:HB2  | 1:C:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:D:228:HIS:CE1  | 1:D:248:GLU:HB3  | 2.54                     | 0.43              |
| 1:D:471:TYR:CD2  | 1:D:478:ALA:HB2  | 2.54                     | 0.43              |
| 1:D:599:ILE:O    | 1:D:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:D:681:GLU:OE2  | 1:D:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:E:129:PHE:CG   | 1:E:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:F:129:PHE:CG   | 1:F:156:GLU:HG3  | 2.53                     | 0.43              |
| 1:G:17:HIS:HB3   | 1:G:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:G:471:TYR:CD2  | 1:G:478:ALA:HB2  | 2.54                     | 0.43              |
| 1:H:233:GLN:HE21 | 1:H:264:TYR:HD2  | 1.65                     | 0.43              |
| 1:H:471:TYR:CD2  | 1:H:478:ALA:HB2  | 2.54                     | 0.43              |
| 1:I:63:ASN:HA    | 1:I:84:ARG:O     | 2.18                     | 0.43              |
| 1:I:174:LEU:HD11 | 1:I:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:J:137:VAL:HG12 | 1:J:138:MET:O    | 2.18                     | 0.43              |
| 1:J:694:LEU:O    | 1:J:697:SER:OG   | 2.28                     | 0.43              |
| 1:K:26:SER:O     | 1:K:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:K:228:HIS:CE1  | 1:K:248:GLU:HB3  | 2.54                     | 0.43              |
| 1:K:388:ILE:HG13 | 1:K:390:VAL:HG13 | 2.01                     | 0.43              |
| 1:K:508:PRO:O    | 1:K:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:K:814:GLY:HA2  | 1:K:815:PRO:HD3  | 1.91                     | 0.43              |
| 1:L:17:HIS:HB3   | 1:L:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:L:600:ARG:HG2  | 1:L:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:O:600:ARG:HG2  | 1:O:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:P:17:HIS:HB3   | 1:P:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:P:707:LEU:HD23 | 1:P:707:LEU:HA   | 1.89                     | 0.43              |
| 1:Q:26:SER:O     | 1:Q:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:Q:471:TYR:CD2  | 1:Q:478:ALA:HB2  | 2.54                     | 0.43              |
| 1:Q:662:ILE:O    | 1:Q:666:THR:HG23 | 2.19                     | 0.43              |
| 1:R:681:GLU:OE2  | 1:R:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:S:388:ILE:HG13 | 1:S:390:VAL:HG13 | 2.01                     | 0.43              |
| 1:V:377:ARG:HD3  | 1:V:377:ARG:HA   | 1.84                     | 0.43              |
| 1:V:508:PRO:O    | 1:V:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:W:174:LEU:HD11 | 1:W:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:W:377:ARG:NH1  | 1:W:409:THR:O    | 2.30                     | 0.43              |
| 1:X:129:PHE:CG   | 1:X:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:X:508:PRO:O    | 1:X:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:Y:662:ILE:O    | 1:Y:666:THR:HG23 | 2.19                     | 0.43              |
| 1:Y:676:GLU:OE2  | 1:Y:679:ARG:NH2  | 2.43                     | 0.43              |
| 1:Z:600:ARG:HG2  | 1:Z:604:PHE:CE1  | 2.54                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:AA:56:ARG:HG3   | 1:CA:127:LEU:HD22 | 2.00                     | 0.43              |
| 1:BA:137:VAL:HG12 | 1:BA:138:MET:O    | 2.18                     | 0.43              |
| 1:BA:388:ILE:HG13 | 1:BA:390:VAL:HG13 | 2.01                     | 0.43              |
| 1:BA:600:ARG:HG2  | 1:BA:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:CA:388:ILE:HG13 | 1:CA:390:VAL:HG13 | 2.01                     | 0.43              |
| 1:CA:502:ALA:HB3  | 1:CA:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:CA:508:PRO:O    | 1:CA:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:CA:573:LYS:HG3  | 1:CA:574:ALA:N    | 2.32                     | 0.43              |
| 1:DA:382:LEU:O    | 1:FA:396:GLY:HA3  | 2.19                     | 0.43              |
| 1:DA:508:PRO:O    | 1:DA:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:EA:129:PHE:CG   | 1:EA:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:EA:600:ARG:HG2  | 1:EA:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:FA:88:GLN:O     | 1:FA:155:LYS:HE2  | 2.19                     | 0.43              |
| 1:FA:174:LEU:HD11 | 1:FA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:FA:388:ILE:HG13 | 1:FA:390:VAL:HG13 | 2.01                     | 0.43              |
| 1:FA:533:ASP:CG   | 1:FA:587:THR:HG1  | 2.22                     | 0.43              |
| 1:GA:388:ILE:HG13 | 1:GA:390:VAL:HG13 | 2.01                     | 0.43              |
| 1:HA:60:ILE:HG22  | 1:HA:106:GLU:HB3  | 2.01                     | 0.43              |
| 1:HA:137:VAL:HG12 | 1:HA:138:MET:O    | 2.18                     | 0.43              |
| 1:HA:508:PRO:O    | 1:HA:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:HA:662:ILE:O    | 1:HA:666:THR:HG23 | 2.19                     | 0.43              |
| 1:JA:26:SER:O     | 1:JA:101:PRO:HG2  | 2.18                     | 0.43              |
| 1:JA:533:ASP:CG   | 1:JA:587:THR:HG1  | 2.22                     | 0.43              |
| 1:KA:233:GLN:HE21 | 1:KA:264:TYR:HD2  | 1.65                     | 0.43              |
| 1:KA:388:ILE:HG13 | 1:KA:390:VAL:HG13 | 2.01                     | 0.43              |
| 1:KA:662:ILE:O    | 1:KA:666:THR:HG23 | 2.19                     | 0.43              |
| 1:LA:129:PHE:CG   | 1:LA:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:NA:88:GLN:O     | 1:NA:155:LYS:HE2  | 2.19                     | 0.43              |
| 1:NA:137:VAL:HG12 | 1:NA:138:MET:O    | 2.18                     | 0.43              |
| 1:OA:137:VAL:HG12 | 1:OA:138:MET:O    | 2.18                     | 0.43              |
| 1:OA:388:ILE:HG13 | 1:OA:390:VAL:HG13 | 2.01                     | 0.43              |
| 1:OA:599:ILE:O    | 1:OA:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:PA:26:SER:O     | 1:PA:101:PRO:HG2  | 2.18                     | 0.43              |
| 1:PA:137:VAL:HG12 | 1:PA:138:MET:O    | 2.18                     | 0.43              |
| 1:PA:652:ASP:OD1  | 1:PA:652:ASP:N    | 2.51                     | 0.43              |
| 1:QA:60:ILE:HG22  | 1:QA:106:GLU:HB3  | 2.01                     | 0.43              |
| 1:RA:377:ARG:NH1  | 1:RA:409:THR:O    | 2.30                     | 0.43              |
| 1:RA:662:ILE:O    | 1:RA:666:THR:HG23 | 2.19                     | 0.43              |
| 1:SA:60:ILE:HG22  | 1:SA:106:GLU:HB3  | 2.01                     | 0.43              |
| 1:SA:662:ILE:O    | 1:SA:666:THR:HG23 | 2.19                     | 0.43              |
| 1:TA:88:GLN:O     | 1:TA:155:LYS:HE2  | 2.19                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:UA:60:ILE:HG22  | 1:UA:106:GLU:HB3  | 2.01                     | 0.43              |
| 1:UA:137:VAL:HG12 | 1:UA:138:MET:O    | 2.18                     | 0.43              |
| 1:VA:174:LEU:HD11 | 1:VA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:WA:377:ARG:HD3  | 1:WA:377:ARG:HA   | 1.84                     | 0.43              |
| 1:WA:388:ILE:HG13 | 1:WA:390:VAL:HG13 | 2.01                     | 0.43              |
| 1:WA:533:ASP:CG   | 1:WA:587:THR:HG1  | 2.22                     | 0.43              |
| 1:WA:621:LYS:HD3  | 1:WA:621:LYS:HA   | 1.81                     | 0.43              |
| 1:XA:508:PRO:O    | 1:XA:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:XA:764:LYS:HB2  | 1:XA:764:LYS:HE3  | 1.84                     | 0.43              |
| 1:YA:88:GLN:O     | 1:YA:155:LYS:HE2  | 2.19                     | 0.43              |
| 1:YA:129:PHE:CG   | 1:YA:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:ZA:387:GLY:HA3  | 1:ZA:402:ILE:HG22 | 2.01                     | 0.43              |
| 1:ZA:720:GLY:HA3  | 1:BB:711:ALA:HB1  | 2.01                     | 0.43              |
| 1:AB:137:VAL:HG12 | 1:AB:138:MET:O    | 2.18                     | 0.43              |
| 1:AB:388:ILE:HG13 | 1:AB:390:VAL:HG13 | 2.01                     | 0.43              |
| 1:AB:600:ARG:HG2  | 1:AB:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:AB:702:ALA:HB2  | 1:OB:690:ARG:HH12 | 1.83                     | 0.43              |
| 1:BB:17:HIS:HB3   | 1:BB:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:DB:523:PHE:HB2  | 1:DB:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:DB:599:ILE:O    | 1:DB:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:EB:652:ASP:N    | 1:EB:652:ASP:OD1  | 2.51                     | 0.43              |
| 1:FB:506:LYS:HD3  | 1:FB:506:LYS:HA   | 1.78                     | 0.43              |
| 1:HB:278:PRO:HB2  | 1:IB:338:GLN:NE2  | 2.34                     | 0.43              |
| 1:HB:377:ARG:HA   | 1:HB:377:ARG:HD3  | 1.84                     | 0.43              |
| 1:HB:471:TYR:CD2  | 1:HB:478:ALA:HB2  | 2.54                     | 0.43              |
| 1:HB:542:ALA:HB1  | 1:IB:573:LYS:HE2  | 2.01                     | 0.43              |
| 1:JB:26:SER:O     | 1:JB:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:KB:228:HIS:CE1  | 1:KB:248:GLU:HB3  | 2.54                     | 0.43              |
| 1:KB:523:PHE:HB2  | 1:KB:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:LB:471:TYR:CD2  | 1:LB:478:ALA:HB2  | 2.54                     | 0.43              |
| 1:LB:750:ALA:HA   | 1:MB:741:VAL:HG23 | 2.01                     | 0.43              |
| 1:MB:600:ARG:HG2  | 1:MB:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:MB:621:LYS:HA   | 1:MB:621:LYS:HD3  | 1.81                     | 0.43              |
| 1:NB:508:PRO:O    | 1:NB:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:NB:676:GLU:OE2  | 1:NB:679:ARG:NH2  | 2.43                     | 0.43              |
| 1:OB:63:ASN:HA    | 1:OB:84:ARG:O     | 2.18                     | 0.43              |
| 1:OB:230:ARG:NH1  | 1:OB:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:OB:663:GLU:OE2  | 1:OB:667:ASN:ND2  | 2.52                     | 0.43              |
| 1:PB:63:ASN:HA    | 1:PB:84:ARG:O     | 2.18                     | 0.43              |
| 1:PB:129:PHE:CG   | 1:PB:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:PB:233:GLN:HE21 | 1:PB:264:TYR:HD2  | 1.65                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:PB:387:GLY:HA3  | 1:PB:402:ILE:HG22 | 2.01                     | 0.43              |
| 1:PB:508:PRO:O    | 1:PB:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:PB:599:ILE:O    | 1:PB:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:QB:174:LEU:HD11 | 1:QB:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:QB:600:ARG:HG2  | 1:QB:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:RB:174:LEU:HD11 | 1:RB:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:SB:387:GLY:HA3  | 1:SB:402:ILE:HG22 | 2.01                     | 0.43              |
| 1:SB:508:PRO:O    | 1:SB:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:TB:137:VAL:HG12 | 1:TB:138:MET:O    | 2.18                     | 0.43              |
| 1:UB:63:ASN:HA    | 1:UB:84:ARG:O     | 2.18                     | 0.43              |
| 1:UB:735:ILE:CG2  | 1:VB:727:GLU:HA   | 2.49                     | 0.43              |
| 1:VB:471:TYR:CD2  | 1:VB:478:ALA:HB2  | 2.54                     | 0.43              |
| 1:VB:502:ALA:HB3  | 1:VB:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:VB:663:GLU:OE2  | 1:VB:667:ASN:ND2  | 2.52                     | 0.43              |
| 1:WB:174:LEU:HD11 | 1:WB:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:XB:681:GLU:OE2  | 1:XB:685:ARG:NH1  | 2.51                     | 0.43              |
| 1:YB:600:ARG:HG2  | 1:YB:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:A:377:ARG:HD3   | 1:A:377:ARG:HA    | 1.84                     | 0.43              |
| 1:A:508:PRO:O     | 1:A:509:HIS:ND1   | 2.52                     | 0.43              |
| 1:B:174:LEU:HD11  | 1:B:212:VAL:HG13  | 2.01                     | 0.43              |
| 1:B:230:ARG:NH1   | 1:B:266:GLU:OE1   | 2.51                     | 0.43              |
| 1:B:523:PHE:HB2   | 1:B:543:TYR:HD2   | 1.84                     | 0.43              |
| 1:C:88:GLN:O      | 1:C:155:LYS:HE2   | 2.19                     | 0.43              |
| 1:C:377:ARG:HA    | 1:C:377:ARG:HD3   | 1.84                     | 0.43              |
| 1:C:573:LYS:HG3   | 1:C:574:ALA:N     | 2.32                     | 0.43              |
| 1:D:60:ILE:HG22   | 1:D:106:GLU:HB3   | 2.01                     | 0.43              |
| 1:F:764:LYS:HB2   | 1:F:764:LYS:HE3   | 1.84                     | 0.43              |
| 1:G:388:ILE:HG13  | 1:G:390:VAL:HG13  | 2.01                     | 0.43              |
| 1:H:129:PHE:CG    | 1:H:156:GLU:HG3   | 2.54                     | 0.43              |
| 1:H:174:LEU:HD11  | 1:H:212:VAL:HG13  | 2.01                     | 0.43              |
| 1:H:228:HIS:CE1   | 1:H:248:GLU:HB3   | 2.54                     | 0.43              |
| 1:I:471:TYR:CD2   | 1:I:478:ALA:HB2   | 2.54                     | 0.43              |
| 1:I:502:ALA:HB3   | 1:I:510:ALA:HB3   | 2.00                     | 0.43              |
| 1:J:17:HIS:HB3    | 1:J:44:LEU:HD12   | 2.01                     | 0.43              |
| 1:J:543:TYR:O     | 1:J:545:TRP:HD1   | 2.02                     | 0.43              |
| 1:K:600:ARG:HG2   | 1:K:604:PHE:CE1   | 2.54                     | 0.43              |
| 1:L:543:TYR:O     | 1:L:545:TRP:HD1   | 2.02                     | 0.43              |
| 1:M:17:HIS:HB3    | 1:M:44:LEU:HD12   | 2.01                     | 0.43              |
| 1:M:658:VAL:HG11  | 1:O:535:ALA:HA    | 2.01                     | 0.43              |
| 1:N:471:TYR:CD2   | 1:N:478:ALA:HB2   | 2.54                     | 0.43              |
| 1:O:129:PHE:CG    | 1:O:156:GLU:HG3   | 2.54                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:O:662:ILE:O     | 1:O:666:THR:HG23  | 2.19                     | 0.43              |
| 1:P:502:ALA:HB3   | 1:P:510:ALA:HB3   | 2.00                     | 0.43              |
| 1:Q:88:GLN:O      | 1:Q:155:LYS:HE2   | 2.19                     | 0.43              |
| 1:Q:228:HIS:CE1   | 1:Q:248:GLU:HB3   | 2.54                     | 0.43              |
| 1:R:174:LEU:HD11  | 1:R:212:VAL:HG13  | 2.01                     | 0.43              |
| 1:R:228:HIS:CE1   | 1:R:248:GLU:HB3   | 2.54                     | 0.43              |
| 1:R:599:ILE:O     | 1:R:603:VAL:HG23  | 2.18                     | 0.43              |
| 1:T:26:SER:O      | 1:T:101:PRO:HG2   | 2.19                     | 0.43              |
| 1:T:388:ILE:HG13  | 1:T:390:VAL:HG13  | 2.01                     | 0.43              |
| 1:T:508:PRO:O     | 1:T:509:HIS:ND1   | 2.52                     | 0.43              |
| 1:T:523:PHE:HB2   | 1:T:543:TYR:HD2   | 1.84                     | 0.43              |
| 1:V:174:LEU:HD11  | 1:V:212:VAL:HG13  | 2.01                     | 0.43              |
| 1:W:233:GLN:HE21  | 1:W:264:TYR:HD2   | 1.65                     | 0.43              |
| 1:W:707:LEU:HA    | 1:W:707:LEU:HD23  | 1.88                     | 0.43              |
| 1:X:662:ILE:O     | 1:X:666:THR:HG23  | 2.19                     | 0.43              |
| 1:Y:26:SER:O      | 1:Y:101:PRO:HG2   | 2.19                     | 0.43              |
| 1:Y:228:HIS:CE1   | 1:Y:248:GLU:HB3   | 2.54                     | 0.43              |
| 1:Y:230:ARG:NH1   | 1:Y:266:GLU:OE1   | 2.52                     | 0.43              |
| 1:Y:388:ILE:HG13  | 1:Y:390:VAL:HG13  | 2.01                     | 0.43              |
| 1:Z:228:HIS:CE1   | 1:Z:248:GLU:HB3   | 2.54                     | 0.43              |
| 1:AA:388:ILE:HG13 | 1:AA:390:VAL:HG13 | 2.01                     | 0.43              |
| 1:BA:40:ASN:ND2   | 1:YA:38:GLN:HG3   | 2.34                     | 0.43              |
| 1:CA:377:ARG:NH1  | 1:CA:409:THR:O    | 2.30                     | 0.43              |
| 1:DA:383:ASP:OD1  | 1:DA:383:ASP:N    | 2.44                     | 0.43              |
| 1:EA:175:ARG:HG3  | 1:EA:263:VAL:HG12 | 2.01                     | 0.43              |
| 1:EA:471:TYR:CD2  | 1:EA:478:ALA:HB2  | 2.54                     | 0.43              |
| 1:FA:60:ILE:HG22  | 1:FA:106:GLU:HB3  | 2.01                     | 0.43              |
| 1:FA:137:VAL:HG12 | 1:FA:138:MET:O    | 2.18                     | 0.43              |
| 1:FA:228:HIS:CE1  | 1:FA:248:GLU:HB3  | 2.54                     | 0.43              |
| 1:GA:228:HIS:CE1  | 1:GA:248:GLU:HB3  | 2.54                     | 0.43              |
| 1:GA:600:ARG:HG2  | 1:GA:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:GA:662:ILE:O    | 1:GA:666:THR:HG23 | 2.19                     | 0.43              |
| 1:HA:129:PHE:CG   | 1:HA:156:GLU:HG3  | 2.54                     | 0.43              |
| 1:HA:174:LEU:HD11 | 1:HA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:HA:663:GLU:OE2  | 1:HA:667:ASN:ND2  | 2.52                     | 0.43              |
| 1:IA:175:ARG:HG3  | 1:IA:263:VAL:HG12 | 2.01                     | 0.43              |
| 1:IA:508:PRO:O    | 1:IA:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:JA:60:ILE:HG22  | 1:JA:106:GLU:HB3  | 2.00                     | 0.43              |
| 1:JA:174:LEU:HD11 | 1:JA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:JA:531:THR:HG23 | 1:JA:533:ASP:H    | 1.84                     | 0.43              |
| 1:JA:663:GLU:OE2  | 1:JA:667:ASN:ND2  | 2.52                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:KA:174:LEU:HD11 | 1:KA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:KA:175:ARG:HG3  | 1:KA:263:VAL:HG12 | 2.01                     | 0.43              |
| 1:KA:299:LYS:NZ   | 1:KA:317:GLU:OE2  | 2.38                     | 0.43              |
| 1:KA:531:THR:HG23 | 1:KA:533:ASP:H    | 1.84                     | 0.43              |
| 1:KA:592:HIS:NE2  | 1:MA:531:THR:O    | 2.51                     | 0.43              |
| 1:LA:88:GLN:O     | 1:LA:155:LYS:HE2  | 2.19                     | 0.43              |
| 1:LA:662:ILE:O    | 1:LA:666:THR:HG23 | 2.19                     | 0.43              |
| 1:LA:666:THR:HG22 | 1:NA:657:SER:HB2  | 2.00                     | 0.43              |
| 1:MA:228:HIS:CE1  | 1:MA:248:GLU:HB3  | 2.54                     | 0.43              |
| 1:NA:228:HIS:CE1  | 1:NA:248:GLU:HB3  | 2.54                     | 0.43              |
| 1:NA:382:LEU:O    | 1:PA:396:GLY:HA3  | 2.18                     | 0.43              |
| 1:NA:600:ARG:HG2  | 1:NA:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:OA:600:ARG:HG2  | 1:OA:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:QA:377:ARG:HD3  | 1:QA:377:ARG:HA   | 1.84                     | 0.43              |
| 1:QA:531:THR:HG23 | 1:QA:533:ASP:H    | 1.84                     | 0.43              |
| 1:QA:621:LYS:HA   | 1:QA:621:LYS:HD3  | 1.81                     | 0.43              |
| 1:RA:388:ILE:HG13 | 1:RA:390:VAL:HG13 | 2.01                     | 0.43              |
| 1:RA:508:PRO:O    | 1:RA:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:SA:707:LEU:HD23 | 1:SA:707:LEU:HA   | 1.88                     | 0.43              |
| 1:TA:174:LEU:HD11 | 1:TA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:TA:230:ARG:NH1  | 1:TA:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:TA:523:PHE:HB2  | 1:TA:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:UA:174:LEU:HD11 | 1:UA:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:UA:663:GLU:OE2  | 1:UA:667:ASN:ND2  | 2.52                     | 0.43              |
| 1:VA:388:ILE:HG13 | 1:VA:390:VAL:HG13 | 2.01                     | 0.43              |
| 1:WA:523:PHE:HB2  | 1:WA:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:WA:531:THR:HG23 | 1:WA:533:ASP:H    | 1.84                     | 0.43              |
| 1:WA:543:TYR:O    | 1:WA:545:TRP:HD1  | 2.02                     | 0.43              |
| 1:WA:764:LYS:HB2  | 1:WA:764:LYS:HE3  | 1.84                     | 0.43              |
| 1:XA:63:ASN:HA    | 1:XA:84:ARG:O     | 2.18                     | 0.43              |
| 1:XA:136:LYS:HA   | 1:XA:136:LYS:HD2  | 1.76                     | 0.43              |
| 1:XA:746:LEU:HD13 | 1:ZA:737:GLY:HA3  | 2.01                     | 0.43              |
| 1:YA:500:LEU:HD23 | 1:YA:500:LEU:HA   | 1.92                     | 0.43              |
| 1:ZA:523:PHE:HB2  | 1:ZA:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:AB:88:GLN:O     | 1:AB:155:LYS:HE2  | 2.19                     | 0.43              |
| 1:AB:228:HIS:CE1  | 1:AB:248:GLU:HB3  | 2.54                     | 0.43              |
| 1:AB:377:ARG:NH1  | 1:AB:409:THR:O    | 2.30                     | 0.43              |
| 1:AB:768:MET:SD   | 1:OB:766:ARG:HD2  | 2.59                     | 0.43              |
| 1:CB:228:HIS:CE1  | 1:CB:248:GLU:HB3  | 2.54                     | 0.43              |
| 1:CB:377:ARG:HA   | 1:CB:377:ARG:HD3  | 1.84                     | 0.43              |
| 1:CB:694:LEU:O    | 1:CB:697:SER:OG   | 2.28                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:DB:502:ALA:HB3  | 1:DB:510:ALA:HB3  | 2.00                     | 0.43              |
| 1:EB:508:PRO:O    | 1:EB:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:FB:88:GLN:O     | 1:FB:155:LYS:HE2  | 2.19                     | 0.43              |
| 1:FB:383:ASP:OD1  | 1:FB:383:ASP:N    | 2.44                     | 0.43              |
| 1:FB:600:ARG:HG2  | 1:FB:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:GB:174:LEU:HD11 | 1:GB:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:GB:228:HIS:CE1  | 1:GB:248:GLU:HB3  | 2.54                     | 0.43              |
| 1:HB:63:ASN:HA    | 1:HB:84:ARG:O     | 2.18                     | 0.43              |
| 1:HB:174:LEU:HD11 | 1:HB:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:HB:228:HIS:CE1  | 1:HB:248:GLU:HB3  | 2.54                     | 0.43              |
| 1:IB:63:ASN:HA    | 1:IB:84:ARG:O     | 2.18                     | 0.43              |
| 1:IB:228:HIS:CE1  | 1:IB:248:GLU:HB3  | 2.54                     | 0.43              |
| 1:JB:228:HIS:CE1  | 1:JB:248:GLU:HB3  | 2.54                     | 0.43              |
| 1:JB:471:TYR:CD2  | 1:JB:478:ALA:HB2  | 2.54                     | 0.43              |
| 1:KB:543:TYR:O    | 1:KB:545:TRP:HD1  | 2.02                     | 0.43              |
| 1:LB:720:GLY:HA3  | 1:MB:711:ALA:CB   | 2.47                     | 0.43              |
| 1:MB:17:HIS:HB3   | 1:MB:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:MB:137:VAL:HG12 | 1:MB:138:MET:O    | 2.18                     | 0.43              |
| 1:MB:782:SER:HB2  | 1:NB:777:LEU:HD21 | 2.01                     | 0.43              |
| 1:NB:17:HIS:HB3   | 1:NB:44:LEU:HD12  | 2.01                     | 0.43              |
| 1:NB:230:ARG:NH1  | 1:NB:266:GLU:OE1  | 2.51                     | 0.43              |
| 1:OB:26:SER:O     | 1:OB:101:PRO:HG2  | 2.19                     | 0.43              |
| 1:PB:388:ILE:HG13 | 1:PB:390:VAL:HG13 | 2.01                     | 0.43              |
| 1:QB:32:PRO:HG2   | 1:RB:78:THR:CG2   | 2.43                     | 0.43              |
| 1:QB:137:VAL:HG12 | 1:QB:138:MET:O    | 2.18                     | 0.43              |
| 1:QB:387:GLY:HA3  | 1:QB:402:ILE:HG22 | 2.01                     | 0.43              |
| 1:QB:523:PHE:HB2  | 1:QB:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:RB:388:ILE:HG13 | 1:RB:390:VAL:HG13 | 2.01                     | 0.43              |
| 1:RB:531:THR:HG23 | 1:RB:533:ASP:H    | 1.84                     | 0.43              |
| 1:SB:63:ASN:HA    | 1:SB:84:ARG:O     | 2.18                     | 0.43              |
| 1:SB:573:LYS:HG3  | 1:SB:574:ALA:N    | 2.32                     | 0.43              |
| 1:SB:676:GLU:OE2  | 1:SB:679:ARG:NH2  | 2.43                     | 0.43              |
| 1:TB:387:GLY:HA3  | 1:TB:402:ILE:HG22 | 2.01                     | 0.43              |
| 1:TB:523:PHE:HB2  | 1:TB:543:TYR:HD2  | 1.84                     | 0.43              |
| 1:UB:383:ASP:HB3  | 1:VB:396:GLY:O    | 2.19                     | 0.43              |
| 1:UB:764:LYS:HB3  | 1:VB:759:LEU:HD13 | 2.01                     | 0.43              |
| 1:VB:508:PRO:O    | 1:VB:509:HIS:ND1  | 2.52                     | 0.43              |
| 1:WB:599:ILE:O    | 1:WB:603:VAL:HG23 | 2.18                     | 0.43              |
| 1:WB:652:ASP:OD1  | 1:WB:652:ASP:N    | 2.51                     | 0.43              |
| 1:XB:174:LEU:HD11 | 1:XB:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:XB:377:ARG:HD3  | 1:XB:377:ARG:HA   | 1.84                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:XB:600:ARG:HG2  | 1:XB:604:PHE:CE1  | 2.54                     | 0.43              |
| 1:YB:88:GLN:O     | 1:YB:155:LYS:HE2  | 2.19                     | 0.43              |
| 1:YB:174:LEU:HD11 | 1:YB:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:ZB:174:LEU:HD11 | 1:ZB:212:VAL:HG13 | 2.01                     | 0.43              |
| 1:ZB:228:HIS:CE1  | 1:ZB:248:GLU:HB3  | 2.54                     | 0.43              |
| 1:AC:63:ASN:HA    | 1:AC:84:ARG:O     | 2.18                     | 0.43              |
| 1:AC:228:HIS:CE1  | 1:AC:248:GLU:HB3  | 2.54                     | 0.43              |
| 1:AC:471:TYR:CD2  | 1:AC:478:ALA:HB2  | 2.54                     | 0.43              |
| 1:A:17:HIS:HB3    | 1:A:44:LEU:HD12   | 2.01                     | 0.42              |
| 1:A:24:ASN:CG     | 1:NB:9:ARG:HH21   | 2.23                     | 0.42              |
| 1:B:127:LEU:HD22  | 1:AC:56:ARG:HB2   | 2.01                     | 0.42              |
| 1:C:228:HIS:CE1   | 1:C:248:GLU:HB3   | 2.54                     | 0.42              |
| 1:C:230:ARG:NH1   | 1:C:266:GLU:OE1   | 2.51                     | 0.42              |
| 1:D:88:GLN:O      | 1:D:155:LYS:HE2   | 2.19                     | 0.42              |
| 1:D:174:LEU:HD11  | 1:D:212:VAL:HG13  | 2.01                     | 0.42              |
| 1:E:17:HIS:HB3    | 1:E:44:LEU:HD12   | 2.01                     | 0.42              |
| 1:E:174:LEU:HD11  | 1:E:212:VAL:HG13  | 2.01                     | 0.42              |
| 1:F:63:ASN:HA     | 1:F:84:ARG:O      | 2.18                     | 0.42              |
| 1:F:228:HIS:CE1   | 1:F:248:GLU:HB3   | 2.54                     | 0.42              |
| 1:F:502:ALA:HB3   | 1:F:510:ALA:HB3   | 2.00                     | 0.42              |
| 1:F:523:PHE:HB2   | 1:F:543:TYR:HD2   | 1.84                     | 0.42              |
| 1:F:543:TYR:O     | 1:F:545:TRP:HD1   | 2.02                     | 0.42              |
| 1:G:174:LEU:HD11  | 1:G:212:VAL:HG13  | 2.01                     | 0.42              |
| 1:G:543:TYR:O     | 1:G:545:TRP:HD1   | 2.02                     | 0.42              |
| 1:I:17:HIS:HB3    | 1:I:44:LEU:HD12   | 2.01                     | 0.42              |
| 1:I:658:VAL:HG11  | 1:K:535:ALA:HA    | 2.01                     | 0.42              |
| 1:J:129:PHE:CG    | 1:J:156:GLU:HG3   | 2.54                     | 0.42              |
| 1:J:228:HIS:CE1   | 1:J:248:GLU:HB3   | 2.54                     | 0.42              |
| 1:J:471:TYR:CD2   | 1:J:478:ALA:HB2   | 2.54                     | 0.42              |
| 1:J:502:ALA:HB3   | 1:J:510:ALA:HB3   | 2.00                     | 0.42              |
| 1:J:707:LEU:HD23  | 1:J:707:LEU:HA    | 1.88                     | 0.42              |
| 1:L:174:LEU:HD11  | 1:L:212:VAL:HG13  | 2.01                     | 0.42              |
| 1:L:233:GLN:HE21  | 1:L:264:TYR:HD2   | 1.65                     | 0.42              |
| 1:L:388:ILE:HG13  | 1:L:390:VAL:HG13  | 2.01                     | 0.42              |
| 1:L:471:TYR:CD2   | 1:L:478:ALA:HB2   | 2.54                     | 0.42              |
| 1:L:508:PRO:O     | 1:L:509:HIS:ND1   | 2.52                     | 0.42              |
| 1:M:388:ILE:HG13  | 1:M:390:VAL:HG13  | 2.01                     | 0.42              |
| 1:M:502:ALA:HB3   | 1:M:510:ALA:HB3   | 2.00                     | 0.42              |
| 1:N:174:LEU:HD11  | 1:N:212:VAL:HG13  | 2.01                     | 0.42              |
| 1:O:88:GLN:O      | 1:O:155:LYS:HE2   | 2.19                     | 0.42              |
| 1:O:175:ARG:HG3   | 1:O:263:VAL:HG12  | 2.01                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:P:129:PHE:CG    | 1:P:156:GLU:HG3   | 2.54                     | 0.42              |
| 1:P:573:LYS:HG3   | 1:P:574:ALA:N     | 2.33                     | 0.42              |
| 1:Q:388:ILE:HG13  | 1:Q:390:VAL:HG13  | 2.01                     | 0.42              |
| 1:R:388:ILE:HG13  | 1:R:390:VAL:HG13  | 2.01                     | 0.42              |
| 1:R:600:ARG:HG2   | 1:R:604:PHE:CE1   | 2.54                     | 0.42              |
| 1:S:387:GLY:HA3   | 1:S:402:ILE:HG22  | 2.01                     | 0.42              |
| 1:S:600:ARG:HG2   | 1:S:604:PHE:CE1   | 2.54                     | 0.42              |
| 1:T:88:GLN:O      | 1:T:155:LYS:HE2   | 2.19                     | 0.42              |
| 1:T:471:TYR:CD2   | 1:T:478:ALA:HB2   | 2.54                     | 0.42              |
| 1:V:388:ILE:HG13  | 1:V:390:VAL:HG13  | 2.01                     | 0.42              |
| 1:V:471:TYR:CD2   | 1:V:478:ALA:HB2   | 2.54                     | 0.42              |
| 1:V:506:LYS:HD3   | 1:V:506:LYS:HA    | 1.78                     | 0.42              |
| 1:W:388:ILE:HG13  | 1:W:390:VAL:HG13  | 2.01                     | 0.42              |
| 1:X:175:ARG:HG3   | 1:X:263:VAL:HG12  | 2.01                     | 0.42              |
| 1:X:531:THR:HG23  | 1:X:533:ASP:H     | 1.84                     | 0.42              |
| 1:X:533:ASP:CG    | 1:X:587:THR:HG1   | 2.22                     | 0.42              |
| 1:X:769:GLU:HG2   | 1:Z:766:ARG:HH12  | 1.83                     | 0.42              |
| 1:Y:203:ALA:HB2   | 1:AA:192:THR:HB   | 2.01                     | 0.42              |
| 1:Y:502:ALA:HB3   | 1:Y:510:ALA:HB3   | 2.00                     | 0.42              |
| 1:Y:508:PRO:O     | 1:Y:509:HIS:ND1   | 2.52                     | 0.42              |
| 1:Y:621:LYS:HD3   | 1:Y:621:LYS:HA    | 1.81                     | 0.42              |
| 1:Z:175:ARG:HG3   | 1:Z:263:VAL:HG12  | 2.01                     | 0.42              |
| 1:AA:471:TYR:CD2  | 1:AA:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:BA:39:ASP:HB2   | 1:YA:39:ASP:CB    | 2.38                     | 0.42              |
| 1:BA:523:PHE:HB2  | 1:BA:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:BA:599:ILE:O    | 1:BA:603:VAL:HG23 | 2.18                     | 0.42              |
| 1:BA:676:GLU:OE2  | 1:BA:679:ARG:NH2  | 2.43                     | 0.42              |
| 1:CA:387:GLY:HA3  | 1:CA:402:ILE:HG22 | 2.01                     | 0.42              |
| 1:DA:388:ILE:HG13 | 1:DA:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:DA:531:THR:HG23 | 1:DA:533:ASP:H    | 1.84                     | 0.42              |
| 1:EA:388:ILE:HG13 | 1:EA:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:EA:531:THR:HG23 | 1:EA:533:ASP:H    | 1.84                     | 0.42              |
| 1:GA:383:ASP:OD1  | 1:GA:383:ASP:N    | 2.44                     | 0.42              |
| 1:HA:228:HIS:CE1  | 1:HA:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:HA:523:PHE:HB2  | 1:HA:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:IA:388:ILE:HG13 | 1:IA:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:IA:471:TYR:CD2  | 1:IA:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:JA:543:TYR:O    | 1:JA:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:KA:523:PHE:HB2  | 1:KA:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:KA:533:ASP:CG   | 1:KA:587:THR:HG1  | 2.22                     | 0.42              |
| 1:KA:544:ASN:HD21 | 1:MA:573:LYS:NZ   | 2.17                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:LA:137:VAL:HG12 | 1:LA:138:MET:O    | 2.18                     | 0.42              |
| 1:LA:388:ILE:HG13 | 1:LA:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:LA:676:GLU:OE2  | 1:LA:679:ARG:NH2  | 2.43                     | 0.42              |
| 1:MA:175:ARG:HG3  | 1:MA:263:VAL:HG12 | 2.01                     | 0.42              |
| 1:MA:600:ARG:HG2  | 1:MA:604:PHE:CE1  | 2.54                     | 0.42              |
| 1:NA:523:PHE:HB2  | 1:NA:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:NA:702:ALA:HB2  | 1:PA:690:ARG:HH12 | 1.84                     | 0.42              |
| 1:OA:663:GLU:OE2  | 1:OA:667:ASN:ND2  | 2.52                     | 0.42              |
| 1:PA:377:ARG:NH1  | 1:PA:409:THR:O    | 2.30                     | 0.42              |
| 1:PA:531:THR:HG23 | 1:PA:533:ASP:H    | 1.84                     | 0.42              |
| 1:QA:388:ILE:HG13 | 1:QA:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:QA:508:PRO:O    | 1:QA:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:QA:523:PHE:HB2  | 1:QA:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:RA:63:ASN:HA    | 1:RA:84:ARG:O     | 2.18                     | 0.42              |
| 1:SA:228:HIS:CE1  | 1:SA:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:SA:713:SER:OG   | 1:UA:707:LEU:HD12 | 2.19                     | 0.42              |
| 1:TA:377:ARG:HA   | 1:TA:377:ARG:HD3  | 1.84                     | 0.42              |
| 1:TA:508:PRO:O    | 1:TA:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:UA:228:HIS:CE1  | 1:UA:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:UA:388:ILE:HG13 | 1:UA:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:VA:531:THR:HG23 | 1:VA:533:ASP:H    | 1.84                     | 0.42              |
| 1:WA:26:SER:O     | 1:WA:101:PRO:HG2  | 2.19                     | 0.42              |
| 1:WA:174:LEU:HD11 | 1:WA:212:VAL:HG13 | 2.01                     | 0.42              |
| 1:WA:299:LYS:NZ   | 1:WA:317:GLU:OE2  | 2.38                     | 0.42              |
| 1:XA:230:ARG:NH1  | 1:XA:266:GLU:OE1  | 2.51                     | 0.42              |
| 1:XA:387:GLY:HA3  | 1:XA:402:ILE:HG22 | 2.01                     | 0.42              |
| 1:YA:388:ILE:HG13 | 1:YA:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:ZA:533:ASP:CG   | 1:ZA:587:THR:HG1  | 2.22                     | 0.42              |
| 1:AB:523:PHE:HB2  | 1:AB:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:BB:233:GLN:HE21 | 1:BB:264:TYR:HD2  | 1.65                     | 0.42              |
| 1:CB:471:TYR:CD2  | 1:CB:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:CB:508:PRO:O    | 1:CB:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:DB:228:HIS:CE1  | 1:DB:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:EB:174:LEU:HD11 | 1:EB:212:VAL:HG13 | 2.01                     | 0.42              |
| 1:EB:228:HIS:CE1  | 1:EB:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:EB:377:ARG:HD3  | 1:EB:377:ARG:HA   | 1.84                     | 0.42              |
| 1:EB:502:ALA:HB3  | 1:EB:510:ALA:HB3  | 2.00                     | 0.42              |
| 1:EB:658:VAL:HG11 | 1:FB:535:ALA:HA   | 2.01                     | 0.42              |
| 1:FB:471:TYR:CD2  | 1:FB:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:GB:60:ILE:HG22  | 1:GB:106:GLU:HB3  | 2.00                     | 0.42              |
| 1:GB:663:GLU:OE2  | 1:GB:667:ASN:ND2  | 2.52                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:HB:26:SER:O     | 1:HB:101:PRO:HG2  | 2.19                     | 0.42              |
| 1:HB:56:ARG:HH12  | 1:IB:139:ALA:HB2  | 1.84                     | 0.42              |
| 1:HB:599:ILE:O    | 1:HB:603:VAL:HG23 | 2.18                     | 0.42              |
| 1:JB:88:GLN:O     | 1:JB:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:JB:508:PRO:O    | 1:JB:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:KB:174:LEU:HD11 | 1:KB:212:VAL:HG13 | 2.01                     | 0.42              |
| 1:KB:621:LYS:HD3  | 1:KB:621:LYS:HA   | 1.81                     | 0.42              |
| 1:MB:88:GLN:O     | 1:MB:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:MB:174:LEU:HD11 | 1:MB:212:VAL:HG13 | 2.01                     | 0.42              |
| 1:MB:543:TYR:O    | 1:MB:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:OB:60:ILE:HG22  | 1:OB:106:GLU:HB3  | 2.00                     | 0.42              |
| 1:OB:531:THR:HG23 | 1:OB:533:ASP:H    | 1.84                     | 0.42              |
| 1:OB:676:GLU:OE2  | 1:OB:679:ARG:NH2  | 2.43                     | 0.42              |
| 1:PB:60:ILE:HG22  | 1:PB:106:GLU:HB3  | 2.00                     | 0.42              |
| 1:QB:52:THR:HG21  | 1:RB:85:HIS:CD2   | 2.54                     | 0.42              |
| 1:QB:228:HIS:CE1  | 1:QB:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:QB:388:ILE:HG13 | 1:QB:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:QB:573:LYS:HG3  | 1:QB:574:ALA:N    | 2.32                     | 0.42              |
| 1:RB:523:PHE:HB2  | 1:RB:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:SB:136:LYS:HA   | 1:SB:136:LYS:HD2  | 1.76                     | 0.42              |
| 1:SB:230:ARG:NH1  | 1:SB:266:GLU:OE1  | 2.51                     | 0.42              |
| 1:SB:543:TYR:O    | 1:SB:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:UB:233:GLN:HE21 | 1:UB:264:TYR:HD2  | 1.65                     | 0.42              |
| 1:UB:520:PRO:HD2  | 1:VB:563:SER:HB3  | 2.00                     | 0.42              |
| 1:UB:531:THR:HG23 | 1:UB:533:ASP:H    | 1.84                     | 0.42              |
| 1:XB:471:TYR:CD2  | 1:XB:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:XB:508:PRO:O    | 1:XB:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:XB:676:GLU:OE2  | 1:XB:679:ARG:NH2  | 2.43                     | 0.42              |
| 1:YB:228:HIS:CE1  | 1:YB:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:ZB:663:GLU:OE2  | 1:ZB:667:ASN:ND2  | 2.52                     | 0.42              |
| 1:AC:174:LEU:HD11 | 1:AC:212:VAL:HG13 | 2.01                     | 0.42              |
| 1:AC:599:ILE:O    | 1:AC:603:VAL:HG23 | 2.18                     | 0.42              |
| 1:B:471:TYR:CD2   | 1:B:478:ALA:HB2   | 2.54                     | 0.42              |
| 1:C:203:ALA:HB2   | 1:E:192:THR:HB    | 2.01                     | 0.42              |
| 1:C:388:ILE:HG13  | 1:C:390:VAL:HG13  | 2.01                     | 0.42              |
| 1:C:543:TYR:O     | 1:C:545:TRP:HD1   | 2.02                     | 0.42              |
| 1:D:508:PRO:O     | 1:D:509:HIS:ND1   | 2.52                     | 0.42              |
| 1:E:56:ARG:HH12   | 1:G:139:ALA:HB2   | 1.84                     | 0.42              |
| 1:E:228:HIS:CE1   | 1:E:248:GLU:HB3   | 2.54                     | 0.42              |
| 1:E:461:ARG:HH11  | 1:G:494:GLN:HG3   | 1.84                     | 0.42              |
| 1:E:471:TYR:CD2   | 1:E:478:ALA:HB2   | 2.54                     | 0.42              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:F:174:LEU:HD11 | 1:F:212:VAL:HG13  | 2.01                     | 0.42              |
| 1:G:129:PHE:CG   | 1:G:156:GLU:HG3   | 2.54                     | 0.42              |
| 1:H:643:VAL:H    | 1:J:580:ARG:NH2   | 2.17                     | 0.42              |
| 1:I:129:PHE:CG   | 1:I:156:GLU:HG3   | 2.54                     | 0.42              |
| 1:I:388:ILE:HG13 | 1:I:390:VAL:HG13  | 2.01                     | 0.42              |
| 1:I:662:ILE:O    | 1:I:666:THR:HG23  | 2.19                     | 0.42              |
| 1:I:681:GLU:OE2  | 1:I:685:ARG:NH1   | 2.51                     | 0.42              |
| 1:J:88:GLN:O     | 1:J:155:LYS:HE2   | 2.19                     | 0.42              |
| 1:J:174:LEU:HD11 | 1:J:212:VAL:HG13  | 2.01                     | 0.42              |
| 1:J:508:PRO:O    | 1:J:509:HIS:ND1   | 2.52                     | 0.42              |
| 1:M:175:ARG:HG3  | 1:M:263:VAL:HG12  | 2.01                     | 0.42              |
| 1:M:543:TYR:O    | 1:M:545:TRP:HD1   | 2.02                     | 0.42              |
| 1:M:573:LYS:HG3  | 1:M:574:ALA:N     | 2.33                     | 0.42              |
| 1:N:377:ARG:HD3  | 1:N:377:ARG:HA    | 1.84                     | 0.42              |
| 1:N:502:ALA:HB3  | 1:N:510:ALA:HB3   | 2.00                     | 0.42              |
| 1:O:387:GLY:HA3  | 1:O:402:ILE:HG22  | 2.01                     | 0.42              |
| 1:O:502:ALA:HB3  | 1:O:510:ALA:HB3   | 2.00                     | 0.42              |
| 1:O:508:PRO:O    | 1:O:509:HIS:ND1   | 2.52                     | 0.42              |
| 1:P:228:HIS:CE1  | 1:P:248:GLU:HB3   | 2.54                     | 0.42              |
| 1:P:230:ARG:NH1  | 1:P:266:GLU:OE1   | 2.51                     | 0.42              |
| 1:P:388:ILE:HG13 | 1:P:390:VAL:HG13  | 2.01                     | 0.42              |
| 1:P:471:TYR:CD2  | 1:P:478:ALA:HB2   | 2.54                     | 0.42              |
| 1:Q:175:ARG:HG3  | 1:Q:263:VAL:HG12  | 2.01                     | 0.42              |
| 1:S:175:ARG:HG3  | 1:S:263:VAL:HG12  | 2.01                     | 0.42              |
| 1:S:228:HIS:CE1  | 1:S:248:GLU:HB3   | 2.54                     | 0.42              |
| 1:S:573:LYS:HG3  | 1:S:574:ALA:N     | 2.33                     | 0.42              |
| 1:T:174:LEU:HD11 | 1:T:212:VAL:HG13  | 2.01                     | 0.42              |
| 1:T:600:ARG:HG2  | 1:T:604:PHE:CE1   | 2.54                     | 0.42              |
| 1:T:761:ARG:HG2  | 1:W:755:THR:HG21  | 2.00                     | 0.42              |
| 1:V:175:ARG:HG3  | 1:V:263:VAL:HG12  | 2.01                     | 0.42              |
| 1:W:471:TYR:CD2  | 1:W:478:ALA:HB2   | 2.54                     | 0.42              |
| 1:W:502:ALA:HB3  | 1:W:510:ALA:HB3   | 2.00                     | 0.42              |
| 1:W:599:ILE:O    | 1:W:603:VAL:HG23  | 2.18                     | 0.42              |
| 1:X:523:PHE:HB2  | 1:X:543:TYR:HD2   | 1.84                     | 0.42              |
| 1:Y:543:TYR:O    | 1:Y:545:TRP:HD1   | 2.02                     | 0.42              |
| 1:AA:543:TYR:O   | 1:AA:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:BA:175:ARG:HG3 | 1:BA:263:VAL:HG12 | 2.01                     | 0.42              |
| 1:BA:543:TYR:O   | 1:BA:545:TRP:HD1  | 2.03                     | 0.42              |
| 1:BA:663:GLU:OE2 | 1:BA:667:ASN:ND2  | 2.52                     | 0.42              |
| 1:CA:175:ARG:HG3 | 1:CA:263:VAL:HG12 | 2.01                     | 0.42              |
| 1:EA:228:HIS:CE1 | 1:EA:248:GLU:HB3  | 2.54                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:EA:666:THR:HG22 | 1:GA:657:SER:HB2  | 2.01                     | 0.42              |
| 1:FA:543:TYR:O    | 1:FA:545:TRP:HD1  | 2.03                     | 0.42              |
| 1:FA:600:ARG:HG2  | 1:FA:604:PHE:CE1  | 2.54                     | 0.42              |
| 1:GA:175:ARG:HG3  | 1:GA:263:VAL:HG12 | 2.01                     | 0.42              |
| 1:HA:88:GLN:O     | 1:HA:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:IA:543:TYR:O    | 1:IA:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:KA:544:ASN:ND2  | 1:MA:573:LYS:HZ1  | 2.18                     | 0.42              |
| 1:KA:599:ILE:O    | 1:KA:603:VAL:HG23 | 2.18                     | 0.42              |
| 1:MA:388:ILE:HG13 | 1:MA:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:NA:60:ILE:HG22  | 1:NA:106:GLU:HB3  | 2.00                     | 0.42              |
| 1:NA:543:TYR:O    | 1:NA:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:OA:175:ARG:HG3  | 1:OA:263:VAL:HG12 | 2.01                     | 0.42              |
| 1:OA:523:PHE:HB2  | 1:OA:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:OA:543:TYR:O    | 1:OA:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:PA:543:TYR:O    | 1:PA:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:QA:175:ARG:HG3  | 1:QA:263:VAL:HG12 | 2.01                     | 0.42              |
| 1:SA:137:VAL:HG12 | 1:SA:138:MET:O    | 2.18                     | 0.42              |
| 1:SA:363:LEU:HA   | 1:UA:353:ALA:HB3  | 2.00                     | 0.42              |
| 1:SA:543:TYR:O    | 1:SA:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:TA:228:HIS:CE1  | 1:TA:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:TA:543:TYR:O    | 1:TA:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:UA:129:PHE:CG   | 1:UA:156:GLU:HG3  | 2.54                     | 0.42              |
| 1:UA:523:PHE:HB2  | 1:UA:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:UA:753:ILE:HG12 | 1:WA:745:LYS:HE2  | 2.01                     | 0.42              |
| 1:VA:88:GLN:O     | 1:VA:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:VA:707:LEU:HD23 | 1:VA:707:LEU:HA   | 1.88                     | 0.42              |
| 1:WA:60:ILE:HG22  | 1:WA:106:GLU:HB3  | 2.01                     | 0.42              |
| 1:XA:543:TYR:O    | 1:XA:545:TRP:HD1  | 2.03                     | 0.42              |
| 1:XA:573:LYS:HG3  | 1:XA:574:ALA:N    | 2.33                     | 0.42              |
| 1:YA:137:VAL:HG12 | 1:YA:138:MET:O    | 2.18                     | 0.42              |
| 1:YA:662:ILE:O    | 1:YA:666:THR:HG23 | 2.19                     | 0.42              |
| 1:ZA:15:TYR:CZ    | 1:ZA:98:PRO:HA    | 2.55                     | 0.42              |
| 1:ZA:388:ILE:HG13 | 1:ZA:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:ZA:500:LEU:HD23 | 1:ZA:500:LEU:HA   | 1.92                     | 0.42              |
| 1:BB:26:SER:O     | 1:BB:101:PRO:HG2  | 2.18                     | 0.42              |
| 1:BB:230:ARG:NH1  | 1:BB:266:GLU:OE1  | 2.51                     | 0.42              |
| 1:BB:531:THR:HG23 | 1:BB:533:ASP:H    | 1.84                     | 0.42              |
| 1:BB:543:TYR:O    | 1:BB:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:BB:662:ILE:O    | 1:BB:666:THR:HG23 | 2.19                     | 0.42              |
| 1:CB:63:ASN:HA    | 1:CB:84:ARG:O     | 2.18                     | 0.42              |
| 1:DB:26:SER:O     | 1:DB:101:PRO:HG2  | 2.19                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:DB:387:GLY:HA3  | 1:DB:402:ILE:HG22 | 2.01                     | 0.42              |
| 1:EB:88:GLN:O     | 1:EB:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:EB:471:TYR:CD2  | 1:EB:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:EB:806:THR:HG22 | 1:FB:808:ARG:NH1  | 2.33                     | 0.42              |
| 1:FB:63:ASN:HA    | 1:FB:84:ARG:O     | 2.18                     | 0.42              |
| 1:FB:228:HIS:CE1  | 1:FB:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:FB:508:PRO:O    | 1:FB:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:FB:662:ILE:O    | 1:FB:666:THR:HG23 | 2.19                     | 0.42              |
| 1:GB:88:GLN:O     | 1:GB:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:IB:174:LEU:HD11 | 1:IB:212:VAL:HG13 | 2.01                     | 0.42              |
| 1:IB:471:TYR:CD2  | 1:IB:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:IB:523:PHE:HB2  | 1:IB:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:LB:174:LEU:HD11 | 1:LB:212:VAL:HG13 | 2.01                     | 0.42              |
| 1:LB:228:HIS:CE1  | 1:LB:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:MB:129:PHE:CG   | 1:MB:156:GLU:HG3  | 2.54                     | 0.42              |
| 1:MB:228:HIS:CE1  | 1:MB:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:MB:471:TYR:CD2  | 1:MB:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:MB:508:PRO:O    | 1:MB:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:MB:694:LEU:O    | 1:MB:697:SER:OG   | 2.28                     | 0.42              |
| 1:NB:228:HIS:CE1  | 1:NB:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:NB:388:ILE:HG13 | 1:NB:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:NB:471:TYR:CD2  | 1:NB:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:NB:543:TYR:O    | 1:NB:545:TRP:HD1  | 2.03                     | 0.42              |
| 1:OB:363:LEU:HA   | 1:PB:353:ALA:HB3  | 1.99                     | 0.42              |
| 1:OB:465:ASN:OD1  | 1:PB:563:SER:HA   | 2.19                     | 0.42              |
| 1:QB:508:PRO:O    | 1:QB:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:RB:15:TYR:CZ    | 1:RB:98:PRO:HA    | 2.54                     | 0.42              |
| 1:RB:228:HIS:CE1  | 1:RB:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:SB:15:TYR:CZ    | 1:SB:98:PRO:HA    | 2.54                     | 0.42              |
| 1:TB:388:ILE:HG13 | 1:TB:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:VB:15:TYR:CZ    | 1:VB:98:PRO:HA    | 2.55                     | 0.42              |
| 1:WB:228:HIS:CE1  | 1:WB:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:WB:500:LEU:HD23 | 1:WB:500:LEU:HA   | 1.92                     | 0.42              |
| 1:XB:88:GLN:O     | 1:XB:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:XB:228:HIS:CE1  | 1:XB:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:XB:801:ALA:HA   | 1:YB:796:LYS:NZ   | 2.33                     | 0.42              |
| 1:YB:26:SER:O     | 1:YB:101:PRO:HG2  | 2.18                     | 0.42              |
| 1:YB:63:ASN:HA    | 1:YB:84:ARG:O     | 2.18                     | 0.42              |
| 1:ZB:60:ILE:HG22  | 1:ZB:106:GLU:HB3  | 2.01                     | 0.42              |
| 1:ZB:230:ARG:NH1  | 1:ZB:266:GLU:OE1  | 2.51                     | 0.42              |
| 1:ZB:471:TYR:CD2  | 1:ZB:478:ALA:HB2  | 2.54                     | 0.42              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:ZB:694:LEU:O   | 1:ZB:697:SER:OG  | 2.28                     | 0.42              |
| 1:AC:26:SER:O    | 1:AC:101:PRO:HG2 | 2.19                     | 0.42              |
| 1:A:127:LEU:HD22 | 1:NB:56:ARG:HB2  | 2.01                     | 0.42              |
| 1:A:174:LEU:HD11 | 1:A:212:VAL:HG13 | 2.01                     | 0.42              |
| 1:A:228:HIS:CE1  | 1:A:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:B:9:ARG:NH2    | 1:D:24:ASN:ND2   | 2.61                     | 0.42              |
| 1:B:118:ASN:OD1  | 1:D:180:LYS:HA   | 2.18                     | 0.42              |
| 1:B:543:TYR:O    | 1:B:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:B:709:LEU:HD13 | 1:D:701:LYS:HG3  | 2.00                     | 0.42              |
| 1:C:471:TYR:CD2  | 1:C:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:D:663:GLU:OE2  | 1:D:667:ASN:ND2  | 2.52                     | 0.42              |
| 1:D:676:GLU:OE2  | 1:D:679:ARG:NH2  | 2.43                     | 0.42              |
| 1:E:388:ILE:HG13 | 1:E:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:G:502:ALA:HB3  | 1:G:510:ALA:HB3  | 2.00                     | 0.42              |
| 1:H:9:ARG:HE     | 1:J:24:ASN:HD21  | 1.66                     | 0.42              |
| 1:H:388:ILE:HG13 | 1:H:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:I:88:GLN:O     | 1:I:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:I:228:HIS:CE1  | 1:I:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:I:278:PRO:HB2  | 1:K:338:GLN:NE2  | 2.34                     | 0.42              |
| 1:I:383:ASP:OD1  | 1:I:383:ASP:N    | 2.44                     | 0.42              |
| 1:J:521:ASP:OD1  | 1:J:522:PHE:N    | 2.44                     | 0.42              |
| 1:K:175:ARG:HG3  | 1:K:263:VAL:HG12 | 2.01                     | 0.42              |
| 1:K:279:ARG:HD3  | 1:M:337:LEU:HD13 | 2.02                     | 0.42              |
| 1:K:521:ASP:OD1  | 1:K:522:PHE:N    | 2.44                     | 0.42              |
| 1:K:543:TYR:O    | 1:K:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:L:129:PHE:CG   | 1:L:156:GLU:HG3  | 2.54                     | 0.42              |
| 1:M:652:ASP:OD1  | 1:M:652:ASP:N    | 2.51                     | 0.42              |
| 1:N:508:PRO:O    | 1:N:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:O:220:ILE:CD1  | 1:Q:245:THR:HG22 | 2.49                     | 0.42              |
| 1:O:783:LYS:HA   | 1:Q:777:LEU:CD1  | 2.49                     | 0.42              |
| 1:P:174:LEU:HD11 | 1:P:212:VAL:HG13 | 2.01                     | 0.42              |
| 1:P:543:TYR:O    | 1:P:545:TRP:HD1  | 2.03                     | 0.42              |
| 1:P:655:GLN:OE1  | 1:R:649:ARG:HB2  | 2.20                     | 0.42              |
| 1:Q:377:ARG:HD3  | 1:Q:377:ARG:HA   | 1.84                     | 0.42              |
| 1:Q:531:THR:HG23 | 1:Q:533:ASP:H    | 1.84                     | 0.42              |
| 1:S:88:GLN:O     | 1:S:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:T:387:GLY:HA3  | 1:T:402:ILE:HG22 | 2.01                     | 0.42              |
| 1:T:543:TYR:O    | 1:T:545:TRP:HD1  | 2.03                     | 0.42              |
| 1:V:543:TYR:O    | 1:V:545:TRP:HD1  | 2.03                     | 0.42              |
| 1:W:523:PHE:HB2  | 1:W:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:W:543:TYR:O    | 1:W:545:TRP:HD1  | 2.03                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:X:599:ILE:O     | 1:X:603:VAL:HG23  | 2.18                     | 0.42              |
| 1:X:676:GLU:OE2   | 1:X:679:ARG:NH2   | 2.43                     | 0.42              |
| 1:Z:88:GLN:O      | 1:Z:155:LYS:HE2   | 2.19                     | 0.42              |
| 1:Z:388:ILE:HG13  | 1:Z:390:VAL:HG13  | 2.01                     | 0.42              |
| 1:AA:175:ARG:HG3  | 1:AA:263:VAL:HG12 | 2.01                     | 0.42              |
| 1:AA:228:HIS:CE1  | 1:AA:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:BA:136:LYS:HA   | 1:BA:136:LYS:HD2  | 1.76                     | 0.42              |
| 1:CA:88:GLN:O     | 1:CA:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:DA:88:GLN:O     | 1:DA:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:DA:175:ARG:HG3  | 1:DA:263:VAL:HG12 | 2.01                     | 0.42              |
| 1:DA:523:PHE:HB2  | 1:DA:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:EA:88:GLN:O     | 1:EA:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:GA:533:ASP:CG   | 1:GA:587:THR:HG1  | 2.22                     | 0.42              |
| 1:GA:666:THR:HG22 | 1:IA:657:SER:HB2  | 2.02                     | 0.42              |
| 1:JA:523:PHE:HB2  | 1:JA:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:JA:764:LYS:HB2  | 1:JA:764:LYS:HE3  | 1.84                     | 0.42              |
| 1:KA:88:GLN:O     | 1:KA:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:LA:228:HIS:CE1  | 1:LA:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:LA:508:PRO:O    | 1:LA:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:LA:543:TYR:O    | 1:LA:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:PA:60:ILE:HG22  | 1:PA:106:GLU:HB3  | 2.01                     | 0.42              |
| 1:PA:523:PHE:HB2  | 1:PA:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:QA:88:GLN:O     | 1:QA:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:RA:137:VAL:HG12 | 1:RA:138:MET:O    | 2.18                     | 0.42              |
| 1:RA:521:ASP:OD1  | 1:RA:522:PHE:N    | 2.44                     | 0.42              |
| 1:RA:709:LEU:HD13 | 1:TA:701:LYS:HG3  | 2.00                     | 0.42              |
| 1:SA:175:ARG:HG3  | 1:SA:263:VAL:HG12 | 2.01                     | 0.42              |
| 1:TA:388:ILE:HG13 | 1:TA:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:TA:600:ARG:HG2  | 1:TA:604:PHE:CE1  | 2.54                     | 0.42              |
| 1:VA:228:HIS:CE1  | 1:VA:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:VA:523:PHE:HB2  | 1:VA:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:XA:15:TYR:CZ    | 1:XA:98:PRO:HA    | 2.55                     | 0.42              |
| 1:XA:531:THR:HG23 | 1:XA:533:ASP:H    | 1.84                     | 0.42              |
| 1:YA:508:PRO:O    | 1:YA:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:YA:543:TYR:O    | 1:YA:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:ZA:363:LEU:HA   | 1:BB:353:ALA:HB3  | 2.01                     | 0.42              |
| 1:AB:60:ILE:HG22  | 1:AB:106:GLU:HB3  | 2.01                     | 0.42              |
| 1:AB:543:TYR:O    | 1:AB:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:AB:663:GLU:OE2  | 1:AB:667:ASN:ND2  | 2.52                     | 0.42              |
| 1:BB:15:TYR:CZ    | 1:BB:98:PRO:HA    | 2.55                     | 0.42              |
| 1:BB:88:GLN:O     | 1:BB:155:LYS:HE2  | 2.19                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:BB:228:HIS:CE1  | 1:BB:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:BB:506:LYS:HD3  | 1:BB:506:LYS:HA   | 1.78                     | 0.42              |
| 1:BB:508:PRO:O    | 1:BB:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:BB:652:ASP:N    | 1:BB:652:ASP:OD1  | 2.51                     | 0.42              |
| 1:CB:388:ILE:HG13 | 1:CB:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:CB:573:LYS:HG3  | 1:CB:574:ALA:N    | 2.33                     | 0.42              |
| 1:DB:15:TYR:CZ    | 1:DB:98:PRO:HA    | 2.55                     | 0.42              |
| 1:DB:543:TYR:O    | 1:DB:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:EB:676:GLU:OE2  | 1:EB:679:ARG:NH2  | 2.43                     | 0.42              |
| 1:FB:26:SER:O     | 1:FB:101:PRO:HG2  | 2.19                     | 0.42              |
| 1:FB:60:ILE:HG22  | 1:FB:106:GLU:HB3  | 2.01                     | 0.42              |
| 1:GB:63:ASN:HA    | 1:GB:84:ARG:O     | 2.18                     | 0.42              |
| 1:GB:471:TYR:CD2  | 1:GB:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:HB:394:LYS:HB2  | 1:HB:394:LYS:HE3  | 1.81                     | 0.42              |
| 1:HB:663:GLU:OE2  | 1:HB:667:ASN:ND2  | 2.52                     | 0.42              |
| 1:IB:543:TYR:O    | 1:IB:545:TRP:HD1  | 2.03                     | 0.42              |
| 1:JB:662:ILE:O    | 1:JB:666:THR:HG23 | 2.19                     | 0.42              |
| 1:MB:502:ALA:HB3  | 1:MB:510:ALA:HB3  | 2.00                     | 0.42              |
| 1:MB:707:LEU:HD23 | 1:MB:707:LEU:HA   | 1.88                     | 0.42              |
| 1:NB:129:PHE:CG   | 1:NB:156:GLU:HG3  | 2.54                     | 0.42              |
| 1:NB:694:LEU:O    | 1:NB:697:SER:OG   | 2.28                     | 0.42              |
| 1:OB:523:PHE:HB2  | 1:OB:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:OB:543:TYR:O    | 1:OB:545:TRP:HD1  | 2.03                     | 0.42              |
| 1:PB:137:VAL:HG12 | 1:PB:138:MET:O    | 2.18                     | 0.42              |
| 1:PB:662:ILE:O    | 1:PB:666:THR:HG23 | 2.19                     | 0.42              |
| 1:QB:26:SER:O     | 1:QB:101:PRO:HG2  | 2.18                     | 0.42              |
| 1:QB:88:GLN:O     | 1:QB:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:QB:230:ARG:NH1  | 1:QB:266:GLU:OE1  | 2.51                     | 0.42              |
| 1:QB:543:TYR:O    | 1:QB:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:RB:88:GLN:O     | 1:RB:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:TB:15:TYR:CZ    | 1:TB:98:PRO:HA    | 2.55                     | 0.42              |
| 1:UB:26:SER:O     | 1:UB:101:PRO:HG2  | 2.19                     | 0.42              |
| 1:UB:88:GLN:O     | 1:UB:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:UB:228:HIS:CE1  | 1:UB:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:UB:230:ARG:NH1  | 1:UB:266:GLU:OE1  | 2.51                     | 0.42              |
| 1:UB:506:LYS:HD3  | 1:UB:506:LYS:HA   | 1.78                     | 0.42              |
| 1:UB:508:PRO:O    | 1:UB:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:UB:533:ASP:CG   | 1:UB:587:THR:HG1  | 2.22                     | 0.42              |
| 1:UB:543:TYR:O    | 1:UB:545:TRP:HD1  | 2.03                     | 0.42              |
| 1:VB:228:HIS:CE1  | 1:VB:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:VB:531:THR:HG23 | 1:VB:533:ASP:H    | 1.84                     | 0.42              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:WB:15:TYR:CZ   | 1:WB:98:PRO:HA    | 2.54                     | 0.42              |
| 1:XB:60:ILE:HG22 | 1:XB:106:GLU:HB3  | 2.01                     | 0.42              |
| 1:XB:502:ALA:HB3 | 1:XB:510:ALA:HB3  | 2.00                     | 0.42              |
| 1:YB:471:TYR:CD2 | 1:YB:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:YB:508:PRO:O   | 1:YB:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:YB:662:ILE:O   | 1:YB:666:THR:HG23 | 2.19                     | 0.42              |
| 1:ZB:63:ASN:HA   | 1:ZB:84:ARG:O     | 2.18                     | 0.42              |
| 1:A:129:PHE:CG   | 1:A:156:GLU:HG3   | 2.54                     | 0.42              |
| 1:A:543:TYR:O    | 1:A:545:TRP:HD1   | 2.02                     | 0.42              |
| 1:B:220:ILE:CD1  | 1:D:245:THR:HG22  | 2.50                     | 0.42              |
| 1:B:662:ILE:O    | 1:B:666:THR:HG23  | 2.19                     | 0.42              |
| 1:D:662:ILE:O    | 1:D:666:THR:HG23  | 2.19                     | 0.42              |
| 1:E:694:LEU:O    | 1:E:697:SER:OG    | 2.28                     | 0.42              |
| 1:G:508:PRO:O    | 1:G:509:HIS:ND1   | 2.52                     | 0.42              |
| 1:H:531:THR:HG23 | 1:H:533:ASP:H     | 1.84                     | 0.42              |
| 1:H:543:TYR:O    | 1:H:545:TRP:HD1   | 2.02                     | 0.42              |
| 1:H:814:GLY:HA2  | 1:H:815:PRO:HD3   | 1.91                     | 0.42              |
| 1:I:543:TYR:O    | 1:I:545:TRP:HD1   | 2.03                     | 0.42              |
| 1:I:599:ILE:O    | 1:I:603:VAL:HG23  | 2.18                     | 0.42              |
| 1:L:228:HIS:CE1  | 1:L:248:GLU:HB3   | 2.54                     | 0.42              |
| 1:M:394:LYS:HE3  | 1:M:394:LYS:HB2   | 1.81                     | 0.42              |
| 1:N:388:ILE:HG13 | 1:N:390:VAL:HG13  | 2.01                     | 0.42              |
| 1:N:543:TYR:O    | 1:N:545:TRP:HD1   | 2.03                     | 0.42              |
| 1:N:662:ILE:O    | 1:N:666:THR:HG23  | 2.19                     | 0.42              |
| 1:O:78:THR:HG23  | 1:O:80:GLN:H      | 1.85                     | 0.42              |
| 1:P:813:ALA:HB1  | 1:R:812:VAL:HA    | 2.00                     | 0.42              |
| 1:Q:543:TYR:O    | 1:Q:545:TRP:HD1   | 2.02                     | 0.42              |
| 1:R:471:TYR:CD2  | 1:R:478:ALA:HB2   | 2.54                     | 0.42              |
| 1:R:502:ALA:HB3  | 1:R:510:ALA:HB3   | 2.00                     | 0.42              |
| 1:S:508:PRO:O    | 1:S:509:HIS:ND1   | 2.52                     | 0.42              |
| 1:T:230:ARG:NH1  | 1:T:266:GLU:OE1   | 2.52                     | 0.42              |
| 1:V:394:LYS:HB2  | 1:V:394:LYS:HE3   | 1.81                     | 0.42              |
| 1:V:523:PHE:HB2  | 1:V:543:TYR:HD2   | 1.84                     | 0.42              |
| 1:V:662:ILE:O    | 1:V:666:THR:HG23  | 2.19                     | 0.42              |
| 1:W:531:THR:HG23 | 1:W:533:ASP:H     | 1.84                     | 0.42              |
| 1:W:662:ILE:O    | 1:W:666:THR:HG23  | 2.19                     | 0.42              |
| 1:X:88:GLN:O     | 1:X:155:LYS:HE2   | 2.19                     | 0.42              |
| 1:X:299:LYS:NZ   | 1:X:317:GLU:OE2   | 2.38                     | 0.42              |
| 1:X:691:GLN:OE1  | 1:Z:682:GLN:HG3   | 2.19                     | 0.42              |
| 1:Z:129:PHE:CG   | 1:Z:156:GLU:HG3   | 2.54                     | 0.42              |
| 1:Z:543:TYR:O    | 1:Z:545:TRP:HD1   | 2.02                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:AA:573:LYS:HG3  | 1:AA:574:ALA:N    | 2.33                     | 0.42              |
| 1:AA:600:ARG:HG2  | 1:AA:604:PHE:CE1  | 2.53                     | 0.42              |
| 1:CA:78:THR:HG23  | 1:CA:80:GLN:H     | 1.85                     | 0.42              |
| 1:CA:600:ARG:HG2  | 1:CA:604:PHE:CE1  | 2.54                     | 0.42              |
| 1:DA:621:LYS:HA   | 1:DA:621:LYS:HD3  | 1.81                     | 0.42              |
| 1:DA:663:GLU:OE2  | 1:DA:667:ASN:ND2  | 2.52                     | 0.42              |
| 1:EA:233:GLN:HE21 | 1:EA:264:TYR:HD2  | 1.65                     | 0.42              |
| 1:EA:543:TYR:O    | 1:EA:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:FA:175:ARG:HG3  | 1:FA:263:VAL:HG12 | 2.01                     | 0.42              |
| 1:FA:471:TYR:CD2  | 1:FA:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:GA:95:ASP:HA    | 1:IA:85:HIS:NE2   | 2.34                     | 0.42              |
| 1:HA:388:ILE:HG13 | 1:HA:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:IA:663:GLU:OE2  | 1:IA:667:ASN:ND2  | 2.52                     | 0.42              |
| 1:JA:137:VAL:HG12 | 1:JA:138:MET:O    | 2.18                     | 0.42              |
| 1:JA:175:ARG:HG3  | 1:JA:263:VAL:HG12 | 2.01                     | 0.42              |
| 1:KA:716:VAL:HG21 | 1:MA:708:GLU:CG   | 2.49                     | 0.42              |
| 1:MA:88:GLN:O     | 1:MA:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:MA:129:PHE:CG   | 1:MA:156:GLU:HG3  | 2.54                     | 0.42              |
| 1:MA:508:PRO:O    | 1:MA:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:MA:543:TYR:O    | 1:MA:545:TRP:HD1  | 2.03                     | 0.42              |
| 1:NA:175:ARG:HG3  | 1:NA:263:VAL:HG12 | 2.01                     | 0.42              |
| 1:NA:377:ARG:NH1  | 1:NA:409:THR:O    | 2.30                     | 0.42              |
| 1:NA:663:GLU:OE2  | 1:NA:667:ASN:ND2  | 2.52                     | 0.42              |
| 1:NA:761:ARG:HG2  | 1:PA:755:THR:HG21 | 2.00                     | 0.42              |
| 1:OA:228:HIS:CE1  | 1:OA:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:PA:363:LEU:HA   | 1:RA:353:ALA:HB3  | 2.01                     | 0.42              |
| 1:PA:388:ILE:HG13 | 1:PA:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:QA:137:VAL:HG12 | 1:QA:138:MET:O    | 2.18                     | 0.42              |
| 1:RA:531:THR:HG23 | 1:RA:533:ASP:H    | 1.84                     | 0.42              |
| 1:SA:129:PHE:CG   | 1:SA:156:GLU:HG3  | 2.54                     | 0.42              |
| 1:SA:600:ARG:HG2  | 1:SA:604:PHE:CE1  | 2.54                     | 0.42              |
| 1:TA:662:ILE:O    | 1:TA:666:THR:HG23 | 2.19                     | 0.42              |
| 1:UA:88:GLN:O     | 1:UA:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:VA:15:TYR:CZ    | 1:VA:98:PRO:HA    | 2.55                     | 0.42              |
| 1:VA:508:PRO:O    | 1:VA:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:YA:228:HIS:CE1  | 1:YA:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:YA:600:ARG:HG2  | 1:YA:604:PHE:CE1  | 2.54                     | 0.42              |
| 1:YA:676:GLU:OE2  | 1:YA:679:ARG:NH2  | 2.43                     | 0.42              |
| 1:ZA:471:TYR:CD2  | 1:ZA:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:ZA:662:ILE:O    | 1:ZA:666:THR:HG23 | 2.19                     | 0.42              |
| 1:AB:175:ARG:HG3  | 1:AB:263:VAL:HG12 | 2.01                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:AB:709:LEU:HD13 | 1:OB:701:LYS:HG3  | 2.01                     | 0.42              |
| 1:BB:78:THR:HG23  | 1:BB:80:GLN:H     | 1.85                     | 0.42              |
| 1:BB:533:ASP:CG   | 1:BB:587:THR:HG1  | 2.22                     | 0.42              |
| 1:CB:15:TYR:CZ    | 1:CB:98:PRO:HA    | 2.55                     | 0.42              |
| 1:CB:506:LYS:HD3  | 1:CB:506:LYS:HA   | 1.78                     | 0.42              |
| 1:EB:60:ILE:HG22  | 1:EB:106:GLU:HB3  | 2.00                     | 0.42              |
| 1:EB:78:THR:HG23  | 1:EB:80:GLN:H     | 1.85                     | 0.42              |
| 1:EB:233:GLN:HE21 | 1:EB:264:TYR:HD2  | 1.65                     | 0.42              |
| 1:GB:230:ARG:NH1  | 1:GB:266:GLU:OE1  | 2.51                     | 0.42              |
| 1:GB:694:LEU:O    | 1:GB:697:SER:OG   | 2.28                     | 0.42              |
| 1:IB:662:ILE:O    | 1:IB:666:THR:HG23 | 2.19                     | 0.42              |
| 1:JB:174:LEU:HD11 | 1:JB:212:VAL:HG13 | 2.01                     | 0.42              |
| 1:JB:531:THR:HG23 | 1:JB:533:ASP:H    | 1.84                     | 0.42              |
| 1:KB:63:ASN:HA    | 1:KB:84:ARG:O     | 2.18                     | 0.42              |
| 1:LB:78:THR:HG23  | 1:LB:80:GLN:H     | 1.85                     | 0.42              |
| 1:LB:388:ILE:HG13 | 1:LB:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:NB:174:LEU:HD11 | 1:NB:212:VAL:HG13 | 2.01                     | 0.42              |
| 1:NB:233:GLN:HE21 | 1:NB:264:TYR:HD2  | 1.65                     | 0.42              |
| 1:OB:388:ILE:HG13 | 1:OB:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:OB:471:TYR:CD2  | 1:OB:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:QB:60:ILE:HG22  | 1:QB:106:GLU:HB3  | 2.00                     | 0.42              |
| 1:QB:471:TYR:CD2  | 1:QB:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:SB:257:GLU:HG2  | 1:TB:244:ARG:HB3  | 2.00                     | 0.42              |
| 1:TB:228:HIS:CE1  | 1:TB:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:TB:471:TYR:CD2  | 1:TB:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:UB:15:TYR:CZ    | 1:UB:98:PRO:HA    | 2.55                     | 0.42              |
| 1:UB:523:PHE:HB2  | 1:UB:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:UB:652:ASP:N    | 1:UB:652:ASP:OD1  | 2.51                     | 0.42              |
| 1:UB:662:ILE:O    | 1:UB:666:THR:HG23 | 2.19                     | 0.42              |
| 1:UB:663:GLU:OE2  | 1:UB:667:ASN:ND2  | 2.52                     | 0.42              |
| 1:VB:63:ASN:HA    | 1:VB:84:ARG:O     | 2.18                     | 0.42              |
| 1:WB:26:SER:O     | 1:WB:101:PRO:HG2  | 2.19                     | 0.42              |
| 1:WB:60:ILE:HG22  | 1:WB:106:GLU:HB3  | 2.01                     | 0.42              |
| 1:WB:384:GLN:HB2  | 1:XB:474:ARG:HG3  | 2.01                     | 0.42              |
| 1:WB:502:ALA:HB3  | 1:WB:510:ALA:HB3  | 2.00                     | 0.42              |
| 1:XB:233:GLN:HE21 | 1:XB:264:TYR:HD2  | 1.65                     | 0.42              |
| 1:YB:60:ILE:HG22  | 1:YB:106:GLU:HB3  | 2.01                     | 0.42              |
| 1:YB:531:THR:HG23 | 1:YB:533:ASP:H    | 1.84                     | 0.42              |
| 1:YB:599:ILE:O    | 1:YB:603:VAL:HG23 | 2.18                     | 0.42              |
| 1:YB:663:GLU:OE2  | 1:YB:667:ASN:ND2  | 2.52                     | 0.42              |
| 1:ZB:88:GLN:O     | 1:ZB:155:LYS:HE2  | 2.19                     | 0.42              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:AC:523:PHE:HB2 | 1:AC:543:TYR:HD2 | 1.84                     | 0.42              |
| 1:AC:663:GLU:OE2 | 1:AC:667:ASN:ND2 | 2.52                     | 0.42              |
| 1:A:383:ASP:OD1  | 1:A:383:ASP:N    | 2.44                     | 0.42              |
| 1:A:388:ILE:HG13 | 1:A:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:A:523:PHE:HB2  | 1:A:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:A:621:LYS:HD3  | 1:A:621:LYS:HA   | 1.81                     | 0.42              |
| 1:C:174:LEU:HD11 | 1:C:212:VAL:HG13 | 2.01                     | 0.42              |
| 1:C:655:GLN:O    | 1:C:658:VAL:HG22 | 2.20                     | 0.42              |
| 1:C:709:LEU:HD11 | 1:E:701:LYS:HE3  | 2.02                     | 0.42              |
| 1:D:78:THR:HG23  | 1:D:80:GLN:H     | 1.85                     | 0.42              |
| 1:D:388:ILE:HG13 | 1:D:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:D:500:LEU:HD23 | 1:D:500:LEU:HA   | 1.92                     | 0.42              |
| 1:F:663:GLU:OE2  | 1:F:667:ASN:ND2  | 2.52                     | 0.42              |
| 1:H:655:GLN:O    | 1:H:658:VAL:HG22 | 2.20                     | 0.42              |
| 1:I:78:THR:HG23  | 1:I:80:GLN:H     | 1.85                     | 0.42              |
| 1:I:175:ARG:HG3  | 1:I:263:VAL:HG12 | 2.01                     | 0.42              |
| 1:J:202:GLY:HA2  | 1:L:191:VAL:HB   | 2.02                     | 0.42              |
| 1:K:471:TYR:CD2  | 1:K:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:K:502:ALA:HB3  | 1:K:510:ALA:HB3  | 2.00                     | 0.42              |
| 1:L:662:ILE:O    | 1:L:666:THR:HG23 | 2.19                     | 0.42              |
| 1:M:228:HIS:CE1  | 1:M:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:M:299:LYS:NZ   | 1:M:317:GLU:OE2  | 2.38                     | 0.42              |
| 1:M:387:GLY:HA3  | 1:M:402:ILE:HG22 | 2.01                     | 0.42              |
| 1:N:88:GLN:O     | 1:N:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:N:129:PHE:CG   | 1:N:156:GLU:HG3  | 2.54                     | 0.42              |
| 1:O:523:PHE:HB2  | 1:O:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:P:662:ILE:O    | 1:P:666:THR:HG23 | 2.19                     | 0.42              |
| 1:S:471:TYR:CD2  | 1:S:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:S:655:GLN:O    | 1:S:658:VAL:HG22 | 2.20                     | 0.42              |
| 1:S:709:LEU:HD13 | 1:V:701:LYS:HG3  | 2.02                     | 0.42              |
| 1:T:502:ALA:HB3  | 1:T:510:ALA:HB3  | 2.00                     | 0.42              |
| 1:V:78:THR:HG23  | 1:V:80:GLN:H     | 1.85                     | 0.42              |
| 1:W:394:LYS:HE3  | 1:W:394:LYS:HB2  | 1.81                     | 0.42              |
| 1:X:228:HIS:CE1  | 1:X:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:X:471:TYR:CD2  | 1:X:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:X:543:TYR:O    | 1:X:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:X:600:ARG:HG2  | 1:X:604:PHE:CE1  | 2.54                     | 0.42              |
| 1:Y:471:TYR:CD2  | 1:Y:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:Y:531:THR:HG23 | 1:Y:533:ASP:H    | 1.84                     | 0.42              |
| 1:Z:508:PRO:O    | 1:Z:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:AA:533:ASP:CG  | 1:AA:587:THR:HG1 | 2.22                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:BA:471:TYR:CD2  | 1:BA:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:DA:137:VAL:HG12 | 1:DA:138:MET:O    | 2.18                     | 0.42              |
| 1:DA:377:ARG:HD3  | 1:DA:377:ARG:HA   | 1.84                     | 0.42              |
| 1:FA:129:PHE:CG   | 1:FA:156:GLU:HG3  | 2.54                     | 0.42              |
| 1:FA:377:ARG:HD3  | 1:FA:377:ARG:HA   | 1.84                     | 0.42              |
| 1:GA:506:LYS:HD3  | 1:GA:506:LYS:HA   | 1.78                     | 0.42              |
| 1:KA:228:HIS:CE1  | 1:KA:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:KA:543:TYR:O    | 1:KA:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:LA:60:ILE:HG22  | 1:LA:106:GLU:HB3  | 2.00                     | 0.42              |
| 1:LA:175:ARG:HG3  | 1:LA:263:VAL:HG12 | 2.01                     | 0.42              |
| 1:LA:500:LEU:HD23 | 1:LA:500:LEU:HA   | 1.92                     | 0.42              |
| 1:LA:600:ARG:HG2  | 1:LA:604:PHE:CE1  | 2.54                     | 0.42              |
| 1:MA:471:TYR:CD2  | 1:MA:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:OA:471:TYR:CD2  | 1:OA:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:PA:228:HIS:CE1  | 1:PA:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:PA:383:ASP:OD1  | 1:PA:383:ASP:N    | 2.44                     | 0.42              |
| 1:QA:500:LEU:HD23 | 1:QA:500:LEU:HA   | 1.92                     | 0.42              |
| 1:SA:26:SER:O     | 1:SA:101:PRO:HG2  | 2.19                     | 0.42              |
| 1:SA:471:TYR:CD2  | 1:SA:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:TA:26:SER:O     | 1:TA:101:PRO:HG2  | 2.19                     | 0.42              |
| 1:UA:175:ARG:HG3  | 1:UA:263:VAL:HG12 | 2.01                     | 0.42              |
| 1:WA:137:VAL:HG12 | 1:WA:138:MET:O    | 2.18                     | 0.42              |
| 1:WA:508:PRO:O    | 1:WA:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:XA:26:SER:O     | 1:XA:101:PRO:HG2  | 2.19                     | 0.42              |
| 1:XA:388:ILE:HG13 | 1:XA:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:YA:175:ARG:HG3  | 1:YA:263:VAL:HG12 | 2.01                     | 0.42              |
| 1:YA:506:LYS:HD3  | 1:YA:506:LYS:HA   | 1.78                     | 0.42              |
| 1:ZA:88:GLN:O     | 1:ZA:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:ZA:228:HIS:CE1  | 1:ZA:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:BB:388:ILE:HG13 | 1:BB:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:BB:523:PHE:HB2  | 1:BB:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:BB:663:GLU:OE2  | 1:BB:667:ASN:ND2  | 2.52                     | 0.42              |
| 1:CB:531:THR:HG23 | 1:CB:533:ASP:H    | 1.85                     | 0.42              |
| 1:DB:60:ILE:HG22  | 1:DB:106:GLU:HB3  | 2.01                     | 0.42              |
| 1:DB:521:ASP:OD1  | 1:DB:522:PHE:N    | 2.44                     | 0.42              |
| 1:EB:63:ASN:HA    | 1:EB:84:ARG:O     | 2.18                     | 0.42              |
| 1:GB:465:ASN:OD1  | 1:HB:563:SER:HA   | 2.18                     | 0.42              |
| 1:GB:502:ALA:HB3  | 1:GB:510:ALA:HB3  | 2.00                     | 0.42              |
| 1:GB:706:LEU:HD13 | 1:HB:693:ILE:HG23 | 2.01                     | 0.42              |
| 1:HB:523:PHE:HB2  | 1:HB:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:JB:663:GLU:OE2  | 1:JB:667:ASN:ND2  | 2.52                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:KB:170:GLN:HB3  | 1:LB:233:GLN:OE1  | 2.18                     | 0.42              |
| 1:KB:663:GLU:OE2  | 1:KB:667:ASN:ND2  | 2.52                     | 0.42              |
| 1:LB:531:THR:HG23 | 1:LB:533:ASP:H    | 1.84                     | 0.42              |
| 1:LB:543:TYR:O    | 1:LB:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:LB:655:GLN:O    | 1:LB:658:VAL:HG22 | 2.20                     | 0.42              |
| 1:MB:521:ASP:OD1  | 1:MB:522:PHE:N    | 2.44                     | 0.42              |
| 1:NB:78:THR:HG23  | 1:NB:80:GLN:H     | 1.85                     | 0.42              |
| 1:NB:662:ILE:O    | 1:NB:666:THR:HG23 | 2.19                     | 0.42              |
| 1:QB:662:ILE:O    | 1:QB:666:THR:HG23 | 2.19                     | 0.42              |
| 1:RB:508:PRO:O    | 1:RB:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:SB:228:HIS:CE1  | 1:SB:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:SB:388:ILE:HG13 | 1:SB:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:SB:531:THR:HG23 | 1:SB:533:ASP:H    | 1.84                     | 0.42              |
| 1:TB:88:GLN:O     | 1:TB:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:TB:662:ILE:O    | 1:TB:666:THR:HG23 | 2.19                     | 0.42              |
| 1:UB:78:THR:HG23  | 1:UB:80:GLN:H     | 1.85                     | 0.42              |
| 1:UB:600:ARG:HG2  | 1:UB:604:PHE:CE1  | 2.54                     | 0.42              |
| 1:VB:573:LYS:HG3  | 1:VB:574:ALA:N    | 2.33                     | 0.42              |
| 1:WB:387:GLY:HA3  | 1:WB:402:ILE:HG22 | 2.01                     | 0.42              |
| 1:WB:543:TYR:O    | 1:WB:545:TRP:HD1  | 2.03                     | 0.42              |
| 1:XB:63:ASN:HA    | 1:XB:84:ARG:O     | 2.18                     | 0.42              |
| 1:XB:78:THR:HG23  | 1:XB:80:GLN:H     | 1.85                     | 0.42              |
| 1:YB:506:LYS:HD3  | 1:YB:506:LYS:HA   | 1.78                     | 0.42              |
| 1:YB:543:TYR:O    | 1:YB:545:TRP:HD1  | 2.03                     | 0.42              |
| 1:ZB:500:LEU:HD23 | 1:ZB:500:LEU:HA   | 1.92                     | 0.42              |
| 1:ZB:662:ILE:O    | 1:ZB:666:THR:HG23 | 2.19                     | 0.42              |
| 1:AC:394:LYS:HE3  | 1:AC:394:LYS:HB2  | 1.81                     | 0.42              |
| 1:AC:655:GLN:O    | 1:AC:658:VAL:HG22 | 2.20                     | 0.42              |
| 1:A:655:GLN:O     | 1:A:658:VAL:HG22  | 2.20                     | 0.42              |
| 1:A:662:ILE:O     | 1:A:666:THR:HG23  | 2.19                     | 0.42              |
| 1:B:384:GLN:HB2   | 1:D:474:ARG:HG3   | 2.01                     | 0.42              |
| 1:B:655:GLN:O     | 1:B:658:VAL:HG22  | 2.20                     | 0.42              |
| 1:D:531:THR:HG23  | 1:D:533:ASP:H     | 1.84                     | 0.42              |
| 1:E:600:ARG:HG2   | 1:E:604:PHE:CE1   | 2.54                     | 0.42              |
| 1:F:383:ASP:OD1   | 1:F:383:ASP:N     | 2.44                     | 0.42              |
| 1:F:388:ILE:HG13  | 1:F:390:VAL:HG13  | 2.01                     | 0.42              |
| 1:G:385:ASN:ND2   | 1:I:473:TYR:O     | 2.52                     | 0.42              |
| 1:H:63:ASN:HA     | 1:H:84:ARG:O      | 2.18                     | 0.42              |
| 1:H:78:THR:HG23   | 1:H:80:GLN:H      | 1.85                     | 0.42              |
| 1:H:523:PHE:HB2   | 1:H:543:TYR:HD2   | 1.84                     | 0.42              |
| 1:I:508:PRO:O     | 1:I:509:HIS:ND1   | 2.52                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:J:52:THR:HG21   | 1:L:85:HIS:HD2    | 1.84                     | 0.42              |
| 1:J:388:ILE:HG13  | 1:J:390:VAL:HG13  | 2.01                     | 0.42              |
| 1:J:662:ILE:O     | 1:J:666:THR:HG23  | 2.19                     | 0.42              |
| 1:K:531:THR:HG23  | 1:K:533:ASP:H     | 1.84                     | 0.42              |
| 1:K:655:GLN:O     | 1:K:658:VAL:HG22  | 2.20                     | 0.42              |
| 1:M:461:ARG:HH11  | 1:O:473:TYR:HE2   | 1.68                     | 0.42              |
| 1:N:228:HIS:CE1   | 1:N:248:GLU:HB3   | 2.54                     | 0.42              |
| 1:P:655:GLN:O     | 1:P:658:VAL:HG22  | 2.20                     | 0.42              |
| 1:R:543:TYR:O     | 1:R:545:TRP:HD1   | 2.03                     | 0.42              |
| 1:R:655:GLN:O     | 1:R:658:VAL:HG22  | 2.20                     | 0.42              |
| 1:S:662:ILE:O     | 1:S:666:THR:HG23  | 2.19                     | 0.42              |
| 1:T:175:ARG:HG3   | 1:T:263:VAL:HG12  | 2.01                     | 0.42              |
| 1:V:655:GLN:O     | 1:V:658:VAL:HG22  | 2.20                     | 0.42              |
| 1:V:663:GLU:OE2   | 1:V:667:ASN:ND2   | 2.52                     | 0.42              |
| 1:W:78:THR:HG23   | 1:W:80:GLN:H      | 1.85                     | 0.42              |
| 1:W:175:ARG:HG3   | 1:W:263:VAL:HG12  | 2.01                     | 0.42              |
| 1:W:228:HIS:CE1   | 1:W:248:GLU:HB3   | 2.54                     | 0.42              |
| 1:W:377:ARG:HD3   | 1:W:377:ARG:HA    | 1.84                     | 0.42              |
| 1:W:521:ASP:OD1   | 1:W:522:PHE:N     | 2.44                     | 0.42              |
| 1:W:533:ASP:CG    | 1:W:587:THR:HG1   | 2.23                     | 0.42              |
| 1:Y:175:ARG:HG3   | 1:Y:263:VAL:HG12  | 2.01                     | 0.42              |
| 1:Y:655:GLN:O     | 1:Y:658:VAL:HG22  | 2.20                     | 0.42              |
| 1:Z:531:THR:HG23  | 1:Z:533:ASP:H     | 1.84                     | 0.42              |
| 1:BA:10:ILE:O     | 1:DA:24:ASN:ND2   | 2.53                     | 0.42              |
| 1:BA:228:HIS:CE1  | 1:BA:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:BA:621:LYS:HD3  | 1:BA:621:LYS:HA   | 1.81                     | 0.42              |
| 1:CA:543:TYR:O    | 1:CA:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:HA:175:ARG:HG3  | 1:HA:263:VAL:HG12 | 2.01                     | 0.42              |
| 1:HA:471:TYR:CD2  | 1:HA:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:IA:78:THR:HG23  | 1:IA:80:GLN:H     | 1.85                     | 0.42              |
| 1:IA:523:PHE:HB2  | 1:IA:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:IA:621:LYS:HA   | 1:IA:621:LYS:HD3  | 1.81                     | 0.42              |
| 1:IA:655:GLN:O    | 1:IA:658:VAL:HG22 | 2.20                     | 0.42              |
| 1:KA:600:ARG:HG2  | 1:KA:604:PHE:CE1  | 2.54                     | 0.42              |
| 1:LA:531:THR:HG23 | 1:LA:533:ASP:H    | 1.84                     | 0.42              |
| 1:MA:663:GLU:OE2  | 1:MA:667:ASN:ND2  | 2.52                     | 0.42              |
| 1:MA:666:THR:HG22 | 1:OA:657:SER:HB2  | 2.02                     | 0.42              |
| 1:NA:471:TYR:CD2  | 1:NA:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:PA:175:ARG:HG3  | 1:PA:263:VAL:HG12 | 2.02                     | 0.42              |
| 1:PA:471:TYR:CD2  | 1:PA:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:PA:676:GLU:OE2  | 1:PA:679:ARG:NH2  | 2.43                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:QA:600:ARG:HG2  | 1:QA:604:PHE:CE1  | 2.54                     | 0.42              |
| 1:QA:663:GLU:OE2  | 1:QA:667:ASN:ND2  | 2.52                     | 0.42              |
| 1:RA:60:ILE:HG22  | 1:RA:106:GLU:HB3  | 2.00                     | 0.42              |
| 1:RA:88:GLN:O     | 1:RA:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:RA:175:ARG:HG3  | 1:RA:263:VAL:HG12 | 2.01                     | 0.42              |
| 1:SA:531:THR:HG23 | 1:SA:533:ASP:H    | 1.84                     | 0.42              |
| 1:SA:764:LYS:HE3  | 1:SA:764:LYS:HB2  | 1.84                     | 0.42              |
| 1:TA:15:TYR:CZ    | 1:TA:98:PRO:HA    | 2.55                     | 0.42              |
| 1:TA:471:TYR:CD2  | 1:TA:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:UA:471:TYR:CD2  | 1:UA:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:VA:471:TYR:CD2  | 1:VA:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:VA:662:ILE:O    | 1:VA:666:THR:HG23 | 2.19                     | 0.42              |
| 1:WA:175:ARG:HG3  | 1:WA:263:VAL:HG12 | 2.01                     | 0.42              |
| 1:WA:471:TYR:CD2  | 1:WA:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:YA:60:ILE:HG22  | 1:YA:106:GLU:HB3  | 2.01                     | 0.42              |
| 1:YA:531:THR:HG23 | 1:YA:533:ASP:H    | 1.84                     | 0.42              |
| 1:BB:136:LYS:HA   | 1:BB:136:LYS:HD2  | 1.76                     | 0.42              |
| 1:BB:600:ARG:HG2  | 1:BB:604:PHE:CE1  | 2.54                     | 0.42              |
| 1:BB:681:GLU:HA   | 1:CB:675:HIS:CE1  | 2.55                     | 0.42              |
| 1:CB:60:ILE:HG22  | 1:CB:106:GLU:HB3  | 2.00                     | 0.42              |
| 1:CB:662:ILE:O    | 1:CB:666:THR:HG23 | 2.19                     | 0.42              |
| 1:EB:305:GLU:OE1  | 1:FB:298:GLN:NE2  | 2.50                     | 0.42              |
| 1:EB:388:ILE:HG13 | 1:EB:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:FB:599:ILE:O    | 1:FB:603:VAL:HG23 | 2.18                     | 0.42              |
| 1:FB:663:GLU:OE2  | 1:FB:667:ASN:ND2  | 2.52                     | 0.42              |
| 1:GB:15:TYR:CZ    | 1:GB:98:PRO:HA    | 2.55                     | 0.42              |
| 1:GB:543:TYR:O    | 1:GB:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:GB:621:LYS:HD3  | 1:GB:621:LYS:HA   | 1.81                     | 0.42              |
| 1:HB:388:ILE:HG13 | 1:HB:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:HB:655:GLN:O    | 1:HB:658:VAL:HG22 | 2.20                     | 0.42              |
| 1:HB:801:ALA:HA   | 1:IB:796:LYS:NZ   | 2.34                     | 0.42              |
| 1:JB:78:THR:HG23  | 1:JB:80:GLN:H     | 1.85                     | 0.42              |
| 1:JB:388:ILE:HG13 | 1:JB:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:KB:339:PRO:HB3  | 1:KB:353:ALA:HB2  | 2.02                     | 0.42              |
| 1:LB:63:ASN:HA    | 1:LB:84:ARG:O     | 2.18                     | 0.42              |
| 1:LB:757:ALA:HB2  | 1:MB:748:ALA:HB1  | 1.99                     | 0.42              |
| 1:MB:388:ILE:HG13 | 1:MB:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:MB:394:LYS:HB2  | 1:MB:394:LYS:HE3  | 1.81                     | 0.42              |
| 1:NB:502:ALA:HB3  | 1:NB:510:ALA:HB3  | 2.00                     | 0.42              |
| 1:NB:506:LYS:HD3  | 1:NB:506:LYS:HA   | 1.78                     | 0.42              |
| 1:OB:15:TYR:CZ    | 1:OB:98:PRO:HA    | 2.55                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:OB:175:ARG:HG3  | 1:OB:263:VAL:HG12 | 2.01                     | 0.42              |
| 1:OB:228:HIS:CE1  | 1:OB:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:PB:531:THR:HG23 | 1:PB:533:ASP:H    | 1.85                     | 0.42              |
| 1:PB:543:TYR:O    | 1:PB:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:RB:60:ILE:HG22  | 1:RB:106:GLU:HB3  | 2.00                     | 0.42              |
| 1:RB:471:TYR:CD2  | 1:RB:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:RB:662:ILE:O    | 1:RB:666:THR:HG23 | 2.19                     | 0.42              |
| 1:RB:707:LEU:HD23 | 1:RB:707:LEU:HA   | 1.88                     | 0.42              |
| 1:UB:388:ILE:HG13 | 1:UB:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:UB:764:LYS:NZ   | 1:VB:756:GLU:CA   | 2.83                     | 0.42              |
| 1:VB:388:ILE:HG13 | 1:VB:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:WB:88:GLN:O     | 1:WB:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:YB:279:ARG:NH2  | 1:ZB:338:GLN:OE1  | 2.45                     | 0.42              |
| 1:ZB:15:TYR:CZ    | 1:ZB:98:PRO:HA    | 2.55                     | 0.42              |
| 1:AC:543:TYR:O    | 1:AC:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:A:88:GLN:O      | 1:A:155:LYS:HE2   | 2.19                     | 0.42              |
| 1:A:339:PRO:HB3   | 1:A:353:ALA:HB2   | 2.02                     | 0.42              |
| 1:B:339:PRO:HB3   | 1:B:353:ALA:HB2   | 2.02                     | 0.42              |
| 1:B:508:PRO:O     | 1:B:509:HIS:ND1   | 2.52                     | 0.42              |
| 1:C:78:THR:HG23   | 1:C:80:GLN:H      | 1.85                     | 0.42              |
| 1:E:339:PRO:HB3   | 1:E:353:ALA:HB2   | 2.02                     | 0.42              |
| 1:E:531:THR:HG23  | 1:E:533:ASP:H     | 1.84                     | 0.42              |
| 1:E:543:TYR:O     | 1:E:545:TRP:HD1   | 2.02                     | 0.42              |
| 1:F:339:PRO:HB3   | 1:F:353:ALA:HB2   | 2.02                     | 0.42              |
| 1:I:339:PRO:HB3   | 1:I:353:ALA:HB2   | 2.02                     | 0.42              |
| 1:I:655:GLN:O     | 1:I:658:VAL:HG22  | 2.20                     | 0.42              |
| 1:J:339:PRO:HB3   | 1:J:353:ALA:HB2   | 2.02                     | 0.42              |
| 1:M:339:PRO:HB3   | 1:M:353:ALA:HB2   | 2.02                     | 0.42              |
| 1:N:339:PRO:HB3   | 1:N:353:ALA:HB2   | 2.02                     | 0.42              |
| 1:O:228:HIS:CE1   | 1:O:248:GLU:HB3   | 2.54                     | 0.42              |
| 1:P:175:ARG:HG3   | 1:P:263:VAL:HG12  | 2.01                     | 0.42              |
| 1:P:531:THR:HG23  | 1:P:533:ASP:H     | 1.84                     | 0.42              |
| 1:Q:339:PRO:HB3   | 1:Q:353:ALA:HB2   | 2.02                     | 0.42              |
| 1:Q:655:GLN:O     | 1:Q:658:VAL:HG22  | 2.20                     | 0.42              |
| 1:R:136:LYS:HD2   | 1:R:136:LYS:HA    | 1.76                     | 0.42              |
| 1:R:175:ARG:HG3   | 1:R:263:VAL:HG12  | 2.02                     | 0.42              |
| 1:R:662:ILE:O     | 1:R:666:THR:HG23  | 2.19                     | 0.42              |
| 1:S:531:THR:HG23  | 1:S:533:ASP:H     | 1.84                     | 0.42              |
| 1:T:228:HIS:CE1   | 1:T:248:GLU:HB3   | 2.54                     | 0.42              |
| 1:T:655:GLN:O     | 1:T:658:VAL:HG22  | 2.20                     | 0.42              |
| 1:V:26:SER:O      | 1:V:101:PRO:HG2   | 2.19                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:V:339:PRO:HB3   | 1:V:353:ALA:HB2   | 2.02                     | 0.42              |
| 1:V:592:HIS:CD2   | 1:X:534:HIS:NE2   | 2.88                     | 0.42              |
| 1:Z:471:TYR:CD2   | 1:Z:478:ALA:HB2   | 2.54                     | 0.42              |
| 1:AA:88:GLN:O     | 1:AA:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:AA:233:GLN:HE21 | 1:AA:264:TYR:HD2  | 1.65                     | 0.42              |
| 1:AA:339:PRO:HB3  | 1:AA:353:ALA:HB2  | 2.02                     | 0.42              |
| 1:BA:257:GLU:HG2  | 1:DA:244:ARG:HB3  | 2.02                     | 0.42              |
| 1:BA:626:ALA:HB3  | 1:BA:635:VAL:HB   | 2.02                     | 0.42              |
| 1:CA:531:THR:HG23 | 1:CA:533:ASP:H    | 1.84                     | 0.42              |
| 1:DA:500:LEU:HD23 | 1:DA:500:LEU:HA   | 1.92                     | 0.42              |
| 1:DA:600:ARG:HG2  | 1:DA:604:PHE:CE1  | 2.54                     | 0.42              |
| 1:EA:339:PRO:HB3  | 1:EA:353:ALA:HB2  | 2.02                     | 0.42              |
| 1:EA:508:PRO:O    | 1:EA:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:FA:26:SER:O     | 1:FA:101:PRO:HG2  | 2.19                     | 0.42              |
| 1:FA:531:THR:HG23 | 1:FA:533:ASP:H    | 1.84                     | 0.42              |
| 1:GA:88:GLN:O     | 1:GA:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:GA:508:PRO:O    | 1:GA:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:GA:655:GLN:O    | 1:GA:658:VAL:HG22 | 2.20                     | 0.42              |
| 1:IA:26:SER:O     | 1:IA:101:PRO:HG2  | 2.18                     | 0.42              |
| 1:IA:600:ARG:HG2  | 1:IA:604:PHE:CE1  | 2.54                     | 0.42              |
| 1:JA:377:ARG:HD3  | 1:JA:377:ARG:HA   | 1.84                     | 0.42              |
| 1:JA:471:TYR:CD2  | 1:JA:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:JA:662:ILE:O    | 1:JA:666:THR:HG23 | 2.19                     | 0.42              |
| 1:KA:676:GLU:OE2  | 1:KA:679:ARG:NH2  | 2.43                     | 0.42              |
| 1:KA:764:LYS:HB2  | 1:KA:764:LYS:HE3  | 1.84                     | 0.42              |
| 1:MA:531:THR:HG23 | 1:MA:533:ASP:H    | 1.84                     | 0.42              |
| 1:MA:626:ALA:HB3  | 1:MA:635:VAL:HB   | 2.02                     | 0.42              |
| 1:PA:15:TYR:CZ    | 1:PA:98:PRO:HA    | 2.55                     | 0.42              |
| 1:PA:88:GLN:O     | 1:PA:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:QA:20:ASP:OD2   | 1:QA:23:SER:OG    | 2.32                     | 0.42              |
| 1:SA:663:GLU:OE2  | 1:SA:667:ASN:ND2  | 2.52                     | 0.42              |
| 1:TA:137:VAL:HG12 | 1:TA:138:MET:O    | 2.18                     | 0.42              |
| 1:TA:533:ASP:CG   | 1:TA:587:THR:HG1  | 2.22                     | 0.42              |
| 1:UA:531:THR:HG23 | 1:UA:533:ASP:H    | 1.84                     | 0.42              |
| 1:UA:621:LYS:HD3  | 1:UA:621:LYS:HA   | 1.81                     | 0.42              |
| 1:VA:60:ILE:HG22  | 1:VA:106:GLU:HB3  | 2.00                     | 0.42              |
| 1:XA:60:ILE:HG22  | 1:XA:106:GLU:HB3  | 2.01                     | 0.42              |
| 1:XA:228:HIS:CE1  | 1:XA:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:XA:471:TYR:CD2  | 1:XA:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:ZA:60:ILE:HG22  | 1:ZA:106:GLU:HB3  | 2.00                     | 0.42              |
| 1:ZA:543:TYR:O    | 1:ZA:545:TRP:HD1  | 2.03                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:BB:775:ALA:CB   | 1:CB:770:LEU:HD21 | 2.50                     | 0.42              |
| 1:DB:63:ASN:HA    | 1:DB:84:ARG:O     | 2.18                     | 0.42              |
| 1:DB:533:ASP:OD2  | 1:DB:587:THR:OG1  | 2.35                     | 0.42              |
| 1:EB:523:PHE:HB2  | 1:EB:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:EB:531:THR:HG23 | 1:EB:533:ASP:H    | 1.84                     | 0.42              |
| 1:EB:746:LEU:CD1  | 1:FB:737:GLY:HA3  | 2.45                     | 0.42              |
| 1:FB:388:ILE:HG13 | 1:FB:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:FB:531:THR:HG23 | 1:FB:533:ASP:H    | 1.84                     | 0.42              |
| 1:FB:543:TYR:O    | 1:FB:545:TRP:HD1  | 2.03                     | 0.42              |
| 1:GB:592:HIS:NE2  | 1:HB:531:THR:O    | 2.43                     | 0.42              |
| 1:GB:655:GLN:O    | 1:GB:658:VAL:HG22 | 2.20                     | 0.42              |
| 1:HB:543:TYR:O    | 1:HB:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:IB:542:ALA:HB1  | 1:JB:573:LYS:HE2  | 2.01                     | 0.42              |
| 1:JB:707:LEU:HD23 | 1:JB:707:LEU:HA   | 1.89                     | 0.42              |
| 1:MB:339:PRO:HB3  | 1:MB:353:ALA:HB2  | 2.02                     | 0.42              |
| 1:NB:394:LYS:HE3  | 1:NB:394:LYS:HB2  | 1.81                     | 0.42              |
| 1:NB:663:GLU:OE2  | 1:NB:667:ASN:ND2  | 2.52                     | 0.42              |
| 1:OB:383:ASP:OD1  | 1:OB:383:ASP:N    | 2.44                     | 0.42              |
| 1:PB:228:HIS:CE1  | 1:PB:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:RB:543:TYR:O    | 1:RB:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:SB:26:SER:O     | 1:SB:101:PRO:HG2  | 2.19                     | 0.42              |
| 1:SB:60:ILE:HG22  | 1:SB:106:GLU:HB3  | 2.01                     | 0.42              |
| 1:TB:543:TYR:O    | 1:TB:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:WB:471:TYR:CD2  | 1:WB:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:XB:15:TYR:CZ    | 1:XB:98:PRO:HA    | 2.55                     | 0.42              |
| 1:XB:388:ILE:HG13 | 1:XB:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:XB:523:PHE:HB2  | 1:XB:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:YB:388:ILE:HG13 | 1:YB:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:YB:533:ASP:CG   | 1:YB:587:THR:HG1  | 2.22                     | 0.42              |
| 1:ZB:543:TYR:O    | 1:ZB:545:TRP:HD1  | 2.03                     | 0.42              |
| 1:ZB:655:GLN:O    | 1:ZB:658:VAL:HG22 | 2.20                     | 0.42              |
| 1:A:170:GLN:HB3   | 1:C:233:GLN:OE1   | 2.20                     | 0.42              |
| 1:A:175:ARG:HG3   | 1:A:263:VAL:HG12  | 2.01                     | 0.42              |
| 1:A:531:THR:HG23  | 1:A:533:ASP:H     | 1.85                     | 0.42              |
| 1:B:388:ILE:HG13  | 1:B:390:VAL:HG13  | 2.01                     | 0.42              |
| 1:C:129:PHE:CG    | 1:C:156:GLU:HG3   | 2.54                     | 0.42              |
| 1:C:662:ILE:O     | 1:C:666:THR:HG23  | 2.19                     | 0.42              |
| 1:E:484:PRO:HB2   | 1:G:471:TYR:CD2   | 2.55                     | 0.42              |
| 1:E:655:GLN:O     | 1:E:658:VAL:HG22  | 2.20                     | 0.42              |
| 1:F:662:ILE:O     | 1:F:666:THR:HG23  | 2.19                     | 0.42              |
| 1:G:228:HIS:CE1   | 1:G:248:GLU:HB3   | 2.54                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:G:339:PRO:HB3   | 1:G:353:ALA:HB2   | 2.02                     | 0.42              |
| 1:G:387:GLY:HA3   | 1:G:402:ILE:HG22  | 2.01                     | 0.42              |
| 1:G:662:ILE:O     | 1:G:666:THR:HG23  | 2.19                     | 0.42              |
| 1:L:78:THR:HG23   | 1:L:80:GLN:H      | 1.85                     | 0.42              |
| 1:L:663:GLU:OE2   | 1:L:667:ASN:ND2   | 2.52                     | 0.42              |
| 1:L:676:GLU:OE2   | 1:L:679:ARG:NH2   | 2.43                     | 0.42              |
| 1:M:88:GLN:O      | 1:M:155:LYS:HE2   | 2.19                     | 0.42              |
| 1:N:175:ARG:HG3   | 1:N:263:VAL:HG12  | 2.02                     | 0.42              |
| 1:N:523:PHE:HB2   | 1:N:543:TYR:HD2   | 1.84                     | 0.42              |
| 1:N:655:GLN:O     | 1:N:658:VAL:HG22  | 2.20                     | 0.42              |
| 1:O:339:PRO:HB3   | 1:O:353:ALA:HB2   | 2.02                     | 0.42              |
| 1:O:543:TYR:O     | 1:O:545:TRP:HD1   | 2.02                     | 0.42              |
| 1:O:736:GLU:OE2   | 1:Q:726:ALA:HB1   | 2.20                     | 0.42              |
| 1:P:78:THR:HG23   | 1:P:80:GLN:H      | 1.85                     | 0.42              |
| 1:Q:233:GLN:HE21  | 1:Q:264:TYR:HD2   | 1.65                     | 0.42              |
| 1:Q:299:LYS:NZ    | 1:Q:317:GLU:OE2   | 2.38                     | 0.42              |
| 1:Q:626:ALA:HB3   | 1:Q:635:VAL:HB    | 2.02                     | 0.42              |
| 1:R:339:PRO:HB3   | 1:R:353:ALA:HB2   | 2.02                     | 0.42              |
| 1:T:339:PRO:HB3   | 1:T:353:ALA:HB2   | 2.02                     | 0.42              |
| 1:V:62:ALA:HB3    | 1:V:104:VAL:HG13  | 2.02                     | 0.42              |
| 1:W:56:ARG:HG3    | 1:Y:127:LEU:HD22  | 2.01                     | 0.42              |
| 1:W:88:GLN:O      | 1:W:155:LYS:HE2   | 2.19                     | 0.42              |
| 1:X:655:GLN:O     | 1:X:658:VAL:HG22  | 2.20                     | 0.42              |
| 1:Z:78:THR:HG23   | 1:Z:80:GLN:H      | 1.85                     | 0.42              |
| 1:Z:663:GLU:OE2   | 1:Z:667:ASN:ND2   | 2.52                     | 0.42              |
| 1:AA:621:LYS:HA   | 1:AA:621:LYS:HD3  | 1.81                     | 0.42              |
| 1:AA:655:GLN:O    | 1:AA:658:VAL:HG22 | 2.20                     | 0.42              |
| 1:BA:508:PRO:O    | 1:BA:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:BA:655:GLN:O    | 1:BA:658:VAL:HG22 | 2.20                     | 0.42              |
| 1:CA:339:PRO:HB3  | 1:CA:353:ALA:HB2  | 2.02                     | 0.42              |
| 1:CA:394:LYS:HE3  | 1:CA:394:LYS:HB2  | 1.81                     | 0.42              |
| 1:CA:663:GLU:OE2  | 1:CA:667:ASN:ND2  | 2.52                     | 0.42              |
| 1:DA:387:GLY:HA3  | 1:DA:402:ILE:HA   | 2.02                     | 0.42              |
| 1:FA:707:LEU:HD23 | 1:FA:707:LEU:HA   | 1.88                     | 0.42              |
| 1:HA:542:ALA:HB1  | 1:JA:573:LYS:HE2  | 2.02                     | 0.42              |
| 1:IA:62:ALA:HB3   | 1:IA:104:VAL:HG13 | 2.02                     | 0.42              |
| 1:IA:339:PRO:HB3  | 1:IA:353:ALA:HB2  | 2.02                     | 0.42              |
| 1:IA:531:THR:HG23 | 1:IA:533:ASP:H    | 1.84                     | 0.42              |
| 1:JA:508:PRO:O    | 1:JA:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:KA:471:TYR:CD2  | 1:KA:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:KA:655:GLN:O    | 1:KA:658:VAL:HG22 | 2.20                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:LA:78:THR:HG23  | 1:LA:80:GLN:H     | 1.85                     | 0.42              |
| 1:LA:387:GLY:HA3  | 1:LA:402:ILE:HA   | 2.02                     | 0.42              |
| 1:OA:626:ALA:HB3  | 1:OA:635:VAL:HB   | 2.02                     | 0.42              |
| 1:RA:15:TYR:CZ    | 1:RA:98:PRO:HA    | 2.55                     | 0.42              |
| 1:RA:78:THR:HG23  | 1:RA:80:GLN:H     | 1.85                     | 0.42              |
| 1:RA:543:TYR:O    | 1:RA:545:TRP:HD1  | 2.03                     | 0.42              |
| 1:TA:60:ILE:HG22  | 1:TA:106:GLU:HB3  | 2.00                     | 0.42              |
| 1:UA:543:TYR:O    | 1:UA:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:VA:78:THR:HG23  | 1:VA:80:GLN:H     | 1.85                     | 0.42              |
| 1:VA:543:TYR:O    | 1:VA:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:VA:621:LYS:HD3  | 1:VA:621:LYS:HA   | 1.81                     | 0.42              |
| 1:WA:387:GLY:HA3  | 1:WA:402:ILE:HG22 | 2.01                     | 0.42              |
| 1:YA:78:THR:HG23  | 1:YA:80:GLN:H     | 1.85                     | 0.42              |
| 1:YA:387:GLY:HA3  | 1:YA:402:ILE:HA   | 2.02                     | 0.42              |
| 1:ZA:652:ASP:N    | 1:ZA:652:ASP:OD1  | 2.51                     | 0.42              |
| 1:ZA:694:LEU:O    | 1:ZA:697:SER:OG   | 2.28                     | 0.42              |
| 1:AB:471:TYR:CD2  | 1:AB:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:BB:779:LEU:HD21 | 1:CB:773:ALA:HB1  | 2.02                     | 0.42              |
| 1:CB:387:GLY:HA3  | 1:CB:402:ILE:HG22 | 2.01                     | 0.42              |
| 1:DB:388:ILE:HG13 | 1:DB:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:EB:15:TYR:CZ    | 1:EB:98:PRO:HA    | 2.55                     | 0.42              |
| 1:FB:533:ASP:CG   | 1:FB:587:THR:HG1  | 2.23                     | 0.42              |
| 1:FB:658:VAL:HG12 | 1:GB:533:ASP:O    | 2.19                     | 0.42              |
| 1:GB:78:THR:HG23  | 1:GB:80:GLN:H     | 1.85                     | 0.42              |
| 1:GB:339:PRO:HB3  | 1:GB:353:ALA:HB2  | 2.02                     | 0.42              |
| 1:GB:500:LEU:HD23 | 1:GB:500:LEU:HA   | 1.92                     | 0.42              |
| 1:GB:662:ILE:O    | 1:GB:666:THR:HG23 | 2.19                     | 0.42              |
| 1:HB:15:TYR:CZ    | 1:HB:98:PRO:HA    | 2.55                     | 0.42              |
| 1:IB:339:PRO:HB3  | 1:IB:353:ALA:HB2  | 2.02                     | 0.42              |
| 1:IB:508:PRO:O    | 1:IB:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:IB:655:GLN:O    | 1:IB:658:VAL:HG22 | 2.20                     | 0.42              |
| 1:KB:655:GLN:O    | 1:KB:658:VAL:HG22 | 2.20                     | 0.42              |
| 1:MB:344:GLU:OE2  | 1:MB:345:SER:OG   | 2.38                     | 0.42              |
| 1:MB:662:ILE:O    | 1:MB:666:THR:HG23 | 2.19                     | 0.42              |
| 1:MB:663:GLU:OE2  | 1:MB:667:ASN:ND2  | 2.52                     | 0.42              |
| 1:NB:655:GLN:O    | 1:NB:658:VAL:HG22 | 2.20                     | 0.42              |
| 1:OB:385:ASN:ND2  | 1:PB:473:TYR:O    | 2.52                     | 0.42              |
| 1:PB:387:GLY:HA3  | 1:PB:402:ILE:HA   | 2.02                     | 0.42              |
| 1:QB:621:LYS:HA   | 1:QB:621:LYS:HD3  | 1.81                     | 0.42              |
| 1:RB:78:THR:HG23  | 1:RB:80:GLN:H     | 1.85                     | 0.42              |
| 1:SB:471:TYR:CD2  | 1:SB:478:ALA:HB2  | 2.54                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:TB:60:ILE:HG22  | 1:TB:106:GLU:HB3  | 2.01                     | 0.42              |
| 1:TB:694:LEU:O    | 1:TB:697:SER:OG   | 2.28                     | 0.42              |
| 1:UB:60:ILE:HG22  | 1:UB:106:GLU:HB3  | 2.00                     | 0.42              |
| 1:VB:60:ILE:HG22  | 1:VB:106:GLU:HB3  | 2.01                     | 0.42              |
| 1:VB:662:ILE:O    | 1:VB:666:THR:HG23 | 2.19                     | 0.42              |
| 1:WB:388:ILE:HG13 | 1:WB:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:XB:506:LYS:HD3  | 1:XB:506:LYS:HA   | 1.78                     | 0.42              |
| 1:ZB:78:THR:HG23  | 1:ZB:80:GLN:H     | 1.85                     | 0.42              |
| 1:ZB:339:PRO:HB3  | 1:ZB:353:ALA:HB2  | 2.02                     | 0.42              |
| 1:ZB:377:ARG:HD3  | 1:ZB:377:ARG:HA   | 1.84                     | 0.42              |
| 1:ZB:387:GLY:HA3  | 1:ZB:402:ILE:HA   | 2.02                     | 0.42              |
| 1:ZB:502:ALA:HB3  | 1:ZB:510:ALA:HB3  | 2.00                     | 0.42              |
| 1:AC:15:TYR:CZ    | 1:AC:98:PRO:HA    | 2.55                     | 0.42              |
| 1:AC:78:THR:HG23  | 1:AC:80:GLN:H     | 1.85                     | 0.42              |
| 1:A:279:ARG:HD3   | 1:C:337:LEU:HD13  | 2.02                     | 0.42              |
| 1:A:706:LEU:HD12  | 1:C:693:ILE:O     | 2.20                     | 0.42              |
| 1:B:88:GLN:O      | 1:B:155:LYS:HE2   | 2.19                     | 0.42              |
| 1:C:175:ARG:HG3   | 1:C:263:VAL:HG12  | 2.01                     | 0.42              |
| 1:C:531:THR:HG23  | 1:C:533:ASP:H     | 1.84                     | 0.42              |
| 1:D:130:GLU:HG3   | 1:D:134:GLY:HA2   | 2.02                     | 0.42              |
| 1:D:339:PRO:HB3   | 1:D:353:ALA:HB2   | 2.02                     | 0.42              |
| 1:D:655:GLN:O     | 1:D:658:VAL:HG22  | 2.20                     | 0.42              |
| 1:E:502:ALA:HB3   | 1:E:510:ALA:HB3   | 2.00                     | 0.42              |
| 1:G:175:ARG:HG3   | 1:G:263:VAL:HG12  | 2.01                     | 0.42              |
| 1:H:170:GLN:HB3   | 1:J:233:GLN:OE1   | 2.18                     | 0.42              |
| 1:H:694:LEU:O     | 1:H:697:SER:OG    | 2.28                     | 0.42              |
| 1:I:621:LYS:HD3   | 1:I:621:LYS:HA    | 1.81                     | 0.42              |
| 1:J:663:GLU:OE2   | 1:J:667:ASN:ND2   | 2.52                     | 0.42              |
| 1:L:175:ARG:HG3   | 1:L:263:VAL:HG12  | 2.01                     | 0.42              |
| 1:L:339:PRO:HB3   | 1:L:353:ALA:HB2   | 2.02                     | 0.42              |
| 1:M:78:THR:HG23   | 1:M:80:GLN:H      | 1.85                     | 0.42              |
| 1:M:600:ARG:HG2   | 1:M:604:PHE:CE1   | 2.54                     | 0.42              |
| 1:N:387:GLY:HA3   | 1:N:402:ILE:HG22  | 2.01                     | 0.42              |
| 1:O:655:GLN:O     | 1:O:658:VAL:HG22  | 2.20                     | 0.42              |
| 1:P:339:PRO:HB3   | 1:P:353:ALA:HB2   | 2.02                     | 0.42              |
| 1:P:772:TYR:CD1   | 1:R:766:ARG:HB3   | 2.54                     | 0.42              |
| 1:Q:508:PRO:O     | 1:Q:509:HIS:ND1   | 2.52                     | 0.42              |
| 1:R:78:THR:HG23   | 1:R:80:GLN:H      | 1.85                     | 0.42              |
| 1:R:387:GLY:HA3   | 1:R:402:ILE:HG22  | 2.01                     | 0.42              |
| 1:R:533:ASP:CG    | 1:R:587:THR:HG1   | 2.23                     | 0.42              |
| 1:S:78:THR:HG23   | 1:S:80:GLN:H      | 1.85                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:S:130:GLU:HG3   | 1:S:134:GLY:HA2   | 2.02                     | 0.42              |
| 1:S:533:ASP:CG    | 1:S:587:THR:HG1   | 2.23                     | 0.42              |
| 1:T:62:ALA:HB3    | 1:T:104:VAL:HG13  | 2.02                     | 0.42              |
| 1:W:339:PRO:HB3   | 1:W:353:ALA:HB2   | 2.02                     | 0.42              |
| 1:W:663:GLU:OE2   | 1:W:667:ASN:ND2   | 2.52                     | 0.42              |
| 1:X:663:GLU:OE2   | 1:X:667:ASN:ND2   | 2.52                     | 0.42              |
| 1:Y:78:THR:HG23   | 1:Y:80:GLN:H      | 1.85                     | 0.42              |
| 1:Y:339:PRO:HB3   | 1:Y:353:ALA:HB2   | 2.02                     | 0.42              |
| 1:Y:377:ARG:NH1   | 1:Y:409:THR:O     | 2.30                     | 0.42              |
| 1:Z:136:LYS:HD2   | 1:Z:136:LYS:HA    | 1.76                     | 0.42              |
| 1:Z:626:ALA:HB3   | 1:Z:635:VAL:HB    | 2.02                     | 0.42              |
| 1:AA:249:TRP:HA   | 1:AA:312:PRO:HG2  | 2.02                     | 0.42              |
| 1:CA:249:TRP:HA   | 1:CA:312:PRO:HG2  | 2.02                     | 0.42              |
| 1:CA:471:TYR:CD2  | 1:CA:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:CA:533:ASP:CG   | 1:CA:587:THR:HG1  | 2.23                     | 0.42              |
| 1:CA:626:ALA:HB3  | 1:CA:635:VAL:HB   | 2.02                     | 0.42              |
| 1:CA:707:LEU:HD23 | 1:CA:707:LEU:HA   | 1.88                     | 0.42              |
| 1:DA:20:ASP:OD2   | 1:DA:23:SER:OG    | 2.32                     | 0.42              |
| 1:EA:626:ALA:HB3  | 1:EA:635:VAL:HB   | 2.02                     | 0.42              |
| 1:EA:655:GLN:O    | 1:EA:658:VAL:HG22 | 2.20                     | 0.42              |
| 1:FA:521:ASP:OD1  | 1:FA:522:PHE:N    | 2.44                     | 0.42              |
| 1:FA:663:GLU:OE2  | 1:FA:667:ASN:ND2  | 2.52                     | 0.42              |
| 1:GA:543:TYR:O    | 1:GA:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:GA:663:GLU:OE2  | 1:GA:667:ASN:ND2  | 2.52                     | 0.42              |
| 1:IA:228:HIS:CE1  | 1:IA:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:KA:20:ASP:OD2   | 1:KA:23:SER:OG    | 2.32                     | 0.42              |
| 1:LA:471:TYR:CD2  | 1:LA:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:MA:339:PRO:HB3  | 1:MA:353:ALA:HB2  | 2.02                     | 0.42              |
| 1:OA:78:THR:HG23  | 1:OA:80:GLN:H     | 1.85                     | 0.42              |
| 1:OA:508:PRO:O    | 1:OA:509:HIS:ND1  | 2.52                     | 0.42              |
| 1:OA:655:GLN:O    | 1:OA:658:VAL:HG22 | 2.20                     | 0.42              |
| 1:PA:73:VAL:HG21  | 1:PA:100:TYR:OH   | 2.20                     | 0.42              |
| 1:PA:377:ARG:HD3  | 1:PA:377:ARG:HA   | 1.84                     | 0.42              |
| 1:PA:533:ASP:CG   | 1:PA:587:THR:HG1  | 2.22                     | 0.42              |
| 1:QA:339:PRO:HB3  | 1:QA:353:ALA:HB2  | 2.02                     | 0.42              |
| 1:QA:387:GLY:HA3  | 1:QA:402:ILE:HA   | 2.02                     | 0.42              |
| 1:QA:543:TYR:O    | 1:QA:545:TRP:HD1  | 2.03                     | 0.42              |
| 1:RA:228:HIS:CE1  | 1:RA:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:RA:387:GLY:HA3  | 1:RA:402:ILE:HA   | 2.02                     | 0.42              |
| 1:UA:170:GLN:HB3  | 1:WA:233:GLN:OE1  | 2.20                     | 0.42              |
| 1:WA:228:HIS:CE1  | 1:WA:248:GLU:HB3  | 2.54                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:XA:621:LYS:HD3  | 1:XA:621:LYS:HA   | 1.81                     | 0.42              |
| 1:YA:471:TYR:CD2  | 1:YA:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:AB:531:THR:HG23 | 1:AB:533:ASP:H    | 1.84                     | 0.42              |
| 1:BB:640:VAL:HG13 | 1:CB:580:ARG:NH1  | 2.35                     | 0.42              |
| 1:CB:88:GLN:O     | 1:CB:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:DB:88:GLN:O     | 1:DB:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:EB:543:TYR:O    | 1:EB:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:FB:15:TYR:CZ    | 1:FB:98:PRO:HA    | 2.55                     | 0.42              |
| 1:GB:387:GLY:HA3  | 1:GB:402:ILE:HA   | 2.02                     | 0.42              |
| 1:HB:78:THR:HG23  | 1:HB:80:GLN:H     | 1.85                     | 0.42              |
| 1:HB:533:ASP:CG   | 1:HB:587:THR:HG1  | 2.22                     | 0.42              |
| 1:IB:52:THR:HG21  | 1:JB:85:HIS:HD2   | 1.85                     | 0.42              |
| 1:IB:769:GLU:HG2  | 1:JB:766:ARG:HH12 | 1.85                     | 0.42              |
| 1:IB:801:ALA:HA   | 1:JB:796:LYS:NZ   | 2.35                     | 0.42              |
| 1:JB:502:ALA:HB3  | 1:JB:510:ALA:HB3  | 2.00                     | 0.42              |
| 1:KB:15:TYR:CZ    | 1:KB:98:PRO:HA    | 2.55                     | 0.42              |
| 1:KB:388:ILE:HG13 | 1:KB:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:LB:73:VAL:HG21  | 1:LB:100:TYR:OH   | 2.20                     | 0.42              |
| 1:MB:78:THR:HG23  | 1:MB:80:GLN:H     | 1.85                     | 0.42              |
| 1:MB:531:THR:HG23 | 1:MB:533:ASP:H    | 1.84                     | 0.42              |
| 1:MB:768:MET:SD   | 1:NB:766:ARG:HD2  | 2.59                     | 0.42              |
| 1:NB:88:GLN:O     | 1:NB:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:NB:249:TRP:HA   | 1:NB:312:PRO:HG2  | 2.02                     | 0.42              |
| 1:OB:88:GLN:O     | 1:OB:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:PB:9:ARG:HH21   | 1:QB:24:ASN:CG    | 2.24                     | 0.42              |
| 1:PB:78:THR:HG23  | 1:PB:80:GLN:H     | 1.85                     | 0.42              |
| 1:PB:175:ARG:HG3  | 1:PB:263:VAL:HG12 | 2.01                     | 0.42              |
| 1:PB:257:GLU:HG2  | 1:QB:244:ARG:HB3  | 2.01                     | 0.42              |
| 1:SB:662:ILE:O    | 1:SB:666:THR:HG23 | 2.19                     | 0.42              |
| 1:UB:136:LYS:HA   | 1:UB:136:LYS:HD2  | 1.76                     | 0.42              |
| 1:WB:78:THR:HG23  | 1:WB:80:GLN:H     | 1.85                     | 0.42              |
| 1:WB:387:GLY:HA3  | 1:WB:402:ILE:HA   | 2.02                     | 0.42              |
| 1:WB:521:ASP:OD1  | 1:WB:522:PHE:N    | 2.44                     | 0.42              |
| 1:XB:662:ILE:O    | 1:XB:666:THR:HG23 | 2.19                     | 0.42              |
| 1:YB:502:ALA:HB3  | 1:YB:510:ALA:HB3  | 2.00                     | 0.42              |
| 1:ZB:531:THR:HG23 | 1:ZB:533:ASP:H    | 1.84                     | 0.42              |
| 1:AC:88:GLN:O     | 1:AC:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:AC:388:ILE:HG13 | 1:AC:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:AC:533:ASP:CG   | 1:AC:587:THR:HG1  | 2.22                     | 0.42              |
| 1:A:73:VAL:HG21   | 1:A:100:TYR:OH    | 2.20                     | 0.42              |
| 1:A:203:ALA:HB2   | 1:C:192:THR:HB    | 2.02                     | 0.42              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:387:GLY:HA3  | 1:A:402:ILE:HG22  | 2.01                     | 0.42              |
| 1:A:701:LYS:HG3  | 1:NB:709:LEU:HD13 | 2.02                     | 0.42              |
| 1:B:73:VAL:HG21  | 1:B:100:TYR:OH    | 2.20                     | 0.42              |
| 1:B:96:PRO:HD3   | 1:D:85:HIS:NE2    | 2.34                     | 0.42              |
| 1:B:531:THR:HG23 | 1:B:533:ASP:H     | 1.84                     | 0.42              |
| 1:B:813:ALA:HB1  | 1:D:812:VAL:HA    | 2.01                     | 0.42              |
| 1:C:339:PRO:HB3  | 1:C:353:ALA:HB2   | 2.02                     | 0.42              |
| 1:D:502:ALA:HB3  | 1:D:510:ALA:HB3   | 2.00                     | 0.42              |
| 1:D:543:TYR:O    | 1:D:545:TRP:HD1   | 2.02                     | 0.42              |
| 1:D:709:LEU:HD11 | 1:F:701:LYS:HE3   | 2.02                     | 0.42              |
| 1:D:736:GLU:OE2  | 1:F:726:ALA:HB1   | 2.19                     | 0.42              |
| 1:D:801:ALA:HA   | 1:F:796:LYS:NZ    | 2.34                     | 0.42              |
| 1:E:73:VAL:HG21  | 1:E:100:TYR:OH    | 2.20                     | 0.42              |
| 1:E:663:GLU:OE2  | 1:E:667:ASN:ND2   | 2.52                     | 0.42              |
| 1:F:15:TYR:CZ    | 1:F:98:PRO:HA     | 2.55                     | 0.42              |
| 1:F:655:GLN:O    | 1:F:658:VAL:HG22  | 2.20                     | 0.42              |
| 1:G:249:TRP:HA   | 1:G:312:PRO:HG2   | 2.02                     | 0.42              |
| 1:G:658:VAL:HG11 | 1:I:535:ALA:HA    | 2.02                     | 0.42              |
| 1:H:73:VAL:HG21  | 1:H:100:TYR:OH    | 2.20                     | 0.42              |
| 1:I:249:TRP:HA   | 1:I:312:PRO:HG2   | 2.02                     | 0.42              |
| 1:I:344:GLU:OE2  | 1:I:345:SER:OG    | 2.38                     | 0.42              |
| 1:I:523:PHE:HB2  | 1:I:543:TYR:HD2   | 1.84                     | 0.42              |
| 1:J:78:THR:HG23  | 1:J:80:GLN:H      | 1.85                     | 0.42              |
| 1:J:655:GLN:O    | 1:J:658:VAL:HG22  | 2.20                     | 0.42              |
| 1:K:62:ALA:HB3   | 1:K:104:VAL:HG13  | 2.02                     | 0.42              |
| 1:K:339:PRO:HB3  | 1:K:353:ALA:HB2   | 2.02                     | 0.42              |
| 1:L:249:TRP:HA   | 1:L:312:PRO:HG2   | 2.02                     | 0.42              |
| 1:L:502:ALA:HB3  | 1:L:510:ALA:HB3   | 2.00                     | 0.42              |
| 1:L:531:THR:HG23 | 1:L:533:ASP:H     | 1.84                     | 0.42              |
| 1:L:655:GLN:O    | 1:L:658:VAL:HG22  | 2.20                     | 0.42              |
| 1:N:73:VAL:HG21  | 1:N:100:TYR:OH    | 2.20                     | 0.42              |
| 1:N:531:THR:HG23 | 1:N:533:ASP:H     | 1.84                     | 0.42              |
| 1:O:130:GLU:HG3  | 1:O:134:GLY:HA2   | 2.02                     | 0.42              |
| 1:O:249:TRP:HA   | 1:O:312:PRO:HG2   | 2.02                     | 0.42              |
| 1:O:626:ALA:HB3  | 1:O:635:VAL:HB    | 2.02                     | 0.42              |
| 1:P:663:GLU:OE2  | 1:P:667:ASN:ND2   | 2.52                     | 0.42              |
| 1:Q:15:TYR:CZ    | 1:Q:98:PRO:HA     | 2.55                     | 0.42              |
| 1:Q:78:THR:HG23  | 1:Q:80:GLN:H      | 1.85                     | 0.42              |
| 1:Q:504:ARG:HB3  | 1:Q:505:PRO:HD3   | 2.02                     | 0.42              |
| 1:R:249:TRP:HA   | 1:R:312:PRO:HG2   | 2.02                     | 0.42              |
| 1:R:663:GLU:OE2  | 1:R:667:ASN:ND2   | 2.52                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:S:339:PRO:HB3   | 1:S:353:ALA:HB2   | 2.02                     | 0.42              |
| 1:S:383:ASP:OD1   | 1:S:383:ASP:N     | 2.44                     | 0.42              |
| 1:T:249:TRP:HA    | 1:T:312:PRO:HG2   | 2.02                     | 0.42              |
| 1:V:299:LYS:NZ    | 1:V:317:GLU:OE2   | 2.38                     | 0.42              |
| 1:W:508:PRO:O     | 1:W:509:HIS:ND1   | 2.52                     | 0.42              |
| 1:W:655:GLN:O     | 1:W:658:VAL:HG22  | 2.20                     | 0.42              |
| 1:X:339:PRO:HB3   | 1:X:353:ALA:HB2   | 2.02                     | 0.42              |
| 1:X:387:GLY:HA3   | 1:X:402:ILE:HG22  | 2.01                     | 0.42              |
| 1:Y:383:ASP:OD1   | 1:Y:383:ASP:N     | 2.44                     | 0.42              |
| 1:Y:387:GLY:HA3   | 1:Y:402:ILE:HG22  | 2.01                     | 0.42              |
| 1:Z:339:PRO:HB3   | 1:Z:353:ALA:HB2   | 2.02                     | 0.42              |
| 1:BA:78:THR:HG23  | 1:BA:80:GLN:H     | 1.85                     | 0.42              |
| 1:CA:130:GLU:HG3  | 1:CA:134:GLY:HA2  | 2.02                     | 0.42              |
| 1:CA:523:PHE:HB2  | 1:CA:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:DA:228:HIS:CE1  | 1:DA:248:GLU:HB3  | 2.55                     | 0.42              |
| 1:DA:339:PRO:HB3  | 1:DA:353:ALA:HB2  | 2.02                     | 0.42              |
| 1:EA:62:ALA:HB3   | 1:EA:104:VAL:HG13 | 2.02                     | 0.42              |
| 1:FA:78:THR:HG23  | 1:FA:80:GLN:H     | 1.85                     | 0.42              |
| 1:FA:363:LEU:HA   | 1:HA:353:ALA:HB3  | 2.01                     | 0.42              |
| 1:GA:339:PRO:HB3  | 1:GA:353:ALA:HB2  | 2.02                     | 0.42              |
| 1:GA:471:TYR:CD2  | 1:GA:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:HA:8:ILE:CG1    | 1:HA:35:TYR:HB3   | 2.50                     | 0.42              |
| 1:HA:15:TYR:CZ    | 1:HA:98:PRO:HA    | 2.55                     | 0.42              |
| 1:HA:531:THR:HG23 | 1:HA:533:ASP:H    | 1.84                     | 0.42              |
| 1:HA:543:TYR:O    | 1:HA:545:TRP:HD1  | 2.02                     | 0.42              |
| 1:IA:662:ILE:O    | 1:IA:666:THR:HG23 | 2.19                     | 0.42              |
| 1:JA:8:ILE:CG1    | 1:JA:35:TYR:HB3   | 2.50                     | 0.42              |
| 1:JA:73:VAL:HG21  | 1:JA:100:TYR:OH   | 2.20                     | 0.42              |
| 1:JA:387:GLY:HA3  | 1:JA:402:ILE:HG22 | 2.01                     | 0.42              |
| 1:KA:339:PRO:HB3  | 1:KA:353:ALA:HB2  | 2.02                     | 0.42              |
| 1:KA:387:GLY:HA3  | 1:KA:402:ILE:HA   | 2.02                     | 0.42              |
| 1:KA:732:ALA:HB2  | 1:MA:722:ALA:HB1  | 2.02                     | 0.42              |
| 1:NA:8:ILE:CG1    | 1:NA:35:TYR:HB3   | 2.50                     | 0.42              |
| 1:NA:15:TYR:CZ    | 1:NA:98:PRO:HA    | 2.54                     | 0.42              |
| 1:OA:531:THR:HG23 | 1:OA:533:ASP:H    | 1.85                     | 0.42              |
| 1:PA:8:ILE:CG1    | 1:PA:35:TYR:HB3   | 2.50                     | 0.42              |
| 1:QA:228:HIS:CE1  | 1:QA:248:GLU:HB3  | 2.54                     | 0.42              |
| 1:SA:78:THR:HG23  | 1:SA:80:GLN:H     | 1.85                     | 0.42              |
| 1:SA:640:VAL:HG13 | 1:UA:580:ARG:HH11 | 1.85                     | 0.42              |
| 1:TA:175:ARG:HG3  | 1:TA:263:VAL:HG12 | 2.02                     | 0.42              |
| 1:TA:663:GLU:OE2  | 1:TA:667:ASN:ND2  | 2.52                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:UA:15:TYR:CZ    | 1:UA:98:PRO:HA    | 2.55                     | 0.42              |
| 1:VA:73:VAL:HG21  | 1:VA:100:TYR:OH   | 2.20                     | 0.42              |
| 1:VA:506:LYS:HD3  | 1:VA:506:LYS:HA   | 1.79                     | 0.42              |
| 1:WA:8:ILE:CG1    | 1:WA:35:TYR:HB3   | 2.50                     | 0.42              |
| 1:WA:73:VAL:HG21  | 1:WA:100:TYR:OH   | 2.20                     | 0.42              |
| 1:WA:88:GLN:O     | 1:WA:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:WA:662:ILE:O    | 1:WA:666:THR:HG23 | 2.19                     | 0.42              |
| 1:XA:78:THR:HG23  | 1:XA:80:GLN:H     | 1.85                     | 0.42              |
| 1:XA:387:GLY:HA3  | 1:XA:402:ILE:HA   | 2.02                     | 0.42              |
| 1:XA:662:ILE:O    | 1:XA:666:THR:HG23 | 2.19                     | 0.42              |
| 1:YA:8:ILE:CG1    | 1:YA:35:TYR:HB3   | 2.50                     | 0.42              |
| 1:ZA:377:ARG:HD3  | 1:ZA:377:ARG:HA   | 1.84                     | 0.42              |
| 1:ZA:394:LYS:HE3  | 1:ZA:394:LYS:HB2  | 1.81                     | 0.42              |
| 1:BB:60:ILE:HG22  | 1:BB:106:GLU:HB3  | 2.01                     | 0.42              |
| 1:DB:387:GLY:HA3  | 1:DB:402:ILE:HA   | 2.02                     | 0.42              |
| 1:DB:471:TYR:CD2  | 1:DB:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:DB:666:THR:HG22 | 1:EB:657:SER:HB2  | 2.00                     | 0.42              |
| 1:EB:533:ASP:CG   | 1:EB:587:THR:HG1  | 2.22                     | 0.42              |
| 1:GB:523:PHE:N    | 1:GB:542:ALA:O    | 2.48                     | 0.42              |
| 1:GB:531:THR:HG23 | 1:GB:533:ASP:H    | 1.84                     | 0.42              |
| 1:HB:88:GLN:O     | 1:HB:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:IB:73:VAL:HG21  | 1:IB:100:TYR:OH   | 2.20                     | 0.42              |
| 1:IB:388:ILE:HG13 | 1:IB:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:JB:339:PRO:HB3  | 1:JB:353:ALA:HB2  | 2.02                     | 0.42              |
| 1:KB:249:TRP:HA   | 1:KB:312:PRO:HG2  | 2.02                     | 0.42              |
| 1:KB:471:TYR:CD2  | 1:KB:478:ALA:HB2  | 2.54                     | 0.42              |
| 1:KB:662:ILE:O    | 1:KB:666:THR:HG23 | 2.19                     | 0.42              |
| 1:LB:523:PHE:HB2  | 1:LB:543:TYR:HD2  | 1.84                     | 0.42              |
| 1:NB:175:ARG:HG3  | 1:NB:263:VAL:HG12 | 2.01                     | 0.42              |
| 1:OB:78:THR:HG23  | 1:OB:80:GLN:H     | 1.85                     | 0.42              |
| 1:PB:88:GLN:O     | 1:PB:155:LYS:HE2  | 2.19                     | 0.42              |
| 1:PB:521:ASP:OD1  | 1:PB:522:PHE:N    | 2.44                     | 0.42              |
| 1:QB:8:ILE:CG1    | 1:QB:35:TYR:HB3   | 2.50                     | 0.42              |
| 1:QB:15:TYR:CZ    | 1:QB:98:PRO:HA    | 2.55                     | 0.42              |
| 1:QB:33:LYS:O     | 1:RB:24:ASN:OD1   | 2.38                     | 0.42              |
| 1:RB:175:ARG:HG3  | 1:RB:263:VAL:HG12 | 2.01                     | 0.42              |
| 1:SB:78:THR:HG23  | 1:SB:80:GLN:H     | 1.85                     | 0.42              |
| 1:TB:73:VAL:HG21  | 1:TB:100:TYR:OH   | 2.20                     | 0.42              |
| 1:TB:387:GLY:HA3  | 1:TB:402:ILE:HA   | 2.02                     | 0.42              |
| 1:WB:655:GLN:O    | 1:WB:658:VAL:HG22 | 2.20                     | 0.42              |
| 1:XB:387:GLY:HA3  | 1:XB:402:ILE:HG22 | 2.01                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:XB:531:THR:HG23 | 1:XB:533:ASP:H    | 1.84                     | 0.42              |
| 1:XB:543:TYR:O    | 1:XB:545:TRP:HD1  | 2.03                     | 0.42              |
| 1:YB:15:TYR:CZ    | 1:YB:98:PRO:HA    | 2.55                     | 0.42              |
| 1:ZB:388:ILE:HG13 | 1:ZB:390:VAL:HG13 | 2.01                     | 0.42              |
| 1:A:56:ARG:HH12   | 1:C:139:ALA:HB2   | 1.84                     | 0.41              |
| 1:A:249:TRP:HA    | 1:A:312:PRO:HG2   | 2.02                     | 0.41              |
| 1:A:694:LEU:O     | 1:A:697:SER:OG    | 2.28                     | 0.41              |
| 1:A:801:ALA:HA    | 1:C:796:LYS:HZ3   | 1.85                     | 0.41              |
| 1:D:249:TRP:HA    | 1:D:312:PRO:HG2   | 2.02                     | 0.41              |
| 1:D:299:LYS:NZ    | 1:D:317:GLU:OE2   | 2.38                     | 0.41              |
| 1:E:175:ARG:HG3   | 1:E:263:VAL:HG12  | 2.01                     | 0.41              |
| 1:E:662:ILE:O     | 1:E:666:THR:HG23  | 2.19                     | 0.41              |
| 1:F:78:THR:HG23   | 1:F:80:GLN:H      | 1.85                     | 0.41              |
| 1:G:78:THR:HG23   | 1:G:80:GLN:H      | 1.85                     | 0.41              |
| 1:G:717:GLU:HB2   | 1:I:707:LEU:HD13  | 2.02                     | 0.41              |
| 1:H:130:GLU:HG3   | 1:H:134:GLY:HA2   | 2.02                     | 0.41              |
| 1:I:15:TYR:CZ     | 1:I:98:PRO:HA     | 2.55                     | 0.41              |
| 1:I:387:GLY:HA3   | 1:I:402:ILE:HG22  | 2.01                     | 0.41              |
| 1:I:531:THR:HG23  | 1:I:533:ASP:H     | 1.84                     | 0.41              |
| 1:J:387:GLY:HA3   | 1:J:402:ILE:HG22  | 2.01                     | 0.41              |
| 1:J:531:THR:HG23  | 1:J:533:ASP:H     | 1.84                     | 0.41              |
| 1:K:73:VAL:HG21   | 1:K:100:TYR:OH    | 2.20                     | 0.41              |
| 1:K:384:GLN:HB2   | 1:M:474:ARG:HG3   | 2.02                     | 0.41              |
| 1:L:387:GLY:HA3   | 1:L:402:ILE:HG22  | 2.01                     | 0.41              |
| 1:M:249:TRP:HA    | 1:M:312:PRO:HG2   | 2.02                     | 0.41              |
| 1:N:130:GLU:HG3   | 1:N:134:GLY:HA2   | 2.02                     | 0.41              |
| 1:N:249:TRP:HA    | 1:N:312:PRO:HG2   | 2.02                     | 0.41              |
| 1:O:15:TYR:CZ     | 1:O:98:PRO:HA     | 2.55                     | 0.41              |
| 1:O:62:ALA:HB3    | 1:O:104:VAL:HG13  | 2.02                     | 0.41              |
| 1:P:676:GLU:OE2   | 1:P:679:ARG:NH2   | 2.43                     | 0.41              |
| 1:R:130:GLU:HG3   | 1:R:134:GLY:HA2   | 2.02                     | 0.41              |
| 1:R:531:THR:HG23  | 1:R:533:ASP:H     | 1.85                     | 0.41              |
| 1:S:543:TYR:O     | 1:S:545:TRP:HD1   | 2.02                     | 0.41              |
| 1:S:626:ALA:HB3   | 1:S:635:VAL:HB    | 2.02                     | 0.41              |
| 1:T:73:VAL:HG21   | 1:T:100:TYR:OH    | 2.20                     | 0.41              |
| 1:V:88:GLN:O      | 1:V:155:LYS:HE2   | 2.19                     | 0.41              |
| 1:V:228:HIS:CE1   | 1:V:248:GLU:HB3   | 2.54                     | 0.41              |
| 1:V:521:ASP:OD1   | 1:V:522:PHE:N     | 2.44                     | 0.41              |
| 1:V:531:THR:HG23  | 1:V:533:ASP:H     | 1.84                     | 0.41              |
| 1:V:600:ARG:HG2   | 1:V:604:PHE:CE1   | 2.54                     | 0.41              |
| 1:W:387:GLY:HA3   | 1:W:402:ILE:HG22  | 2.01                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:W:504:ARG:HB3   | 1:W:505:PRO:HD3   | 2.02                     | 0.41              |
| 1:X:20:ASP:OD2    | 1:X:23:SER:OG     | 2.32                     | 0.41              |
| 1:X:387:GLY:HA3   | 1:X:402:ILE:HA    | 2.02                     | 0.41              |
| 1:Y:15:TYR:CZ     | 1:Y:98:PRO:HA     | 2.55                     | 0.41              |
| 1:Y:62:ALA:HB3    | 1:Y:104:VAL:HG13  | 2.02                     | 0.41              |
| 1:Z:655:GLN:O     | 1:Z:658:VAL:HG22  | 2.20                     | 0.41              |
| 1:AA:78:THR:HG23  | 1:AA:80:GLN:H     | 1.85                     | 0.41              |
| 1:AA:626:ALA:HB3  | 1:AA:635:VAL:HB   | 2.02                     | 0.41              |
| 1:BA:531:THR:HG23 | 1:BA:533:ASP:H    | 1.84                     | 0.41              |
| 1:DA:543:TYR:O    | 1:DA:545:TRP:HD1  | 2.03                     | 0.41              |
| 1:EA:387:GLY:HA3  | 1:EA:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:GA:15:TYR:CZ    | 1:GA:98:PRO:HA    | 2.55                     | 0.41              |
| 1:GA:130:GLU:HG3  | 1:GA:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:GA:531:THR:HG23 | 1:GA:533:ASP:H    | 1.84                     | 0.41              |
| 1:IA:56:ARG:CG    | 1:KA:127:LEU:HD13 | 2.49                     | 0.41              |
| 1:JA:88:GLN:O     | 1:JA:155:LYS:HE2  | 2.19                     | 0.41              |
| 1:KA:663:GLU:OE2  | 1:KA:667:ASN:ND2  | 2.52                     | 0.41              |
| 1:LA:8:ILE:CG1    | 1:LA:35:TYR:HB3   | 2.51                     | 0.41              |
| 1:MA:655:GLN:O    | 1:MA:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:NA:95:ASP:HA    | 1:PA:85:HIS:NE2   | 2.35                     | 0.41              |
| 1:NA:531:THR:HG23 | 1:NA:533:ASP:H    | 1.84                     | 0.41              |
| 1:QA:387:GLY:HA3  | 1:QA:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:SA:8:ILE:CG1    | 1:SA:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:SA:387:GLY:HA3  | 1:SA:402:ILE:HA   | 2.02                     | 0.41              |
| 1:UA:8:ILE:CG1    | 1:UA:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:VA:387:GLY:HA3  | 1:VA:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:WA:15:TYR:CZ    | 1:WA:98:PRO:HA    | 2.55                     | 0.41              |
| 1:WA:655:GLN:O    | 1:WA:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:ZA:73:VAL:HG21  | 1:ZA:100:TYR:OH   | 2.20                     | 0.41              |
| 1:ZA:387:GLY:HA3  | 1:ZA:402:ILE:HA   | 2.02                     | 0.41              |
| 1:AB:8:ILE:CG1    | 1:AB:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:BB:387:GLY:HA3  | 1:BB:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:BB:523:PHE:N    | 1:BB:542:ALA:O    | 2.48                     | 0.41              |
| 1:CB:73:VAL:HG21  | 1:CB:100:TYR:OH   | 2.20                     | 0.41              |
| 1:DB:73:VAL:HG21  | 1:DB:100:TYR:OH   | 2.20                     | 0.41              |
| 1:DB:78:THR:HG23  | 1:DB:80:GLN:H     | 1.85                     | 0.41              |
| 1:EB:387:GLY:HA3  | 1:EB:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:EB:655:GLN:O    | 1:EB:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:EB:662:ILE:O    | 1:EB:666:THR:HG23 | 2.19                     | 0.41              |
| 1:FB:339:PRO:HB3  | 1:FB:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:FB:502:ALA:HB3  | 1:FB:510:ALA:HB3  | 2.00                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:FB:655:GLN:O    | 1:FB:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:GB:73:VAL:HG21  | 1:GB:100:TYR:OH   | 2.20                     | 0.41              |
| 1:GB:388:ILE:HG13 | 1:GB:390:VAL:HG13 | 2.01                     | 0.41              |
| 1:HB:339:PRO:HB3  | 1:HB:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:IB:88:GLN:O     | 1:IB:155:LYS:HE2  | 2.19                     | 0.41              |
| 1:JB:130:GLU:HG3  | 1:JB:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:JB:387:GLY:HA3  | 1:JB:402:ILE:HA   | 2.02                     | 0.41              |
| 1:JB:543:TYR:O    | 1:JB:545:TRP:HD1  | 2.02                     | 0.41              |
| 1:JB:655:GLN:O    | 1:JB:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:KB:78:THR:HG23  | 1:KB:80:GLN:H     | 1.85                     | 0.41              |
| 1:LB:130:GLU:HG3  | 1:LB:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:LB:387:GLY:HA3  | 1:LB:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:LB:814:GLY:HA2  | 1:LB:815:PRO:HD3  | 1.91                     | 0.41              |
| 1:MB:175:ARG:HG3  | 1:MB:263:VAL:HG12 | 2.01                     | 0.41              |
| 1:MB:249:TRP:HA   | 1:MB:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:MB:655:GLN:O    | 1:MB:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:NB:339:PRO:HB3  | 1:NB:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:NB:531:THR:HG23 | 1:NB:533:ASP:H    | 1.84                     | 0.41              |
| 1:OB:8:ILE:CG1    | 1:OB:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:OB:73:VAL:HG21  | 1:OB:100:TYR:OH   | 2.20                     | 0.41              |
| 1:OB:533:ASP:CG   | 1:OB:587:THR:HG1  | 2.22                     | 0.41              |
| 1:PB:8:ILE:CG1    | 1:PB:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:PB:15:TYR:CZ    | 1:PB:98:PRO:HA    | 2.55                     | 0.41              |
| 1:PB:325:VAL:HG21 | 1:QB:337:LEU:HA   | 2.00                     | 0.41              |
| 1:PB:665:THR:HG21 | 1:QB:589:ASP:OD1  | 2.20                     | 0.41              |
| 1:QB:73:VAL:HG21  | 1:QB:100:TYR:OH   | 2.20                     | 0.41              |
| 1:QB:175:ARG:HG3  | 1:QB:263:VAL:HG12 | 2.01                     | 0.41              |
| 1:RB:73:VAL:HG21  | 1:RB:100:TYR:OH   | 2.20                     | 0.41              |
| 1:RB:377:ARG:HD3  | 1:RB:377:ARG:HA   | 1.84                     | 0.41              |
| 1:RB:506:LYS:HD3  | 1:RB:506:LYS:HA   | 1.78                     | 0.41              |
| 1:SB:10:ILE:O     | 1:TB:24:ASN:ND2   | 2.53                     | 0.41              |
| 1:SB:621:LYS:HD3  | 1:SB:621:LYS:HA   | 1.81                     | 0.41              |
| 1:UB:523:PHE:N    | 1:UB:542:ALA:O    | 2.48                     | 0.41              |
| 1:VB:73:VAL:HG21  | 1:VB:100:TYR:OH   | 2.20                     | 0.41              |
| 1:VB:88:GLN:O     | 1:VB:155:LYS:HE2  | 2.19                     | 0.41              |
| 1:VB:387:GLY:HA3  | 1:VB:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:VB:504:ARG:HB3  | 1:VB:505:PRO:HD3  | 2.03                     | 0.41              |
| 1:XB:130:GLU:HG3  | 1:XB:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:XB:339:PRO:HB3  | 1:XB:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:YB:339:PRO:HB3  | 1:YB:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:YB:709:LEU:HD11 | 1:ZB:701:LYS:HE3  | 2.02                     | 0.41              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:ZB:73:VAL:HG21 | 1:ZB:100:TYR:OH   | 2.20                     | 0.41              |
| 1:ZB:504:ARG:HB3 | 1:ZB:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:AC:339:PRO:HB3 | 1:AC:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:AC:387:GLY:HA3 | 1:AC:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:A:62:ALA:HB3   | 1:A:104:VAL:HG13  | 2.02                     | 0.41              |
| 1:A:130:GLU:HG3  | 1:A:134:GLY:HA2   | 2.02                     | 0.41              |
| 1:A:504:ARG:HB3  | 1:A:505:PRO:HD3   | 2.02                     | 0.41              |
| 1:B:663:GLU:OE2  | 1:B:667:ASN:ND2   | 2.52                     | 0.41              |
| 1:C:663:GLU:OE2  | 1:C:667:ASN:ND2   | 2.52                     | 0.41              |
| 1:E:78:THR:HG23  | 1:E:80:GLN:H      | 1.85                     | 0.41              |
| 1:E:130:GLU:HG3  | 1:E:134:GLY:HA2   | 2.02                     | 0.41              |
| 1:E:249:TRP:HA   | 1:E:312:PRO:HG2   | 2.02                     | 0.41              |
| 1:F:249:TRP:HA   | 1:F:312:PRO:HG2   | 2.02                     | 0.41              |
| 1:F:387:GLY:HA3  | 1:F:402:ILE:HA    | 2.02                     | 0.41              |
| 1:F:387:GLY:HA3  | 1:F:402:ILE:HG22  | 2.01                     | 0.41              |
| 1:H:15:TYR:CZ    | 1:H:98:PRO:HA     | 2.55                     | 0.41              |
| 1:H:339:PRO:HB3  | 1:H:353:ALA:HB2   | 2.02                     | 0.41              |
| 1:H:344:GLU:OE2  | 1:H:345:SER:OG    | 2.38                     | 0.41              |
| 1:I:130:GLU:HG3  | 1:I:134:GLY:HA2   | 2.02                     | 0.41              |
| 1:I:385:ASN:ND2  | 1:K:473:TYR:O     | 2.53                     | 0.41              |
| 1:I:504:ARG:HB3  | 1:I:505:PRO:HD3   | 2.03                     | 0.41              |
| 1:I:533:ASP:CG   | 1:I:587:THR:HG1   | 2.23                     | 0.41              |
| 1:J:175:ARG:HG3  | 1:J:263:VAL:HG12  | 2.01                     | 0.41              |
| 1:J:249:TRP:HA   | 1:J:312:PRO:HG2   | 2.02                     | 0.41              |
| 1:J:303:LYS:HZ2  | 1:J:366:VAL:HG11  | 1.85                     | 0.41              |
| 1:K:504:ARG:HB3  | 1:K:505:PRO:HD3   | 2.02                     | 0.41              |
| 1:L:387:GLY:HA3  | 1:L:402:ILE:HA    | 2.02                     | 0.41              |
| 1:L:394:LYS:HE3  | 1:L:394:LYS:HB2   | 1.81                     | 0.41              |
| 1:N:62:ALA:HB3   | 1:N:104:VAL:HG13  | 2.02                     | 0.41              |
| 1:N:694:LEU:O    | 1:N:697:SER:OG    | 2.28                     | 0.41              |
| 1:O:504:ARG:HB3  | 1:O:505:PRO:HD3   | 2.03                     | 0.41              |
| 1:O:506:LYS:HD3  | 1:O:506:LYS:HA    | 1.78                     | 0.41              |
| 1:O:663:GLU:OE2  | 1:O:667:ASN:ND2   | 2.52                     | 0.41              |
| 1:P:249:TRP:HA   | 1:P:312:PRO:HG2   | 2.02                     | 0.41              |
| 1:Q:73:VAL:HG21  | 1:Q:100:TYR:OH    | 2.20                     | 0.41              |
| 1:Q:249:TRP:HA   | 1:Q:312:PRO:HG2   | 2.02                     | 0.41              |
| 1:Q:621:LYS:HD3  | 1:Q:621:LYS:HA    | 1.81                     | 0.41              |
| 1:Q:663:GLU:OE2  | 1:Q:667:ASN:ND2   | 2.52                     | 0.41              |
| 1:S:655:GLN:HG2  | 1:V:649:ARG:HH11  | 1.85                     | 0.41              |
| 1:T:387:GLY:HA3  | 1:T:402:ILE:HA    | 2.02                     | 0.41              |
| 1:V:387:GLY:HA3  | 1:V:402:ILE:HA    | 2.02                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:X:249:TRP:HA    | 1:X:312:PRO:HG2   | 2.02                     | 0.41              |
| 1:X:764:LYS:HB2   | 1:X:764:LYS:HE3   | 1.84                     | 0.41              |
| 1:Y:130:GLU:HG3   | 1:Y:134:GLY:HA2   | 2.02                     | 0.41              |
| 1:Z:15:TYR:CZ     | 1:Z:98:PRO:HA     | 2.54                     | 0.41              |
| 1:AA:504:ARG:HB3  | 1:AA:505:PRO:HD3  | 2.03                     | 0.41              |
| 1:BA:62:ALA:HB3   | 1:BA:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:BA:88:GLN:O     | 1:BA:155:LYS:HE2  | 2.19                     | 0.41              |
| 1:DA:73:VAL:HG21  | 1:DA:100:TYR:OH   | 2.20                     | 0.41              |
| 1:DA:387:GLY:HA3  | 1:DA:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:DA:626:ALA:HB3  | 1:DA:635:VAL:HB   | 2.02                     | 0.41              |
| 1:EA:15:TYR:CZ    | 1:EA:98:PRO:HA    | 2.55                     | 0.41              |
| 1:EA:78:THR:HG23  | 1:EA:80:GLN:H     | 1.85                     | 0.41              |
| 1:FA:8:ILE:CG1    | 1:FA:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:FA:62:ALA:HB3   | 1:FA:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:FA:387:GLY:HA3  | 1:FA:402:ILE:HA   | 2.02                     | 0.41              |
| 1:GA:621:LYS:HD3  | 1:GA:621:LYS:HA   | 1.81                     | 0.41              |
| 1:IA:88:GLN:O     | 1:IA:155:LYS:HE2  | 2.19                     | 0.41              |
| 1:JA:15:TYR:CZ    | 1:JA:98:PRO:HA    | 2.55                     | 0.41              |
| 1:JA:228:HIS:CE1  | 1:JA:248:GLU:HB3  | 2.54                     | 0.41              |
| 1:JA:419:LEU:HD11 | 1:JA:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:KA:387:GLY:HA3  | 1:KA:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:KA:692:LYS:HG3  | 1:MA:682:GLN:HG2  | 2.01                     | 0.41              |
| 1:LA:533:ASP:CG   | 1:LA:587:THR:HG1  | 2.22                     | 0.41              |
| 1:MA:130:GLU:HG3  | 1:MA:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:OA:32:PRO:HB2   | 1:QA:24:ASN:HB2   | 2.01                     | 0.41              |
| 1:OA:136:LYS:HA   | 1:OA:136:LYS:HD2  | 1.76                     | 0.41              |
| 1:PA:78:THR:HG23  | 1:PA:80:GLN:H     | 1.85                     | 0.41              |
| 1:PA:394:LYS:HE3  | 1:PA:394:LYS:HB2  | 1.81                     | 0.41              |
| 1:RA:8:ILE:CG1    | 1:RA:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:RA:419:LEU:HD11 | 1:RA:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:SA:62:ALA:HB3   | 1:SA:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:SA:383:ASP:OD1  | 1:SA:383:ASP:N    | 2.44                     | 0.41              |
| 1:TA:8:ILE:CG1    | 1:TA:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:TA:419:LEU:HD11 | 1:TA:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:TA:531:THR:HG23 | 1:TA:533:ASP:H    | 1.84                     | 0.41              |
| 1:VA:175:ARG:HG3  | 1:VA:263:VAL:HG12 | 2.01                     | 0.41              |
| 1:WA:387:GLY:HA3  | 1:WA:402:ILE:HA   | 2.02                     | 0.41              |
| 1:AB:15:TYR:CZ    | 1:AB:98:PRO:HA    | 2.55                     | 0.41              |
| 1:BB:175:ARG:HG3  | 1:BB:263:VAL:HG12 | 2.01                     | 0.41              |
| 1:BB:471:TYR:CD2  | 1:BB:478:ALA:HB2  | 2.54                     | 0.41              |
| 1:CB:504:ARG:HB3  | 1:CB:505:PRO:HD3  | 2.03                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:DB:662:ILE:O    | 1:DB:666:THR:HG23 | 2.19                     | 0.41              |
| 1:EB:130:GLU:HG3  | 1:EB:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:GB:130:GLU:HG3  | 1:GB:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:GB:504:ARG:HB3  | 1:GB:505:PRO:HD3  | 2.03                     | 0.41              |
| 1:HB:387:GLY:HA3  | 1:HB:402:ILE:HA   | 2.02                     | 0.41              |
| 1:HB:531:THR:HG23 | 1:HB:533:ASP:H    | 1.84                     | 0.41              |
| 1:IB:461:ARG:HH11 | 1:JB:494:GLN:HG3  | 1.85                     | 0.41              |
| 1:IB:531:THR:HG23 | 1:IB:533:ASP:H    | 1.84                     | 0.41              |
| 1:JB:249:TRP:HA   | 1:JB:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:JB:387:GLY:HA3  | 1:JB:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:JB:506:LYS:HA   | 1:JB:506:LYS:HD3  | 1.78                     | 0.41              |
| 1:JB:533:ASP:CG   | 1:JB:587:THR:HG1  | 2.23                     | 0.41              |
| 1:KB:383:ASP:OD1  | 1:KB:383:ASP:N    | 2.44                     | 0.41              |
| 1:KB:387:GLY:HA3  | 1:KB:402:ILE:HA   | 2.02                     | 0.41              |
| 1:KB:387:GLY:HA3  | 1:KB:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:LB:15:TYR:CZ    | 1:LB:98:PRO:HA    | 2.55                     | 0.41              |
| 1:LB:175:ARG:HG3  | 1:LB:263:VAL:HG12 | 2.01                     | 0.41              |
| 1:LB:339:PRO:HB3  | 1:LB:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:LB:344:GLU:OE2  | 1:LB:345:SER:OG   | 2.38                     | 0.41              |
| 1:LB:694:LEU:O    | 1:LB:697:SER:OG   | 2.28                     | 0.41              |
| 1:LB:732:ALA:HB2  | 1:MB:722:ALA:HB1  | 2.03                     | 0.41              |
| 1:MB:62:ALA:HB3   | 1:MB:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:OB:387:GLY:HA3  | 1:OB:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:OB:702:ALA:HB2  | 1:PB:690:ARG:HH12 | 1.85                     | 0.41              |
| 1:QB:533:ASP:CG   | 1:QB:587:THR:HG1  | 2.22                     | 0.41              |
| 1:QB:801:ALA:HA   | 1:RB:796:LYS:NZ   | 2.35                     | 0.41              |
| 1:RB:621:LYS:HD3  | 1:RB:621:LYS:HA   | 1.81                     | 0.41              |
| 1:SB:419:LEU:HD11 | 1:SB:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:TB:419:LEU:HD11 | 1:TB:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:UB:175:ARG:HG3  | 1:UB:263:VAL:HG12 | 2.01                     | 0.41              |
| 1:UB:387:GLY:HA3  | 1:UB:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:UB:471:TYR:CD2  | 1:UB:478:ALA:HB2  | 2.54                     | 0.41              |
| 1:UB:504:ARG:HB3  | 1:UB:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:UB:694:LEU:O    | 1:UB:697:SER:OG   | 2.28                     | 0.41              |
| 1:VB:78:THR:HG23  | 1:VB:80:GLN:H     | 1.85                     | 0.41              |
| 1:WB:63:ASN:HA    | 1:WB:84:ARG:O     | 2.18                     | 0.41              |
| 1:WB:73:VAL:HG21  | 1:WB:100:TYR:OH   | 2.20                     | 0.41              |
| 1:XB:655:GLN:O    | 1:XB:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:YB:504:ARG:HB3  | 1:YB:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:YB:621:LYS:HA   | 1:YB:621:LYS:HD3  | 1.81                     | 0.41              |
| 1:ZB:377:ARG:NH1  | 1:ZB:409:THR:O    | 2.30                     | 0.41              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:ZB:387:GLY:HA3 | 1:ZB:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:ZB:621:LYS:HD3 | 1:ZB:621:LYS:HA   | 1.81                     | 0.41              |
| 1:AC:130:GLU:HG3 | 1:AC:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:AC:504:ARG:HB3 | 1:AC:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:C:249:TRP:HA   | 1:C:312:PRO:HG2   | 2.02                     | 0.41              |
| 1:D:387:GLY:HA3  | 1:D:402:ILE:HA    | 2.02                     | 0.41              |
| 1:F:504:ARG:HB3  | 1:F:505:PRO:HD3   | 2.03                     | 0.41              |
| 1:G:62:ALA:HB3   | 1:G:104:VAL:HG13  | 2.02                     | 0.41              |
| 1:G:419:LEU:HD11 | 1:G:458:VAL:HG21  | 2.02                     | 0.41              |
| 1:G:504:ARG:HB3  | 1:G:505:PRO:HD3   | 2.03                     | 0.41              |
| 1:G:655:GLN:O    | 1:G:658:VAL:HG22  | 2.20                     | 0.41              |
| 1:H:175:ARG:HG3  | 1:H:263:VAL:HG12  | 2.01                     | 0.41              |
| 1:H:299:LYS:NZ   | 1:H:317:GLU:OE2   | 2.38                     | 0.41              |
| 1:H:702:ALA:CB   | 1:J:690:ARG:HH12  | 2.33                     | 0.41              |
| 1:J:62:ALA:HB3   | 1:J:104:VAL:HG13  | 2.02                     | 0.41              |
| 1:K:8:ILE:CG1    | 1:K:35:TYR:HB3    | 2.50                     | 0.41              |
| 1:K:15:TYR:CZ    | 1:K:98:PRO:HA     | 2.55                     | 0.41              |
| 1:K:663:GLU:OE2  | 1:K:667:ASN:ND2   | 2.52                     | 0.41              |
| 1:L:88:GLN:O     | 1:L:155:LYS:HE2   | 2.19                     | 0.41              |
| 1:L:504:ARG:HB3  | 1:L:505:PRO:HD3   | 2.03                     | 0.41              |
| 1:M:655:GLN:O    | 1:M:658:VAL:HG22  | 2.20                     | 0.41              |
| 1:N:78:THR:HG23  | 1:N:80:GLN:H      | 1.85                     | 0.41              |
| 1:N:387:GLY:HA3  | 1:N:402:ILE:HA    | 2.02                     | 0.41              |
| 1:O:377:ARG:NH1  | 1:O:409:THR:O     | 2.30                     | 0.41              |
| 1:O:471:TYR:CD2  | 1:O:478:ALA:HB2   | 2.54                     | 0.41              |
| 1:O:531:THR:HG23 | 1:O:533:ASP:H     | 1.84                     | 0.41              |
| 1:O:658:VAL:HG11 | 1:Q:535:ALA:HA    | 2.02                     | 0.41              |
| 1:P:62:ALA:HB3   | 1:P:104:VAL:HG13  | 2.02                     | 0.41              |
| 1:P:419:LEU:HD11 | 1:P:458:VAL:HG21  | 2.02                     | 0.41              |
| 1:Q:694:LEU:O    | 1:Q:697:SER:OG    | 2.28                     | 0.41              |
| 1:R:73:VAL:HG21  | 1:R:100:TYR:OH    | 2.20                     | 0.41              |
| 1:R:504:ARG:HB3  | 1:R:505:PRO:HD3   | 2.03                     | 0.41              |
| 1:S:653:ALA:HA   | 1:S:656:ARG:NE    | 2.26                     | 0.41              |
| 1:T:504:ARG:HB3  | 1:T:505:PRO:HD3   | 2.03                     | 0.41              |
| 1:T:662:ILE:O    | 1:T:666:THR:HG23  | 2.19                     | 0.41              |
| 1:T:814:GLY:HA2  | 1:T:815:PRO:HD3   | 1.91                     | 0.41              |
| 1:V:15:TYR:CZ    | 1:V:98:PRO:HA     | 2.55                     | 0.41              |
| 1:V:249:TRP:HA   | 1:V:312:PRO:HG2   | 2.02                     | 0.41              |
| 1:W:15:TYR:CZ    | 1:W:98:PRO:HA     | 2.55                     | 0.41              |
| 1:W:249:TRP:HA   | 1:W:312:PRO:HG2   | 2.03                     | 0.41              |
| 1:W:299:LYS:NZ   | 1:W:317:GLU:OE2   | 2.38                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:X:15:TYR:CZ     | 1:X:98:PRO:HA     | 2.55                     | 0.41              |
| 1:X:73:VAL:HG21   | 1:X:100:TYR:OH    | 2.20                     | 0.41              |
| 1:Y:73:VAL:HG21   | 1:Y:100:TYR:OH    | 2.20                     | 0.41              |
| 1:Y:249:TRP:HA    | 1:Y:312:PRO:HG2   | 2.02                     | 0.41              |
| 1:Y:663:GLU:OE2   | 1:Y:667:ASN:ND2   | 2.52                     | 0.41              |
| 1:Z:62:ALA:HB3    | 1:Z:104:VAL:HG13  | 2.02                     | 0.41              |
| 1:Z:130:GLU:HG3   | 1:Z:134:GLY:HA2   | 2.02                     | 0.41              |
| 1:CA:228:HIS:CE1  | 1:CA:248:GLU:HB3  | 2.54                     | 0.41              |
| 1:CA:387:GLY:HA3  | 1:CA:402:ILE:HA   | 2.02                     | 0.41              |
| 1:CA:504:ARG:HB3  | 1:CA:505:PRO:HD3  | 2.03                     | 0.41              |
| 1:CA:676:GLU:OE2  | 1:CA:679:ARG:NH2  | 2.43                     | 0.41              |
| 1:DA:8:ILE:CG1    | 1:DA:35:TYR:HB3   | 2.51                     | 0.41              |
| 1:EA:249:TRP:HA   | 1:EA:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:EA:663:GLU:OE2  | 1:EA:667:ASN:ND2  | 2.52                     | 0.41              |
| 1:GA:249:TRP:HA   | 1:GA:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:GA:653:ALA:HA   | 1:GA:656:ARG:NE   | 2.26                     | 0.41              |
| 1:HA:299:LYS:NZ   | 1:HA:317:GLU:OE2  | 2.38                     | 0.41              |
| 1:HA:339:PRO:HB3  | 1:HA:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:HA:655:GLN:O    | 1:HA:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:HA:702:ALA:CB   | 1:JA:690:ARG:HH12 | 2.33                     | 0.41              |
| 1:IA:15:TYR:CZ    | 1:IA:98:PRO:HA    | 2.55                     | 0.41              |
| 1:IA:504:ARG:HB3  | 1:IA:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:JA:387:GLY:HA3  | 1:JA:402:ILE:HA   | 2.02                     | 0.41              |
| 1:JA:655:GLN:O    | 1:JA:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:KA:15:TYR:CZ    | 1:KA:98:PRO:HA    | 2.55                     | 0.41              |
| 1:KA:249:TRP:HA   | 1:KA:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:KA:626:ALA:HB3  | 1:KA:635:VAL:HB   | 2.02                     | 0.41              |
| 1:LA:419:LEU:HD11 | 1:LA:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:MA:78:THR:HG23  | 1:MA:80:GLN:H     | 1.85                     | 0.41              |
| 1:NA:626:ALA:HB3  | 1:NA:635:VAL:HB   | 2.02                     | 0.41              |
| 1:OA:62:ALA:HB3   | 1:OA:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:OA:621:LYS:HD3  | 1:OA:621:LYS:HA   | 1.81                     | 0.41              |
| 1:QA:8:ILE:CG1    | 1:QA:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:QA:73:VAL:HG21  | 1:QA:100:TYR:OH   | 2.20                     | 0.41              |
| 1:QA:130:GLU:HG3  | 1:QA:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:QA:471:TYR:CD2  | 1:QA:478:ALA:HB2  | 2.54                     | 0.41              |
| 1:QA:626:ALA:HB3  | 1:QA:635:VAL:HB   | 2.02                     | 0.41              |
| 1:QA:655:GLN:O    | 1:QA:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:SA:339:PRO:HB3  | 1:SA:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:TA:387:GLY:HA3  | 1:TA:402:ILE:HA   | 2.02                     | 0.41              |
| 1:VA:8:ILE:CG1    | 1:VA:35:TYR:HB3   | 2.50                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:WA:419:LEU:HD11 | 1:WA:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:XA:88:GLN:O     | 1:XA:155:LYS:HE2  | 2.19                     | 0.41              |
| 1:XA:419:LEU:HD11 | 1:XA:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:YA:626:ALA:HB3  | 1:YA:635:VAL:HB   | 2.02                     | 0.41              |
| 1:ZA:419:LEU:HD11 | 1:ZA:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:BB:504:ARG:HB3  | 1:BB:505:PRO:HD3  | 2.03                     | 0.41              |
| 1:BB:694:LEU:O    | 1:BB:697:SER:OG   | 2.28                     | 0.41              |
| 1:CB:78:THR:HG23  | 1:CB:80:GLN:H     | 1.85                     | 0.41              |
| 1:CB:130:GLU:HG3  | 1:CB:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:DB:504:ARG:HB3  | 1:DB:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:DB:655:GLN:O    | 1:DB:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:DB:694:LEU:O    | 1:DB:697:SER:OG   | 2.28                     | 0.41              |
| 1:FB:73:VAL:HG21  | 1:FB:100:TYR:OH   | 2.20                     | 0.41              |
| 1:GB:387:GLY:HA3  | 1:GB:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:HB:73:VAL:HG21  | 1:HB:100:TYR:OH   | 2.20                     | 0.41              |
| 1:HB:130:GLU:HG3  | 1:HB:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:HB:387:GLY:HA3  | 1:HB:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:HB:662:ILE:O    | 1:HB:666:THR:HG23 | 2.19                     | 0.41              |
| 1:IB:387:GLY:HA3  | 1:IB:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:JB:500:LEU:HD23 | 1:JB:500:LEU:HA   | 1.92                     | 0.41              |
| 1:KB:504:ARG:HB3  | 1:KB:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:KB:764:LYS:HB2  | 1:KB:764:LYS:HE3  | 1.84                     | 0.41              |
| 1:LB:249:TRP:HA   | 1:LB:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:LB:676:GLU:OE2  | 1:LB:679:ARG:NH2  | 2.43                     | 0.41              |
| 1:LB:716:VAL:HG21 | 1:MB:708:GLU:CG   | 2.51                     | 0.41              |
| 1:MB:303:LYS:HZ2  | 1:MB:366:VAL:HG11 | 1.85                     | 0.41              |
| 1:MB:387:GLY:HA3  | 1:MB:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:NB:73:VAL:HG21  | 1:NB:100:TYR:OH   | 2.20                     | 0.41              |
| 1:NB:387:GLY:HA3  | 1:NB:402:ILE:HA   | 2.02                     | 0.41              |
| 1:NB:387:GLY:HA3  | 1:NB:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:OB:325:VAL:HG21 | 1:PB:337:LEU:HA   | 2.00                     | 0.41              |
| 1:OB:377:ARG:HD3  | 1:OB:377:ARG:HA   | 1.84                     | 0.41              |
| 1:OB:394:LYS:HE3  | 1:OB:394:LYS:HB2  | 1.81                     | 0.41              |
| 1:PB:394:LYS:HB2  | 1:PB:394:LYS:HE3  | 1.81                     | 0.41              |
| 1:PB:419:LEU:HD11 | 1:PB:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:QB:299:LYS:NZ   | 1:QB:317:GLU:OE2  | 2.38                     | 0.41              |
| 1:QB:339:PRO:HB3  | 1:QB:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:QB:663:GLU:OE2  | 1:QB:667:ASN:ND2  | 2.52                     | 0.41              |
| 1:RB:8:ILE:CG1    | 1:RB:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:SB:387:GLY:HA3  | 1:SB:402:ILE:HA   | 2.02                     | 0.41              |
| 1:TB:175:ARG:HG3  | 1:TB:263:VAL:HG12 | 2.01                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:UB:814:GLY:HA2  | 1:UB:815:PRO:HD3  | 1.91                     | 0.41              |
| 1:VB:130:GLU:HG3  | 1:VB:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:VB:387:GLY:HA3  | 1:VB:402:ILE:HA   | 2.02                     | 0.41              |
| 1:VB:543:TYR:O    | 1:VB:545:TRP:HD1  | 2.02                     | 0.41              |
| 1:YB:78:THR:HG23  | 1:YB:80:GLN:H     | 1.85                     | 0.41              |
| 1:YB:405:THR:HG22 | 1:ZB:395:THR:HA   | 2.02                     | 0.41              |
| 1:YB:655:GLN:O    | 1:YB:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:ZB:130:GLU:HG3  | 1:ZB:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:AC:387:GLY:HA3  | 1:AC:402:ILE:HA   | 2.02                     | 0.41              |
| 1:AC:531:THR:HG23 | 1:AC:533:ASP:H    | 1.85                     | 0.41              |
| 1:AC:662:ILE:O    | 1:AC:666:THR:HG23 | 2.19                     | 0.41              |
| 1:A:15:TYR:CZ     | 1:A:98:PRO:HA     | 2.55                     | 0.41              |
| 1:A:337:LEU:HD13  | 1:NB:279:ARG:HD3  | 2.01                     | 0.41              |
| 1:A:352:GLN:HB3   | 1:NB:362:PRO:O    | 2.20                     | 0.41              |
| 1:B:377:ARG:HD3   | 1:B:377:ARG:HA    | 1.84                     | 0.41              |
| 1:B:387:GLY:HA3   | 1:B:402:ILE:HG22  | 2.01                     | 0.41              |
| 1:C:504:ARG:HB3   | 1:C:505:PRO:HD3   | 2.03                     | 0.41              |
| 1:C:707:LEU:HD23  | 1:C:707:LEU:HA    | 1.89                     | 0.41              |
| 1:D:504:ARG:HB3   | 1:D:505:PRO:HD3   | 2.03                     | 0.41              |
| 1:E:15:TYR:CZ     | 1:E:98:PRO:HA     | 2.55                     | 0.41              |
| 1:E:533:ASP:CG    | 1:E:587:THR:HG1   | 2.23                     | 0.41              |
| 1:F:62:ALA:HB3    | 1:F:104:VAL:HG13  | 2.02                     | 0.41              |
| 1:F:471:TYR:CD2   | 1:F:478:ALA:HB2   | 2.54                     | 0.41              |
| 1:F:621:LYS:HD3   | 1:F:621:LYS:HA    | 1.81                     | 0.41              |
| 1:G:15:TYR:CZ     | 1:G:98:PRO:HA     | 2.55                     | 0.41              |
| 1:G:73:VAL:HG21   | 1:G:100:TYR:OH    | 2.20                     | 0.41              |
| 1:G:344:GLU:OE2   | 1:G:345:SER:OG    | 2.38                     | 0.41              |
| 1:H:753:ILE:HG12  | 1:J:745:LYS:CE    | 2.46                     | 0.41              |
| 1:I:663:GLU:OE2   | 1:I:667:ASN:ND2   | 2.52                     | 0.41              |
| 1:J:15:TYR:CZ     | 1:J:98:PRO:HA     | 2.55                     | 0.41              |
| 1:K:88:GLN:O      | 1:K:155:LYS:HE2   | 2.19                     | 0.41              |
| 1:K:249:TRP:HA    | 1:K:312:PRO:HG2   | 2.02                     | 0.41              |
| 1:K:419:LEU:HD11  | 1:K:458:VAL:HG21  | 2.02                     | 0.41              |
| 1:K:694:LEU:O     | 1:K:697:SER:OG    | 2.28                     | 0.41              |
| 1:L:73:VAL:HG21   | 1:L:100:TYR:OH    | 2.20                     | 0.41              |
| 1:M:504:ARG:HB3   | 1:M:505:PRO:HD3   | 2.02                     | 0.41              |
| 1:N:504:ARG:HB3   | 1:N:505:PRO:HD3   | 2.03                     | 0.41              |
| 1:N:814:GLY:HA2   | 1:N:815:PRO:HD3   | 1.91                     | 0.41              |
| 1:P:15:TYR:CZ     | 1:P:98:PRO:HA     | 2.55                     | 0.41              |
| 1:P:504:ARG:HB3   | 1:P:505:PRO:HD3   | 2.03                     | 0.41              |
| 1:Q:62:ALA:HB3    | 1:Q:104:VAL:HG13  | 2.02                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:R:626:ALA:HB3   | 1:R:635:VAL:HB    | 2.02                     | 0.41              |
| 1:S:15:TYR:CZ     | 1:S:98:PRO:HA     | 2.55                     | 0.41              |
| 1:S:249:TRP:HA    | 1:S:312:PRO:HG2   | 2.02                     | 0.41              |
| 1:S:504:ARG:HB3   | 1:S:505:PRO:HD3   | 2.02                     | 0.41              |
| 1:T:377:ARG:HD3   | 1:T:377:ARG:HA    | 1.84                     | 0.41              |
| 1:T:676:GLU:OE2   | 1:T:679:ARG:NH2   | 2.43                     | 0.41              |
| 1:V:504:ARG:HB3   | 1:V:505:PRO:HD3   | 2.02                     | 0.41              |
| 1:W:130:GLU:HG3   | 1:W:134:GLY:HA2   | 2.02                     | 0.41              |
| 1:Y:344:GLU:OE2   | 1:Y:345:SER:OG    | 2.38                     | 0.41              |
| 1:AA:73:VAL:HG21  | 1:AA:100:TYR:OH   | 2.20                     | 0.41              |
| 1:AA:203:ALA:HB2  | 1:CA:192:THR:HB   | 2.02                     | 0.41              |
| 1:AA:663:GLU:OE2  | 1:AA:667:ASN:ND2  | 2.52                     | 0.41              |
| 1:BA:8:ILE:CG1    | 1:BA:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:BA:339:PRO:HB3  | 1:BA:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:CA:56:ARG:CB    | 1:EA:127:LEU:HD22 | 2.51                     | 0.41              |
| 1:CA:62:ALA:HB3   | 1:CA:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:CA:655:GLN:O    | 1:CA:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:DA:130:GLU:HG3  | 1:DA:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:DA:655:GLN:O    | 1:DA:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:EA:73:VAL:HG21  | 1:EA:100:TYR:OH   | 2.20                     | 0.41              |
| 1:EA:504:ARG:HB3  | 1:EA:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:GA:20:ASP:OD2   | 1:GA:23:SER:OG    | 2.32                     | 0.41              |
| 1:HA:20:ASP:OD2   | 1:HA:23:SER:OG    | 2.32                     | 0.41              |
| 1:HA:130:GLU:HG3  | 1:HA:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:IA:130:GLU:HG3  | 1:IA:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:IA:249:TRP:HA   | 1:IA:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:IA:387:GLY:HA3  | 1:IA:402:ILE:HA   | 2.02                     | 0.41              |
| 1:JA:62:ALA:HB3   | 1:JA:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:KA:73:VAL:HG21  | 1:KA:100:TYR:OH   | 2.20                     | 0.41              |
| 1:LA:626:ALA:HB3  | 1:LA:635:VAL:HB   | 2.02                     | 0.41              |
| 1:LA:655:GLN:O    | 1:LA:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:MA:8:ILE:CG1    | 1:MA:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:MA:15:TYR:CZ    | 1:MA:98:PRO:HA    | 2.55                     | 0.41              |
| 1:MA:62:ALA:HB3   | 1:MA:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:MA:73:VAL:HG21  | 1:MA:100:TYR:OH   | 2.20                     | 0.41              |
| 1:OA:8:ILE:CG1    | 1:OA:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:OA:339:PRO:HB3  | 1:OA:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:PA:387:GLY:HA3  | 1:PA:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:PA:419:LEU:HD11 | 1:PA:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:SA:73:VAL:HG21  | 1:SA:100:TYR:OH   | 2.20                     | 0.41              |
| 1:TA:73:VAL:HG21  | 1:TA:100:TYR:OH   | 2.20                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:TA:95:ASP:HA    | 1:VA:85:HIS:CE1   | 2.55                     | 0.41              |
| 1:TA:676:GLU:OE2  | 1:TA:679:ARG:NH2  | 2.43                     | 0.41              |
| 1:UA:78:THR:HG23  | 1:UA:80:GLN:H     | 1.85                     | 0.41              |
| 1:UA:339:PRO:HB3  | 1:UA:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:UA:533:ASP:CG   | 1:UA:587:THR:HG1  | 2.23                     | 0.41              |
| 1:VA:377:ARG:HD3  | 1:VA:377:ARG:HA   | 1.84                     | 0.41              |
| 1:VA:504:ARG:HB3  | 1:VA:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:XA:8:ILE:CG1    | 1:XA:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:XA:175:ARG:HG3  | 1:XA:263:VAL:HG12 | 2.02                     | 0.41              |
| 1:YA:73:VAL:HG21  | 1:YA:100:TYR:OH   | 2.20                     | 0.41              |
| 1:YA:419:LEU:HD11 | 1:YA:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:YA:655:GLN:O    | 1:YA:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:ZA:8:ILE:CG1    | 1:ZA:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:ZA:130:GLU:HG3  | 1:ZA:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:ZA:175:ARG:HG3  | 1:ZA:263:VAL:HG12 | 2.01                     | 0.41              |
| 1:ZA:655:GLN:O    | 1:ZA:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:AB:626:ALA:HB3  | 1:AB:635:VAL:HB   | 2.02                     | 0.41              |
| 1:BB:73:VAL:HG21  | 1:BB:100:TYR:OH   | 2.20                     | 0.41              |
| 1:BB:655:GLN:O    | 1:BB:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:CB:543:TYR:O    | 1:CB:545:TRP:HD1  | 2.03                     | 0.41              |
| 1:DB:339:PRO:HB3  | 1:DB:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:EB:339:PRO:HB3  | 1:EB:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:EB:387:GLY:HA3  | 1:EB:402:ILE:HA   | 2.02                     | 0.41              |
| 1:EB:504:ARG:HB3  | 1:EB:505:PRO:HD3  | 2.03                     | 0.41              |
| 1:EB:506:LYS:HD3  | 1:EB:506:LYS:HA   | 1.78                     | 0.41              |
| 1:FB:504:ARG:HB3  | 1:FB:505:PRO:HD3  | 2.03                     | 0.41              |
| 1:GB:249:TRP:HA   | 1:GB:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:GB:377:ARG:HD3  | 1:GB:377:ARG:HA   | 1.84                     | 0.41              |
| 1:HB:249:TRP:HA   | 1:HB:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:HB:504:ARG:HB3  | 1:HB:505:PRO:HD3  | 2.03                     | 0.41              |
| 1:IB:78:THR:HG23  | 1:IB:80:GLN:H     | 1.85                     | 0.41              |
| 1:IB:249:TRP:HA   | 1:IB:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:JB:15:TYR:CZ    | 1:JB:98:PRO:HA    | 2.55                     | 0.41              |
| 1:JB:299:LYS:NZ   | 1:JB:317:GLU:OE2  | 2.38                     | 0.41              |
| 1:KB:73:VAL:HG21  | 1:KB:100:TYR:OH   | 2.20                     | 0.41              |
| 1:LB:504:ARG:HB3  | 1:LB:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:LB:662:ILE:O    | 1:LB:666:THR:HG23 | 2.19                     | 0.41              |
| 1:LB:736:GLU:OE2  | 1:MB:726:ALA:HB1  | 2.20                     | 0.41              |
| 1:MB:15:TYR:CZ    | 1:MB:98:PRO:HA    | 2.55                     | 0.41              |
| 1:NB:130:GLU:HG3  | 1:NB:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:NB:504:ARG:HB3  | 1:NB:505:PRO:HD3  | 2.02                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:NB:533:ASP:CG   | 1:NB:587:THR:HG1  | 2.22                     | 0.41              |
| 1:OB:504:ARG:HB3  | 1:OB:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:OB:655:GLN:O    | 1:OB:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:PB:339:PRO:HB3  | 1:PB:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:PB:377:ARG:HD3  | 1:PB:377:ARG:HA   | 1.84                     | 0.41              |
| 1:QB:419:LEU:HD11 | 1:QB:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:SB:8:ILE:CG1    | 1:SB:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:SB:175:ARG:HG3  | 1:SB:263:VAL:HG12 | 2.01                     | 0.41              |
| 1:TB:382:LEU:O    | 1:UB:396:GLY:HA3  | 2.21                     | 0.41              |
| 1:TB:655:GLN:O    | 1:TB:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:UB:73:VAL:HG21  | 1:UB:100:TYR:OH   | 2.20                     | 0.41              |
| 1:UB:383:ASP:OD1  | 1:UB:383:ASP:N    | 2.44                     | 0.41              |
| 1:UB:655:GLN:O    | 1:UB:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:UB:707:LEU:HD23 | 1:UB:707:LEU:HA   | 1.88                     | 0.41              |
| 1:VB:8:ILE:CG1    | 1:VB:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:VB:339:PRO:HB3  | 1:VB:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:WB:504:ARG:HB3  | 1:WB:505:PRO:HD3  | 2.03                     | 0.41              |
| 1:WB:506:LYS:HD3  | 1:WB:506:LYS:HA   | 1.78                     | 0.41              |
| 1:WB:694:LEU:O    | 1:WB:697:SER:OG   | 2.28                     | 0.41              |
| 1:XB:504:ARG:HB3  | 1:XB:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:YB:73:VAL:HG21  | 1:YB:100:TYR:OH   | 2.20                     | 0.41              |
| 1:ZB:461:ARG:NH1  | 1:AC:473:TYR:CE2  | 2.87                     | 0.41              |
| 1:AC:249:TRP:HA   | 1:AC:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:A:78:THR:HG23   | 1:A:80:GLN:H      | 1.85                     | 0.41              |
| 1:B:15:TYR:CZ     | 1:B:98:PRO:HA     | 2.55                     | 0.41              |
| 1:B:56:ARG:HH12   | 1:D:139:ALA:HB2   | 1.85                     | 0.41              |
| 1:B:78:THR:HG23   | 1:B:80:GLN:H      | 1.85                     | 0.41              |
| 1:B:249:TRP:HA    | 1:B:312:PRO:HG2   | 2.02                     | 0.41              |
| 1:B:279:ARG:HD3   | 1:D:337:LEU:HD13  | 2.02                     | 0.41              |
| 1:C:394:LYS:HE3   | 1:C:394:LYS:HB2   | 1.81                     | 0.41              |
| 1:C:419:LEU:HD11  | 1:C:458:VAL:HG21  | 2.02                     | 0.41              |
| 1:E:62:ALA:HB3    | 1:E:104:VAL:HG13  | 2.02                     | 0.41              |
| 1:E:387:GLY:HA3   | 1:E:402:ILE:HA    | 2.02                     | 0.41              |
| 1:E:626:ALA:HB3   | 1:E:635:VAL:HB    | 2.02                     | 0.41              |
| 1:F:73:VAL:HG21   | 1:F:100:TYR:OH    | 2.20                     | 0.41              |
| 1:F:419:LEU:HD11  | 1:F:458:VAL:HG21  | 2.02                     | 0.41              |
| 1:H:387:GLY:HA3   | 1:H:402:ILE:HG22  | 2.01                     | 0.41              |
| 1:H:504:ARG:HB3   | 1:H:505:PRO:HD3   | 2.03                     | 0.41              |
| 1:H:662:ILE:O     | 1:H:666:THR:HG23  | 2.19                     | 0.41              |
| 1:J:56:ARG:CB     | 1:L:127:LEU:HD22  | 2.50                     | 0.41              |
| 1:K:56:ARG:HB2    | 1:M:127:LEU:HD22  | 2.03                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:K:78:THR:HG23   | 1:K:80:GLN:H      | 1.85                     | 0.41              |
| 1:L:15:TYR:CZ     | 1:L:98:PRO:HA     | 2.55                     | 0.41              |
| 1:L:100:TYR:O     | 1:L:103:GLU:HB2   | 2.21                     | 0.41              |
| 1:L:592:HIS:NE2   | 1:N:531:THR:O     | 2.43                     | 0.41              |
| 1:L:764:LYS:HB2   | 1:L:764:LYS:HE3   | 1.84                     | 0.41              |
| 1:N:15:TYR:CZ     | 1:N:98:PRO:HA     | 2.55                     | 0.41              |
| 1:Q:377:ARG:NH1   | 1:Q:409:THR:O     | 2.30                     | 0.41              |
| 1:Q:653:ALA:HA    | 1:Q:656:ARG:NE    | 2.26                     | 0.41              |
| 1:R:500:LEU:HD23  | 1:R:500:LEU:HA    | 1.92                     | 0.41              |
| 1:S:8:ILE:CG1     | 1:S:35:TYR:HB3    | 2.50                     | 0.41              |
| 1:S:394:LYS:HE3   | 1:S:394:LYS:HB2   | 1.81                     | 0.41              |
| 1:T:130:GLU:HG3   | 1:T:134:GLY:HA2   | 2.02                     | 0.41              |
| 1:V:135:ASP:O     | 1:V:136:LYS:HB2   | 2.21                     | 0.41              |
| 1:W:387:GLY:HA3   | 1:W:402:ILE:HA    | 2.02                     | 0.41              |
| 1:X:130:GLU:HG3   | 1:X:134:GLY:HA2   | 2.02                     | 0.41              |
| 1:X:504:ARG:HB3   | 1:X:505:PRO:HD3   | 2.02                     | 0.41              |
| 1:X:626:ALA:HB3   | 1:X:635:VAL:HB    | 2.02                     | 0.41              |
| 1:Y:8:ILE:CG1     | 1:Y:35:TYR:HB3    | 2.50                     | 0.41              |
| 1:Z:8:ILE:CG1     | 1:Z:35:TYR:HB3    | 2.50                     | 0.41              |
| 1:Z:73:VAL:HG21   | 1:Z:100:TYR:OH    | 2.20                     | 0.41              |
| 1:DA:471:TYR:CD2  | 1:DA:478:ALA:HB2  | 2.54                     | 0.41              |
| 1:DA:713:SER:OG   | 1:FA:707:LEU:HD12 | 2.20                     | 0.41              |
| 1:EA:387:GLY:HA3  | 1:EA:402:ILE:HA   | 2.02                     | 0.41              |
| 1:EA:709:LEU:HD13 | 1:GA:701:LYS:HG3  | 2.03                     | 0.41              |
| 1:FA:339:PRO:HB3  | 1:FA:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:FA:394:LYS:HE3  | 1:FA:394:LYS:HB2  | 1.81                     | 0.41              |
| 1:FA:655:GLN:O    | 1:FA:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:GA:8:ILE:CG1    | 1:GA:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:GA:73:VAL:HG21  | 1:GA:100:TYR:OH   | 2.20                     | 0.41              |
| 1:GA:78:THR:HG23  | 1:GA:80:GLN:H     | 1.85                     | 0.41              |
| 1:GA:504:ARG:HB3  | 1:GA:505:PRO:HD3  | 2.03                     | 0.41              |
| 1:GA:545:TRP:HB2  | 1:GA:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:GA:676:GLU:OE2  | 1:GA:679:ARG:NH2  | 2.43                     | 0.41              |
| 1:HA:419:LEU:HD11 | 1:HA:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:IA:32:PRO:CB    | 1:KA:24:ASN:CB    | 2.94                     | 0.41              |
| 1:IA:500:LEU:HD23 | 1:IA:500:LEU:HA   | 1.92                     | 0.41              |
| 1:JA:100:TYR:O    | 1:JA:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:KA:545:TRP:HB2  | 1:KA:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:LA:339:PRO:HB3  | 1:LA:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:MA:136:LYS:HD2  | 1:MA:136:LYS:HA   | 1.76                     | 0.41              |
| 1:MA:249:TRP:HA   | 1:MA:312:PRO:HG2  | 2.02                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:OA:377:ARG:NH1  | 1:OA:409:THR:O    | 2.30                     | 0.41              |
| 1:OA:545:TRP:HB2  | 1:OA:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:OA:707:LEU:HD23 | 1:OA:707:LEU:HA   | 1.89                     | 0.41              |
| 1:PA:135:ASP:O    | 1:PA:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:QA:533:ASP:CG   | 1:QA:587:THR:HG1  | 2.22                     | 0.41              |
| 1:RA:382:LEU:O    | 1:TA:396:GLY:HA3  | 2.21                     | 0.41              |
| 1:RA:655:GLN:O    | 1:RA:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:TA:500:LEU:HD23 | 1:TA:500:LEU:HA   | 1.92                     | 0.41              |
| 1:UA:130:GLU:HG3  | 1:UA:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:UA:419:LEU:HD11 | 1:UA:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:UA:655:GLN:O    | 1:UA:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:UA:764:LYS:HB2  | 1:UA:764:LYS:HE3  | 1.84                     | 0.41              |
| 1:WA:62:ALA:HB3   | 1:WA:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:WA:100:TYR:O    | 1:WA:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:XA:504:ARG:HB3  | 1:XA:505:PRO:HD3  | 2.03                     | 0.41              |
| 1:XA:655:GLN:O    | 1:XA:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:YA:56:ARG:HG3   | 1:AB:127:LEU:HD22 | 2.02                     | 0.41              |
| 1:YA:339:PRO:HB3  | 1:YA:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:YA:663:GLU:OE2  | 1:YA:667:ASN:ND2  | 2.52                     | 0.41              |
| 1:ZA:531:THR:HG23 | 1:ZA:533:ASP:H    | 1.84                     | 0.41              |
| 1:BB:8:ILE:CG1    | 1:BB:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:BB:339:PRO:HB3  | 1:BB:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:BB:419:LEU:HD11 | 1:BB:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:BB:814:GLY:HA2  | 1:BB:815:PRO:HD3  | 1.91                     | 0.41              |
| 1:CB:175:ARG:HG3  | 1:CB:263:VAL:HG12 | 2.01                     | 0.41              |
| 1:CB:387:GLY:HA3  | 1:CB:402:ILE:HA   | 2.02                     | 0.41              |
| 1:CB:655:GLN:O    | 1:CB:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:DB:136:LYS:HD2  | 1:DB:136:LYS:HA   | 1.76                     | 0.41              |
| 1:FB:8:ILE:CG1    | 1:FB:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:FB:78:THR:HG23  | 1:FB:80:GLN:H     | 1.85                     | 0.41              |
| 1:FB:249:TRP:HA   | 1:FB:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:FB:387:GLY:HA3  | 1:FB:402:ILE:HA   | 2.02                     | 0.41              |
| 1:FB:626:ALA:HB3  | 1:FB:635:VAL:HB   | 2.02                     | 0.41              |
| 1:IB:663:GLU:OE2  | 1:IB:667:ASN:ND2  | 2.52                     | 0.41              |
| 1:IB:775:ALA:CB   | 1:JB:770:LEU:HD21 | 2.50                     | 0.41              |
| 1:JB:504:ARG:HB3  | 1:JB:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:JB:706:LEU:HD13 | 1:KB:693:ILE:HG23 | 2.01                     | 0.41              |
| 1:KB:419:LEU:HD11 | 1:KB:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:LB:663:GLU:OE2  | 1:LB:667:ASN:ND2  | 2.52                     | 0.41              |
| 1:MB:419:LEU:HD11 | 1:MB:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:NB:15:TYR:CZ    | 1:NB:98:PRO:HA    | 2.55                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:OB:387:GLY:HA3  | 1:OB:402:ILE:HA   | 2.02                     | 0.41              |
| 1:OB:419:LEU:HD11 | 1:OB:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:PB:471:TYR:CD2  | 1:PB:478:ALA:HB2  | 2.54                     | 0.41              |
| 1:PB:504:ARG:HB3  | 1:PB:505:PRO:HD3  | 2.03                     | 0.41              |
| 1:PB:655:GLN:O    | 1:PB:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:QB:531:THR:HG23 | 1:QB:533:ASP:H    | 1.84                     | 0.41              |
| 1:RB:387:GLY:HA3  | 1:RB:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:RB:504:ARG:HB3  | 1:RB:505:PRO:HD3  | 2.03                     | 0.41              |
| 1:SB:32:PRO:HB2   | 1:TB:24:ASN:HB2   | 2.02                     | 0.41              |
| 1:SB:88:GLN:O     | 1:SB:155:LYS:HE2  | 2.19                     | 0.41              |
| 1:SB:100:TYR:O    | 1:SB:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:SB:504:ARG:HB3  | 1:SB:505:PRO:HD3  | 2.03                     | 0.41              |
| 1:TB:8:ILE:CG1    | 1:TB:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:TB:130:GLU:HG3  | 1:TB:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:TB:394:LYS:HB2  | 1:TB:394:LYS:HE3  | 1.81                     | 0.41              |
| 1:TB:531:THR:HG23 | 1:TB:533:ASP:H    | 1.84                     | 0.41              |
| 1:UB:419:LEU:HD11 | 1:UB:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:UB:769:GLU:CB   | 1:VB:766:ARG:HH12 | 2.33                     | 0.41              |
| 1:VB:175:ARG:HG3  | 1:VB:263:VAL:HG12 | 2.01                     | 0.41              |
| 1:WB:8:ILE:CG1    | 1:WB:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:WB:339:PRO:HB3  | 1:WB:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:XB:8:ILE:CG1    | 1:XB:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:YB:523:PHE:N    | 1:YB:542:ALA:O    | 2.48                     | 0.41              |
| 1:YB:681:GLU:OE1  | 1:ZB:675:HIS:NE2  | 2.54                     | 0.41              |
| 1:ZB:249:TRP:HA   | 1:ZB:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:AC:73:VAL:HG21  | 1:AC:100:TYR:OH   | 2.20                     | 0.41              |
| 1:A:387:GLY:HA3   | 1:A:402:ILE:HA    | 2.02                     | 0.41              |
| 1:C:8:ILE:CG1     | 1:C:35:TYR:HB3    | 2.50                     | 0.41              |
| 1:C:506:LYS:HD3   | 1:C:506:LYS:HA    | 1.78                     | 0.41              |
| 1:C:626:ALA:HB3   | 1:C:635:VAL:HB    | 2.02                     | 0.41              |
| 1:D:15:TYR:CZ     | 1:D:98:PRO:HA     | 2.55                     | 0.41              |
| 1:D:387:GLY:HA3   | 1:D:402:ILE:HG22  | 2.01                     | 0.41              |
| 1:E:100:TYR:O     | 1:E:103:GLU:HB2   | 2.21                     | 0.41              |
| 1:E:387:GLY:HA3   | 1:E:402:ILE:HG22  | 2.01                     | 0.41              |
| 1:F:100:TYR:O     | 1:F:103:GLU:HB2   | 2.21                     | 0.41              |
| 1:G:56:ARG:HB2    | 1:I:127:LEU:HD22  | 2.02                     | 0.41              |
| 1:G:387:GLY:HA3   | 1:G:402:ILE:HA    | 2.02                     | 0.41              |
| 1:G:465:ASN:OD1   | 1:I:563:SER:HA    | 2.20                     | 0.41              |
| 1:H:249:TRP:HA    | 1:H:312:PRO:HG2   | 2.02                     | 0.41              |
| 1:H:676:GLU:OE2   | 1:H:679:ARG:NH2   | 2.43                     | 0.41              |
| 1:H:713:SER:OG    | 1:J:707:LEU:HD12  | 2.20                     | 0.41              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:I:8:ILE:CG1    | 1:I:35:TYR:HB3    | 2.50                     | 0.41              |
| 1:J:419:LEU:HD11 | 1:J:458:VAL:HG21  | 2.02                     | 0.41              |
| 1:J:504:ARG:HB3  | 1:J:505:PRO:HD3   | 2.02                     | 0.41              |
| 1:K:130:GLU:HG3  | 1:K:134:GLY:HA2   | 2.02                     | 0.41              |
| 1:K:653:ALA:HA   | 1:K:656:ARG:NE    | 2.26                     | 0.41              |
| 1:L:130:GLU:HG3  | 1:L:134:GLY:HA2   | 2.02                     | 0.41              |
| 1:L:506:LYS:HD3  | 1:L:506:LYS:HA    | 1.78                     | 0.41              |
| 1:M:387:GLY:HA3  | 1:M:402:ILE:HA    | 2.02                     | 0.41              |
| 1:M:531:THR:HG23 | 1:M:533:ASP:H     | 1.84                     | 0.41              |
| 1:M:626:ALA:HB3  | 1:M:635:VAL:HB    | 2.02                     | 0.41              |
| 1:O:387:GLY:HA3  | 1:O:402:ILE:HA    | 2.02                     | 0.41              |
| 1:P:8:ILE:CG1    | 1:P:35:TYR:HB3    | 2.50                     | 0.41              |
| 1:P:377:ARG:HA   | 1:P:377:ARG:HD3   | 1.84                     | 0.41              |
| 1:P:626:ALA:HB3  | 1:P:635:VAL:HB    | 2.02                     | 0.41              |
| 1:Q:8:ILE:CG1    | 1:Q:35:TYR:HB3    | 2.50                     | 0.41              |
| 1:Q:100:TYR:O    | 1:Q:103:GLU:HB2   | 2.21                     | 0.41              |
| 1:Q:387:GLY:HA3  | 1:Q:402:ILE:HG22  | 2.01                     | 0.41              |
| 1:Q:419:LEU:HD11 | 1:Q:458:VAL:HG21  | 2.02                     | 0.41              |
| 1:R:8:ILE:CG1    | 1:R:35:TYR:HB3    | 2.50                     | 0.41              |
| 1:S:663:GLU:OE2  | 1:S:667:ASN:ND2   | 2.52                     | 0.41              |
| 1:T:419:LEU:HD11 | 1:T:458:VAL:HG21  | 2.02                     | 0.41              |
| 1:T:663:GLU:OE2  | 1:T:667:ASN:ND2   | 2.52                     | 0.41              |
| 1:X:8:ILE:CG1    | 1:X:35:TYR:HB3    | 2.50                     | 0.41              |
| 1:X:545:TRP:HB2  | 1:X:633:LEU:HD11  | 2.03                     | 0.41              |
| 1:Y:88:GLN:O     | 1:Y:155:LYS:HE2   | 2.19                     | 0.41              |
| 1:Y:135:ASP:O    | 1:Y:136:LYS:HB2   | 2.21                     | 0.41              |
| 1:Y:394:LYS:HB2  | 1:Y:394:LYS:HE3   | 1.81                     | 0.41              |
| 1:Z:249:TRP:HA   | 1:Z:312:PRO:HG2   | 2.02                     | 0.41              |
| 1:AA:8:ILE:CG1   | 1:AA:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:AA:62:ALA:HB3  | 1:AA:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:AA:135:ASP:O   | 1:AA:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:AA:394:LYS:HE3 | 1:AA:394:LYS:HB2  | 1.81                     | 0.41              |
| 1:AA:653:ALA:HA  | 1:AA:656:ARG:NE   | 2.26                     | 0.41              |
| 1:BA:15:TYR:CZ   | 1:BA:98:PRO:HA    | 2.55                     | 0.41              |
| 1:BA:20:ASP:OD2  | 1:BA:23:SER:OG    | 2.32                     | 0.41              |
| 1:BA:545:TRP:HB2 | 1:BA:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:CA:15:TYR:CZ   | 1:CA:98:PRO:HA    | 2.55                     | 0.41              |
| 1:EA:136:LYS:HA  | 1:EA:136:LYS:HD2  | 1.76                     | 0.41              |
| 1:FA:15:TYR:CZ   | 1:FA:98:PRO:HA    | 2.55                     | 0.41              |
| 1:FA:73:VAL:HG21 | 1:FA:100:TYR:OH   | 2.20                     | 0.41              |
| 1:GA:592:HIS:CD2 | 1:IA:534:HIS:CD2  | 3.08                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:GA:626:ALA:HB3  | 1:GA:635:VAL:HB   | 2.02                     | 0.41              |
| 1:IA:100:TYR:O    | 1:IA:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:IA:377:ARG:HA   | 1:IA:377:ARG:HD3  | 1.84                     | 0.41              |
| 1:LA:73:VAL:HG21  | 1:LA:100:TYR:OH   | 2.20                     | 0.41              |
| 1:MA:135:ASP:O    | 1:MA:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:MA:387:GLY:HA3  | 1:MA:402:ILE:HA   | 2.02                     | 0.41              |
| 1:NA:62:ALA:HB3   | 1:NA:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:NA:419:LEU:HD11 | 1:NA:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:NA:655:GLN:O    | 1:NA:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:OA:15:TYR:CZ    | 1:OA:98:PRO:HA    | 2.55                     | 0.41              |
| 1:OA:88:GLN:O     | 1:OA:155:LYS:HE2  | 2.19                     | 0.41              |
| 1:PA:100:TYR:O    | 1:PA:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:PA:504:ARG:HB3  | 1:PA:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:QA:249:TRP:HA   | 1:QA:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:RA:504:ARG:HB3  | 1:RA:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:TA:299:LYS:NZ   | 1:TA:317:GLU:OE2  | 2.38                     | 0.41              |
| 1:UA:506:LYS:HA   | 1:UA:506:LYS:HD3  | 1.78                     | 0.41              |
| 1:UA:640:VAL:HG13 | 1:WA:580:ARG:HH11 | 1.84                     | 0.41              |
| 1:VA:135:ASP:O    | 1:VA:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:VA:419:LEU:HD11 | 1:VA:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:WA:504:ARG:HB3  | 1:WA:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:WA:626:ALA:HB3  | 1:WA:635:VAL:HB   | 2.02                     | 0.41              |
| 1:XA:73:VAL:HG21  | 1:XA:100:TYR:OH   | 2.20                     | 0.41              |
| 1:XA:100:TYR:O    | 1:XA:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:YA:135:ASP:O    | 1:YA:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:ZA:78:THR:HG23  | 1:ZA:80:GLN:H     | 1.85                     | 0.41              |
| 1:ZA:504:ARG:HB3  | 1:ZA:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:AB:504:ARG:HB3  | 1:AB:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:AB:655:GLN:O    | 1:AB:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:CB:53:VAL:HG13  | 1:CB:93:ALA:HA    | 2.03                     | 0.41              |
| 1:CB:666:THR:HG22 | 1:DB:657:SER:HB2  | 2.03                     | 0.41              |
| 1:DB:100:TYR:O    | 1:DB:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:DB:175:ARG:HG3  | 1:DB:263:VAL:HG12 | 2.01                     | 0.41              |
| 1:EB:486:LEU:CB   | 1:FB:473:TYR:HB3  | 2.48                     | 0.41              |
| 1:EB:663:GLU:OE2  | 1:EB:667:ASN:ND2  | 2.52                     | 0.41              |
| 1:FB:135:ASP:O    | 1:FB:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:FB:592:HIS:NE2  | 1:GB:531:THR:O    | 2.36                     | 0.41              |
| 1:GB:8:ILE:CG1    | 1:GB:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:GB:100:TYR:O    | 1:GB:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:GB:377:ARG:NH1  | 1:GB:409:THR:O    | 2.30                     | 0.41              |
| 1:KB:100:TYR:O    | 1:KB:103:GLU:HB2  | 2.21                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:KB:135:ASP:O    | 1:KB:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:KB:344:GLU:OE2  | 1:KB:345:SER:OG   | 2.38                     | 0.41              |
| 1:NB:100:TYR:O    | 1:NB:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:OB:100:TYR:O    | 1:OB:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:OB:339:PRO:HB3  | 1:OB:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:PB:100:TYR:O    | 1:PB:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:QB:387:GLY:HA3  | 1:QB:402:ILE:HA   | 2.02                     | 0.41              |
| 1:RB:130:GLU:HG3  | 1:RB:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:RB:419:LEU:HD11 | 1:RB:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:SB:694:LEU:O    | 1:SB:697:SER:OG   | 2.28                     | 0.41              |
| 1:SB:702:ALA:CB   | 1:TB:690:ARG:HH12 | 2.34                     | 0.41              |
| 1:TB:523:PHE:N    | 1:TB:542:ALA:O    | 2.48                     | 0.41              |
| 1:UB:8:ILE:CG1    | 1:UB:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:UB:135:ASP:O    | 1:UB:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:UB:339:PRO:HB3  | 1:UB:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:VB:768:MET:CE   | 1:WB:759:LEU:HD12 | 2.51                     | 0.41              |
| 1:WB:100:TYR:O    | 1:WB:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:WB:662:ILE:O    | 1:WB:666:THR:HG23 | 2.19                     | 0.41              |
| 1:XB:663:GLU:OE2  | 1:XB:667:ASN:ND2  | 2.52                     | 0.41              |
| 1:YB:249:TRP:HA   | 1:YB:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:YB:279:ARG:HD3  | 1:ZB:337:LEU:HD13 | 2.01                     | 0.41              |
| 1:YB:387:GLY:HA3  | 1:YB:402:ILE:HA   | 2.02                     | 0.41              |
| 1:YB:626:ALA:HB3  | 1:YB:635:VAL:HB   | 2.02                     | 0.41              |
| 1:ZB:100:TYR:O    | 1:ZB:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:A:135:ASP:O     | 1:A:136:LYS:HB2   | 2.21                     | 0.41              |
| 1:A:419:LEU:HD11  | 1:A:458:VAL:HG21  | 2.02                     | 0.41              |
| 1:A:663:GLU:OE2   | 1:A:667:ASN:ND2   | 2.52                     | 0.41              |
| 1:B:175:ARG:HG3   | 1:B:263:VAL:HG12  | 2.01                     | 0.41              |
| 1:B:694:LEU:O     | 1:B:697:SER:OG    | 2.28                     | 0.41              |
| 1:C:15:TYR:CZ     | 1:C:98:PRO:HA     | 2.55                     | 0.41              |
| 1:C:135:ASP:O     | 1:C:136:LYS:HB2   | 2.21                     | 0.41              |
| 1:D:73:VAL:HG21   | 1:D:100:TYR:OH    | 2.20                     | 0.41              |
| 1:F:175:ARG:HG3   | 1:F:263:VAL:HG12  | 2.01                     | 0.41              |
| 1:G:531:THR:HG23  | 1:G:533:ASP:H     | 1.84                     | 0.41              |
| 1:G:626:ALA:HB3   | 1:G:635:VAL:HB    | 2.02                     | 0.41              |
| 1:H:663:GLU:OE2   | 1:H:667:ASN:ND2   | 2.52                     | 0.41              |
| 1:J:130:GLU:HG3   | 1:J:134:GLY:HA2   | 2.02                     | 0.41              |
| 1:J:533:ASP:CG    | 1:J:587:THR:HG1   | 2.24                     | 0.41              |
| 1:K:100:TYR:O     | 1:K:103:GLU:HB2   | 2.21                     | 0.41              |
| 1:K:135:ASP:O     | 1:K:136:LYS:HB2   | 2.21                     | 0.41              |
| 1:L:419:LEU:HD11  | 1:L:458:VAL:HG21  | 2.02                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:L:533:ASP:CG    | 1:L:587:THR:HG1   | 2.22                     | 0.41              |
| 1:M:73:VAL:HG21   | 1:M:100:TYR:OH    | 2.20                     | 0.41              |
| 1:M:130:GLU:HG3   | 1:M:134:GLY:HA2   | 2.02                     | 0.41              |
| 1:M:419:LEU:HD11  | 1:M:458:VAL:HG21  | 2.02                     | 0.41              |
| 1:M:653:ALA:HA    | 1:M:656:ARG:NE    | 2.26                     | 0.41              |
| 1:R:100:TYR:O     | 1:R:103:GLU:HB2   | 2.21                     | 0.41              |
| 1:S:62:ALA:HB3    | 1:S:104:VAL:HG13  | 2.02                     | 0.41              |
| 1:V:130:GLU:HG3   | 1:V:134:GLY:HA2   | 2.02                     | 0.41              |
| 1:V:653:ALA:HA    | 1:V:656:ARG:NE    | 2.26                     | 0.41              |
| 1:X:100:TYR:O     | 1:X:103:GLU:HB2   | 2.21                     | 0.41              |
| 1:Y:100:TYR:O     | 1:Y:103:GLU:HB2   | 2.21                     | 0.41              |
| 1:Y:504:ARG:HB3   | 1:Y:505:PRO:HD3   | 2.03                     | 0.41              |
| 1:Y:533:ASP:CG    | 1:Y:587:THR:HG1   | 2.23                     | 0.41              |
| 1:Z:135:ASP:O     | 1:Z:136:LYS:HB2   | 2.21                     | 0.41              |
| 1:AA:299:LYS:NZ   | 1:AA:317:GLU:OE2  | 2.38                     | 0.41              |
| 1:AA:419:LEU:HD11 | 1:AA:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:AA:709:LEU:HD13 | 1:CA:701:LYS:HG3  | 2.01                     | 0.41              |
| 1:BA:387:GLY:HA3  | 1:BA:402:ILE:HA   | 2.02                     | 0.41              |
| 1:CA:100:TYR:O    | 1:CA:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:DA:15:TYR:CZ    | 1:DA:98:PRO:HA    | 2.55                     | 0.41              |
| 1:DA:100:TYR:O    | 1:DA:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:DA:249:TRP:HA   | 1:DA:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:DA:419:LEU:HD11 | 1:DA:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:DA:504:ARG:HB3  | 1:DA:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:DA:545:TRP:HB2  | 1:DA:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:FA:383:ASP:OD1  | 1:FA:383:ASP:N    | 2.44                     | 0.41              |
| 1:FA:545:TRP:HB2  | 1:FA:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:HA:78:THR:HG23  | 1:HA:80:GLN:H     | 1.85                     | 0.41              |
| 1:HA:506:LYS:HD3  | 1:HA:506:LYS:HA   | 1.78                     | 0.41              |
| 1:HA:533:ASP:CG   | 1:HA:587:THR:HG1  | 2.23                     | 0.41              |
| 1:HA:545:TRP:HB2  | 1:HA:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:IA:8:ILE:CG1    | 1:IA:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:IA:135:ASP:O    | 1:IA:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:IA:653:ALA:HA   | 1:IA:656:ARG:NE   | 2.26                     | 0.41              |
| 1:JA:78:THR:HG23  | 1:JA:80:GLN:H     | 1.85                     | 0.41              |
| 1:JA:135:ASP:O    | 1:JA:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:JA:504:ARG:HB3  | 1:JA:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:JA:545:TRP:HB2  | 1:JA:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:KA:62:ALA:HB3   | 1:KA:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:KA:130:GLU:HG3  | 1:KA:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:KA:504:ARG:HB3  | 1:KA:505:PRO:HD3  | 2.03                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:LA:545:TRP:HB2  | 1:LA:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:LA:663:GLU:OE2  | 1:LA:667:ASN:ND2  | 2.52                     | 0.41              |
| 1:MA:504:ARG:HB3  | 1:MA:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:NA:387:GLY:HA3  | 1:NA:402:ILE:HA   | 2.02                     | 0.41              |
| 1:OA:20:ASP:OD2   | 1:OA:23:SER:OG    | 2.32                     | 0.41              |
| 1:OA:249:TRP:HA   | 1:OA:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:OA:257:GLU:HG2  | 1:QA:244:ARG:HB3  | 2.03                     | 0.41              |
| 1:PA:339:PRO:HB3  | 1:PA:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:PA:387:GLY:HA3  | 1:PA:402:ILE:HA   | 2.02                     | 0.41              |
| 1:PA:626:ALA:HB3  | 1:PA:635:VAL:HB   | 2.02                     | 0.41              |
| 1:QA:801:ALA:HA   | 1:SA:796:LYS:NZ   | 2.36                     | 0.41              |
| 1:RA:471:TYR:CD2  | 1:RA:478:ALA:HB2  | 2.54                     | 0.41              |
| 1:SA:15:TYR:CZ    | 1:SA:98:PRO:HA    | 2.54                     | 0.41              |
| 1:SA:419:LEU:HD11 | 1:SA:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:SA:545:TRP:HB2  | 1:SA:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:TA:53:VAL:HG13  | 1:TA:93:ALA:HA    | 2.03                     | 0.41              |
| 1:TA:339:PRO:HB3  | 1:TA:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:UA:299:LYS:NZ   | 1:UA:317:GLU:OE2  | 2.38                     | 0.41              |
| 1:VA:130:GLU:HG3  | 1:VA:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:WA:545:TRP:HB2  | 1:WA:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:XA:339:PRO:HB3  | 1:XA:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:XA:377:ARG:HA   | 1:XA:377:ARG:HD3  | 1.84                     | 0.41              |
| 1:XA:694:LEU:O    | 1:XA:697:SER:OG   | 2.28                     | 0.41              |
| 1:XA:713:SER:OG   | 1:ZA:707:LEU:HD12 | 2.20                     | 0.41              |
| 1:YA:130:GLU:HG3  | 1:YA:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:ZA:523:PHE:N    | 1:ZA:542:ALA:O    | 2.48                     | 0.41              |
| 1:AB:62:ALA:HB3   | 1:AB:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:AB:339:PRO:HB3  | 1:AB:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:AB:387:GLY:HA3  | 1:AB:402:ILE:HA   | 2.02                     | 0.41              |
| 1:AB:419:LEU:HD11 | 1:AB:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:BB:53:VAL:HG13  | 1:BB:93:ALA:HA    | 2.03                     | 0.41              |
| 1:BB:135:ASP:O    | 1:BB:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:BB:344:GLU:OE2  | 1:BB:345:SER:OG   | 2.38                     | 0.41              |
| 1:BB:383:ASP:OD1  | 1:BB:383:ASP:N    | 2.44                     | 0.41              |
| 1:BB:707:LEU:HD23 | 1:BB:707:LEU:HA   | 1.88                     | 0.41              |
| 1:CB:100:TYR:O    | 1:CB:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:CB:339:PRO:HB3  | 1:CB:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:DB:419:LEU:HD11 | 1:DB:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:EB:8:ILE:CG1    | 1:EB:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:EB:626:ALA:HB3  | 1:EB:635:VAL:HB   | 2.02                     | 0.41              |
| 1:FB:523:PHE:N    | 1:FB:542:ALA:O    | 2.48                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:GB:135:ASP:O    | 1:GB:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:HB:175:ARG:HG3  | 1:HB:263:VAL:HG12 | 2.01                     | 0.41              |
| 1:IB:15:TYR:CZ    | 1:IB:98:PRO:HA    | 2.55                     | 0.41              |
| 1:IB:130:GLU:HG3  | 1:IB:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:IB:175:ARG:HG3  | 1:IB:263:VAL:HG12 | 2.01                     | 0.41              |
| 1:IB:504:ARG:HB3  | 1:IB:505:PRO:HD3  | 2.03                     | 0.41              |
| 1:JB:73:VAL:HG21  | 1:JB:100:TYR:OH   | 2.20                     | 0.41              |
| 1:JB:394:LYS:HE3  | 1:JB:394:LYS:HB2  | 1.81                     | 0.41              |
| 1:JB:626:ALA:HB3  | 1:JB:635:VAL:HB   | 2.02                     | 0.41              |
| 1:KB:62:ALA:HB3   | 1:KB:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:KB:175:ARG:HG3  | 1:KB:263:VAL:HG12 | 2.02                     | 0.41              |
| 1:MB:130:GLU:HG3  | 1:MB:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:MB:504:ARG:HB3  | 1:MB:505:PRO:HD3  | 2.03                     | 0.41              |
| 1:MB:533:ASP:CG   | 1:MB:587:THR:HG1  | 2.24                     | 0.41              |
| 1:OB:130:GLU:HG3  | 1:OB:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:OB:135:ASP:O    | 1:OB:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:QB:504:ARG:HB3  | 1:QB:505:PRO:HD3  | 2.03                     | 0.41              |
| 1:QB:655:GLN:O    | 1:QB:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:RB:135:ASP:O    | 1:RB:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:SB:73:VAL:HG21  | 1:SB:100:TYR:OH   | 2.20                     | 0.41              |
| 1:SB:339:PRO:HB3  | 1:SB:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:SB:655:GLN:O    | 1:SB:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:TB:78:THR:HG23  | 1:TB:80:GLN:H     | 1.85                     | 0.41              |
| 1:TB:504:ARG:HB3  | 1:TB:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:VB:655:GLN:O    | 1:VB:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:WB:220:ILE:HD12 | 1:XB:245:THR:HG22 | 2.02                     | 0.41              |
| 1:XB:387:GLY:HA3  | 1:XB:402:ILE:HA   | 2.02                     | 0.41              |
| 1:XB:465:ASN:OD1  | 1:YB:563:SER:HA   | 2.21                     | 0.41              |
| 1:YB:8:ILE:CG1    | 1:YB:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:YB:130:GLU:HG3  | 1:YB:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:YB:135:ASP:O    | 1:YB:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:ZB:8:ILE:CG1    | 1:ZB:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:ZB:135:ASP:O    | 1:ZB:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:ZB:175:ARG:HG3  | 1:ZB:263:VAL:HG12 | 2.01                     | 0.41              |
| 1:ZB:814:GLY:HA2  | 1:ZB:815:PRO:HD3  | 1.91                     | 0.41              |
| 1:AC:8:ILE:CG1    | 1:AC:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:A:533:ASP:CG    | 1:A:587:THR:HG1   | 2.23                     | 0.41              |
| 1:A:592:HIS:NE2   | 1:C:531:THR:O     | 2.41                     | 0.41              |
| 1:B:130:GLU:HG3   | 1:B:134:GLY:HA2   | 2.02                     | 0.41              |
| 1:B:337:LEU:HD13  | 1:AC:279:ARG:HD3  | 2.03                     | 0.41              |
| 1:B:419:LEU:HD11  | 1:B:458:VAL:HG21  | 2.02                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:504:ARG:HB3   | 1:B:505:PRO:HD3   | 2.03                     | 0.41              |
| 1:C:62:ALA:HB3    | 1:C:104:VAL:HG13  | 2.02                     | 0.41              |
| 1:C:73:VAL:HG21   | 1:C:100:TYR:OH    | 2.20                     | 0.41              |
| 1:C:387:GLY:HA3   | 1:C:402:ILE:HG22  | 2.01                     | 0.41              |
| 1:D:175:ARG:HG3   | 1:D:263:VAL:HG12  | 2.02                     | 0.41              |
| 1:E:8:ILE:CG1     | 1:E:35:TYR:HB3    | 2.50                     | 0.41              |
| 1:E:504:ARG:HB3   | 1:E:505:PRO:HD3   | 2.03                     | 0.41              |
| 1:F:135:ASP:O     | 1:F:136:LYS:HB2   | 2.21                     | 0.41              |
| 1:F:549:LEU:HD21  | 1:F:561:LEU:HD11  | 2.03                     | 0.41              |
| 1:F:713:SER:OG    | 1:H:707:LEU:HD12  | 2.20                     | 0.41              |
| 1:G:663:GLU:OE2   | 1:G:667:ASN:ND2   | 2.52                     | 0.41              |
| 1:G:694:LEU:O     | 1:G:697:SER:OG    | 2.28                     | 0.41              |
| 1:H:764:LYS:HB3   | 1:J:759:LEU:HD22  | 2.03                     | 0.41              |
| 1:I:62:ALA:HB3    | 1:I:104:VAL:HG13  | 2.02                     | 0.41              |
| 1:M:8:ILE:CG1     | 1:M:35:TYR:HB3    | 2.50                     | 0.41              |
| 1:M:15:TYR:CZ     | 1:M:98:PRO:HA     | 2.55                     | 0.41              |
| 1:N:663:GLU:OE2   | 1:N:667:ASN:ND2   | 2.52                     | 0.41              |
| 1:O:533:ASP:CG    | 1:O:587:THR:HG1   | 2.23                     | 0.41              |
| 1:P:135:ASP:O     | 1:P:136:LYS:HB2   | 2.21                     | 0.41              |
| 1:P:394:LYS:HE3   | 1:P:394:LYS:HB2   | 1.81                     | 0.41              |
| 1:Q:9:ARG:HH21    | 1:S:24:ASN:CG     | 2.23                     | 0.41              |
| 1:Q:394:LYS:HE3   | 1:Q:394:LYS:HB2   | 1.81                     | 0.41              |
| 1:S:73:VAL:HG21   | 1:S:100:TYR:OH    | 2.20                     | 0.41              |
| 1:S:135:ASP:O     | 1:S:136:LYS:HB2   | 2.21                     | 0.41              |
| 1:S:545:TRP:HB2   | 1:S:633:LEU:HD11  | 2.03                     | 0.41              |
| 1:V:87:ASP:OD1    | 1:V:88:GLN:N      | 2.53                     | 0.41              |
| 1:W:100:TYR:O     | 1:W:103:GLU:HB2   | 2.21                     | 0.41              |
| 1:W:344:GLU:OE2   | 1:W:345:SER:OG    | 2.38                     | 0.41              |
| 1:X:549:LEU:HD21  | 1:X:561:LEU:HD11  | 2.03                     | 0.41              |
| 1:Z:545:TRP:HB2   | 1:Z:633:LEU:HD11  | 2.03                     | 0.41              |
| 1:AA:15:TYR:CZ    | 1:AA:98:PRO:HA    | 2.55                     | 0.41              |
| 1:AA:531:THR:HG23 | 1:AA:533:ASP:H    | 1.84                     | 0.41              |
| 1:BA:100:TYR:O    | 1:BA:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:BA:419:LEU:HD11 | 1:BA:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:BA:504:ARG:HB3  | 1:BA:505:PRO:HD3  | 2.03                     | 0.41              |
| 1:CA:94:GLN:O     | 1:EA:85:HIS:NE2   | 2.41                     | 0.41              |
| 1:CA:545:TRP:HB2  | 1:CA:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:DA:62:ALA:HB3   | 1:DA:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:DA:135:ASP:O    | 1:DA:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:FA:135:ASP:O    | 1:FA:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:FA:249:TRP:HA   | 1:FA:312:PRO:HG2  | 2.02                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:FA:419:LEU:HD11 | 1:FA:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:FA:549:LEU:HD21 | 1:FA:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:HA:504:ARG:HB3  | 1:HA:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:JA:339:PRO:HB3  | 1:JA:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:KA:8:ILE:CG1    | 1:KA:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:KA:592:HIS:CD2  | 1:MA:534:HIS:CD2  | 3.09                     | 0.41              |
| 1:KA:775:ALA:HB3  | 1:MA:770:LEU:HD21 | 2.03                     | 0.41              |
| 1:LA:130:GLU:HG3  | 1:LA:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:LA:135:ASP:O    | 1:LA:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:LA:764:LYS:HE3  | 1:LA:764:LYS:HB2  | 1.84                     | 0.41              |
| 1:NA:53:VAL:HG13  | 1:NA:93:ALA:HA    | 2.03                     | 0.41              |
| 1:NA:73:VAL:HG21  | 1:NA:100:TYR:OH   | 2.20                     | 0.41              |
| 1:NA:504:ARG:HB3  | 1:NA:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:OA:100:TYR:O    | 1:OA:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:OA:419:LEU:HD11 | 1:OA:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:OA:504:ARG:HB3  | 1:OA:505:PRO:HD3  | 2.03                     | 0.41              |
| 1:PA:545:TRP:HB2  | 1:PA:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:PA:655:GLN:O    | 1:PA:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:QA:15:TYR:CZ    | 1:QA:98:PRO:HA    | 2.55                     | 0.41              |
| 1:QA:100:TYR:O    | 1:QA:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:QA:419:LEU:HD11 | 1:QA:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:QA:545:TRP:HB2  | 1:QA:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:QA:640:VAL:HG13 | 1:SA:580:ARG:HH11 | 1.85                     | 0.41              |
| 1:RA:100:TYR:O    | 1:RA:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:SA:135:ASP:O    | 1:SA:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:SA:249:TRP:HA   | 1:SA:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:SA:655:GLN:O    | 1:SA:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:TA:504:ARG:HB3  | 1:TA:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:UA:100:TYR:O    | 1:UA:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:VA:53:VAL:HG13  | 1:VA:93:ALA:HA    | 2.03                     | 0.41              |
| 1:VA:694:LEU:O    | 1:VA:697:SER:OG   | 2.28                     | 0.41              |
| 1:WA:339:PRO:HB3  | 1:WA:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:YA:53:VAL:HG13  | 1:YA:93:ALA:HA    | 2.03                     | 0.41              |
| 1:ZA:339:PRO:HB3  | 1:ZA:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:AB:73:VAL:HG21  | 1:AB:100:TYR:OH   | 2.20                     | 0.41              |
| 1:AB:394:LYS:HB2  | 1:AB:394:LYS:HE3  | 1.81                     | 0.41              |
| 1:CB:8:ILE:CG1    | 1:CB:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:CB:419:LEU:HD11 | 1:CB:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:CB:713:SER:OG   | 1:DB:707:LEU:HD12 | 2.20                     | 0.41              |
| 1:EB:135:ASP:O    | 1:EB:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:EB:175:ARG:HG3  | 1:EB:263:VAL:HG12 | 2.01                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:EB:419:LEU:HD11 | 1:EB:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:FB:130:GLU:HG3  | 1:FB:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:FB:175:ARG:HG3  | 1:FB:263:VAL:HG12 | 2.01                     | 0.41              |
| 1:FB:299:LYS:NZ   | 1:FB:317:GLU:OE2  | 2.38                     | 0.41              |
| 1:FB:387:GLY:HA3  | 1:FB:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:HB:8:ILE:CG1    | 1:HB:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:HB:100:TYR:O    | 1:HB:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:IB:377:ARG:HD3  | 1:IB:377:ARG:HA   | 1.84                     | 0.41              |
| 1:IB:419:LEU:HD11 | 1:IB:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:IB:694:LEU:O    | 1:IB:697:SER:OG   | 2.28                     | 0.41              |
| 1:MB:8:ILE:CG1    | 1:MB:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:NB:419:LEU:HD11 | 1:NB:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:OB:621:LYS:HD3  | 1:OB:621:LYS:HA   | 1.81                     | 0.41              |
| 1:OB:626:ALA:HB3  | 1:OB:635:VAL:HB   | 2.02                     | 0.41              |
| 1:PB:62:ALA:HB3   | 1:PB:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:PB:130:GLU:HG3  | 1:PB:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:QB:130:GLU:HG3  | 1:QB:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:TB:663:GLU:OE2  | 1:TB:667:ASN:ND2  | 2.52                     | 0.41              |
| 1:UB:53:VAL:HG13  | 1:UB:93:ALA:HA    | 2.03                     | 0.41              |
| 1:UB:344:GLU:OE2  | 1:UB:345:SER:OG   | 2.38                     | 0.41              |
| 1:UB:387:GLY:HA3  | 1:UB:402:ILE:HA   | 2.02                     | 0.41              |
| 1:UB:666:THR:HG22 | 1:VB:657:SER:HB2  | 2.02                     | 0.41              |
| 1:VB:53:VAL:HG13  | 1:VB:93:ALA:HA    | 2.03                     | 0.41              |
| 1:VB:100:TYR:O    | 1:VB:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:VB:419:LEU:HD11 | 1:VB:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:VB:654:LEU:HD13 | 1:WB:534:HIS:CD2  | 2.56                     | 0.41              |
| 1:WB:53:VAL:HG13  | 1:WB:93:ALA:HA    | 2.03                     | 0.41              |
| 1:XB:135:ASP:O    | 1:XB:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:XB:175:ARG:HG3  | 1:XB:263:VAL:HG12 | 2.01                     | 0.41              |
| 1:XB:299:LYS:NZ   | 1:XB:317:GLU:OE2  | 2.38                     | 0.41              |
| 1:XB:750:ALA:HA   | 1:YB:741:VAL:HG23 | 2.02                     | 0.41              |
| 1:YB:387:GLY:HA3  | 1:YB:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:AC:175:ARG:HG3  | 1:AC:263:VAL:HG12 | 2.01                     | 0.41              |
| 1:A:8:ILE:CG1     | 1:A:35:TYR:HB3    | 2.50                     | 0.41              |
| 1:A:549:LEU:HD21  | 1:A:561:LEU:HD11  | 2.03                     | 0.41              |
| 1:B:8:ILE:CG1     | 1:B:35:TYR:HB3    | 2.50                     | 0.41              |
| 1:B:62:ALA:HB3    | 1:B:104:VAL:HG13  | 2.02                     | 0.41              |
| 1:B:626:ALA:HB3   | 1:B:635:VAL:HB    | 2.02                     | 0.41              |
| 1:B:675:HIS:NE2   | 1:AC:681:GLU:OE1  | 2.53                     | 0.41              |
| 1:C:757:ALA:CB    | 1:E:748:ALA:HB1   | 2.50                     | 0.41              |
| 1:D:100:TYR:O     | 1:D:103:GLU:HB2   | 2.21                     | 0.41              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:D:135:ASP:O    | 1:D:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:D:549:LEU:HD21 | 1:D:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:E:621:LYS:HA   | 1:E:621:LYS:HD3  | 1.81                     | 0.41              |
| 1:F:344:GLU:OE2  | 1:F:345:SER:OG   | 2.38                     | 0.41              |
| 1:G:549:LEU:HD21 | 1:G:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:H:8:ILE:CG1    | 1:H:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:H:135:ASP:O    | 1:H:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:H:387:GLY:HA3  | 1:H:402:ILE:HA   | 2.02                     | 0.41              |
| 1:H:521:ASP:OD1  | 1:H:522:PHE:N    | 2.44                     | 0.41              |
| 1:I:73:VAL:HG21  | 1:I:100:TYR:OH   | 2.20                     | 0.41              |
| 1:I:87:ASP:OD1   | 1:I:88:GLN:N     | 2.53                     | 0.41              |
| 1:J:8:ILE:CG1    | 1:J:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:J:73:VAL:HG21  | 1:J:100:TYR:OH   | 2.20                     | 0.41              |
| 1:J:387:GLY:HA3  | 1:J:402:ILE:HA   | 2.02                     | 0.41              |
| 1:K:87:ASP:OD1   | 1:K:88:GLN:N     | 2.53                     | 0.41              |
| 1:K:387:GLY:HA3  | 1:K:402:ILE:HG22 | 2.01                     | 0.41              |
| 1:L:549:LEU:HD21 | 1:L:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:M:135:ASP:O    | 1:M:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:M:468:VAL:HG12 | 1:M:515:CYS:HA   | 2.03                     | 0.41              |
| 1:N:135:ASP:O    | 1:N:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:N:626:ALA:HB3  | 1:N:635:VAL:HB   | 2.02                     | 0.41              |
| 1:O:73:VAL:HG21  | 1:O:100:TYR:OH   | 2.20                     | 0.41              |
| 1:O:545:TRP:HB2  | 1:O:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:P:100:TYR:O    | 1:P:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:P:383:ASP:OD1  | 1:P:383:ASP:N    | 2.44                     | 0.41              |
| 1:Q:545:TRP:HB2  | 1:Q:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:R:15:TYR:CZ    | 1:R:98:PRO:HA    | 2.55                     | 0.41              |
| 1:R:62:ALA:HB3   | 1:R:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:R:135:ASP:O    | 1:R:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:R:387:GLY:HA3  | 1:R:402:ILE:HA   | 2.02                     | 0.41              |
| 1:R:468:VAL:HG12 | 1:R:515:CYS:HA   | 2.03                     | 0.41              |
| 1:R:549:LEU:HD21 | 1:R:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:S:500:LEU:HD23 | 1:S:500:LEU:HA   | 1.92                     | 0.41              |
| 1:T:15:TYR:CZ    | 1:T:98:PRO:HA    | 2.55                     | 0.41              |
| 1:T:78:THR:HG23  | 1:T:80:GLN:H     | 1.85                     | 0.41              |
| 1:T:506:LYS:HA   | 1:T:506:LYS:HD3  | 1.78                     | 0.41              |
| 1:T:531:THR:HG23 | 1:T:533:ASP:H    | 1.84                     | 0.41              |
| 1:T:626:ALA:HB3  | 1:T:635:VAL:HB   | 2.02                     | 0.41              |
| 1:V:100:TYR:O    | 1:V:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:V:545:TRP:HB2  | 1:V:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:W:87:ASP:OD1   | 1:W:88:GLN:N     | 2.53                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:W:419:LEU:HD11  | 1:W:458:VAL:HG21  | 2.02                     | 0.41              |
| 1:X:62:ALA:HB3    | 1:X:104:VAL:HG13  | 2.02                     | 0.41              |
| 1:X:135:ASP:O     | 1:X:136:LYS:HB2   | 2.21                     | 0.41              |
| 1:Y:87:ASP:OD1    | 1:Y:88:GLN:N      | 2.53                     | 0.41              |
| 1:Y:545:TRP:HB2   | 1:Y:633:LEU:HD11  | 2.03                     | 0.41              |
| 1:Y:549:LEU:HD21  | 1:Y:561:LEU:HD11  | 2.03                     | 0.41              |
| 1:Y:626:ALA:HB3   | 1:Y:635:VAL:HB    | 2.02                     | 0.41              |
| 1:Y:653:ALA:HA    | 1:Y:656:ARG:NE    | 2.26                     | 0.41              |
| 1:Z:387:GLY:HA3   | 1:Z:402:ILE:HA    | 2.02                     | 0.41              |
| 1:Z:504:ARG:HB3   | 1:Z:505:PRO:HD3   | 2.02                     | 0.41              |
| 1:Z:549:LEU:HD21  | 1:Z:561:LEU:HD11  | 2.03                     | 0.41              |
| 1:AA:87:ASP:OD1   | 1:AA:88:GLN:N     | 2.53                     | 0.41              |
| 1:AA:387:GLY:HA3  | 1:AA:402:ILE:HA   | 2.02                     | 0.41              |
| 1:AA:545:TRP:HB2  | 1:AA:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:AA:549:LEU:HD21 | 1:AA:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:BA:249:TRP:HA   | 1:BA:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:BA:377:ARG:NH1  | 1:BA:409:THR:O    | 2.30                     | 0.41              |
| 1:BA:764:LYS:HE3  | 1:BA:764:LYS:HB2  | 1.84                     | 0.41              |
| 1:DA:533:ASP:CG   | 1:DA:587:THR:HG1  | 2.22                     | 0.41              |
| 1:DA:549:LEU:HD21 | 1:DA:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:EA:8:ILE:CG1    | 1:EA:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:EA:100:TYR:O    | 1:EA:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:EA:130:GLU:HG3  | 1:EA:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:EA:203:ALA:HB2  | 1:GA:192:THR:HB   | 2.03                     | 0.41              |
| 1:EA:419:LEU:HD11 | 1:EA:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:FA:666:THR:HG22 | 1:HA:657:SER:HB2  | 2.02                     | 0.41              |
| 1:GA:40:ASN:ND2   | 1:TA:38:GLN:HG3   | 2.35                     | 0.41              |
| 1:GA:135:ASP:O    | 1:GA:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:HA:100:TYR:O    | 1:HA:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:HA:764:LYS:HB2  | 1:HA:764:LYS:HE3  | 1.84                     | 0.41              |
| 1:IA:87:ASP:OD1   | 1:IA:88:GLN:N     | 2.54                     | 0.41              |
| 1:IA:383:ASP:OD1  | 1:IA:383:ASP:N    | 2.44                     | 0.41              |
| 1:IA:545:TRP:HB2  | 1:IA:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:IA:655:GLN:HG2  | 1:KA:649:ARG:HH11 | 1.86                     | 0.41              |
| 1:JA:626:ALA:HB3  | 1:JA:635:VAL:HB   | 2.02                     | 0.41              |
| 1:KA:78:THR:HG23  | 1:KA:80:GLN:H     | 1.85                     | 0.41              |
| 1:KA:100:TYR:O    | 1:KA:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:KA:135:ASP:O    | 1:KA:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:LA:53:VAL:HG13  | 1:LA:93:ALA:HA    | 2.03                     | 0.41              |
| 1:LA:504:ARG:HB3  | 1:LA:505:PRO:HD3  | 2.03                     | 0.41              |
| 1:LA:549:LEU:HD21 | 1:LA:561:LEU:HD11 | 2.03                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:MA:533:ASP:CG   | 1:MA:587:THR:HG1  | 2.22                     | 0.41              |
| 1:MA:545:TRP:HB2  | 1:MA:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:MA:549:LEU:HD21 | 1:MA:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:NA:339:PRO:HB3  | 1:NA:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:NA:545:TRP:HB2  | 1:NA:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:NA:549:LEU:HD21 | 1:NA:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:OA:387:GLY:HA3  | 1:OA:402:ILE:HA   | 2.02                     | 0.41              |
| 1:OA:761:ARG:HG2  | 1:QA:755:THR:HG21 | 2.02                     | 0.41              |
| 1:OA:764:LYS:HE3  | 1:OA:764:LYS:HB2  | 1.84                     | 0.41              |
| 1:PA:53:VAL:HG13  | 1:PA:93:ALA:HA    | 2.03                     | 0.41              |
| 1:PA:130:GLU:HG3  | 1:PA:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:QA:62:ALA:HB3   | 1:QA:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:QA:135:ASP:O    | 1:QA:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:QA:504:ARG:HB3  | 1:QA:505:PRO:HD3  | 2.03                     | 0.41              |
| 1:QA:549:LEU:HD21 | 1:QA:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:QA:736:GLU:OE2  | 1:SA:726:ALA:HB1  | 2.21                     | 0.41              |
| 1:RA:53:VAL:HG13  | 1:RA:93:ALA:HA    | 2.03                     | 0.41              |
| 1:RA:73:VAL:HG21  | 1:RA:100:TYR:OH   | 2.20                     | 0.41              |
| 1:RA:130:GLU:HG3  | 1:RA:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:RA:135:ASP:O    | 1:RA:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:RA:339:PRO:HB3  | 1:RA:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:RA:545:TRP:HB2  | 1:RA:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:SA:394:LYS:HE3  | 1:SA:394:LYS:HB2  | 1.81                     | 0.41              |
| 1:SA:549:LEU:HD21 | 1:SA:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:TA:62:ALA:HB3   | 1:TA:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:TA:545:TRP:HB2  | 1:TA:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:TA:549:LEU:HD21 | 1:TA:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:UA:504:ARG:HB3  | 1:UA:505:PRO:HD3  | 2.03                     | 0.41              |
| 1:UA:545:TRP:HB2  | 1:UA:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:VA:100:TYR:O    | 1:VA:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:VA:339:PRO:HB3  | 1:VA:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:VA:655:GLN:O    | 1:VA:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:WA:78:THR:HG23  | 1:WA:80:GLN:H     | 1.85                     | 0.41              |
| 1:WA:135:ASP:O    | 1:WA:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:WA:249:TRP:HA   | 1:WA:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:XA:53:VAL:HG13  | 1:XA:93:ALA:HA    | 2.03                     | 0.41              |
| 1:XA:135:ASP:O    | 1:XA:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:XA:666:THR:HG22 | 1:ZA:657:SER:HB2  | 2.03                     | 0.41              |
| 1:YA:15:TYR:CZ    | 1:YA:98:PRO:HA    | 2.55                     | 0.41              |
| 1:YA:545:TRP:HB2  | 1:YA:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:YA:549:LEU:HD21 | 1:YA:561:LEU:HD11 | 2.03                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:ZA:170:GLN:HB3  | 1:BB:233:GLN:OE1  | 2.21                     | 0.41              |
| 1:AB:53:VAL:HG13  | 1:AB:93:ALA:HA    | 2.03                     | 0.41              |
| 1:AB:78:THR:HG23  | 1:AB:80:GLN:H     | 1.85                     | 0.41              |
| 1:AB:545:TRP:HB2  | 1:AB:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:AB:549:LEU:HD21 | 1:AB:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:BB:387:GLY:HA3  | 1:BB:402:ILE:HA   | 2.02                     | 0.41              |
| 1:DB:8:ILE:CG1    | 1:DB:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:DB:130:GLU:HG3  | 1:DB:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:DB:506:LYS:HD3  | 1:DB:506:LYS:HA   | 1.78                     | 0.41              |
| 1:DB:531:THR:HG23 | 1:DB:533:ASP:H    | 1.84                     | 0.41              |
| 1:EB:249:TRP:HA   | 1:EB:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:EB:279:ARG:HD3  | 1:FB:337:LEU:HD13 | 2.02                     | 0.41              |
| 1:FB:621:LYS:HA   | 1:FB:621:LYS:HD3  | 1.81                     | 0.41              |
| 1:GB:53:VAL:HG13  | 1:GB:93:ALA:HA    | 2.03                     | 0.41              |
| 1:GB:175:ARG:HG3  | 1:GB:263:VAL:HG12 | 2.02                     | 0.41              |
| 1:GB:549:LEU:HD21 | 1:GB:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:GB:626:ALA:HB3  | 1:GB:635:VAL:HB   | 2.02                     | 0.41              |
| 1:HB:62:ALA:HB3   | 1:HB:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:IB:8:ILE:CG1    | 1:IB:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:IB:484:PRO:HB2  | 1:JB:471:TYR:CD2  | 2.56                     | 0.41              |
| 1:IB:626:ALA:HB3  | 1:IB:635:VAL:HB   | 2.02                     | 0.41              |
| 1:JB:8:ILE:CG1    | 1:JB:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:JB:9:ARG:HH12   | 1:KB:21:GLN:HA    | 1.86                     | 0.41              |
| 1:JB:56:ARG:NH1   | 1:KB:128:ASP:HB2  | 2.36                     | 0.41              |
| 1:JB:62:ALA:HB3   | 1:JB:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:JB:135:ASP:O    | 1:JB:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:JB:175:ARG:HG3  | 1:JB:263:VAL:HG12 | 2.01                     | 0.41              |
| 1:KB:549:LEU:HD21 | 1:KB:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:LB:8:ILE:CG1    | 1:LB:35:TYR:HB3   | 2.50                     | 0.41              |
| 1:LB:135:ASP:O    | 1:LB:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:LB:299:LYS:NZ   | 1:LB:317:GLU:OE2  | 2.38                     | 0.41              |
| 1:LB:387:GLY:HA3  | 1:LB:402:ILE:HA   | 2.02                     | 0.41              |
| 1:LB:549:LEU:HD21 | 1:LB:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:LB:793:LYS:NZ   | 1:MB:789:ASN:ND2  | 2.68                     | 0.41              |
| 1:LB:797:GLU:CB   | 1:MB:792:ALA:HB1  | 2.49                     | 0.41              |
| 1:MB:73:VAL:HG21  | 1:MB:100:TYR:OH   | 2.20                     | 0.41              |
| 1:MB:387:GLY:HA3  | 1:MB:402:ILE:HA   | 2.02                     | 0.41              |
| 1:NB:549:LEU:HD21 | 1:NB:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:OB:545:TRP:HB2  | 1:OB:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:OB:643:VAL:H    | 1:PB:580:ARG:NH2  | 2.18                     | 0.41              |
| 1:PB:95:ASP:HA    | 1:QB:85:HIS:CE1   | 2.55                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:QB:53:VAL:HG13  | 1:QB:93:ALA:HA    | 2.03                     | 0.41              |
| 1:QB:78:THR:HG23  | 1:QB:80:GLN:H     | 1.85                     | 0.41              |
| 1:RB:53:VAL:HG13  | 1:RB:93:ALA:HA    | 2.03                     | 0.41              |
| 1:RB:100:TYR:O    | 1:RB:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:RB:339:PRO:HB3  | 1:RB:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:RB:694:LEU:O    | 1:RB:697:SER:OG   | 2.28                     | 0.41              |
| 1:SB:135:ASP:O    | 1:SB:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:TB:53:VAL:HG13  | 1:TB:93:ALA:HA    | 2.03                     | 0.41              |
| 1:TB:339:PRO:HB3  | 1:TB:353:ALA:HB2  | 2.02                     | 0.41              |
| 1:UB:626:ALA:HB3  | 1:UB:635:VAL:HB   | 2.02                     | 0.41              |
| 1:UB:768:MET:HE2  | 1:VB:762:VAL:HG11 | 1.96                     | 0.41              |
| 1:VB:121:LEU:HD23 | 1:VB:121:LEU:HA   | 1.97                     | 0.41              |
| 1:WB:175:ARG:HG3  | 1:WB:263:VAL:HG12 | 2.01                     | 0.41              |
| 1:WB:249:TRP:HA   | 1:WB:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:WB:419:LEU:HD11 | 1:WB:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:WB:531:THR:HG23 | 1:WB:533:ASP:H    | 1.84                     | 0.41              |
| 1:XB:268:LEU:HD23 | 1:XB:268:LEU:HA   | 1.96                     | 0.41              |
| 1:XB:419:LEU:HD11 | 1:XB:458:VAL:HG21 | 2.02                     | 0.41              |
| 1:XB:626:ALA:HB3  | 1:XB:635:VAL:HB   | 2.02                     | 0.41              |
| 1:YB:53:VAL:HG13  | 1:YB:93:ALA:HA    | 2.03                     | 0.41              |
| 1:YB:62:ALA:HB3   | 1:YB:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:YB:175:ARG:HG3  | 1:YB:263:VAL:HG12 | 2.01                     | 0.41              |
| 1:ZB:53:VAL:HG13  | 1:ZB:93:ALA:HA    | 2.03                     | 0.41              |
| 1:ZB:278:PRO:HB2  | 1:AC:338:GLN:NE2  | 2.36                     | 0.41              |
| 1:ZB:549:LEU:HD21 | 1:ZB:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:ZB:626:ALA:HB3  | 1:ZB:635:VAL:HB   | 2.02                     | 0.41              |
| 1:ZB:716:VAL:HG21 | 1:AC:708:GLU:HG2  | 2.02                     | 0.41              |
| 1:AC:62:ALA:HB3   | 1:AC:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:AC:100:TYR:O    | 1:AC:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:AC:549:LEU:HD21 | 1:AC:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:C:130:GLU:HG3   | 1:C:134:GLY:HA2   | 2.02                     | 0.41              |
| 1:D:626:ALA:HB3   | 1:D:635:VAL:HB    | 2.02                     | 0.41              |
| 1:D:681:GLU:OE1   | 1:F:675:HIS:NE2   | 2.52                     | 0.41              |
| 1:G:87:ASP:OD1    | 1:G:88:GLN:N      | 2.53                     | 0.41              |
| 1:H:56:ARG:HH12   | 1:J:139:ALA:HB2   | 1.86                     | 0.41              |
| 1:H:549:LEU:HD21  | 1:H:561:LEU:HD11  | 2.03                     | 0.41              |
| 1:I:135:ASP:O     | 1:I:136:LYS:HB2   | 2.21                     | 0.41              |
| 1:J:100:TYR:O     | 1:J:103:GLU:HB2   | 2.21                     | 0.41              |
| 1:K:468:VAL:HG12  | 1:K:515:CYS:HA    | 2.03                     | 0.41              |
| 1:L:694:LEU:O     | 1:L:697:SER:OG    | 2.28                     | 0.41              |
| 1:N:549:LEU:HD21  | 1:N:561:LEU:HD11  | 2.03                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:N:621:LYS:HD3   | 1:N:621:LYS:HA    | 1.81                     | 0.41              |
| 1:P:73:VAL:HG21   | 1:P:100:TYR:OH    | 2.20                     | 0.41              |
| 1:P:387:GLY:HA3   | 1:P:402:ILE:HG22  | 2.01                     | 0.41              |
| 1:P:468:VAL:HG12  | 1:P:515:CYS:HA    | 2.03                     | 0.41              |
| 1:P:753:ILE:HG12  | 1:R:745:LYS:HE2   | 2.03                     | 0.41              |
| 1:R:764:LYS:HB2   | 1:R:764:LYS:HE3   | 1.84                     | 0.41              |
| 1:S:387:GLY:HA3   | 1:S:402:ILE:HA    | 2.02                     | 0.41              |
| 1:S:468:VAL:HG12  | 1:S:515:CYS:HA    | 2.03                     | 0.41              |
| 1:S:549:LEU:HD21  | 1:S:561:LEU:HD11  | 2.03                     | 0.41              |
| 1:V:8:ILE:CG1     | 1:V:35:TYR:HB3    | 2.50                     | 0.41              |
| 1:V:419:LEU:HD11  | 1:V:458:VAL:HG21  | 2.02                     | 0.41              |
| 1:V:468:VAL:HG12  | 1:V:515:CYS:HA    | 2.03                     | 0.41              |
| 1:W:8:ILE:CG1     | 1:W:35:TYR:HB3    | 2.50                     | 0.41              |
| 1:Y:95:ASP:HA     | 1:AA:85:HIS:NE2   | 2.36                     | 0.41              |
| 1:Y:468:VAL:HG12  | 1:Y:515:CYS:HA    | 2.03                     | 0.41              |
| 1:Z:219:VAL:HG21  | 1:Z:227:LEU:HD13  | 2.03                     | 0.41              |
| 1:Z:533:ASP:CG    | 1:Z:587:THR:HG1   | 2.22                     | 0.41              |
| 1:Z:621:LYS:HD3   | 1:Z:621:LYS:HA    | 1.81                     | 0.41              |
| 1:AA:468:VAL:HG12 | 1:AA:515:CYS:HA   | 2.03                     | 0.41              |
| 1:AA:814:GLY:HA2  | 1:AA:815:PRO:HD3  | 1.91                     | 0.41              |
| 1:BA:707:LEU:HD23 | 1:BA:707:LEU:HA   | 1.88                     | 0.41              |
| 1:EA:545:TRP:HB2  | 1:EA:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:EA:549:LEU:HD21 | 1:EA:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:FA:504:ARG:HB3  | 1:FA:505:PRO:HD3  | 2.03                     | 0.41              |
| 1:FA:626:ALA:HB3  | 1:FA:635:VAL:HB   | 2.02                     | 0.41              |
| 1:GA:468:VAL:HG12 | 1:GA:515:CYS:HA   | 2.03                     | 0.41              |
| 1:GA:549:LEU:HD21 | 1:GA:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:HA:53:VAL:HG13  | 1:HA:93:ALA:HA    | 2.03                     | 0.41              |
| 1:HA:73:VAL:HG21  | 1:HA:100:TYR:OH   | 2.20                     | 0.41              |
| 1:HA:377:ARG:NH1  | 1:HA:409:THR:O    | 2.30                     | 0.41              |
| 1:HA:521:ASP:OD1  | 1:HA:522:PHE:N    | 2.44                     | 0.41              |
| 1:IA:484:PRO:HG2  | 1:KA:471:TYR:CD2  | 2.56                     | 0.41              |
| 1:JA:249:TRP:HA   | 1:JA:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:JA:344:GLU:OE2  | 1:JA:345:SER:OG   | 2.38                     | 0.41              |
| 1:KA:87:ASP:OD1   | 1:KA:88:GLN:N     | 2.53                     | 0.41              |
| 1:KA:549:LEU:HD21 | 1:KA:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:KA:757:ALA:HB3  | 1:MA:748:ALA:HB1  | 2.02                     | 0.41              |
| 1:LA:15:TYR:CZ    | 1:LA:98:PRO:HA    | 2.55                     | 0.41              |
| 1:LA:249:TRP:HA   | 1:LA:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:LA:521:ASP:OD1  | 1:LA:522:PHE:N    | 2.44                     | 0.41              |
| 1:MA:419:LEU:HD11 | 1:MA:458:VAL:HG21 | 2.02                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:NA:20:ASP:OD2   | 1:NA:23:SER:OG    | 2.32                     | 0.41              |
| 1:NA:78:THR:HG23  | 1:NA:80:GLN:H     | 1.85                     | 0.41              |
| 1:NA:130:GLU:HG3  | 1:NA:134:GLY:HA2  | 2.02                     | 0.41              |
| 1:NA:521:ASP:OD1  | 1:NA:522:PHE:N    | 2.44                     | 0.41              |
| 1:OA:653:ALA:HA   | 1:OA:656:ARG:NE   | 2.26                     | 0.41              |
| 1:QA:764:LYS:HB2  | 1:QA:764:LYS:HE3  | 1.84                     | 0.41              |
| 1:SA:504:ARG:HB3  | 1:SA:505:PRO:HD3  | 2.02                     | 0.41              |
| 1:TA:32:PRO:HB2   | 1:VA:24:ASN:HB2   | 2.02                     | 0.41              |
| 1:TA:78:THR:HG23  | 1:TA:80:GLN:H     | 1.85                     | 0.41              |
| 1:UA:521:ASP:OD1  | 1:UA:522:PHE:N    | 2.44                     | 0.41              |
| 1:WA:549:LEU:HD21 | 1:WA:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:XA:62:ALA:HB3   | 1:XA:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:YA:249:TRP:HA   | 1:YA:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:YA:504:ARG:HB3  | 1:YA:505:PRO:HD3  | 2.03                     | 0.41              |
| 1:YA:521:ASP:OD1  | 1:YA:522:PHE:N    | 2.44                     | 0.41              |
| 1:ZA:53:VAL:HG13  | 1:ZA:93:ALA:HA    | 2.03                     | 0.41              |
| 1:ZA:344:GLU:OE2  | 1:ZA:345:SER:OG   | 2.38                     | 0.41              |
| 1:ZA:663:GLU:OE2  | 1:ZA:667:ASN:ND2  | 2.52                     | 0.41              |
| 1:BB:626:ALA:HB3  | 1:BB:635:VAL:HB   | 2.02                     | 0.41              |
| 1:CB:135:ASP:O    | 1:CB:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:CB:521:ASP:OD1  | 1:CB:522:PHE:N    | 2.44                     | 0.41              |
| 1:DB:53:VAL:HG13  | 1:DB:93:ALA:HA    | 2.03                     | 0.41              |
| 1:EB:53:VAL:HG13  | 1:EB:93:ALA:HA    | 2.03                     | 0.41              |
| 1:EB:73:VAL:HG21  | 1:EB:100:TYR:OH   | 2.20                     | 0.41              |
| 1:FB:62:ALA:HB3   | 1:FB:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:GB:506:LYS:HA   | 1:GB:506:LYS:HD3  | 1.78                     | 0.41              |
| 1:HB:53:VAL:HG13  | 1:HB:93:ALA:HA    | 2.03                     | 0.41              |
| 1:HB:549:LEU:HD21 | 1:HB:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:HB:761:ARG:HG2  | 1:IB:755:THR:HG21 | 2.02                     | 0.41              |
| 1:IB:549:LEU:HD21 | 1:IB:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:IB:654:LEU:O    | 1:IB:657:SER:HB3  | 2.21                     | 0.41              |
| 1:IB:702:ALA:HB2  | 1:JB:690:ARG:HH12 | 1.86                     | 0.41              |
| 1:JB:100:TYR:O    | 1:JB:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:JB:344:GLU:OE2  | 1:JB:345:SER:OG   | 2.38                     | 0.41              |
| 1:KB:394:LYS:HE3  | 1:KB:394:LYS:HB2  | 1.81                     | 0.41              |
| 1:KB:531:THR:HG23 | 1:KB:533:ASP:H    | 1.84                     | 0.41              |
| 1:LB:790:VAL:HG23 | 1:MB:785:GLN:HA   | 2.00                     | 0.41              |
| 1:MB:100:TYR:O    | 1:MB:103:GLU:HB2  | 2.21                     | 0.41              |
| 1:MB:549:LEU:HD21 | 1:MB:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:OB:53:VAL:HG13  | 1:OB:93:ALA:HA    | 2.03                     | 0.41              |
| 1:OB:249:TRP:HA   | 1:OB:312:PRO:HG2  | 2.02                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:OB:549:LEU:HD21 | 1:OB:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:PB:53:VAL:HG13  | 1:PB:93:ALA:HA    | 2.03                     | 0.41              |
| 1:PB:73:VAL:HG21  | 1:PB:100:TYR:OH   | 2.20                     | 0.41              |
| 1:PB:135:ASP:O    | 1:PB:136:LYS:HB2  | 2.21                     | 0.41              |
| 1:PB:249:TRP:HA   | 1:PB:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:QB:219:VAL:HG21 | 1:QB:227:LEU:HD13 | 2.04                     | 0.41              |
| 1:QB:545:TRP:HB2  | 1:QB:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:RB:545:TRP:HB2  | 1:RB:633:LEU:HD11 | 2.03                     | 0.41              |
| 1:RB:655:GLN:O    | 1:RB:658:VAL:HG22 | 2.20                     | 0.41              |
| 1:SB:53:VAL:HG13  | 1:SB:93:ALA:HA    | 2.03                     | 0.41              |
| 1:SB:62:ALA:HB3   | 1:SB:104:VAL:HG13 | 2.02                     | 0.41              |
| 1:VB:249:TRP:HA   | 1:VB:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:VB:626:ALA:HB3  | 1:VB:635:VAL:HB   | 2.02                     | 0.41              |
| 1:WB:665:THR:HG21 | 1:XB:589:ASP:OD1  | 2.20                     | 0.41              |
| 1:XB:249:TRP:HA   | 1:XB:312:PRO:HG2  | 2.02                     | 0.41              |
| 1:XB:344:GLU:OE2  | 1:XB:345:SER:OG   | 2.38                     | 0.41              |
| 1:YB:461:ARG:HH11 | 1:ZB:494:GLN:HG3  | 1.85                     | 0.41              |
| 1:YB:549:LEU:HD21 | 1:YB:561:LEU:HD11 | 2.03                     | 0.41              |
| 1:ZB:383:ASP:OD1  | 1:ZB:383:ASP:N    | 2.44                     | 0.41              |
| 1:AC:53:VAL:HG13  | 1:AC:93:ALA:HA    | 2.03                     | 0.41              |
| 1:AC:654:LEU:O    | 1:AC:657:SER:HB3  | 2.21                     | 0.41              |
| 1:A:535:ALA:HA    | 1:NB:658:VAL:HG11 | 2.03                     | 0.40              |
| 1:A:626:ALA:HB3   | 1:A:635:VAL:HB    | 2.02                     | 0.40              |
| 1:B:549:LEU:HD21  | 1:B:561:LEU:HD11  | 2.03                     | 0.40              |
| 1:B:654:LEU:O     | 1:B:657:SER:HB3   | 2.21                     | 0.40              |
| 1:E:344:GLU:OE2   | 1:E:345:SER:OG    | 2.38                     | 0.40              |
| 1:E:468:VAL:HG12  | 1:E:515:CYS:HA    | 2.03                     | 0.40              |
| 1:E:549:LEU:HD21  | 1:E:561:LEU:HD11  | 2.03                     | 0.40              |
| 1:E:654:LEU:O     | 1:E:657:SER:HB3   | 2.21                     | 0.40              |
| 1:F:531:THR:HG23  | 1:F:533:ASP:H     | 1.84                     | 0.40              |
| 1:I:387:GLY:HA3   | 1:I:402:ILE:HA    | 2.02                     | 0.40              |
| 1:I:506:LYS:HD3   | 1:I:506:LYS:HA    | 1.78                     | 0.40              |
| 1:J:549:LEU:HD21  | 1:J:561:LEU:HD11  | 2.03                     | 0.40              |
| 1:J:626:ALA:HB3   | 1:J:635:VAL:HB    | 2.02                     | 0.40              |
| 1:K:461:ARG:HH11  | 1:M:473:TYR:HE2   | 1.68                     | 0.40              |
| 1:M:62:ALA:HB3    | 1:M:104:VAL:HG13  | 2.02                     | 0.40              |
| 1:M:545:TRP:HB2   | 1:M:633:LEU:HD11  | 2.03                     | 0.40              |
| 1:M:549:LEU:HD21  | 1:M:561:LEU:HD11  | 2.03                     | 0.40              |
| 1:M:663:GLU:OE2   | 1:M:667:ASN:ND2   | 2.52                     | 0.40              |
| 1:N:8:ILE:CG1     | 1:N:35:TYR:HB3    | 2.50                     | 0.40              |
| 1:N:419:LEU:HD11  | 1:N:458:VAL:HG21  | 2.02                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:O:96:PRO:HD3    | 1:Q:85:HIS:NE2    | 2.36                     | 0.40              |
| 1:O:100:TYR:O     | 1:O:103:GLU:HB2   | 2.21                     | 0.40              |
| 1:O:468:VAL:HG12  | 1:O:515:CYS:HA    | 2.03                     | 0.40              |
| 1:P:549:LEU:HD21  | 1:P:561:LEU:HD11  | 2.03                     | 0.40              |
| 1:P:654:LEU:O     | 1:P:657:SER:HB3   | 2.21                     | 0.40              |
| 1:S:20:ASP:OD2    | 1:S:23:SER:OG     | 2.32                     | 0.40              |
| 1:S:220:ILE:HD12  | 1:V:245:THR:HG22  | 2.04                     | 0.40              |
| 1:T:549:LEU:HD21  | 1:T:561:LEU:HD11  | 2.03                     | 0.40              |
| 1:V:73:VAL:HG21   | 1:V:100:TYR:OH    | 2.20                     | 0.40              |
| 1:V:626:ALA:HB3   | 1:V:635:VAL:HB    | 2.02                     | 0.40              |
| 1:X:56:ARG:CB     | 1:Z:127:LEU:HD22  | 2.51                     | 0.40              |
| 1:X:78:THR:HG23   | 1:X:80:GLN:H      | 1.85                     | 0.40              |
| 1:X:87:ASP:OD1    | 1:X:88:GLN:N      | 2.53                     | 0.40              |
| 1:Y:419:LEU:HD11  | 1:Y:458:VAL:HG21  | 2.02                     | 0.40              |
| 1:Z:419:LEU:HD11  | 1:Z:458:VAL:HG21  | 2.02                     | 0.40              |
| 1:AA:130:GLU:HG3  | 1:AA:134:GLY:HA2  | 2.02                     | 0.40              |
| 1:BA:130:GLU:HG3  | 1:BA:134:GLY:HA2  | 2.02                     | 0.40              |
| 1:BA:219:VAL:HG21 | 1:BA:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:BA:549:LEU:HD21 | 1:BA:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:CA:135:ASP:O    | 1:CA:136:LYS:HB2  | 2.21                     | 0.40              |
| 1:CA:653:ALA:HA   | 1:CA:656:ARG:NE   | 2.26                     | 0.40              |
| 1:DA:78:THR:HG23  | 1:DA:80:GLN:H     | 1.85                     | 0.40              |
| 1:EA:468:VAL:HG12 | 1:EA:515:CYS:HA   | 2.03                     | 0.40              |
| 1:FA:53:VAL:HG13  | 1:FA:93:ALA:HA    | 2.03                     | 0.40              |
| 1:HA:549:LEU:HD21 | 1:HA:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:IA:40:ASN:HD21  | 1:RA:38:GLN:HG3   | 1.85                     | 0.40              |
| 1:IA:468:VAL:HG12 | 1:IA:515:CYS:HA   | 2.03                     | 0.40              |
| 1:JA:521:ASP:OD1  | 1:JA:522:PHE:N    | 2.44                     | 0.40              |
| 1:LA:100:TYR:O    | 1:LA:103:GLU:HB2  | 2.21                     | 0.40              |
| 1:MA:219:VAL:HG21 | 1:MA:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:PA:62:ALA:HB3   | 1:PA:104:VAL:HG13 | 2.02                     | 0.40              |
| 1:PA:549:LEU:HD21 | 1:PA:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:TA:655:GLN:O    | 1:TA:658:VAL:HG22 | 2.20                     | 0.40              |
| 1:UA:53:VAL:HG13  | 1:UA:93:ALA:HA    | 2.03                     | 0.40              |
| 1:UA:549:LEU:HD21 | 1:UA:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:UA:716:VAL:HG21 | 1:WA:708:GLU:HG2  | 2.03                     | 0.40              |
| 1:WA:53:VAL:HG13  | 1:WA:93:ALA:HA    | 2.03                     | 0.40              |
| 1:WA:521:ASP:OD1  | 1:WA:522:PHE:N    | 2.44                     | 0.40              |
| 1:XA:545:TRP:HB2  | 1:XA:633:LEU:HD11 | 2.03                     | 0.40              |
| 1:YA:62:ALA:HB3   | 1:YA:104:VAL:HG13 | 2.02                     | 0.40              |
| 1:YA:707:LEU:HD23 | 1:YA:707:LEU:HA   | 1.88                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:ZA:100:TYR:O    | 1:ZA:103:GLU:HB2  | 2.21                     | 0.40              |
| 1:ZA:135:ASP:O    | 1:ZA:136:LYS:HB2  | 2.21                     | 0.40              |
| 1:ZA:626:ALA:HB3  | 1:ZA:635:VAL:HB   | 2.02                     | 0.40              |
| 1:AB:130:GLU:HG3  | 1:AB:134:GLY:HA2  | 2.02                     | 0.40              |
| 1:AB:660:LEU:HA   | 1:AB:663:GLU:HB3  | 2.04                     | 0.40              |
| 1:BB:62:ALA:HB3   | 1:BB:104:VAL:HG13 | 2.02                     | 0.40              |
| 1:CB:249:TRP:HA   | 1:CB:312:PRO:HG2  | 2.02                     | 0.40              |
| 1:CB:533:ASP:OD2  | 1:CB:587:THR:OG1  | 2.35                     | 0.40              |
| 1:CB:533:ASP:CG   | 1:CB:587:THR:HG1  | 2.23                     | 0.40              |
| 1:DB:249:TRP:HA   | 1:DB:312:PRO:HG2  | 2.02                     | 0.40              |
| 1:FB:53:VAL:HG13  | 1:FB:93:ALA:HA    | 2.03                     | 0.40              |
| 1:GB:65:VAL:O     | 1:GB:84:ARG:NH2   | 2.54                     | 0.40              |
| 1:GB:814:GLY:HA2  | 1:GB:815:PRO:HD3  | 1.91                     | 0.40              |
| 1:HB:654:LEU:O    | 1:HB:657:SER:HB3  | 2.21                     | 0.40              |
| 1:IB:62:ALA:HB3   | 1:IB:104:VAL:HG13 | 2.02                     | 0.40              |
| 1:IB:387:GLY:HA3  | 1:IB:402:ILE:HA   | 2.02                     | 0.40              |
| 1:JB:549:LEU:HD21 | 1:JB:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:MB:118:ASN:OD1  | 1:NB:180:LYS:HA   | 2.21                     | 0.40              |
| 1:OB:62:ALA:HB3   | 1:OB:104:VAL:HG13 | 2.02                     | 0.40              |
| 1:PB:219:VAL:HG21 | 1:PB:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:PB:545:TRP:HB2  | 1:PB:633:LEU:HD11 | 2.03                     | 0.40              |
| 1:QB:34:THR:HG21  | 1:RB:21:GLN:O     | 2.20                     | 0.40              |
| 1:QB:62:ALA:HB3   | 1:QB:104:VAL:HG13 | 2.02                     | 0.40              |
| 1:QB:249:TRP:HA   | 1:QB:312:PRO:HG2  | 2.02                     | 0.40              |
| 1:QB:549:LEU:HD21 | 1:QB:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:SB:377:ARG:HA   | 1:SB:377:ARG:HD3  | 1.84                     | 0.40              |
| 1:SB:545:TRP:HB2  | 1:SB:633:LEU:HD11 | 2.03                     | 0.40              |
| 1:TB:100:TYR:O    | 1:TB:103:GLU:HB2  | 2.21                     | 0.40              |
| 1:TB:626:ALA:HB3  | 1:TB:635:VAL:HB   | 2.02                     | 0.40              |
| 1:UB:377:ARG:HD3  | 1:UB:377:ARG:HA   | 1.84                     | 0.40              |
| 1:WB:62:ALA:HB3   | 1:WB:104:VAL:HG13 | 2.02                     | 0.40              |
| 1:WB:299:LYS:NZ   | 1:WB:317:GLU:OE2  | 2.38                     | 0.40              |
| 1:WB:549:LEU:HD21 | 1:WB:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:XB:53:VAL:HG13  | 1:XB:93:ALA:HA    | 2.03                     | 0.40              |
| 1:YB:382:LEU:O    | 1:ZB:396:GLY:HA3  | 2.21                     | 0.40              |
| 1:YB:484:PRO:HG2  | 1:ZB:471:TYR:CD2  | 2.55                     | 0.40              |
| 1:B:387:GLY:HA3   | 1:B:402:ILE:HA    | 2.02                     | 0.40              |
| 1:C:100:TYR:O     | 1:C:103:GLU:HB2   | 2.21                     | 0.40              |
| 1:C:468:VAL:HG12  | 1:C:515:CYS:HA    | 2.03                     | 0.40              |
| 1:C:542:ALA:HB1   | 1:E:573:LYS:HE2   | 2.02                     | 0.40              |
| 1:C:654:LEU:O     | 1:C:657:SER:HB3   | 2.21                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:D:8:ILE:CG1     | 1:D:35:TYR:HB3    | 2.50                     | 0.40              |
| 1:D:53:VAL:HG13   | 1:D:93:ALA:HA     | 2.03                     | 0.40              |
| 1:D:62:ALA:HB3    | 1:D:104:VAL:HG13  | 2.02                     | 0.40              |
| 1:D:394:LYS:HE3   | 1:D:394:LYS:HB2   | 1.81                     | 0.40              |
| 1:D:658:VAL:HG11  | 1:F:535:ALA:HA    | 2.03                     | 0.40              |
| 1:F:53:VAL:HG13   | 1:F:93:ALA:HA     | 2.03                     | 0.40              |
| 1:F:279:ARG:HD3   | 1:H:337:LEU:HD13  | 2.02                     | 0.40              |
| 1:G:100:TYR:O     | 1:G:103:GLU:HB2   | 2.21                     | 0.40              |
| 1:G:377:ARG:HA    | 1:G:377:ARG:HD3   | 1.84                     | 0.40              |
| 1:G:468:VAL:HG12  | 1:G:515:CYS:HA    | 2.03                     | 0.40              |
| 1:I:419:LEU:HD11  | 1:I:458:VAL:HG21  | 2.02                     | 0.40              |
| 1:I:468:VAL:HG12  | 1:I:515:CYS:HA    | 2.03                     | 0.40              |
| 1:I:626:ALA:HB3   | 1:I:635:VAL:HB    | 2.02                     | 0.40              |
| 1:I:653:ALA:HA    | 1:I:656:ARG:NE    | 2.26                     | 0.40              |
| 1:K:383:ASP:OD1   | 1:K:383:ASP:N     | 2.44                     | 0.40              |
| 1:K:545:TRP:HB2   | 1:K:633:LEU:HD11  | 2.03                     | 0.40              |
| 1:K:549:LEU:HD21  | 1:K:561:LEU:HD11  | 2.03                     | 0.40              |
| 1:L:62:ALA:HB3    | 1:L:104:VAL:HG13  | 2.02                     | 0.40              |
| 1:L:468:VAL:HG12  | 1:L:515:CYS:HA    | 2.03                     | 0.40              |
| 1:M:506:LYS:HA    | 1:M:506:LYS:HD3   | 1.79                     | 0.40              |
| 1:M:717:GLU:HB2   | 1:O:707:LEU:HD13  | 2.03                     | 0.40              |
| 1:O:419:LEU:HD11  | 1:O:458:VAL:HG21  | 2.02                     | 0.40              |
| 1:O:549:LEU:HD21  | 1:O:561:LEU:HD11  | 2.03                     | 0.40              |
| 1:P:387:GLY:HA3   | 1:P:402:ILE:HA    | 2.02                     | 0.40              |
| 1:Q:387:GLY:HA3   | 1:Q:402:ILE:HA    | 2.02                     | 0.40              |
| 1:Q:549:LEU:HD21  | 1:Q:561:LEU:HD11  | 2.03                     | 0.40              |
| 1:R:268:LEU:HD23  | 1:R:268:LEU:HA    | 1.96                     | 0.40              |
| 1:T:468:VAL:HG12  | 1:T:515:CYS:HA    | 2.03                     | 0.40              |
| 1:V:549:LEU:HD21  | 1:V:561:LEU:HD11  | 2.03                     | 0.40              |
| 1:W:73:VAL:HG21   | 1:W:100:TYR:OH    | 2.20                     | 0.40              |
| 1:W:549:LEU:HD21  | 1:W:561:LEU:HD11  | 2.03                     | 0.40              |
| 1:Y:660:LEU:HA    | 1:Y:663:GLU:HB3   | 2.04                     | 0.40              |
| 1:Z:653:ALA:HA    | 1:Z:656:ARG:NE    | 2.26                     | 0.40              |
| 1:BA:653:ALA:HA   | 1:BA:656:ARG:NE   | 2.26                     | 0.40              |
| 1:CA:8:ILE:CG1    | 1:CA:35:TYR:HB3   | 2.50                     | 0.40              |
| 1:CA:468:VAL:HG12 | 1:CA:515:CYS:HA   | 2.03                     | 0.40              |
| 1:EA:65:VAL:O     | 1:EA:84:ARG:NH2   | 2.54                     | 0.40              |
| 1:FA:136:LYS:HA   | 1:FA:136:LYS:HD2  | 1.76                     | 0.40              |
| 1:GA:660:LEU:HA   | 1:GA:663:GLU:HB3  | 2.04                     | 0.40              |
| 1:HA:249:TRP:HA   | 1:HA:312:PRO:HG2  | 2.02                     | 0.40              |
| 1:IA:219:VAL:HG21 | 1:IA:227:LEU:HD13 | 2.03                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:IA:626:ALA:HB3  | 1:IA:635:VAL:HB   | 2.02                     | 0.40              |
| 1:IA:694:LEU:O    | 1:IA:697:SER:OG   | 2.28                     | 0.40              |
| 1:JA:549:LEU:HD21 | 1:JA:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:LA:219:VAL:HG21 | 1:LA:227:LEU:HD13 | 2.03                     | 0.40              |
| 1:MA:394:LYS:HB2  | 1:MA:394:LYS:HE3  | 1.81                     | 0.40              |
| 1:NA:219:VAL:HG21 | 1:NA:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:OA:549:LEU:HD21 | 1:OA:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:PA:219:VAL:HG21 | 1:PA:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:PA:521:ASP:OD1  | 1:PA:522:PHE:N    | 2.44                     | 0.40              |
| 1:RA:62:ALA:HB3   | 1:RA:104:VAL:HG13 | 2.02                     | 0.40              |
| 1:RA:219:VAL:HG21 | 1:RA:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:RA:377:ARG:HD3  | 1:RA:377:ARG:HA   | 1.84                     | 0.40              |
| 1:RA:549:LEU:HD21 | 1:RA:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:SA:53:VAL:HG13  | 1:SA:93:ALA:HA    | 2.03                     | 0.40              |
| 1:SA:626:ALA:HB3  | 1:SA:635:VAL:HB   | 2.02                     | 0.40              |
| 1:TA:219:VAL:HG21 | 1:TA:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:TA:660:LEU:HA   | 1:TA:663:GLU:HB3  | 2.04                     | 0.40              |
| 1:UA:73:VAL:HG21  | 1:UA:100:TYR:OH   | 2.20                     | 0.40              |
| 1:UA:135:ASP:O    | 1:UA:136:LYS:HB2  | 2.21                     | 0.40              |
| 1:UA:249:TRP:HA   | 1:UA:312:PRO:HG2  | 2.02                     | 0.40              |
| 1:UA:377:ARG:NH1  | 1:UA:409:THR:O    | 2.30                     | 0.40              |
| 1:UA:387:GLY:HA3  | 1:UA:402:ILE:HA   | 2.02                     | 0.40              |
| 1:UA:654:LEU:O    | 1:UA:657:SER:HB3  | 2.21                     | 0.40              |
| 1:VA:219:VAL:HG21 | 1:VA:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:VA:545:TRP:HB2  | 1:VA:633:LEU:HD11 | 2.03                     | 0.40              |
| 1:VA:549:LEU:HD21 | 1:VA:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:YA:100:TYR:O    | 1:YA:103:GLU:HB2  | 2.21                     | 0.40              |
| 1:BB:549:LEU:HD21 | 1:BB:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:BB:772:TYR:CE1  | 1:CB:766:ARG:HB3  | 2.56                     | 0.40              |
| 1:CB:549:LEU:HD21 | 1:CB:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:DB:62:ALA:HB3   | 1:DB:104:VAL:HG13 | 2.02                     | 0.40              |
| 1:DB:135:ASP:O    | 1:DB:136:LYS:HB2  | 2.21                     | 0.40              |
| 1:DB:720:GLY:HA3  | 1:EB:711:ALA:HB1  | 2.03                     | 0.40              |
| 1:FB:219:VAL:HG21 | 1:FB:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:FB:419:LEU:HD11 | 1:FB:458:VAL:HG21 | 2.02                     | 0.40              |
| 1:FB:549:LEU:HD21 | 1:FB:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:FB:666:THR:HG22 | 1:GB:657:SER:HB2  | 2.03                     | 0.40              |
| 1:GB:654:LEU:O    | 1:GB:657:SER:HB3  | 2.21                     | 0.40              |
| 1:HB:135:ASP:O    | 1:HB:136:LYS:HB2  | 2.21                     | 0.40              |
| 1:IB:65:VAL:O     | 1:IB:84:ARG:NH2   | 2.54                     | 0.40              |
| 1:JB:654:LEU:O    | 1:JB:657:SER:HB3  | 2.21                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:KB:8:ILE:CG1    | 1:KB:35:TYR:HB3   | 2.50                     | 0.40              |
| 1:LB:62:ALA:HB3   | 1:LB:104:VAL:HG13 | 2.02                     | 0.40              |
| 1:MB:626:ALA:HB3  | 1:MB:635:VAL:HB   | 2.02                     | 0.40              |
| 1:NB:468:VAL:HG12 | 1:NB:515:CYS:HA   | 2.03                     | 0.40              |
| 1:OB:121:LEU:HD23 | 1:OB:121:LEU:HA   | 1.97                     | 0.40              |
| 1:QB:694:LEU:O    | 1:QB:697:SER:OG   | 2.28                     | 0.40              |
| 1:RB:549:LEU:HD21 | 1:RB:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:SB:219:VAL:HG21 | 1:SB:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:TB:135:ASP:O    | 1:TB:136:LYS:HB2  | 2.21                     | 0.40              |
| 1:TB:344:GLU:OE2  | 1:TB:345:SER:OG   | 2.38                     | 0.40              |
| 1:UB:62:ALA:HB3   | 1:UB:104:VAL:HG13 | 2.02                     | 0.40              |
| 1:UB:549:LEU:HD21 | 1:UB:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:UB:798:MET:O    | 1:VB:795:PHE:HE2  | 2.04                     | 0.40              |
| 1:VB:135:ASP:O    | 1:VB:136:LYS:HB2  | 2.21                     | 0.40              |
| 1:VB:549:LEU:HD21 | 1:VB:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:WB:130:GLU:HG3  | 1:WB:134:GLY:HA2  | 2.02                     | 0.40              |
| 1:XB:73:VAL:HG21  | 1:XB:100:TYR:OH   | 2.20                     | 0.40              |
| 1:YB:100:TYR:O    | 1:YB:103:GLU:HB2  | 2.21                     | 0.40              |
| 1:YB:419:LEU:HD11 | 1:YB:458:VAL:HG21 | 2.02                     | 0.40              |
| 1:ZB:65:VAL:O     | 1:ZB:84:ARG:NH2   | 2.54                     | 0.40              |
| 1:ZB:654:LEU:O    | 1:ZB:657:SER:HB3  | 2.21                     | 0.40              |
| 1:AC:65:VAL:O     | 1:AC:84:ARG:NH2   | 2.54                     | 0.40              |
| 1:AC:419:LEU:HD11 | 1:AC:458:VAL:HG21 | 2.02                     | 0.40              |
| 1:A:654:LEU:O     | 1:A:657:SER:HB3   | 2.21                     | 0.40              |
| 1:B:65:VAL:O      | 1:B:84:ARG:NH2    | 2.55                     | 0.40              |
| 1:C:549:LEU:HD21  | 1:C:561:LEU:HD11  | 2.03                     | 0.40              |
| 1:D:65:VAL:O      | 1:D:84:ARG:NH2    | 2.54                     | 0.40              |
| 1:D:702:ALA:HB2   | 1:F:690:ARG:HH12  | 1.87                     | 0.40              |
| 1:E:135:ASP:O     | 1:E:136:LYS:HB2   | 2.21                     | 0.40              |
| 1:F:130:GLU:HG3   | 1:F:134:GLY:HA2   | 2.02                     | 0.40              |
| 1:G:130:GLU:HG3   | 1:G:134:GLY:HA2   | 2.02                     | 0.40              |
| 1:I:100:TYR:O     | 1:I:103:GLU:HB2   | 2.21                     | 0.40              |
| 1:I:521:ASP:OD1   | 1:I:522:PHE:N     | 2.44                     | 0.40              |
| 1:I:549:LEU:HD21  | 1:I:561:LEU:HD11  | 2.03                     | 0.40              |
| 1:I:707:LEU:HD23  | 1:I:707:LEU:HA    | 1.88                     | 0.40              |
| 1:J:468:VAL:HG12  | 1:J:515:CYS:HA    | 2.03                     | 0.40              |
| 1:K:387:GLY:HA3   | 1:K:402:ILE:HA    | 2.02                     | 0.40              |
| 1:K:500:LEU:HD23  | 1:K:500:LEU:HA    | 1.92                     | 0.40              |
| 1:L:500:LEU:HD23  | 1:L:500:LEU:HA    | 1.92                     | 0.40              |
| 1:N:87:ASP:OD1    | 1:N:88:GLN:N      | 2.53                     | 0.40              |
| 1:N:654:LEU:O     | 1:N:657:SER:HB3   | 2.21                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:P:121:LEU:HD23  | 1:P:121:LEU:HA    | 1.97                     | 0.40              |
| 1:Q:130:GLU:HG3   | 1:Q:134:GLY:HA2   | 2.02                     | 0.40              |
| 1:Q:660:LEU:HA    | 1:Q:663:GLU:HB3   | 2.04                     | 0.40              |
| 1:R:654:LEU:O     | 1:R:657:SER:HB3   | 2.21                     | 0.40              |
| 1:S:65:VAL:O      | 1:S:84:ARG:NH2    | 2.54                     | 0.40              |
| 1:T:8:ILE:CG1     | 1:T:35:TYR:HB3    | 2.50                     | 0.40              |
| 1:T:545:TRP:HB2   | 1:T:633:LEU:HD11  | 2.03                     | 0.40              |
| 1:V:219:VAL:HG21  | 1:V:227:LEU:HD13  | 2.04                     | 0.40              |
| 1:V:344:GLU:OE2   | 1:V:345:SER:OG    | 2.38                     | 0.40              |
| 1:V:720:GLY:HA3   | 1:X:711:ALA:HB1   | 2.03                     | 0.40              |
| 1:W:135:ASP:O     | 1:W:136:LYS:HB2   | 2.21                     | 0.40              |
| 1:W:468:VAL:HG12  | 1:W:515:CYS:HA    | 2.03                     | 0.40              |
| 1:W:545:TRP:HB2   | 1:W:633:LEU:HD11  | 2.03                     | 0.40              |
| 1:X:219:VAL:HG21  | 1:X:227:LEU:HD13  | 2.04                     | 0.40              |
| 1:X:419:LEU:HD11  | 1:X:458:VAL:HG21  | 2.02                     | 0.40              |
| 1:X:468:VAL:HG12  | 1:X:515:CYS:HA    | 2.03                     | 0.40              |
| 1:Z:660:LEU:HA    | 1:Z:663:GLU:HB3   | 2.04                     | 0.40              |
| 1:AA:500:LEU:HD23 | 1:AA:500:LEU:HA   | 1.92                     | 0.40              |
| 1:BA:73:VAL:HG21  | 1:BA:100:TYR:OH   | 2.20                     | 0.40              |
| 1:BA:468:VAL:HG12 | 1:BA:515:CYS:HA   | 2.03                     | 0.40              |
| 1:CA:506:LYS:HA   | 1:CA:506:LYS:HD3  | 1.78                     | 0.40              |
| 1:CA:549:LEU:HD21 | 1:CA:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:DA:53:VAL:HG13  | 1:DA:93:ALA:HA    | 2.03                     | 0.40              |
| 1:DA:468:VAL:HG12 | 1:DA:515:CYS:HA   | 2.03                     | 0.40              |
| 1:EA:20:ASP:OD2   | 1:EA:23:SER:OG    | 2.32                     | 0.40              |
| 1:EA:467:ALA:HB2  | 1:EA:518:LEU:HD11 | 2.04                     | 0.40              |
| 1:FA:219:VAL:HG21 | 1:FA:227:LEU:HD13 | 2.03                     | 0.40              |
| 1:FA:654:LEU:O    | 1:FA:657:SER:HB3  | 2.21                     | 0.40              |
| 1:FA:660:LEU:HA   | 1:FA:663:GLU:HB3  | 2.04                     | 0.40              |
| 1:GA:56:ARG:HG3   | 1:IA:127:LEU:HD22 | 2.02                     | 0.40              |
| 1:GA:65:VAL:O     | 1:GA:84:ARG:NH2   | 2.55                     | 0.40              |
| 1:GA:814:GLY:HA2  | 1:GA:815:PRO:HD3  | 1.91                     | 0.40              |
| 1:HA:387:GLY:HA3  | 1:HA:402:ILE:HA   | 2.02                     | 0.40              |
| 1:IA:65:VAL:O     | 1:IA:84:ARG:NH2   | 2.54                     | 0.40              |
| 1:IA:549:LEU:HD21 | 1:IA:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:IA:707:LEU:HD23 | 1:IA:707:LEU:HA   | 1.88                     | 0.40              |
| 1:JA:40:ASN:ND2   | 1:QA:38:GLN:HG3   | 2.36                     | 0.40              |
| 1:JA:53:VAL:HG13  | 1:JA:93:ALA:HA    | 2.03                     | 0.40              |
| 1:JA:65:VAL:O     | 1:JA:84:ARG:NH2   | 2.54                     | 0.40              |
| 1:JA:219:VAL:HG21 | 1:JA:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:KA:468:VAL:HG12 | 1:KA:515:CYS:HA   | 2.03                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:LA:62:ALA:HB3   | 1:LA:104:VAL:HG13 | 2.02                     | 0.40              |
| 1:LA:65:VAL:O     | 1:LA:84:ARG:NH2   | 2.55                     | 0.40              |
| 1:MA:653:ALA:HA   | 1:MA:656:ARG:NE   | 2.26                     | 0.40              |
| 1:MA:660:LEU:HA   | 1:MA:663:GLU:HB3  | 2.04                     | 0.40              |
| 1:NA:624:ASP:N    | 1:NA:624:ASP:OD1  | 2.55                     | 0.40              |
| 1:NA:660:LEU:HA   | 1:NA:663:GLU:HB3  | 2.04                     | 0.40              |
| 1:OA:130:GLU:HG3  | 1:OA:134:GLY:HA2  | 2.02                     | 0.40              |
| 1:OA:219:VAL:HG21 | 1:OA:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:OA:468:VAL:HG12 | 1:OA:515:CYS:HA   | 2.03                     | 0.40              |
| 1:PA:624:ASP:N    | 1:PA:624:ASP:OD1  | 2.55                     | 0.40              |
| 1:QA:53:VAL:HG13  | 1:QA:93:ALA:HA    | 2.03                     | 0.40              |
| 1:QA:78:THR:HG23  | 1:QA:80:GLN:H     | 1.85                     | 0.40              |
| 1:QA:468:VAL:HG12 | 1:QA:515:CYS:HA   | 2.03                     | 0.40              |
| 1:RA:249:TRP:HA   | 1:RA:312:PRO:HG2  | 2.02                     | 0.40              |
| 1:RA:624:ASP:N    | 1:RA:624:ASP:OD1  | 2.55                     | 0.40              |
| 1:SA:521:ASP:OD1  | 1:SA:522:PHE:N    | 2.44                     | 0.40              |
| 1:SA:654:LEU:O    | 1:SA:657:SER:HB3  | 2.21                     | 0.40              |
| 1:TA:130:GLU:HG3  | 1:TA:134:GLY:HA2  | 2.02                     | 0.40              |
| 1:TA:624:ASP:OD1  | 1:TA:624:ASP:N    | 2.55                     | 0.40              |
| 1:UA:65:VAL:O     | 1:UA:84:ARG:NH2   | 2.54                     | 0.40              |
| 1:UA:626:ALA:HB3  | 1:UA:635:VAL:HB   | 2.02                     | 0.40              |
| 1:UA:660:LEU:HA   | 1:UA:663:GLU:HB3  | 2.04                     | 0.40              |
| 1:VA:624:ASP:OD1  | 1:VA:624:ASP:N    | 2.55                     | 0.40              |
| 1:WA:65:VAL:O     | 1:WA:84:ARG:NH2   | 2.54                     | 0.40              |
| 1:WA:344:GLU:OE2  | 1:WA:345:SER:OG   | 2.38                     | 0.40              |
| 1:XA:219:VAL:HG21 | 1:XA:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:XA:624:ASP:OD1  | 1:XA:624:ASP:N    | 2.55                     | 0.40              |
| 1:YA:65:VAL:O     | 1:YA:84:ARG:NH2   | 2.54                     | 0.40              |
| 1:YA:219:VAL:HG21 | 1:YA:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:YA:654:LEU:O    | 1:YA:657:SER:HB3  | 2.21                     | 0.40              |
| 1:ZA:545:TRP:HB2  | 1:ZA:633:LEU:HD11 | 2.03                     | 0.40              |
| 1:ZA:549:LEU:HD21 | 1:ZA:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:AB:20:ASP:OD2   | 1:AB:23:SER:OG    | 2.32                     | 0.40              |
| 1:AB:219:VAL:HG21 | 1:AB:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:AB:624:ASP:N    | 1:AB:624:ASP:OD1  | 2.55                     | 0.40              |
| 1:CB:626:ALA:HB3  | 1:CB:635:VAL:HB   | 2.02                     | 0.40              |
| 1:DB:549:LEU:HD21 | 1:DB:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:EB:219:VAL:HG21 | 1:EB:227:LEU:HD13 | 2.03                     | 0.40              |
| 1:FB:65:VAL:O     | 1:FB:84:ARG:NH2   | 2.55                     | 0.40              |
| 1:FB:100:TYR:O    | 1:FB:103:GLU:HB2  | 2.21                     | 0.40              |
| 1:GB:219:VAL:HG21 | 1:GB:227:LEU:HD13 | 2.04                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:GB:383:ASP:OD1  | 1:GB:383:ASP:N    | 2.44                     | 0.40              |
| 1:GB:658:VAL:HG11 | 1:HB:535:ALA:HA   | 2.03                     | 0.40              |
| 1:HB:65:VAL:O     | 1:HB:84:ARG:NH2   | 2.54                     | 0.40              |
| 1:HB:419:LEU:HD11 | 1:HB:458:VAL:HG21 | 2.02                     | 0.40              |
| 1:IB:53:VAL:HG13  | 1:IB:93:ALA:HA    | 2.03                     | 0.40              |
| 1:IB:394:LYS:HE3  | 1:IB:394:LYS:HB2  | 1.81                     | 0.40              |
| 1:JB:65:VAL:O     | 1:JB:84:ARG:NH2   | 2.54                     | 0.40              |
| 1:KB:53:VAL:HG13  | 1:KB:93:ALA:HA    | 2.03                     | 0.40              |
| 1:KB:506:LYS:HD3  | 1:KB:506:LYS:HA   | 1.78                     | 0.40              |
| 1:MB:468:VAL:HG12 | 1:MB:515:CYS:HA   | 2.03                     | 0.40              |
| 1:OB:219:VAL:HG21 | 1:OB:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:PB:549:LEU:HD21 | 1:PB:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:PB:626:ALA:HB3  | 1:PB:635:VAL:HB   | 2.02                     | 0.40              |
| 1:PB:694:LEU:O    | 1:PB:697:SER:OG   | 2.28                     | 0.40              |
| 1:QB:377:ARG:HD3  | 1:QB:377:ARG:HA   | 1.84                     | 0.40              |
| 1:QB:660:LEU:HA   | 1:QB:663:GLU:HB3  | 2.04                     | 0.40              |
| 1:RB:219:VAL:HG21 | 1:RB:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:TB:32:PRO:HB2   | 1:UB:24:ASN:HB2   | 2.03                     | 0.40              |
| 1:TB:219:VAL:HG21 | 1:TB:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:TB:545:TRP:HB2  | 1:TB:633:LEU:HD11 | 2.03                     | 0.40              |
| 1:TB:549:LEU:HD21 | 1:TB:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:UB:660:LEU:HA   | 1:UB:663:GLU:HB3  | 2.04                     | 0.40              |
| 1:UB:797:GLU:HB3  | 1:VB:792:ALA:HB1  | 2.02                     | 0.40              |
| 1:WB:135:ASP:O    | 1:WB:136:LYS:HB2  | 2.21                     | 0.40              |
| 1:XB:219:VAL:HG21 | 1:XB:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:YB:65:VAL:O     | 1:YB:84:ARG:NH2   | 2.55                     | 0.40              |
| 1:YB:219:VAL:HG21 | 1:YB:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:YB:299:LYS:NZ   | 1:YB:317:GLU:OE2  | 2.38                     | 0.40              |
| 1:AC:135:ASP:O    | 1:AC:136:LYS:HB2  | 2.21                     | 0.40              |
| 1:A:100:TYR:O     | 1:A:103:GLU:HB2   | 2.21                     | 0.40              |
| 1:A:468:VAL:HG12  | 1:A:515:CYS:HA    | 2.03                     | 0.40              |
| 1:A:658:VAL:HG11  | 1:C:535:ALA:HA    | 2.02                     | 0.40              |
| 1:A:690:ARG:HH12  | 1:NB:702:ALA:HB2  | 1.87                     | 0.40              |
| 1:A:702:ALA:CB    | 1:C:690:ARG:HH12  | 2.34                     | 0.40              |
| 1:A:720:GLY:HA3   | 1:C:711:ALA:CB    | 2.50                     | 0.40              |
| 1:A:814:GLY:HA2   | 1:A:815:PRO:HD3   | 1.91                     | 0.40              |
| 1:C:706:LEU:HD13  | 1:E:693:ILE:HG23  | 2.03                     | 0.40              |
| 1:D:654:LEU:O     | 1:D:657:SER:HB3   | 2.21                     | 0.40              |
| 1:E:419:LEU:HD11  | 1:E:458:VAL:HG21  | 2.02                     | 0.40              |
| 1:F:65:VAL:O      | 1:F:84:ARG:NH2    | 2.54                     | 0.40              |
| 1:G:654:LEU:O     | 1:G:657:SER:HB3   | 2.22                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:H:62:ALA:HB3    | 1:H:104:VAL:HG13  | 2.02                     | 0.40              |
| 1:H:419:LEU:HD11  | 1:H:458:VAL:HG21  | 2.02                     | 0.40              |
| 1:H:468:VAL:HG12  | 1:H:515:CYS:HA    | 2.03                     | 0.40              |
| 1:I:545:TRP:HB2   | 1:I:633:LEU:HD11  | 2.03                     | 0.40              |
| 1:J:98:PRO:HG2    | 1:J:100:TYR:CE1   | 2.57                     | 0.40              |
| 1:K:533:ASP:CG    | 1:K:587:THR:HG1   | 2.23                     | 0.40              |
| 1:K:660:LEU:HA    | 1:K:663:GLU:HB3   | 2.04                     | 0.40              |
| 1:L:8:ILE:CG1     | 1:L:35:TYR:HB3    | 2.50                     | 0.40              |
| 1:L:87:ASP:OD1    | 1:L:88:GLN:N      | 2.53                     | 0.40              |
| 1:M:100:TYR:O     | 1:M:103:GLU:HB2   | 2.21                     | 0.40              |
| 1:N:468:VAL:HG12  | 1:N:515:CYS:HA    | 2.03                     | 0.40              |
| 1:O:8:ILE:CG1     | 1:O:35:TYR:HB3    | 2.51                     | 0.40              |
| 1:O:65:VAL:O      | 1:O:84:ARG:NH2    | 2.54                     | 0.40              |
| 1:O:461:ARG:HH11  | 1:Q:473:TYR:HE2   | 1.70                     | 0.40              |
| 1:O:794:LYS:HD3   | 1:Q:788:ALA:HB1   | 2.04                     | 0.40              |
| 1:Q:65:VAL:O      | 1:Q:84:ARG:NH2    | 2.54                     | 0.40              |
| 1:Q:135:ASP:O     | 1:Q:136:LYS:HB2   | 2.21                     | 0.40              |
| 1:Q:467:ALA:HB2   | 1:Q:518:LEU:HD11  | 2.04                     | 0.40              |
| 1:R:660:LEU:HA    | 1:R:663:GLU:HB3   | 2.04                     | 0.40              |
| 1:T:344:GLU:OE2   | 1:T:345:SER:OG    | 2.38                     | 0.40              |
| 1:V:621:LYS:HA    | 1:V:621:LYS:HD3   | 1.81                     | 0.40              |
| 1:W:62:ALA:HB3    | 1:W:104:VAL:HG13  | 2.02                     | 0.40              |
| 1:X:65:VAL:O      | 1:X:84:ARG:NH2    | 2.54                     | 0.40              |
| 1:Y:387:GLY:HA3   | 1:Y:402:ILE:HA    | 2.02                     | 0.40              |
| 1:Z:467:ALA:HB2   | 1:Z:518:LEU:HD11  | 2.04                     | 0.40              |
| 1:Z:468:VAL:HG12  | 1:Z:515:CYS:HA    | 2.03                     | 0.40              |
| 1:CA:65:VAL:O     | 1:CA:84:ARG:NH2   | 2.54                     | 0.40              |
| 1:DA:87:ASP:OD1   | 1:DA:88:GLN:N     | 2.53                     | 0.40              |
| 1:DA:219:VAL:HG21 | 1:DA:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:DA:654:LEU:O    | 1:DA:657:SER:HB3  | 2.21                     | 0.40              |
| 1:EA:660:LEU:HA   | 1:EA:663:GLU:HB3  | 2.04                     | 0.40              |
| 1:GA:62:ALA:HB3   | 1:GA:104:VAL:HG13 | 2.02                     | 0.40              |
| 1:GA:521:ASP:OD1  | 1:GA:522:PHE:N    | 2.44                     | 0.40              |
| 1:HA:135:ASP:O    | 1:HA:136:LYS:HB2  | 2.21                     | 0.40              |
| 1:HA:654:LEU:O    | 1:HA:657:SER:HB3  | 2.21                     | 0.40              |
| 1:IA:419:LEU:HD11 | 1:IA:458:VAL:HG21 | 2.02                     | 0.40              |
| 1:IA:533:ASP:CG   | 1:IA:587:THR:HG1  | 2.22                     | 0.40              |
| 1:JA:654:LEU:O    | 1:JA:657:SER:HB3  | 2.21                     | 0.40              |
| 1:LA:624:ASP:N    | 1:LA:624:ASP:OD1  | 2.55                     | 0.40              |
| 1:LA:654:LEU:O    | 1:LA:657:SER:HB3  | 2.21                     | 0.40              |
| 1:MA:467:ALA:HB2  | 1:MA:518:LEU:HD11 | 2.04                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:NA:65:VAL:O     | 1:NA:84:ARG:NH2   | 2.54                     | 0.40              |
| 1:PA:249:TRP:HA   | 1:PA:312:PRO:HG2  | 2.02                     | 0.40              |
| 1:PA:707:LEU:HD23 | 1:PA:707:LEU:HA   | 1.89                     | 0.40              |
| 1:QA:87:ASP:OD1   | 1:QA:88:GLN:N     | 2.53                     | 0.40              |
| 1:QA:219:VAL:HG21 | 1:QA:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:RA:383:ASP:OD1  | 1:RA:383:ASP:N    | 2.44                     | 0.40              |
| 1:RA:626:ALA:HB3  | 1:RA:635:VAL:HB   | 2.02                     | 0.40              |
| 1:SA:87:ASP:OD1   | 1:SA:88:GLN:N     | 2.53                     | 0.40              |
| 1:SA:219:VAL:HG21 | 1:SA:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:SA:467:ALA:HB2  | 1:SA:518:LEU:HD11 | 2.04                     | 0.40              |
| 1:TA:394:LYS:HB2  | 1:TA:394:LYS:HE3  | 1.81                     | 0.40              |
| 1:TA:694:LEU:O    | 1:TA:697:SER:OG   | 2.28                     | 0.40              |
| 1:UA:219:VAL:HG21 | 1:UA:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:UA:624:ASP:OD1  | 1:UA:624:ASP:N    | 2.55                     | 0.40              |
| 1:WA:130:GLU:HG3  | 1:WA:134:GLY:HA2  | 2.02                     | 0.40              |
| 1:WA:654:LEU:O    | 1:WA:657:SER:HB3  | 2.21                     | 0.40              |
| 1:XA:249:TRP:HA   | 1:XA:312:PRO:HG2  | 2.02                     | 0.40              |
| 1:XA:626:ALA:HB3  | 1:XA:635:VAL:HB   | 2.02                     | 0.40              |
| 1:YA:257:GLU:HG2  | 1:AB:244:ARG:HB3  | 2.03                     | 0.40              |
| 1:YA:422:GLY:O    | 1:YA:426:LEU:HD23 | 2.22                     | 0.40              |
| 1:ZA:249:TRP:HA   | 1:ZA:312:PRO:HG2  | 2.02                     | 0.40              |
| 1:AB:100:TYR:O    | 1:AB:103:GLU:HB2  | 2.21                     | 0.40              |
| 1:BB:219:VAL:HG21 | 1:BB:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:BB:377:ARG:HD3  | 1:BB:377:ARG:HA   | 1.84                     | 0.40              |
| 1:BB:545:TRP:HB2  | 1:BB:633:LEU:HD11 | 2.03                     | 0.40              |
| 1:DB:219:VAL:HG21 | 1:DB:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:DB:626:ALA:HB3  | 1:DB:635:VAL:HB   | 2.02                     | 0.40              |
| 1:EB:344:GLU:OE2  | 1:EB:345:SER:OG   | 2.38                     | 0.40              |
| 1:EB:549:LEU:HD21 | 1:EB:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:FB:340:LEU:HD12 | 1:FB:340:LEU:HA   | 1.97                     | 0.40              |
| 1:HB:219:VAL:HG21 | 1:HB:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:HB:362:PRO:O    | 1:IB:352:GLN:HB3  | 2.21                     | 0.40              |
| 1:JB:53:VAL:HG13  | 1:JB:93:ALA:HA    | 2.03                     | 0.40              |
| 1:JB:419:LEU:HD11 | 1:JB:458:VAL:HG21 | 2.02                     | 0.40              |
| 1:JB:468:VAL:HG12 | 1:JB:515:CYS:HA   | 2.03                     | 0.40              |
| 1:LB:100:TYR:O    | 1:LB:103:GLU:HB2  | 2.21                     | 0.40              |
| 1:LB:521:ASP:OD1  | 1:LB:522:PHE:N    | 2.44                     | 0.40              |
| 1:MB:757:ALA:HB2  | 1:NB:748:ALA:HB1  | 2.03                     | 0.40              |
| 1:NB:62:ALA:HB3   | 1:NB:104:VAL:HG13 | 2.02                     | 0.40              |
| 1:OB:624:ASP:N    | 1:OB:624:ASP:OD1  | 2.55                     | 0.40              |
| 1:QB:100:TYR:O    | 1:QB:103:GLU:HB2  | 2.21                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:QB:135:ASP:O    | 1:QB:136:LYS:HB2  | 2.21                     | 0.40              |
| 1:QB:340:LEU:HD12 | 1:QB:340:LEU:HA   | 1.97                     | 0.40              |
| 1:QB:626:ALA:HB3  | 1:QB:635:VAL:HB   | 2.02                     | 0.40              |
| 1:RB:387:GLY:HA3  | 1:RB:402:ILE:HA   | 2.02                     | 0.40              |
| 1:RB:624:ASP:N    | 1:RB:624:ASP:OD1  | 2.55                     | 0.40              |
| 1:SB:249:TRP:HA   | 1:SB:312:PRO:HG2  | 2.02                     | 0.40              |
| 1:SB:549:LEU:HD21 | 1:SB:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:SB:624:ASP:OD1  | 1:SB:624:ASP:N    | 2.55                     | 0.40              |
| 1:UB:100:TYR:O    | 1:UB:103:GLU:HB2  | 2.21                     | 0.40              |
| 1:UB:219:VAL:HG21 | 1:UB:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:UB:249:TRP:HA   | 1:UB:312:PRO:HG2  | 2.02                     | 0.40              |
| 1:UB:545:TRP:HB2  | 1:UB:633:LEU:HD11 | 2.03                     | 0.40              |
| 1:UB:746:LEU:CB   | 1:VB:737:GLY:HA3  | 2.51                     | 0.40              |
| 1:VB:521:ASP:OD1  | 1:VB:522:PHE:N    | 2.44                     | 0.40              |
| 1:WB:65:VAL:O     | 1:WB:84:ARG:NH2   | 2.54                     | 0.40              |
| 1:WB:219:VAL:HG21 | 1:WB:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:XB:65:VAL:O     | 1:XB:84:ARG:NH2   | 2.54                     | 0.40              |
| 1:XB:100:TYR:O    | 1:XB:103:GLU:HB2  | 2.21                     | 0.40              |
| 1:XB:549:LEU:HD21 | 1:XB:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:XB:702:ALA:CB   | 1:YB:690:ARG:HH12 | 2.34                     | 0.40              |
| 1:YB:654:LEU:O    | 1:YB:657:SER:HB3  | 2.21                     | 0.40              |
| 1:YB:694:LEU:O    | 1:YB:697:SER:OG   | 2.28                     | 0.40              |
| 1:ZB:219:VAL:HG21 | 1:ZB:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:A:87:ASP:OD1    | 1:A:88:GLN:N      | 2.53                     | 0.40              |
| 1:B:53:VAL:HG13   | 1:B:93:ALA:HA     | 2.03                     | 0.40              |
| 1:B:98:PRO:HG2    | 1:B:100:TYR:CE1   | 2.57                     | 0.40              |
| 1:B:394:LYS:HE3   | 1:B:394:LYS:HB2   | 1.81                     | 0.40              |
| 1:C:702:ALA:HB2   | 1:E:690:ARG:HH12  | 1.86                     | 0.40              |
| 1:F:8:ILE:CG1     | 1:F:35:TYR:HB3    | 2.50                     | 0.40              |
| 1:F:489:LEU:HD11  | 1:F:495:PHE:CD2   | 2.57                     | 0.40              |
| 1:F:626:ALA:HB3   | 1:F:635:VAL:HB    | 2.02                     | 0.40              |
| 1:G:545:TRP:HB2   | 1:G:633:LEU:HD11  | 2.03                     | 0.40              |
| 1:H:53:VAL:HG13   | 1:H:93:ALA:HA     | 2.03                     | 0.40              |
| 1:H:65:VAL:O      | 1:H:84:ARG:NH2    | 2.54                     | 0.40              |
| 1:H:626:ALA:HB3   | 1:H:635:VAL:HB    | 2.02                     | 0.40              |
| 1:J:65:VAL:O      | 1:J:84:ARG:NH2    | 2.54                     | 0.40              |
| 1:K:643:VAL:H     | 1:M:580:ARG:NH2   | 2.20                     | 0.40              |
| 1:L:53:VAL:HG13   | 1:L:93:ALA:HA     | 2.03                     | 0.40              |
| 1:M:87:ASP:OD1    | 1:M:88:GLN:N      | 2.53                     | 0.40              |
| 1:M:654:LEU:HD13  | 1:O:534:HIS:CD2   | 2.56                     | 0.40              |
| 1:N:736:GLU:OE2   | 1:P:726:ALA:HB1   | 2.21                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:O:385:ASN:ND2   | 1:Q:473:TYR:O     | 2.54                     | 0.40              |
| 1:O:653:ALA:HA    | 1:O:656:ARG:NE    | 2.26                     | 0.40              |
| 1:P:130:GLU:HG3   | 1:P:134:GLY:HA2   | 2.02                     | 0.40              |
| 1:P:545:TRP:HB2   | 1:P:633:LEU:HD11  | 2.03                     | 0.40              |
| 1:Q:468:VAL:HG12  | 1:Q:515:CYS:HA    | 2.03                     | 0.40              |
| 1:R:545:TRP:HB2   | 1:R:633:LEU:HD11  | 2.03                     | 0.40              |
| 1:S:660:LEU:HA    | 1:S:663:GLU:HB3   | 2.04                     | 0.40              |
| 1:T:87:ASP:OD1    | 1:T:88:GLN:N      | 2.54                     | 0.40              |
| 1:T:500:LEU:HD23  | 1:T:500:LEU:HA    | 1.92                     | 0.40              |
| 1:V:65:VAL:O      | 1:V:84:ARG:NH2    | 2.54                     | 0.40              |
| 1:Y:136:LYS:HD2   | 1:Y:136:LYS:HA    | 1.76                     | 0.40              |
| 1:Y:764:LYS:HB2   | 1:Y:764:LYS:HE3   | 1.84                     | 0.40              |
| 1:Z:53:VAL:HG13   | 1:Z:93:ALA:HA     | 2.03                     | 0.40              |
| 1:BA:654:LEU:O    | 1:BA:657:SER:HB3  | 2.21                     | 0.40              |
| 1:CA:73:VAL:HG21  | 1:CA:100:TYR:OH   | 2.20                     | 0.40              |
| 1:FA:87:ASP:OD1   | 1:FA:88:GLN:N     | 2.53                     | 0.40              |
| 1:FA:467:ALA:HB2  | 1:FA:518:LEU:HD11 | 2.04                     | 0.40              |
| 1:FA:468:VAL:HG12 | 1:FA:515:CYS:HA   | 2.03                     | 0.40              |
| 1:GA:387:GLY:HA3  | 1:GA:402:ILE:HA   | 2.02                     | 0.40              |
| 1:GA:394:LYS:HE3  | 1:GA:394:LYS:HB2  | 1.81                     | 0.40              |
| 1:HA:65:VAL:O     | 1:HA:84:ARG:NH2   | 2.55                     | 0.40              |
| 1:HA:624:ASP:OD1  | 1:HA:624:ASP:N    | 2.55                     | 0.40              |
| 1:HA:626:ALA:HB3  | 1:HA:635:VAL:HB   | 2.02                     | 0.40              |
| 1:IA:506:LYS:HD3  | 1:IA:506:LYS:HA   | 1.78                     | 0.40              |
| 1:JA:422:GLY:O    | 1:JA:426:LEU:HD23 | 2.22                     | 0.40              |
| 1:KA:65:VAL:O     | 1:KA:84:ARG:NH2   | 2.54                     | 0.40              |
| 1:KA:219:VAL:HG21 | 1:KA:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:KA:419:LEU:HD11 | 1:KA:458:VAL:HG21 | 2.02                     | 0.40              |
| 1:KA:653:ALA:HA   | 1:KA:656:ARG:NE   | 2.26                     | 0.40              |
| 1:KA:684:ALA:HB1  | 1:MA:675:HIS:HB3  | 2.02                     | 0.40              |
| 1:LA:422:GLY:O    | 1:LA:426:LEU:HD23 | 2.22                     | 0.40              |
| 1:LA:660:LEU:HA   | 1:LA:663:GLU:HB3  | 2.04                     | 0.40              |
| 1:MA:468:VAL:HG12 | 1:MA:515:CYS:HA   | 2.04                     | 0.40              |
| 1:MA:814:GLY:HA2  | 1:MA:815:PRO:HD3  | 1.91                     | 0.40              |
| 1:NA:100:TYR:O    | 1:NA:103:GLU:HB2  | 2.21                     | 0.40              |
| 1:NA:249:TRP:HA   | 1:NA:312:PRO:HG2  | 2.02                     | 0.40              |
| 1:NA:654:LEU:O    | 1:NA:657:SER:HB3  | 2.21                     | 0.40              |
| 1:OA:73:VAL:HG21  | 1:OA:100:TYR:OH   | 2.20                     | 0.40              |
| 1:OA:654:LEU:O    | 1:OA:657:SER:HB3  | 2.21                     | 0.40              |
| 1:PA:654:LEU:O    | 1:PA:657:SER:HB3  | 2.21                     | 0.40              |
| 1:QA:521:ASP:OD1  | 1:QA:522:PHE:N    | 2.44                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:QA:654:LEU:O    | 1:QA:657:SER:HB3  | 2.21                     | 0.40              |
| 1:RA:654:LEU:O    | 1:RA:657:SER:HB3  | 2.21                     | 0.40              |
| 1:SA:65:VAL:O     | 1:SA:84:ARG:NH2   | 2.54                     | 0.40              |
| 1:SA:500:LEU:HD23 | 1:SA:500:LEU:HA   | 1.92                     | 0.40              |
| 1:SA:660:LEU:HA   | 1:SA:663:GLU:HB3  | 2.04                     | 0.40              |
| 1:TA:244:ARG:HD3  | 1:TA:244:ARG:HA   | 1.98                     | 0.40              |
| 1:TA:249:TRP:HA   | 1:TA:312:PRO:HG2  | 2.02                     | 0.40              |
| 1:TA:521:ASP:OD1  | 1:TA:522:PHE:N    | 2.44                     | 0.40              |
| 1:TA:626:ALA:HB3  | 1:TA:635:VAL:HB   | 2.02                     | 0.40              |
| 1:UA:62:ALA:HB3   | 1:UA:104:VAL:HG13 | 2.02                     | 0.40              |
| 1:VA:10:ILE:O     | 1:XA:24:ASN:ND2   | 2.54                     | 0.40              |
| 1:VA:249:TRP:HA   | 1:VA:312:PRO:HG2  | 2.02                     | 0.40              |
| 1:VA:387:GLY:HA3  | 1:VA:402:ILE:HA   | 2.02                     | 0.40              |
| 1:VA:626:ALA:HB3  | 1:VA:635:VAL:HB   | 2.02                     | 0.40              |
| 1:VA:660:LEU:HA   | 1:VA:663:GLU:HB3  | 2.04                     | 0.40              |
| 1:WA:219:VAL:HG21 | 1:WA:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:WA:422:GLY:O    | 1:WA:426:LEU:HD23 | 2.22                     | 0.40              |
| 1:WA:624:ASP:OD1  | 1:WA:624:ASP:N    | 2.55                     | 0.40              |
| 1:XA:549:LEU:HD21 | 1:XA:561:LEU:HD11 | 2.03                     | 0.40              |
| 1:YA:624:ASP:N    | 1:YA:624:ASP:OD1  | 2.55                     | 0.40              |
| 1:ZA:219:VAL:HG21 | 1:ZA:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:ZA:660:LEU:HA   | 1:ZA:663:GLU:HB3  | 2.04                     | 0.40              |
| 1:AB:65:VAL:O     | 1:AB:84:ARG:NH2   | 2.54                     | 0.40              |
| 1:AB:249:TRP:HA   | 1:AB:312:PRO:HG2  | 2.02                     | 0.40              |
| 1:AB:465:ASN:OD1  | 1:OB:563:SER:HA   | 2.22                     | 0.40              |
| 1:AB:521:ASP:OD1  | 1:AB:522:PHE:N    | 2.44                     | 0.40              |
| 1:AB:654:LEU:O    | 1:AB:657:SER:HB3  | 2.21                     | 0.40              |
| 1:BB:249:TRP:HA   | 1:BB:312:PRO:HG2  | 2.02                     | 0.40              |
| 1:BB:489:LEU:HD11 | 1:BB:495:PHE:CD2  | 2.57                     | 0.40              |
| 1:BB:660:LEU:HA   | 1:BB:663:GLU:HB3  | 2.04                     | 0.40              |
| 1:EB:65:VAL:O     | 1:EB:84:ARG:NH2   | 2.55                     | 0.40              |
| 1:EB:98:PRO:HG2   | 1:EB:100:TYR:CE1  | 2.57                     | 0.40              |
| 1:EB:100:TYR:O    | 1:EB:103:GLU:HB2  | 2.21                     | 0.40              |
| 1:EB:489:LEU:HD11 | 1:EB:495:PHE:CD2  | 2.57                     | 0.40              |
| 1:HB:489:LEU:HD11 | 1:HB:495:PHE:CD2  | 2.57                     | 0.40              |
| 1:HB:702:ALA:HB2  | 1:IB:690:ARG:HH12 | 1.86                     | 0.40              |
| 1:IB:96:PRO:HD3   | 1:JB:85:HIS:CE1   | 2.55                     | 0.40              |
| 1:IB:98:PRO:HG2   | 1:IB:100:TYR:CE1  | 2.57                     | 0.40              |
| 1:KB:65:VAL:O     | 1:KB:84:ARG:NH2   | 2.55                     | 0.40              |
| 1:KB:130:GLU:HG3  | 1:KB:134:GLY:HA2  | 2.02                     | 0.40              |
| 1:KB:220:ILE:HD12 | 1:LB:245:THR:HG22 | 2.03                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:KB:489:LEU:HD11 | 1:KB:495:PHE:CD2  | 2.57                     | 0.40              |
| 1:KB:626:ALA:HB3  | 1:KB:635:VAL:HB   | 2.02                     | 0.40              |
| 1:KB:654:LEU:O    | 1:KB:657:SER:HB3  | 2.21                     | 0.40              |
| 1:LB:468:VAL:HG12 | 1:LB:515:CYS:HA   | 2.03                     | 0.40              |
| 1:NB:87:ASP:OD1   | 1:NB:88:GLN:N     | 2.53                     | 0.40              |
| 1:NB:135:ASP:O    | 1:NB:136:LYS:HB2  | 2.21                     | 0.40              |
| 1:QB:624:ASP:OD1  | 1:QB:624:ASP:N    | 2.55                     | 0.40              |
| 1:RB:660:LEU:HA   | 1:RB:663:GLU:HB3  | 2.04                     | 0.40              |
| 1:SB:626:ALA:HB3  | 1:SB:635:VAL:HB   | 2.02                     | 0.40              |
| 1:TB:249:TRP:HA   | 1:TB:312:PRO:HG2  | 2.02                     | 0.40              |
| 1:TB:624:ASP:OD1  | 1:TB:624:ASP:N    | 2.55                     | 0.40              |
| 1:TB:764:LYS:HB2  | 1:TB:764:LYS:HE3  | 1.84                     | 0.40              |
| 1:UB:489:LEU:HD11 | 1:UB:495:PHE:CD2  | 2.57                     | 0.40              |
| 1:UB:691:GLN:OE1  | 1:VB:682:GLN:HB3  | 2.22                     | 0.40              |
| 1:UB:746:LEU:HB3  | 1:VB:737:GLY:CA   | 2.51                     | 0.40              |
| 1:WB:489:LEU:HD11 | 1:WB:495:PHE:CD2  | 2.57                     | 0.40              |
| 1:XB:489:LEU:HD11 | 1:XB:495:PHE:CD2  | 2.57                     | 0.40              |
| 1:YB:340:LEU:HD12 | 1:YB:340:LEU:HA   | 1.97                     | 0.40              |
| 1:ZB:62:ALA:HB3   | 1:ZB:104:VAL:HG13 | 2.02                     | 0.40              |
| 1:ZB:658:VAL:CG1  | 1:AC:533:ASP:O    | 2.69                     | 0.40              |
| 1:AC:219:VAL:HG21 | 1:AC:227:LEU:HD13 | 2.04                     | 0.40              |
| 1:AC:489:LEU:HD11 | 1:AC:495:PHE:CD2  | 2.57                     | 0.40              |

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

| Mol | Chain | Analysed      | Favoured  | Allowed | Outliers | Percentiles |
|-----|-------|---------------|-----------|---------|----------|-------------|
| 1   | A     | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34 70       |
| 1   | AA    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34 70       |
| 1   | AB    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34 70       |

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| Mol | Chain | Analysed      | Favoured  | Allowed | Outliers | Percentiles |    |
|-----|-------|---------------|-----------|---------|----------|-------------|----|
| 1   | AC    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | B     | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | BA    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | BB    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | C     | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | CA    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | CB    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | D     | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | DA    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | DB    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | E     | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | EA    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | EB    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | F     | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | FA    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | FB    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | G     | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | GA    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | GB    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | H     | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | HA    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | HB    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | I     | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | IA    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | IB    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | J     | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | JA    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | JB    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | K     | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | KA    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | KB    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |

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| Mol | Chain | Analysed      | Favoured  | Allowed | Outliers | Percentiles |    |
|-----|-------|---------------|-----------|---------|----------|-------------|----|
| 1   | L     | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | LA    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | LB    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | M     | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | MA    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | MB    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | N     | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | NA    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | NB    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | O     | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | OA    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | OB    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | P     | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | PA    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | PB    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | Q     | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | QA    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | QB    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | R     | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | RA    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | RB    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | S     | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | SA    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | SB    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | T     | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | TA    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | TB    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | UA    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | UB    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | V     | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |
| 1   | VA    | 776/861 (90%) | 710 (92%) | 63 (8%) | 3 (0%)   | 34          | 70 |

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| Mol | Chain | Analysed          | Favoured    | Allowed   | Outliers | Percentiles |    |
|-----|-------|-------------------|-------------|-----------|----------|-------------|----|
| 1   | VB    | 776/861 (90%)     | 710 (92%)   | 63 (8%)   | 3 (0%)   | 34          | 70 |
| 1   | W     | 776/861 (90%)     | 710 (92%)   | 63 (8%)   | 3 (0%)   | 34          | 70 |
| 1   | WA    | 776/861 (90%)     | 710 (92%)   | 63 (8%)   | 3 (0%)   | 34          | 70 |
| 1   | WB    | 776/861 (90%)     | 710 (92%)   | 63 (8%)   | 3 (0%)   | 34          | 70 |
| 1   | X     | 776/861 (90%)     | 710 (92%)   | 63 (8%)   | 3 (0%)   | 34          | 70 |
| 1   | XA    | 776/861 (90%)     | 710 (92%)   | 63 (8%)   | 3 (0%)   | 34          | 70 |
| 1   | XB    | 776/861 (90%)     | 710 (92%)   | 63 (8%)   | 3 (0%)   | 34          | 70 |
| 1   | Y     | 776/861 (90%)     | 710 (92%)   | 63 (8%)   | 3 (0%)   | 34          | 70 |
| 1   | YA    | 776/861 (90%)     | 710 (92%)   | 63 (8%)   | 3 (0%)   | 34          | 70 |
| 1   | YB    | 776/861 (90%)     | 710 (92%)   | 63 (8%)   | 3 (0%)   | 34          | 70 |
| 1   | Z     | 776/861 (90%)     | 710 (92%)   | 63 (8%)   | 3 (0%)   | 34          | 70 |
| 1   | ZA    | 776/861 (90%)     | 710 (92%)   | 63 (8%)   | 3 (0%)   | 34          | 70 |
| 1   | ZB    | 776/861 (90%)     | 710 (92%)   | 63 (8%)   | 3 (0%)   | 34          | 70 |
| All | All   | 60528/67158 (90%) | 55380 (92%) | 4914 (8%) | 234 (0%) | 38          | 70 |

All (234) Ramachandran outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | A     | 652 | ASP  |
| 1   | B     | 652 | ASP  |
| 1   | C     | 652 | ASP  |
| 1   | D     | 652 | ASP  |
| 1   | E     | 652 | ASP  |
| 1   | F     | 652 | ASP  |
| 1   | G     | 652 | ASP  |
| 1   | H     | 652 | ASP  |
| 1   | I     | 652 | ASP  |
| 1   | J     | 652 | ASP  |
| 1   | K     | 652 | ASP  |
| 1   | L     | 652 | ASP  |
| 1   | M     | 652 | ASP  |
| 1   | N     | 652 | ASP  |
| 1   | O     | 652 | ASP  |
| 1   | P     | 652 | ASP  |
| 1   | Q     | 652 | ASP  |
| 1   | R     | 652 | ASP  |
| 1   | S     | 652 | ASP  |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | T            | 652        | ASP         |
| 1          | V            | 652        | ASP         |
| 1          | W            | 652        | ASP         |
| 1          | X            | 652        | ASP         |
| 1          | Y            | 652        | ASP         |
| 1          | Z            | 652        | ASP         |
| 1          | AA           | 652        | ASP         |
| 1          | BA           | 652        | ASP         |
| 1          | CA           | 652        | ASP         |
| 1          | DA           | 652        | ASP         |
| 1          | EA           | 652        | ASP         |
| 1          | FA           | 652        | ASP         |
| 1          | GA           | 652        | ASP         |
| 1          | HA           | 652        | ASP         |
| 1          | IA           | 652        | ASP         |
| 1          | JA           | 652        | ASP         |
| 1          | KA           | 652        | ASP         |
| 1          | LA           | 652        | ASP         |
| 1          | MA           | 652        | ASP         |
| 1          | NA           | 652        | ASP         |
| 1          | OA           | 652        | ASP         |
| 1          | PA           | 652        | ASP         |
| 1          | QA           | 652        | ASP         |
| 1          | RA           | 652        | ASP         |
| 1          | SA           | 652        | ASP         |
| 1          | TA           | 652        | ASP         |
| 1          | UA           | 652        | ASP         |
| 1          | VA           | 652        | ASP         |
| 1          | WA           | 652        | ASP         |
| 1          | XA           | 652        | ASP         |
| 1          | YA           | 652        | ASP         |
| 1          | ZA           | 652        | ASP         |
| 1          | AB           | 652        | ASP         |
| 1          | BB           | 652        | ASP         |
| 1          | CB           | 652        | ASP         |
| 1          | DB           | 652        | ASP         |
| 1          | EB           | 652        | ASP         |
| 1          | FB           | 652        | ASP         |
| 1          | GB           | 652        | ASP         |
| 1          | HB           | 652        | ASP         |
| 1          | IB           | 652        | ASP         |
| 1          | JB           | 652        | ASP         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | KB           | 652        | ASP         |
| 1          | LB           | 652        | ASP         |
| 1          | MB           | 652        | ASP         |
| 1          | NB           | 652        | ASP         |
| 1          | OB           | 652        | ASP         |
| 1          | PB           | 652        | ASP         |
| 1          | QB           | 652        | ASP         |
| 1          | RB           | 652        | ASP         |
| 1          | SB           | 652        | ASP         |
| 1          | TB           | 652        | ASP         |
| 1          | UB           | 652        | ASP         |
| 1          | VB           | 652        | ASP         |
| 1          | WB           | 652        | ASP         |
| 1          | XB           | 652        | ASP         |
| 1          | YB           | 652        | ASP         |
| 1          | ZB           | 652        | ASP         |
| 1          | AC           | 652        | ASP         |
| 1          | A            | 645        | PRO         |
| 1          | B            | 645        | PRO         |
| 1          | C            | 645        | PRO         |
| 1          | D            | 645        | PRO         |
| 1          | E            | 645        | PRO         |
| 1          | F            | 645        | PRO         |
| 1          | G            | 645        | PRO         |
| 1          | H            | 645        | PRO         |
| 1          | I            | 645        | PRO         |
| 1          | J            | 645        | PRO         |
| 1          | K            | 645        | PRO         |
| 1          | L            | 645        | PRO         |
| 1          | M            | 645        | PRO         |
| 1          | N            | 645        | PRO         |
| 1          | O            | 645        | PRO         |
| 1          | P            | 645        | PRO         |
| 1          | Q            | 645        | PRO         |
| 1          | R            | 645        | PRO         |
| 1          | S            | 645        | PRO         |
| 1          | T            | 645        | PRO         |
| 1          | V            | 645        | PRO         |
| 1          | W            | 645        | PRO         |
| 1          | X            | 645        | PRO         |
| 1          | Y            | 645        | PRO         |
| 1          | Z            | 645        | PRO         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | AA           | 645        | PRO         |
| 1          | BA           | 645        | PRO         |
| 1          | CA           | 645        | PRO         |
| 1          | DA           | 645        | PRO         |
| 1          | EA           | 645        | PRO         |
| 1          | FA           | 645        | PRO         |
| 1          | GA           | 645        | PRO         |
| 1          | HA           | 645        | PRO         |
| 1          | IA           | 645        | PRO         |
| 1          | JA           | 645        | PRO         |
| 1          | KA           | 645        | PRO         |
| 1          | LA           | 645        | PRO         |
| 1          | MA           | 645        | PRO         |
| 1          | NA           | 645        | PRO         |
| 1          | OA           | 645        | PRO         |
| 1          | PA           | 645        | PRO         |
| 1          | QA           | 645        | PRO         |
| 1          | RA           | 645        | PRO         |
| 1          | SA           | 645        | PRO         |
| 1          | TA           | 645        | PRO         |
| 1          | UA           | 645        | PRO         |
| 1          | VA           | 645        | PRO         |
| 1          | WA           | 645        | PRO         |
| 1          | XA           | 645        | PRO         |
| 1          | YA           | 645        | PRO         |
| 1          | ZA           | 645        | PRO         |
| 1          | AB           | 645        | PRO         |
| 1          | BB           | 645        | PRO         |
| 1          | CB           | 645        | PRO         |
| 1          | DB           | 645        | PRO         |
| 1          | EB           | 645        | PRO         |
| 1          | FB           | 645        | PRO         |
| 1          | GB           | 645        | PRO         |
| 1          | HB           | 645        | PRO         |
| 1          | IB           | 645        | PRO         |
| 1          | JB           | 645        | PRO         |
| 1          | KB           | 645        | PRO         |
| 1          | LB           | 645        | PRO         |
| 1          | MB           | 645        | PRO         |
| 1          | NB           | 645        | PRO         |
| 1          | OB           | 645        | PRO         |
| 1          | PB           | 645        | PRO         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | QB           | 645        | PRO         |
| 1          | RB           | 645        | PRO         |
| 1          | SB           | 645        | PRO         |
| 1          | TB           | 645        | PRO         |
| 1          | UB           | 645        | PRO         |
| 1          | VB           | 645        | PRO         |
| 1          | WB           | 645        | PRO         |
| 1          | XB           | 645        | PRO         |
| 1          | YB           | 645        | PRO         |
| 1          | ZB           | 645        | PRO         |
| 1          | AC           | 645        | PRO         |
| 1          | A            | 505        | PRO         |
| 1          | B            | 505        | PRO         |
| 1          | C            | 505        | PRO         |
| 1          | D            | 505        | PRO         |
| 1          | E            | 505        | PRO         |
| 1          | F            | 505        | PRO         |
| 1          | G            | 505        | PRO         |
| 1          | H            | 505        | PRO         |
| 1          | I            | 505        | PRO         |
| 1          | J            | 505        | PRO         |
| 1          | K            | 505        | PRO         |
| 1          | L            | 505        | PRO         |
| 1          | M            | 505        | PRO         |
| 1          | N            | 505        | PRO         |
| 1          | O            | 505        | PRO         |
| 1          | P            | 505        | PRO         |
| 1          | Q            | 505        | PRO         |
| 1          | R            | 505        | PRO         |
| 1          | S            | 505        | PRO         |
| 1          | T            | 505        | PRO         |
| 1          | V            | 505        | PRO         |
| 1          | W            | 505        | PRO         |
| 1          | X            | 505        | PRO         |
| 1          | Y            | 505        | PRO         |
| 1          | Z            | 505        | PRO         |
| 1          | AA           | 505        | PRO         |
| 1          | BA           | 505        | PRO         |
| 1          | CA           | 505        | PRO         |
| 1          | DA           | 505        | PRO         |
| 1          | EA           | 505        | PRO         |
| 1          | FA           | 505        | PRO         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | GA           | 505        | PRO         |
| 1          | HA           | 505        | PRO         |
| 1          | IA           | 505        | PRO         |
| 1          | JA           | 505        | PRO         |
| 1          | KA           | 505        | PRO         |
| 1          | LA           | 505        | PRO         |
| 1          | MA           | 505        | PRO         |
| 1          | NA           | 505        | PRO         |
| 1          | OA           | 505        | PRO         |
| 1          | PA           | 505        | PRO         |
| 1          | QA           | 505        | PRO         |
| 1          | RA           | 505        | PRO         |
| 1          | SA           | 505        | PRO         |
| 1          | TA           | 505        | PRO         |
| 1          | UA           | 505        | PRO         |
| 1          | VA           | 505        | PRO         |
| 1          | WA           | 505        | PRO         |
| 1          | XA           | 505        | PRO         |
| 1          | YA           | 505        | PRO         |
| 1          | ZA           | 505        | PRO         |
| 1          | AB           | 505        | PRO         |
| 1          | BB           | 505        | PRO         |
| 1          | CB           | 505        | PRO         |
| 1          | DB           | 505        | PRO         |
| 1          | EB           | 505        | PRO         |
| 1          | FB           | 505        | PRO         |
| 1          | GB           | 505        | PRO         |
| 1          | HB           | 505        | PRO         |
| 1          | IB           | 505        | PRO         |
| 1          | JB           | 505        | PRO         |
| 1          | KB           | 505        | PRO         |
| 1          | LB           | 505        | PRO         |
| 1          | MB           | 505        | PRO         |
| 1          | NB           | 505        | PRO         |
| 1          | OB           | 505        | PRO         |
| 1          | PB           | 505        | PRO         |
| 1          | QB           | 505        | PRO         |
| 1          | RB           | 505        | PRO         |
| 1          | SB           | 505        | PRO         |
| 1          | TB           | 505        | PRO         |
| 1          | UB           | 505        | PRO         |
| 1          | VB           | 505        | PRO         |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | WB    | 505 | PRO  |
| 1   | XB    | 505 | PRO  |
| 1   | YB    | 505 | PRO  |
| 1   | ZB    | 505 | PRO  |
| 1   | AC    | 505 | PRO  |

### 5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

| Mol | Chain | Analysed      | Rotameric  | Outliers | Percentiles |
|-----|-------|---------------|------------|----------|-------------|
| 1   | A     | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88 94       |
| 1   | AA    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88 94       |
| 1   | AB    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88 94       |
| 1   | AC    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88 94       |
| 1   | B     | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88 94       |
| 1   | BA    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88 94       |
| 1   | BB    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88 94       |
| 1   | C     | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88 94       |
| 1   | CA    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88 94       |
| 1   | CB    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88 94       |
| 1   | D     | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88 94       |
| 1   | DA    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88 94       |
| 1   | DB    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88 94       |
| 1   | E     | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88 94       |
| 1   | EA    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88 94       |
| 1   | EB    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88 94       |
| 1   | F     | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88 94       |
| 1   | FA    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88 94       |
| 1   | FB    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88 94       |
| 1   | G     | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88 94       |

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| Mol | Chain | Analysed      | Rotameric  | Outliers | Percentiles |    |
|-----|-------|---------------|------------|----------|-------------|----|
| 1   | GA    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | GB    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | H     | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | HA    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | HB    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | I     | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | IA    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | IB    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | J     | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | JA    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | JB    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | K     | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | KA    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | KB    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | L     | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | LA    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | LB    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | M     | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | MA    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | MB    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | N     | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | NA    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | NB    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | O     | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | OA    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | OB    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | P     | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | PA    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | PB    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | Q     | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |
| 1   | QA    | 655/727 (90%) | 652 (100%) | 3 (0%)   | 88          | 94 |

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| Mol | Chain | Analysed          | Rotameric    | Outliers | Percentiles |    |
|-----|-------|-------------------|--------------|----------|-------------|----|
| 1   | QB    | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | R     | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | RA    | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | RB    | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | S     | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | SA    | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | SB    | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | T     | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | TA    | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | TB    | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | UA    | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | UB    | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | V     | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | VA    | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | VB    | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | W     | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | WA    | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | WB    | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | X     | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | XA    | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | XB    | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | Y     | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | YA    | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | YB    | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | Z     | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | ZA    | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| 1   | ZB    | 655/727 (90%)     | 652 (100%)   | 3 (0%)   | 88          | 94 |
| All | All   | 51090/56706 (90%) | 50856 (100%) | 234 (0%) | 89          | 94 |

All (234) residues with a non-rotameric sidechain are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | A     | 27  | ARG  |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | A            | 239        | ARG         |
| 1          | A            | 656        | ARG         |
| 1          | B            | 27         | ARG         |
| 1          | B            | 239        | ARG         |
| 1          | B            | 656        | ARG         |
| 1          | C            | 27         | ARG         |
| 1          | C            | 239        | ARG         |
| 1          | C            | 656        | ARG         |
| 1          | D            | 27         | ARG         |
| 1          | D            | 239        | ARG         |
| 1          | D            | 656        | ARG         |
| 1          | E            | 27         | ARG         |
| 1          | E            | 239        | ARG         |
| 1          | E            | 656        | ARG         |
| 1          | F            | 27         | ARG         |
| 1          | F            | 239        | ARG         |
| 1          | F            | 656        | ARG         |
| 1          | G            | 27         | ARG         |
| 1          | G            | 239        | ARG         |
| 1          | G            | 656        | ARG         |
| 1          | H            | 27         | ARG         |
| 1          | H            | 239        | ARG         |
| 1          | H            | 656        | ARG         |
| 1          | I            | 27         | ARG         |
| 1          | I            | 239        | ARG         |
| 1          | I            | 656        | ARG         |
| 1          | J            | 27         | ARG         |
| 1          | J            | 239        | ARG         |
| 1          | J            | 656        | ARG         |
| 1          | K            | 27         | ARG         |
| 1          | K            | 239        | ARG         |
| 1          | K            | 656        | ARG         |
| 1          | L            | 27         | ARG         |
| 1          | L            | 239        | ARG         |
| 1          | L            | 656        | ARG         |
| 1          | M            | 27         | ARG         |
| 1          | M            | 239        | ARG         |
| 1          | M            | 656        | ARG         |
| 1          | N            | 27         | ARG         |
| 1          | N            | 239        | ARG         |
| 1          | N            | 656        | ARG         |
| 1          | O            | 27         | ARG         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | O            | 239        | ARG         |
| 1          | O            | 656        | ARG         |
| 1          | P            | 27         | ARG         |
| 1          | P            | 239        | ARG         |
| 1          | P            | 656        | ARG         |
| 1          | Q            | 27         | ARG         |
| 1          | Q            | 239        | ARG         |
| 1          | Q            | 656        | ARG         |
| 1          | R            | 27         | ARG         |
| 1          | R            | 239        | ARG         |
| 1          | R            | 656        | ARG         |
| 1          | S            | 27         | ARG         |
| 1          | S            | 239        | ARG         |
| 1          | S            | 656        | ARG         |
| 1          | T            | 27         | ARG         |
| 1          | T            | 239        | ARG         |
| 1          | T            | 656        | ARG         |
| 1          | V            | 27         | ARG         |
| 1          | V            | 239        | ARG         |
| 1          | V            | 656        | ARG         |
| 1          | W            | 27         | ARG         |
| 1          | W            | 239        | ARG         |
| 1          | W            | 656        | ARG         |
| 1          | X            | 27         | ARG         |
| 1          | X            | 239        | ARG         |
| 1          | X            | 656        | ARG         |
| 1          | Y            | 27         | ARG         |
| 1          | Y            | 239        | ARG         |
| 1          | Y            | 656        | ARG         |
| 1          | Z            | 27         | ARG         |
| 1          | Z            | 239        | ARG         |
| 1          | Z            | 656        | ARG         |
| 1          | AA           | 27         | ARG         |
| 1          | AA           | 239        | ARG         |
| 1          | AA           | 656        | ARG         |
| 1          | BA           | 27         | ARG         |
| 1          | BA           | 239        | ARG         |
| 1          | BA           | 656        | ARG         |
| 1          | CA           | 27         | ARG         |
| 1          | CA           | 239        | ARG         |
| 1          | CA           | 656        | ARG         |
| 1          | DA           | 27         | ARG         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | DA           | 239        | ARG         |
| 1          | DA           | 656        | ARG         |
| 1          | EA           | 27         | ARG         |
| 1          | EA           | 239        | ARG         |
| 1          | EA           | 656        | ARG         |
| 1          | FA           | 27         | ARG         |
| 1          | FA           | 239        | ARG         |
| 1          | FA           | 656        | ARG         |
| 1          | GA           | 27         | ARG         |
| 1          | GA           | 239        | ARG         |
| 1          | GA           | 656        | ARG         |
| 1          | HA           | 27         | ARG         |
| 1          | HA           | 239        | ARG         |
| 1          | HA           | 656        | ARG         |
| 1          | IA           | 27         | ARG         |
| 1          | IA           | 239        | ARG         |
| 1          | IA           | 656        | ARG         |
| 1          | JA           | 27         | ARG         |
| 1          | JA           | 239        | ARG         |
| 1          | JA           | 656        | ARG         |
| 1          | KA           | 27         | ARG         |
| 1          | KA           | 239        | ARG         |
| 1          | KA           | 656        | ARG         |
| 1          | LA           | 27         | ARG         |
| 1          | LA           | 239        | ARG         |
| 1          | LA           | 656        | ARG         |
| 1          | MA           | 27         | ARG         |
| 1          | MA           | 239        | ARG         |
| 1          | MA           | 656        | ARG         |
| 1          | NA           | 27         | ARG         |
| 1          | NA           | 239        | ARG         |
| 1          | NA           | 656        | ARG         |
| 1          | OA           | 27         | ARG         |
| 1          | OA           | 239        | ARG         |
| 1          | OA           | 656        | ARG         |
| 1          | PA           | 27         | ARG         |
| 1          | PA           | 239        | ARG         |
| 1          | PA           | 656        | ARG         |
| 1          | QA           | 27         | ARG         |
| 1          | QA           | 239        | ARG         |
| 1          | QA           | 656        | ARG         |
| 1          | RA           | 27         | ARG         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | RA           | 239        | ARG         |
| 1          | RA           | 656        | ARG         |
| 1          | SA           | 27         | ARG         |
| 1          | SA           | 239        | ARG         |
| 1          | SA           | 656        | ARG         |
| 1          | TA           | 27         | ARG         |
| 1          | TA           | 239        | ARG         |
| 1          | TA           | 656        | ARG         |
| 1          | UA           | 27         | ARG         |
| 1          | UA           | 239        | ARG         |
| 1          | UA           | 656        | ARG         |
| 1          | VA           | 27         | ARG         |
| 1          | VA           | 239        | ARG         |
| 1          | VA           | 656        | ARG         |
| 1          | WA           | 27         | ARG         |
| 1          | WA           | 239        | ARG         |
| 1          | WA           | 656        | ARG         |
| 1          | XA           | 27         | ARG         |
| 1          | XA           | 239        | ARG         |
| 1          | XA           | 656        | ARG         |
| 1          | YA           | 27         | ARG         |
| 1          | YA           | 239        | ARG         |
| 1          | YA           | 656        | ARG         |
| 1          | ZA           | 27         | ARG         |
| 1          | ZA           | 239        | ARG         |
| 1          | ZA           | 656        | ARG         |
| 1          | AB           | 27         | ARG         |
| 1          | AB           | 239        | ARG         |
| 1          | AB           | 656        | ARG         |
| 1          | BB           | 27         | ARG         |
| 1          | BB           | 239        | ARG         |
| 1          | BB           | 656        | ARG         |
| 1          | CB           | 27         | ARG         |
| 1          | CB           | 239        | ARG         |
| 1          | CB           | 656        | ARG         |
| 1          | DB           | 27         | ARG         |
| 1          | DB           | 239        | ARG         |
| 1          | DB           | 656        | ARG         |
| 1          | EB           | 27         | ARG         |
| 1          | EB           | 239        | ARG         |
| 1          | EB           | 656        | ARG         |
| 1          | FB           | 27         | ARG         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | FB           | 239        | ARG         |
| 1          | FB           | 656        | ARG         |
| 1          | GB           | 27         | ARG         |
| 1          | GB           | 239        | ARG         |
| 1          | GB           | 656        | ARG         |
| 1          | HB           | 27         | ARG         |
| 1          | HB           | 239        | ARG         |
| 1          | HB           | 656        | ARG         |
| 1          | IB           | 27         | ARG         |
| 1          | IB           | 239        | ARG         |
| 1          | IB           | 656        | ARG         |
| 1          | JB           | 27         | ARG         |
| 1          | JB           | 239        | ARG         |
| 1          | JB           | 656        | ARG         |
| 1          | KB           | 27         | ARG         |
| 1          | KB           | 239        | ARG         |
| 1          | KB           | 656        | ARG         |
| 1          | LB           | 27         | ARG         |
| 1          | LB           | 239        | ARG         |
| 1          | LB           | 656        | ARG         |
| 1          | MB           | 27         | ARG         |
| 1          | MB           | 239        | ARG         |
| 1          | MB           | 656        | ARG         |
| 1          | NB           | 27         | ARG         |
| 1          | NB           | 239        | ARG         |
| 1          | NB           | 656        | ARG         |
| 1          | OB           | 27         | ARG         |
| 1          | OB           | 239        | ARG         |
| 1          | OB           | 656        | ARG         |
| 1          | PB           | 27         | ARG         |
| 1          | PB           | 239        | ARG         |
| 1          | PB           | 656        | ARG         |
| 1          | QB           | 27         | ARG         |
| 1          | QB           | 239        | ARG         |
| 1          | QB           | 656        | ARG         |
| 1          | RB           | 27         | ARG         |
| 1          | RB           | 239        | ARG         |
| 1          | RB           | 656        | ARG         |
| 1          | SB           | 27         | ARG         |
| 1          | SB           | 239        | ARG         |
| 1          | SB           | 656        | ARG         |
| 1          | TB           | 27         | ARG         |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | TB    | 239 | ARG  |
| 1   | TB    | 656 | ARG  |
| 1   | UB    | 27  | ARG  |
| 1   | UB    | 239 | ARG  |
| 1   | UB    | 656 | ARG  |
| 1   | VB    | 27  | ARG  |
| 1   | VB    | 239 | ARG  |
| 1   | VB    | 656 | ARG  |
| 1   | WB    | 27  | ARG  |
| 1   | WB    | 239 | ARG  |
| 1   | WB    | 656 | ARG  |
| 1   | XB    | 27  | ARG  |
| 1   | XB    | 239 | ARG  |
| 1   | XB    | 656 | ARG  |
| 1   | YB    | 27  | ARG  |
| 1   | YB    | 239 | ARG  |
| 1   | YB    | 656 | ARG  |
| 1   | ZB    | 27  | ARG  |
| 1   | ZB    | 239 | ARG  |
| 1   | ZB    | 656 | ARG  |
| 1   | AC    | 27  | ARG  |
| 1   | AC    | 239 | ARG  |
| 1   | AC    | 656 | ARG  |

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (106) such sidechains are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | A     | 228 | HIS  |
| 1   | B     | 228 | HIS  |
| 1   | C     | 24  | ASN  |
| 1   | C     | 228 | HIS  |
| 1   | D     | 24  | ASN  |
| 1   | D     | 228 | HIS  |
| 1   | E     | 228 | HIS  |
| 1   | F     | 228 | HIS  |
| 1   | G     | 40  | ASN  |
| 1   | G     | 228 | HIS  |
| 1   | H     | 228 | HIS  |
| 1   | I     | 40  | ASN  |
| 1   | I     | 228 | HIS  |
| 1   | J     | 24  | ASN  |
| 1   | J     | 228 | HIS  |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | K            | 228        | HIS         |
| 1          | L            | 24         | ASN         |
| 1          | L            | 228        | HIS         |
| 1          | M            | 228        | HIS         |
| 1          | N            | 228        | HIS         |
| 1          | O            | 228        | HIS         |
| 1          | P            | 228        | HIS         |
| 1          | Q            | 24         | ASN         |
| 1          | Q            | 228        | HIS         |
| 1          | R            | 228        | HIS         |
| 1          | S            | 228        | HIS         |
| 1          | T            | 228        | HIS         |
| 1          | V            | 24         | ASN         |
| 1          | V            | 228        | HIS         |
| 1          | V            | 592        | HIS         |
| 1          | W            | 228        | HIS         |
| 1          | X            | 24         | ASN         |
| 1          | X            | 228        | HIS         |
| 1          | X            | 534        | HIS         |
| 1          | Y            | 228        | HIS         |
| 1          | Z            | 228        | HIS         |
| 1          | AA           | 228        | HIS         |
| 1          | BA           | 228        | HIS         |
| 1          | CA           | 228        | HIS         |
| 1          | DA           | 228        | HIS         |
| 1          | EA           | 228        | HIS         |
| 1          | FA           | 228        | HIS         |
| 1          | GA           | 228        | HIS         |
| 1          | HA           | 228        | HIS         |
| 1          | IA           | 228        | HIS         |
| 1          | JA           | 228        | HIS         |
| 1          | KA           | 228        | HIS         |
| 1          | LA           | 228        | HIS         |
| 1          | MA           | 228        | HIS         |
| 1          | NA           | 228        | HIS         |
| 1          | OA           | 228        | HIS         |
| 1          | PA           | 228        | HIS         |
| 1          | QA           | 228        | HIS         |
| 1          | RA           | 228        | HIS         |
| 1          | SA           | 228        | HIS         |
| 1          | TA           | 228        | HIS         |
| 1          | UA           | 228        | HIS         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | VA           | 228        | HIS         |
| 1          | WA           | 228        | HIS         |
| 1          | XA           | 228        | HIS         |
| 1          | YA           | 228        | HIS         |
| 1          | ZA           | 228        | HIS         |
| 1          | AB           | 228        | HIS         |
| 1          | BB           | 228        | HIS         |
| 1          | CB           | 228        | HIS         |
| 1          | DB           | 228        | HIS         |
| 1          | EB           | 228        | HIS         |
| 1          | EB           | 464        | HIS         |
| 1          | FB           | 228        | HIS         |
| 1          | GB           | 228        | HIS         |
| 1          | HB           | 228        | HIS         |
| 1          | IB           | 228        | HIS         |
| 1          | JB           | 24         | ASN         |
| 1          | JB           | 228        | HIS         |
| 1          | KB           | 24         | ASN         |
| 1          | KB           | 228        | HIS         |
| 1          | LB           | 228        | HIS         |
| 1          | MB           | 24         | ASN         |
| 1          | MB           | 228        | HIS         |
| 1          | NB           | 228        | HIS         |
| 1          | OB           | 228        | HIS         |
| 1          | PB           | 228        | HIS         |
| 1          | QB           | 228        | HIS         |
| 1          | QB           | 592        | HIS         |
| 1          | RB           | 24         | ASN         |
| 1          | RB           | 85         | HIS         |
| 1          | RB           | 228        | HIS         |
| 1          | RB           | 534        | HIS         |
| 1          | SB           | 228        | HIS         |
| 1          | TB           | 228        | HIS         |
| 1          | UB           | 228        | HIS         |
| 1          | UB           | 464        | HIS         |
| 1          | UB           | 743        | GLN         |
| 1          | UB           | 786        | GLN         |
| 1          | VB           | 228        | HIS         |
| 1          | WB           | 40         | ASN         |
| 1          | WB           | 228        | HIS         |
| 1          | XB           | 40         | ASN         |
| 1          | XB           | 228        | HIS         |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | YB    | 40  | ASN  |
| 1   | YB    | 228 | HIS  |
| 1   | ZB    | 228 | HIS  |
| 1   | ZB    | 385 | ASN  |
| 1   | ZB    | 464 | HIS  |
| 1   | AC    | 228 | HIS  |
| 1   | AC    | 534 | HIS  |

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

### 5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

### 5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

### 5.6 Ligand geometry [i](#)

There are no ligands in this entry.

### 5.7 Other polymers [i](#)

There are no such residues in this entry.

### 5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

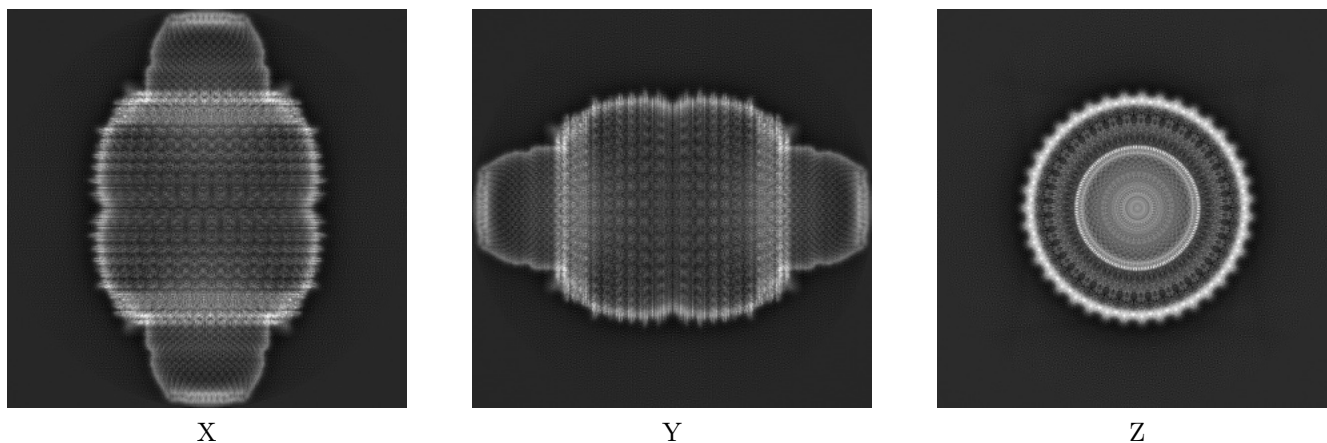
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-13478. These allow visual inspection of the internal detail of the map and identification of artifacts.

No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

### 6.1 Orthogonal projections [i](#)

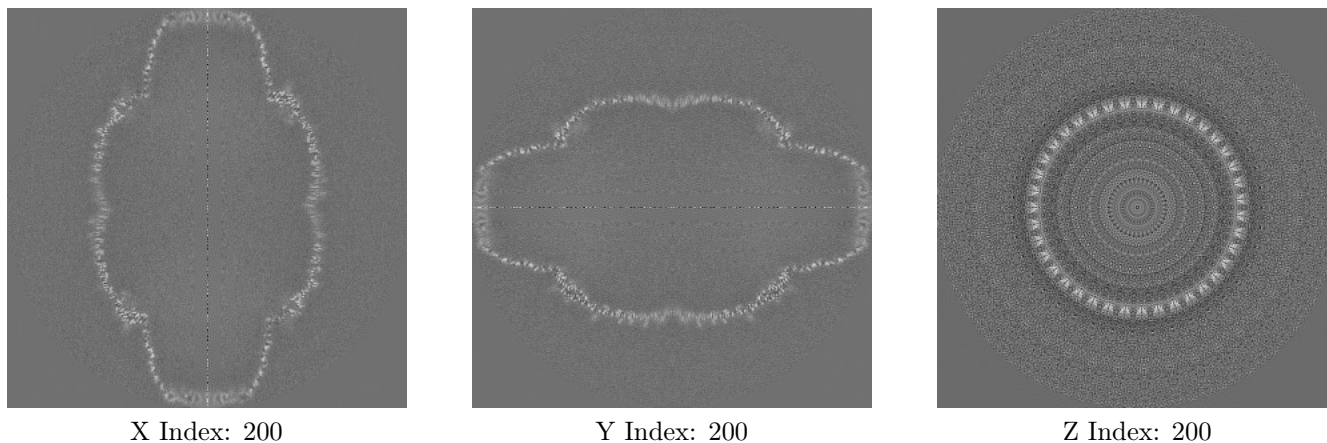
#### 6.1.1 Primary map



The images above show the map projected in three orthogonal directions.

### 6.2 Central slices [i](#)

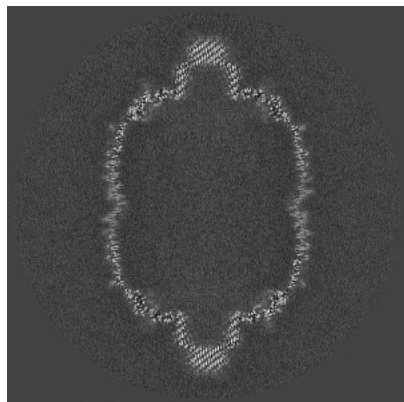
#### 6.2.1 Primary map



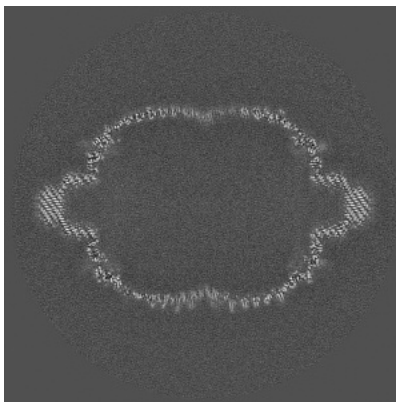
The images above show central slices of the map in three orthogonal directions.

## 6.3 Largest variance slices [\(i\)](#)

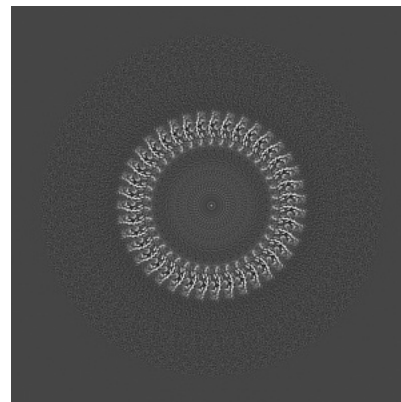
### 6.3.1 Primary map



X Index: 255



Y Index: 255

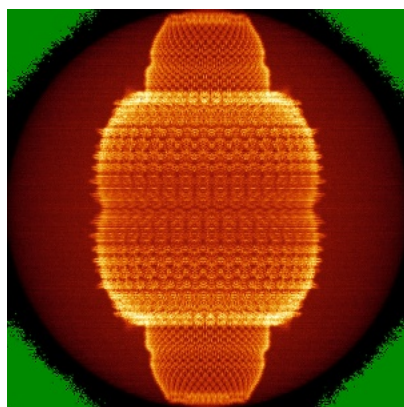


Z Index: 307

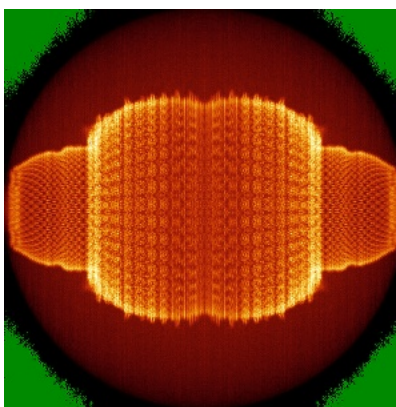
The images above show the largest variance slices of the map in three orthogonal directions.

## 6.4 Orthogonal standard-deviation projections (False-color) [\(i\)](#)

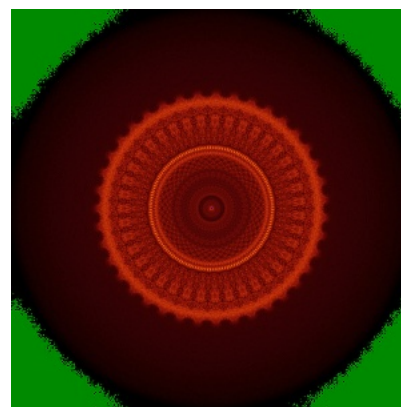
### 6.4.1 Primary map



X



Y



Z

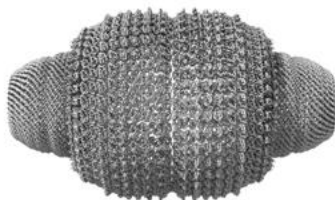
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

## 6.5 Orthogonal surface views [i](#)

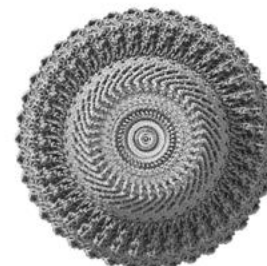
### 6.5.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.04. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

## 6.6 Mask visualisation [i](#)

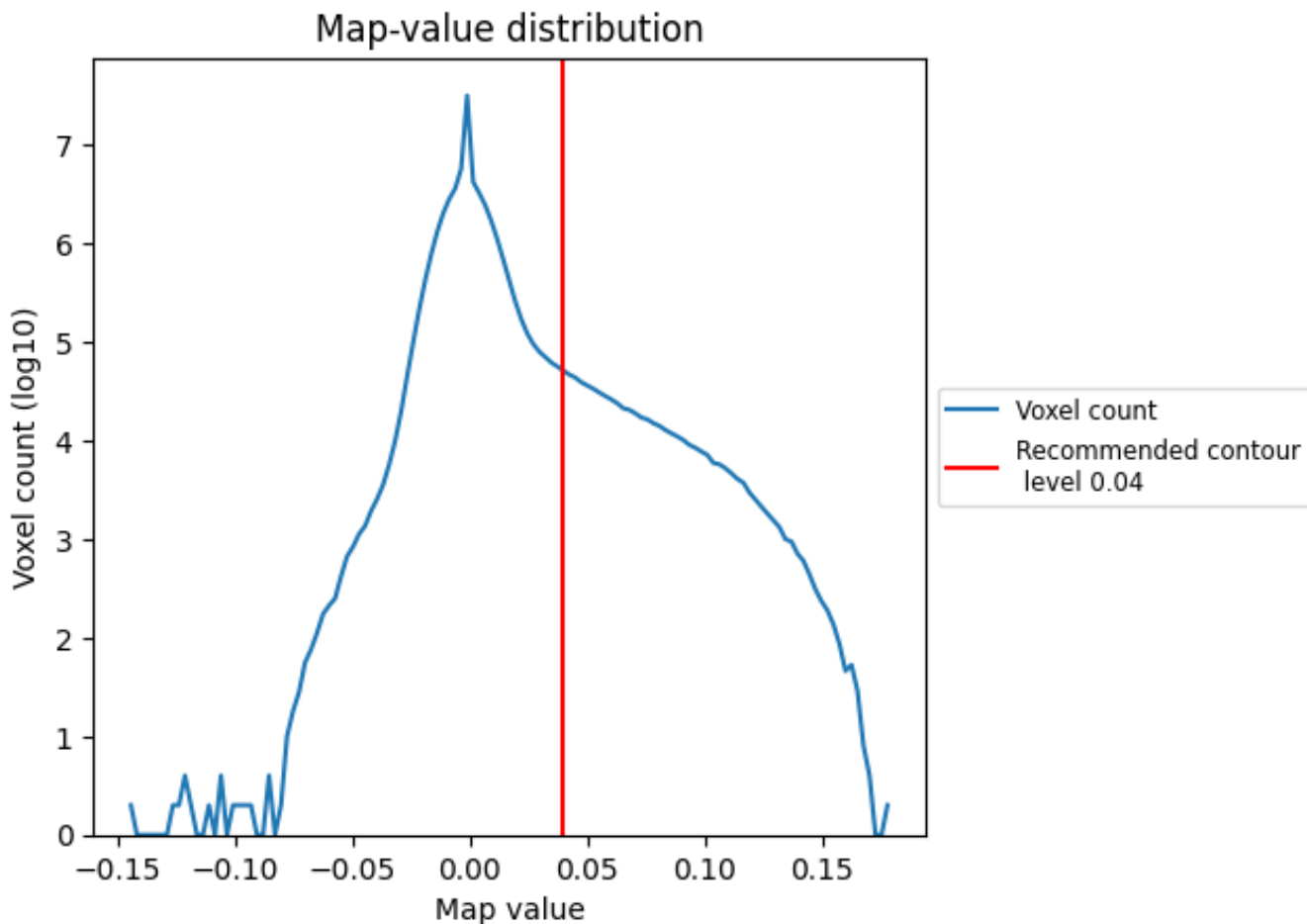
This section was not generated. No masks/segmentation were deposited.



## 7 Map analysis [i](#)

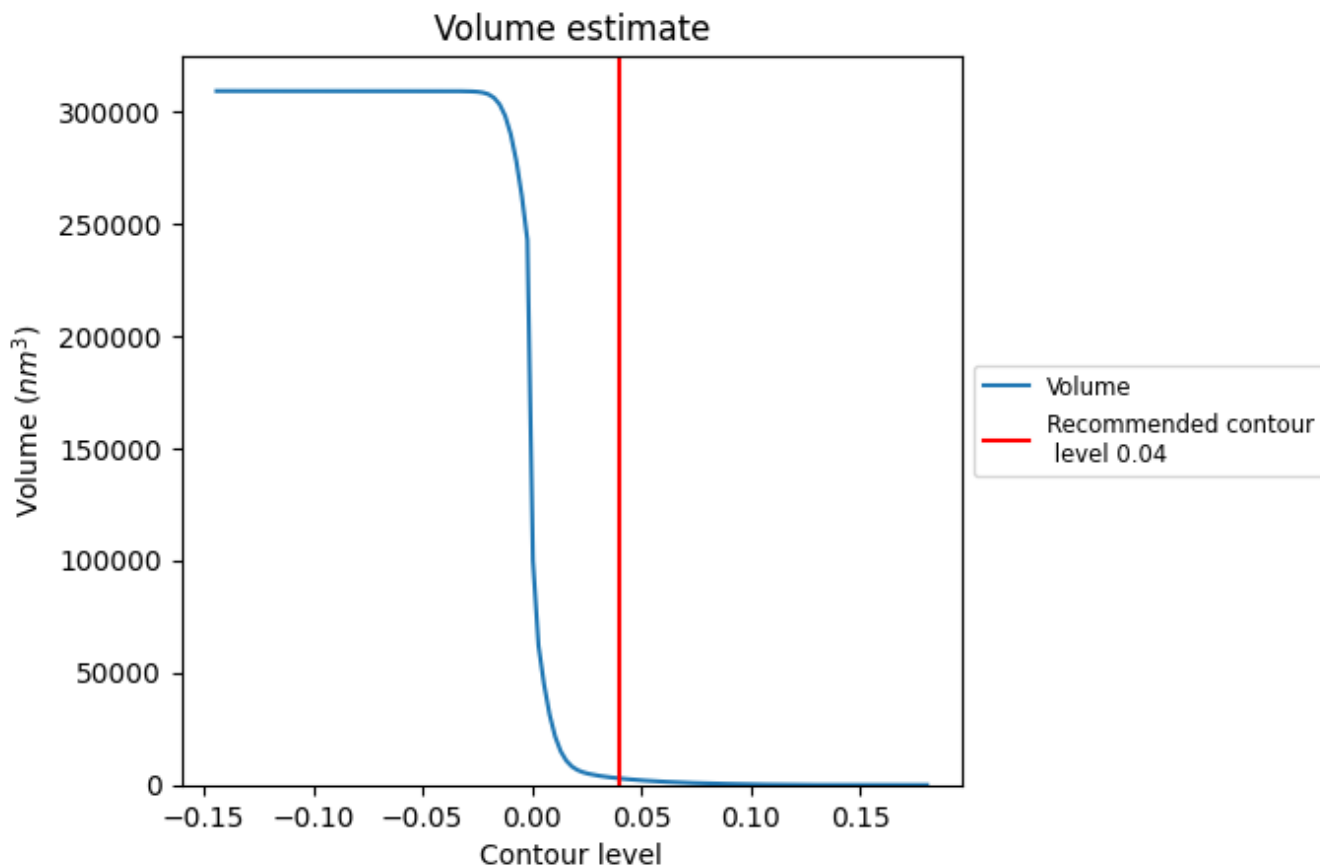
This section contains the results of statistical analysis of the map.

### 7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

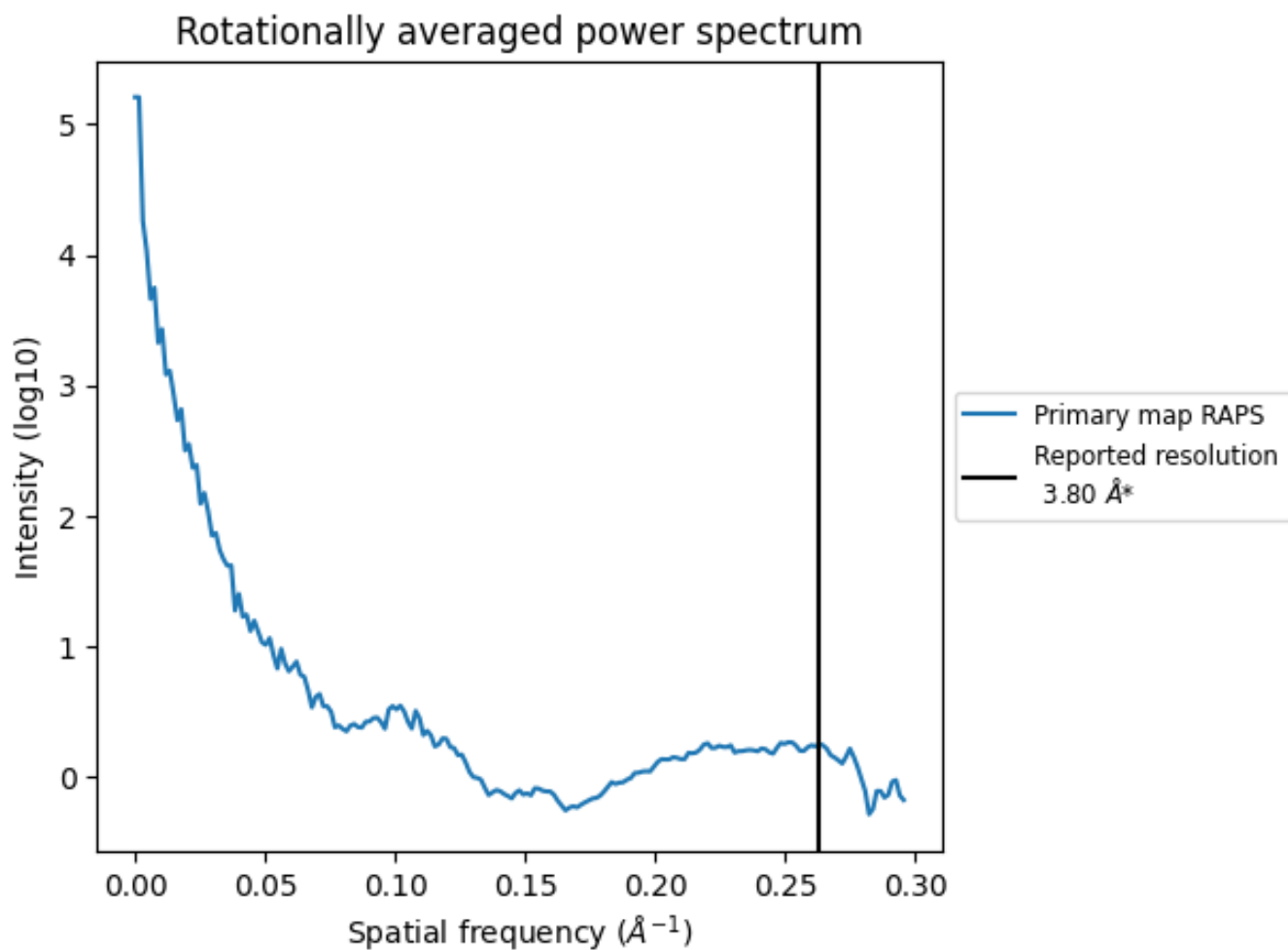
## 7.2 Volume estimate [\(i\)](#)



The volume at the recommended contour level is 2923  $\text{nm}^3$ ; this corresponds to an approximate mass of 2640 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

### 7.3 Rotationally averaged power spectrum i



\*Reported resolution corresponds to spatial frequency of 0.263 Å<sup>-1</sup>

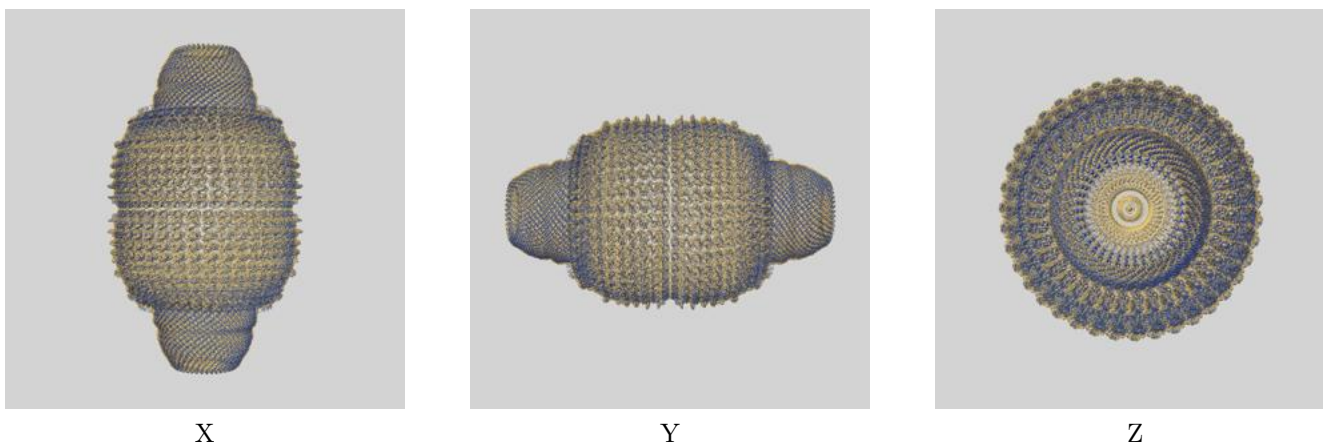
## 8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

## 9 Map-model fit [i](#)

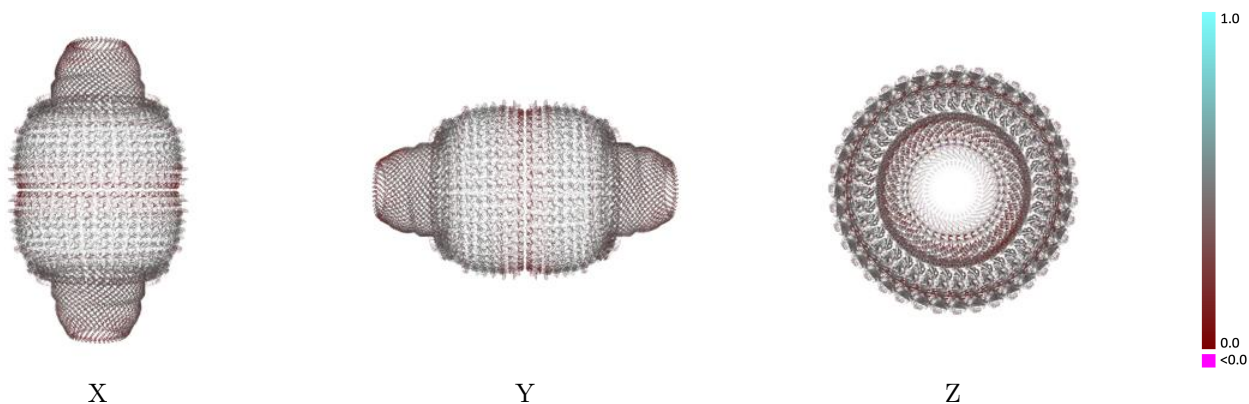
This section contains information regarding the fit between EMDB map EMD-13478 and PDB model 7PKR. Per-residue inclusion information can be found in section 3 on page 10.

### 9.1 Map-model overlay [i](#)



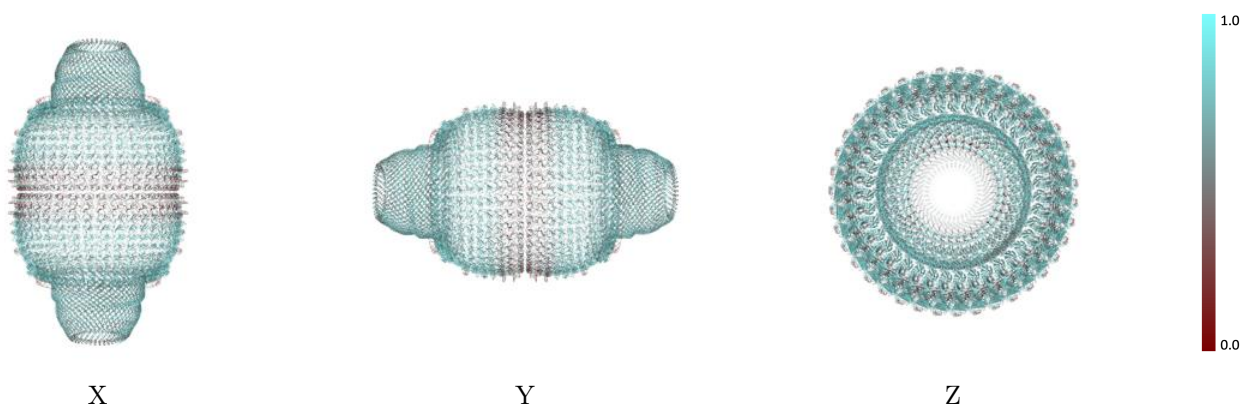
The images above show the 3D surface view of the map at the recommended contour level 0.04 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

## 9.2 Q-score mapped to coordinate model [i](#)



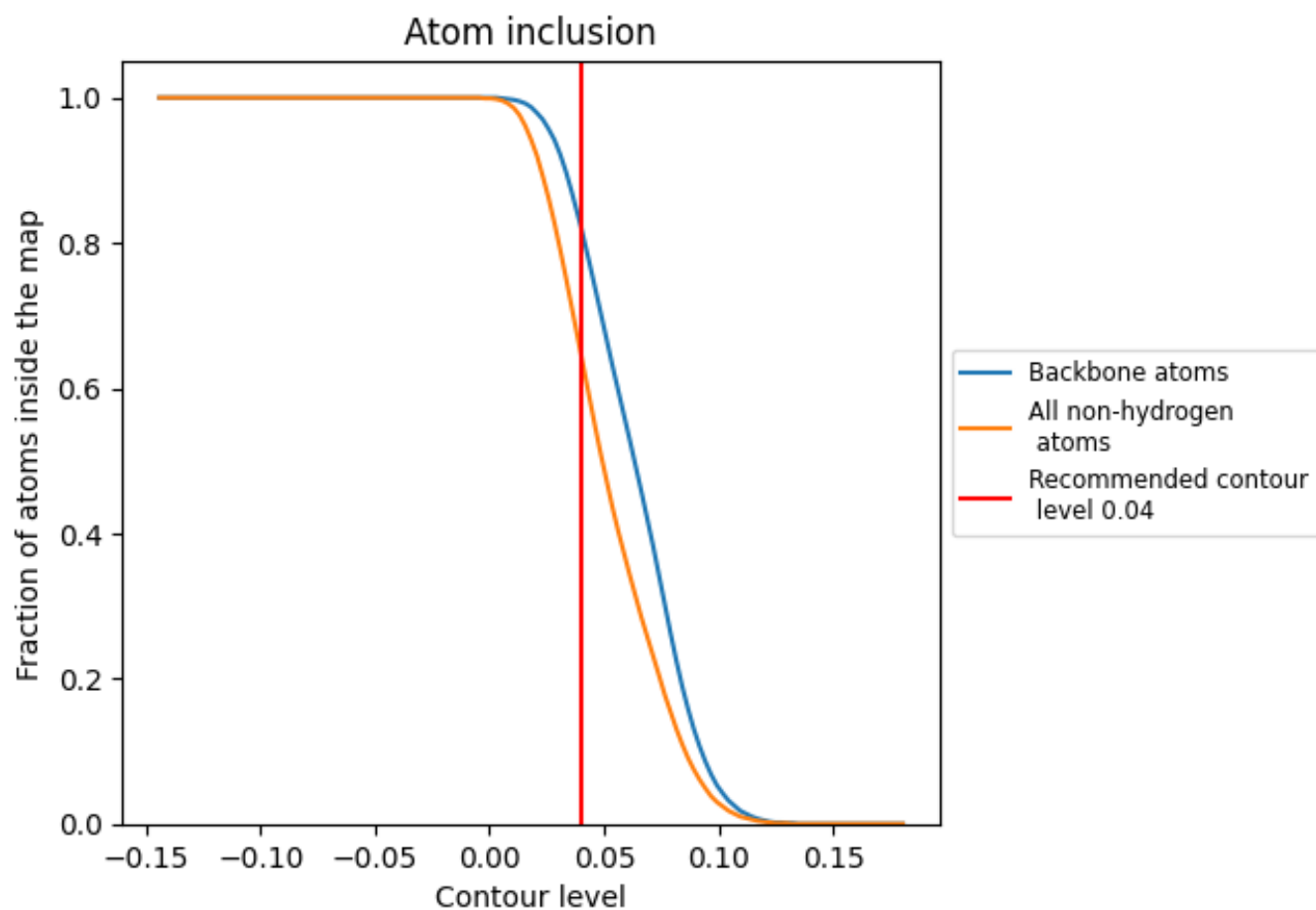
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

## 9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.04).

## 9.4 Atom inclusion [i](#)



At the recommended contour level, 82% of all backbone atoms, 64% of all non-hydrogen atoms, are inside the map.

## 9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.04) and Q-score for the entire model and for each chain.

| Chain | Atom inclusion | Q-score |
|-------|----------------|---------|
| All   | 0.6450         | 0.4000  |
| A     | 0.6530         | 0.4090  |
| AA    | 0.6510         | 0.3980  |
| AB    | 0.6530         | 0.4110  |
| AC    | 0.6290         | 0.3740  |
| B     | 0.6400         | 0.3830  |
| BA    | 0.6430         | 0.4000  |
| BB    | 0.6410         | 0.3940  |
| C     | 0.6500         | 0.4060  |
| CA    | 0.6460         | 0.4000  |
| CB    | 0.6380         | 0.3960  |
| D     | 0.6420         | 0.4000  |
| DA    | 0.6450         | 0.3980  |
| DB    | 0.6460         | 0.4020  |
| E     | 0.6420         | 0.3940  |
| EA    | 0.6520         | 0.4040  |
| EB    | 0.6520         | 0.4130  |
| F     | 0.6430         | 0.4010  |
| FA    | 0.6360         | 0.3960  |
| FB    | 0.6570         | 0.4160  |
| G     | 0.6330         | 0.3840  |
| GA    | 0.6440         | 0.4030  |
| GB    | 0.6430         | 0.4000  |
| H     | 0.6550         | 0.4080  |
| HA    | 0.6430         | 0.3980  |
| HB    | 0.6380         | 0.3920  |
| I     | 0.6440         | 0.3890  |
| IA    | 0.6380         | 0.3980  |
| IB    | 0.6380         | 0.3820  |
| J     | 0.6560         | 0.4100  |
| JA    | 0.6450         | 0.4040  |
| JB    | 0.6280         | 0.3760  |
| K     | 0.6470         | 0.3910  |
| KA    | 0.6390         | 0.3920  |
| KB    | 0.6370         | 0.3910  |



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| Chain | Atom inclusion | Q-score |
|-------|----------------|---------|
| L     | 0.6590         | 0.4200  |
| LA    | 0.6460         | 0.4030  |
| LB    | 0.6460         | 0.4000  |
| M     | 0.6440         | 0.4000  |
| MA    | 0.6390         | 0.4020  |
| MB    | 0.6570         | 0.4130  |
| N     | 0.6640         | 0.4230  |
| NA    | 0.6440         | 0.3980  |
| NB    | 0.6600         | 0.4160  |
| O     | 0.6480         | 0.4020  |
| OA    | 0.6410         | 0.3990  |
| OB    | 0.6600         | 0.4190  |
| P     | 0.6580         | 0.4150  |
| PA    | 0.6400         | 0.3970  |
| PB    | 0.6550         | 0.4120  |
| Q     | 0.6520         | 0.4040  |
| QA    | 0.6460         | 0.4000  |
| QB    | 0.6440         | 0.3990  |
| R     | 0.6430         | 0.3960  |
| RA    | 0.6400         | 0.3950  |
| RB    | 0.6390         | 0.3910  |
| S     | 0.6540         | 0.4170  |
| SA    | 0.6390         | 0.4000  |
| SB    | 0.6390         | 0.3890  |
| T     | 0.6410         | 0.3950  |
| TA    | 0.6360         | 0.3950  |
| TB    | 0.6370         | 0.3900  |
| UA    | 0.6410         | 0.3980  |
| UB    | 0.6370         | 0.3910  |
| V     | 0.6570         | 0.4170  |
| VA    | 0.6420         | 0.3950  |
| VB    | 0.6360         | 0.3920  |
| W     | 0.6420         | 0.3920  |
| WA    | 0.6400         | 0.3940  |
| WB    | 0.6540         | 0.4110  |
| X     | 0.6440         | 0.4000  |
| XA    | 0.6400         | 0.3910  |
| XB    | 0.6550         | 0.4140  |
| Y     | 0.6450         | 0.3950  |
| YA    | 0.6440         | 0.3980  |
| YB    | 0.6580         | 0.4160  |
| Z     | 0.6370         | 0.3970  |

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| Chain | Atom inclusion   | Q-score  |
|-------|--|--|
| ZA    |  0.6340 |  0.3910 |
| ZB    |  0.6490 |  0.4030 |