



## Full wwPDB EM Validation Report ⓘ

Nov 4, 2024 – 02:43 am GMT

PDB ID : 9GDX  
EMDB ID : EMD-51279  
Title : SARS-CoV-2 Spike protein Beta Variant at 4C structural flexibility / heterogeneity analyses  
Authors : Herreros, D.; Mata, C.P.; Noddings, C.; Irene, D.; Agard, D.A.; Tsai, M.-D.; Sorzano, C.O.S.; Carazo, J.M.  
Deposited on : 2024-08-06  
Resolution : 2.80 Å (reported)  
Based on initial model : 7VX1

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.dev113  
MolProbity : 4.02b-467  
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.39

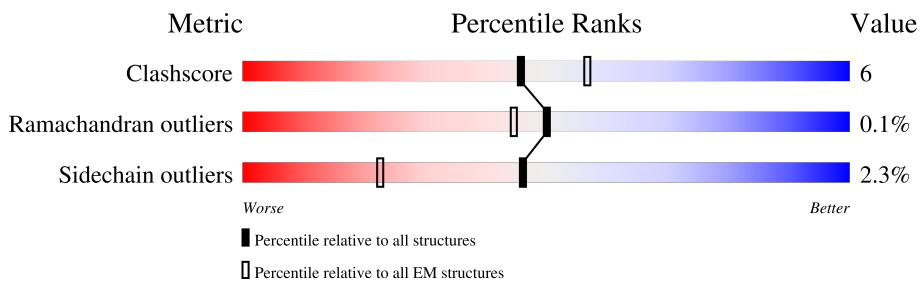
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 2.80 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            | 210492                   | 15764                    |
| Ramachandran outliers | 207382                   | 16835                    |
| Sidechain outliers    | 206894                   | 16415                    |

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   | 1-A   | 1230   |                  |
| 1   | 1-B   | 1230   |                  |
| 1   | 1-C   | 1230   |                  |
| 1   | 10-A  | 1230   |                  |
| 1   | 10-B  | 1230   |                  |
| 1   | 10-C  | 1230   |                  |
| 1   | 11-A  | 1230   |                  |
| 1   | 11-B  | 1230   |                  |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 1   | 11-C  | 1230   | 70% 16% • 12%    |
| 1   | 12-A  | 1230   | 71% 15% • 12%    |
| 1   | 12-B  | 1230   | 74% 13% • 12%    |
| 1   | 12-C  | 1230   | 71% 15% • 12%    |
| 1   | 13-A  | 1230   | 72% 15% • 12%    |
| 1   | 13-B  | 1230   | 71% 14% • 12%    |
| 1   | 13-C  | 1230   | 70% 16% • 12%    |
| 1   | 14-A  | 1230   | 71% 16% • 12%    |
| 1   | 14-B  | 1230   | 69% 17% • 12%    |
| 1   | 14-C  | 1230   | 70% 17% • 12%    |
| 1   | 15-A  | 1230   | 71% 16% • 12%    |
| 1   | 15-B  | 1230   | 72% 14% • 12%    |
| 1   | 15-C  | 1230   | 70% 17% • 12%    |
| 1   | 16-A  | 1230   | 71% 16% • 12%    |
| 1   | 16-B  | 1230   | 73% 13% • 12%    |
| 1   | 16-C  | 1230   | 73% 13% • 12%    |
| 1   | 17-A  | 1230   | 72% 15% • 12%    |
| 1   | 17-B  | 1230   | 69% 17% • 12%    |
| 1   | 17-C  | 1230   | 72% 15% • 12%    |
| 1   | 18-A  | 1230   | 70% 16% • 12%    |
| 1   | 18-B  | 1230   | 70% 17% • 12%    |
| 1   | 18-C  | 1230   | 70% 17% • 12%    |
| 1   | 19-A  | 1230   | 75% 12% • 12%    |
| 1   | 19-B  | 1230   | 73% 13% • 12%    |
| 1   | 19-C  | 1230   | 72% 15% • 12%    |



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| Mol | Chain | Length | Quality of chain |     |     |
|-----|-------|--------|------------------|-----|-----|
| 1   | 2-A   | 1230   | 70%              | 17% | 12% |
| 1   | 2-B   | 1230   | 71%              | 15% | 12% |
| 1   | 2-C   | 1230   | 72%              | 14% | 12% |
| 1   | 20-A  | 1230   | 70%              | 16% | 12% |
| 1   | 20-B  | 1230   | 71%              | 15% | 12% |
| 1   | 20-C  | 1230   | 68%              | 17% | 12% |
| 1   | 3-A   | 1230   | 71%              | 16% | 12% |
| 1   | 3-B   | 1230   | 72%              | 14% | 12% |
| 1   | 3-C   | 1230   | 71%              | 15% | 12% |
| 1   | 4-A   | 1230   | 70%              | 17% | 12% |
| 1   | 4-B   | 1230   | 72%              | 14% | 12% |
| 1   | 4-C   | 1230   | 70%              | 16% | 12% |
| 1   | 5-A   | 1230   | 73%              | 13% | 12% |
| 1   | 5-B   | 1230   | 75%              | 12% | 12% |
| 1   | 5-C   | 1230   | 74%              | 12% | 12% |
| 1   | 6-A   | 1230   | 75%              | 12% | 12% |
| 1   | 6-B   | 1230   | 69%              | 17% | 12% |
| 1   | 6-C   | 1230   | 71%              | 15% | 12% |
| 1   | 7-A   | 1230   | 74%              | 13% | 12% |
| 1   | 7-B   | 1230   | 72%              | 14% | 12% |
| 1   | 7-C   | 1230   | 72%              | 14% | 12% |
| 1   | 8-A   | 1230   | 71%              | 15% | 12% |
| 1   | 8-B   | 1230   | 68%              | 18% | 12% |
| 1   | 8-C   | 1230   | 71%              | 16% | 12% |
| 1   | 9-A   | 1230   | 69%              | 17% | 12% |

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| Mol | Chain | Length | Quality of chain  |
|-----|-------|--------|---|
| 1   | 9-B   | 1230   | <br>69% 17% • 12% |
| 1   | 9-C   | 1230   | <br>67% 19% • 12% |

## 2 Entry composition [i](#)

There is only 1 type of molecule in this entry. The entry contains 507240 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 Spike glycoprotein,Fibritin.

| Mol | Chain | Residues | Atoms |      |      |      |    | AltConf | Trace |
|-----|-------|----------|-------|------|------|------|----|---------|-------|
|     |       |          | Total | C    | N    | O    | S  |         |       |
| 1   | 1-A   | 1079     | 8454  | 5399 | 1410 | 1606 | 39 | 0       | 0     |
| 1   | 2-A   | 1079     | 8454  | 5399 | 1410 | 1606 | 39 | 0       | 0     |
| 1   | 3-A   | 1079     | 8454  | 5399 | 1410 | 1606 | 39 | 0       | 0     |
| 1   | 4-A   | 1079     | 8454  | 5399 | 1410 | 1606 | 39 | 0       | 0     |
| 1   | 5-A   | 1079     | 8454  | 5399 | 1410 | 1606 | 39 | 0       | 0     |
| 1   | 6-A   | 1079     | 8454  | 5399 | 1410 | 1606 | 39 | 0       | 0     |
| 1   | 7-A   | 1079     | 8454  | 5399 | 1410 | 1606 | 39 | 0       | 0     |
| 1   | 8-A   | 1079     | 8454  | 5399 | 1410 | 1606 | 39 | 0       | 0     |
| 1   | 9-A   | 1079     | 8454  | 5399 | 1410 | 1606 | 39 | 0       | 0     |
| 1   | 10-A  | 1079     | 8454  | 5399 | 1410 | 1606 | 39 | 0       | 0     |
| 1   | 11-A  | 1079     | 8454  | 5399 | 1410 | 1606 | 39 | 0       | 0     |
| 1   | 12-A  | 1079     | 8454  | 5399 | 1410 | 1606 | 39 | 0       | 0     |
| 1   | 13-A  | 1079     | 8454  | 5399 | 1410 | 1606 | 39 | 0       | 0     |
| 1   | 14-A  | 1079     | 8454  | 5399 | 1410 | 1606 | 39 | 0       | 0     |
| 1   | 15-A  | 1079     | 8454  | 5399 | 1410 | 1606 | 39 | 0       | 0     |
| 1   | 16-A  | 1079     | 8454  | 5399 | 1410 | 1606 | 39 | 0       | 0     |
| 1   | 17-A  | 1079     | 8454  | 5399 | 1410 | 1606 | 39 | 0       | 0     |

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| Mol | Chain | Residues | Atoms         |           |           |           |         | AltConf | Trace |
|-----|-------|----------|---------------|-----------|-----------|-----------|---------|---------|-------|
|     |       |          | Total         | C         | N         | O         | S       |         |       |
| 1   | 18-A  | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 19-A  | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 20-A  | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 1-B   | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 2-B   | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 3-B   | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 4-B   | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 5-B   | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 6-B   | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 7-B   | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 8-B   | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 9-B   | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 10-B  | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 11-B  | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 12-B  | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 13-B  | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 14-B  | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 15-B  | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 16-B  | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 17-B  | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 18-B  | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |

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| Mol | Chain | Residues | Atoms         |           |           |           |         | AltConf | Trace |
|-----|-------|----------|---------------|-----------|-----------|-----------|---------|---------|-------|
|     |       |          | Total         | C         | N         | O         | S       |         |       |
| 1   | 19-B  | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 20-B  | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 1-C   | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 2-C   | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 3-C   | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 4-C   | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 5-C   | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 6-C   | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 7-C   | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 8-C   | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 9-C   | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 10-C  | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 11-C  | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 12-C  | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 13-C  | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 14-C  | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 15-C  | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 16-C  | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 17-C  | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 18-C  | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |
| 1   | 19-C  | 1079     | Total<br>8454 | C<br>5399 | N<br>1410 | O<br>1606 | S<br>39 | 0       | 0     |

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| Mol | Chain | Residues | Atoms |      |      |      |    | AltConf | Trace |
|-----|-------|----------|-------|------|------|------|----|---------|-------|
|     |       |          | Total | C    | N    | O    | S  |         |       |
| 1   | 20-C  | 1079     | 8454  | 5399 | 1410 | 1606 | 39 | 0       | 0     |

There are 87 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment             | Reference  |
|-------|---------|----------|--------|---------------------|------------|
| A     | 18      | PHE      | LEU    | variant             | UNP P0DTC2 |
| A     | 80      | ALA      | ASP    | variant             | UNP P0DTC2 |
| A     | 215     | GLY      | ASP    | variant             | UNP P0DTC2 |
| A     | ?       | -        | LEU    | deletion            | UNP P0DTC2 |
| A     | ?       | -        | ALA    | deletion            | UNP P0DTC2 |
| A     | ?       | -        | LEU    | deletion            | UNP P0DTC2 |
| A     | 246     | ILE      | ARG    | conflict            | UNP P0DTC2 |
| A     | 417     | ASN      | LYS    | variant             | UNP P0DTC2 |
| A     | 484     | LYS      | GLU    | variant             | UNP P0DTC2 |
| A     | 501     | TYR      | ASN    | variant             | UNP P0DTC2 |
| A     | 614     | GLY      | ASP    | variant             | UNP P0DTC2 |
| A     | 682     | GLY      | ARG    | engineered mutation | UNP P0DTC2 |
| A     | 683     | SER      | ARG    | engineered mutation | UNP P0DTC2 |
| A     | 685     | SER      | ARG    | engineered mutation | UNP P0DTC2 |
| A     | 701     | VAL      | ALA    | variant             | UNP P0DTC2 |
| A     | 986     | PRO      | LYS    | engineered mutation | UNP P0DTC2 |
| A     | 987     | PRO      | VAL    | engineered mutation | UNP P0DTC2 |
| A     | 1209    | GLY      | -      | linker              | UNP P0DTC2 |
| A     | 1210    | SER      | -      | linker              | UNP P0DTC2 |
| A     | 1232    | LEU      | PHE    | engineered mutation | UNP P10104 |
| A     | 1238    | GLY      | -      | expression tag      | UNP P10104 |
| A     | 1239    | ARG      | -      | expression tag      | UNP P10104 |
| A     | 1240    | SER      | -      | expression tag      | UNP P10104 |
| A     | 1241    | LEU      | -      | expression tag      | UNP P10104 |
| A     | 1242    | GLU      | -      | expression tag      | UNP P10104 |
| A     | 1243    | VAL      | -      | expression tag      | UNP P10104 |
| A     | 1244    | LEU      | -      | expression tag      | UNP P10104 |
| A     | 1245    | PHE      | -      | expression tag      | UNP P10104 |
| A     | 1246    | GLN      | -      | expression tag      | UNP P10104 |
| B     | 18      | PHE      | LEU    | variant             | UNP P0DTC2 |
| B     | 80      | ALA      | ASP    | variant             | UNP P0DTC2 |
| B     | 215     | GLY      | ASP    | variant             | UNP P0DTC2 |
| B     | ?       | -        | LEU    | deletion            | UNP P0DTC2 |
| B     | ?       | -        | ALA    | deletion            | UNP P0DTC2 |
| B     | ?       | -        | LEU    | deletion            | UNP P0DTC2 |
| B     | 246     | ILE      | ARG    | conflict            | UNP P0DTC2 |

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| Chain | Residue | Modelled | Actual | Comment             | Reference  |
|-------|---------|----------|--------|---------------------|------------|
| B     | 417     | ASN      | LYS    | variant             | UNP P0DTC2 |
| B     | 484     | LYS      | GLU    | variant             | UNP P0DTC2 |
| B     | 501     | TYR      | ASN    | variant             | UNP P0DTC2 |
| B     | 614     | GLY      | ASP    | variant             | UNP P0DTC2 |
| B     | 682     | GLY      | ARG    | engineered mutation | UNP P0DTC2 |
| B     | 683     | SER      | ARG    | engineered mutation | UNP P0DTC2 |
| B     | 685     | SER      | ARG    | engineered mutation | UNP P0DTC2 |
| B     | 701     | VAL      | ALA    | variant             | UNP P0DTC2 |
| B     | 986     | PRO      | LYS    | engineered mutation | UNP P0DTC2 |
| B     | 987     | PRO      | VAL    | engineered mutation | UNP P0DTC2 |
| B     | 1209    | GLY      | -      | linker              | UNP P0DTC2 |
| B     | 1210    | SER      | -      | linker              | UNP P0DTC2 |
| B     | 1232    | LEU      | PHE    | engineered mutation | UNP P10104 |
| B     | 1238    | GLY      | -      | expression tag      | UNP P10104 |
| B     | 1239    | ARG      | -      | expression tag      | UNP P10104 |
| B     | 1240    | SER      | -      | expression tag      | UNP P10104 |
| B     | 1241    | LEU      | -      | expression tag      | UNP P10104 |
| B     | 1242    | GLU      | -      | expression tag      | UNP P10104 |
| B     | 1243    | VAL      | -      | expression tag      | UNP P10104 |
| B     | 1244    | LEU      | -      | expression tag      | UNP P10104 |
| B     | 1245    | PHE      | -      | expression tag      | UNP P10104 |
| B     | 1246    | GLN      | -      | expression tag      | UNP P10104 |
| C     | 18      | PHE      | LEU    | variant             | UNP P0DTC2 |
| C     | 80      | ALA      | ASP    | variant             | UNP P0DTC2 |
| C     | 215     | GLY      | ASP    | variant             | UNP P0DTC2 |
| C     | ?       | -        | LEU    | deletion            | UNP P0DTC2 |
| C     | ?       | -        | ALA    | deletion            | UNP P0DTC2 |
| C     | ?       | -        | LEU    | deletion            | UNP P0DTC2 |
| C     | 246     | ILE      | ARG    | conflict            | UNP P0DTC2 |
| C     | 417     | ASN      | LYS    | variant             | UNP P0DTC2 |
| C     | 484     | LYS      | GLU    | variant             | UNP P0DTC2 |
| C     | 501     | TYR      | ASN    | variant             | UNP P0DTC2 |
| C     | 614     | GLY      | ASP    | variant             | UNP P0DTC2 |
| C     | 682     | GLY      | ARG    | engineered mutation | UNP P0DTC2 |
| C     | 683     | SER      | ARG    | engineered mutation | UNP P0DTC2 |
| C     | 685     | SER      | ARG    | engineered mutation | UNP P0DTC2 |
| C     | 701     | VAL      | ALA    | variant             | UNP P0DTC2 |
| C     | 986     | PRO      | LYS    | engineered mutation | UNP P0DTC2 |
| C     | 987     | PRO      | VAL    | engineered mutation | UNP P0DTC2 |
| C     | 1209    | GLY      | -      | linker              | UNP P0DTC2 |
| C     | 1210    | SER      | -      | linker              | UNP P0DTC2 |
| C     | 1232    | LEU      | PHE    | engineered mutation | UNP P10104 |

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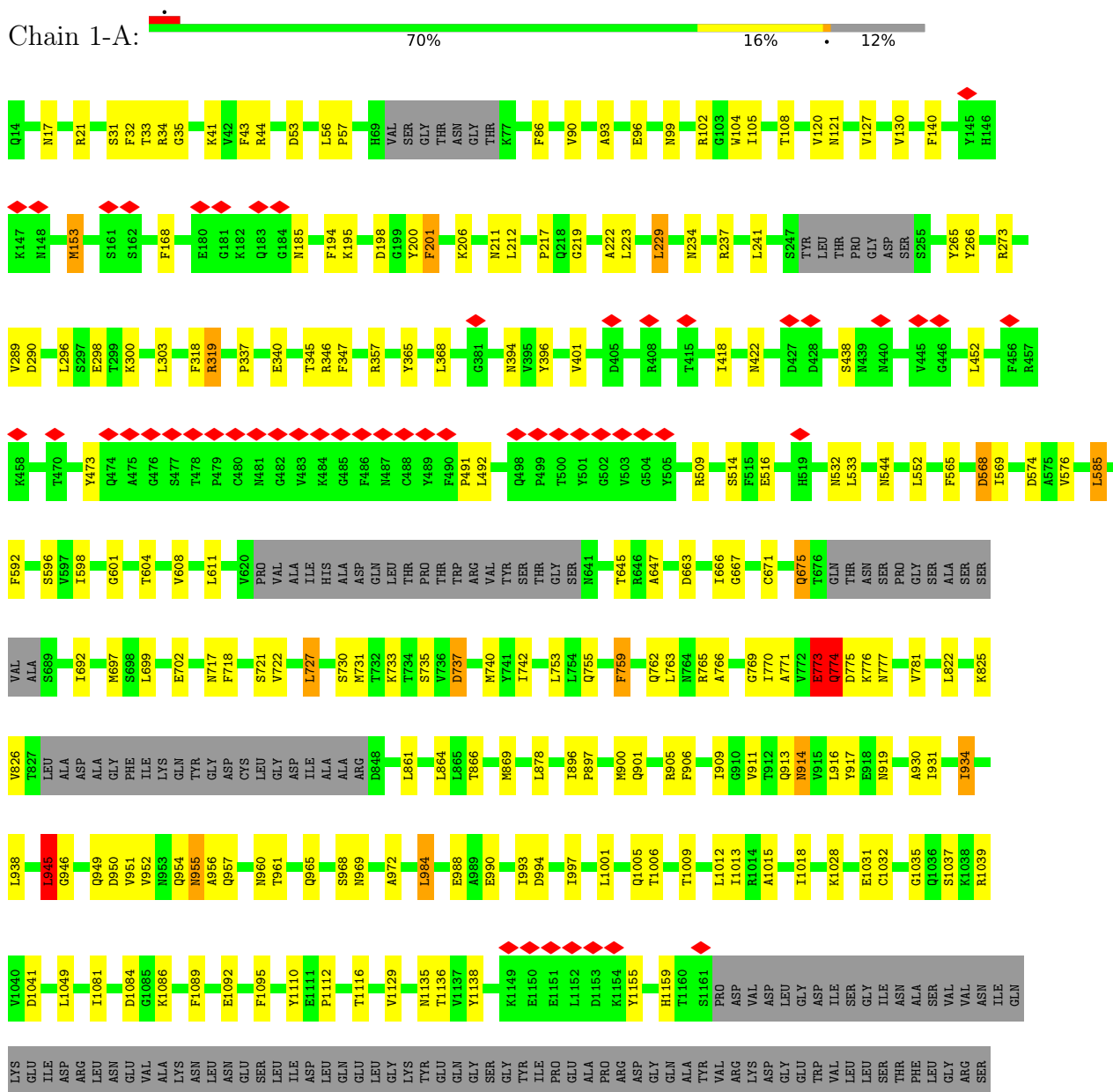
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| Chain | Residue | Modelled | Actual | Comment        | Reference  |
|-------|---------|----------|--------|----------------|------------|
| C     | 1238    | GLY      | -      | expression tag | UNP P10104 |
| C     | 1239    | ARG      | -      | expression tag | UNP P10104 |
| C     | 1240    | SER      | -      | expression tag | UNP P10104 |
| C     | 1241    | LEU      | -      | expression tag | UNP P10104 |
| C     | 1242    | GLU      | -      | expression tag | UNP P10104 |
| C     | 1243    | VAL      | -      | expression tag | UNP P10104 |
| C     | 1244    | LEU      | -      | expression tag | UNP P10104 |
| C     | 1245    | PHE      | -      | expression tag | UNP P10104 |
| C     | 1246    | GLN      | -      | expression tag | UNP P10104 |

### 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.

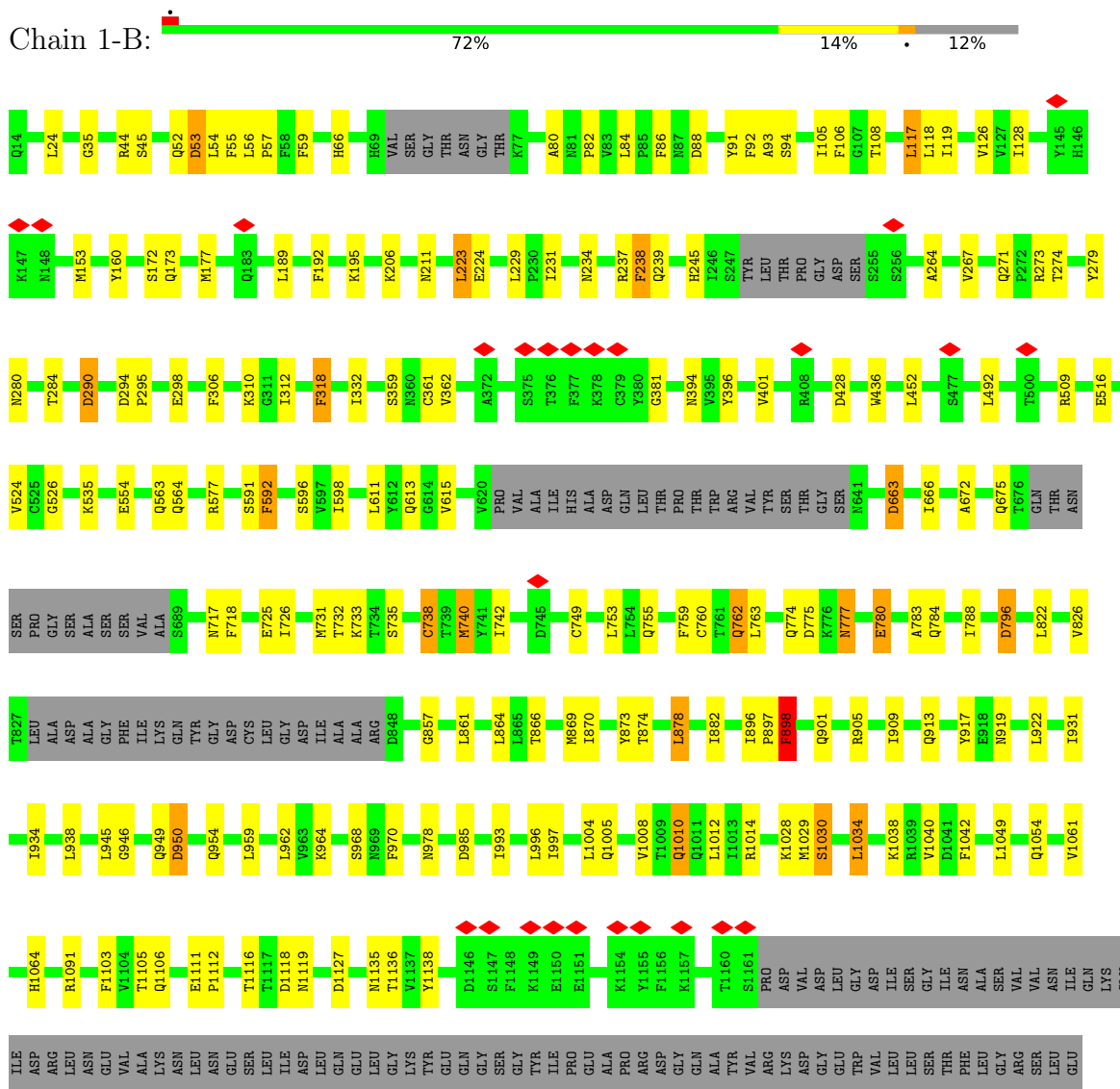
- Molecule 1: Spike glycoprotein,Fibrinin



LEU  
GLU  
VAL  
LEU  
PHE  
GLN

• Molecule 1: Spike glycoprotein,Fibrinin

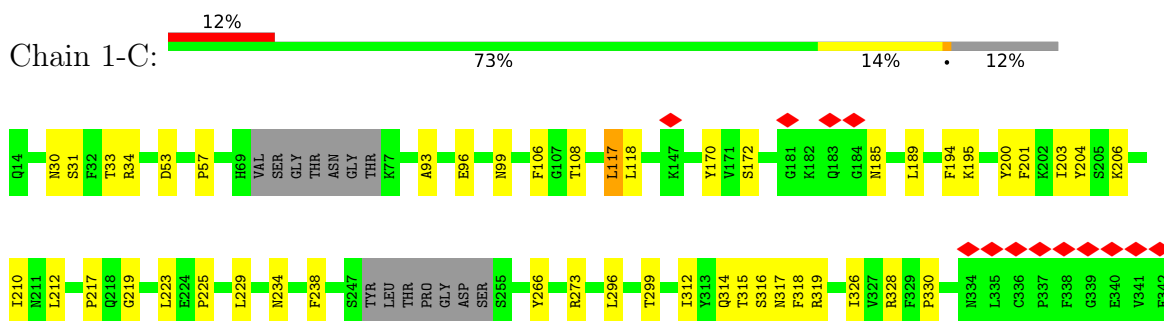
Chain 1-B:

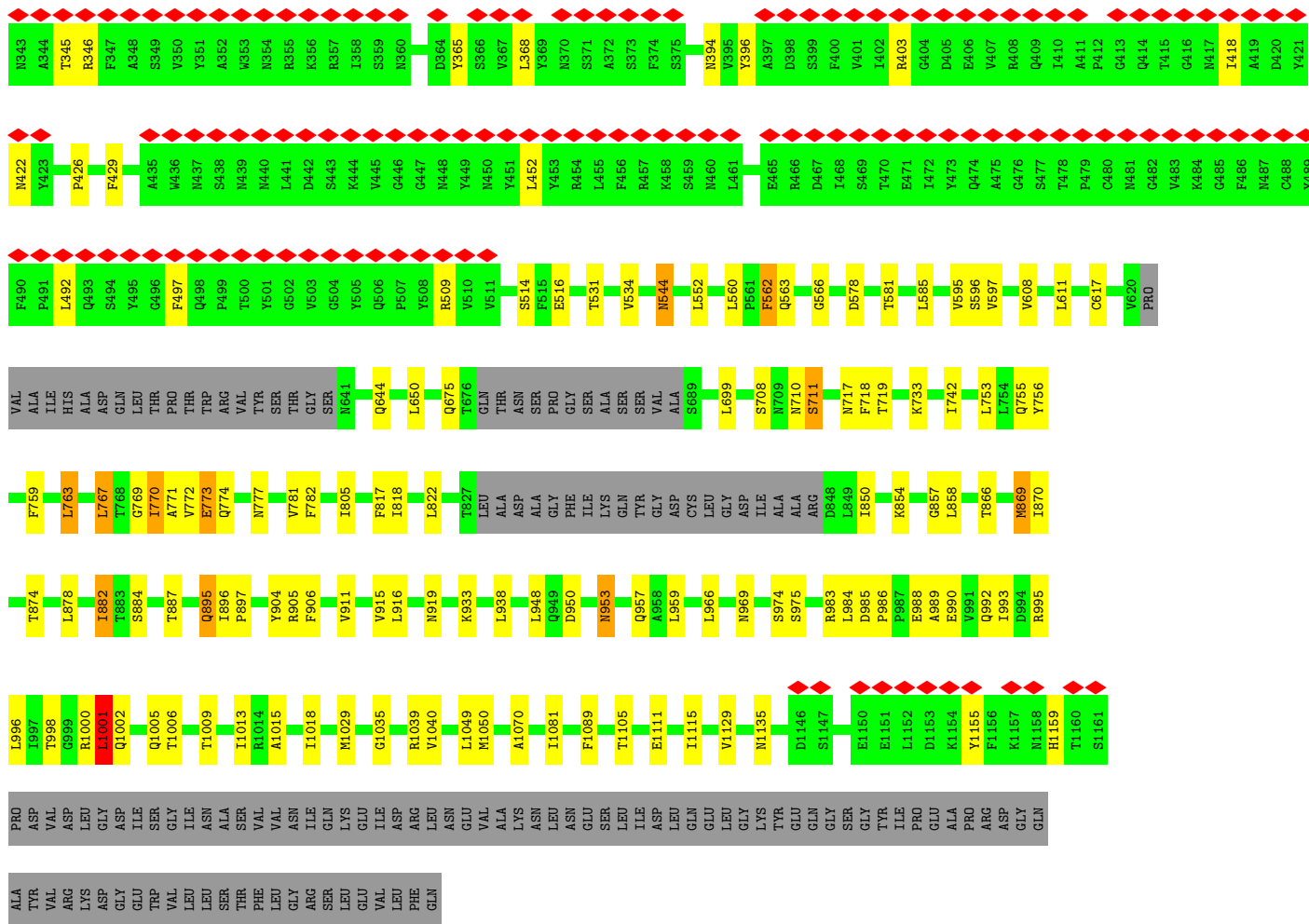


VAL  
LEU  
PHE  
GLN

• Molecule 1: Spike glycoprotein,Fibrinin

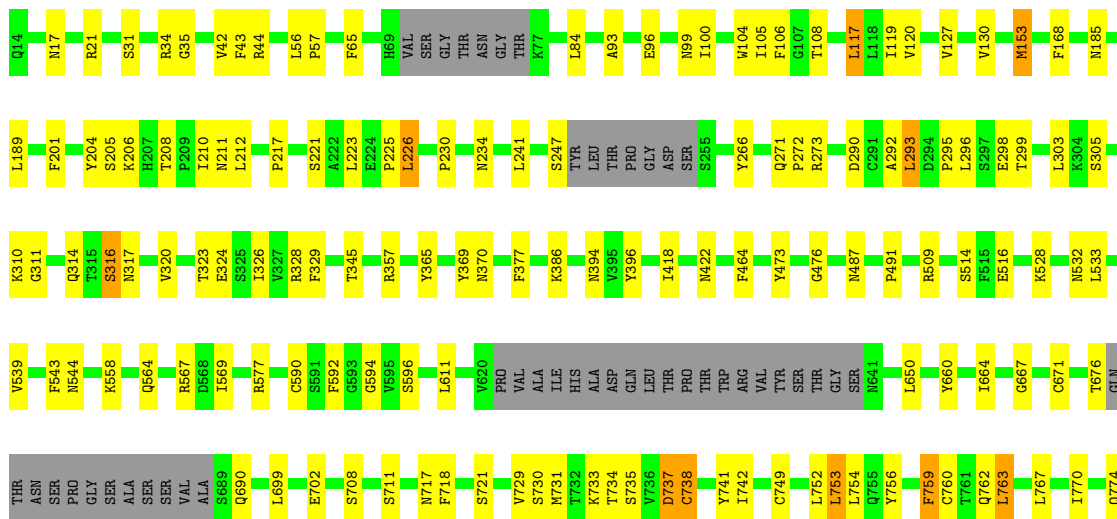
Chain 1-C:



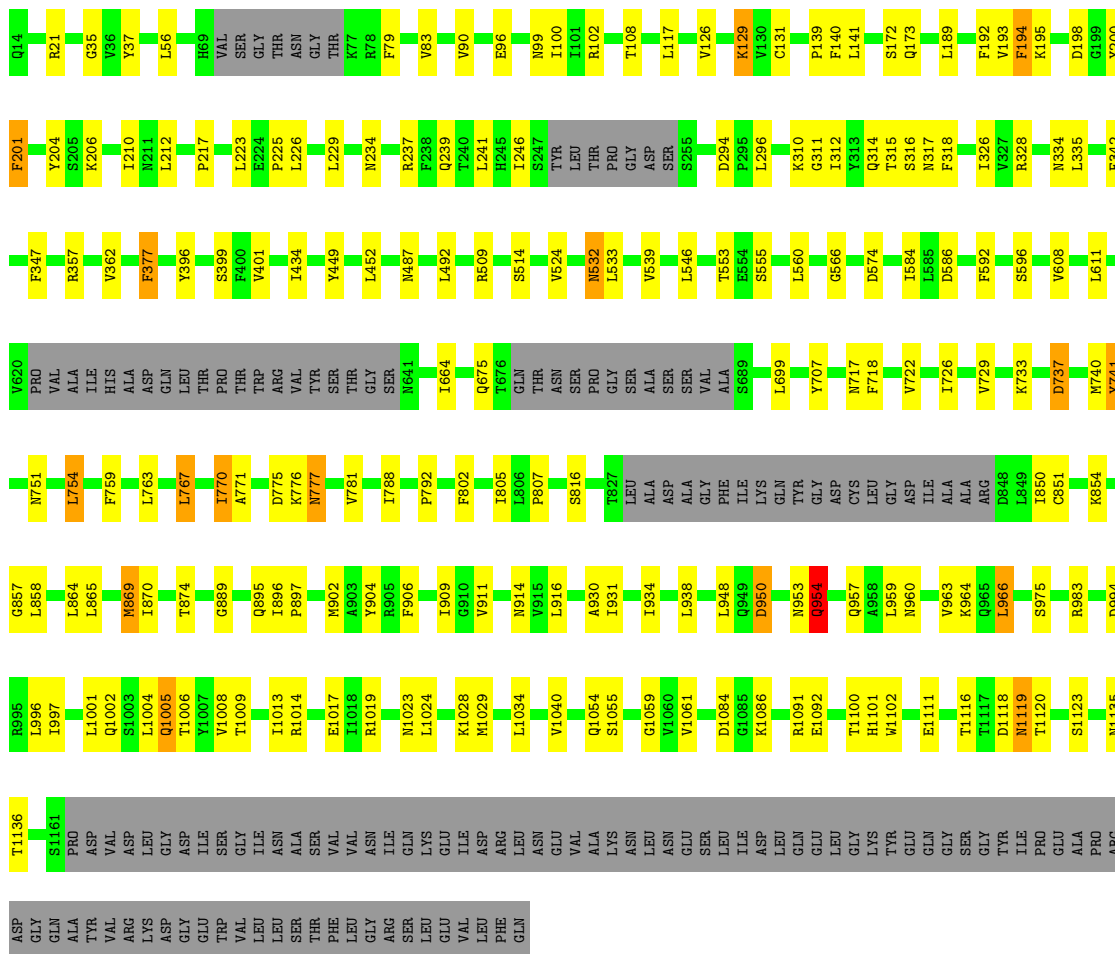


• Molecule 1: Spike glycoprotein, Fibrin

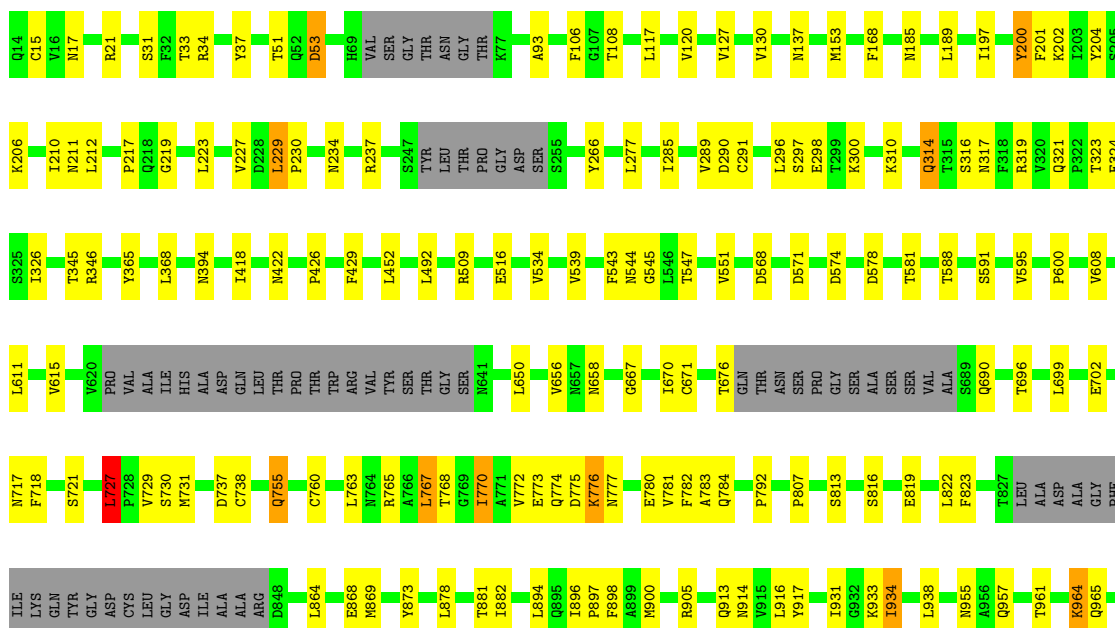
Chain 2-A:  70% 17% 12%



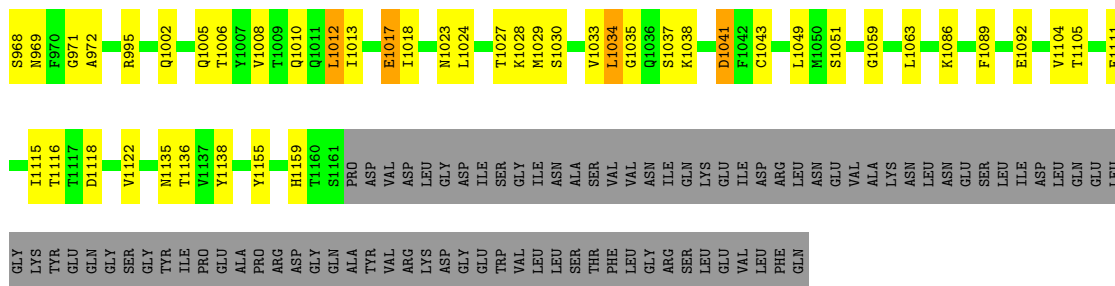




• Molecule 1: Spike glycoprotein,Fibrinin

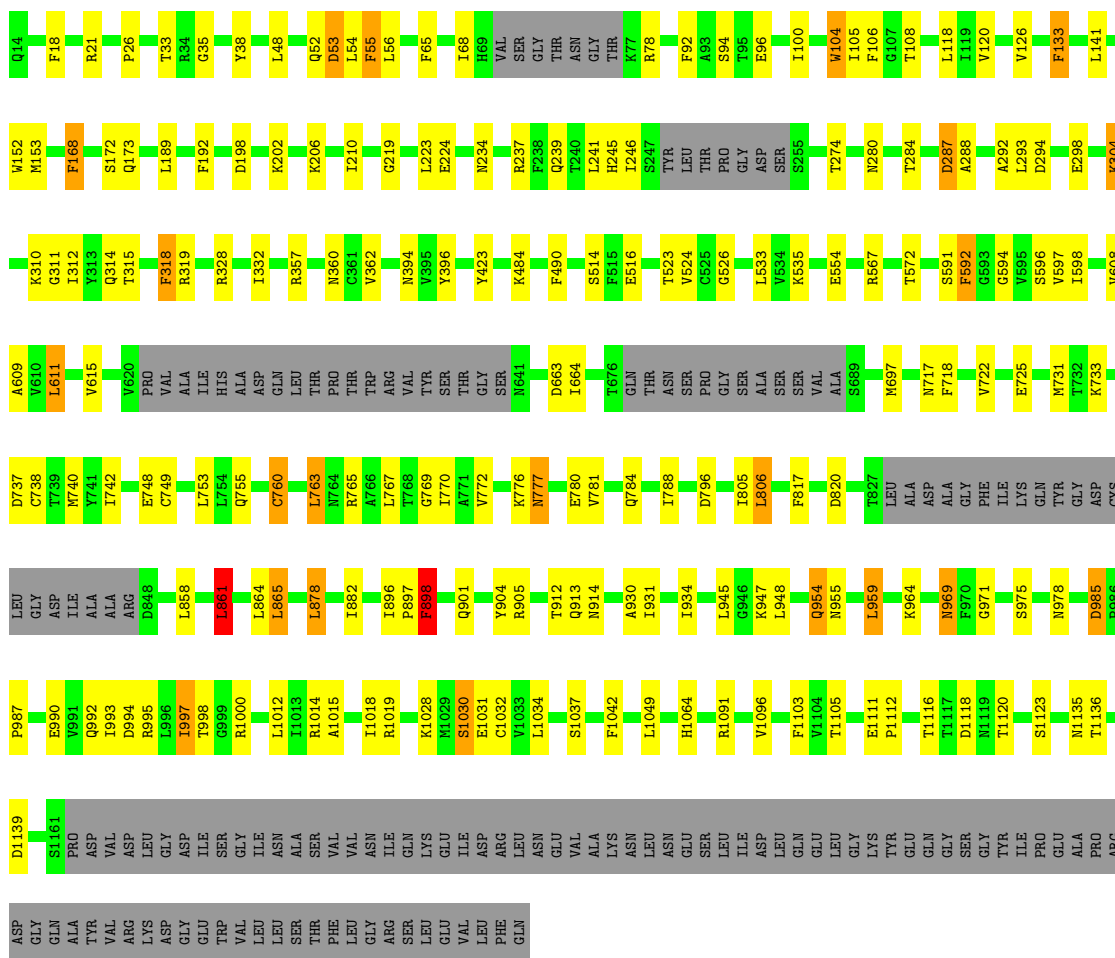






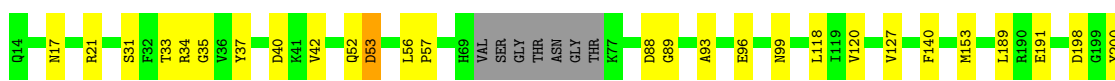
• Molecule 1: Spike glycoprotein,Fibrin

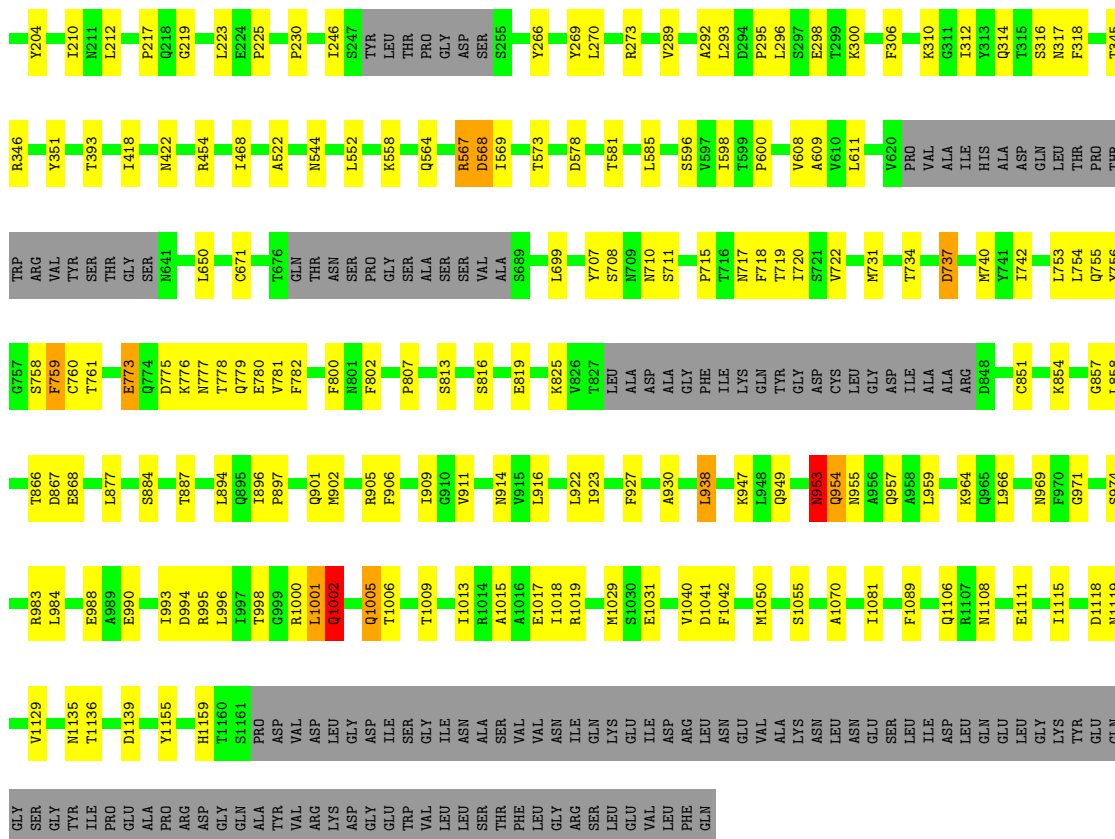
Chain 3-B: 72% 14% 12%



• Molecule 1: Spike glycoprotein,Fibrin

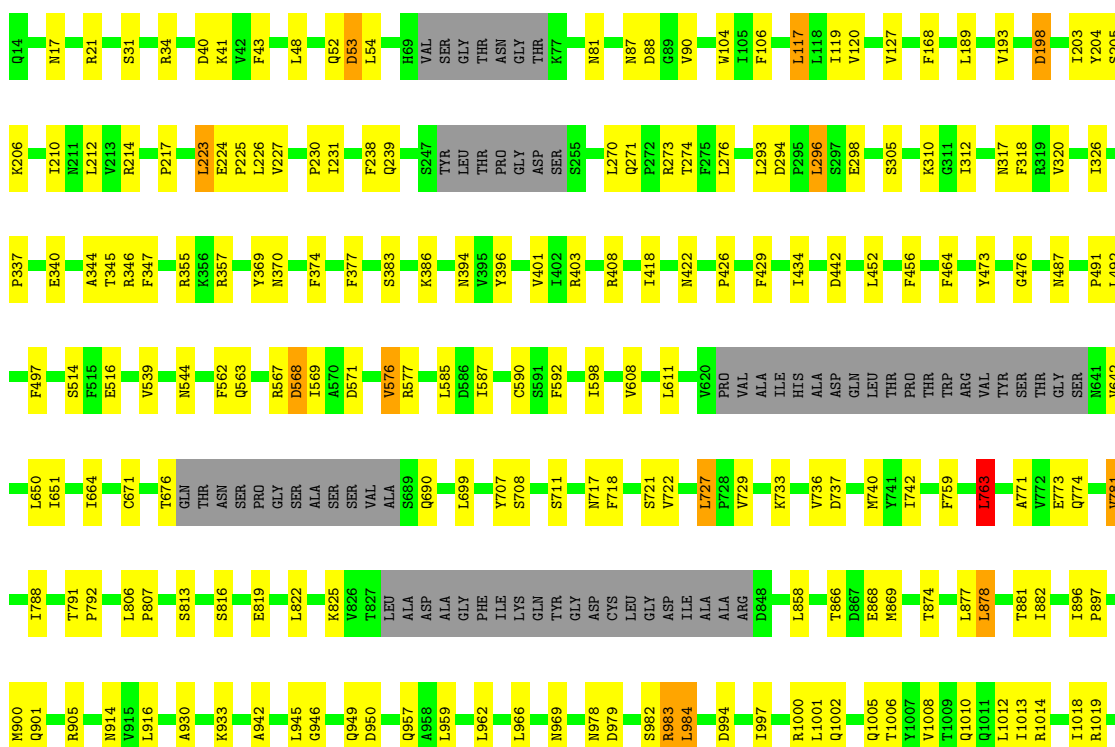
Chain 3-C: 71% 15% 12%

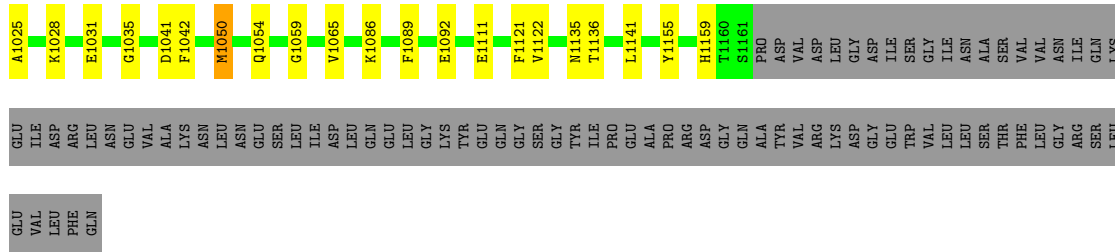




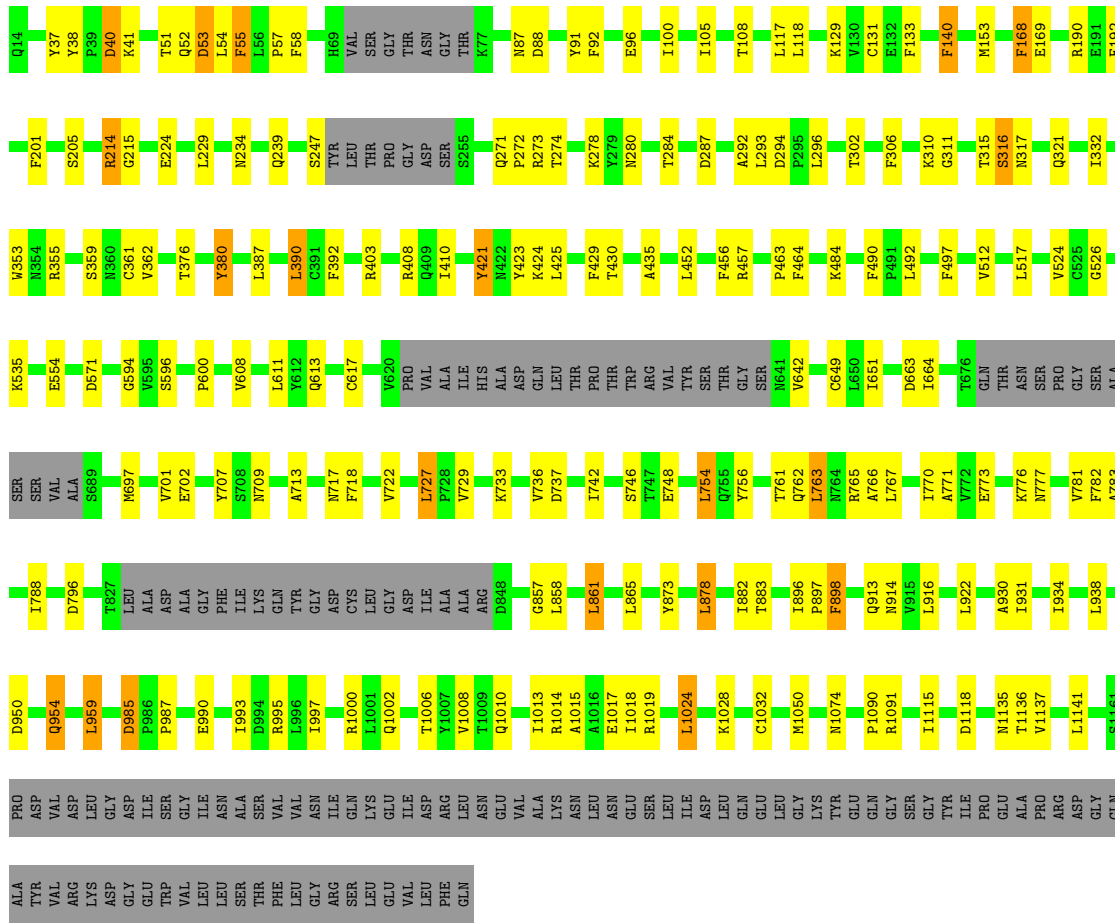
● Molecule 1: Spike glycoprotein, Fibrin

Chain 4-A: 70% 17% 12%

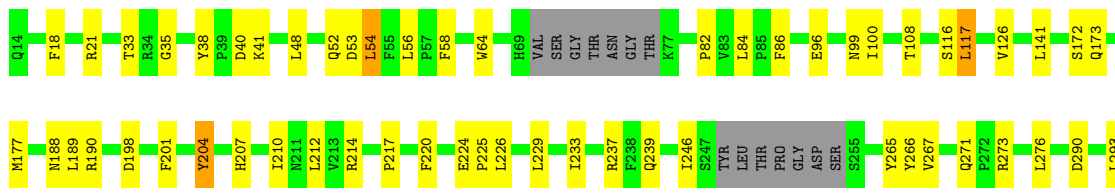


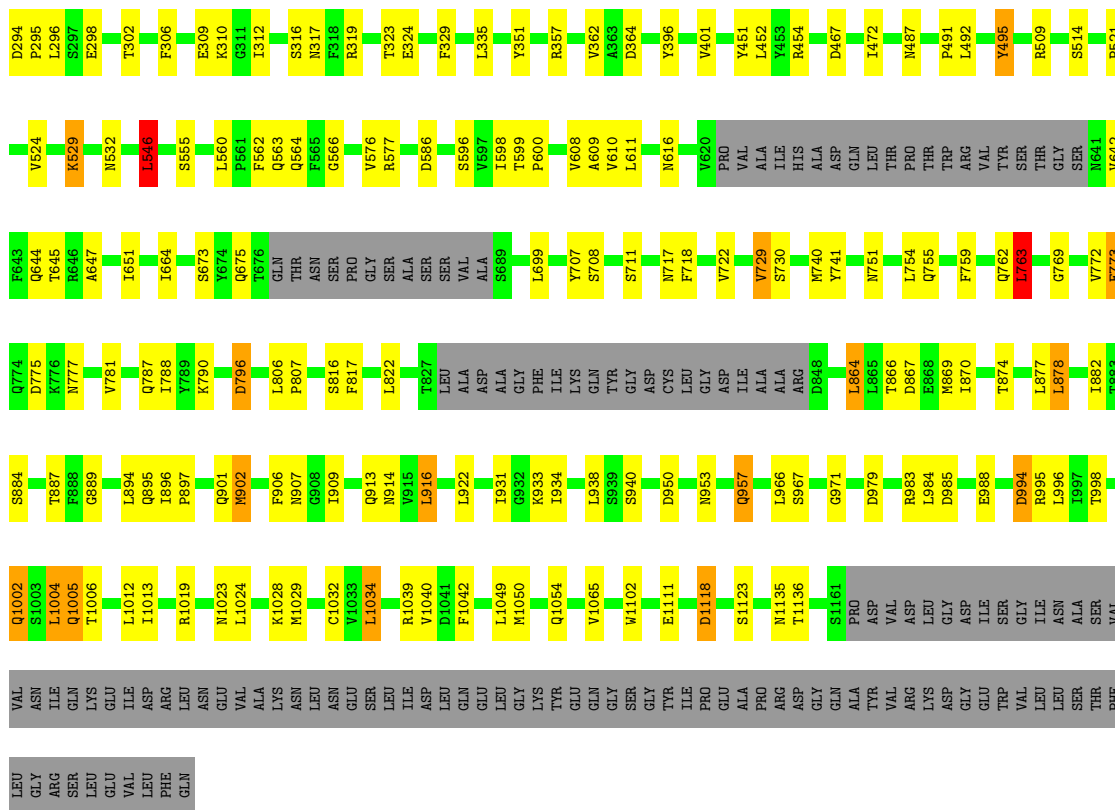


• Molecule 1: Spike glycoprotein,Fibrin



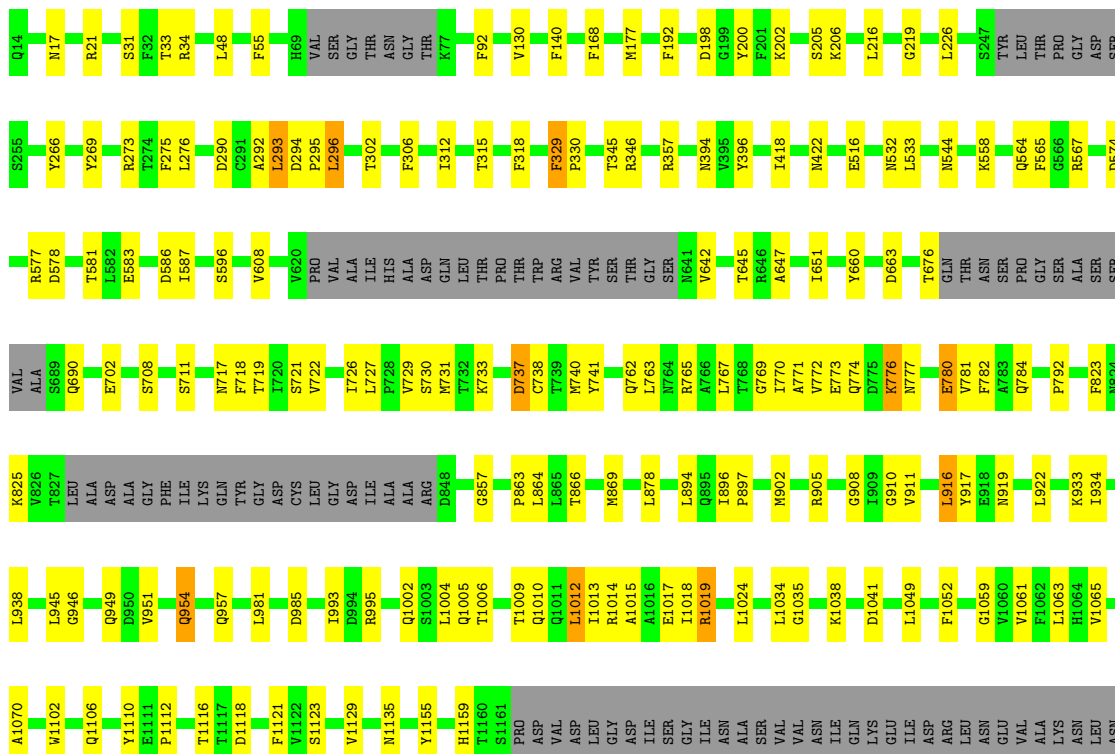
• Molecule 1: Spike glycoprotein,Fibrin



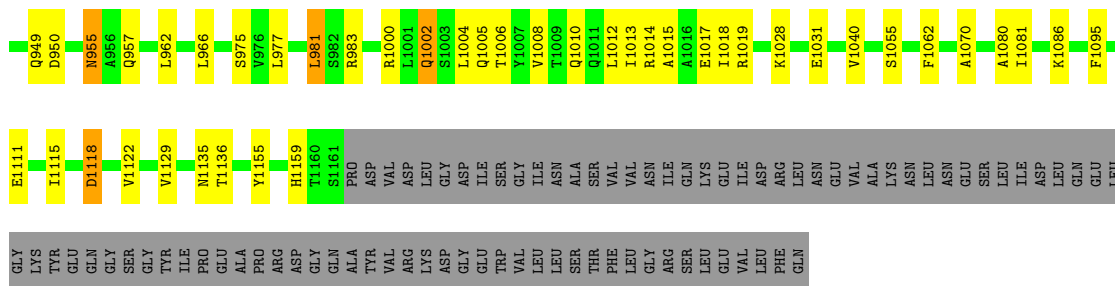


● Molecule 1: Spike glycoprotein, Fibrin

Chain 5-A:  73% 13% 12%

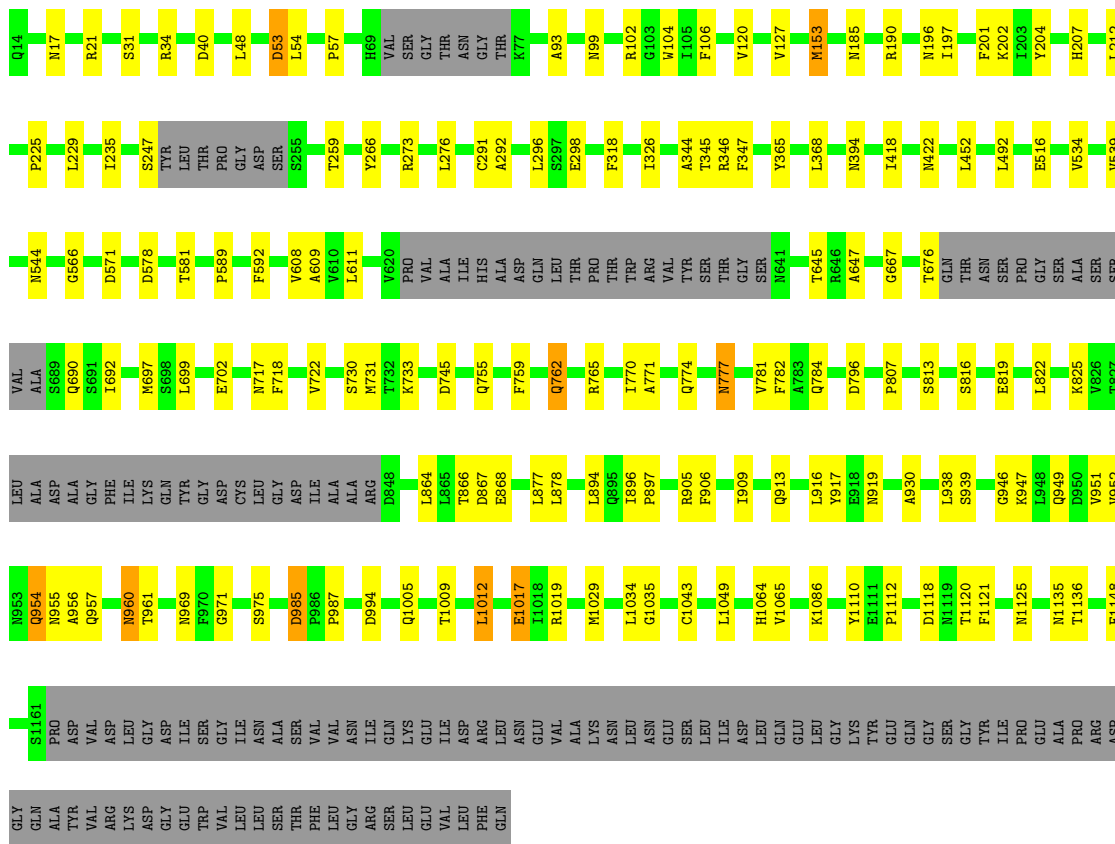






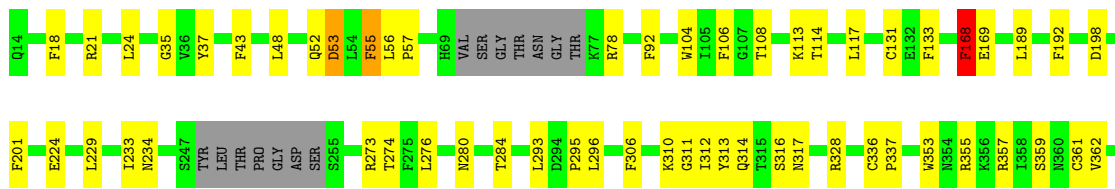
• Molecule 1: Spike glycoprotein,Fibritin

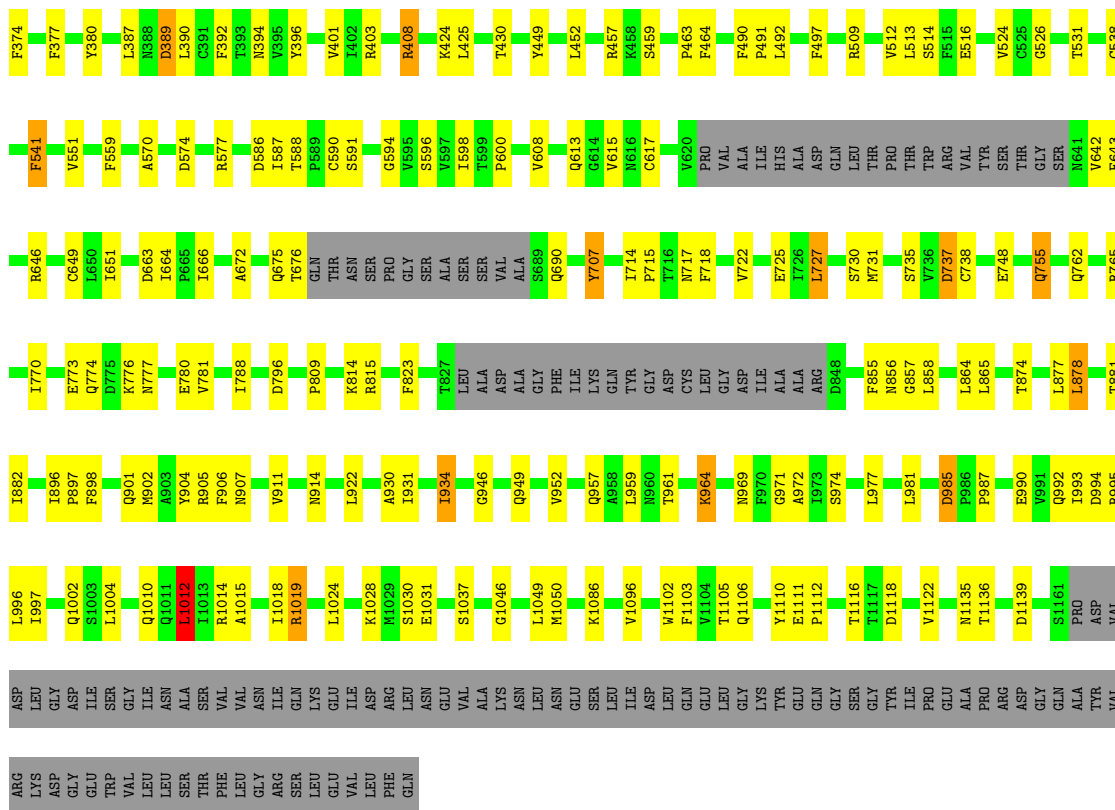
Chain 6-A: 75% 12% 12%



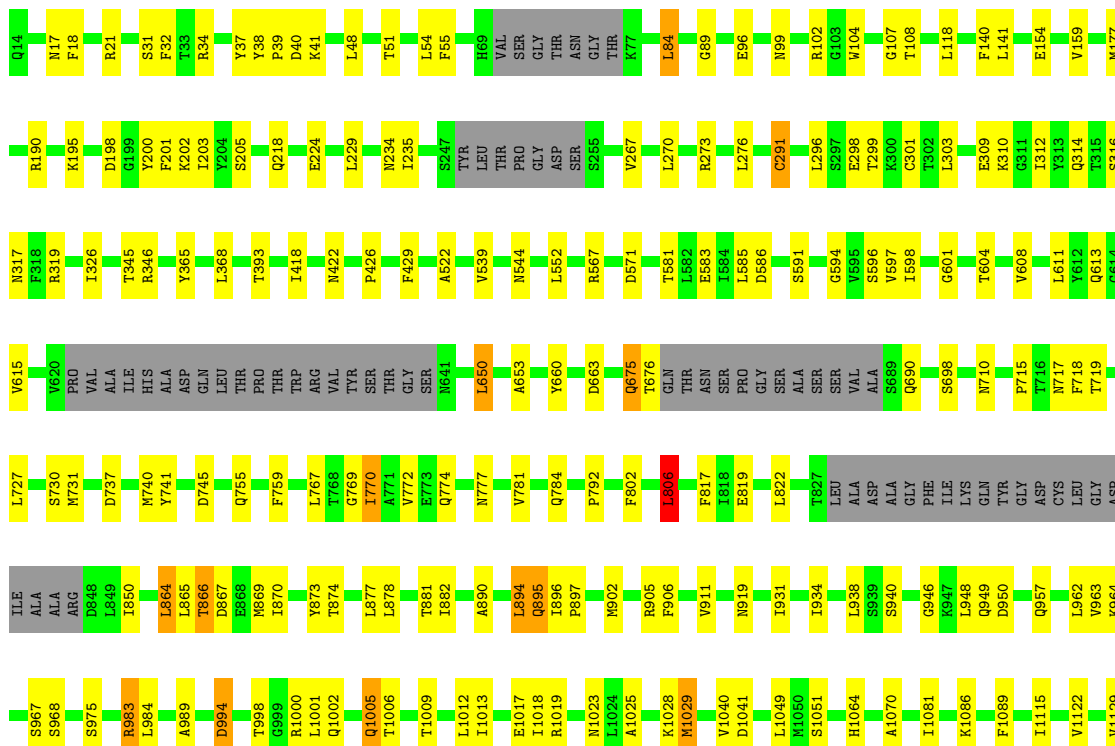
• Molecule 1: Spike glycoprotein,Fibritin

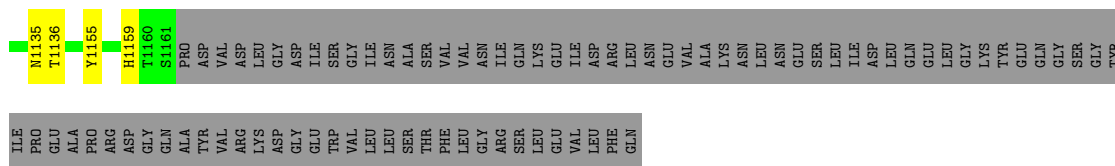
Chain 6-B: 69% 17% 12%





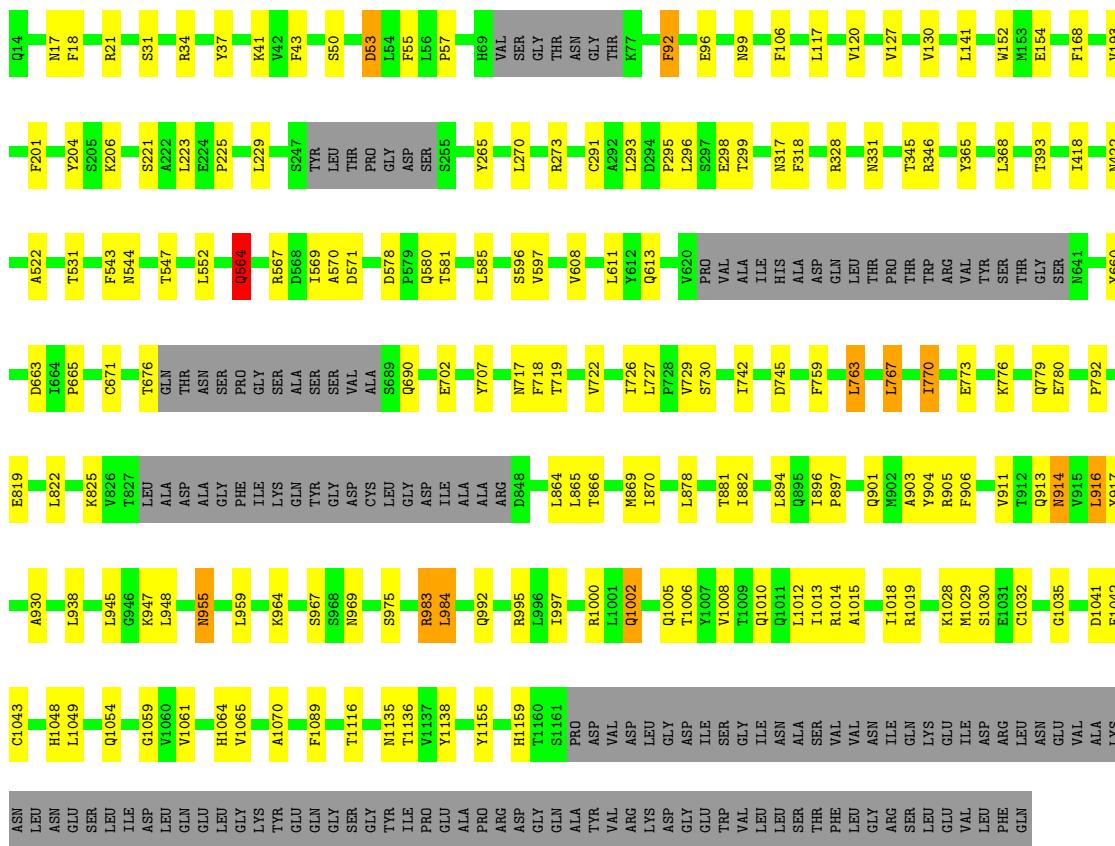
• Molecule 1: Spike glycoprotein, Fibrin





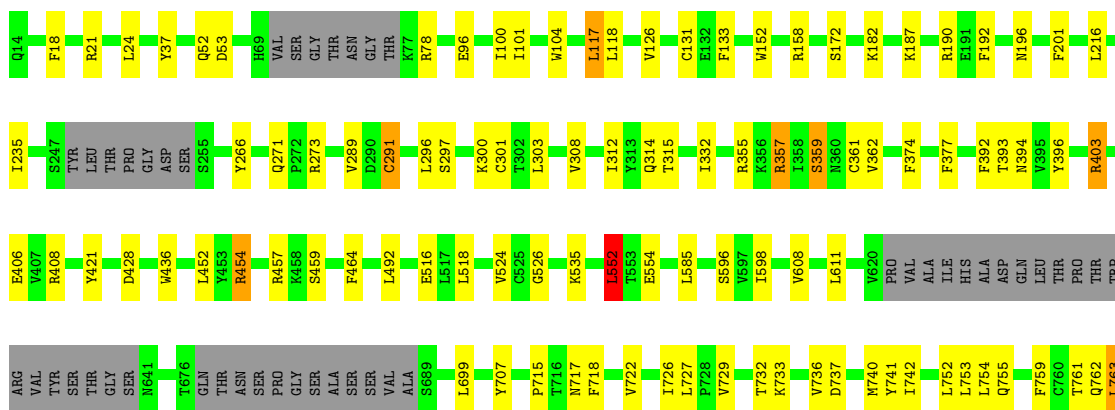
• Molecule 1: Spike glycoprotein,Fibrin

Chain 7-A: 74% 13% 12%

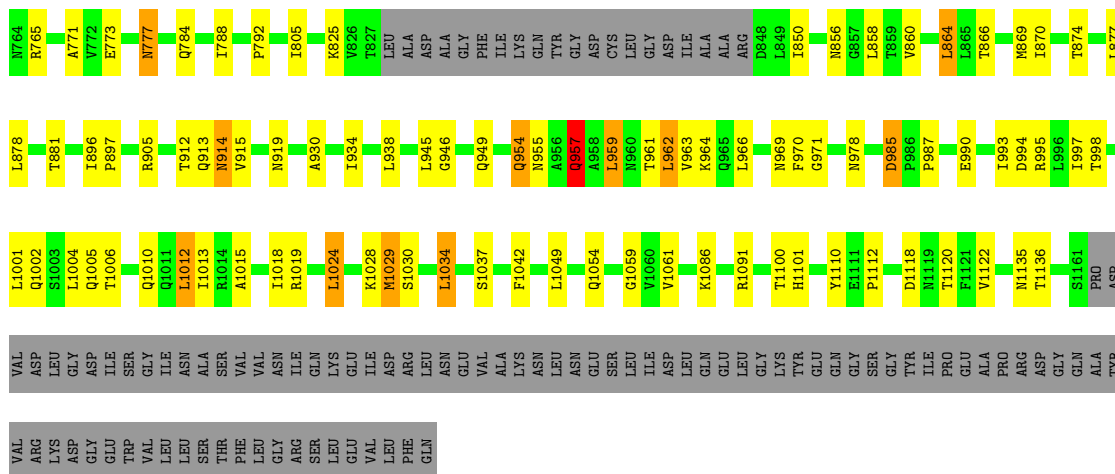


• Molecule 1: Spike glycoprotein,Fibrin

Chain 7-B: 72% 14% 12%

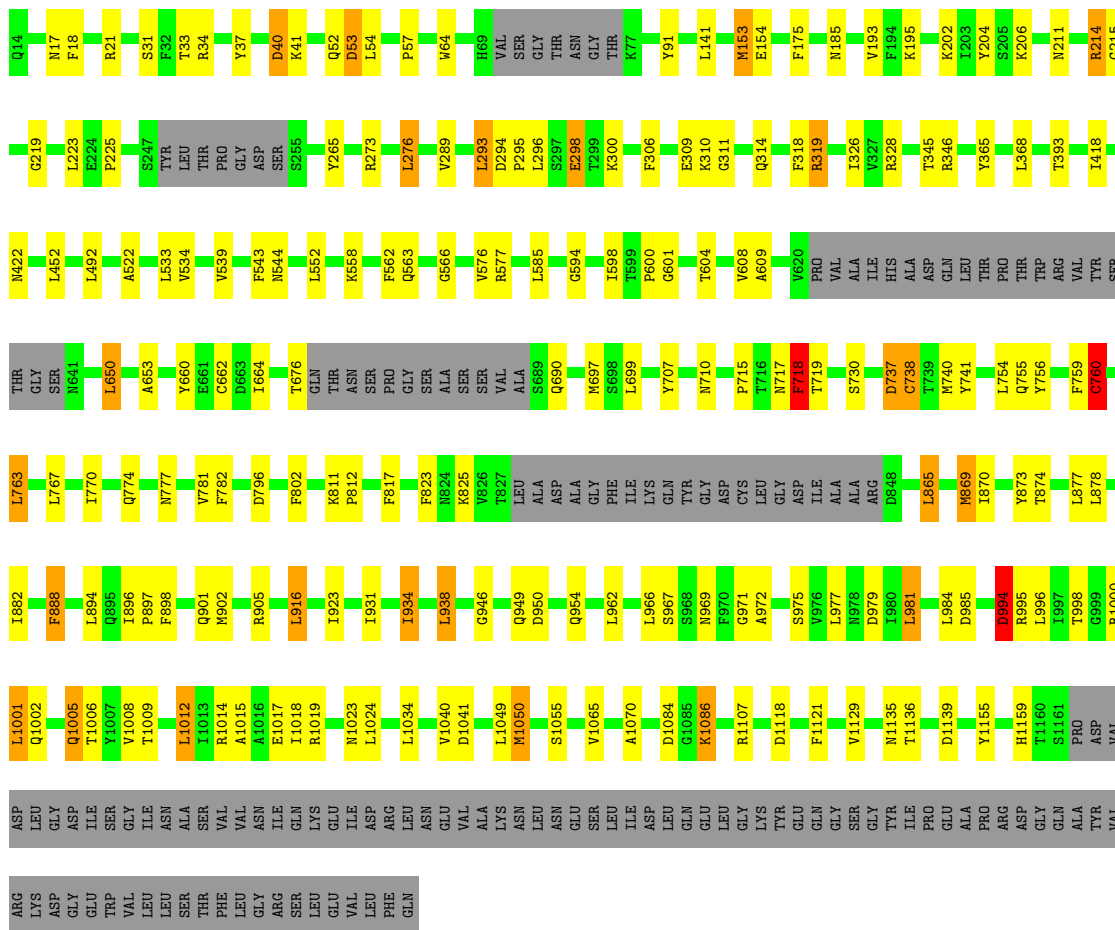






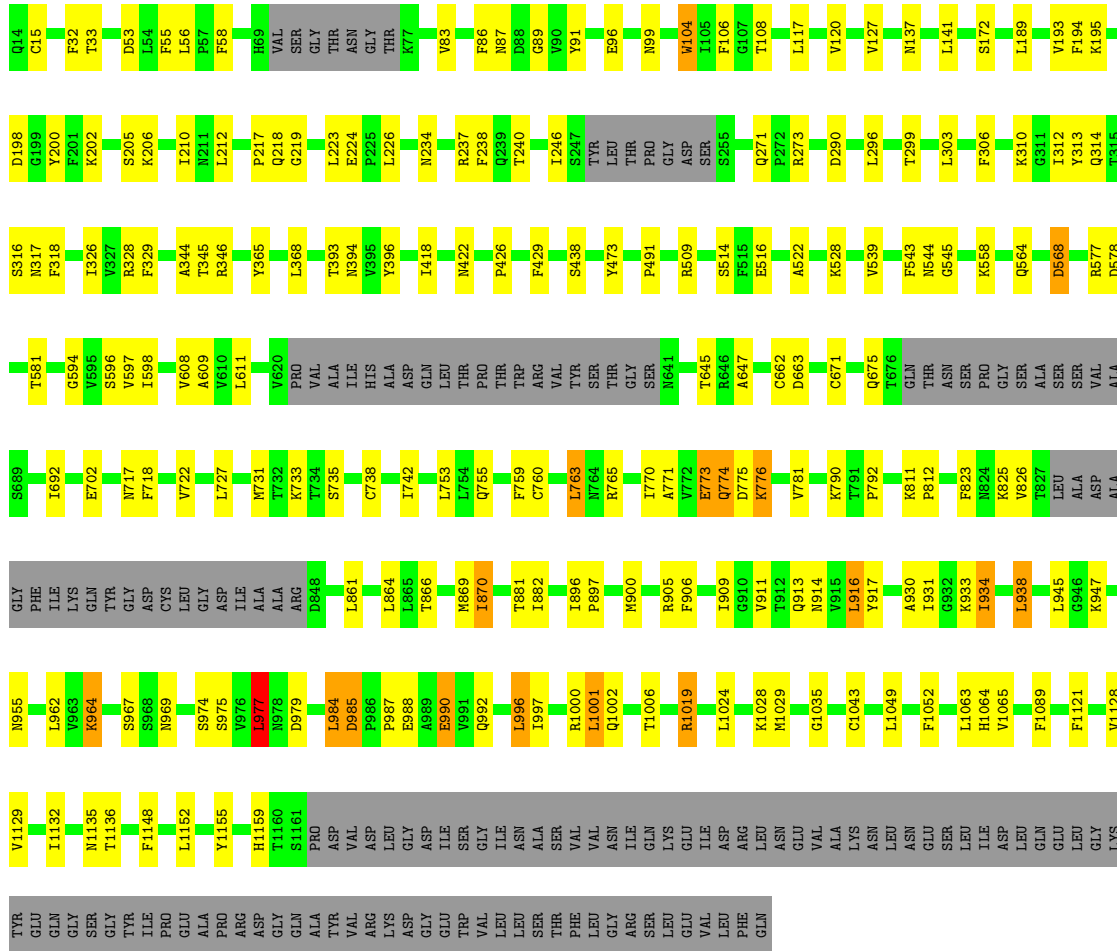
● Molecule 1: Spike glycoprotein,Fibrin

Chain 7-C: 72% 14% 12%

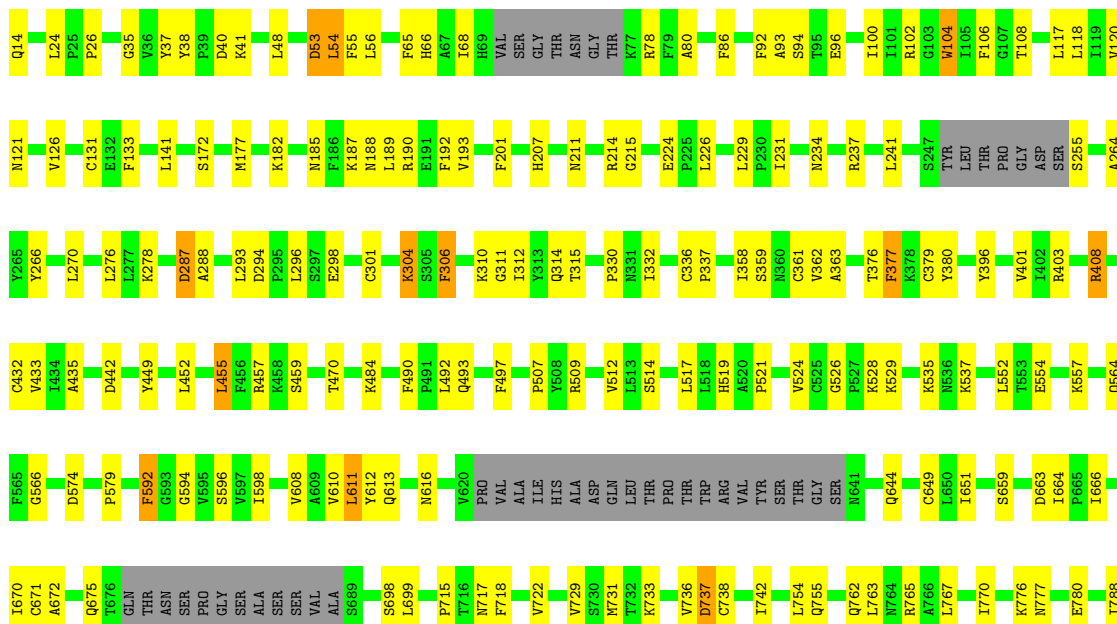


● Molecule 1: Spike glycoprotein,Fibrin

Chain 8-A: 71% 15% 12%

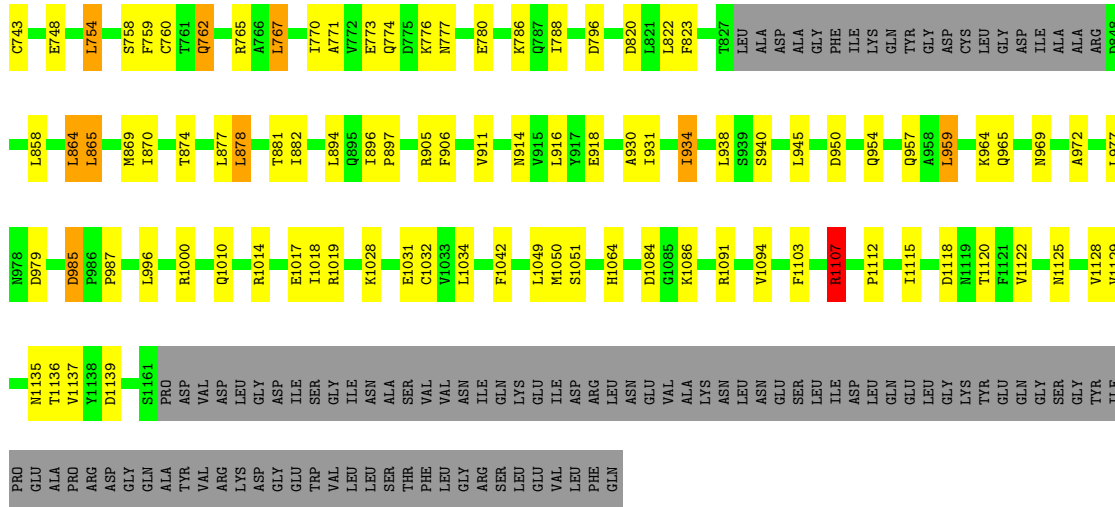


• Molecule 1: Spike glycoprotein, Fibrin

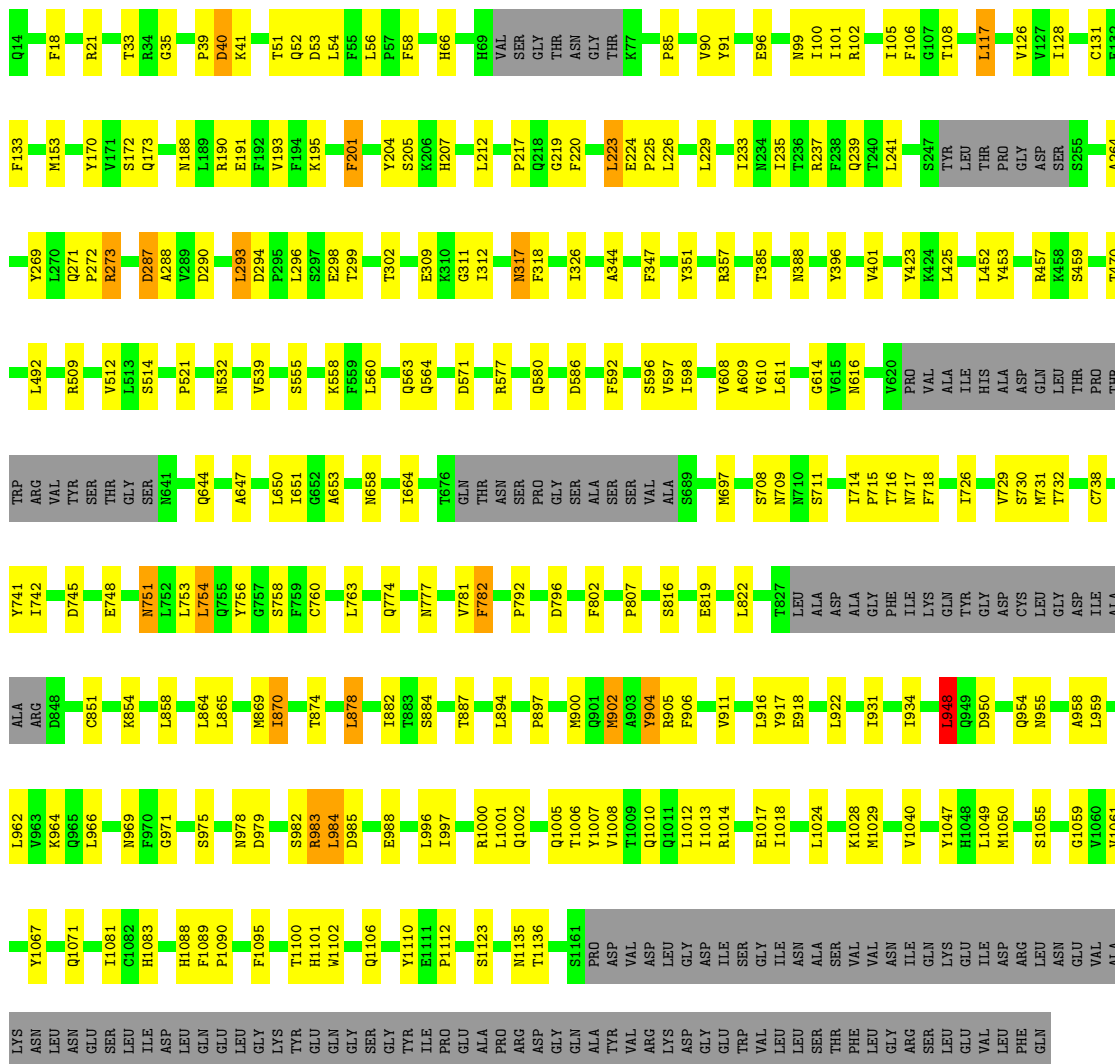






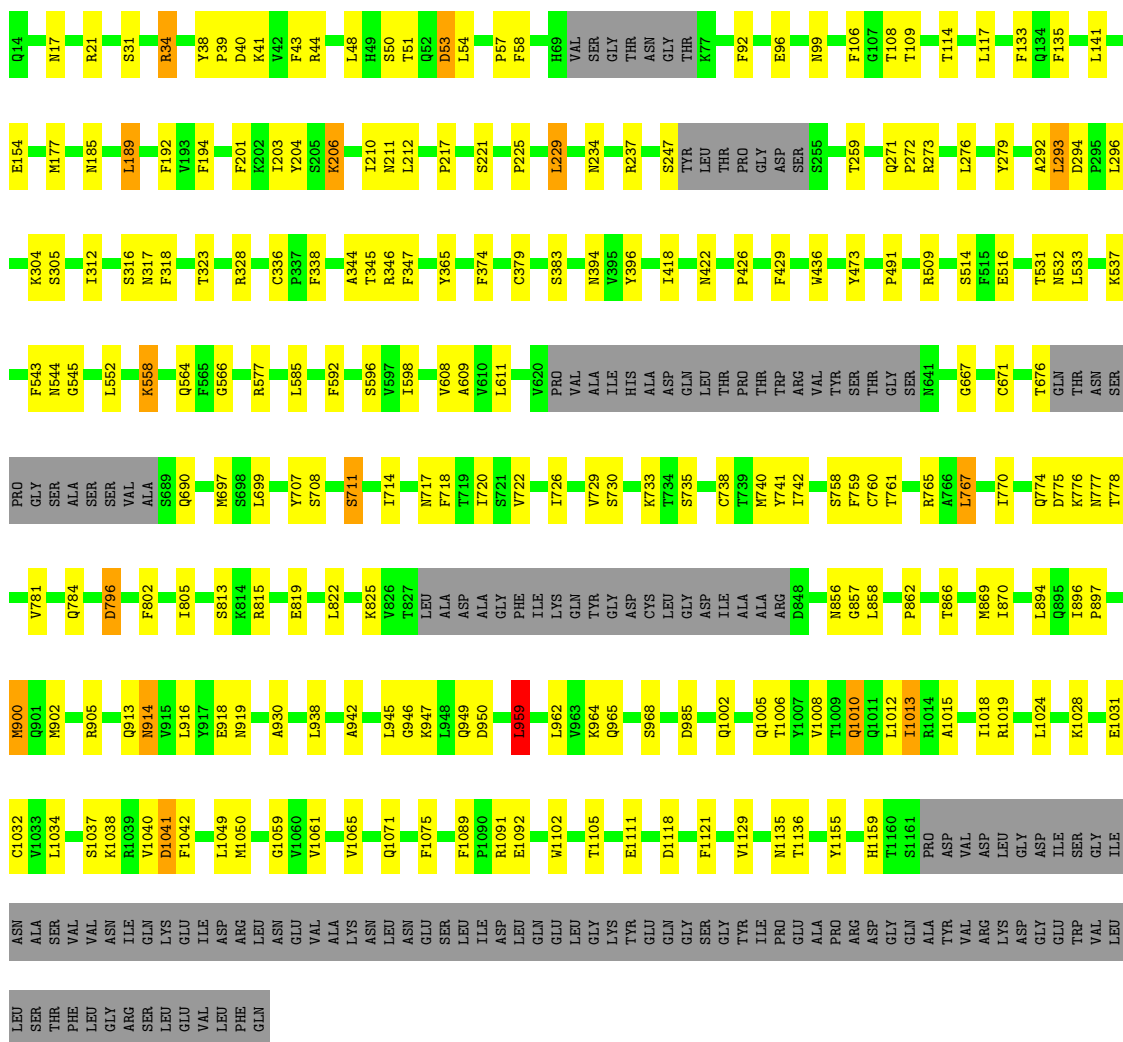


● Molecule 1: Spike glycoprotein,Fibrinin



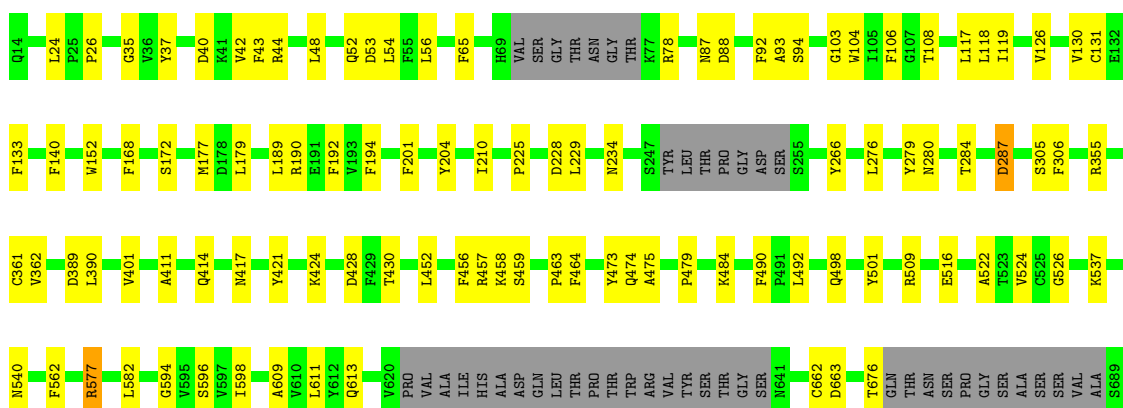
Molecule 1: Spike glycoprotein,Fibrin

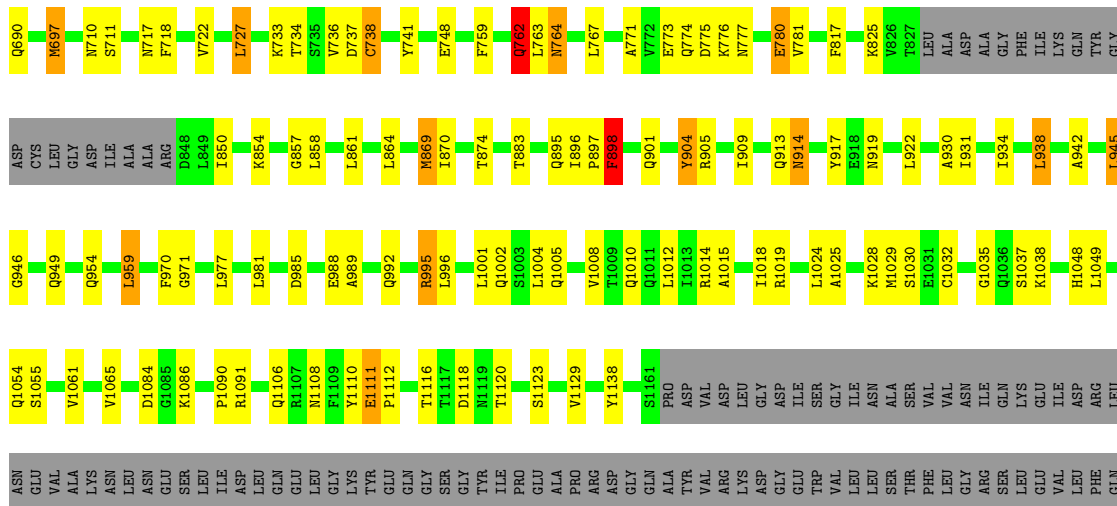
Chain 10-A: 70% 17% 12%



Molecule 1: Spike glycoprotein,Fibrin

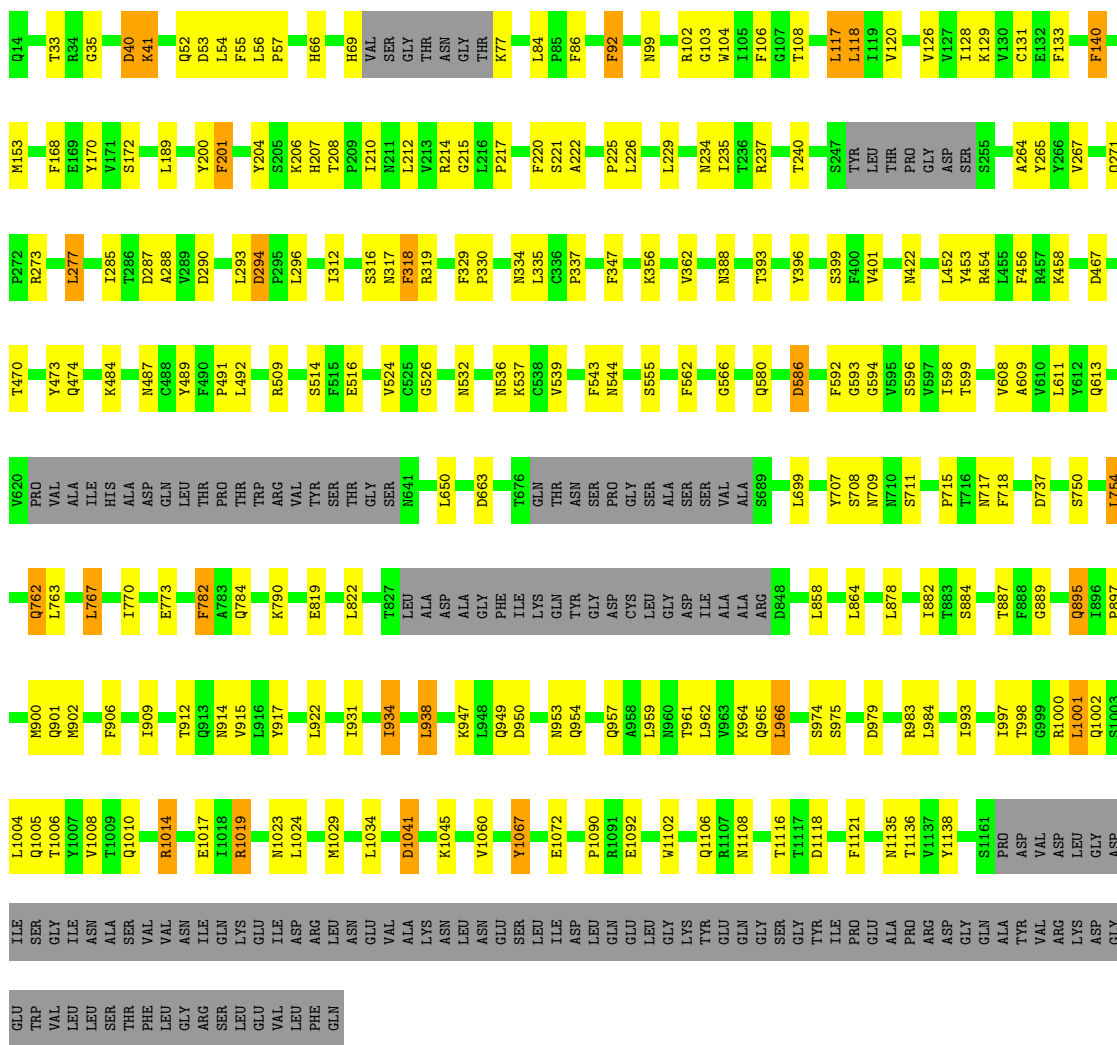
Chain 10-B: 70% 16% 12%





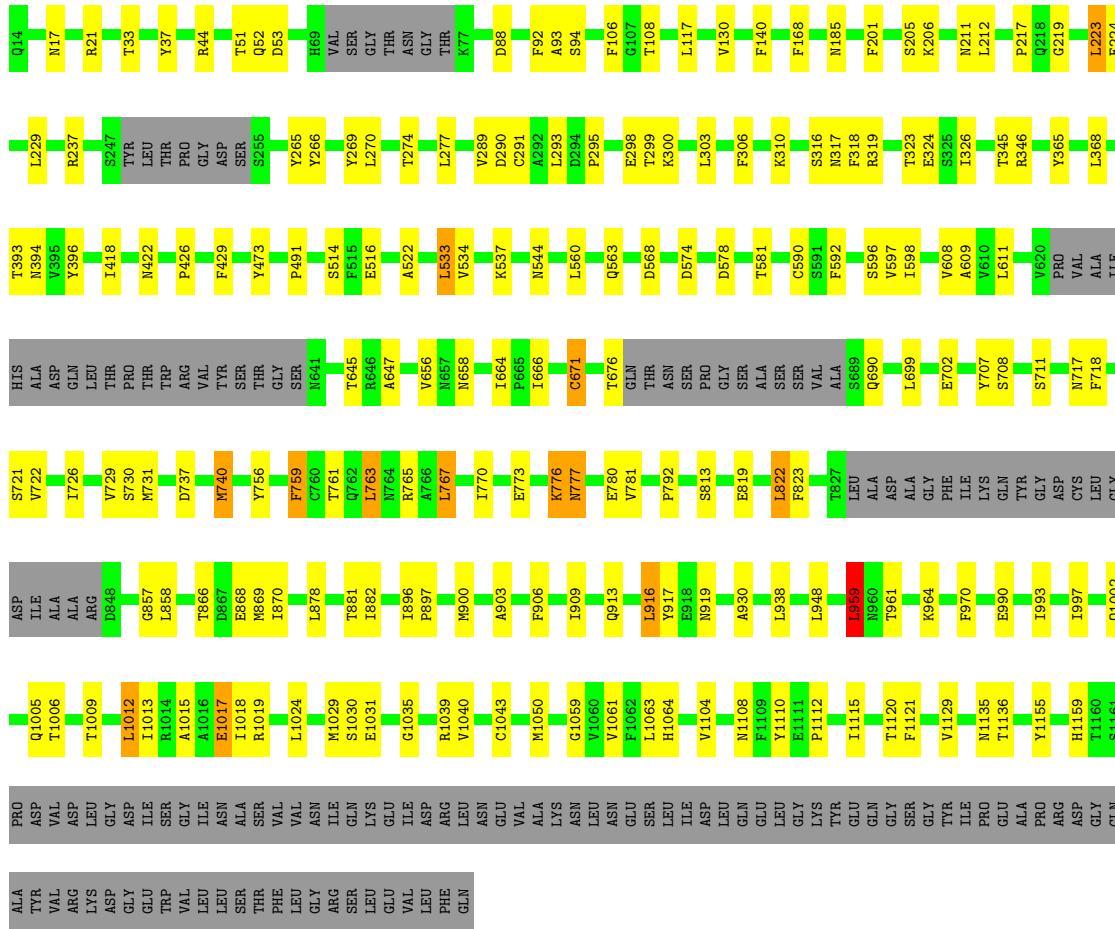
• Molecule 1: Spike glycoprotein,Fibrinin

Chain 10-C: 69% 16% 12%



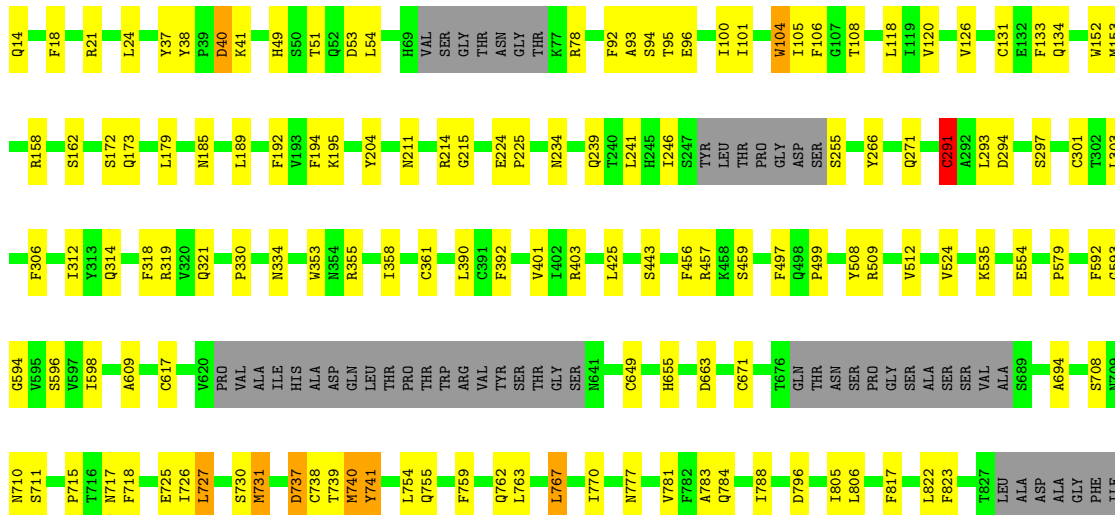
• Molecule 1: Spike glycoprotein,Fibrin

Chain 11-A: 72% 15% 12%

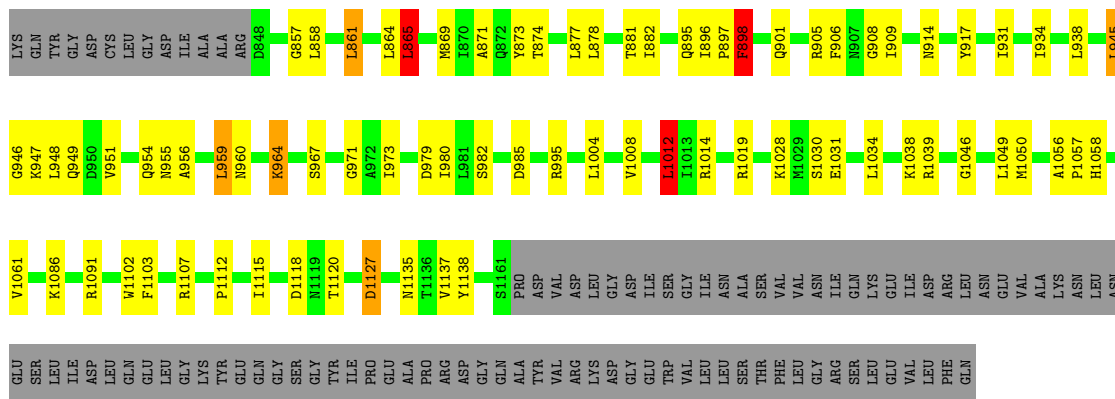


• Molecule 1: Spike glycoprotein,Fibrin

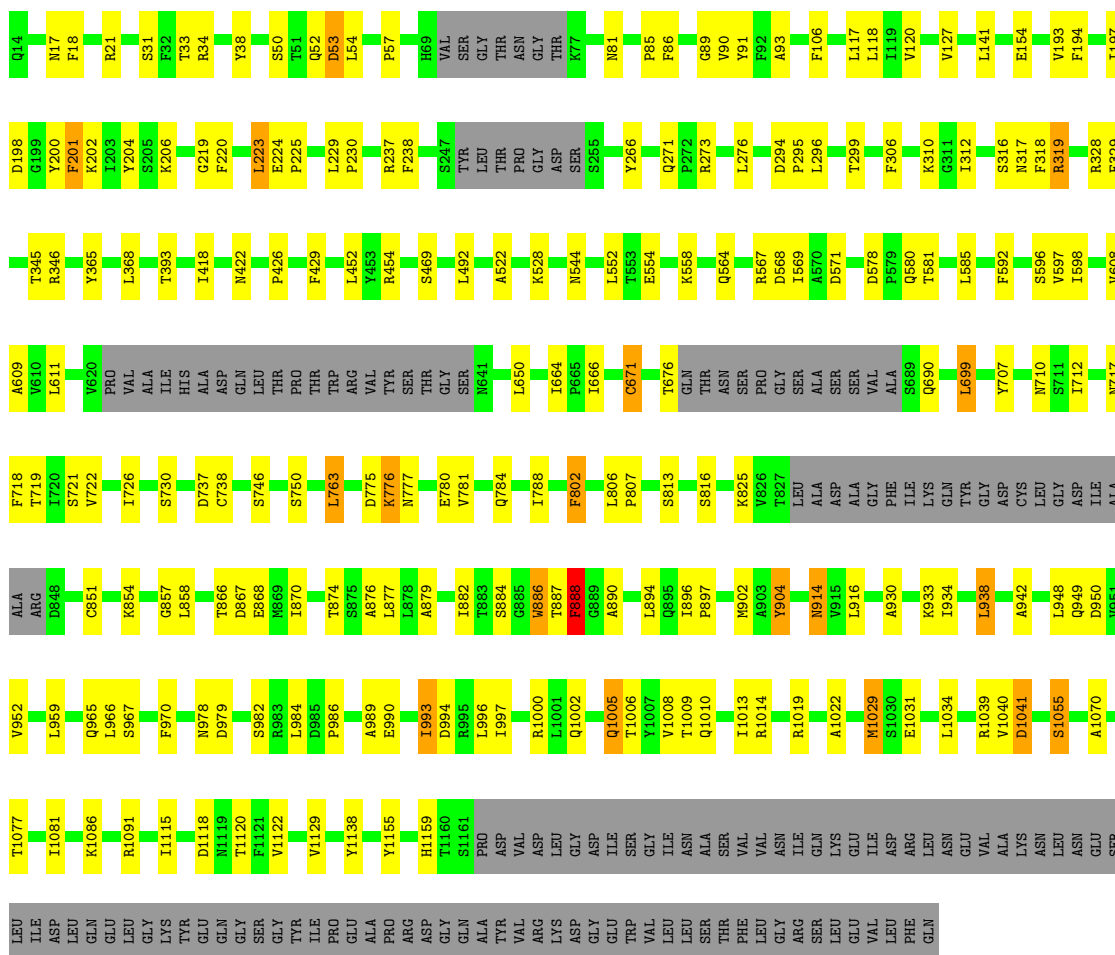
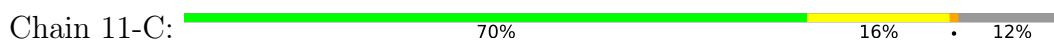
Chain 11-B: 70% 16% 12%



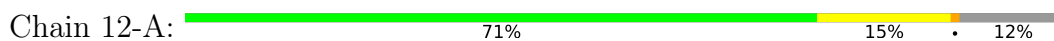




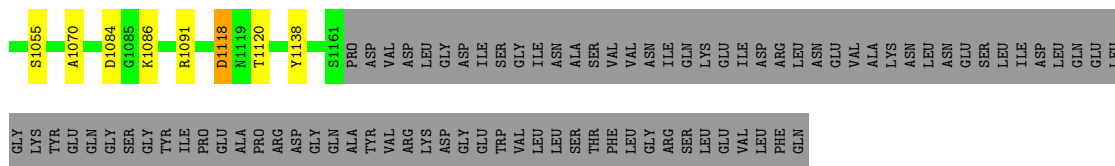
• Molecule 1: Spike glycoprotein, Fibrin



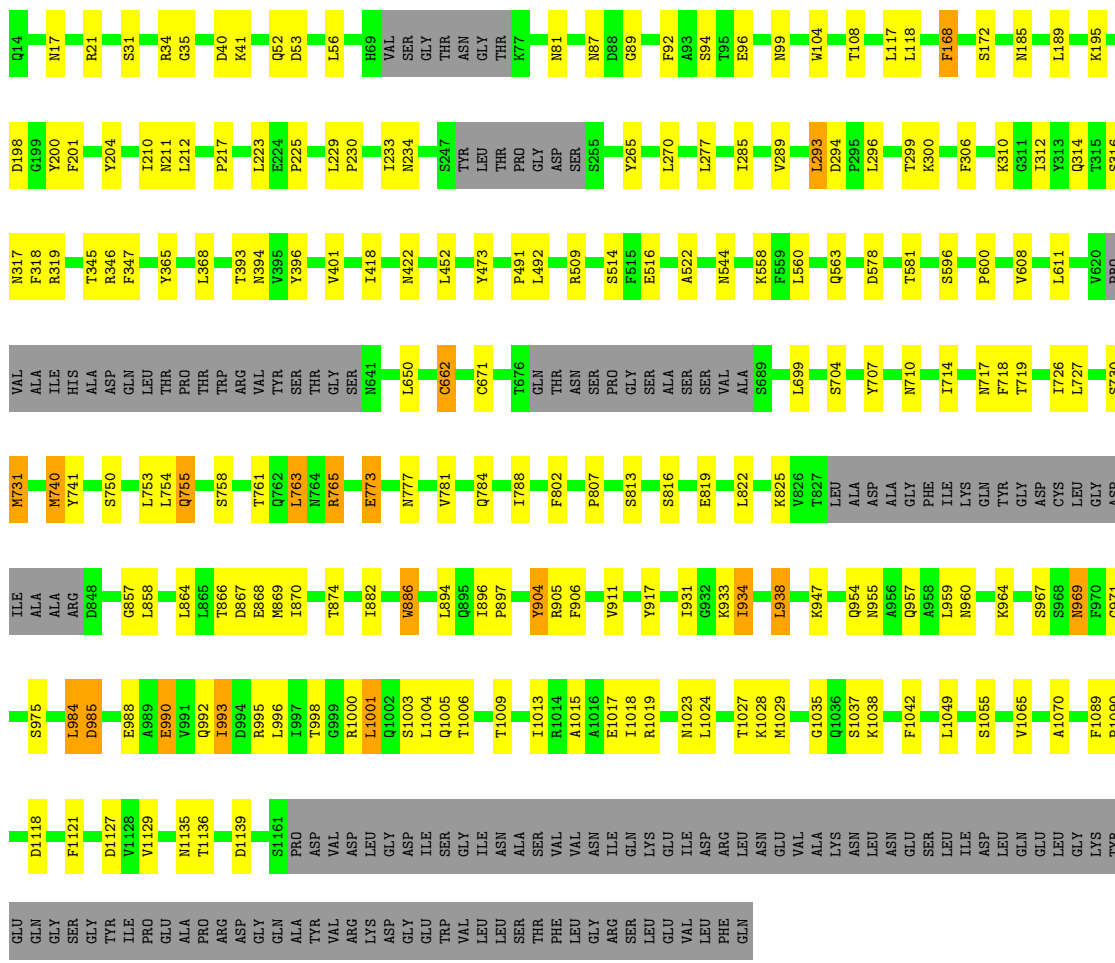
• Molecule 1: Spike glycoprotein, Fibrin



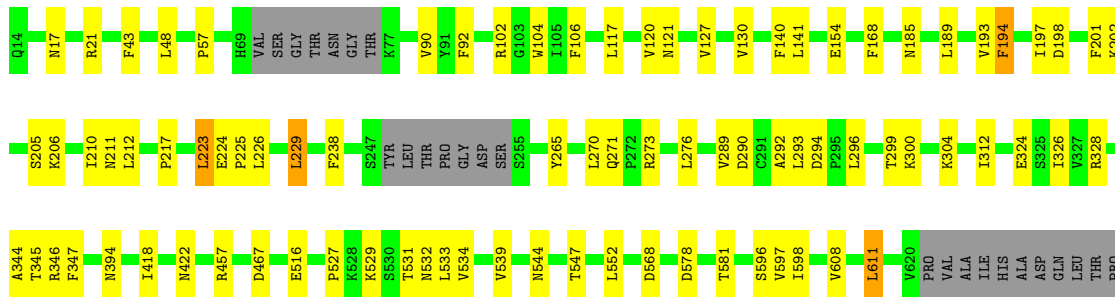
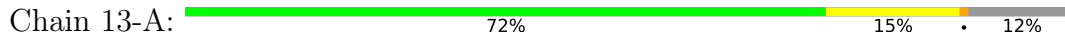




● Molecule 1: Spike glycoprotein,Fibrin



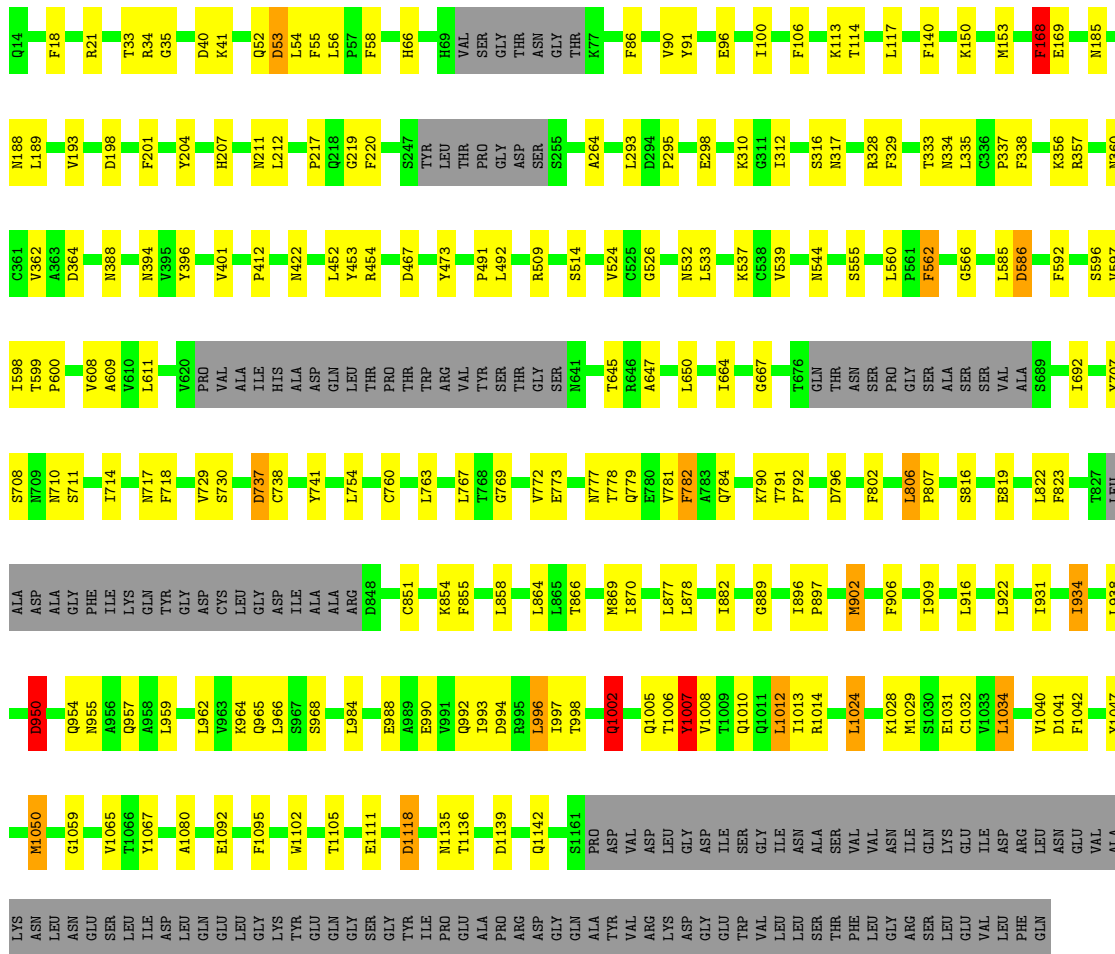
● Molecule 1: Spike glycoprotein,Fibrin





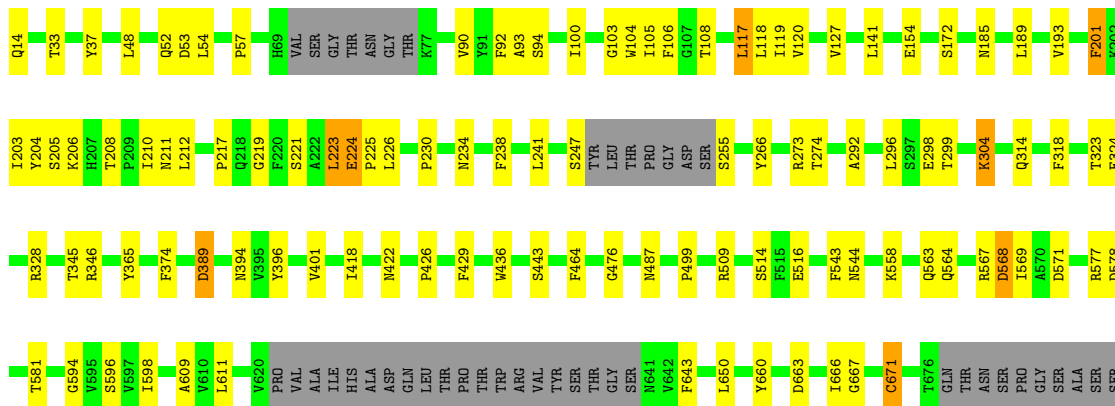
● Molecule 1: Spike glycoprotein,Fibrin

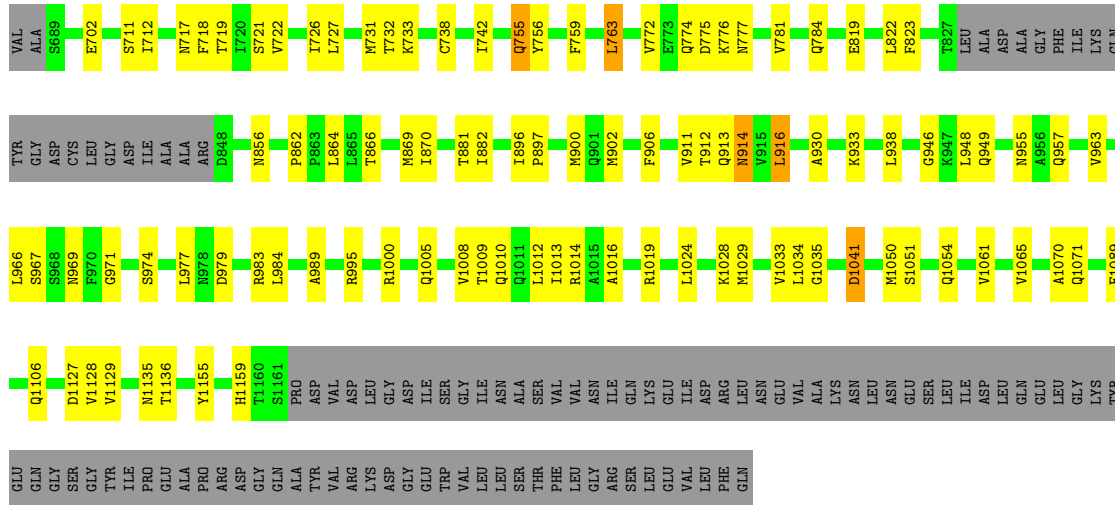
Chain 13-C: 70% 16% 12%



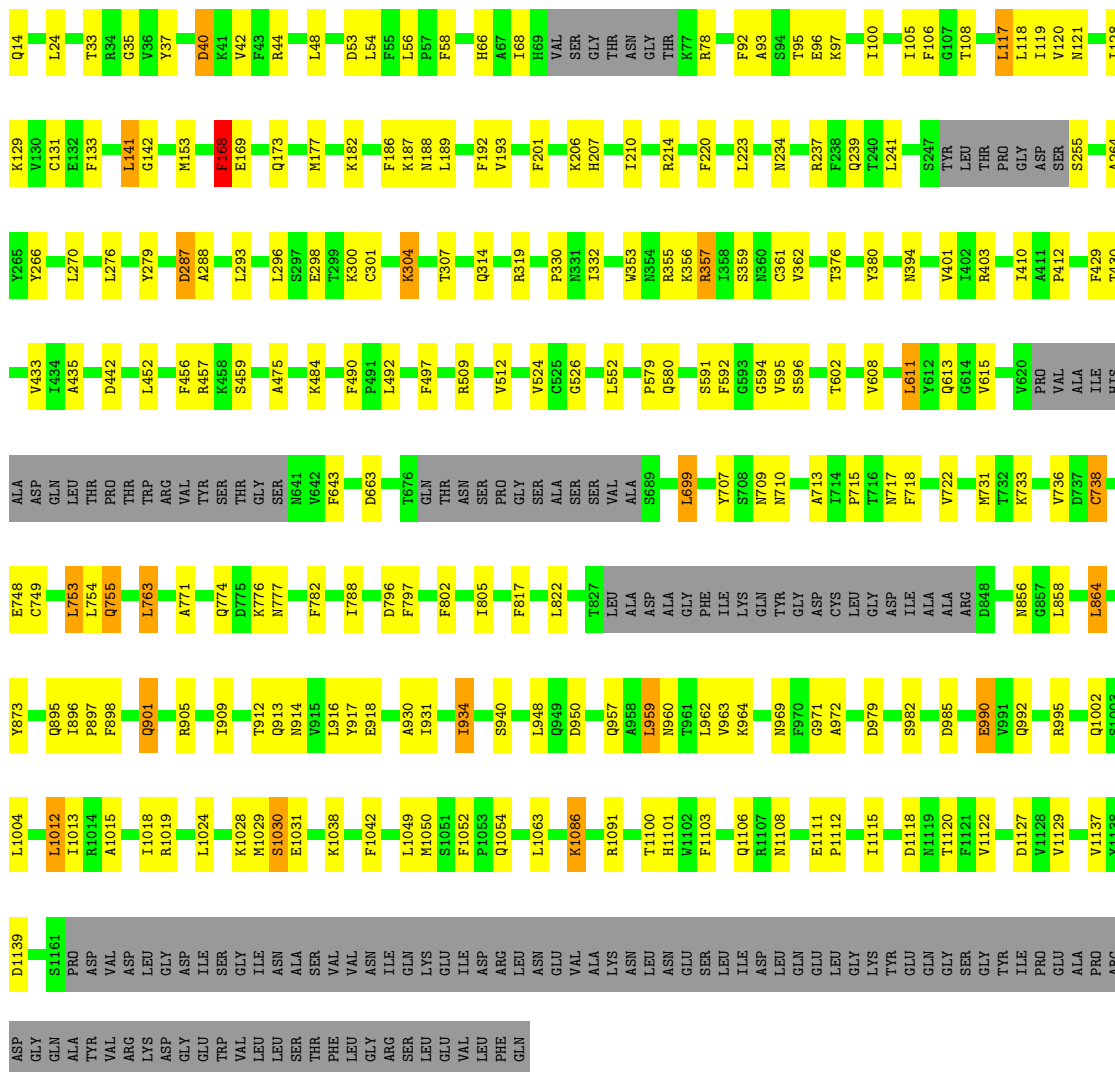
● Molecule 1: Spike glycoprotein,Fibrin

Chain 14-A: 71% 16% 12%

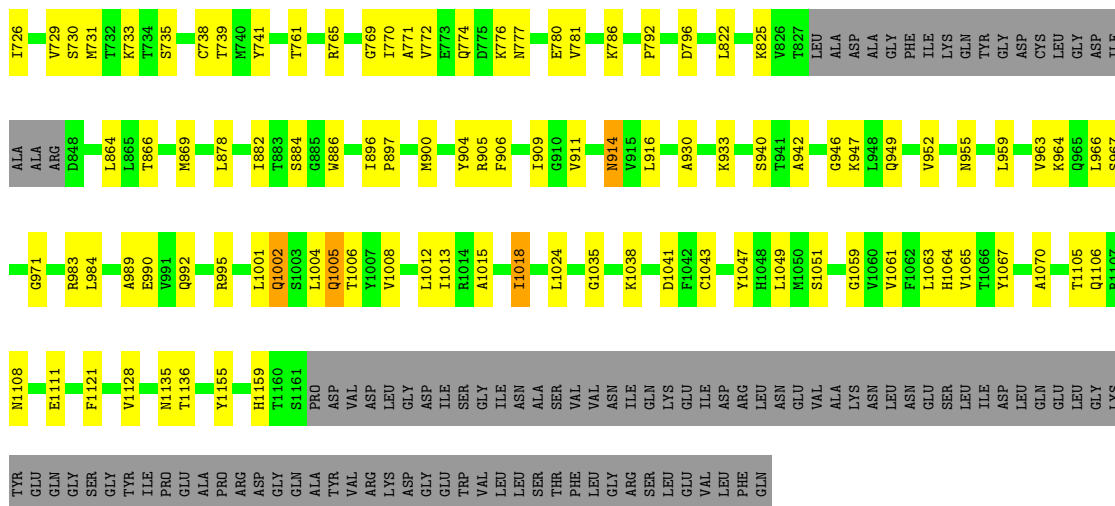




• Molecule 1: Spike glycoprotein, Fibrin

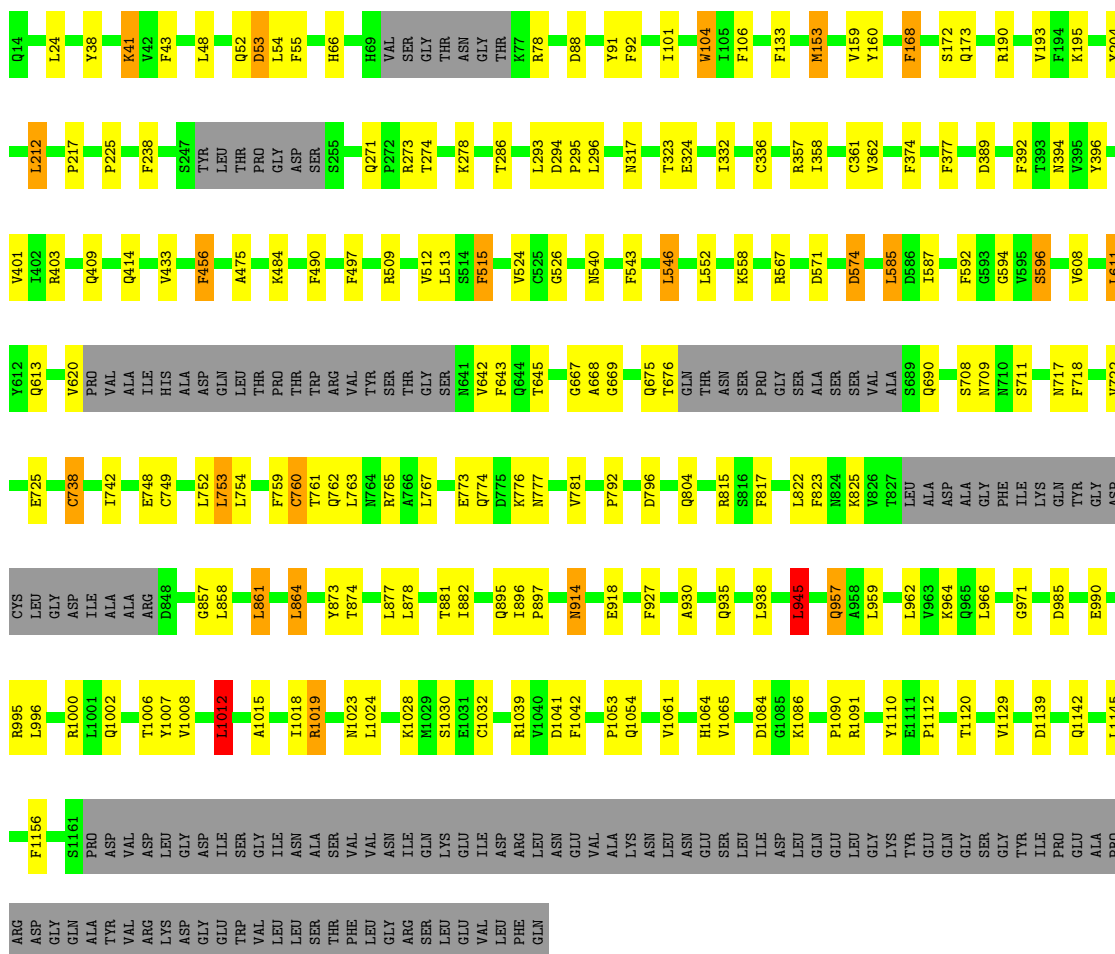






● Molecule 1: Spike glycoprotein, Fibrin

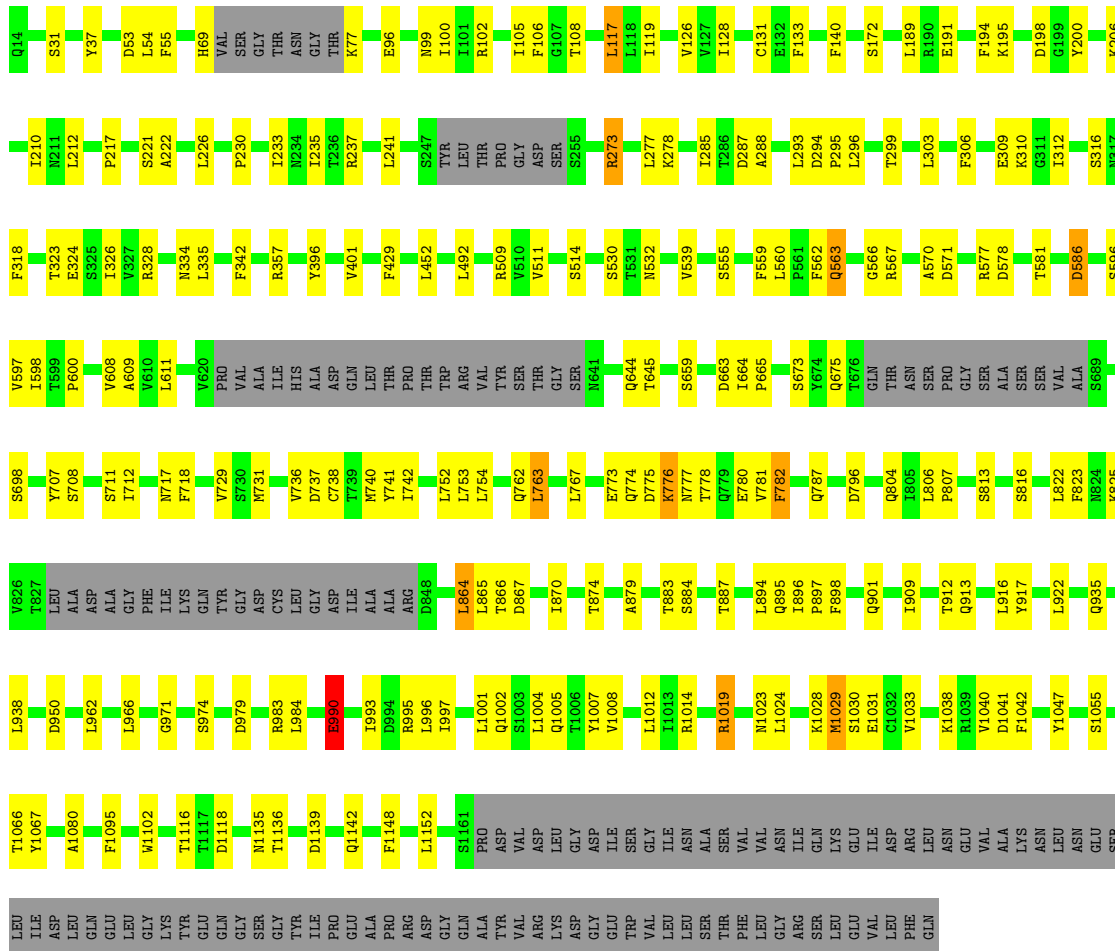
Chain 15-B:




● Molecule 1: Spike glycoprotein, Fibrin

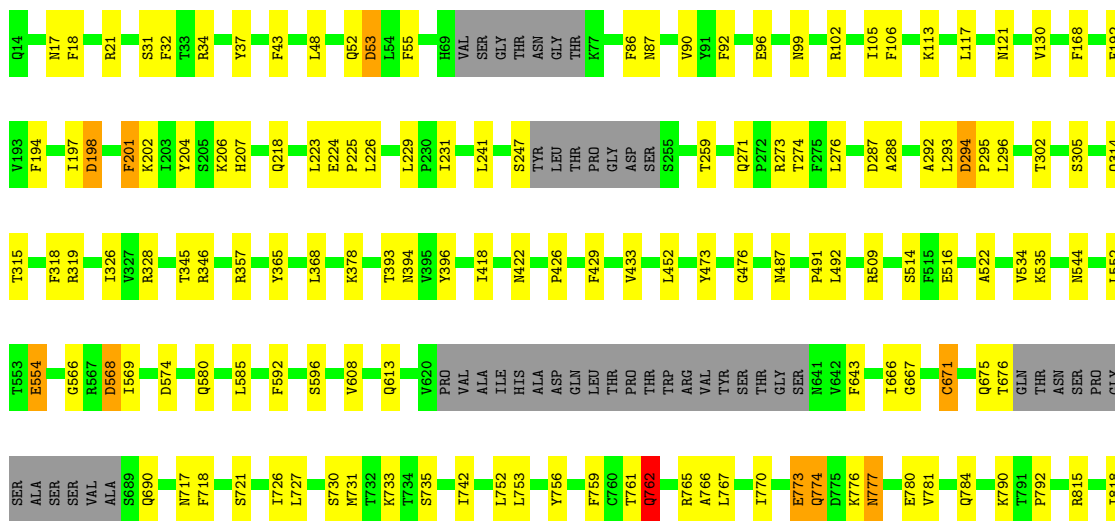


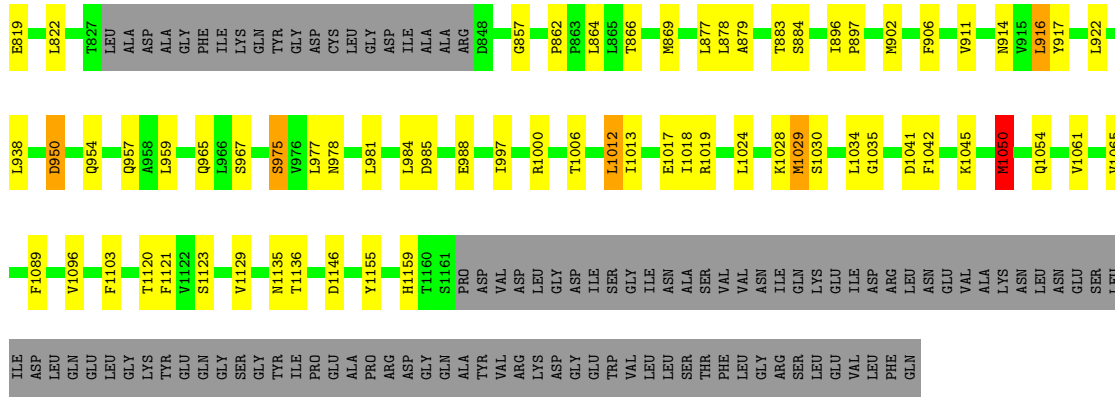
Chain 15-C:  70% 17% 12%



● Molecule 1: Spike glycoprotein, Fibritin

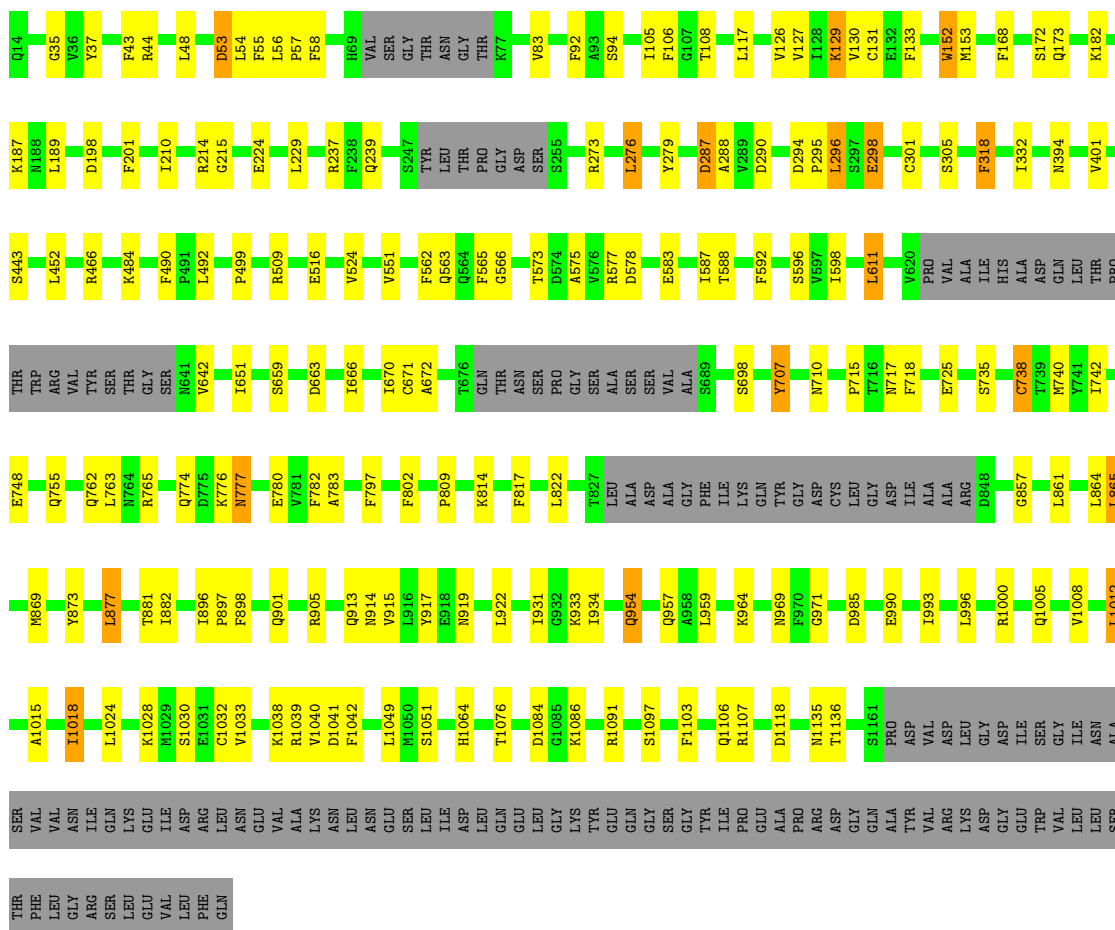
Chain 16-A:  71% 16% 12%





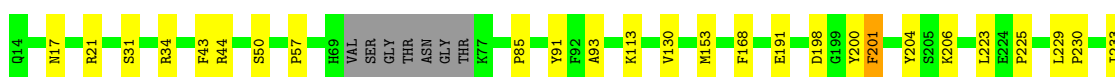
• Molecule 1: Spike glycoprotein, Fibrin

Chain 16-B:  73% • 13% • 12%



• Molecule 1: Spike glycoprotein, Fibrin

Chain 16-C:  73% • 13% • 12%





|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |  |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| GLY | ASP | ILE | TRP | SER | GLY | ILE | ASN | ALA | THR | VAL | VAL | ASN | ILE | GLN | LYS | LEU | GLY | VAL | ALA | LYS | ASN | ASN | LEU | GLY | ASN | GLY | SER | SER | SER | GLY | TYR | GLY | GLN | GLY | SER | PRO | ALA | PRO | ARG | ASP | ASP | GLN | GLN | ALA | TYR | VAL | ARG | LYS |  |  |  |  |
| ASP | GLY | GLU | TRP | SER | VAL | LEU | LEU | SER | THR | PHE | LEU | VAL | GLY | ARG | SER | ASN | GLY | VAL | VAL | VAL | LYS | ASN | LEU | PHE | GLN |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |  |  |

● Molecule 1: Spike glycoprotein, Fibrin

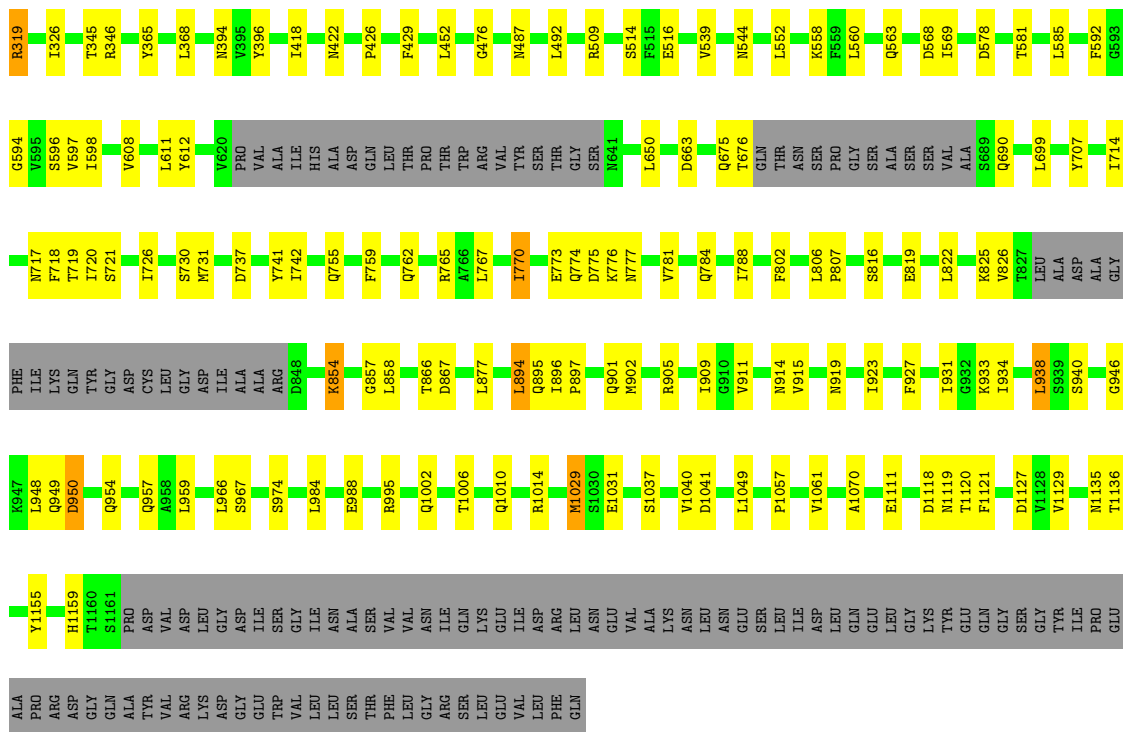
Chain 17-B: 69% 17% 12%

|       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |      |      |      |      |      |      |      |      |      |      |      |      |      |     |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|
| Q14   | F18   | R21   | L24   | G35   | Y38   | F43   | Q52   | D53   | L54   | F55   | L56   | F57   | W64   | H69   | VAL   | SER   | THR   | GLY   | THR   | ASN   | GLY   | THR   | K77   | K78   | Y91   | F92   | A93   | S94   | I95   | E96   | I100  | H104  | I105  | G107  | T108  | V126  | D138 | F139 | F140 | L296 | F306 | V159 | Y160 | LYS  |      |      |      |      |      |     |
| S172  | M177  | L179  | K182  | K187  | N188  | Y189  | F192  | V193  | F194  | F201  | Y204  | S206  | K206  | I210  | R214  | G215  | E224  | P225  | L229  | R237  | Q239  | S247  | T291  | LEU   | THR   | LEU   | PRO   | GLY   | ASP   | I1100 | H104  | I105  | G107  | T108  | V126  | D138  | F139 | F140 | L296 | F306 | V159 | Y160 | LYS  |      |      |      |      |      |      |     |
| Q314  | T315  | S316  | N317  | F318  | I332  | C336  | F342  | K353  | K354  | K355  | K356  | R357  | I358  | S359  | K360  | C361  | V362  | F392  | T393  | K394  | Y395  | E406  | V407  | R408  | Q409  | I410  | K424  | L425  | D428  | W436  | Y449  | L452  | F456  | R457  | K458  | S459  | P463 | D294 | P295 | L296 | N511 | N512 | L513 | S514 | LYS  |      |      |      |      |     |
| A522  | T523  | V524  | C525  | G526  | K535  | E554  | K557  | R567  | D574  | D586  | F592  | G593  | G594  | V595  | V596  | V597  | L598  | T599  | V608  | A609  | V610  | L611  | C617  | V620  | PRO   | VAL   | ALA   | ILE   | HIS   | ALA   | ASP   | GLN   | LEU   | THR   | THR   | TRP   | VAL  | T293 | D294 | P295 | L296 | N511 | N512 | L513 | S514 | LYS  |      |      |      |     |
| GLN   | THR   | SER   | ASN   | PRO   | GLY   | SER   | ALA   | ALA   | S689  | E702  | A713  | I714  | P715  | T716  | N717  | F718  | I726  | V729  | S730  | M731  | T732  | K733  | T734  | S735  | V736  | D737  | C738  | M740  | Y741  | I742  | C743  | S746  | T747  | E748  | C749  | L753  | L754 | Q755 | F759 | C760 | T761 | Q762 | L763 | N764 | R765 | A766 | L767 | LYS  |      |     |
| I770  | E773  | Q774  | D775  | K776  | N777  | E780  | V781  | F782  | A783  | Q787  | I788  | D796  | R815  | S816  | R818  | E819  | D820  | L821  | L822  | F823  | T827  | ALA   | ASP   | ALA   | ALA   | GLY   | PHE   | ILE   | LYS   | GLN   | TYR   | GLY   | ASP   | CYS   | LEU   | GLY   | ASP  | ILE  | ALA  | ARG  | D848 | L858 | L864 | L865 | T866 | M869 | Q892 | I893 | D994 | LYS |
| Y873  | T874  | L878  | D879  | I882  | Q895  | I896  | P897  | F899  | Q901  | R905  | N907  | Q913  | Y917  | L922  | I931  | I934  | L945  | G946  | Q949  | D950  | Q954  | N955  | A956  | L959  | N960  | T961  | L962  | L966  | S967  | S968  | L977  | L981  | S982  | R983  | L984  | D985  | P986 | P987 | Q992 | I993 | D994 | LYS  |      |      |      |      |      |      |      |     |
| L1004 | Y1007 | V1008 | T1009 | L1012 | I1013 | R1014 | A1015 | A1016 | E1017 | I1018 | L1024 | K1028 | M1029 | S1030 | E1031 | C1032 | R1039 | L1049 | M1050 | S1051 | L1052 | P1053 | Q1054 | V1061 | F1062 | L1063 | R1091 | F1103 | P1112 | I1115 | D1118 | M1119 | T1120 | S1123 | V1137 | S1161 | PRO  | ASP  | VAL  | ASP  | LEU  | GLY  | ASP  | LYS  | LYS  |      |      |      |      |     |
| ILE   | SER   | GLY   | ILE   | ASN   | ALA   | SER   | VAL   | VAL   | ASN   | ILE   | GLN   | LYS   | GLY   | GLY   | ILE   | ASN   | ASN   | ASN   | GLY   | SER   | SER   | ILE   | ASP   | LEU   | GLN   | GLY   | GLY   | LYS   | TYR   | GLY   | GLN   | GLY   | SER   | SER   | TYR   | ILE   | PRO  | ALA  | ALA  | VAL  | ARG  | LYS  | ASP  | GLY  | LYS  | LYS  | LYS  |      |      |     |
| GLU   | TRP   | VAL   | LEU   | LEU   | SER   | THR   | PHE   | LEU   | LEU   | LEU   | PHE   | GLN   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |      |      |      |      |      |      |      |      |      |      |      |      |      |     |

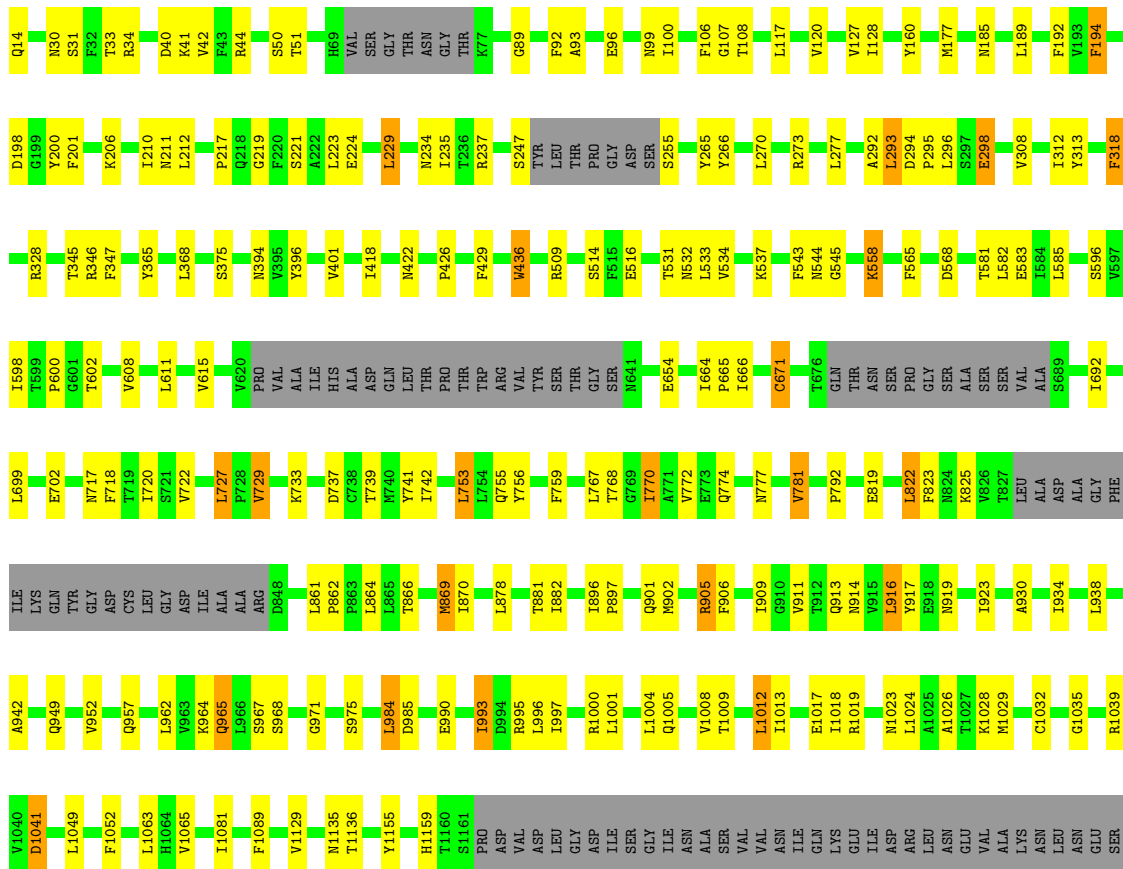
● Molecule 1: Spike glycoprotein, Fibrin

Chain 17-C: 72% 15% 12%

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |     |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|
| Q14  | S31  | F32  | T33  | R34  | D40  | Q52  | D53  | L54  | F58  | H69  | VAL  | SER  | THR  | ASN  | GLY  | THR | ASN | GLY | THR | ASN | GLY | THR | K77  | L84  | P85  | D88  | F92  | A93  | V104 | I105 | F106 | L117 | L118 | I119 | V120 | V127 | I128 | M153 | Q173 | M177 | M185 | K195 | D198 | F201 | Y204 | LYS |
| S205 | K206 | H207 | T208 | L212 | P217 | Q218 | G219 | P225 | L229 | P230 | G232 | L233 | H245 | I246 | S247 | THR | LEU | THR | THR | PRO | GLY | SER | S255 | Y266 | R273 | K278 | D287 | D290 | C291 | A292 | P295 | L296 | S297 | T299 | T302 | F306 | I312 | Y313 | Q314 | T315 | S316 | N317 | F318 | LYS  |      |     |



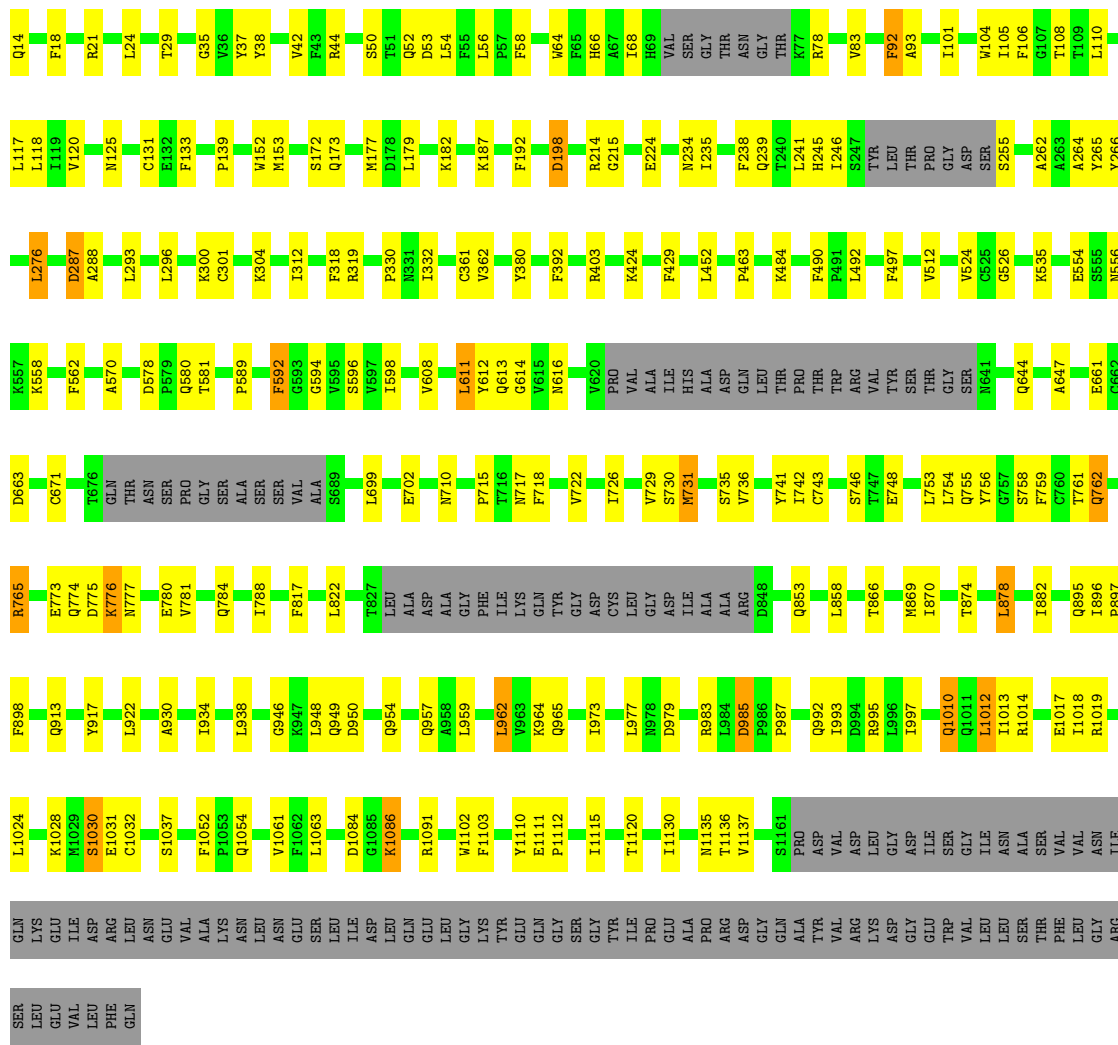
• Molecule 1: Spike glycoprotein,Fibrinin



LEU  
 ILE  
 ASP  
 LEU  
 GLN  
 LEU  
 LEU  
 GLY  
 LYS  
 TVR  
 GLU  
 GLN  
 GLY  
 SER  
 GLY  
 ILE  
 PRO  
 GLU  
 ALA  
 PRO  
 ARG  
 ASP  
 GLY  
 GLN  
 ALA  
 TYR  
 VAL  
 ARG  
 LYS  
 ASP  
 GLY  
 LEU  
 TRP  
 VAL  
 LEU  
 SER  
 THR  
 PHE  
 LEU  
 ARG  
 SER  
 LEU  
 VAL  
 VAL  
 LEU  
 PHE  
 PHE  
 GLN

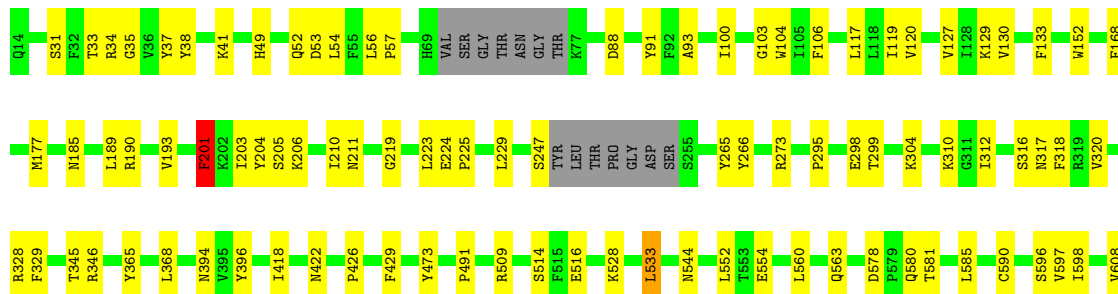
● Molecule 1: Spike glycoprotein, Fibrin

Chain 18-B:  70% • 17% • 12%




● Molecule 1: Spike glycoprotein, Fibrin

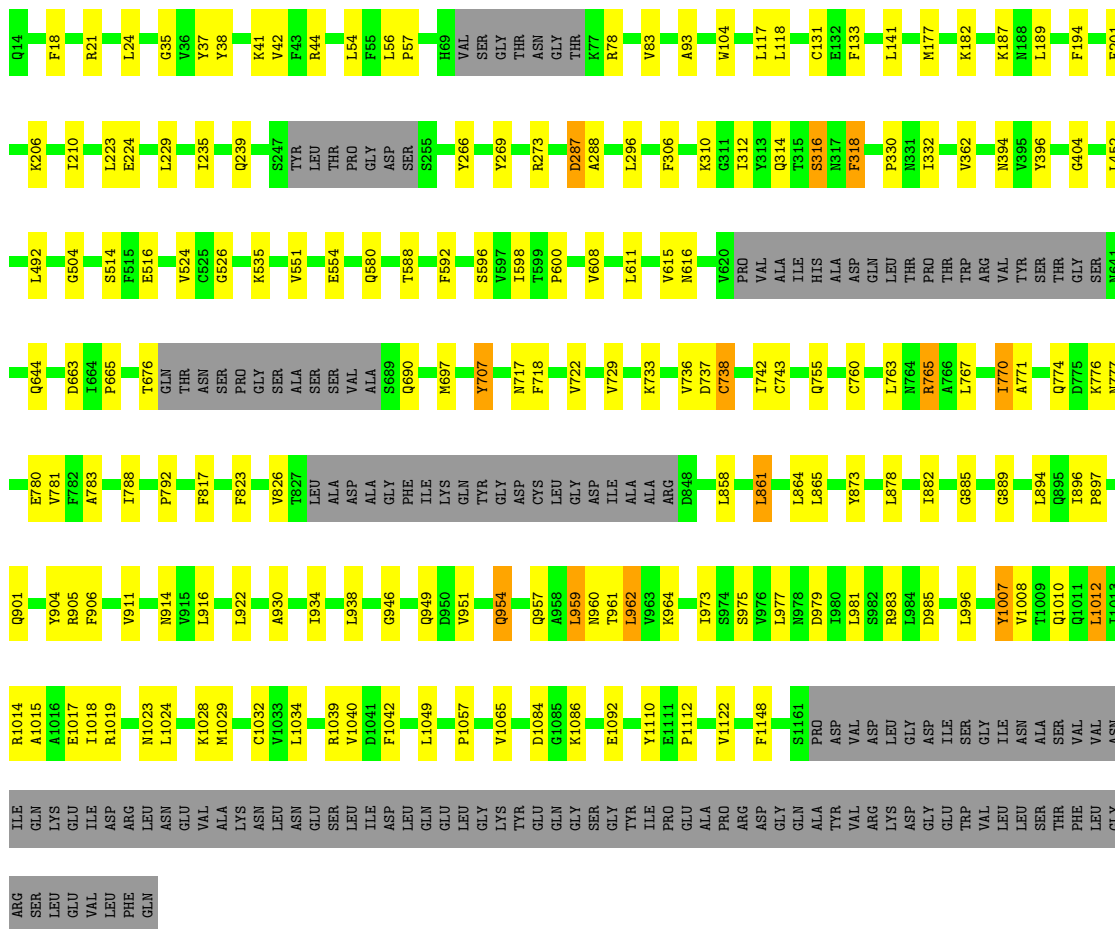
Chain 18-C:  70% • 17% • 12%






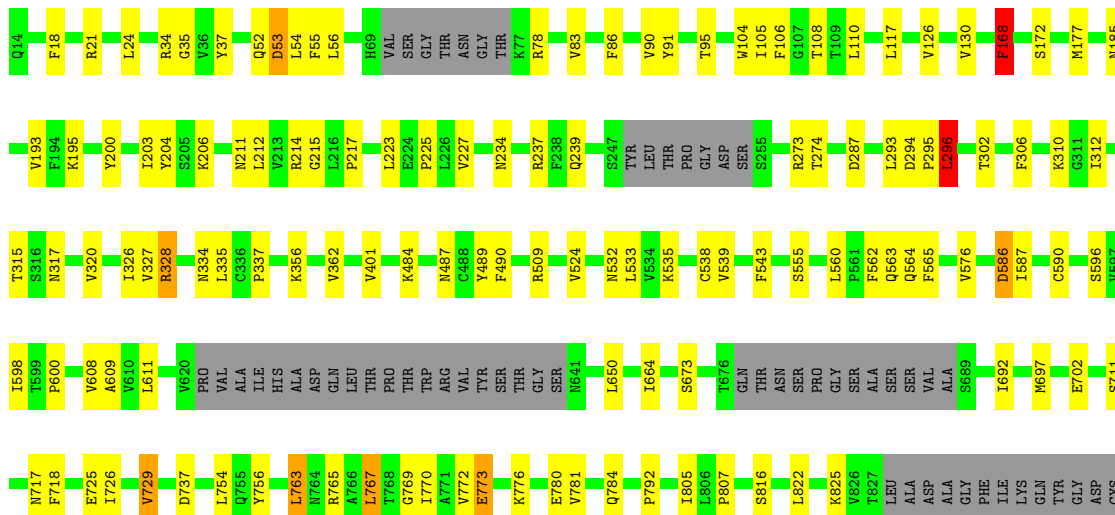
● Molecule 1: Spike glycoprotein,Fibrin

Chain 19-B:  73% 13% 12%

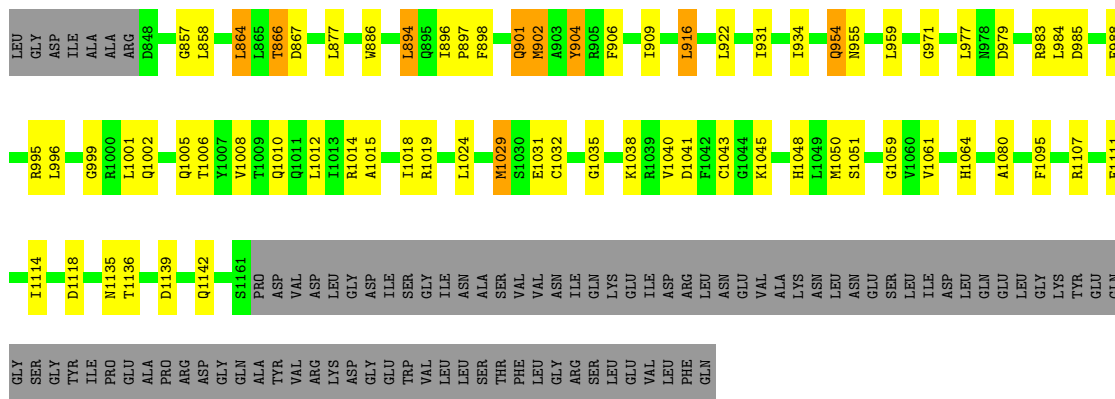


● Molecule 1: Spike glycoprotein,Fibrin

Chain 19-C:  72% 15% 12%

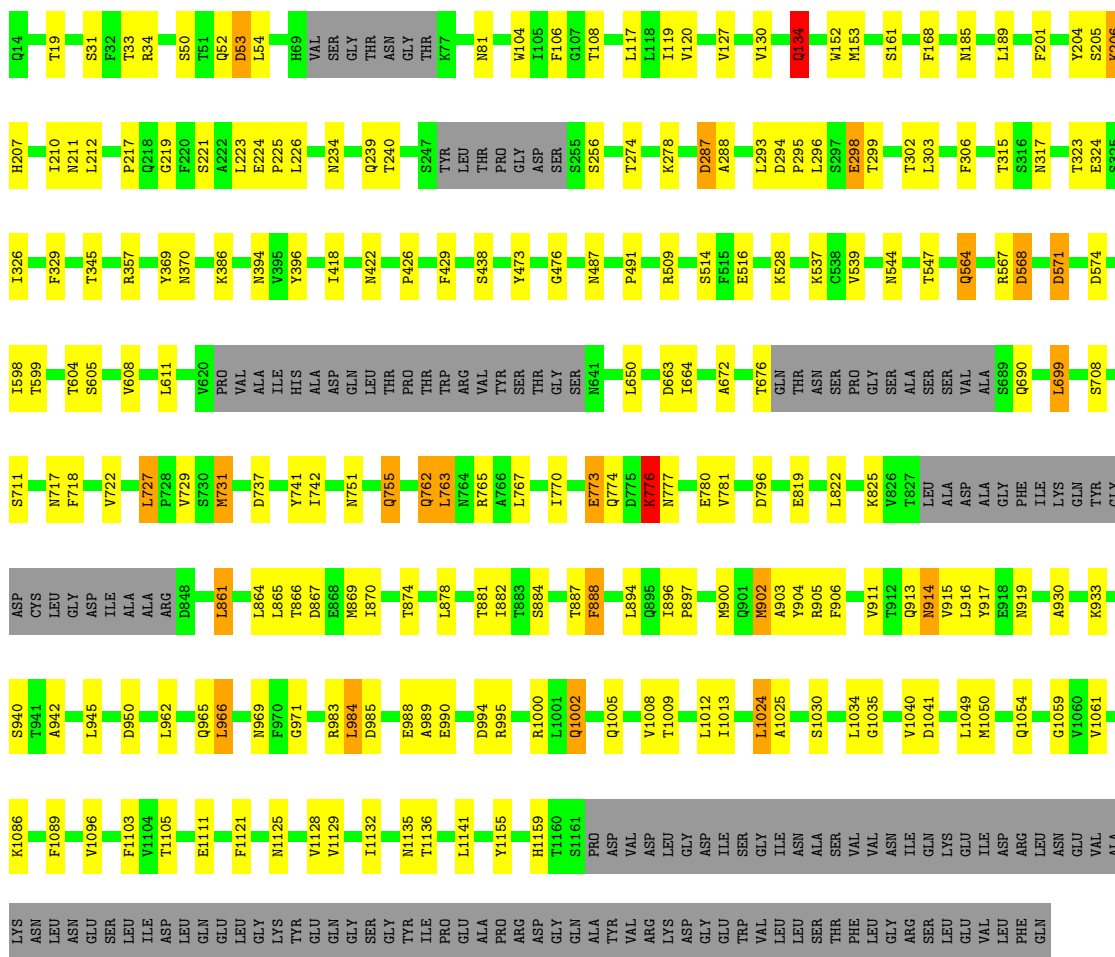






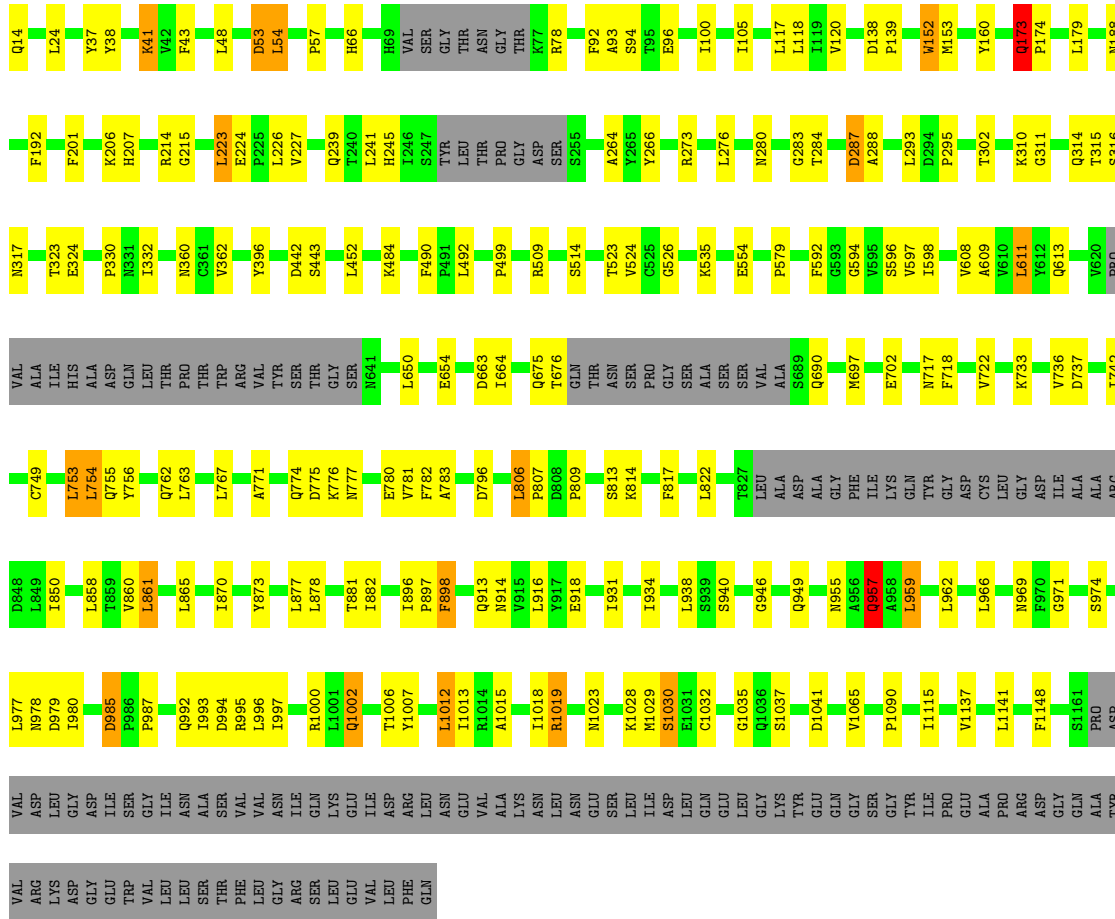
● Molecule 1: Spike glycoprotein, Fibrin

Chain 20-A: 70% 16% 12%



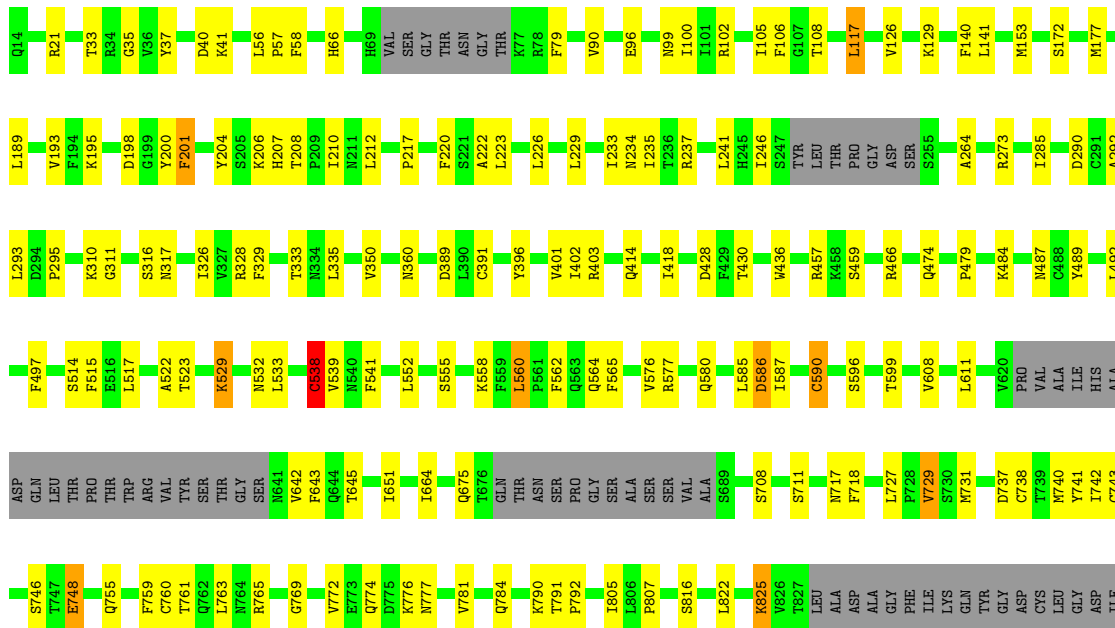
● Molecule 1: Spike glycoprotein, Fibrin

Chain 20-B: 71% 15% 12%



• Molecule 1: Spike glycoprotein, Fibrin

Chain 20-C: 68% 17% 12%



|       |       |       |       |       |       |       |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |     |     |     |     |
|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-----|-----|-----|
| ALA   | ALA   | ALA   | ARG   | D848  | K854  | G857  | L864 | L865 | T866 | D867 | I870  | T874  | S884  | T887  | F888  | G889  | Q895  | I896  | P897  | F898  | Q901  | M902  | M907  | G908  | I909  | Q913  | L916  | L922  | S929  | A930  | I931  | G932  | K933  | I934  | S940  | T941  | A942  | Q954  | Q957  | M960  | T961  | L962  |       |       |       |     |     |     |     |
| Y963  | I966  | N969  | L977  | R983  | L984  | D985  | D994 | R995 | L996 | I997 | R1000 | L1001 | Q1002 | S1003 | L1004 | Q1005 | T1006 | Y1007 | V1008 | T1009 | Q1010 | Q1011 | L1012 | I1013 | R1014 | R1019 | I1024 | K1028 | M1029 | S1030 | E1031 | C1032 | V1033 | L1034 | K1038 | R1039 | V1040 | D1041 | F1042 | M1050 | S1051 | H1064 | V1065 | W1102 | D1118 |     |     |     |     |
| F1121 | V1129 | N1135 | T1136 | D1153 | F1156 | S1163 | PRO  | ASP  | VAL  | ASP  | ASP   | LEU   | GLY   | ASP   | ILE   | SER   | GLY   | ILE   | ASN   | ALA   | SER   | VAL   | VAL   | ASN   | GLY   | ILE   | GLN   | LYS   | GLU   | ILE   | ASP   | ARG   | LEU   | ASN   | ASN   | GLU   | SER   | LEU   | ILE   | ASP   | LEU   | GLN   | GLU   | LEU   | GLY   | LYS | TYR | GLU | GLN |
| GLY   | SER   | GLY   | TYR   | ILE   | PRO   | GLU   | ALA  | PRO  | ARG  | ASP  | GLY   | GLN   | ALA   | TYR   | VAL   | ARG   | LYS   | ASP   | GLY   | GLU   | TRP   | VAL   | LEU   | LEU   | SER   | THR   | PHE   | LEU   | GLY   | ARG   | SER   | LEU   | LEU   | VAL   | LEU   | PHE   | GLN   |       |       |       |       |       |       |       |       |     |     |     |     |

## 4 Experimental information

| Property                             | Value                         | Source    |
|--------------------------------------|-------------------------------|-----------|
| EM reconstruction method             | SINGLE PARTICLE               | Depositor |
| Imposed symmetry                     | POINT, C1                     | Depositor |
| Number of particles used             | 479908                        | Depositor |
| Resolution determination method      | FSC 0.143 CUT-OFF             | Depositor |
| CTF correction method                | NONE                          | Depositor |
| Microscope                           | TFS KRIOS                     | Depositor |
| Voltage (kV)                         | 300                           | Depositor |
| Electron dose ( $e^-/\text{\AA}^2$ ) | 50                            | Depositor |
| Minimum defocus (nm)                 | 1500                          | Depositor |
| Maximum defocus (nm)                 | 2200                          | Depositor |
| Magnification                        | 81000                         | Depositor |
| Image detector                       | GATAN K3 BIOQUANTUM (6k x 4k) | Depositor |
| Maximum map value                    | 1.793                         | Depositor |
| Minimum map value                    | -0.556                        | Depositor |
| Average map value                    | 0.002                         | Depositor |
| Map value standard deviation         | 0.060                         | Depositor |
| Recommended contour level            | 0.15                          | Depositor |
| Map size ( $\text{\AA}$ )            | 313.6, 313.6, 313.6           | wwPDB     |
| Map dimensions                       | 224, 224, 224                 | wwPDB     |
| Map angles ( $^\circ$ )              | 90.0, 90.0, 90.0              | wwPDB     |
| Pixel spacing ( $\text{\AA}$ )       | 1.4, 1.4, 1.4                 | 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   | 1-A   | 0.38         | 0/8652        | 0.84        | 33/11768 (0.3%) |
| 1   | 1-B   | 0.38         | 0/8652        | 0.85        | 30/11768 (0.3%) |
| 1   | 1-C   | 0.36         | 0/8652        | 0.80        | 28/11768 (0.2%) |
| 1   | 2-A   | 0.39         | 2/8652 (0.0%) | 0.87        | 33/11768 (0.3%) |
| 1   | 2-B   | 0.37         | 0/8652        | 0.85        | 27/11768 (0.2%) |
| 1   | 2-C   | 0.38         | 0/8652        | 0.85        | 33/11768 (0.3%) |
| 1   | 3-A   | 0.38         | 1/8652 (0.0%) | 0.82        | 32/11768 (0.3%) |
| 1   | 3-B   | 0.39         | 1/8652 (0.0%) | 0.86        | 31/11768 (0.3%) |
| 1   | 3-C   | 0.38         | 2/8652 (0.0%) | 0.83        | 35/11768 (0.3%) |
| 1   | 4-A   | 0.38         | 0/8652        | 0.86        | 24/11768 (0.2%) |
| 1   | 4-B   | 0.39         | 0/8652        | 0.85        | 35/11768 (0.3%) |
| 1   | 4-C   | 0.39         | 0/8652        | 0.88        | 43/11768 (0.4%) |
| 1   | 5-A   | 0.38         | 1/8652 (0.0%) | 0.80        | 24/11768 (0.2%) |
| 1   | 5-B   | 0.39         | 1/8652 (0.0%) | 0.84        | 28/11768 (0.2%) |
| 1   | 5-C   | 0.36         | 0/8652        | 0.77        | 22/11768 (0.2%) |
| 1   | 6-A   | 0.35         | 0/8652        | 0.77        | 21/11768 (0.2%) |
| 1   | 6-B   | 0.37         | 0/8652        | 0.86        | 33/11768 (0.3%) |
| 1   | 6-C   | 0.37         | 0/8652        | 0.83        | 33/11768 (0.3%) |
| 1   | 7-A   | 0.37         | 0/8652        | 0.81        | 23/11768 (0.2%) |
| 1   | 7-B   | 0.38         | 1/8652 (0.0%) | 0.84        | 36/11768 (0.3%) |
| 1   | 7-C   | 0.38         | 1/8652 (0.0%) | 0.87        | 37/11768 (0.3%) |
| 1   | 8-A   | 0.38         | 4/8652 (0.0%) | 0.84        | 33/11768 (0.3%) |
| 1   | 8-B   | 0.38         | 0/8652        | 0.86        | 34/11768 (0.3%) |
| 1   | 8-C   | 0.40         | 1/8652 (0.0%) | 0.84        | 28/11768 (0.2%) |
| 1   | 9-A   | 0.44         | 2/8652 (0.0%) | 0.91        | 41/11768 (0.3%) |
| 1   | 9-B   | 0.44         | 1/8652 (0.0%) | 0.92        | 40/11768 (0.3%) |
| 1   | 9-C   | 0.46         | 4/8652 (0.0%) | 0.90        | 35/11768 (0.3%) |
| 1   | 10-A  | 0.40         | 2/8652 (0.0%) | 0.82        | 28/11768 (0.2%) |
| 1   | 10-B  | 0.41         | 0/8652        | 0.86        | 35/11768 (0.3%) |
| 1   | 10-C  | 0.41         | 2/8652 (0.0%) | 0.84        | 27/11768 (0.2%) |
| 1   | 11-A  | 0.39         | 0/8652        | 0.83        | 28/11768 (0.2%) |
| 1   | 11-B  | 0.41         | 2/8652 (0.0%) | 0.87        | 30/11768 (0.3%) |
| 1   | 11-C  | 0.40         | 0/8652        | 0.86        | 27/11768 (0.2%) |
| 1   | 12-A  | 0.38         | 1/8652 (0.0%) | 0.84        | 33/11768 (0.3%) |

| Mol | Chain | Bond lengths |                  | Bond angles |                    |
|-----|-------|--------------|------------------|-------------|--------------------|
|     |       | RMSZ         | # Z  >5          | RMSZ        | # Z  >5            |
| 1   | 12-B  | 0.36         | 0/8652           | 0.82        | 30/11768 (0.3%)    |
| 1   | 12-C  | 0.39         | 1/8652 (0.0%)    | 0.82        | 34/11768 (0.3%)    |
| 1   | 13-A  | 0.41         | 1/8652 (0.0%)    | 0.84        | 31/11768 (0.3%)    |
| 1   | 13-B  | 0.43         | 1/8652 (0.0%)    | 0.87        | 37/11768 (0.3%)    |
| 1   | 13-C  | 0.43         | 3/8652 (0.0%)    | 0.87        | 42/11768 (0.4%)    |
| 1   | 14-A  | 0.39         | 2/8652 (0.0%)    | 0.84        | 22/11768 (0.2%)    |
| 1   | 14-B  | 0.40         | 0/8652           | 0.89        | 37/11768 (0.3%)    |
| 1   | 14-C  | 0.39         | 1/8652 (0.0%)    | 0.90        | 38/11768 (0.3%)    |
| 1   | 15-A  | 0.38         | 0/8652           | 0.81        | 23/11768 (0.2%)    |
| 1   | 15-B  | 0.39         | 1/8652 (0.0%)    | 0.87        | 33/11768 (0.3%)    |
| 1   | 15-C  | 0.40         | 1/8652 (0.0%)    | 0.86        | 37/11768 (0.3%)    |
| 1   | 16-A  | 0.37         | 1/8652 (0.0%)    | 0.85        | 33/11768 (0.3%)    |
| 1   | 16-B  | 0.38         | 0/8652           | 0.83        | 24/11768 (0.2%)    |
| 1   | 16-C  | 0.36         | 0/8652           | 0.78        | 22/11768 (0.2%)    |
| 1   | 17-A  | 0.37         | 1/8652 (0.0%)    | 0.82        | 29/11768 (0.2%)    |
| 1   | 17-B  | 0.39         | 1/8652 (0.0%)    | 0.88        | 41/11768 (0.3%)    |
| 1   | 17-C  | 0.37         | 0/8652           | 0.85        | 28/11768 (0.2%)    |
| 1   | 18-A  | 0.38         | 0/8652           | 0.84        | 31/11768 (0.3%)    |
| 1   | 18-B  | 0.39         | 0/8652           | 0.83        | 33/11768 (0.3%)    |
| 1   | 18-C  | 0.38         | 0/8652           | 0.82        | 23/11768 (0.2%)    |
| 1   | 19-A  | 0.37         | 1/8652 (0.0%)    | 0.83        | 29/11768 (0.2%)    |
| 1   | 19-B  | 0.38         | 2/8652 (0.0%)    | 0.80        | 32/11768 (0.3%)    |
| 1   | 19-C  | 0.40         | 1/8652 (0.0%)    | 0.86        | 45/11768 (0.4%)    |
| 1   | 20-A  | 0.39         | 0/8652           | 0.86        | 36/11768 (0.3%)    |
| 1   | 20-B  | 0.37         | 0/8652           | 0.85        | 34/11768 (0.3%)    |
| 1   | 20-C  | 0.40         | 2/8652 (0.0%)    | 0.89        | 45/11768 (0.4%)    |
| All | All   | 0.39         | 49/519120 (0.0%) | 0.85        | 1909/706080 (0.3%) |

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   | 9-B   | 0                   | 1                   |
| 1   | 13-B  | 0                   | 3                   |
| 1   | 16-B  | 0                   | 1                   |
| 1   | 17-C  | 0                   | 1                   |
| 1   | 18-A  | 0                   | 1                   |
| All | All   | 0                   | 7                   |

All (49) bond length outliers are listed below:

| Mol | Chain | Res  | Type | Atoms   | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|---------|-------|-------------|----------|
| 1   | 8-C   | 662  | CYS  | CB-SG   | -9.84 | 1.65        | 1.82     |
| 1   | 12-C  | 662  | CYS  | CB-SG   | -9.02 | 1.67        | 1.82     |
| 1   | 19-C  | 320  | VAL  | C-N     | 8.68  | 1.54        | 1.34     |
| 1   | 7-C   | 662  | CYS  | CB-SG   | -8.55 | 1.67        | 1.82     |
| 1   | 9-C   | 904  | TYR  | CD1-CE1 | -8.26 | 1.26        | 1.39     |
| 1   | 20-C  | 738  | CYS  | CB-SG   | -8.05 | 1.68        | 1.82     |
| 1   | 10-A  | 738  | CYS  | CB-SG   | -8.04 | 1.68        | 1.82     |
| 1   | 13-C  | 738  | CYS  | CB-SG   | -8.01 | 1.68        | 1.82     |
| 1   | 10-A  | 760  | CYS  | CB-SG   | -7.88 | 1.68        | 1.82     |
| 1   | 9-A   | 760  | CYS  | CB-SG   | -7.79 | 1.69        | 1.82     |
| 1   | 11-B  | 291  | CYS  | CB-SG   | -7.50 | 1.69        | 1.82     |
| 1   | 7-B   | 291  | CYS  | CB-SG   | -7.07 | 1.70        | 1.82     |
| 1   | 9-C   | 738  | CYS  | CB-SG   | -7.02 | 1.70        | 1.82     |
| 1   | 13-B  | 760  | CYS  | CB-SG   | -6.90 | 1.70        | 1.82     |
| 1   | 20-C  | 760  | CYS  | CB-SG   | -6.66 | 1.71        | 1.82     |
| 1   | 17-A  | 760  | CYS  | CB-SG   | -6.63 | 1.71        | 1.82     |
| 1   | 2-A   | 760  | CYS  | CB-SG   | -6.62 | 1.71        | 1.82     |
| 1   | 14-C  | 760  | CYS  | CB-SG   | -6.58 | 1.71        | 1.82     |
| 1   | 17-B  | 760  | CYS  | CB-SG   | -6.58 | 1.71        | 1.82     |
| 1   | 19-B  | 738  | CYS  | CB-SG   | -6.48 | 1.71        | 1.82     |
| 1   | 13-C  | 760  | CYS  | CB-SG   | -6.45 | 1.71        | 1.82     |
| 1   | 9-C   | 760  | CYS  | CB-SG   | -6.25 | 1.71        | 1.82     |
| 1   | 19-B  | 760  | CYS  | CB-SG   | -6.17 | 1.71        | 1.82     |
| 1   | 19-A  | 738  | CYS  | CB-SG   | -6.07 | 1.72        | 1.82     |
| 1   | 14-A  | 223  | LEU  | C-N     | 5.97  | 1.47        | 1.34     |
| 1   | 15-B  | 760  | CYS  | CB-SG   | -5.94 | 1.72        | 1.81     |
| 1   | 3-B   | 760  | CYS  | CB-SG   | -5.88 | 1.72        | 1.81     |
| 1   | 3-C   | 760  | CYS  | CB-SG   | -5.85 | 1.72        | 1.81     |
| 1   | 5-B   | 291  | CYS  | CB-SG   | -5.69 | 1.72        | 1.81     |
| 1   | 14-A  | 738  | CYS  | CB-SG   | -5.64 | 1.72        | 1.81     |
| 1   | 16-A  | 223  | LEU  | C-N     | 5.64  | 1.47        | 1.34     |
| 1   | 15-C  | 563  | GLN  | CB-CG   | -5.59 | 1.37        | 1.52     |
| 1   | 13-C  | 790  | LYS  | C-N     | -5.56 | 1.21        | 1.34     |
| 1   | 12-A  | 223  | LEU  | C-N     | 5.49  | 1.46        | 1.34     |
| 1   | 3-C   | 223  | LEU  | C-N     | 5.43  | 1.46        | 1.34     |
| 1   | 5-A   | 738  | CYS  | CB-SG   | -5.39 | 1.73        | 1.81     |
| 1   | 11-B  | 805  | ILE  | C-N     | 5.35  | 1.46        | 1.34     |
| 1   | 10-C  | 1067 | TYR  | CD1-CE1 | -5.33 | 1.31        | 1.39     |
| 1   | 9-C   | 223  | LEU  | C-N     | 5.30  | 1.46        | 1.34     |
| 1   | 9-A   | 662  | CYS  | CB-SG   | -5.26 | 1.73        | 1.81     |
| 1   | 3-A   | 760  | CYS  | CB-SG   | -5.25 | 1.73        | 1.81     |
| 1   | 8-A   | 738  | CYS  | CB-SG   | -5.24 | 1.73        | 1.81     |
| 1   | 8-A   | 671  | CYS  | CB-SG   | -5.23 | 1.73        | 1.81     |

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| Mol | Chain | Res | Type | Atoms | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|-------|-------------|----------|
| 1   | 13-A  | 223 | LEU  | C-N   | 5.22  | 1.46        | 1.34     |
| 1   | 9-B   | 538 | CYS  | CB-SG | -5.21 | 1.73        | 1.81     |
| 1   | 8-A   | 662 | CYS  | CB-SG | -5.09 | 1.73        | 1.81     |
| 1   | 10-C  | 790 | LYS  | C-N   | -5.07 | 1.22        | 1.34     |
| 1   | 8-A   | 760 | CYS  | CB-SG | -5.05 | 1.73        | 1.81     |
| 1   | 2-A   | 738 | CYS  | CB-SG | -5.04 | 1.73        | 1.81     |

All (1909) bond angle outliers are listed below:

| Mol | Chain | Res  | Type | Atoms     | Z      | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|--------|-------------|----------|
| 1   | 1-C   | 916  | LEU  | CB-CG-CD2 | -16.15 | 83.54       | 111.00   |
| 1   | 9-C   | 966  | LEU  | CA-CB-CG  | 14.13  | 147.79      | 115.30   |
| 1   | 17-C  | 88   | ASP  | CB-CG-OD2 | 13.64  | 130.58      | 118.30   |
| 1   | 7-A   | 1041 | ASP  | CB-CG-OD1 | 13.54  | 130.48      | 118.30   |
| 1   | 2-A   | 763  | LEU  | CA-CB-CG  | 12.58  | 144.23      | 115.30   |
| 1   | 7-C   | 760  | CYS  | CA-CB-SG  | 12.40  | 136.33      | 114.00   |
| 1   | 10-B  | 428  | ASP  | CB-CG-OD1 | 12.23  | 129.31      | 118.30   |
| 1   | 7-C   | 662  | CYS  | CA-CB-SG  | 12.16  | 135.90      | 114.00   |
| 1   | 16-A  | 916  | LEU  | CB-CG-CD2 | -12.07 | 90.49       | 111.00   |
| 1   | 15-B  | 962  | LEU  | CB-CG-CD2 | -12.05 | 90.51       | 111.00   |
| 1   | 2-C   | 966  | LEU  | CA-CB-CG  | 11.87  | 142.60      | 115.30   |
| 1   | 12-A  | 916  | LEU  | CB-CG-CD2 | -11.83 | 90.89       | 111.00   |
| 1   | 6-B   | 1004 | LEU  | CB-CG-CD2 | -11.81 | 90.92       | 111.00   |
| 1   | 20-C  | 428  | ASP  | CB-CG-OD1 | 11.78  | 128.90      | 118.30   |
| 1   | 11-A  | 1012 | LEU  | CA-CB-CG  | 11.66  | 142.12      | 115.30   |
| 1   | 14-C  | 571  | ASP  | CB-CG-OD2 | 11.58  | 128.72      | 118.30   |
| 1   | 8-C   | 662  | CYS  | CA-CB-SG  | 11.55  | 134.78      | 114.00   |
| 1   | 12-A  | 1012 | LEU  | CA-CB-CG  | 11.52  | 141.78      | 115.30   |
| 1   | 3-C   | 1001 | LEU  | CA-CB-CG  | 11.49  | 141.72      | 115.30   |
| 1   | 6-A   | 745  | ASP  | CB-CG-OD1 | 11.38  | 128.54      | 118.30   |
| 1   | 6-B   | 994  | ASP  | CB-CG-OD1 | 11.37  | 128.54      | 118.30   |
| 1   | 3-C   | 916  | LEU  | CB-CG-CD2 | -11.33 | 91.74       | 111.00   |
| 1   | 12-C  | 662  | CYS  | CA-CB-SG  | 11.32  | 134.38      | 114.00   |
| 1   | 14-B  | 959  | LEU  | CA-CB-CG  | 11.11  | 140.85      | 115.30   |
| 1   | 6-C   | 745  | ASP  | CB-CG-OD1 | 11.08  | 128.27      | 118.30   |
| 1   | 1-C   | 1001 | LEU  | CA-CB-CG  | 11.05  | 140.71      | 115.30   |
| 1   | 5-C   | 950  | ASP  | CB-CG-OD1 | 11.03  | 128.22      | 118.30   |
| 1   | 9-A   | 979  | ASP  | CB-CG-OD1 | 10.98  | 128.19      | 118.30   |
| 1   | 6-C   | 994  | ASP  | CB-CG-OD1 | 10.96  | 128.16      | 118.30   |
| 1   | 16-B  | 959  | LEU  | CA-CB-CG  | 10.93  | 140.44      | 115.30   |
| 1   | 16-C  | 1001 | LEU  | CA-CB-CG  | 10.89  | 140.34      | 115.30   |
| 1   | 17-A  | 1012 | LEU  | CA-CB-CG  | 10.86  | 140.28      | 115.30   |

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| Mol | Chain | Res  | Type | Atoms     | Z      | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|--------|-------------|----------|
| 1   | 19-A  | 916  | LEU  | CB-CG-CD2 | -10.85 | 92.56       | 111.00   |
| 1   | 11-A  | 88   | ASP  | CB-CG-OD2 | 10.76  | 127.98      | 118.30   |
| 1   | 13-A  | 979  | ASP  | CB-CG-OD1 | 10.74  | 127.96      | 118.30   |
| 1   | 9-C   | 950  | ASP  | CB-CG-OD1 | 10.73  | 127.96      | 118.30   |
| 1   | 15-C  | 950  | ASP  | CB-CG-OD1 | 10.73  | 127.95      | 118.30   |
| 1   | 2-C   | 950  | ASP  | CB-CG-OD1 | 10.72  | 127.95      | 118.30   |
| 1   | 17-C  | 950  | ASP  | CB-CG-OD1 | 10.71  | 127.94      | 118.30   |
| 1   | 3-B   | 760  | CYS  | CA-CB-SG  | 10.70  | 133.26      | 114.00   |
| 1   | 5-A   | 763  | LEU  | CA-CB-CG  | 10.69  | 139.89      | 115.30   |
| 1   | 19-C  | 916  | LEU  | CB-CG-CD1 | -10.64 | 92.91       | 111.00   |
| 1   | 5-B   | 291  | CYS  | CA-CB-SG  | 10.62  | 133.12      | 114.00   |
| 1   | 1-A   | 574  | ASP  | CB-CG-OD1 | 10.55  | 127.80      | 118.30   |
| 1   | 14-A  | 916  | LEU  | CB-CG-CD2 | -10.55 | 93.06       | 111.00   |
| 1   | 16-A  | 294  | ASP  | CB-CG-OD1 | 10.50  | 127.75      | 118.30   |
| 1   | 4-A   | 994  | ASP  | CB-CG-OD1 | 10.47  | 127.72      | 118.30   |
| 1   | 4-C   | 864  | LEU  | CA-CB-CG  | 10.43  | 139.30      | 115.30   |
| 1   | 14-C  | 950  | ASP  | CB-CG-OD1 | 10.43  | 127.69      | 118.30   |
| 1   | 9-A   | 574  | ASP  | CB-CG-OD2 | 10.40  | 127.66      | 118.30   |
| 1   | 7-A   | 663  | ASP  | CB-CG-OD1 | 10.39  | 127.65      | 118.30   |
| 1   | 2-B   | 985  | ASP  | CB-CG-OD2 | 10.35  | 127.61      | 118.30   |
| 1   | 4-C   | 950  | ASP  | CB-CG-OD1 | 10.34  | 127.60      | 118.30   |
| 1   | 18-C  | 979  | ASP  | CB-CG-OD1 | 10.33  | 127.60      | 118.30   |
| 1   | 12-B  | 118  | LEU  | CA-CB-CG  | 10.30  | 138.99      | 115.30   |
| 1   | 14-B  | 985  | ASP  | CB-CG-OD1 | 10.16  | 127.44      | 118.30   |
| 1   | 20-C  | 966  | LEU  | CA-CB-CG  | 10.16  | 138.66      | 115.30   |
| 1   | 19-C  | 979  | ASP  | CB-CG-OD1 | 10.15  | 127.43      | 118.30   |
| 1   | 14-A  | 979  | ASP  | CB-CG-OD1 | 10.11  | 127.40      | 118.30   |
| 1   | 12-C  | 1001 | LEU  | CA-CB-CG  | 10.11  | 138.54      | 115.30   |
| 1   | 15-B  | 546  | LEU  | CA-CB-CG  | 10.07  | 138.47      | 115.30   |
| 1   | 16-A  | 198  | ASP  | CB-CG-OD2 | 10.05  | 127.35      | 118.30   |
| 1   | 13-A  | 950  | ASP  | CB-CG-OD1 | 10.04  | 127.34      | 118.30   |
| 1   | 17-B  | 878  | LEU  | CA-CB-CG  | 10.04  | 138.39      | 115.30   |
| 1   | 9-B   | 198  | ASP  | CB-CG-OD1 | 10.03  | 127.33      | 118.30   |
| 1   | 20-B  | 763  | LEU  | CA-CB-CG  | 10.01  | 138.33      | 115.30   |
| 1   | 11-C  | 950  | ASP  | CB-CG-OD1 | 9.99   | 127.29      | 118.30   |
| 1   | 14-C  | 294  | ASP  | CB-CG-OD2 | 9.98   | 127.28      | 118.30   |
| 1   | 2-C   | 948  | LEU  | CA-CB-CG  | 9.97   | 138.24      | 115.30   |
| 1   | 7-C   | 1001 | LEU  | CA-CB-CG  | 9.96   | 138.20      | 115.30   |
| 1   | 15-C  | 916  | LEU  | CB-CG-CD2 | -9.93  | 94.12       | 111.00   |
| 1   | 16-B  | 294  | ASP  | CB-CG-OD1 | 9.93   | 127.23      | 118.30   |
| 1   | 14-B  | 753  | LEU  | CA-CB-CG  | 9.92   | 138.12      | 115.30   |
| 1   | 1-B   | 950  | ASP  | CB-CG-OD1 | 9.89   | 127.20      | 118.30   |

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| Mol | Chain | Res  | Type | Atoms     | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1   | 2-C   | 996  | LEU  | CA-CB-CG  | 9.89  | 138.04      | 115.30   |
| 1   | 13-B  | 994  | ASP  | CB-CG-OD1 | 9.84  | 127.16      | 118.30   |
| 1   | 4-C   | 546  | LEU  | CA-CB-CG  | 9.77  | 137.78      | 115.30   |
| 1   | 9-B   | 118  | LEU  | CA-CB-CG  | 9.77  | 137.78      | 115.30   |
| 1   | 17-B  | 760  | CYS  | CA-CB-SG  | 9.72  | 131.49      | 114.00   |
| 1   | 4-C   | 878  | LEU  | CA-CB-CG  | 9.71  | 137.64      | 115.30   |
| 1   | 9-C   | 738  | CYS  | CA-CB-SG  | 9.71  | 131.47      | 114.00   |
| 1   | 7-B   | 428  | ASP  | CB-CG-OD1 | 9.68  | 127.01      | 118.30   |
| 1   | 11-C  | 294  | ASP  | CB-CG-OD1 | 9.68  | 127.01      | 118.30   |
| 1   | 13-C  | 950  | ASP  | CB-CG-OD1 | 9.64  | 126.98      | 118.30   |
| 1   | 12-C  | 938  | LEU  | CA-CB-CG  | 9.64  | 137.48      | 115.30   |
| 1   | 6-B   | 574  | ASP  | CB-CG-OD1 | 9.61  | 126.95      | 118.30   |
| 1   | 20-C  | 738  | CYS  | CA-CB-SG  | 9.59  | 131.27      | 114.00   |
| 1   | 9-A   | 916  | LEU  | CB-CG-CD1 | -9.59 | 94.70       | 111.00   |
| 1   | 14-C  | 428  | ASP  | CB-CG-OD1 | 9.54  | 126.89      | 118.30   |
| 1   | 9-C   | 878  | LEU  | CA-CB-CG  | 9.53  | 137.21      | 115.30   |
| 1   | 20-B  | 754  | LEU  | CA-CB-CG  | 9.51  | 137.16      | 115.30   |
| 1   | 18-C  | 88   | ASP  | CB-CG-OD2 | 9.49  | 126.84      | 118.30   |
| 1   | 12-A  | 864  | LEU  | CA-CB-CG  | 9.48  | 137.11      | 115.30   |
| 1   | 15-A  | 916  | LEU  | CB-CG-CD1 | -9.41 | 95.00       | 111.00   |
| 1   | 4-C   | 806  | LEU  | CA-CB-CG  | 9.40  | 136.93      | 115.30   |
| 1   | 3-A   | 916  | LEU  | CB-CG-CD2 | -9.37 | 95.06       | 111.00   |
| 1   | 13-C  | 650  | LEU  | CA-CB-CG  | 9.37  | 136.85      | 115.30   |
| 1   | 19-A  | 1012 | LEU  | CA-CB-CG  | 9.36  | 136.82      | 115.30   |
| 1   | 11-A  | 916  | LEU  | CB-CG-CD2 | -9.34 | 95.12       | 111.00   |
| 1   | 8-C   | 950  | ASP  | CB-CG-OD1 | 9.34  | 126.71      | 118.30   |
| 1   | 9-A   | 864  | LEU  | CA-CB-CG  | 9.32  | 136.75      | 115.30   |
| 1   | 18-C  | 916  | LEU  | CB-CG-CD1 | -9.30 | 95.18       | 111.00   |
| 1   | 19-B  | 738  | CYS  | CA-CB-SG  | 9.30  | 130.74      | 114.00   |
| 1   | 9-A   | 950  | ASP  | CB-CG-OD1 | 9.29  | 126.66      | 118.30   |
| 1   | 15-C  | 966  | LEU  | CA-CB-CG  | 9.29  | 136.66      | 115.30   |
| 1   | 1-A   | 916  | LEU  | CB-CG-CD2 | -9.27 | 95.24       | 111.00   |
| 1   | 2-C   | 560  | LEU  | CA-CB-CG  | 9.27  | 136.61      | 115.30   |
| 1   | 11-A  | 878  | LEU  | CA-CB-CG  | 9.26  | 136.60      | 115.30   |
| 1   | 20-B  | 796  | ASP  | CB-CG-OD1 | 9.24  | 126.61      | 118.30   |
| 1   | 10-C  | 950  | ASP  | CB-CG-OD1 | 9.23  | 126.60      | 118.30   |
| 1   | 5-C   | 763  | LEU  | CB-CG-CD2 | 9.21  | 126.65      | 111.00   |
| 1   | 11-A  | 223  | LEU  | CA-CB-CG  | 9.17  | 136.38      | 115.30   |
| 1   | 5-A   | 878  | LEU  | CA-CB-CG  | 9.16  | 136.36      | 115.30   |
| 1   | 1-B   | 428  | ASP  | CB-CG-OD1 | 9.15  | 126.53      | 118.30   |
| 1   | 9-B   | 916  | LEU  | CB-CG-CD1 | -9.14 | 95.46       | 111.00   |
| 1   | 18-A  | 916  | LEU  | CB-CG-CD2 | -9.14 | 95.46       | 111.00   |

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| Mol | Chain | Res  | Type | Atoms     | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1   | 20-C  | 916  | LEU  | CB-CG-CD2 | -9.12 | 95.49       | 111.00   |
| 1   | 2-C   | 294  | ASP  | CB-CG-OD2 | 9.11  | 126.50      | 118.30   |
| 1   | 9-B   | 737  | ASP  | CB-CG-OD1 | 9.11  | 126.50      | 118.30   |
| 1   | 9-B   | 985  | ASP  | CB-CG-OD2 | 9.11  | 126.50      | 118.30   |
| 1   | 13-C  | 763  | LEU  | CA-CB-CG  | 9.08  | 136.19      | 115.30   |
| 1   | 13-A  | 916  | LEU  | CB-CG-CD2 | -9.06 | 95.59       | 111.00   |
| 1   | 7-B   | 864  | LEU  | CA-CB-CG  | 9.06  | 136.14      | 115.30   |
| 1   | 7-C   | 916  | LEU  | CB-CG-CD2 | -9.06 | 95.60       | 111.00   |
| 1   | 7-A   | 763  | LEU  | CA-CB-CG  | 9.06  | 136.13      | 115.30   |
| 1   | 3-C   | 780  | GLU  | CA-CB-CG  | 9.04  | 133.28      | 113.40   |
| 1   | 14-C  | 864  | LEU  | CA-CB-CG  | 9.03  | 136.06      | 115.30   |
| 1   | 17-A  | 574  | ASP  | CB-CG-OD1 | 9.03  | 126.42      | 118.30   |
| 1   | 4-C   | 979  | ASP  | CB-CG-OD2 | 9.02  | 126.42      | 118.30   |
| 1   | 20-C  | 517  | LEU  | CA-CB-CG  | 9.01  | 136.01      | 115.30   |
| 1   | 1-B   | 663  | ASP  | CB-CG-OD1 | 8.99  | 126.39      | 118.30   |
| 1   | 6-C   | 586  | ASP  | CB-CG-OD1 | 8.99  | 126.39      | 118.30   |
| 1   | 9-B   | 959  | LEU  | CA-CB-CG  | 8.99  | 135.97      | 115.30   |
| 1   | 10-A  | 293  | LEU  | CA-CB-CG  | 8.98  | 135.95      | 115.30   |
| 1   | 17-C  | 198  | ASP  | CB-CG-OD1 | 8.96  | 126.36      | 118.30   |
| 1   | 20-C  | 864  | LEU  | CA-CB-CG  | 8.93  | 135.84      | 115.30   |
| 1   | 11-C  | 763  | LEU  | CB-CG-CD1 | -8.93 | 95.83       | 111.00   |
| 1   | 10-A  | 1012 | LEU  | CA-CB-CG  | 8.92  | 135.81      | 115.30   |
| 1   | 10-A  | 959  | LEU  | CA-CB-CG  | 8.92  | 135.81      | 115.30   |
| 1   | 1-B   | 878  | LEU  | CA-CB-CG  | 8.91  | 135.79      | 115.30   |
| 1   | 12-A  | 293  | LEU  | CA-CB-CG  | 8.87  | 135.69      | 115.30   |
| 1   | 15-C  | 586  | ASP  | CB-CG-OD1 | 8.87  | 126.28      | 118.30   |
| 1   | 2-C   | 546  | LEU  | CA-CB-CG  | 8.87  | 135.69      | 115.30   |
| 1   | 2-B   | 571  | ASP  | CB-CG-OD1 | 8.84  | 126.26      | 118.30   |
| 1   | 9-C   | 979  | ASP  | CB-CG-OD2 | 8.84  | 126.26      | 118.30   |
| 1   | 7-C   | 1012 | LEU  | CA-CB-CG  | 8.83  | 135.60      | 115.30   |
| 1   | 15-A  | 293  | LEU  | CA-CB-CG  | 8.80  | 135.55      | 115.30   |
| 1   | 19-C  | 177  | MET  | CA-CB-CG  | 8.79  | 128.24      | 113.30   |
| 1   | 10-C  | 1001 | LEU  | CA-CB-CG  | 8.78  | 135.50      | 115.30   |
| 1   | 8-A   | 979  | ASP  | CB-CG-OD2 | 8.78  | 126.20      | 118.30   |
| 1   | 18-A  | 753  | LEU  | CA-CB-CG  | 8.77  | 135.46      | 115.30   |
| 1   | 4-A   | 979  | ASP  | CB-CG-OD1 | 8.74  | 126.17      | 118.30   |
| 1   | 8-C   | 979  | ASP  | CB-CG-OD2 | 8.74  | 126.17      | 118.30   |
| 1   | 15-B  | 962  | LEU  | CA-CB-CG  | 8.72  | 135.36      | 115.30   |
| 1   | 20-C  | 1012 | LEU  | CA-CB-CG  | 8.72  | 135.36      | 115.30   |
| 1   | 8-A   | 916  | LEU  | CB-CG-CD2 | -8.72 | 96.17       | 111.00   |
| 1   | 9-C   | 223  | LEU  | CA-CB-CG  | 8.71  | 135.34      | 115.30   |
| 1   | 14-C  | 979  | ASP  | CB-CG-OD1 | 8.71  | 126.14      | 118.30   |

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| Mol | Chain | Res  | Type | Atoms     | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1   | 7-B   | 754  | LEU  | CA-CB-CG  | 8.70  | 135.30      | 115.30   |
| 1   | 16-C  | 916  | LEU  | CB-CG-CD1 | -8.70 | 96.22       | 111.00   |
| 1   | 5-A   | 293  | LEU  | CA-CB-CG  | 8.69  | 135.29      | 115.30   |
| 1   | 10-B  | 737  | ASP  | CB-CG-OD1 | 8.67  | 126.10      | 118.30   |
| 1   | 7-C   | 950  | ASP  | CB-CG-OD1 | 8.67  | 126.10      | 118.30   |
| 1   | 20-B  | 1012 | LEU  | CB-CG-CD1 | -8.66 | 96.28       | 111.00   |
| 1   | 11-C  | 763  | LEU  | CB-CG-CD2 | 8.65  | 125.70      | 111.00   |
| 1   | 18-A  | 198  | ASP  | CB-CG-OD1 | 8.64  | 126.08      | 118.30   |
| 1   | 1-C   | 763  | LEU  | CA-CB-CG  | 8.63  | 135.14      | 115.30   |
| 1   | 9-A   | 198  | ASP  | CB-CG-OD2 | 8.62  | 126.06      | 118.30   |
| 1   | 9-B   | 754  | LEU  | CA-CB-CG  | 8.62  | 135.13      | 115.30   |
| 1   | 14-B  | 916  | LEU  | CB-CG-CD2 | 8.62  | 125.65      | 111.00   |
| 1   | 2-A   | 290  | ASP  | CB-CG-OD1 | 8.60  | 126.04      | 118.30   |
| 1   | 10-C  | 763  | LEU  | CA-CB-CG  | 8.60  | 135.08      | 115.30   |
| 1   | 4-A   | 198  | ASP  | CB-CG-OD2 | 8.60  | 126.04      | 118.30   |
| 1   | 14-C  | 1012 | LEU  | CA-CB-CG  | 8.57  | 135.01      | 115.30   |
| 1   | 7-A   | 1012 | LEU  | CA-CB-CG  | 8.53  | 134.93      | 115.30   |
| 1   | 3-B   | 663  | ASP  | CB-CG-OD1 | 8.53  | 125.97      | 118.30   |
| 1   | 2-B   | 959  | LEU  | CA-CB-CG  | 8.51  | 134.86      | 115.30   |
| 1   | 4-B   | 754  | LEU  | CA-CB-CG  | 8.50  | 134.84      | 115.30   |
| 1   | 11-C  | 198  | ASP  | CB-CG-OD1 | 8.47  | 125.92      | 118.30   |
| 1   | 15-C  | 198  | ASP  | CB-CG-OD2 | 8.46  | 125.92      | 118.30   |
| 1   | 11-A  | 763  | LEU  | CA-CB-CG  | 8.45  | 134.74      | 115.30   |
| 1   | 1-B   | 290  | ASP  | CB-CG-OD2 | 8.45  | 125.90      | 118.30   |
| 1   | 4-C   | 1050 | MET  | CG-SD-CE  | -8.44 | 86.69       | 100.20   |
| 1   | 9-B   | 1139 | ASP  | CB-CG-OD1 | 8.44  | 125.90      | 118.30   |
| 1   | 8-A   | 198  | ASP  | CB-CG-OD2 | 8.43  | 125.89      | 118.30   |
| 1   | 6-B   | 198  | ASP  | CB-CG-OD1 | 8.42  | 125.88      | 118.30   |
| 1   | 9-C   | 902  | MET  | CA-CB-CG  | 8.42  | 127.61      | 113.30   |
| 1   | 7-B   | 763  | LEU  | CA-CB-CG  | 8.41  | 134.63      | 115.30   |
| 1   | 20-A  | 796  | ASP  | CB-CG-OD2 | 8.35  | 125.82      | 118.30   |
| 1   | 9-C   | 796  | ASP  | CB-CG-OD1 | 8.34  | 125.80      | 118.30   |
| 1   | 13-A  | 1012 | LEU  | CA-CB-CG  | 8.34  | 134.47      | 115.30   |
| 1   | 15-B  | 574  | ASP  | CB-CG-OD1 | 8.33  | 125.80      | 118.30   |
| 1   | 4-C   | 796  | ASP  | CB-CG-OD1 | 8.32  | 125.79      | 118.30   |
| 1   | 12-B  | 754  | LEU  | CA-CB-CG  | 8.32  | 134.43      | 115.30   |
| 1   | 12-C  | 223  | LEU  | CA-CB-CG  | 8.32  | 134.43      | 115.30   |
| 1   | 8-A   | 56   | LEU  | CA-CB-CG  | 8.31  | 134.41      | 115.30   |
| 1   | 7-B   | 1024 | LEU  | CA-CB-CG  | 8.29  | 134.37      | 115.30   |
| 1   | 9-C   | 864  | LEU  | CA-CB-CG  | 8.29  | 134.36      | 115.30   |
| 1   | 11-B  | 1127 | ASP  | CB-CG-OD2 | 8.28  | 125.75      | 118.30   |
| 1   | 2-C   | 938  | LEU  | CA-CB-CG  | 8.28  | 134.34      | 115.30   |

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| Mol | Chain | Res  | Type | Atoms     | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1   | 18-C  | 753  | LEU  | CA-CB-CG  | 8.27  | 134.33      | 115.30   |
| 1   | 7-C   | 981  | LEU  | CA-CB-CG  | 8.27  | 134.32      | 115.30   |
| 1   | 18-B  | 198  | ASP  | CB-CG-OD1 | 8.26  | 125.74      | 118.30   |
| 1   | 6-B   | 1139 | ASP  | CB-CG-OD1 | 8.24  | 125.72      | 118.30   |
| 1   | 13-C  | 754  | LEU  | CA-CB-CG  | 8.23  | 134.24      | 115.30   |
| 1   | 5-B   | 198  | ASP  | CB-CG-OD1 | 8.23  | 125.70      | 118.30   |
| 1   | 12-B  | 1024 | LEU  | CA-CB-CG  | 8.22  | 134.21      | 115.30   |
| 1   | 10-C  | 117  | LEU  | CA-CB-CG  | 8.21  | 134.18      | 115.30   |
| 1   | 18-A  | 229  | LEU  | CA-CB-CG  | 8.21  | 134.17      | 115.30   |
| 1   | 7-A   | 878  | LEU  | CA-CB-CG  | 8.20  | 134.17      | 115.30   |
| 1   | 8-C   | 198  | ASP  | CB-CG-OD2 | 8.20  | 125.68      | 118.30   |
| 1   | 20-C  | 1041 | ASP  | CB-CG-OD1 | 8.20  | 125.67      | 118.30   |
| 1   | 20-B  | 985  | ASP  | CB-CG-OD1 | 8.19  | 125.67      | 118.30   |
| 1   | 13-B  | 663  | ASP  | CB-CG-OD1 | 8.18  | 125.66      | 118.30   |
| 1   | 3-A   | 878  | LEU  | CA-CB-CG  | 8.17  | 134.09      | 115.30   |
| 1   | 3-B   | 985  | ASP  | CB-CG-OD1 | 8.16  | 125.64      | 118.30   |
| 1   | 1-B   | 985  | ASP  | CB-CG-OD1 | 8.15  | 125.64      | 118.30   |
| 1   | 12-B  | 762  | GLN  | CA-CB-CG  | 8.15  | 131.33      | 113.40   |
| 1   | 1-B   | 959  | LEU  | CA-CB-CG  | 8.14  | 134.03      | 115.30   |
| 1   | 14-B  | 1127 | ASP  | CB-CG-OD2 | 8.13  | 125.62      | 118.30   |
| 1   | 3-A   | 1034 | LEU  | CA-CB-CG  | 8.12  | 133.98      | 115.30   |
| 1   | 2-A   | 1005 | GLN  | CA-CB-CG  | 8.10  | 131.22      | 113.40   |
| 1   | 10-B  | 898  | PHE  | CB-CG-CD2 | 8.10  | 126.47      | 120.80   |
| 1   | 9-C   | 869  | MET  | CB-CG-SD  | 8.09  | 136.68      | 112.40   |
| 1   | 19-C  | 763  | LEU  | CB-CG-CD2 | 8.09  | 124.75      | 111.00   |
| 1   | 14-B  | 141  | LEU  | CA-CB-CG  | 8.08  | 133.89      | 115.30   |
| 1   | 5-B   | 878  | LEU  | CA-CB-CG  | 8.06  | 133.85      | 115.30   |
| 1   | 13-C  | 1050 | MET  | CG-SD-CE  | -8.06 | 87.30       | 100.20   |
| 1   | 9-C   | 1012 | LEU  | CA-CB-CG  | 8.05  | 133.83      | 115.30   |
| 1   | 19-C  | 1024 | LEU  | CA-CB-CG  | 8.04  | 133.79      | 115.30   |
| 1   | 5-A   | 140  | PHE  | CB-CG-CD1 | 8.04  | 126.43      | 120.80   |
| 1   | 7-A   | 984  | LEU  | CA-CB-CG  | 8.04  | 133.78      | 115.30   |
| 1   | 7-C   | 984  | LEU  | CA-CB-CG  | 8.03  | 133.78      | 115.30   |
| 1   | 14-B  | 755  | GLN  | CA-CB-CG  | 8.02  | 131.04      | 113.40   |
| 1   | 19-A  | 56   | LEU  | CA-CB-CG  | 8.02  | 133.74      | 115.30   |
| 1   | 4-C   | 117  | LEU  | CA-CB-CG  | 8.01  | 133.73      | 115.30   |
| 1   | 11-B  | 727  | LEU  | CA-CB-CG  | 8.01  | 133.72      | 115.30   |
| 1   | 8-A   | 172  | SER  | C-N-CA    | 8.01  | 141.72      | 121.70   |
| 1   | 19-A  | 611  | LEU  | CB-CG-CD1 | -8.00 | 97.39       | 111.00   |
| 1   | 3-B   | 878  | LEU  | CA-CB-CG  | 8.00  | 133.70      | 115.30   |
| 1   | 4-A   | 984  | LEU  | CA-CB-CG  | 8.00  | 133.70      | 115.30   |
| 1   | 7-C   | 754  | LEU  | CA-CB-CG  | 8.00  | 133.70      | 115.30   |

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| Mol | Chain | Res  | Type | Atoms     | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1   | 12-B  | 737  | ASP  | CB-CG-OD1 | 7.99  | 125.49      | 118.30   |
| 1   | 10-A  | 916  | LEU  | CB-CG-CD1 | -7.99 | 97.42       | 111.00   |
| 1   | 5-A   | 177  | MET  | CA-CB-CG  | 7.98  | 126.87      | 113.30   |
| 1   | 18-B  | 293  | LEU  | CB-CG-CD2 | 7.95  | 124.52      | 111.00   |
| 1   | 19-A  | 985  | ASP  | CB-CG-OD1 | 7.94  | 125.45      | 118.30   |
| 1   | 4-C   | 754  | LEU  | CA-CB-CG  | 7.93  | 133.54      | 115.30   |
| 1   | 12-C  | 198  | ASP  | CB-CG-OD1 | 7.93  | 125.44      | 118.30   |
| 1   | 7-B   | 962  | LEU  | CB-CG-CD1 | -7.92 | 97.53       | 111.00   |
| 1   | 14-C  | 796  | ASP  | CB-CG-OD1 | 7.92  | 125.43      | 118.30   |
| 1   | 13-B  | 959  | LEU  | CA-CB-CG  | 7.92  | 133.52      | 115.30   |
| 1   | 2-C   | 864  | LEU  | CA-CB-CG  | 7.92  | 133.51      | 115.30   |
| 1   | 18-A  | 864  | LEU  | CA-CB-CG  | 7.92  | 133.51      | 115.30   |
| 1   | 10-B  | 663  | ASP  | CB-CG-OD1 | 7.91  | 125.42      | 118.30   |
| 1   | 12-C  | 763  | LEU  | CA-CB-CG  | 7.91  | 133.49      | 115.30   |
| 1   | 4-C   | 198  | ASP  | CB-CG-OD1 | 7.90  | 125.41      | 118.30   |
| 1   | 17-B  | 753  | LEU  | CA-CB-CG  | 7.90  | 133.46      | 115.30   |
| 1   | 9-A   | 895  | GLN  | CA-CB-CG  | 7.89  | 130.77      | 113.40   |
| 1   | 12-C  | 753  | LEU  | CA-CB-CG  | 7.89  | 133.44      | 115.30   |
| 1   | 11-C  | 979  | ASP  | CB-CG-OD1 | 7.87  | 125.38      | 118.30   |
| 1   | 7-C   | 763  | LEU  | CA-CB-CG  | 7.87  | 133.40      | 115.30   |
| 1   | 9-B   | 538  | CYS  | CA-CB-SG  | 7.87  | 128.17      | 114.00   |
| 1   | 19-A  | 296  | LEU  | CB-CG-CD1 | -7.86 | 97.64       | 111.00   |
| 1   | 9-B   | 916  | LEU  | CB-CG-CD2 | 7.86  | 124.36      | 111.00   |
| 1   | 17-B  | 428  | ASP  | CB-CG-OD1 | 7.85  | 125.36      | 118.30   |
| 1   | 20-B  | 753  | LEU  | CA-CB-CG  | 7.85  | 133.35      | 115.30   |
| 1   | 5-A   | 198  | ASP  | CB-CG-OD1 | 7.84  | 125.36      | 118.30   |
| 1   | 5-C   | 1012 | LEU  | CA-CB-CG  | 7.84  | 133.33      | 115.30   |
| 1   | 11-C  | 699  | LEU  | CA-CB-CG  | 7.84  | 133.32      | 115.30   |
| 1   | 8-A   | 753  | LEU  | CA-CB-CG  | 7.83  | 133.30      | 115.30   |
| 1   | 19-C  | 996  | LEU  | CA-CB-CG  | 7.81  | 133.25      | 115.30   |
| 1   | 1-A   | 878  | LEU  | CA-CB-CG  | 7.80  | 133.24      | 115.30   |
| 1   | 16-C  | 753  | LEU  | CA-CB-CG  | 7.80  | 133.24      | 115.30   |
| 1   | 20-A  | 574  | ASP  | CB-CG-OD1 | 7.80  | 125.32      | 118.30   |
| 1   | 3-A   | 574  | ASP  | CB-CG-OD1 | 7.79  | 125.31      | 118.30   |
| 1   | 8-A   | 763  | LEU  | CA-CB-CG  | 7.79  | 133.21      | 115.30   |
| 1   | 15-B  | 864  | LEU  | CA-CB-CG  | 7.78  | 133.20      | 115.30   |
| 1   | 8-B   | 959  | LEU  | CA-CB-CG  | 7.78  | 133.18      | 115.30   |
| 1   | 12-A  | 762  | GLN  | CA-CB-CG  | 7.77  | 130.49      | 113.40   |
| 1   | 19-C  | 328  | ARG  | CG-CD-NE  | 7.76  | 128.10      | 111.80   |
| 1   | 10-B  | 697  | MET  | CB-CG-SD  | 7.76  | 135.69      | 112.40   |
| 1   | 20-B  | 287  | ASP  | CB-CG-OD1 | 7.76  | 125.29      | 118.30   |
| 1   | 4-B   | 763  | LEU  | CB-CG-CD2 | 7.75  | 124.18      | 111.00   |

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| Mol | Chain | Res  | Type | Atoms     | Z    | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|------|-------------|----------|
| 1   | 6-A   | 1118 | ASP  | CB-CG-OD2 | 7.75 | 125.28      | 118.30   |
| 1   | 18-B  | 762  | GLN  | CA-CB-CG  | 7.75 | 130.46      | 113.40   |
| 1   | 19-C  | 877  | LEU  | CA-CB-CG  | 7.75 | 133.12      | 115.30   |
| 1   | 9-C   | 985  | ASP  | CB-CG-OD2 | 7.74 | 125.26      | 118.30   |
| 1   | 14-A  | 1127 | ASP  | CB-CG-OD2 | 7.73 | 125.26      | 118.30   |
| 1   | 20-A  | 763  | LEU  | CA-CB-CG  | 7.72 | 133.06      | 115.30   |
| 1   | 2-A   | 895  | GLN  | CA-CB-CG  | 7.72 | 130.38      | 113.40   |
| 1   | 7-A   | 864  | LEU  | CA-CB-CG  | 7.72 | 133.06      | 115.30   |
| 1   | 15-B  | 754  | LEU  | CA-CB-CG  | 7.72 | 133.05      | 115.30   |
| 1   | 3-B   | 611  | LEU  | CA-CB-CG  | 7.72 | 133.05      | 115.30   |
| 1   | 1-B   | 898  | PHE  | CB-CG-CD1 | 7.71 | 126.20      | 120.80   |
| 1   | 15-C  | 922  | LEU  | CA-CB-CG  | 7.69 | 132.99      | 115.30   |
| 1   | 10-A  | 189  | LEU  | CA-CB-CG  | 7.68 | 132.97      | 115.30   |
| 1   | 14-B  | 663  | ASP  | CB-CG-OD2 | 7.67 | 125.21      | 118.30   |
| 1   | 4-B   | 663  | ASP  | CB-CG-OD2 | 7.67 | 125.21      | 118.30   |
| 1   | 7-B   | 291  | CYS  | CA-CB-SG  | 7.66 | 127.79      | 114.00   |
| 1   | 19-C  | 984  | LEU  | CA-CB-CG  | 7.66 | 132.91      | 115.30   |
| 1   | 20-C  | 902  | MET  | CA-CB-CG  | 7.65 | 126.31      | 113.30   |
| 1   | 2-B   | 287  | ASP  | CB-CG-OD1 | 7.65 | 125.18      | 118.30   |
| 1   | 19-C  | 1012 | LEU  | CA-CB-CG  | 7.64 | 132.88      | 115.30   |
| 1   | 9-A   | 765  | ARG  | CA-CB-CG  | 7.64 | 130.21      | 113.40   |
| 1   | 17-A  | 568  | ASP  | CB-CG-OD1 | 7.64 | 125.18      | 118.30   |
| 1   | 6-A   | 985  | ASP  | CB-CG-OD1 | 7.64 | 125.17      | 118.30   |
| 1   | 9-A   | 568  | ASP  | CB-CG-OD1 | 7.63 | 125.17      | 118.30   |
| 1   | 8-A   | 568  | ASP  | CB-CG-OD1 | 7.63 | 125.17      | 118.30   |
| 1   | 12-C  | 996  | LEU  | CA-CB-CG  | 7.62 | 132.83      | 115.30   |
| 1   | 13-C  | 738  | CYS  | CA-CB-SG  | 7.62 | 127.72      | 114.00   |
| 1   | 11-B  | 985  | ASP  | CB-CG-OD1 | 7.62 | 125.16      | 118.30   |
| 1   | 12-B  | 822  | LEU  | CA-CB-CG  | 7.61 | 132.81      | 115.30   |
| 1   | 12-A  | 996  | LEU  | CA-CB-CG  | 7.60 | 132.79      | 115.30   |
| 1   | 12-C  | 864  | LEU  | CA-CB-CG  | 7.60 | 132.77      | 115.30   |
| 1   | 13-B  | 753  | LEU  | CA-CB-CG  | 7.58 | 132.74      | 115.30   |
| 1   | 14-C  | 966  | LEU  | CA-CB-CG  | 7.58 | 132.73      | 115.30   |
| 1   | 13-C  | 1012 | LEU  | CA-CB-CG  | 7.57 | 132.71      | 115.30   |
| 1   | 17-B  | 1012 | LEU  | CA-CB-CG  | 7.57 | 132.71      | 115.30   |
| 1   | 19-A  | 938  | LEU  | CA-CB-CG  | 7.57 | 132.71      | 115.30   |
| 1   | 3-A   | 755  | GLN  | CA-CB-CG  | 7.57 | 130.04      | 113.40   |
| 1   | 13-C  | 168  | PHE  | CB-CG-CD1 | 7.57 | 126.09      | 120.80   |
| 1   | 20-B  | 959  | LEU  | CA-CB-CG  | 7.57 | 132.70      | 115.30   |
| 1   | 10-A  | 1010 | GLN  | CA-CB-CG  | 7.56 | 130.03      | 113.40   |
| 1   | 1-A   | 568  | ASP  | CB-CG-OD1 | 7.55 | 125.10      | 118.30   |
| 1   | 20-C  | 198  | ASP  | CB-CG-OD1 | 7.54 | 125.09      | 118.30   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 1-A   | 198  | ASP  | CB-CG-OD2  | 7.54  | 125.08      | 118.30   |
| 1   | 4-C   | 882  | ILE  | CG1-CB-CG2 | -7.53 | 94.83       | 111.40   |
| 1   | 1-A   | 763  | LEU  | CA-CB-CG   | 7.53  | 132.61      | 115.30   |
| 1   | 19-A  | 56   | LEU  | CB-CG-CD2  | -7.53 | 98.21       | 111.00   |
| 1   | 19-A  | 287  | ASP  | CB-CG-OD1  | 7.53  | 125.07      | 118.30   |
| 1   | 15-A  | 697  | MET  | CA-CB-CG   | 7.52  | 126.08      | 113.30   |
| 1   | 14-A  | 763  | LEU  | CA-CB-CG   | 7.51  | 132.58      | 115.30   |
| 1   | 15-C  | 663  | ASP  | CB-CG-OD2  | 7.51  | 125.06      | 118.30   |
| 1   | 9-C   | 948  | LEU  | CA-CB-CG   | 7.51  | 132.58      | 115.30   |
| 1   | 2-A   | 1012 | LEU  | CA-CB-CG   | 7.51  | 132.57      | 115.30   |
| 1   | 17-B  | 177  | MET  | CG-SD-CE   | -7.50 | 88.20       | 100.20   |
| 1   | 8-C   | 902  | MET  | CA-CB-CG   | 7.49  | 126.03      | 113.30   |
| 1   | 15-C  | 806  | LEU  | CA-CB-CG   | 7.49  | 132.52      | 115.30   |
| 1   | 19-B  | 760  | CYS  | CA-CB-SG   | -7.49 | 100.52      | 114.00   |
| 1   | 5-C   | 198  | ASP  | CB-CG-OD1  | 7.49  | 125.04      | 118.30   |
| 1   | 6-A   | 1012 | LEU  | CA-CB-CG   | 7.47  | 132.49      | 115.30   |
| 1   | 4-C   | 922  | LEU  | CA-CB-CG   | 7.47  | 132.49      | 115.30   |
| 1   | 6-A   | 916  | LEU  | CB-CG-CD2  | -7.47 | 98.30       | 111.00   |
| 1   | 10-C  | 966  | LEU  | CA-CB-CG   | 7.47  | 132.48      | 115.30   |
| 1   | 4-C   | 916  | LEU  | CB-CG-CD2  | -7.46 | 98.31       | 111.00   |
| 1   | 8-C   | 650  | LEU  | CA-CB-CG   | 7.46  | 132.47      | 115.30   |
| 1   | 13-C  | 86   | PHE  | CB-CG-CD1  | 7.46  | 126.02      | 120.80   |
| 1   | 19-A  | 194  | PHE  | CB-CG-CD2  | -7.45 | 115.59      | 120.80   |
| 1   | 20-C  | 922  | LEU  | CA-CB-CG   | 7.45  | 132.43      | 115.30   |
| 1   | 12-A  | 737  | ASP  | CB-CG-OD1  | 7.44  | 125.00      | 118.30   |
| 1   | 3-C   | 198  | ASP  | CB-CG-OD1  | 7.43  | 124.99      | 118.30   |
| 1   | 11-C  | 1005 | GLN  | CA-CB-CG   | 7.42  | 129.73      | 113.40   |
| 1   | 16-A  | 568  | ASP  | CB-CG-OD1  | 7.42  | 124.98      | 118.30   |
| 1   | 4-A   | 568  | ASP  | CB-CG-OD1  | 7.41  | 124.97      | 118.30   |
| 1   | 16-A  | 223  | LEU  | CA-CB-CG   | 7.41  | 132.35      | 115.30   |
| 1   | 10-B  | 959  | LEU  | CB-CG-CD2  | 7.41  | 123.60      | 111.00   |
| 1   | 20-A  | 568  | ASP  | CB-CG-OD1  | 7.41  | 124.97      | 118.30   |
| 1   | 6-B   | 959  | LEU  | CA-CB-CG   | 7.41  | 132.34      | 115.30   |
| 1   | 1-B   | 224  | GLU  | CA-CB-CG   | 7.41  | 129.69      | 113.40   |
| 1   | 10-C  | 41   | LYS  | CA-CB-CG   | 7.40  | 129.68      | 113.40   |
| 1   | 16-B  | 290  | ASP  | CB-CG-OD1  | 7.38  | 124.94      | 118.30   |
| 1   | 14-B  | 959  | LEU  | CB-CG-CD2  | 7.37  | 123.53      | 111.00   |
| 1   | 1-A   | 298  | GLU  | CA-CB-CG   | 7.37  | 129.60      | 113.40   |
| 1   | 13-B  | 985  | ASP  | CB-CG-OD1  | 7.36  | 124.93      | 118.30   |
| 1   | 20-C  | 538  | CYS  | CA-CB-SG   | 7.36  | 127.25      | 114.00   |
| 1   | 2-A   | 864  | LEU  | CA-CB-CG   | 7.36  | 132.22      | 115.30   |
| 1   | 10-C  | 277  | LEU  | CA-CB-CG   | 7.36  | 132.22      | 115.30   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 15-B  | 864  | LEU  | CB-CG-CD1  | -7.36 | 98.50       | 111.00   |
| 1   | 20-B  | 118  | LEU  | CA-CB-CG   | 7.36  | 132.22      | 115.30   |
| 1   | 9-B   | 878  | LEU  | CA-CB-CG   | 7.34  | 132.19      | 115.30   |
| 1   | 12-B  | 294  | ASP  | CB-CG-OD1  | 7.34  | 124.91      | 118.30   |
| 1   | 17-B  | 898  | PHE  | CB-CG-CD1  | 7.34  | 125.94      | 120.80   |
| 1   | 20-C  | 117  | LEU  | CA-CB-CG   | 7.34  | 132.18      | 115.30   |
| 1   | 2-C   | 865  | LEU  | CA-CB-CG   | 7.34  | 132.17      | 115.30   |
| 1   | 13-B  | 84   | LEU  | CA-CB-CG   | 7.34  | 132.18      | 115.30   |
| 1   | 14-C  | 894  | LEU  | CA-CB-CG   | 7.33  | 132.16      | 115.30   |
| 1   | 13-B  | 964  | LYS  | CD-CE-NZ   | -7.33 | 94.85       | 111.70   |
| 1   | 5-A   | 864  | LEU  | CA-CB-CG   | 7.33  | 132.15      | 115.30   |
| 1   | 5-B   | 959  | LEU  | CA-CB-CG   | 7.32  | 132.15      | 115.30   |
| 1   | 8-B   | 611  | LEU  | CA-CB-CG   | 7.32  | 132.14      | 115.30   |
| 1   | 14-C  | 996  | LEU  | CA-CB-CG   | 7.32  | 132.14      | 115.30   |
| 1   | 12-C  | 984  | LEU  | CA-CB-CG   | 7.31  | 132.11      | 115.30   |
| 1   | 12-C  | 118  | LEU  | CA-CB-CG   | 7.30  | 132.10      | 115.30   |
| 1   | 9-C   | 922  | LEU  | CA-CB-CG   | 7.30  | 132.09      | 115.30   |
| 1   | 16-C  | 938  | LEU  | CA-CB-CG   | 7.29  | 132.07      | 115.30   |
| 1   | 6-B   | 168  | PHE  | CB-CG-CD2  | 7.28  | 125.90      | 120.80   |
| 1   | 9-C   | 223  | LEU  | CB-CG-CD2  | -7.28 | 98.62       | 111.00   |
| 1   | 1-A   | 864  | LEU  | CA-CB-CG   | 7.28  | 132.03      | 115.30   |
| 1   | 14-C  | 1141 | LEU  | CA-CB-CG   | 7.28  | 132.03      | 115.30   |
| 1   | 13-A  | 763  | LEU  | CA-CB-CG   | 7.27  | 132.03      | 115.30   |
| 1   | 19-C  | 985  | ASP  | CB-CG-OD1  | 7.26  | 124.83      | 118.30   |
| 1   | 3-C   | 753  | LEU  | CA-CB-CG   | 7.25  | 131.99      | 115.30   |
| 1   | 6-C   | 1012 | LEU  | CA-CB-CG   | 7.25  | 131.98      | 115.30   |
| 1   | 13-A  | 290  | ASP  | CB-CG-OD2  | 7.25  | 124.83      | 118.30   |
| 1   | 9-B   | 546  | LEU  | CA-CB-CG   | 7.25  | 131.97      | 115.30   |
| 1   | 16-B  | 611  | LEU  | CA-CB-CG   | 7.25  | 131.97      | 115.30   |
| 1   | 4-C   | 822  | LEU  | CA-CB-CG   | 7.24  | 131.95      | 115.30   |
| 1   | 5-B   | 86   | PHE  | CB-CG-CD1  | 7.24  | 125.87      | 120.80   |
| 1   | 14-C  | 922  | LEU  | CA-CB-CG   | 7.23  | 131.94      | 115.30   |
| 1   | 3-A   | 290  | ASP  | CB-CG-OD2  | 7.23  | 124.80      | 118.30   |
| 1   | 3-B   | 287  | ASP  | CB-CG-OD1  | 7.22  | 124.80      | 118.30   |
| 1   | 16-A  | 864  | LEU  | CA-CB-CG   | 7.22  | 131.91      | 115.30   |
| 1   | 10-B  | 1012 | LEU  | CA-CB-CG   | 7.22  | 131.91      | 115.30   |
| 1   | 5-A   | 140  | PHE  | CB-CG-CD2  | -7.22 | 115.75      | 120.80   |
| 1   | 15-B  | 1024 | LEU  | CA-CB-CG   | 7.22  | 131.91      | 115.30   |
| 1   | 13-C  | 922  | LEU  | CA-CB-CG   | 7.22  | 131.90      | 115.30   |
| 1   | 2-B   | 737  | ASP  | CB-CG-OD2  | 7.22  | 124.79      | 118.30   |
| 1   | 9-A   | 697  | MET  | CA-CB-CG   | 7.22  | 125.57      | 113.30   |
| 1   | 19-B  | 770  | ILE  | CG1-CB-CG2 | -7.22 | 95.53       | 111.40   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 1-B   | 1034 | LEU  | CA-CB-CG   | 7.21  | 131.90      | 115.30   |
| 1   | 2-B   | 776  | LYS  | CA-CB-CG   | 7.21  | 129.26      | 113.40   |
| 1   | 8-B   | 898  | PHE  | CB-CG-CD1  | 7.21  | 125.85      | 120.80   |
| 1   | 13-A  | 727  | LEU  | CA-CB-CG   | 7.21  | 131.87      | 115.30   |
| 1   | 19-C  | 922  | LEU  | CA-CB-CG   | 7.21  | 131.88      | 115.30   |
| 1   | 10-B  | 922  | LEU  | CA-CB-CG   | 7.21  | 131.87      | 115.30   |
| 1   | 9-B   | 934  | ILE  | CG1-CB-CG2 | -7.20 | 95.56       | 111.40   |
| 1   | 3-C   | 1139 | ASP  | CB-CG-OD1  | 7.20  | 124.78      | 118.30   |
| 1   | 5-C   | 763  | LEU  | CB-CG-CD1  | -7.20 | 98.77       | 111.00   |
| 1   | 8-A   | 864  | LEU  | CA-CB-CG   | 7.20  | 131.85      | 115.30   |
| 1   | 19-B  | 959  | LEU  | CA-CB-CG   | 7.20  | 131.85      | 115.30   |
| 1   | 12-A  | 945  | LEU  | CA-CB-CG   | 7.19  | 131.84      | 115.30   |
| 1   | 18-A  | 671  | CYS  | CA-CB-SG   | 7.19  | 126.94      | 114.00   |
| 1   | 1-A   | 1092 | GLU  | CA-CB-CG   | 7.18  | 129.21      | 113.40   |
| 1   | 12-C  | 985  | ASP  | CB-CG-OD2  | 7.18  | 124.76      | 118.30   |
| 1   | 15-A  | 568  | ASP  | CB-CG-OD1  | 7.18  | 124.76      | 118.30   |
| 1   | 19-B  | 1029 | MET  | CB-CG-SD   | 7.18  | 133.94      | 112.40   |
| 1   | 20-C  | 760  | CYS  | CA-CB-SG   | -7.18 | 101.08      | 114.00   |
| 1   | 19-A  | 296  | LEU  | CA-CB-CG   | 7.17  | 131.80      | 115.30   |
| 1   | 16-C  | 727  | LEU  | CA-CB-CG   | 7.17  | 131.78      | 115.30   |
| 1   | 18-C  | 954  | GLN  | CA-CB-CG   | 7.17  | 129.16      | 113.40   |
| 1   | 7-B   | 1012 | LEU  | CB-CG-CD2  | 7.15  | 123.16      | 111.00   |
| 1   | 3-B   | 898  | PHE  | CB-CG-CD1  | 7.15  | 125.81      | 120.80   |
| 1   | 17-A  | 763  | LEU  | CA-CB-CG   | 7.15  | 131.74      | 115.30   |
| 1   | 16-B  | 922  | LEU  | CA-CB-CG   | 7.14  | 131.73      | 115.30   |
| 1   | 20-B  | 762  | GLN  | CA-CB-CG   | 7.14  | 129.11      | 113.40   |
| 1   | 6-B   | 985  | ASP  | CB-CG-OD1  | 7.14  | 124.72      | 118.30   |
| 1   | 9-A   | 900  | MET  | CG-SD-CE   | -7.14 | 88.78       | 100.20   |
| 1   | 18-A  | 993  | ILE  | CG1-CB-CG2 | -7.14 | 95.70       | 111.40   |
| 1   | 1-A   | 774  | GLN  | CA-CB-CG   | 7.14  | 129.10      | 113.40   |
| 1   | 2-C   | 776  | LYS  | CA-CB-CG   | 7.13  | 129.09      | 113.40   |
| 1   | 7-B   | 878  | LEU  | CB-CG-CD2  | 7.12  | 123.11      | 111.00   |
| 1   | 18-B  | 878  | LEU  | CA-CB-CG   | 7.12  | 131.67      | 115.30   |
| 1   | 14-C  | 737  | ASP  | CB-CG-OD2  | 7.12  | 124.70      | 118.30   |
| 1   | 1-C   | 938  | LEU  | CA-CB-CG   | 7.11  | 131.66      | 115.30   |
| 1   | 16-A  | 223  | LEU  | CB-CG-CD1  | -7.11 | 98.91       | 111.00   |
| 1   | 10-C  | 922  | LEU  | CA-CB-CG   | 7.11  | 131.64      | 115.30   |
| 1   | 8-B   | 177  | MET  | CG-SD-CE   | -7.09 | 88.85       | 100.20   |
| 1   | 1-C   | 770  | ILE  | CG1-CB-CG2 | -7.09 | 95.81       | 111.40   |
| 1   | 20-A  | 1024 | LEU  | CB-CG-CD2  | 7.09  | 123.05      | 111.00   |
| 1   | 3-B   | 1139 | ASP  | CB-CG-OD2  | 7.08  | 124.67      | 118.30   |
| 1   | 18-C  | 763  | LEU  | CA-CB-CG   | 7.08  | 131.59      | 115.30   |

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| Mol | Chain | Res  | Type | Atoms     | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1   | 9-C   | 117  | LEU  | CA-CB-CG  | 7.08  | 131.59      | 115.30   |
| 1   | 13-C  | 864  | LEU  | CA-CB-CG  | 7.08  | 131.57      | 115.30   |
| 1   | 17-C  | 877  | LEU  | CA-CB-CG  | 7.08  | 131.57      | 115.30   |
| 1   | 4-B   | 916  | LEU  | CB-CG-CD2 | 7.07  | 123.03      | 111.00   |
| 1   | 19-C  | 988  | GLU  | CA-CB-CG  | 7.07  | 128.96      | 113.40   |
| 1   | 2-A   | 737  | ASP  | CB-CG-OD1 | 7.07  | 124.66      | 118.30   |
| 1   | 5-B   | 117  | LEU  | CA-CB-CG  | 7.07  | 131.56      | 115.30   |
| 1   | 10-B  | 287  | ASP  | CB-CG-OD1 | 7.05  | 124.64      | 118.30   |
| 1   | 18-C  | 938  | LEU  | CA-CB-CG  | 7.05  | 131.51      | 115.30   |
| 1   | 7-C   | 737  | ASP  | CB-CG-OD1 | 7.04  | 124.64      | 118.30   |
| 1   | 6-A   | 878  | LEU  | CA-CB-CG  | 7.04  | 131.50      | 115.30   |
| 1   | 20-A  | 864  | LEU  | CA-CB-CG  | 7.04  | 131.50      | 115.30   |
| 1   | 15-B  | 753  | LEU  | CA-CB-CG  | 7.04  | 131.49      | 115.30   |
| 1   | 7-A   | 916  | LEU  | CB-CG-CD2 | -7.02 | 99.07       | 111.00   |
| 1   | 12-C  | 172  | SER  | C-N-CA    | 7.02  | 139.24      | 121.70   |
| 1   | 2-C   | 954  | GLN  | CA-CB-CG  | 7.02  | 128.84      | 113.40   |
| 1   | 10-B  | 959  | LEU  | CA-CB-CG  | 7.01  | 131.44      | 115.30   |
| 1   | 11-C  | 738  | CYS  | CA-CB-SG  | 7.01  | 126.63      | 114.00   |
| 1   | 9-A   | 754  | LEU  | CA-CB-CG  | 7.01  | 131.43      | 115.30   |
| 1   | 16-C  | 198  | ASP  | CB-CG-OD1 | 7.01  | 124.61      | 118.30   |
| 1   | 5-B   | 985  | ASP  | CB-CG-OD1 | 7.00  | 124.60      | 118.30   |
| 1   | 15-C  | 1012 | LEU  | CA-CB-CG  | 7.00  | 131.41      | 115.30   |
| 1   | 19-B  | 287  | ASP  | CB-CG-OD2 | 7.00  | 124.60      | 118.30   |
| 1   | 11-B  | 948  | LEU  | CA-CB-CG  | 7.00  | 131.39      | 115.30   |
| 1   | 1-C   | 753  | LEU  | CA-CB-CG  | 6.99  | 131.38      | 115.30   |
| 1   | 4-A   | 878  | LEU  | CA-CB-CG  | 6.99  | 131.38      | 115.30   |
| 1   | 20-A  | 994  | ASP  | CB-CG-OD1 | 6.99  | 124.59      | 118.30   |
| 1   | 1-B   | 762  | GLN  | CA-CB-CG  | 6.98  | 128.76      | 113.40   |
| 1   | 8-A   | 675  | GLN  | CA-CB-CG  | 6.98  | 128.75      | 113.40   |
| 1   | 17-B  | 743  | CYS  | CA-CB-SG  | 6.98  | 126.56      | 114.00   |
| 1   | 10-C  | 86   | PHE  | CB-CG-CD1 | 6.98  | 125.68      | 120.80   |
| 1   | 17-B  | 586  | ASP  | CB-CG-OD1 | 6.97  | 124.58      | 118.30   |
| 1   | 14-B  | 1139 | ASP  | CB-CG-OD2 | 6.97  | 124.57      | 118.30   |
| 1   | 8-C   | 776  | LYS  | CA-CB-CG  | 6.96  | 128.71      | 113.40   |
| 1   | 20-A  | 765  | ARG  | CA-CB-CG  | 6.96  | 128.71      | 113.40   |
| 1   | 18-B  | 118  | LEU  | CA-CB-CG  | 6.96  | 131.30      | 115.30   |
| 1   | 3-A   | 229  | LEU  | CA-CB-CG  | 6.95  | 131.29      | 115.30   |
| 1   | 18-C  | 780  | GLU  | N-CA-CB   | 6.95  | 123.12      | 110.60   |
| 1   | 20-A  | 762  | GLN  | CA-CB-CG  | 6.95  | 128.70      | 113.40   |
| 1   | 13-C  | 586  | ASP  | CB-CG-OD1 | 6.95  | 124.56      | 118.30   |
| 1   | 3-A   | 1118 | ASP  | CB-CG-OD2 | 6.95  | 124.55      | 118.30   |
| 1   | 4-C   | 177  | MET  | CA-CB-CG  | 6.94  | 125.10      | 113.30   |

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| Mol | Chain | Res  | Type | Atoms     | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1   | 19-B  | 118  | LEU  | CA-CB-CG  | 6.94  | 131.26      | 115.30   |
| 1   | 6-B   | 663  | ASP  | CB-CG-OD1 | 6.93  | 124.54      | 118.30   |
| 1   | 7-A   | 1029 | MET  | CB-CG-SD  | 6.93  | 133.20      | 112.40   |
| 1   | 13-C  | 1002 | GLN  | CA-CB-CG  | 6.93  | 128.65      | 113.40   |
| 1   | 1-A   | 585  | LEU  | CA-CB-CG  | 6.92  | 131.22      | 115.30   |
| 1   | 7-B   | 966  | LEU  | CA-CB-CG  | 6.92  | 131.22      | 115.30   |
| 1   | 2-C   | 198  | ASP  | CB-CG-OD1 | 6.92  | 124.53      | 118.30   |
| 1   | 13-A  | 737  | ASP  | CB-CG-OD1 | 6.91  | 124.52      | 118.30   |
| 1   | 10-A  | 1041 | ASP  | CB-CG-OD1 | 6.91  | 124.52      | 118.30   |
| 1   | 14-A  | 117  | LEU  | CA-CB-CG  | 6.91  | 131.19      | 115.30   |
| 1   | 11-A  | 1012 | LEU  | CB-CG-CD2 | 6.90  | 122.73      | 111.00   |
| 1   | 15-C  | 864  | LEU  | CA-CB-CG  | 6.90  | 131.16      | 115.30   |
| 1   | 7-B   | 985  | ASP  | CB-CG-OD2 | 6.89  | 124.50      | 118.30   |
| 1   | 17-B  | 878  | LEU  | CB-CG-CD2 | 6.89  | 122.72      | 111.00   |
| 1   | 20-B  | 663  | ASP  | CB-CG-OD1 | 6.89  | 124.50      | 118.30   |
| 1   | 3-A   | 727  | LEU  | CA-CB-CG  | 6.89  | 131.14      | 115.30   |
| 1   | 4-B   | 727  | LEU  | CA-CB-CG  | 6.88  | 131.13      | 115.30   |
| 1   | 12-B  | 985  | ASP  | CB-CG-OD1 | 6.88  | 124.50      | 118.30   |
| 1   | 6-C   | 864  | LEU  | CA-CB-CG  | 6.88  | 131.12      | 115.30   |
| 1   | 13-B  | 776  | LYS  | CA-CB-CG  | 6.87  | 128.52      | 113.40   |
| 1   | 13-A  | 552  | LEU  | CA-CB-CG  | 6.87  | 131.10      | 115.30   |
| 1   | 14-B  | 948  | LEU  | CA-CB-CG  | 6.87  | 131.10      | 115.30   |
| 1   | 18-B  | 822  | LEU  | CA-CB-CG  | 6.86  | 131.08      | 115.30   |
| 1   | 14-C  | 957  | GLN  | CA-CB-CG  | 6.86  | 128.49      | 113.40   |
| 1   | 10-C  | 754  | LEU  | CA-CB-CG  | 6.85  | 131.06      | 115.30   |
| 1   | 14-C  | 1034 | LEU  | CA-CB-CG  | 6.85  | 131.05      | 115.30   |
| 1   | 2-A   | 762  | GLN  | CA-CB-CG  | 6.84  | 128.45      | 113.40   |
| 1   | 7-C   | 298  | GLU  | N-CA-CB   | 6.84  | 122.91      | 110.60   |
| 1   | 9-C   | 760  | CYS  | CA-CB-SG  | -6.84 | 101.69      | 114.00   |
| 1   | 5-A   | 878  | LEU  | CB-CG-CD2 | 6.83  | 122.62      | 111.00   |
| 1   | 14-C  | 117  | LEU  | CA-CB-CG  | 6.83  | 131.01      | 115.30   |
| 1   | 3-B   | 55   | PHE  | CB-CG-CD2 | 6.83  | 125.58      | 120.80   |
| 1   | 11-C  | 271  | GLN  | CA-CB-CG  | 6.83  | 128.42      | 113.40   |
| 1   | 17-C  | 675  | GLN  | CA-CB-CG  | 6.82  | 128.40      | 113.40   |
| 1   | 17-C  | 894  | LEU  | CA-CB-CG  | 6.82  | 130.98      | 115.30   |
| 1   | 14-B  | 287  | ASP  | CB-CG-OD1 | 6.80  | 124.42      | 118.30   |
| 1   | 4-B   | 898  | PHE  | CB-CG-CD1 | 6.80  | 125.56      | 120.80   |
| 1   | 10-A  | 697  | MET  | CB-CG-SD  | 6.80  | 132.81      | 112.40   |
| 1   | 16-A  | 574  | ASP  | CB-CG-OD2 | 6.80  | 124.42      | 118.30   |
| 1   | 10-B  | 780  | GLU  | CA-CB-CG  | 6.80  | 128.36      | 113.40   |
| 1   | 3-B   | 118  | LEU  | CA-CB-CG  | 6.80  | 130.94      | 115.30   |
| 1   | 1-A   | 776  | LYS  | CA-CB-CG  | 6.79  | 128.35      | 113.40   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 4-C   | 1004 | LEU  | CB-CG-CD2  | 6.79  | 122.55      | 111.00   |
| 1   | 1-B   | 117  | LEU  | CA-CB-CG   | 6.79  | 130.93      | 115.30   |
| 1   | 14-C  | 118  | LEU  | CA-CB-CG   | 6.79  | 130.93      | 115.30   |
| 1   | 8-A   | 56   | LEU  | CB-CG-CD2  | -6.79 | 99.45       | 111.00   |
| 1   | 13-A  | 194  | PHE  | CB-CG-CD1  | 6.79  | 125.55      | 120.80   |
| 1   | 10-B  | 118  | LEU  | CA-CB-CG   | 6.78  | 130.89      | 115.30   |
| 1   | 4-C   | 1029 | MET  | CB-CG-SD   | 6.77  | 132.72      | 112.40   |
| 1   | 10-A  | 697  | MET  | CA-CB-CG   | 6.77  | 124.81      | 113.30   |
| 1   | 4-C   | 938  | LEU  | CA-CB-CG   | 6.77  | 130.86      | 115.30   |
| 1   | 13-C  | 806  | LEU  | CA-CB-CG   | 6.77  | 130.87      | 115.30   |
| 1   | 11-B  | 938  | LEU  | CA-CB-CG   | 6.76  | 130.86      | 115.30   |
| 1   | 19-A  | 962  | LEU  | CA-CB-CG   | 6.76  | 130.86      | 115.30   |
| 1   | 14-A  | 172  | SER  | C-N-CA     | 6.76  | 138.60      | 121.70   |
| 1   | 10-C  | 118  | LEU  | CA-CB-CG   | 6.76  | 130.84      | 115.30   |
| 1   | 12-A  | 767  | LEU  | CA-CB-CG   | 6.76  | 130.84      | 115.30   |
| 1   | 15-C  | 1024 | LEU  | CA-CB-CG   | 6.75  | 130.82      | 115.30   |
| 1   | 3-A   | 864  | LEU  | CA-CB-CG   | 6.75  | 130.82      | 115.30   |
| 1   | 19-A  | 194  | PHE  | CB-CG-CD1  | 6.75  | 125.52      | 120.80   |
| 1   | 11-A  | 574  | ASP  | CB-CG-OD2  | 6.74  | 124.37      | 118.30   |
| 1   | 19-B  | 663  | ASP  | CB-CG-OD2  | 6.74  | 124.37      | 118.30   |
| 1   | 5-B   | 878  | LEU  | CB-CG-CD2  | 6.74  | 122.46      | 111.00   |
| 1   | 9-A   | 822  | LEU  | CA-CB-CG   | 6.74  | 130.80      | 115.30   |
| 1   | 20-A  | 293  | LEU  | CB-CG-CD2  | 6.74  | 122.46      | 111.00   |
| 1   | 17-A  | 996  | LEU  | CA-CB-CG   | 6.74  | 130.80      | 115.30   |
| 1   | 8-A   | 938  | LEU  | CA-CB-CG   | 6.74  | 130.80      | 115.30   |
| 1   | 20-A  | 298  | GLU  | CA-CB-CG   | 6.74  | 128.22      | 113.40   |
| 1   | 19-B  | 1024 | LEU  | CA-CB-CG   | 6.73  | 130.79      | 115.30   |
| 1   | 9-A   | 671  | CYS  | CA-CB-SG   | 6.73  | 126.12      | 114.00   |
| 1   | 8-B   | 1018 | ILE  | CG1-CB-CG2 | -6.72 | 96.61       | 111.40   |
| 1   | 2-B   | 950  | ASP  | CB-CG-OD1  | 6.72  | 124.35      | 118.30   |
| 1   | 8-C   | 966  | LEU  | CA-CB-CG   | 6.72  | 130.76      | 115.30   |
| 1   | 14-A  | 864  | LEU  | CA-CB-CG   | 6.72  | 130.75      | 115.30   |
| 1   | 11-C  | 916  | LEU  | CB-CG-CD2  | -6.72 | 99.58       | 111.00   |
| 1   | 19-C  | 877  | LEU  | CB-CG-CD2  | 6.72  | 122.42      | 111.00   |
| 1   | 19-A  | 738  | CYS  | CA-CB-SG   | 6.71  | 126.08      | 114.00   |
| 1   | 10-B  | 776  | LYS  | CA-CB-CG   | 6.71  | 128.16      | 113.40   |
| 1   | 12-C  | 740  | MET  | CB-CG-SD   | 6.70  | 132.51      | 112.40   |
| 1   | 20-C  | 428  | ASP  | CB-CG-OD2  | -6.70 | 112.27      | 118.30   |
| 1   | 19-B  | 981  | LEU  | CA-CB-CG   | 6.70  | 130.70      | 115.30   |
| 1   | 5-B   | 985  | ASP  | CB-CA-C    | 6.69  | 123.78      | 110.40   |
| 1   | 8-B   | 287  | ASP  | CB-CG-OD2  | 6.69  | 124.32      | 118.30   |
| 1   | 10-C  | 294  | ASP  | CB-CG-OD1  | 6.69  | 124.32      | 118.30   |

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| Mol | Chain | Res  | Type | Atoms     | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1   | 9-A   | 822  | LEU  | CB-CG-CD2 | 6.69  | 122.37      | 111.00   |
| 1   | 12-B  | 773  | GLU  | CA-CB-CG  | 6.69  | 128.12      | 113.40   |
| 1   | 2-C   | 675  | GLN  | CA-CB-CG  | 6.69  | 128.11      | 113.40   |
| 1   | 14-C  | 902  | MET  | CA-CB-CG  | 6.69  | 124.67      | 113.30   |
| 1   | 16-C  | 817  | PHE  | CB-CG-CD1 | 6.69  | 125.48      | 120.80   |
| 1   | 19-B  | 1012 | LEU  | CB-CG-CD2 | 6.68  | 122.36      | 111.00   |
| 1   | 9-B   | 590  | CYS  | CA-CB-SG  | 6.68  | 126.03      | 114.00   |
| 1   | 2-B   | 40   | ASP  | CB-CG-OD2 | 6.68  | 124.31      | 118.30   |
| 1   | 9-C   | 287  | ASP  | CB-CG-OD2 | 6.68  | 124.31      | 118.30   |
| 1   | 20-B  | 822  | LEU  | CA-CB-CG  | 6.68  | 130.66      | 115.30   |
| 1   | 17-C  | 88   | ASP  | CB-CG-OD1 | -6.67 | 112.30      | 118.30   |
| 1   | 8-A   | 996  | LEU  | CA-CB-CG  | 6.67  | 130.64      | 115.30   |
| 1   | 20-C  | 129  | LYS  | CA-CB-CG  | 6.67  | 128.07      | 113.40   |
| 1   | 12-C  | 671  | CYS  | CB-CA-C   | 6.67  | 123.73      | 110.40   |
| 1   | 3-B   | 731  | MET  | CA-CB-CG  | 6.67  | 124.63      | 113.30   |
| 1   | 5-B   | 301  | CYS  | CA-CB-SG  | 6.66  | 126.00      | 114.00   |
| 1   | 13-B  | 699  | LEU  | CB-CG-CD2 | -6.66 | 99.67       | 111.00   |
| 1   | 4-B   | 954  | GLN  | N-CA-CB   | 6.66  | 122.59      | 110.60   |
| 1   | 6-B   | 293  | LEU  | CA-CB-CG  | 6.66  | 130.61      | 115.30   |
| 1   | 19-C  | 168  | PHE  | CB-CG-CD2 | 6.66  | 125.46      | 120.80   |
| 1   | 5-A   | 296  | LEU  | CA-CB-CG  | 6.66  | 130.61      | 115.30   |
| 1   | 4-B   | 796  | ASP  | CB-CG-OD2 | 6.65  | 124.28      | 118.30   |
| 1   | 4-B   | 954  | GLN  | CA-CB-CG  | 6.65  | 128.03      | 113.40   |
| 1   | 7-B   | 303  | LEU  | CA-CB-CG  | 6.65  | 130.60      | 115.30   |
| 1   | 10-B  | 727  | LEU  | CA-CB-CG  | 6.65  | 130.60      | 115.30   |
| 1   | 8-B   | 737  | ASP  | CB-CG-OD2 | 6.65  | 124.28      | 118.30   |
| 1   | 11-C  | 1029 | MET  | CB-CG-SD  | 6.65  | 132.34      | 112.40   |
| 1   | 3-B   | 985  | ASP  | CB-CA-C   | 6.65  | 123.69      | 110.40   |
| 1   | 15-C  | 117  | LEU  | CA-CB-CG  | 6.65  | 130.59      | 115.30   |
| 1   | 9-A   | 660  | TYR  | CA-CB-CG  | 6.64  | 126.03      | 113.40   |
| 1   | 2-B   | 864  | LEU  | CA-CB-CG  | 6.64  | 130.58      | 115.30   |
| 1   | 11-B  | 291  | CYS  | CA-CB-SG  | 6.64  | 125.96      | 114.00   |
| 1   | 6-C   | 950  | ASP  | CB-CG-OD1 | 6.64  | 124.28      | 118.30   |
| 1   | 19-C  | 697  | MET  | CG-SD-CE  | 6.64  | 110.83      | 100.20   |
| 1   | 20-C  | 335  | LEU  | CA-CB-CG  | 6.64  | 130.57      | 115.30   |
| 1   | 6-A   | 697  | MET  | CA-CB-CG  | 6.64  | 124.58      | 113.30   |
| 1   | 12-A  | 776  | LYS  | CA-CB-CG  | 6.64  | 128.00      | 113.40   |
| 1   | 14-B  | 168  | PHE  | CB-CG-CD2 | 6.64  | 125.45      | 120.80   |
| 1   | 2-B   | 699  | LEU  | CB-CG-CD2 | -6.63 | 99.72       | 111.00   |
| 1   | 1-B   | 359  | SER  | C-N-CA    | 6.63  | 138.28      | 121.70   |
| 1   | 14-A  | 900  | MET  | CG-SD-CE  | -6.63 | 89.59       | 100.20   |
| 1   | 9-A   | 741  | TYR  | CB-CG-CD1 | 6.63  | 124.98      | 121.00   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 1-B   | 780  | GLU  | N-CA-CB    | 6.62  | 122.52      | 110.60   |
| 1   | 5-B   | 957  | GLN  | CA-CB-CG   | 6.62  | 127.97      | 113.40   |
| 1   | 8-C   | 276  | LEU  | CB-CG-CD2  | 6.62  | 122.25      | 111.00   |
| 1   | 9-B   | 287  | ASP  | CB-CG-OD1  | 6.62  | 124.26      | 118.30   |
| 1   | 9-C   | 754  | LEU  | CA-CB-CG   | 6.62  | 130.52      | 115.30   |
| 1   | 12-A  | 755  | GLN  | CA-CB-CG   | 6.62  | 127.96      | 113.40   |
| 1   | 12-A  | 981  | LEU  | CA-CB-CG   | 6.62  | 130.52      | 115.30   |
| 1   | 4-C   | 729  | VAL  | CA-CB-CG1  | 6.62  | 120.82      | 110.90   |
| 1   | 2-C   | 737  | ASP  | CB-CG-OD1  | 6.61  | 124.25      | 118.30   |
| 1   | 11-A  | 293  | LEU  | CB-CG-CD2  | 6.61  | 122.24      | 111.00   |
| 1   | 5-A   | 737  | ASP  | CB-CG-OD1  | 6.61  | 124.25      | 118.30   |
| 1   | 1-A   | 737  | ASP  | CB-CG-OD1  | 6.60  | 124.24      | 118.30   |
| 1   | 16-A  | 1024 | LEU  | CA-CB-CG   | 6.60  | 130.48      | 115.30   |
| 1   | 2-A   | 671  | CYS  | CA-CB-SG   | 6.60  | 125.88      | 114.00   |
| 1   | 9-B   | 454  | ARG  | CA-CB-CG   | 6.60  | 127.92      | 113.40   |
| 1   | 6-C   | 1029 | MET  | CB-CG-SD   | 6.60  | 132.19      | 112.40   |
| 1   | 10-A  | 985  | ASP  | CB-CG-OD1  | 6.59  | 124.24      | 118.30   |
| 1   | 13-B  | 985  | ASP  | CB-CA-C    | 6.59  | 123.59      | 110.40   |
| 1   | 2-A   | 993  | ILE  | CG1-CB-CG2 | -6.59 | 96.91       | 111.40   |
| 1   | 2-B   | 117  | LEU  | CA-CB-CG   | 6.59  | 130.45      | 115.30   |
| 1   | 18-C  | 773  | GLU  | CA-CB-CG   | 6.58  | 127.89      | 113.40   |
| 1   | 20-C  | 1050 | MET  | N-CA-CB    | 6.58  | 122.45      | 110.60   |
| 1   | 10-A  | 40   | ASP  | CB-CG-OD1  | 6.58  | 124.22      | 118.30   |
| 1   | 1-A   | 945  | LEU  | CA-CB-CG   | 6.57  | 130.41      | 115.30   |
| 1   | 4-B   | 118  | LEU  | CA-CB-CG   | 6.57  | 130.42      | 115.30   |
| 1   | 4-B   | 1024 | LEU  | CA-CB-CG   | 6.57  | 130.41      | 115.30   |
| 1   | 4-C   | 1024 | LEU  | CA-CB-CG   | 6.57  | 130.41      | 115.30   |
| 1   | 11-C  | 118  | LEU  | CA-CB-CG   | 6.57  | 130.41      | 115.30   |
| 1   | 12-B  | 996  | LEU  | CA-CB-CG   | 6.57  | 130.40      | 115.30   |
| 1   | 20-B  | 938  | LEU  | CA-CB-CG   | 6.56  | 130.40      | 115.30   |
| 1   | 5-A   | 738  | CYS  | CA-CB-SG   | 6.56  | 125.81      | 114.00   |
| 1   | 20-A  | 727  | LEU  | CB-CG-CD1  | -6.56 | 99.85       | 111.00   |
| 1   | 11-A  | 533  | LEU  | CA-CB-CG   | 6.56  | 130.38      | 115.30   |
| 1   | 7-C   | 877  | LEU  | CA-CB-CG   | 6.55  | 130.38      | 115.30   |
| 1   | 16-C  | 737  | ASP  | CB-CG-OD1  | 6.55  | 124.20      | 118.30   |
| 1   | 3-B   | 959  | LEU  | CA-CB-CG   | 6.55  | 130.37      | 115.30   |
| 1   | 10-A  | 1013 | ILE  | CA-CB-CG1  | 6.55  | 123.44      | 111.00   |
| 1   | 19-B  | 996  | LEU  | CA-CB-CG   | 6.55  | 130.36      | 115.30   |
| 1   | 8-C   | 172  | SER  | C-N-CA     | 6.54  | 138.06      | 121.70   |
| 1   | 10-C  | 979  | ASP  | CB-CG-OD1  | 6.54  | 124.19      | 118.30   |
| 1   | 12-B  | 985  | ASP  | CB-CA-C    | 6.54  | 123.49      | 110.40   |
| 1   | 13-A  | 731  | MET  | CB-CG-SD   | 6.54  | 132.03      | 112.40   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 13-C  | 877  | LEU  | CA-CB-CG   | 6.54  | 130.35      | 115.30   |
| 1   | 19-A  | 1024 | LEU  | CA-CB-CG   | 6.54  | 130.35      | 115.30   |
| 1   | 7-B   | 990  | GLU  | CA-CB-CG   | 6.54  | 127.78      | 113.40   |
| 1   | 18-B  | 948  | LEU  | CA-CB-CG   | 6.54  | 130.34      | 115.30   |
| 1   | 6-C   | 291  | CYS  | CA-CB-SG   | 6.54  | 125.77      | 114.00   |
| 1   | 5-C   | 118  | LEU  | CA-CB-CG   | 6.53  | 130.32      | 115.30   |
| 1   | 2-B   | 1024 | LEU  | CA-CB-CG   | 6.53  | 130.31      | 115.30   |
| 1   | 2-B   | 996  | LEU  | CA-CB-CG   | 6.53  | 130.31      | 115.30   |
| 1   | 20-B  | 1029 | MET  | CB-CG-SD   | 6.53  | 131.97      | 112.40   |
| 1   | 13-B  | 922  | LEU  | CA-CB-CG   | 6.52  | 130.30      | 115.30   |
| 1   | 4-C   | 966  | LEU  | CA-CB-CG   | 6.52  | 130.30      | 115.30   |
| 1   | 7-B   | 864  | LEU  | CB-CG-CD1  | -6.52 | 99.92       | 111.00   |
| 1   | 10-A  | 767  | LEU  | CB-CG-CD1  | 6.52  | 122.08      | 111.00   |
| 1   | 5-C   | 1012 | LEU  | CB-CG-CD2  | 6.52  | 122.08      | 111.00   |
| 1   | 18-A  | 1029 | MET  | CB-CG-SD   | 6.51  | 131.94      | 112.40   |
| 1   | 4-A   | 916  | LEU  | CB-CG-CD1  | -6.51 | 99.93       | 111.00   |
| 1   | 5-A   | 1012 | LEU  | CB-CG-CD2  | 6.51  | 122.07      | 111.00   |
| 1   | 1-B   | 996  | LEU  | CA-CB-CG   | 6.51  | 130.27      | 115.30   |
| 1   | 3-A   | 770  | ILE  | CG1-CB-CG2 | -6.50 | 97.09       | 111.40   |
| 1   | 10-C  | 1041 | ASP  | CB-CG-OD2  | 6.50  | 124.15      | 118.30   |
| 1   | 6-C   | 675  | GLN  | CB-CA-C    | 6.50  | 123.40      | 110.40   |
| 1   | 19-C  | 894  | LEU  | CA-CB-CG   | 6.50  | 130.25      | 115.30   |
| 1   | 15-C  | 1029 | MET  | CB-CG-SD   | 6.50  | 131.89      | 112.40   |
| 1   | 16-B  | 198  | ASP  | CB-CG-OD1  | 6.49  | 124.14      | 118.30   |
| 1   | 1-A   | 697  | MET  | CA-CB-CG   | 6.49  | 124.34      | 113.30   |
| 1   | 18-A  | 558  | LYS  | CA-CB-CG   | 6.49  | 127.68      | 113.40   |
| 1   | 7-C   | 276  | LEU  | CB-CG-CD2  | 6.49  | 122.02      | 111.00   |
| 1   | 18-A  | 1012 | LEU  | CA-CB-CG   | 6.49  | 130.22      | 115.30   |
| 1   | 18-C  | 954  | GLN  | N-CA-CB    | 6.49  | 122.28      | 110.60   |
| 1   | 19-B  | 776  | LYS  | CA-CB-CG   | 6.49  | 127.67      | 113.40   |
| 1   | 19-A  | 781  | VAL  | CA-CB-CG1  | 6.48  | 120.62      | 110.90   |
| 1   | 13-C  | 760  | CYS  | CA-CB-SG   | -6.48 | 102.34      | 114.00   |
| 1   | 11-A  | 590  | CYS  | CA-CB-SG   | 6.48  | 125.66      | 114.00   |
| 1   | 2-B   | 765  | ARG  | CB-CG-CD   | -6.47 | 94.77       | 111.60   |
| 1   | 2-B   | 1029 | MET  | CB-CG-SD   | 6.47  | 131.82      | 112.40   |
| 1   | 1-C   | 172  | SER  | C-N-CA     | 6.47  | 137.88      | 121.70   |
| 1   | 12-B  | 765  | ARG  | CB-CG-CD   | -6.47 | 94.77       | 111.60   |
| 1   | 2-B   | 1012 | LEU  | CA-CB-CG   | 6.47  | 130.18      | 115.30   |
| 1   | 2-C   | 954  | GLN  | N-CA-CB    | 6.47  | 122.25      | 110.60   |
| 1   | 15-B  | 752  | LEU  | CB-CG-CD1  | -6.47 | 100.00      | 111.00   |
| 1   | 2-B   | 229  | LEU  | CA-CB-CG   | 6.46  | 130.17      | 115.30   |
| 1   | 7-C   | 994  | ASP  | CB-CG-OD2  | 6.46  | 124.12      | 118.30   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 14-A  | 781  | VAL  | CA-CB-CG1  | 6.46  | 120.59      | 110.90   |
| 1   | 13-C  | 1005 | GLN  | CA-CB-CG   | 6.46  | 127.61      | 113.40   |
| 1   | 12-A  | 287  | ASP  | CB-CG-OD2  | 6.46  | 124.11      | 118.30   |
| 1   | 12-A  | 1029 | MET  | CB-CG-SD   | 6.46  | 131.77      | 112.40   |
| 1   | 18-B  | 287  | ASP  | CB-CG-OD2  | 6.46  | 124.11      | 118.30   |
| 1   | 20-B  | 1002 | GLN  | CA-CB-CG   | 6.46  | 127.60      | 113.40   |
| 1   | 9-A   | 172  | SER  | C-N-CA     | 6.45  | 137.83      | 121.70   |
| 1   | 18-A  | 293  | LEU  | CA-CB-CG   | 6.45  | 130.14      | 115.30   |
| 1   | 16-A  | 774  | GLN  | CA-CB-CG   | 6.45  | 127.59      | 113.40   |
| 1   | 16-B  | 296  | LEU  | CA-CB-CG   | 6.44  | 130.12      | 115.30   |
| 1   | 16-B  | 954  | GLN  | CA-CB-CG   | 6.44  | 127.57      | 113.40   |
| 1   | 3-C   | 88   | ASP  | CB-CG-OD1  | 6.44  | 124.10      | 118.30   |
| 1   | 15-C  | 909  | ILE  | CG1-CB-CG2 | -6.44 | 97.23       | 111.40   |
| 1   | 4-A   | 763  | LEU  | CA-CB-CG   | 6.44  | 130.11      | 115.30   |
| 1   | 11-B  | 767  | LEU  | CA-CB-CG   | 6.44  | 130.10      | 115.30   |
| 1   | 11-B  | 959  | LEU  | CB-CG-CD2  | 6.44  | 121.94      | 111.00   |
| 1   | 4-B   | 985  | ASP  | CB-CG-OD2  | 6.43  | 124.09      | 118.30   |
| 1   | 5-B   | 948  | LEU  | CA-CB-CG   | 6.43  | 130.10      | 115.30   |
| 1   | 8-B   | 675  | GLN  | CA-CB-CG   | 6.43  | 127.55      | 113.40   |
| 1   | 10-B  | 177  | MET  | CA-CB-CG   | 6.43  | 124.23      | 113.30   |
| 1   | 13-B  | 822  | LEU  | CB-CG-CD1  | 6.43  | 121.93      | 111.00   |
| 1   | 20-A  | 201  | PHE  | CB-CG-CD1  | 6.43  | 125.30      | 120.80   |
| 1   | 20-C  | 590  | CYS  | CA-CB-SG   | 6.43  | 125.58      | 114.00   |
| 1   | 18-C  | 780  | GLU  | CA-CB-CG   | 6.43  | 127.54      | 113.40   |
| 1   | 20-C  | 560  | LEU  | CA-CB-CG   | 6.43  | 130.09      | 115.30   |
| 1   | 2-B   | 780  | GLU  | N-CA-CB    | 6.42  | 122.15      | 110.60   |
| 1   | 4-C   | 675  | GLN  | CA-CB-CG   | 6.42  | 127.52      | 113.40   |
| 1   | 4-B   | 878  | LEU  | CB-CG-CD2  | 6.41  | 121.90      | 111.00   |
| 1   | 13-B  | 954  | GLN  | CA-CB-CG   | 6.41  | 127.51      | 113.40   |
| 1   | 10-B  | 904  | TYR  | CB-CG-CD1  | 6.41  | 124.85      | 121.00   |
| 1   | 3-C   | 1029 | MET  | CB-CG-SD   | 6.41  | 131.63      | 112.40   |
| 1   | 13-C  | 198  | ASP  | CB-CG-OD1  | 6.41  | 124.07      | 118.30   |
| 1   | 6-B   | 538  | CYS  | CA-CB-SG   | 6.41  | 125.53      | 114.00   |
| 1   | 6-B   | 964  | LYS  | CD-CE-NZ   | -6.41 | 96.96       | 111.70   |
| 1   | 15-B  | 675  | GLN  | CA-CB-CG   | 6.41  | 127.50      | 113.40   |
| 1   | 11-B  | 898  | PHE  | CB-CG-CD1  | 6.41  | 125.28      | 120.80   |
| 1   | 14-C  | 414  | GLN  | CA-CB-CG   | 6.41  | 127.50      | 113.40   |
| 1   | 3-B   | 945  | LEU  | CA-CB-CG   | 6.41  | 130.03      | 115.30   |
| 1   | 16-B  | 562  | PHE  | CB-CG-CD2  | -6.40 | 116.32      | 120.80   |
| 1   | 20-B  | 776  | LYS  | CA-CB-CG   | 6.40  | 127.48      | 113.40   |
| 1   | 14-A  | 568  | ASP  | CB-CG-OD1  | 6.40  | 124.06      | 118.30   |
| 1   | 5-C   | 780  | GLU  | CA-CB-CG   | 6.40  | 127.48      | 113.40   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 13-A  | 948  | LEU  | CB-CG-CD1  | -6.40 | 100.13      | 111.00   |
| 1   | 18-A  | 229  | LEU  | CB-CG-CD1  | -6.40 | 100.13      | 111.00   |
| 1   | 1-C   | 117  | LEU  | CA-CB-CG   | 6.39  | 130.01      | 115.30   |
| 1   | 14-B  | 950  | ASP  | CB-CG-OD1  | 6.39  | 124.06      | 118.30   |
| 1   | 2-C   | 1005 | GLN  | CA-CB-CG   | 6.39  | 127.47      | 113.40   |
| 1   | 15-B  | 55   | PHE  | CB-CG-CD1  | 6.39  | 125.27      | 120.80   |
| 1   | 17-B  | 767  | LEU  | CA-CB-CG   | 6.39  | 130.00      | 115.30   |
| 1   | 5-A   | 763  | LEU  | CB-CG-CD1  | 6.39  | 121.86      | 111.00   |
| 1   | 17-C  | 966  | LEU  | CA-CB-CG   | 6.39  | 129.99      | 115.30   |
| 1   | 19-A  | 582  | LEU  | CA-CB-CG   | 6.39  | 129.99      | 115.30   |
| 1   | 12-B  | 1012 | LEU  | CA-CB-CG   | 6.38  | 129.98      | 115.30   |
| 1   | 19-B  | 959  | LEU  | CB-CG-CD2  | 6.38  | 121.85      | 111.00   |
| 1   | 9-B   | 55   | PHE  | CB-CG-CD1  | 6.37  | 125.26      | 120.80   |
| 1   | 2-B   | 754  | LEU  | CA-CB-CG   | 6.37  | 129.95      | 115.30   |
| 1   | 7-C   | 966  | LEU  | CA-CB-CG   | 6.37  | 129.94      | 115.30   |
| 1   | 2-A   | 226  | LEU  | CA-CB-CG   | 6.37  | 129.94      | 115.30   |
| 1   | 9-B   | 1018 | ILE  | CG1-CB-CG2 | -6.37 | 97.40       | 111.40   |
| 1   | 16-A  | 922  | LEU  | CA-CB-CG   | 6.36  | 129.94      | 115.30   |
| 1   | 20-C  | 675  | GLN  | CA-CB-CG   | 6.36  | 127.40      | 113.40   |
| 1   | 6-B   | 727  | LEU  | CA-CB-CG   | 6.36  | 129.93      | 115.30   |
| 1   | 17-C  | 1041 | ASP  | CB-CG-OD1  | 6.36  | 124.02      | 118.30   |
| 1   | 2-C   | 770  | ILE  | CG1-CB-CG2 | -6.36 | 97.42       | 111.40   |
| 1   | 13-B  | 177  | MET  | CG-SD-CE   | -6.36 | 90.03       | 100.20   |
| 1   | 17-B  | 950  | ASP  | CB-CG-OD1  | 6.35  | 124.02      | 118.30   |
| 1   | 20-C  | 729  | VAL  | CA-CB-CG1  | 6.35  | 120.43      | 110.90   |
| 1   | 10-A  | 738  | CYS  | CA-CB-SG   | 6.35  | 125.43      | 114.00   |
| 1   | 6-C   | 1012 | LEU  | CB-CG-CD2  | 6.35  | 121.79      | 111.00   |
| 1   | 10-A  | 796  | ASP  | CB-CG-OD2  | 6.35  | 124.01      | 118.30   |
| 1   | 20-C  | 492  | LEU  | CA-CB-CG   | 6.35  | 129.90      | 115.30   |
| 1   | 15-A  | 1024 | LEU  | CA-CB-CG   | 6.34  | 129.89      | 115.30   |
| 1   | 1-C   | 966  | LEU  | CA-CB-CG   | 6.34  | 129.88      | 115.30   |
| 1   | 9-C   | 293  | LEU  | CB-CG-CD2  | 6.34  | 121.78      | 111.00   |
| 1   | 5-A   | 954  | GLN  | CA-CB-CG   | 6.34  | 127.34      | 113.40   |
| 1   | 13-C  | 1034 | LEU  | CA-CB-CG   | 6.33  | 129.87      | 115.30   |
| 1   | 1-A   | 934  | ILE  | CG1-CB-CG2 | -6.33 | 97.47       | 111.40   |
| 1   | 9-B   | 959  | LEU  | CB-CG-CD2  | 6.33  | 121.76      | 111.00   |
| 1   | 15-B  | 41   | LYS  | CB-CG-CD   | 6.33  | 128.06      | 111.60   |
| 1   | 17-C  | 902  | MET  | CA-CB-CG   | 6.33  | 124.06      | 113.30   |
| 1   | 18-A  | 727  | LEU  | CA-CB-CG   | 6.33  | 129.85      | 115.30   |
| 1   | 20-B  | 1012 | LEU  | CA-CB-CG   | 6.33  | 129.86      | 115.30   |
| 1   | 9-B   | 878  | LEU  | CB-CG-CD2  | 6.33  | 121.75      | 111.00   |
| 1   | 10-C  | 902  | MET  | CA-CB-CG   | 6.32  | 124.05      | 113.30   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 16-C  | 533  | LEU  | CA-CB-CG   | 6.32  | 129.84      | 115.30   |
| 1   | 11-A  | 740  | MET  | CB-CG-SD   | 6.32  | 131.36      | 112.40   |
| 1   | 4-A   | 293  | LEU  | CB-CG-CD2  | 6.32  | 121.74      | 111.00   |
| 1   | 18-C  | 945  | LEU  | CA-CB-CG   | 6.32  | 129.82      | 115.30   |
| 1   | 14-B  | 118  | LEU  | CA-CB-CG   | 6.31  | 129.82      | 115.30   |
| 1   | 13-A  | 568  | ASP  | CB-CG-OD1  | 6.31  | 123.98      | 118.30   |
| 1   | 15-C  | 675  | GLN  | CA-CB-CG   | 6.31  | 127.29      | 113.40   |
| 1   | 4-C   | 1034 | LEU  | CA-CB-CG   | 6.31  | 129.81      | 115.30   |
| 1   | 9-B   | 120  | VAL  | CG1-CB-CG2 | -6.31 | 100.81      | 110.90   |
| 1   | 19-B  | 1007 | TYR  | CB-CG-CD2  | -6.31 | 117.22      | 121.00   |
| 1   | 10-A  | 781  | VAL  | CA-CB-CG1  | 6.30  | 120.36      | 110.90   |
| 1   | 8-C   | 864  | LEU  | CA-CB-CG   | 6.30  | 129.79      | 115.30   |
| 1   | 16-A  | 773  | GLU  | CA-CB-CG   | 6.30  | 127.26      | 113.40   |
| 1   | 17-B  | 729  | VAL  | CA-CB-CG1  | 6.30  | 120.35      | 110.90   |
| 1   | 14-A  | 938  | LEU  | CA-CB-CG   | 6.30  | 129.78      | 115.30   |
| 1   | 6-B   | 985  | ASP  | CB-CA-C    | 6.29  | 122.99      | 110.40   |
| 1   | 6-C   | 675  | GLN  | CA-CB-CG   | 6.29  | 127.24      | 113.40   |
| 1   | 8-C   | 938  | LEU  | CA-CB-CG   | 6.29  | 129.77      | 115.30   |
| 1   | 19-B  | 922  | LEU  | CA-CB-CG   | 6.29  | 129.77      | 115.30   |
| 1   | 1-C   | 675  | GLN  | CA-CB-CG   | 6.28  | 127.22      | 113.40   |
| 1   | 17-A  | 727  | LEU  | CA-CB-CG   | 6.28  | 129.75      | 115.30   |
| 1   | 8-A   | 1029 | MET  | CB-CG-SD   | 6.28  | 131.24      | 112.40   |
| 1   | 17-C  | 173  | GLN  | CA-CB-CG   | 6.28  | 127.22      | 113.40   |
| 1   | 1-A   | 290  | ASP  | CB-CG-OD2  | 6.28  | 123.95      | 118.30   |
| 1   | 1-B   | 898  | PHE  | CB-CG-CD2  | -6.28 | 116.41      | 120.80   |
| 1   | 10-C  | 864  | LEU  | CA-CB-CG   | 6.28  | 129.74      | 115.30   |
| 1   | 6-B   | 55   | PHE  | CB-CG-CD1  | 6.28  | 125.19      | 120.80   |
| 1   | 14-B  | 934  | ILE  | CG1-CB-CG2 | -6.27 | 97.60       | 111.40   |
| 1   | 2-B   | 780  | GLU  | CA-CB-CG   | 6.27  | 127.20      | 113.40   |
| 1   | 1-A   | 671  | CYS  | CA-CB-SG   | 6.27  | 125.29      | 114.00   |
| 1   | 18-C  | 1005 | GLN  | CA-CB-CG   | 6.26  | 127.18      | 113.40   |
| 1   | 20-A  | 201  | PHE  | CB-CG-CD2  | -6.26 | 116.42      | 120.80   |
| 1   | 8-A   | 675  | GLN  | CB-CA-C    | 6.26  | 122.92      | 110.40   |
| 1   | 9-B   | 168  | PHE  | CB-CG-CD1  | 6.26  | 125.18      | 120.80   |
| 1   | 7-B   | 392  | PHE  | CB-CG-CD2  | -6.26 | 116.42      | 120.80   |
| 1   | 17-A  | 822  | LEU  | CB-CG-CD2  | 6.26  | 121.64      | 111.00   |
| 1   | 13-C  | 996  | LEU  | CA-CB-CG   | 6.25  | 129.67      | 115.30   |
| 1   | 17-C  | 273  | ARG  | CG-CD-NE   | 6.24  | 124.90      | 111.80   |
| 1   | 4-C   | 1012 | LEU  | CA-CB-CG   | 6.24  | 129.64      | 115.30   |
| 1   | 12-B  | 954  | GLN  | CA-CB-CG   | 6.23  | 127.11      | 113.40   |
| 1   | 2-C   | 869  | MET  | CB-CG-SD   | 6.23  | 131.08      | 112.40   |
| 1   | 16-B  | 985  | ASP  | CB-CG-OD1  | 6.23  | 123.90      | 118.30   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 1-C   | 118  | LEU  | CA-CB-CG   | 6.22  | 129.62      | 115.30   |
| 1   | 18-A  | 996  | LEU  | CA-CB-CG   | 6.22  | 129.61      | 115.30   |
| 1   | 20-A  | 984  | LEU  | CA-CB-CG   | 6.22  | 129.61      | 115.30   |
| 1   | 20-C  | 909  | ILE  | CG1-CB-CG2 | -6.22 | 97.71       | 111.40   |
| 1   | 6-A   | 153  | MET  | CG-SD-CE   | -6.22 | 90.25       | 100.20   |
| 1   | 9-B   | 117  | LEU  | CA-CB-CG   | 6.22  | 129.60      | 115.30   |
| 1   | 15-C  | 1012 | LEU  | CB-CG-CD2  | 6.22  | 121.57      | 111.00   |
| 1   | 12-B  | 755  | GLN  | CA-CB-CG   | 6.21  | 127.07      | 113.40   |
| 1   | 14-C  | 882  | ILE  | CG1-CB-CG2 | -6.21 | 97.73       | 111.40   |
| 1   | 20-B  | 985  | ASP  | CB-CA-C    | 6.21  | 122.83      | 110.40   |
| 1   | 3-A   | 1012 | LEU  | CA-CB-CG   | 6.21  | 129.59      | 115.30   |
| 1   | 6-C   | 198  | ASP  | CB-CG-OD2  | 6.21  | 123.89      | 118.30   |
| 1   | 7-C   | 697  | MET  | CA-CB-CG   | 6.21  | 123.86      | 113.30   |
| 1   | 10-A  | 776  | LYS  | CA-CB-CG   | 6.21  | 127.06      | 113.40   |
| 1   | 14-A  | 663  | ASP  | CB-CG-OD1  | 6.21  | 123.89      | 118.30   |
| 1   | 9-B   | 822  | LEU  | CA-CB-CG   | 6.21  | 129.57      | 115.30   |
| 1   | 13-B  | 959  | LEU  | CB-CG-CD2  | 6.21  | 121.55      | 111.00   |
| 1   | 13-B  | 1018 | ILE  | CG1-CB-CG2 | -6.20 | 97.75       | 111.40   |
| 1   | 7-C   | 1050 | MET  | N-CA-CB    | 6.20  | 121.76      | 110.60   |
| 1   | 9-C   | 40   | ASP  | CB-CG-OD2  | 6.20  | 123.88      | 118.30   |
| 1   | 16-C  | 755  | GLN  | CA-CB-CG   | 6.20  | 127.04      | 113.40   |
| 1   | 20-A  | 727  | LEU  | CA-CB-CG   | 6.20  | 129.55      | 115.30   |
| 1   | 7-C   | 650  | LEU  | CA-CB-CG   | 6.19  | 129.55      | 115.30   |
| 1   | 12-C  | 1127 | ASP  | CB-CG-OD1  | 6.19  | 123.87      | 118.30   |
| 1   | 14-A  | 671  | CYS  | CA-CB-SG   | 6.19  | 125.15      | 114.00   |
| 1   | 7-C   | 996  | LEU  | CA-CB-CG   | 6.19  | 129.54      | 115.30   |
| 1   | 8-B   | 945  | LEU  | CA-CB-CG   | 6.19  | 129.54      | 115.30   |
| 1   | 15-B  | 945  | LEU  | CA-CB-CG   | 6.19  | 129.54      | 115.30   |
| 1   | 18-A  | 962  | LEU  | CA-CB-CG   | 6.19  | 129.53      | 115.30   |
| 1   | 2-A   | 293  | LEU  | CB-CG-CD2  | 6.19  | 121.52      | 111.00   |
| 1   | 7-B   | 954  | GLN  | CA-CB-CG   | 6.19  | 127.01      | 113.40   |
| 1   | 5-C   | 650  | LEU  | CA-CB-CG   | 6.18  | 129.53      | 115.30   |
| 1   | 10-B  | 537  | LYS  | CA-CB-CG   | 6.18  | 127.00      | 113.40   |
| 1   | 9-A   | 759  | PHE  | CB-CG-CD1  | 6.18  | 125.12      | 120.80   |
| 1   | 13-C  | 902  | MET  | CB-CG-SD   | 6.17  | 130.92      | 112.40   |
| 1   | 11-B  | 806  | LEU  | CA-CB-CG   | 6.17  | 129.49      | 115.30   |
| 1   | 7-B   | 454  | ARG  | NE-CZ-NH1  | 6.17  | 123.38      | 120.30   |
| 1   | 11-B  | 118  | LEU  | CA-CB-CG   | 6.17  | 129.49      | 115.30   |
| 1   | 14-C  | 675  | GLN  | CA-CB-CG   | 6.17  | 126.97      | 113.40   |
| 1   | 18-C  | 996  | LEU  | CA-CB-CG   | 6.16  | 129.48      | 115.30   |
| 1   | 19-C  | 1050 | MET  | CG-SD-CE   | -6.16 | 90.34       | 100.20   |
| 1   | 19-C  | 754  | LEU  | CA-CB-CG   | 6.16  | 129.47      | 115.30   |

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| Mol | Chain | Res  | Type | Atoms     | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1   | 18-B  | 611  | LEU  | CB-CG-CD1 | -6.16 | 100.53      | 111.00   |
| 1   | 9-B   | 776  | LYS  | CA-CB-CG  | 6.16  | 126.95      | 113.40   |
| 1   | 17-A  | 1001 | LEU  | CB-CG-CD1 | -6.16 | 100.53      | 111.00   |
| 1   | 16-A  | 878  | LEU  | CB-CG-CD2 | 6.16  | 121.46      | 111.00   |
| 1   | 7-B   | 1029 | MET  | CB-CG-SD  | 6.15  | 130.86      | 112.40   |
| 1   | 20-C  | 389  | ASP  | CB-CG-OD1 | 6.15  | 123.84      | 118.30   |
| 1   | 5-B   | 763  | LEU  | CA-CB-CG  | 6.15  | 129.45      | 115.30   |
| 1   | 6-B   | 675  | GLN  | CA-CB-CG  | 6.15  | 126.93      | 113.40   |
| 1   | 17-C  | 1127 | ASP  | CB-CG-OD1 | 6.15  | 123.83      | 118.30   |
| 1   | 20-B  | 898  | PHE  | CB-CG-CD1 | 6.15  | 125.11      | 120.80   |
| 1   | 3-C   | 568  | ASP  | CB-CG-OD2 | 6.15  | 123.83      | 118.30   |
| 1   | 8-C   | 671  | CYS  | CB-CA-C   | 6.15  | 122.69      | 110.40   |
| 1   | 9-B   | 1034 | LEU  | CB-CG-CD1 | -6.14 | 100.56      | 111.00   |
| 1   | 16-B  | 562  | PHE  | CB-CG-CD1 | 6.14  | 125.10      | 120.80   |
| 1   | 2-B   | 118  | LEU  | CA-CB-CG  | 6.14  | 129.43      | 115.30   |
| 1   | 3-C   | 938  | LEU  | CA-CB-CG  | 6.14  | 129.43      | 115.30   |
| 1   | 17-C  | 1029 | MET  | CB-CG-SD  | 6.14  | 130.83      | 112.40   |
| 1   | 9-A   | 759  | PHE  | CB-CG-CD2 | -6.14 | 116.50      | 120.80   |
| 1   | 9-A   | 781  | VAL  | CA-CB-CG1 | 6.14  | 120.11      | 110.90   |
| 1   | 19-C  | 586  | ASP  | CB-CG-OD2 | 6.14  | 123.82      | 118.30   |
| 1   | 11-A  | 1029 | MET  | CB-CG-SD  | 6.13  | 130.80      | 112.40   |
| 1   | 2-A   | 303  | LEU  | CA-CB-CG  | 6.13  | 129.40      | 115.30   |
| 1   | 4-B   | 959  | LEU  | CA-CB-CG  | 6.13  | 129.41      | 115.30   |
| 1   | 16-C  | 954  | GLN  | CA-CB-CG  | 6.13  | 126.89      | 113.40   |
| 1   | 12-B  | 1029 | MET  | CB-CG-SD  | 6.13  | 130.78      | 112.40   |
| 1   | 6-C   | 1041 | ASP  | CB-CG-OD1 | 6.13  | 123.81      | 118.30   |
| 1   | 12-C  | 168  | PHE  | CB-CG-CD1 | 6.12  | 125.09      | 120.80   |
| 1   | 17-A  | 1029 | MET  | CB-CG-SD  | 6.12  | 130.76      | 112.40   |
| 1   | 4-C   | 529  | LYS  | CA-CB-CG  | 6.12  | 126.86      | 113.40   |
| 1   | 10-B  | 898  | PHE  | CB-CG-CD1 | -6.12 | 116.52      | 120.80   |
| 1   | 2-C   | 767  | LEU  | CB-CG-CD2 | 6.12  | 121.40      | 111.00   |
| 1   | 1-C   | 650  | LEU  | CA-CB-CG  | 6.12  | 129.37      | 115.30   |
| 1   | 18-B  | 985  | ASP  | CB-CG-OD2 | 6.12  | 123.80      | 118.30   |
| 1   | 13-A  | 900  | MET  | CG-SD-CE  | -6.11 | 90.42       | 100.20   |
| 1   | 4-B   | 390  | LEU  | CA-CB-CG  | 6.11  | 129.36      | 115.30   |
| 1   | 12-A  | 962  | LEU  | CB-CG-CD2 | 6.11  | 121.39      | 111.00   |
| 1   | 6-C   | 894  | LEU  | CA-CB-CG  | 6.11  | 129.34      | 115.30   |
| 1   | 14-A  | 1029 | MET  | CB-CG-SD  | 6.11  | 130.72      | 112.40   |
| 1   | 15-B  | 985  | ASP  | CB-CG-OD2 | 6.11  | 123.79      | 118.30   |
| 1   | 19-A  | 1012 | LEU  | CB-CG-CD2 | 6.10  | 121.37      | 111.00   |
| 1   | 7-B   | 962  | LEU  | CA-CB-CG  | 6.10  | 129.33      | 115.30   |
| 1   | 16-B  | 1012 | LEU  | CA-CB-CG  | 6.10  | 129.33      | 115.30   |

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| Mol | Chain | Res  | Type | Atoms     | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1   | 8-B   | 959  | LEU  | CB-CG-CD2 | 6.10  | 121.37      | 111.00   |
| 1   | 12-C  | 293  | LEU  | CA-CB-CG  | 6.10  | 129.32      | 115.30   |
| 1   | 7-B   | 117  | LEU  | CA-CB-CG  | 6.09  | 129.32      | 115.30   |
| 1   | 13-C  | 882  | ILE  | CB-CA-C   | -6.09 | 99.41       | 111.60   |
| 1   | 8-C   | 1029 | MET  | CB-CG-SD  | 6.09  | 130.67      | 112.40   |
| 1   | 13-B  | 1024 | LEU  | CA-CB-CG  | 6.09  | 129.31      | 115.30   |
| 1   | 20-C  | 1024 | LEU  | CA-CB-CG  | 6.09  | 129.30      | 115.30   |
| 1   | 5-B   | 936  | ASP  | CB-CG-OD2 | 6.08  | 123.77      | 118.30   |
| 1   | 7-B   | 962  | LEU  | CB-CG-CD2 | 6.07  | 121.33      | 111.00   |
| 1   | 20-C  | 822  | LEU  | CA-CB-CG  | 6.07  | 129.27      | 115.30   |
| 1   | 3-C   | 922  | LEU  | CA-CB-CG  | 6.07  | 129.27      | 115.30   |
| 1   | 16-C  | 966  | LEU  | CA-CB-CG  | 6.07  | 129.26      | 115.30   |
| 1   | 19-A  | 877  | LEU  | CA-CB-CG  | 6.07  | 129.26      | 115.30   |
| 1   | 4-A   | 117  | LEU  | CA-CB-CG  | 6.07  | 129.25      | 115.30   |
| 1   | 1-A   | 727  | LEU  | CA-CB-CG  | 6.07  | 129.25      | 115.30   |
| 1   | 6-B   | 964  | LYS  | CA-CB-CG  | 6.07  | 126.74      | 113.40   |
| 1   | 19-B  | 894  | LEU  | CA-CB-CG  | 6.06  | 129.25      | 115.30   |
| 1   | 20-B  | 117  | LEU  | CA-CB-CG  | 6.06  | 129.25      | 115.30   |
| 1   | 13-C  | 1024 | LEU  | CA-CB-CG  | 6.06  | 129.24      | 115.30   |
| 1   | 14-C  | 996  | LEU  | CB-CG-CD2 | 6.06  | 121.30      | 111.00   |
| 1   | 20-A  | 1012 | LEU  | CA-CB-CG  | 6.06  | 129.24      | 115.30   |
| 1   | 9-A   | 753  | LEU  | CA-CB-CG  | 6.06  | 129.23      | 115.30   |
| 1   | 4-C   | 763  | LEU  | CA-CB-CG  | 6.05  | 129.23      | 115.30   |
| 1   | 8-C   | 754  | LEU  | CA-CB-CG  | 6.05  | 129.22      | 115.30   |
| 1   | 16-A  | 1050 | MET  | CG-SD-CE  | -6.05 | 90.52       | 100.20   |
| 1   | 3-B   | 878  | LEU  | CB-CG-CD2 | 6.05  | 121.28      | 111.00   |
| 1   | 3-C   | 877  | LEU  | CB-CG-CD2 | 6.05  | 121.28      | 111.00   |
| 1   | 11-B  | 754  | LEU  | CA-CB-CG  | 6.05  | 129.21      | 115.30   |
| 1   | 14-B  | 1029 | MET  | CB-CG-SD  | 6.05  | 130.54      | 112.40   |
| 1   | 15-B  | 153  | MET  | CB-CG-SD  | 6.05  | 130.54      | 112.40   |
| 1   | 7-B   | 1001 | LEU  | CA-CB-CG  | 6.04  | 129.20      | 115.30   |
| 1   | 18-B  | 950  | ASP  | CB-CG-OD1 | 6.04  | 123.74      | 118.30   |
| 1   | 7-A   | 1041 | ASP  | CB-CG-OD2 | -6.04 | 112.86      | 118.30   |
| 1   | 3-A   | 298  | GLU  | CA-CB-CG  | 6.04  | 126.68      | 113.40   |
| 1   | 6-C   | 895  | GLN  | CA-CB-CG  | 6.04  | 126.68      | 113.40   |
| 1   | 11-A  | 671  | CYS  | CA-CB-SG  | 6.04  | 124.86      | 114.00   |
| 1   | 16-B  | 877  | LEU  | CB-CG-CD1 | -6.04 | 100.74      | 111.00   |
| 1   | 3-C   | 780  | GLU  | N-CA-CB   | 6.03  | 121.46      | 110.60   |
| 1   | 5-C   | 780  | GLU  | N-CA-CB   | 6.03  | 121.46      | 110.60   |
| 1   | 20-B  | 41   | LYS  | CB-CG-CD  | 6.03  | 127.29      | 111.60   |
| 1   | 3-B   | 898  | PHE  | CB-CG-CD2 | -6.03 | 116.58      | 120.80   |
| 1   | 3-C   | 902  | MET  | CA-CB-CG  | 6.03  | 123.55      | 113.30   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 8-B   | 1024 | LEU  | CA-CB-CG   | 6.03  | 129.17      | 115.30   |
| 1   | 13-C  | 53   | ASP  | CB-CG-OD1  | 6.03  | 123.73      | 118.30   |
| 1   | 15-A  | 1018 | ILE  | CG1-CB-CG2 | -6.03 | 98.14       | 111.40   |
| 1   | 1-C   | 996  | LEU  | CA-CB-CG   | 6.03  | 129.16      | 115.30   |
| 1   | 5-A   | 290  | ASP  | CB-CG-OD2  | 6.02  | 123.72      | 118.30   |
| 1   | 10-C  | 1092 | GLU  | CA-CB-CG   | 6.02  | 126.65      | 113.40   |
| 1   | 15-C  | 895  | GLN  | CA-CB-CG   | 6.02  | 126.65      | 113.40   |
| 1   | 18-B  | 1010 | GLN  | CA-CB-CG   | 6.02  | 126.65      | 113.40   |
| 1   | 4-C   | 996  | LEU  | CA-CB-CG   | 6.01  | 129.13      | 115.30   |
| 1   | 9-C   | 904  | TYR  | CB-CA-C    | -6.01 | 98.37       | 110.40   |
| 1   | 17-B  | 1012 | LEU  | CB-CG-CD2  | 6.01  | 121.22      | 111.00   |
| 1   | 10-B  | 577  | ARG  | CA-CB-CG   | 6.00  | 126.60      | 113.40   |
| 1   | 17-C  | 650  | LEU  | CA-CB-CG   | 6.00  | 129.10      | 115.30   |
| 1   | 2-C   | 1024 | LEU  | CA-CB-CG   | 6.00  | 129.09      | 115.30   |
| 1   | 2-C   | 754  | LEU  | CA-CB-CG   | 5.99  | 129.07      | 115.30   |
| 1   | 3-C   | 993  | ILE  | CG1-CB-CG2 | -5.99 | 98.22       | 111.40   |
| 1   | 16-B  | 1018 | ILE  | CG1-CB-CG2 | -5.99 | 98.22       | 111.40   |
| 1   | 16-B  | 1024 | LEU  | CA-CB-CG   | 5.99  | 129.08      | 115.30   |
| 1   | 3-C   | 737  | ASP  | CB-CG-OD1  | 5.99  | 123.69      | 118.30   |
| 1   | 10-B  | 945  | LEU  | CA-CB-CG   | 5.98  | 129.06      | 115.30   |
| 1   | 13-A  | 1050 | MET  | CG-SD-CE   | 5.98  | 109.77      | 100.20   |
| 1   | 7-C   | 938  | LEU  | CA-CB-CG   | 5.98  | 129.05      | 115.30   |
| 1   | 8-C   | 988  | GLU  | CA-CB-CG   | 5.97  | 126.55      | 113.40   |
| 1   | 6-B   | 922  | LEU  | CA-CB-CG   | 5.97  | 129.04      | 115.30   |
| 1   | 3-C   | 996  | LEU  | CA-CB-CG   | 5.97  | 129.03      | 115.30   |
| 1   | 2-A   | 966  | LEU  | CA-CB-CG   | 5.97  | 129.03      | 115.30   |
| 1   | 7-B   | 878  | LEU  | CA-CB-CG   | 5.97  | 129.03      | 115.30   |
| 1   | 7-C   | 1139 | ASP  | CB-CG-OD1  | 5.97  | 123.67      | 118.30   |
| 1   | 18-A  | 737  | ASP  | CB-CG-OD2  | 5.97  | 123.67      | 118.30   |
| 1   | 2-B   | 916  | LEU  | CB-CG-CD1  | 5.97  | 121.14      | 111.00   |
| 1   | 7-C   | 153  | MET  | CA-CB-CG   | 5.97  | 123.45      | 113.30   |
| 1   | 15-C  | 763  | LEU  | CB-CG-CD2  | -5.97 | 100.86      | 111.00   |
| 1   | 17-B  | 981  | LEU  | CB-CG-CD2  | 5.97  | 121.14      | 111.00   |
| 1   | 8-C   | 585  | LEU  | CA-CB-CG   | 5.97  | 129.02      | 115.30   |
| 1   | 8-A   | 773  | GLU  | CA-CB-CG   | 5.96  | 126.52      | 113.40   |
| 1   | 16-A  | 981  | LEU  | CA-CB-CG   | 5.96  | 129.02      | 115.30   |
| 1   | 3-A   | 671  | CYS  | CA-CB-SG   | 5.96  | 124.73      | 114.00   |
| 1   | 2-A   | 117  | LEU  | CA-CB-CG   | 5.96  | 129.01      | 115.30   |
| 1   | 16-C  | 861  | LEU  | CA-CB-CG   | 5.96  | 129.01      | 115.30   |
| 1   | 12-A  | 959  | LEU  | CA-CB-CG   | 5.96  | 129.01      | 115.30   |
| 1   | 2-A   | 754  | LEU  | CA-CB-CG   | 5.95  | 128.99      | 115.30   |
| 1   | 8-A   | 727  | LEU  | CA-CB-CG   | 5.95  | 128.99      | 115.30   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 10-C  | 934  | ILE  | CG1-CB-CG2 | -5.95 | 98.30       | 111.40   |
| 1   | 18-B  | 762  | GLN  | N-CA-CB    | 5.95  | 121.31      | 110.60   |
| 1   | 1-C   | 985  | ASP  | CB-CG-OD2  | 5.95  | 123.66      | 118.30   |
| 1   | 5-B   | 611  | LEU  | CD1-CG-CD2 | -5.95 | 92.65       | 110.50   |
| 1   | 3-C   | 1005 | GLN  | CA-CB-CG   | 5.95  | 126.49      | 113.40   |
| 1   | 8-B   | 141  | LEU  | CA-CB-CG   | 5.95  | 128.98      | 115.30   |
| 1   | 8-C   | 753  | LEU  | CA-CB-CG   | 5.95  | 128.98      | 115.30   |
| 1   | 12-B  | 117  | LEU  | CA-CB-CG   | 5.95  | 128.98      | 115.30   |
| 1   | 14-B  | 755  | GLN  | N-CA-CB    | -5.95 | 99.89       | 110.60   |
| 1   | 10-C  | 586  | ASP  | CB-CG-OD2  | 5.95  | 123.65      | 118.30   |
| 1   | 11-B  | 390  | LEU  | CA-CB-CG   | 5.95  | 128.97      | 115.30   |
| 1   | 14-B  | 298  | GLU  | CA-CB-CG   | 5.95  | 126.48      | 113.40   |
| 1   | 15-A  | 990  | GLU  | CA-CB-CG   | 5.95  | 126.48      | 113.40   |
| 1   | 18-C  | 533  | LEU  | CA-CB-CG   | 5.95  | 128.98      | 115.30   |
| 1   | 13-A  | 271  | GLN  | CA-CB-CG   | 5.94  | 126.48      | 113.40   |
| 1   | 20-C  | 414  | GLN  | CA-CB-CG   | 5.94  | 126.48      | 113.40   |
| 1   | 8-C   | 806  | LEU  | CA-CB-CG   | 5.94  | 128.97      | 115.30   |
| 1   | 9-B   | 985  | ASP  | CB-CA-C    | 5.94  | 122.29      | 110.40   |
| 1   | 17-A  | 962  | LEU  | CA-CB-CG   | 5.94  | 128.97      | 115.30   |
| 1   | 14-B  | 776  | LYS  | CA-CB-CG   | 5.94  | 126.47      | 113.40   |
| 1   | 4-B   | 129  | LYS  | CB-CG-CD   | 5.94  | 127.04      | 111.60   |
| 1   | 17-C  | 938  | LEU  | CA-CB-CG   | 5.94  | 128.95      | 115.30   |
| 1   | 19-C  | 86   | PHE  | CB-CG-CD1  | 5.93  | 124.95      | 120.80   |
| 1   | 20-B  | 293  | LEU  | CB-CG-CD2  | 5.93  | 121.09      | 111.00   |
| 1   | 16-B  | 152  | TRP  | CB-CG-CD2  | 5.93  | 134.31      | 126.60   |
| 1   | 18-A  | 878  | LEU  | CA-CB-CG   | 5.92  | 128.93      | 115.30   |
| 1   | 15-B  | 48   | LEU  | CA-CB-CG   | 5.92  | 128.92      | 115.30   |
| 1   | 15-C  | 752  | LEU  | CA-CB-CG   | 5.92  | 128.91      | 115.30   |
| 1   | 3-C   | 223  | LEU  | CA-CB-CG   | 5.92  | 128.91      | 115.30   |
| 1   | 8-B   | 898  | PHE  | CB-CG-CD2  | -5.92 | 116.66      | 120.80   |
| 1   | 12-A  | 675  | GLN  | CA-CB-CG   | 5.92  | 126.41      | 113.40   |
| 1   | 7-A   | 1012 | LEU  | CB-CG-CD2  | 5.91  | 121.05      | 111.00   |
| 1   | 14-B  | 40   | ASP  | CB-CA-C    | 5.91  | 122.23      | 110.40   |
| 1   | 14-C  | 303  | LEU  | CA-CB-CG   | 5.91  | 128.90      | 115.30   |
| 1   | 9-A   | 765  | ARG  | CB-CA-C    | 5.91  | 122.22      | 110.40   |
| 1   | 17-C  | 319  | ARG  | CG-CD-NE   | 5.91  | 124.21      | 111.80   |
| 1   | 18-A  | 770  | ILE  | CG1-CB-CG2 | -5.91 | 98.40       | 111.40   |
| 1   | 6-C   | 806  | LEU  | CA-CB-CG   | 5.91  | 128.88      | 115.30   |
| 1   | 13-B  | 964  | LYS  | CB-CA-C    | -5.91 | 98.59       | 110.40   |
| 1   | 11-A  | 938  | LEU  | CB-CG-CD2  | 5.90  | 121.03      | 111.00   |
| 1   | 16-A  | 877  | LEU  | CB-CG-CD2  | 5.90  | 121.03      | 111.00   |
| 1   | 15-B  | 296  | LEU  | CA-CB-CG   | 5.89  | 128.86      | 115.30   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 13-A  | 954  | GLN  | CA-CB-CG   | 5.89  | 126.36      | 113.40   |
| 1   | 16-A  | 671  | CYS  | CA-CB-SG   | 5.89  | 124.61      | 114.00   |
| 1   | 19-C  | 996  | LEU  | CB-CG-CD2  | 5.89  | 121.01      | 111.00   |
| 1   | 11-B  | 40   | ASP  | CB-CG-OD1  | 5.89  | 123.60      | 118.30   |
| 1   | 8-B   | 1010 | GLN  | CA-CB-CG   | 5.89  | 126.35      | 113.40   |
| 1   | 20-A  | 773  | GLU  | CA-CB-CG   | 5.89  | 126.35      | 113.40   |
| 1   | 8-C   | 817  | PHE  | CB-CG-CD2  | 5.88  | 124.92      | 120.80   |
| 1   | 5-B   | 774  | GLN  | CA-CB-CG   | 5.88  | 126.34      | 113.40   |
| 1   | 5-B   | 922  | LEU  | CA-CB-CG   | 5.88  | 128.83      | 115.30   |
| 1   | 17-B  | 1024 | LEU  | CA-CB-CG   | 5.88  | 128.83      | 115.30   |
| 1   | 15-B  | 822  | LEU  | CA-CB-CG   | 5.88  | 128.81      | 115.30   |
| 1   | 11-C  | 737  | ASP  | CB-CG-OD1  | 5.87  | 123.59      | 118.30   |
| 1   | 12-C  | 755  | GLN  | CA-CB-CG   | 5.87  | 126.32      | 113.40   |
| 1   | 16-A  | 877  | LEU  | CA-CB-CG   | 5.87  | 128.81      | 115.30   |
| 1   | 10-A  | 1092 | GLU  | CA-CB-CG   | 5.87  | 126.31      | 113.40   |
| 1   | 4-A   | 877  | LEU  | CB-CG-CD2  | 5.87  | 120.97      | 111.00   |
| 1   | 7-C   | 977  | LEU  | CA-CB-CG   | 5.87  | 128.79      | 115.30   |
| 1   | 15-A  | 966  | LEU  | CB-CG-CD1  | -5.87 | 101.03      | 111.00   |
| 1   | 16-A  | 752  | LEU  | CA-CB-CG   | 5.87  | 128.79      | 115.30   |
| 1   | 1-B   | 177  | MET  | CA-CB-CG   | 5.86  | 123.27      | 113.30   |
| 1   | 8-B   | 359  | SER  | C-N-CA     | 5.86  | 136.36      | 121.70   |
| 1   | 13-A  | 198  | ASP  | CB-CG-OD1  | 5.86  | 123.58      | 118.30   |
| 1   | 17-B  | 55   | PHE  | CB-CG-CD2  | 5.86  | 124.90      | 120.80   |
| 1   | 16-A  | 878  | LEU  | CA-CB-CG   | 5.86  | 128.78      | 115.30   |
| 1   | 1-A   | 675  | GLN  | CB-CA-C    | 5.86  | 122.11      | 110.40   |
| 1   | 12-A  | 878  | LEU  | CB-CG-CD2  | 5.86  | 120.96      | 111.00   |
| 1   | 17-B  | 966  | LEU  | CA-CB-CG   | 5.86  | 128.77      | 115.30   |
| 1   | 6-B   | 590  | CYS  | CA-CB-SG   | 5.86  | 124.54      | 114.00   |
| 1   | 15-B  | 611  | LEU  | CA-CB-CG   | 5.85  | 128.75      | 115.30   |
| 1   | 4-B   | 214  | ARG  | CA-CB-CG   | 5.85  | 126.26      | 113.40   |
| 1   | 8-B   | 552  | LEU  | CA-CB-CG   | 5.85  | 128.75      | 115.30   |
| 1   | 16-A  | 1029 | MET  | CB-CG-SD   | 5.85  | 129.94      | 112.40   |
| 1   | 19-A  | 1018 | ILE  | CG1-CB-CG2 | -5.85 | 98.54       | 111.40   |
| 1   | 15-C  | 996  | LEU  | CA-CB-CG   | 5.84  | 128.74      | 115.30   |
| 1   | 16-C  | 922  | LEU  | CA-CB-CG   | 5.84  | 128.74      | 115.30   |
| 1   | 19-C  | 55   | PHE  | CB-CG-CD1  | 5.84  | 124.89      | 120.80   |
| 1   | 1-C   | 767  | LEU  | CB-CG-CD2  | 5.84  | 120.93      | 111.00   |
| 1   | 17-B  | 574  | ASP  | CB-CG-OD2  | 5.84  | 123.56      | 118.30   |
| 1   | 5-B   | 959  | LEU  | CB-CG-CD2  | 5.84  | 120.92      | 111.00   |
| 1   | 9-A   | 1029 | MET  | CB-CG-SD   | 5.83  | 129.89      | 112.40   |
| 1   | 11-C  | 993  | ILE  | CG1-CB-CG2 | -5.83 | 98.57       | 111.40   |
| 1   | 9-C   | 223  | LEU  | C-N-CA     | 5.83  | 136.27      | 121.70   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 16-B  | 298  | GLU  | CA-CB-CG   | 5.83  | 126.22      | 113.40   |
| 1   | 12-C  | 1139 | ASP  | CB-CG-OD2  | 5.83  | 123.54      | 118.30   |
| 1   | 4-C   | 86   | PHE  | CB-CG-CD1  | 5.83  | 124.88      | 120.80   |
| 1   | 14-A  | 902  | MET  | CB-CG-SD   | 5.82  | 129.86      | 112.40   |
| 1   | 13-C  | 585  | LEU  | CA-CB-CG   | 5.82  | 128.68      | 115.30   |
| 1   | 14-B  | 117  | LEU  | CA-CB-CG   | 5.82  | 128.68      | 115.30   |
| 1   | 14-B  | 822  | LEU  | CA-CB-CG   | 5.82  | 128.68      | 115.30   |
| 1   | 10-B  | 228  | ASP  | CB-CG-OD1  | 5.81  | 123.53      | 118.30   |
| 1   | 6-C   | 994  | ASP  | CB-CG-OD2  | -5.81 | 113.07      | 118.30   |
| 1   | 16-A  | 762  | GLN  | CA-CB-CG   | 5.81  | 126.18      | 113.40   |
| 1   | 4-B   | 53   | ASP  | CB-CA-C    | 5.81  | 122.02      | 110.40   |
| 1   | 11-C  | 671  | CYS  | CA-CB-SG   | 5.81  | 124.45      | 114.00   |
| 1   | 11-A  | 568  | ASP  | CB-CG-OD1  | 5.80  | 123.52      | 118.30   |
| 1   | 15-B  | 776  | LYS  | CA-CB-CG   | 5.80  | 126.17      | 113.40   |
| 1   | 16-A  | 1012 | LEU  | CA-CB-CG   | 5.80  | 128.65      | 115.30   |
| 1   | 13-B  | 296  | LEU  | CA-CB-CG   | 5.80  | 128.64      | 115.30   |
| 1   | 1-A   | 822  | LEU  | CA-CB-CG   | 5.79  | 128.62      | 115.30   |
| 1   | 15-C  | 1041 | ASP  | CB-CG-OD1  | 5.79  | 123.51      | 118.30   |
| 1   | 7-A   | 770  | ILE  | CG1-CB-CG2 | -5.79 | 98.66       | 111.40   |
| 1   | 13-C  | 754  | LEU  | CB-CG-CD2  | 5.79  | 120.85      | 111.00   |
| 1   | 18-A  | 869  | MET  | CG-SD-CE   | -5.79 | 90.93       | 100.20   |
| 1   | 14-C  | 223  | LEU  | CB-CG-CD2  | 5.79  | 120.84      | 111.00   |
| 1   | 16-A  | 776  | LYS  | CA-CB-CG   | 5.78  | 126.12      | 113.40   |
| 1   | 20-C  | 727  | LEU  | CA-CB-CG   | 5.78  | 128.60      | 115.30   |
| 1   | 2-A   | 780  | GLU  | CA-CB-CG   | 5.78  | 126.12      | 113.40   |
| 1   | 13-C  | 802  | PHE  | CB-CG-CD2  | 5.78  | 124.84      | 120.80   |
| 1   | 11-C  | 650  | LEU  | CA-CB-CG   | 5.77  | 128.58      | 115.30   |
| 1   | 4-A   | 1092 | GLU  | CA-CB-CG   | 5.77  | 126.10      | 113.40   |
| 1   | 12-A  | 755  | GLN  | CB-CA-C    | 5.77  | 121.94      | 110.40   |
| 1   | 1-B   | 1029 | MET  | CB-CG-SD   | 5.77  | 129.71      | 112.40   |
| 1   | 1-A   | 773  | GLU  | CA-CB-CG   | 5.77  | 126.09      | 113.40   |
| 1   | 9-B   | 762  | GLN  | N-CA-CB    | 5.77  | 120.98      | 110.60   |
| 1   | 12-C  | 773  | GLU  | CA-CB-CG   | 5.77  | 126.09      | 113.40   |
| 1   | 20-A  | 564  | GLN  | CA-CB-CG   | 5.77  | 126.08      | 113.40   |
| 1   | 6-C   | 948  | LEU  | CA-CB-CG   | 5.76  | 128.56      | 115.30   |
| 1   | 7-B   | 959  | LEU  | CB-CG-CD2  | 5.76  | 120.80      | 111.00   |
| 1   | 9-C   | 1050 | MET  | CG-SD-CE   | -5.76 | 90.98       | 100.20   |
| 1   | 10-B  | 904  | TYR  | CB-CG-CD2  | -5.76 | 117.54      | 121.00   |
| 1   | 10-B  | 938  | LEU  | CA-CB-CG   | 5.76  | 128.56      | 115.30   |
| 1   | 4-B   | 776  | LYS  | CA-CB-CG   | 5.76  | 126.08      | 113.40   |
| 1   | 19-C  | 328  | ARG  | NE-CZ-NH2  | -5.76 | 117.42      | 120.30   |
| 1   | 13-B  | 270  | LEU  | CA-CB-CG   | 5.76  | 128.54      | 115.30   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 3-A   | 738  | CYS  | CA-CB-SG   | 5.75  | 124.36      | 114.00   |
| 1   | 17-C  | 854  | LYS  | CA-CB-CG   | 5.75  | 126.06      | 113.40   |
| 1   | 12-C  | 934  | ILE  | CG1-CB-CG2 | -5.75 | 98.74       | 111.40   |
| 1   | 13-A  | 1012 | LEU  | CB-CG-CD2  | 5.75  | 120.78      | 111.00   |
| 1   | 17-B  | 962  | LEU  | CB-CG-CD2  | 5.75  | 120.78      | 111.00   |
| 1   | 18-A  | 861  | LEU  | CA-CB-CG   | 5.75  | 128.52      | 115.30   |
| 1   | 3-C   | 954  | GLN  | CA-CB-CG   | 5.75  | 126.05      | 113.40   |
| 1   | 4-C   | 902  | MET  | CA-CB-CG   | 5.75  | 123.07      | 113.30   |
| 1   | 5-B   | 675  | GLN  | CB-CA-C    | 5.75  | 121.90      | 110.40   |
| 1   | 12-C  | 954  | GLN  | CA-CB-CG   | 5.75  | 126.05      | 113.40   |
| 1   | 16-C  | 293  | LEU  | CB-CG-CD2  | 5.75  | 120.77      | 111.00   |
| 1   | 14-B  | 1024 | LEU  | CA-CB-CG   | 5.75  | 128.52      | 115.30   |
| 1   | 8-A   | 1001 | LEU  | CB-CG-CD1  | -5.75 | 101.23      | 111.00   |
| 1   | 2-A   | 945  | LEU  | CA-CB-CG   | 5.74  | 128.51      | 115.30   |
| 1   | 17-A  | 962  | LEU  | CB-CG-CD2  | 5.74  | 120.76      | 111.00   |
| 1   | 11-A  | 773  | GLU  | CA-CB-CG   | 5.74  | 126.03      | 113.40   |
| 1   | 8-B   | 118  | LEU  | CA-CB-CG   | 5.74  | 128.49      | 115.30   |
| 1   | 14-C  | 571  | ASP  | CB-CG-OD1  | -5.74 | 113.14      | 118.30   |
| 1   | 4-B   | 767  | LEU  | CA-CB-CG   | 5.73  | 128.49      | 115.30   |
| 1   | 13-C  | 55   | PHE  | CB-CG-CD1  | 5.73  | 124.81      | 120.80   |
| 1   | 17-A  | 1024 | LEU  | CA-CB-CG   | 5.73  | 128.49      | 115.30   |
| 1   | 4-B   | 168  | PHE  | CB-CG-CD1  | 5.73  | 124.81      | 120.80   |
| 1   | 20-B  | 173  | GLN  | CA-CB-CG   | 5.73  | 126.01      | 113.40   |
| 1   | 10-A  | 962  | LEU  | CB-CG-CD2  | 5.73  | 120.74      | 111.00   |
| 1   | 1-C   | 194  | PHE  | CB-CG-CD1  | 5.73  | 124.81      | 120.80   |
| 1   | 2-C   | 675  | GLN  | CB-CA-C    | 5.72  | 121.85      | 110.40   |
| 1   | 12-C  | 650  | LEU  | CA-CB-CG   | 5.72  | 128.47      | 115.30   |
| 1   | 1-C   | 882  | ILE  | CG1-CB-CG2 | -5.72 | 98.82       | 111.40   |
| 1   | 19-A  | 1019 | ARG  | CG-CD-NE   | 5.72  | 123.81      | 111.80   |
| 1   | 6-C   | 983  | ARG  | CA-CB-CG   | 5.72  | 125.98      | 113.40   |
| 1   | 13-C  | 877  | LEU  | CB-CG-CD2  | 5.72  | 120.72      | 111.00   |
| 1   | 14-C  | 1012 | LEU  | CB-CG-CD2  | 5.72  | 120.72      | 111.00   |
| 1   | 6-C   | 319  | ARG  | CG-CD-NE   | 5.71  | 123.80      | 111.80   |
| 1   | 11-A  | 767  | LEU  | CA-CB-CG   | 5.71  | 128.44      | 115.30   |
| 1   | 6-A   | 994  | ASP  | CB-CG-OD1  | 5.71  | 123.44      | 118.30   |
| 1   | 6-C   | 740  | MET  | CB-CG-SD   | 5.71  | 129.52      | 112.40   |
| 1   | 5-B   | 966  | LEU  | CA-CB-CG   | 5.70  | 128.42      | 115.30   |
| 1   | 18-A  | 582  | LEU  | CA-CB-CG   | 5.70  | 128.41      | 115.30   |
| 1   | 11-B  | 898  | PHE  | CB-CG-CD2  | -5.70 | 116.81      | 120.80   |
| 1   | 3-A   | 964  | LYS  | CA-CB-CG   | 5.70  | 125.93      | 113.40   |
| 1   | 9-C   | 865  | LEU  | CA-CB-CG   | 5.70  | 128.40      | 115.30   |
| 1   | 11-C  | 877  | LEU  | CA-CB-CG   | 5.69  | 128.40      | 115.30   |

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| Mol | Chain | Res  | Type | Atoms     | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1   | 14-C  | 861  | LEU  | CA-CB-CG  | 5.69  | 128.39      | 115.30   |
| 1   | 16-A  | 675  | GLN  | CA-CB-CG  | 5.69  | 125.93      | 113.40   |
| 1   | 17-A  | 319  | ARG  | CG-CD-NE  | 5.69  | 123.75      | 111.80   |
| 1   | 17-B  | 765  | ARG  | CG-CD-NE  | 5.69  | 123.75      | 111.80   |
| 1   | 4-C   | 878  | LEU  | CB-CG-CD2 | 5.69  | 120.67      | 111.00   |
| 1   | 9-A   | 270  | LEU  | CA-CB-CG  | 5.69  | 128.38      | 115.30   |
| 1   | 20-C  | 586  | ASP  | CB-CG-OD1 | 5.69  | 123.42      | 118.30   |
| 1   | 15-A  | 194  | PHE  | CB-CG-CD2 | -5.69 | 116.82      | 120.80   |
| 1   | 3-A   | 568  | ASP  | CB-CG-OD1 | 5.68  | 123.42      | 118.30   |
| 1   | 12-B  | 776  | LYS  | CA-CB-CG  | 5.68  | 125.91      | 113.40   |
| 1   | 17-A  | 741  | TYR  | CB-CG-CD1 | 5.68  | 124.41      | 121.00   |
| 1   | 2-A   | 226  | LEU  | CB-CG-CD2 | 5.68  | 120.66      | 111.00   |
| 1   | 11-B  | 725  | GLU  | N-CA-C    | -5.68 | 95.67       | 111.00   |
| 1   | 3-A   | 727  | LEU  | CB-CG-CD2 | -5.67 | 101.36      | 111.00   |
| 1   | 10-C  | 767  | LEU  | CA-CB-CG  | 5.67  | 128.35      | 115.30   |
| 1   | 7-B   | 118  | LEU  | CA-CB-CG  | 5.67  | 128.35      | 115.30   |
| 1   | 9-C   | 751  | ASN  | N-CA-CB   | 5.67  | 120.81      | 110.60   |
| 1   | 10-B  | 537  | LYS  | CB-CG-CD  | 5.67  | 126.34      | 111.60   |
| 1   | 17-B  | 611  | LEU  | CA-CB-CG  | 5.67  | 128.34      | 115.30   |
| 1   | 19-B  | 1007 | TYR  | CB-CG-CD1 | 5.67  | 124.40      | 121.00   |
| 1   | 7-A   | 293  | LEU  | CA-CB-CG  | 5.67  | 128.34      | 115.30   |
| 1   | 5-B   | 954  | GLN  | CA-CB-CG  | 5.67  | 125.87      | 113.40   |
| 1   | 6-A   | 53   | ASP  | CB-CG-OD1 | 5.67  | 123.40      | 118.30   |
| 1   | 14-B  | 916  | LEU  | CB-CG-CD1 | -5.67 | 101.36      | 111.00   |
| 1   | 20-B  | 767  | LEU  | CB-CG-CD2 | 5.67  | 120.64      | 111.00   |
| 1   | 4-A   | 296  | LEU  | CA-CB-CG  | 5.67  | 128.33      | 115.30   |
| 1   | 19-A  | 877  | LEU  | CB-CG-CD2 | 5.66  | 120.63      | 111.00   |
| 1   | 19-B  | 765  | ARG  | CB-CG-CD  | -5.66 | 96.87       | 111.60   |
| 1   | 19-C  | 1029 | MET  | CB-CG-SD  | 5.66  | 129.39      | 112.40   |
| 1   | 5-C   | 877  | LEU  | CB-CG-CD2 | 5.66  | 120.63      | 111.00   |
| 1   | 17-B  | 983  | ARG  | CG-CD-NE  | 5.66  | 123.69      | 111.80   |
| 1   | 15-A  | 781  | VAL  | CA-CB-CG1 | 5.66  | 119.39      | 110.90   |
| 1   | 16-A  | 1012 | LEU  | CB-CG-CD2 | 5.66  | 120.62      | 111.00   |
| 1   | 15-C  | 754  | LEU  | CA-CB-CG  | 5.66  | 128.31      | 115.30   |
| 1   | 4-B   | 985  | ASP  | CB-CA-C   | 5.66  | 121.71      | 110.40   |
| 1   | 4-B   | 117  | LEU  | CA-CB-CG  | 5.66  | 128.31      | 115.30   |
| 1   | 9-B   | 1017 | GLU  | CA-CB-CG  | 5.66  | 125.84      | 113.40   |
| 1   | 1-B   | 294  | ASP  | CB-CG-OD2 | 5.65  | 123.39      | 118.30   |
| 1   | 4-B   | 55   | PHE  | CB-CG-CD1 | 5.65  | 124.76      | 120.80   |
| 1   | 19-C  | 767  | LEU  | CB-CG-CD2 | 5.65  | 120.61      | 111.00   |
| 1   | 2-A   | 977  | LEU  | CB-CG-CD1 | -5.65 | 101.39      | 111.00   |
| 1   | 3-A   | 763  | LEU  | CA-CB-CG  | 5.65  | 128.30      | 115.30   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 15-A  | 194  | PHE  | CB-CG-CD1  | 5.65  | 124.76      | 120.80   |
| 1   | 14-C  | 414  | GLN  | CB-CA-C    | 5.65  | 121.70      | 110.40   |
| 1   | 14-C  | 675  | GLN  | CB-CA-C    | 5.65  | 121.69      | 110.40   |
| 1   | 14-C  | 934  | ILE  | CG1-CB-CG2 | -5.64 | 98.98       | 111.40   |
| 1   | 20-C  | 748  | GLU  | CA-CB-CG   | 5.64  | 125.82      | 113.40   |
| 1   | 1-B   | 740  | MET  | CA-CB-CG   | 5.64  | 122.89      | 113.30   |
| 1   | 8-A   | 984  | LEU  | CA-CB-CG   | 5.64  | 128.28      | 115.30   |
| 1   | 8-C   | 895  | GLN  | CA-CB-CG   | 5.64  | 125.81      | 113.40   |
| 1   | 14-A  | 966  | LEU  | CA-CB-CG   | 5.64  | 128.28      | 115.30   |
| 1   | 18-C  | 201  | PHE  | CB-CG-CD1  | 5.64  | 124.75      | 120.80   |
| 1   | 4-C   | 296  | LEU  | CA-CB-CG   | 5.64  | 128.27      | 115.30   |
| 1   | 10-B  | 1024 | LEU  | CA-CB-CG   | 5.64  | 128.27      | 115.30   |
| 1   | 14-B  | 699  | LEU  | CB-CG-CD2  | -5.64 | 101.41      | 111.00   |
| 1   | 2-A   | 153  | MET  | CB-CG-SD   | 5.64  | 129.31      | 112.40   |
| 1   | 7-C   | 718  | PHE  | CB-CG-CD1  | 5.64  | 124.75      | 120.80   |
| 1   | 13-A  | 611  | LEU  | CB-CG-CD1  | -5.64 | 101.42      | 111.00   |
| 1   | 3-C   | 953  | ASN  | N-CA-CB    | 5.63  | 120.74      | 110.60   |
| 1   | 18-A  | 781  | VAL  | CA-CB-CG1  | 5.63  | 119.35      | 110.90   |
| 1   | 1-A   | 984  | LEU  | CB-CG-CD1  | -5.63 | 101.42      | 111.00   |
| 1   | 3-C   | 568  | ASP  | CB-CA-C    | 5.63  | 121.66      | 110.40   |
| 1   | 7-A   | 878  | LEU  | CB-CG-CD2  | 5.63  | 120.57      | 111.00   |
| 1   | 7-C   | 934  | ILE  | CG1-CB-CG2 | -5.63 | 99.02       | 111.40   |
| 1   | 8-A   | 984  | LEU  | CB-CG-CD1  | -5.63 | 101.43      | 111.00   |
| 1   | 3-A   | 773  | GLU  | CA-CB-CG   | 5.63  | 125.78      | 113.40   |
| 1   | 13-B  | 271  | GLN  | CA-CB-CG   | 5.63  | 125.78      | 113.40   |
| 1   | 19-C  | 1012 | LEU  | CB-CG-CD2  | 5.62  | 120.56      | 111.00   |
| 1   | 8-A   | 781  | VAL  | CA-CB-CG1  | 5.62  | 119.34      | 110.90   |
| 1   | 5-C   | 762  | GLN  | CA-CB-CG   | 5.62  | 125.77      | 113.40   |
| 1   | 9-B   | 786  | LYS  | CB-CG-CD   | 5.62  | 126.22      | 111.60   |
| 1   | 10-B  | 762  | GLN  | CA-CB-CG   | 5.62  | 125.77      | 113.40   |
| 1   | 20-B  | 223  | LEU  | CB-CG-CD1  | 5.62  | 120.56      | 111.00   |
| 1   | 1-A   | 822  | LEU  | CB-CG-CD2  | 5.62  | 120.55      | 111.00   |
| 1   | 3-A   | 1012 | LEU  | CB-CG-CD2  | 5.62  | 120.55      | 111.00   |
| 1   | 12-B  | 120  | VAL  | CG1-CB-CG2 | -5.62 | 101.91      | 110.90   |
| 1   | 14-A  | 201  | PHE  | CB-CA-C    | 5.62  | 121.64      | 110.40   |
| 1   | 5-B   | 86   | PHE  | CB-CG-CD2  | -5.61 | 116.87      | 120.80   |
| 1   | 8-A   | 117  | LEU  | CA-CB-CG   | 5.61  | 128.20      | 115.30   |
| 1   | 20-B  | 53   | ASP  | CB-CA-C    | 5.61  | 121.62      | 110.40   |
| 1   | 2-A   | 796  | ASP  | CB-CG-OD2  | 5.61  | 123.35      | 118.30   |
| 1   | 5-A   | 1024 | LEU  | CA-CB-CG   | 5.61  | 128.20      | 115.30   |
| 1   | 20-A  | 1050 | MET  | CB-CG-SD   | -5.61 | 95.58       | 112.40   |
| 1   | 1-C   | 773  | GLU  | CA-CB-CG   | 5.61  | 125.73      | 113.40   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 20-C  | 934  | ILE  | CG1-CB-CG2 | -5.60 | 99.07       | 111.40   |
| 1   | 4-C   | 773  | GLU  | CA-CB-CG   | 5.60  | 125.73      | 113.40   |
| 1   | 3-C   | 650  | LEU  | CA-CB-CG   | 5.60  | 128.18      | 115.30   |
| 1   | 5-B   | 675  | GLN  | CA-CB-CG   | 5.60  | 125.72      | 113.40   |
| 1   | 6-C   | 902  | MET  | CA-CB-CG   | 5.60  | 122.82      | 113.30   |
| 1   | 8-B   | 754  | LEU  | CA-CB-CG   | 5.60  | 128.18      | 115.30   |
| 1   | 11-B  | 964  | LYS  | CA-CB-CG   | 5.60  | 125.72      | 113.40   |
| 1   | 3-B   | 959  | LEU  | CB-CG-CD2  | 5.60  | 120.52      | 111.00   |
| 1   | 10-A  | 1024 | LEU  | CA-CB-CG   | 5.60  | 128.17      | 115.30   |
| 1   | 12-A  | 660  | TYR  | CA-CB-CG   | 5.60  | 124.04      | 113.40   |
| 1   | 17-B  | 53   | ASP  | CB-CA-C    | 5.60  | 121.59      | 110.40   |
| 1   | 6-C   | 770  | ILE  | CG1-CB-CG2 | -5.60 | 99.09       | 111.40   |
| 1   | 11-A  | 878  | LEU  | CB-CG-CD2  | 5.60  | 120.51      | 111.00   |
| 1   | 6-B   | 755  | GLN  | N-CA-CB    | -5.59 | 100.53      | 110.60   |
| 1   | 20-B  | 780  | GLU  | CA-CB-CG   | 5.59  | 125.70      | 113.40   |
| 1   | 8-B   | 822  | LEU  | CB-CG-CD2  | 5.59  | 120.50      | 111.00   |
| 1   | 3-C   | 773  | GLU  | CA-CB-CG   | 5.59  | 125.69      | 113.40   |
| 1   | 18-B  | 962  | LEU  | CB-CG-CD2  | 5.59  | 120.50      | 111.00   |
| 1   | 4-C   | 751  | ASN  | N-CA-CB    | 5.59  | 120.66      | 110.60   |
| 1   | 20-A  | 878  | LEU  | CA-CB-CG   | 5.59  | 128.15      | 115.30   |
| 1   | 3-A   | 737  | ASP  | CB-CG-OD1  | 5.58  | 123.33      | 118.30   |
| 1   | 12-B  | 822  | LEU  | CB-CG-CD2  | 5.58  | 120.49      | 111.00   |
| 1   | 17-A  | 118  | LEU  | CA-CB-CG   | 5.58  | 128.14      | 115.30   |
| 1   | 3-B   | 948  | LEU  | CA-CB-CG   | 5.58  | 128.14      | 115.30   |
| 1   | 12-A  | 993  | ILE  | CG1-CB-CG2 | -5.58 | 99.12       | 111.40   |
| 1   | 20-C  | 1050 | MET  | CB-CA-C    | -5.58 | 99.24       | 110.40   |
| 1   | 8-C   | 740  | MET  | CB-CG-SD   | 5.58  | 129.14      | 112.40   |
| 1   | 14-C  | 1092 | GLU  | CA-CB-CG   | 5.58  | 125.67      | 113.40   |
| 1   | 18-B  | 173  | GLN  | CA-CB-CG   | 5.58  | 125.67      | 113.40   |
| 1   | 12-A  | 822  | LEU  | CA-CB-CG   | 5.58  | 128.13      | 115.30   |
| 1   | 14-B  | 173  | GLN  | CA-CB-CG   | 5.58  | 125.67      | 113.40   |
| 1   | 6-B   | 1012 | LEU  | CA-CB-CG   | 5.58  | 128.12      | 115.30   |
| 1   | 8-B   | 117  | LEU  | CA-CB-CG   | 5.58  | 128.12      | 115.30   |
| 1   | 10-B  | 988  | GLU  | CA-CB-CG   | 5.58  | 125.67      | 113.40   |
| 1   | 11-B  | 731  | MET  | CG-SD-CE   | 5.58  | 109.12      | 100.20   |
| 1   | 14-A  | 1024 | LEU  | CA-CB-CG   | 5.58  | 128.12      | 115.30   |
| 1   | 13-C  | 767  | LEU  | CA-CB-CG   | 5.57  | 128.12      | 115.30   |
| 1   | 12-B  | 966  | LEU  | CA-CB-CG   | 5.57  | 128.12      | 115.30   |
| 1   | 19-B  | 985  | ASP  | CB-CG-OD2  | 5.57  | 123.31      | 118.30   |
| 1   | 5-B   | 697  | MET  | CA-CB-CG   | 5.57  | 122.77      | 113.30   |
| 1   | 9-A   | 900  | MET  | CB-CG-SD   | 5.57  | 129.11      | 112.40   |
| 1   | 10-A  | 671  | CYS  | CA-CB-SG   | 5.57  | 124.03      | 114.00   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 9-C   | 1012 | LEU  | CB-CG-CD2  | 5.57  | 120.47      | 111.00   |
| 1   | 9-C   | 996  | LEU  | CA-CB-CG   | 5.56  | 128.09      | 115.30   |
| 1   | 15-A  | 1005 | GLN  | CA-CB-CG   | 5.56  | 125.63      | 113.40   |
| 1   | 3-A   | 1029 | MET  | CB-CG-SD   | 5.56  | 129.07      | 112.40   |
| 1   | 10-B  | 1012 | LEU  | CB-CG-CD2  | 5.56  | 120.45      | 111.00   |
| 1   | 15-C  | 990  | GLU  | CA-CB-CG   | 5.56  | 125.63      | 113.40   |
| 1   | 4-C   | 675  | GLN  | CB-CA-C    | 5.56  | 121.51      | 110.40   |
| 1   | 15-B  | 53   | ASP  | CB-CA-C    | 5.55  | 121.51      | 110.40   |
| 1   | 15-B  | 585  | LEU  | CA-CB-CG   | 5.55  | 128.08      | 115.30   |
| 1   | 8-B   | 902  | MET  | CA-CB-CG   | 5.55  | 122.74      | 113.30   |
| 1   | 13-B  | 1034 | LEU  | CB-CG-CD1  | -5.55 | 101.56      | 111.00   |
| 1   | 11-B  | 861  | LEU  | CA-CB-CG   | 5.55  | 128.07      | 115.30   |
| 1   | 13-A  | 229  | LEU  | CA-CB-CG   | 5.55  | 128.06      | 115.30   |
| 1   | 10-C  | 40   | ASP  | CB-CA-C    | 5.55  | 121.50      | 110.40   |
| 1   | 7-A   | 671  | CYS  | CA-CB-SG   | 5.55  | 123.98      | 114.00   |
| 1   | 3-A   | 1063 | LEU  | CA-CB-CG   | 5.54  | 128.05      | 115.30   |
| 1   | 4-B   | 861  | LEU  | CA-CB-CG   | 5.54  | 128.05      | 115.30   |
| 1   | 20-A  | 878  | LEU  | CB-CG-CD2  | 5.54  | 120.42      | 111.00   |
| 1   | 3-A   | 727  | LEU  | CB-CG-CD1  | 5.54  | 120.42      | 111.00   |
| 1   | 19-C  | 296  | LEU  | CA-CB-CG   | 5.54  | 128.05      | 115.30   |
| 1   | 1-C   | 950  | ASP  | CB-CG-OD1  | 5.54  | 123.28      | 118.30   |
| 1   | 5-A   | 206  | LYS  | CA-CB-CG   | 5.54  | 125.59      | 113.40   |
| 1   | 13-A  | 969  | ASN  | CB-CA-C    | 5.54  | 121.48      | 110.40   |
| 1   | 15-A  | 916  | LEU  | CB-CG-CD2  | 5.54  | 120.42      | 111.00   |
| 1   | 9-B   | 767  | LEU  | CB-CG-CD2  | 5.54  | 120.41      | 111.00   |
| 1   | 1-B   | 223  | LEU  | C-N-CA     | 5.53  | 135.53      | 121.70   |
| 1   | 10-C  | 938  | LEU  | CB-CG-CD2  | 5.53  | 120.40      | 111.00   |
| 1   | 5-C   | 564  | GLN  | CA-CB-CG   | 5.53  | 125.56      | 113.40   |
| 1   | 7-B   | 1034 | LEU  | CA-CB-CG   | 5.53  | 128.01      | 115.30   |
| 1   | 20-C  | 1001 | LEU  | CA-CB-CG   | 5.53  | 128.01      | 115.30   |
| 1   | 1-A   | 663  | ASP  | CB-CG-OD2  | 5.53  | 123.27      | 118.30   |
| 1   | 9-A   | 170  | TYR  | CA-CB-CG   | 5.53  | 123.90      | 113.40   |
| 1   | 1-C   | 953  | ASN  | N-CA-CB    | 5.52  | 120.54      | 110.60   |
| 1   | 6-A   | 1017 | GLU  | CA-CB-CG   | 5.52  | 125.55      | 113.40   |
| 1   | 15-B  | 675  | GLN  | CB-CA-C    | 5.52  | 121.45      | 110.40   |
| 1   | 17-C  | 177  | MET  | N-CA-CB    | 5.52  | 120.54      | 110.60   |
| 1   | 12-B  | 898  | PHE  | CB-CG-CD1  | 5.52  | 124.67      | 120.80   |
| 1   | 14-C  | 895  | GLN  | CA-CB-CG   | 5.52  | 125.54      | 113.40   |
| 1   | 6-A   | 1029 | MET  | CB-CG-SD   | 5.52  | 128.95      | 112.40   |
| 1   | 19-B  | 611  | LEU  | CB-CG-CD2  | 5.52  | 120.38      | 111.00   |
| 1   | 6-B   | 878  | LEU  | CA-CB-CG   | 5.52  | 127.99      | 115.30   |
| 1   | 8-C   | 934  | ILE  | CG1-CB-CG2 | -5.51 | 99.27       | 111.40   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 12-C  | 223  | LEU  | CB-CG-CD2  | -5.51 | 101.63      | 111.00   |
| 1   | 17-B  | 898  | PHE  | CB-CG-CD2  | -5.51 | 116.94      | 120.80   |
| 1   | 20-C  | 854  | LYS  | CA-CB-CG   | 5.51  | 125.53      | 113.40   |
| 1   | 10-A  | 558  | LYS  | CA-CB-CG   | 5.51  | 125.52      | 113.40   |
| 1   | 19-C  | 177  | MET  | CB-CG-SD   | 5.51  | 128.93      | 112.40   |
| 1   | 19-C  | 328  | ARG  | CA-CB-CG   | 5.51  | 125.52      | 113.40   |
| 1   | 4-A   | 877  | LEU  | CA-CB-CG   | 5.51  | 127.97      | 115.30   |
| 1   | 15-C  | 296  | LEU  | CA-CB-CG   | 5.51  | 127.97      | 115.30   |
| 1   | 17-B  | 959  | LEU  | CB-CG-CD2  | 5.51  | 120.36      | 111.00   |
| 1   | 15-C  | 663  | ASP  | CB-CG-OD1  | -5.50 | 113.35      | 118.30   |
| 1   | 4-A   | 53   | ASP  | CB-CA-C    | 5.50  | 121.40      | 110.40   |
| 1   | 12-B  | 48   | LEU  | CA-CB-CG   | 5.50  | 127.95      | 115.30   |
| 1   | 19-B  | 916  | LEU  | CB-CG-CD1  | 5.50  | 120.35      | 111.00   |
| 1   | 11-B  | 959  | LEU  | CA-CB-CG   | 5.50  | 127.94      | 115.30   |
| 1   | 9-B   | 1050 | MET  | CA-CB-CG   | 5.50  | 122.64      | 113.30   |
| 1   | 15-B  | 767  | LEU  | CB-CG-CD2  | 5.49  | 120.34      | 111.00   |
| 1   | 11-A  | 1024 | LEU  | CA-CB-CG   | 5.49  | 127.93      | 115.30   |
| 1   | 2-C   | 1111 | GLU  | CA-CB-CG   | 5.49  | 125.47      | 113.40   |
| 1   | 3-B   | 865  | LEU  | CB-CG-CD2  | 5.49  | 120.33      | 111.00   |
| 1   | 6-A   | 877  | LEU  | CB-CG-CD2  | 5.49  | 120.33      | 111.00   |
| 1   | 10-B  | 428  | ASP  | CB-CG-OD2  | -5.49 | 113.36      | 118.30   |
| 1   | 19-C  | 763  | LEU  | CB-CG-CD1  | -5.49 | 101.67      | 111.00   |
| 1   | 10-B  | 981  | LEU  | CB-CG-CD2  | 5.49  | 120.33      | 111.00   |
| 1   | 7-A   | 767  | LEU  | CB-CG-CD2  | 5.48  | 120.32      | 111.00   |
| 1   | 17-C  | 53   | ASP  | CB-CG-OD1  | 5.48  | 123.23      | 118.30   |
| 1   | 1-C   | 675  | GLN  | CB-CA-C    | 5.48  | 121.36      | 110.40   |
| 1   | 11-C  | 1041 | ASP  | CB-CG-OD1  | 5.48  | 123.23      | 118.30   |
| 1   | 10-A  | 1012 | LEU  | CB-CG-CD2  | 5.48  | 120.31      | 111.00   |
| 1   | 10-C  | 140  | PHE  | CB-CG-CD1  | 5.48  | 124.64      | 120.80   |
| 1   | 2-C   | 1029 | MET  | CB-CG-SD   | 5.48  | 128.83      | 112.40   |
| 1   | 10-C  | 1024 | LEU  | CA-CB-CG   | 5.48  | 127.90      | 115.30   |
| 1   | 5-C   | 737  | ASP  | CB-CG-OD1  | 5.47  | 123.23      | 118.30   |
| 1   | 1-A   | 153  | MET  | CB-CG-SD   | 5.47  | 128.81      | 112.40   |
| 1   | 3-C   | 1111 | GLU  | CA-CB-CG   | 5.47  | 125.44      | 113.40   |
| 1   | 14-A  | 298  | GLU  | CA-CB-CG   | 5.47  | 125.44      | 113.40   |
| 1   | 20-C  | 675  | GLN  | CB-CA-C    | 5.47  | 121.34      | 110.40   |
| 1   | 15-C  | 191  | GLU  | CA-CB-CG   | 5.47  | 125.43      | 113.40   |
| 1   | 3-B   | 964  | LYS  | CA-CB-CG   | 5.47  | 125.43      | 113.40   |
| 1   | 12-C  | 993  | ILE  | CG1-CB-CG2 | -5.47 | 99.38       | 111.40   |
| 1   | 18-C  | 902  | MET  | CA-CB-CG   | 5.47  | 122.59      | 113.30   |
| 1   | 5-B   | 611  | LEU  | CB-CG-CD1  | 5.46  | 120.29      | 111.00   |
| 1   | 20-B  | 675  | GLN  | CA-CB-CG   | 5.46  | 125.42      | 113.40   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 6-A   | 697  | MET  | CB-CG-SD   | 5.46  | 128.79      | 112.40   |
| 1   | 6-B   | 755  | GLN  | CA-CB-CG   | 5.46  | 125.42      | 113.40   |
| 1   | 11-C  | 934  | ILE  | CG1-CB-CG2 | -5.46 | 99.38       | 111.40   |
| 1   | 12-A  | 206  | LYS  | CA-CB-CG   | 5.46  | 125.42      | 113.40   |
| 1   | 5-B   | 780  | GLU  | CA-CB-CG   | 5.46  | 125.41      | 113.40   |
| 1   | 5-C   | 981  | LEU  | CA-CB-CG   | 5.46  | 127.86      | 115.30   |
| 1   | 14-B  | 552  | LEU  | CA-CB-CG   | 5.46  | 127.86      | 115.30   |
| 1   | 17-B  | 934  | ILE  | CG1-CB-CG2 | -5.46 | 99.39       | 111.40   |
| 1   | 19-A  | 1050 | MET  | CB-CG-SD   | -5.46 | 96.02       | 112.40   |
| 1   | 19-B  | 41   | LYS  | CB-CG-CD   | 5.46  | 125.79      | 111.60   |
| 1   | 20-A  | 1012 | LEU  | CB-CG-CD2  | 5.46  | 120.28      | 111.00   |
| 1   | 1-C   | 759  | PHE  | CB-CG-CD2  | -5.46 | 116.98      | 120.80   |
| 1   | 9-A   | 865  | LEU  | CB-CG-CD1  | -5.46 | 101.72      | 111.00   |
| 1   | 11-C  | 888  | PHE  | CB-CG-CD1  | 5.46  | 124.62      | 120.80   |
| 1   | 3-C   | 567  | ARG  | NE-CZ-NH1  | 5.46  | 123.03      | 120.30   |
| 1   | 3-A   | 898  | PHE  | CB-CG-CD1  | 5.45  | 124.62      | 120.80   |
| 1   | 8-B   | 675  | GLN  | CB-CA-C    | 5.45  | 121.31      | 110.40   |
| 1   | 12-A  | 303  | LEU  | CA-CB-CG   | 5.45  | 127.84      | 115.30   |
| 1   | 19-C  | 864  | LEU  | CA-CB-CG   | 5.45  | 127.84      | 115.30   |
| 1   | 14-B  | 763  | LEU  | CA-CB-CG   | 5.45  | 127.84      | 115.30   |
| 1   | 1-B   | 822  | LEU  | CB-CG-CD1  | 5.45  | 120.27      | 111.00   |
| 1   | 19-C  | 822  | LEU  | CA-CB-CG   | 5.45  | 127.83      | 115.30   |
| 1   | 16-A  | 985  | ASP  | CB-CG-OD2  | 5.45  | 123.20      | 118.30   |
| 1   | 13-C  | 1012 | LEU  | CB-CG-CD2  | 5.44  | 120.25      | 111.00   |
| 1   | 9-B   | 820  | ASP  | CB-CG-OD1  | 5.44  | 123.20      | 118.30   |
| 1   | 19-C  | 864  | LEU  | CB-CG-CD1  | -5.44 | 101.75      | 111.00   |
| 1   | 5-A   | 727  | LEU  | CA-CB-CG   | 5.44  | 127.81      | 115.30   |
| 1   | 15-C  | 675  | GLN  | CB-CA-C    | 5.44  | 121.28      | 110.40   |
| 1   | 10-B  | 1111 | GLU  | CA-CB-CG   | 5.44  | 125.37      | 113.40   |
| 1   | 12-B  | 916  | LEU  | CB-CG-CD1  | 5.44  | 120.25      | 111.00   |
| 1   | 12-C  | 754  | LEU  | CA-CB-CG   | 5.44  | 127.81      | 115.30   |
| 1   | 19-B  | 954  | GLN  | CA-CB-CG   | 5.44  | 125.36      | 113.40   |
| 1   | 4-B   | 359  | SER  | C-N-CA     | 5.43  | 135.29      | 121.70   |
| 1   | 6-A   | 40   | ASP  | CB-CA-C    | 5.43  | 121.27      | 110.40   |
| 1   | 1-C   | 194  | PHE  | CB-CG-CD2  | -5.43 | 117.00      | 120.80   |
| 1   | 9-B   | 822  | LEU  | CB-CG-CD2  | 5.43  | 120.23      | 111.00   |
| 1   | 7-A   | 55   | PHE  | CB-CG-CD2  | 5.43  | 124.60      | 120.80   |
| 1   | 8-A   | 985  | ASP  | CB-CA-C    | 5.43  | 121.26      | 110.40   |
| 1   | 15-C  | 752  | LEU  | CB-CG-CD2  | 5.43  | 120.23      | 111.00   |
| 1   | 4-A   | 781  | VAL  | CA-CB-CG1  | 5.43  | 119.04      | 110.90   |
| 1   | 11-B  | 740  | MET  | CG-SD-CE   | -5.43 | 91.52       | 100.20   |
| 1   | 7-A   | 660  | TYR  | CA-CB-CG   | 5.43  | 123.71      | 113.40   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 14-A  | 660  | TYR  | CA-CB-CG   | 5.43  | 123.71      | 113.40   |
| 1   | 3-B   | 806  | LEU  | CA-CB-CG   | 5.42  | 127.78      | 115.30   |
| 1   | 4-C   | 877  | LEU  | CA-CB-CG   | 5.42  | 127.78      | 115.30   |
| 1   | 9-C   | 90   | VAL  | CA-CB-CG1  | 5.42  | 119.04      | 110.90   |
| 1   | 20-A  | 134  | GLN  | CA-CB-CG   | 5.42  | 125.33      | 113.40   |
| 1   | 3-C   | 754  | LEU  | CA-CB-CG   | 5.42  | 127.77      | 115.30   |
| 1   | 10-C  | 762  | GLN  | CA-CB-CG   | 5.42  | 125.33      | 113.40   |
| 1   | 17-B  | 1017 | GLU  | CA-CB-CG   | 5.42  | 125.32      | 113.40   |
| 1   | 8-C   | 120  | VAL  | CG1-CB-CG2 | -5.42 | 102.23      | 110.90   |
| 1   | 3-C   | 877  | LEU  | CA-CB-CG   | 5.42  | 127.76      | 115.30   |
| 1   | 6-A   | 762  | GLN  | CA-CB-CG   | 5.42  | 125.32      | 113.40   |
| 1   | 11-B  | 945  | LEU  | CA-CB-CG   | 5.42  | 127.75      | 115.30   |
| 1   | 6-B   | 994  | ASP  | CB-CG-OD2  | -5.41 | 113.43      | 118.30   |
| 1   | 13-C  | 168  | PHE  | CB-CG-CD2  | -5.41 | 117.01      | 120.80   |
| 1   | 17-B  | 755  | GLN  | CA-CB-CG   | 5.41  | 125.31      | 113.40   |
| 1   | 17-B  | 984  | LEU  | CA-CB-CG   | 5.41  | 127.75      | 115.30   |
| 1   | 18-B  | 276  | LEU  | CB-CG-CD2  | 5.41  | 120.20      | 111.00   |
| 1   | 18-B  | 773  | GLU  | CA-CB-CG   | 5.41  | 125.31      | 113.40   |
| 1   | 20-B  | 916  | LEU  | CB-CG-CD1  | 5.41  | 120.20      | 111.00   |
| 1   | 5-A   | 660  | TYR  | CA-CB-CG   | 5.41  | 123.68      | 113.40   |
| 1   | 7-A   | 938  | LEU  | CA-CB-CG   | 5.41  | 127.74      | 115.30   |
| 1   | 8-A   | 977  | LEU  | CB-CG-CD1  | 5.41  | 120.20      | 111.00   |
| 1   | 12-B  | 820  | ASP  | CB-CG-OD1  | 5.41  | 123.17      | 118.30   |
| 1   | 17-A  | 966  | LEU  | CA-CB-CG   | 5.41  | 127.74      | 115.30   |
| 1   | 19-B  | 962  | LEU  | CB-CG-CD1  | 5.41  | 120.20      | 111.00   |
| 1   | 1-B   | 53   | ASP  | CB-CA-C    | 5.41  | 121.22      | 110.40   |
| 1   | 19-B  | 938  | LEU  | CB-CG-CD2  | 5.41  | 120.19      | 111.00   |
| 1   | 3-B   | 969  | ASN  | CB-CA-C    | 5.41  | 121.21      | 110.40   |
| 1   | 1-C   | 993  | ILE  | CG1-CB-CG2 | -5.40 | 99.51       | 111.40   |
| 1   | 9-A   | 1005 | GLN  | CA-CB-CG   | -5.40 | 101.51      | 113.40   |
| 1   | 13-C  | 52   | GLN  | CA-CB-CG   | 5.40  | 125.29      | 113.40   |
| 1   | 15-A  | 276  | LEU  | CA-CB-CG   | 5.40  | 127.72      | 115.30   |
| 1   | 16-C  | 1029 | MET  | CB-CG-SD   | 5.40  | 128.60      | 112.40   |
| 1   | 6-C   | 983  | ARG  | CB-CG-CD   | 5.40  | 125.64      | 111.60   |
| 1   | 4-A   | 959  | LEU  | CA-CB-CG   | 5.40  | 127.72      | 115.30   |
| 1   | 18-A  | 727  | LEU  | CB-CG-CD1  | 5.40  | 120.18      | 111.00   |
| 1   | 5-C   | 877  | LEU  | CB-CG-CD1  | -5.39 | 101.83      | 111.00   |
| 1   | 6-B   | 878  | LEU  | CB-CG-CD1  | -5.39 | 101.83      | 111.00   |
| 1   | 18-B  | 1024 | LEU  | CA-CB-CG   | 5.39  | 127.71      | 115.30   |
| 1   | 14-C  | 1018 | ILE  | CG1-CB-CG2 | -5.39 | 99.54       | 111.40   |
| 1   | 1-B   | 780  | GLU  | CA-CB-CG   | 5.39  | 125.26      | 113.40   |
| 1   | 7-A   | 53   | ASP  | CB-CA-C    | 5.39  | 121.18      | 110.40   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 8-A   | 870  | ILE  | CG1-CB-CG2 | -5.39 | 99.54       | 111.40   |
| 1   | 18-A  | 298  | GLU  | CA-CB-CG   | 5.39  | 125.26      | 113.40   |
| 1   | 2-A   | 902  | MET  | CA-CB-CG   | 5.39  | 122.46      | 113.30   |
| 1   | 5-A   | 916  | LEU  | CB-CG-CD1  | -5.39 | 101.84      | 111.00   |
| 1   | 7-C   | 298  | GLU  | CA-CB-CG   | 5.38  | 125.25      | 113.40   |
| 1   | 1-B   | 922  | LEU  | CA-CB-CG   | 5.38  | 127.68      | 115.30   |
| 1   | 9-B   | 985  | ASP  | CB-CG-OD1  | -5.38 | 113.45      | 118.30   |
| 1   | 8-B   | 53   | ASP  | CB-CA-C    | 5.38  | 121.16      | 110.40   |
| 1   | 19-B  | 979  | ASP  | CB-CG-OD1  | 5.38  | 123.14      | 118.30   |
| 1   | 2-A   | 660  | TYR  | CA-CB-CG   | 5.38  | 123.62      | 113.40   |
| 1   | 7-B   | 957  | GLN  | CA-CB-CG   | 5.38  | 125.23      | 113.40   |
| 1   | 2-B   | 861  | LEU  | CA-CB-CG   | 5.38  | 127.67      | 115.30   |
| 1   | 6-C   | 650  | LEU  | CA-CB-CG   | 5.38  | 127.67      | 115.30   |
| 1   | 18-A  | 938  | LEU  | CB-CG-CD2  | 5.38  | 120.14      | 111.00   |
| 1   | 14-C  | 1024 | LEU  | CA-CB-CG   | 5.38  | 127.66      | 115.30   |
| 1   | 12-C  | 731  | MET  | CA-CB-CG   | 5.37  | 122.44      | 113.30   |
| 1   | 15-C  | 563  | GLN  | CA-CB-CG   | -5.37 | 101.58      | 113.40   |
| 1   | 12-A  | 671  | CYS  | CA-CB-SG   | 5.37  | 123.67      | 114.00   |
| 1   | 15-B  | 996  | LEU  | CA-CB-CG   | 5.37  | 127.65      | 115.30   |
| 1   | 17-A  | 1018 | ILE  | CG1-CB-CG2 | -5.37 | 99.58       | 111.40   |
| 1   | 19-C  | 780  | GLU  | N-CA-CB    | 5.37  | 120.27      | 110.60   |
| 1   | 19-C  | 902  | MET  | CA-CB-CG   | 5.37  | 122.43      | 113.30   |
| 1   | 3-B   | 168  | PHE  | CB-CG-CD2  | 5.37  | 124.56      | 120.80   |
| 1   | 2-C   | 117  | LEU  | CB-CG-CD2  | -5.37 | 101.88      | 111.00   |
| 1   | 6-A   | 878  | LEU  | CB-CG-CD2  | 5.37  | 120.13      | 111.00   |
| 1   | 17-B  | 1031 | GLU  | CA-CB-CG   | 5.37  | 125.21      | 113.40   |
| 1   | 8-B   | 54   | LEU  | CA-CB-CG   | 5.37  | 127.64      | 115.30   |
| 1   | 10-A  | 40   | ASP  | CB-CA-C    | 5.37  | 121.13      | 110.40   |
| 1   | 2-B   | 765  | ARG  | CA-CB-CG   | 5.36  | 125.20      | 113.40   |
| 1   | 2-C   | 1092 | GLU  | CA-CB-CG   | 5.36  | 125.20      | 113.40   |
| 1   | 4-A   | 576  | VAL  | CG1-CB-CG2 | -5.36 | 102.32      | 110.90   |
| 1   | 13-A  | 938  | LEU  | CB-CG-CD2  | 5.36  | 120.12      | 111.00   |
| 1   | 14-A  | 568  | ASP  | CB-CA-C    | 5.36  | 121.13      | 110.40   |
| 1   | 16-A  | 938  | LEU  | CA-CB-CG   | 5.36  | 127.64      | 115.30   |
| 1   | 20-A  | 755  | GLN  | CA-CB-CG   | 5.36  | 125.19      | 113.40   |
| 1   | 15-B  | 895  | GLN  | CA-CB-CG   | 5.36  | 125.19      | 113.40   |
| 1   | 3-B   | 53   | ASP  | CB-CA-C    | 5.36  | 121.11      | 110.40   |
| 1   | 17-C  | 877  | LEU  | CB-CG-CD2  | 5.36  | 120.11      | 111.00   |
| 1   | 6-B   | 675  | GLN  | CB-CA-C    | 5.36  | 121.11      | 110.40   |
| 1   | 13-B  | 790  | LYS  | CD-CE-NZ   | -5.36 | 99.38       | 111.70   |
| 1   | 8-A   | 934  | ILE  | CG1-CB-CG2 | -5.35 | 99.63       | 111.40   |
| 1   | 13-A  | 1050 | MET  | CA-CB-CG   | 5.35  | 122.39      | 113.30   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 18-B  | 898  | PHE  | CB-CG-CD1  | 5.35  | 124.55      | 120.80   |
| 1   | 13-B  | 969  | ASN  | N-CA-CB    | -5.35 | 100.98      | 110.60   |
| 1   | 19-C  | 985  | ASP  | CB-CA-C    | 5.35  | 121.10      | 110.40   |
| 1   | 20-A  | 287  | ASP  | CB-CG-OD1  | 5.35  | 123.11      | 118.30   |
| 1   | 4-B   | 938  | LEU  | CA-CB-CG   | 5.34  | 127.59      | 115.30   |
| 1   | 16-A  | 675  | GLN  | CB-CA-C    | 5.34  | 121.09      | 110.40   |
| 1   | 8-B   | 776  | LYS  | CA-CB-CG   | 5.34  | 125.15      | 113.40   |
| 1   | 8-B   | 916  | LEU  | CB-CG-CD1  | 5.34  | 120.08      | 111.00   |
| 1   | 8-C   | 894  | LEU  | CA-CB-CG   | 5.34  | 127.58      | 115.30   |
| 1   | 9-A   | 1034 | LEU  | CA-CB-CG   | 5.34  | 127.58      | 115.30   |
| 1   | 14-B  | 611  | LEU  | CA-CB-CG   | 5.34  | 127.58      | 115.30   |
| 1   | 4-B   | 40   | ASP  | CB-CA-C    | 5.34  | 121.08      | 110.40   |
| 1   | 18-A  | 1012 | LEU  | CB-CG-CD2  | 5.34  | 120.07      | 111.00   |
| 1   | 6-C   | 303  | LEU  | CA-CB-CG   | 5.34  | 127.58      | 115.30   |
| 1   | 12-A  | 1012 | LEU  | CB-CG-CD2  | 5.34  | 120.07      | 111.00   |
| 1   | 18-B  | 1111 | GLU  | CA-CB-CG   | 5.34  | 125.14      | 113.40   |
| 1   | 1-C   | 895  | GLN  | CA-CB-CG   | 5.33  | 125.14      | 113.40   |
| 1   | 10-A  | 916  | LEU  | CA-CB-CG   | 5.33  | 127.57      | 115.30   |
| 1   | 4-A   | 727  | LEU  | CA-CB-CG   | 5.33  | 127.56      | 115.30   |
| 1   | 4-A   | 671  | CYS  | CA-CB-SG   | 5.33  | 123.59      | 114.00   |
| 1   | 13-B  | 760  | CYS  | CA-CB-SG   | -5.33 | 104.41      | 114.00   |
| 1   | 9-C   | 904  | TYR  | CB-CG-CD1  | -5.33 | 117.80      | 121.00   |
| 1   | 11-B  | 1012 | LEU  | CA-CB-CG   | 5.33  | 127.56      | 115.30   |
| 1   | 12-C  | 1029 | MET  | CB-CG-SD   | 5.33  | 128.39      | 112.40   |
| 1   | 20-C  | 1010 | GLN  | CA-CB-CG   | 5.33  | 125.11      | 113.40   |
| 1   | 7-B   | 301  | CYS  | CA-CB-SG   | 5.32  | 123.58      | 114.00   |
| 1   | 12-A  | 1017 | GLU  | CA-CB-CG   | 5.32  | 125.11      | 113.40   |
| 1   | 18-B  | 1012 | LEU  | CA-CB-CG   | 5.32  | 127.54      | 115.30   |
| 1   | 8-B   | 895  | GLN  | CA-CB-CG   | 5.32  | 125.11      | 113.40   |
| 1   | 18-A  | 729  | VAL  | CA-CB-CG1  | 5.32  | 118.88      | 110.90   |
| 1   | 19-C  | 977  | LEU  | CA-CB-CG   | 5.32  | 127.54      | 115.30   |
| 1   | 2-A   | 959  | LEU  | CA-CB-CG   | 5.32  | 127.53      | 115.30   |
| 1   | 3-C   | 671  | CYS  | CA-CB-SG   | 5.32  | 123.57      | 114.00   |
| 1   | 6-B   | 959  | LEU  | CB-CG-CD2  | 5.32  | 120.04      | 111.00   |
| 1   | 19-C  | 904  | TYR  | CA-CB-CG   | 5.32  | 123.50      | 113.40   |
| 1   | 15-C  | 729  | VAL  | CA-CB-CG2  | 5.31  | 118.87      | 110.90   |
| 1   | 17-C  | 770  | ILE  | CG1-CB-CG2 | -5.31 | 99.71       | 111.40   |
| 1   | 18-B  | 869  | MET  | CG-SD-CE   | -5.31 | 91.70       | 100.20   |
| 1   | 7-A   | 727  | LEU  | CA-CB-CG   | 5.31  | 127.52      | 115.30   |
| 1   | 14-B  | 304  | LYS  | CB-CG-CD   | 5.31  | 125.41      | 111.60   |
| 1   | 7-B   | 392  | PHE  | CB-CG-CD1  | 5.31  | 124.52      | 120.80   |
| 1   | 11-B  | 865  | LEU  | CA-CB-CG   | 5.31  | 127.52      | 115.30   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 12-B  | 962  | LEU  | CB-CG-CD2  | 5.31  | 120.03      | 111.00   |
| 1   | 2-A   | 962  | LEU  | CB-CG-CD2  | 5.31  | 120.03      | 111.00   |
| 1   | 13-A  | 1024 | LEU  | CA-CB-CG   | 5.31  | 127.51      | 115.30   |
| 1   | 1-B   | 118  | LEU  | CA-CB-CG   | 5.31  | 127.51      | 115.30   |
| 1   | 6-A   | 864  | LEU  | CA-CB-CG   | 5.31  | 127.51      | 115.30   |
| 1   | 6-C   | 745  | ASP  | CB-CG-OD2  | -5.31 | 113.52      | 118.30   |
| 1   | 12-C  | 740  | MET  | CA-CB-CG   | 5.31  | 122.32      | 113.30   |
| 1   | 16-B  | 996  | LEU  | CA-CB-CG   | 5.31  | 127.51      | 115.30   |
| 1   | 2-C   | 194  | PHE  | CB-CG-CD1  | 5.31  | 124.51      | 120.80   |
| 1   | 14-B  | 1012 | LEU  | CB-CG-CD2  | 5.31  | 120.02      | 111.00   |
| 1   | 19-B  | 861  | LEU  | CA-CB-CG   | 5.31  | 127.50      | 115.30   |
| 1   | 20-C  | 759  | PHE  | CB-CG-CD2  | 5.31  | 124.51      | 120.80   |
| 1   | 8-C   | 241  | LEU  | CA-CB-CG   | 5.30  | 127.50      | 115.30   |
| 1   | 13-B  | 41   | LYS  | CB-CG-CD   | 5.30  | 125.39      | 111.60   |
| 1   | 15-A  | 1001 | LEU  | CA-CB-CG   | 5.30  | 127.50      | 115.30   |
| 1   | 13-B  | 53   | ASP  | CB-CA-C    | 5.30  | 121.01      | 110.40   |
| 1   | 8-B   | 938  | LEU  | CA-CB-CG   | 5.30  | 127.49      | 115.30   |
| 1   | 19-B  | 177  | MET  | CG-SD-CE   | -5.30 | 91.72       | 100.20   |
| 1   | 13-A  | 900  | MET  | CB-CG-SD   | 5.30  | 128.29      | 112.40   |
| 1   | 17-A  | 727  | LEU  | CB-CG-CD1  | 5.30  | 120.00      | 111.00   |
| 1   | 3-A   | 934  | ILE  | CG1-CB-CG2 | -5.29 | 99.75       | 111.40   |
| 1   | 17-B  | 985  | ASP  | CB-CG-OD1  | 5.29  | 123.07      | 118.30   |
| 1   | 3-C   | 564  | GLN  | CA-CB-CG   | 5.29  | 125.05      | 113.40   |
| 1   | 13-B  | 173  | GLN  | CA-CB-CG   | 5.29  | 125.05      | 113.40   |
| 1   | 15-C  | 277  | LEU  | CA-CB-CG   | 5.29  | 127.47      | 115.30   |
| 1   | 2-B   | 55   | PHE  | CB-CG-CD2  | 5.29  | 124.50      | 120.80   |
| 1   | 7-C   | 40   | ASP  | CB-CA-C    | 5.29  | 120.98      | 110.40   |
| 1   | 7-C   | 1012 | LEU  | CB-CG-CD2  | 5.29  | 120.00      | 111.00   |
| 1   | 8-A   | 671  | CYS  | CA-CB-SG   | 5.29  | 123.52      | 114.00   |
| 1   | 12-B  | 1017 | GLU  | CA-CB-CG   | 5.29  | 125.04      | 113.40   |
| 1   | 17-B  | 985  | ASP  | CB-CA-C    | 5.29  | 120.98      | 110.40   |
| 1   | 20-B  | 861  | LEU  | CA-CB-CG   | 5.29  | 127.47      | 115.30   |
| 1   | 16-B  | 822  | LEU  | CA-CB-CG   | 5.29  | 127.46      | 115.30   |
| 1   | 3-B   | 198  | ASP  | CB-CG-OD1  | 5.29  | 123.06      | 118.30   |
| 1   | 9-A   | 1019 | ARG  | CG-CD-NE   | 5.29  | 122.90      | 111.80   |
| 1   | 10-B  | 1029 | MET  | CB-CG-SD   | 5.29  | 128.26      | 112.40   |
| 1   | 16-C  | 882  | ILE  | CG1-CB-CG2 | -5.29 | 99.77       | 111.40   |
| 1   | 1-A   | 229  | LEU  | CA-CB-CG   | 5.28  | 127.45      | 115.30   |
| 1   | 7-B   | 359  | SER  | C-N-CA     | 5.28  | 134.91      | 121.70   |
| 1   | 9-C   | 1029 | MET  | CB-CG-SD   | 5.28  | 128.25      | 112.40   |
| 1   | 12-C  | 765  | ARG  | CA-CB-CG   | 5.28  | 125.02      | 113.40   |
| 1   | 13-B  | 934  | ILE  | CG1-CB-CG2 | -5.28 | 99.78       | 111.40   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 14-B  | 990  | GLU  | CA-CB-CG   | 5.28  | 125.02      | 113.40   |
| 1   | 16-B  | 152  | TRP  | CB-CG-CD1  | -5.28 | 120.13      | 127.00   |
| 1   | 19-B  | 141  | LEU  | CA-CB-CG   | 5.28  | 127.44      | 115.30   |
| 1   | 20-A  | 1002 | GLN  | CA-CB-CG   | 5.28  | 125.02      | 113.40   |
| 1   | 4-B   | 916  | LEU  | CB-CG-CD1  | -5.28 | 102.03      | 111.00   |
| 1   | 15-C  | 822  | LEU  | CA-CB-CG   | 5.28  | 127.44      | 115.30   |
| 1   | 4-C   | 822  | LEU  | CB-CG-CD2  | 5.28  | 119.97      | 111.00   |
| 1   | 16-C  | 945  | LEU  | CA-CB-CG   | 5.28  | 127.44      | 115.30   |
| 1   | 2-C   | 895  | GLN  | CA-CB-CG   | 5.28  | 125.01      | 113.40   |
| 1   | 9-B   | 894  | LEU  | CA-CB-CG   | 5.28  | 127.43      | 115.30   |
| 1   | 16-C  | 1041 | ASP  | CB-CG-OD1  | 5.28  | 123.05      | 118.30   |
| 1   | 17-B  | 983  | ARG  | CA-CB-CG   | 5.28  | 125.01      | 113.40   |
| 1   | 17-A  | 1111 | GLU  | CA-CB-CG   | 5.27  | 125.00      | 113.40   |
| 1   | 20-A  | 776  | LYS  | CA-CB-CG   | 5.27  | 125.00      | 113.40   |
| 1   | 3-C   | 567  | ARG  | CG-CD-NE   | 5.27  | 122.87      | 111.80   |
| 1   | 13-B  | 964  | LYS  | CA-CB-CG   | 5.27  | 125.00      | 113.40   |
| 1   | 20-A  | 861  | LEU  | CA-CB-CG   | 5.27  | 127.43      | 115.30   |
| 1   | 4-C   | 740  | MET  | CB-CG-SD   | -5.27 | 96.59       | 112.40   |
| 1   | 13-C  | 1007 | TYR  | CB-CG-CD1  | 5.27  | 124.16      | 121.00   |
| 1   | 16-A  | 568  | ASP  | CB-CA-C    | 5.27  | 120.93      | 110.40   |
| 1   | 13-B  | 916  | LEU  | CB-CG-CD1  | 5.26  | 119.95      | 111.00   |
| 1   | 13-C  | 767  | LEU  | CB-CG-CD2  | 5.26  | 119.95      | 111.00   |
| 1   | 13-C  | 934  | ILE  | CG1-CB-CG2 | -5.26 | 99.82       | 111.40   |
| 1   | 17-C  | 84   | LEU  | CA-CB-CG   | 5.26  | 127.41      | 115.30   |
| 1   | 5-C   | 877  | LEU  | CA-CB-CG   | 5.26  | 127.40      | 115.30   |
| 1   | 13-C  | 1092 | GLU  | CA-CB-CG   | 5.26  | 124.97      | 113.40   |
| 1   | 5-B   | 697  | MET  | CB-CG-SD   | 5.26  | 128.18      | 112.40   |
| 1   | 8-A   | 962  | LEU  | CB-CG-CD2  | 5.26  | 119.94      | 111.00   |
| 1   | 15-B  | 168  | PHE  | CB-CG-CD1  | 5.26  | 124.48      | 120.80   |
| 1   | 10-A  | 229  | LEU  | CA-CB-CG   | 5.26  | 127.39      | 115.30   |
| 1   | 11-A  | 959  | LEU  | CA-CB-CG   | 5.26  | 127.39      | 115.30   |
| 1   | 18-A  | 194  | PHE  | CB-CG-CD2  | 5.26  | 124.48      | 120.80   |
| 1   | 18-B  | 765  | ARG  | N-CA-CB    | 5.26  | 120.06      | 110.60   |
| 1   | 4-C   | 985  | ASP  | CB-CG-OD2  | 5.25  | 123.03      | 118.30   |
| 1   | 8-B   | 408  | ARG  | CB-CG-CD   | 5.25  | 125.26      | 111.60   |
| 1   | 12-A  | 117  | LEU  | CA-CB-CG   | 5.25  | 127.38      | 115.30   |
| 1   | 3-A   | 571  | ASP  | CB-CG-OD1  | 5.25  | 123.03      | 118.30   |
| 1   | 11-A  | 740  | MET  | CG-SD-CE   | 5.25  | 108.60      | 100.20   |
| 1   | 13-C  | 90   | VAL  | CA-CB-CG1  | 5.25  | 118.78      | 110.90   |
| 1   | 4-A   | 966  | LEU  | CA-CB-CG   | 5.25  | 127.37      | 115.30   |
| 1   | 15-C  | 865  | LEU  | CA-CB-CG   | 5.25  | 127.37      | 115.30   |
| 1   | 20-A  | 962  | LEU  | CB-CG-CD2  | 5.25  | 119.92      | 111.00   |

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| Mol | Chain | Res  | Type | Atoms     | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1   | 3-C   | 293  | LEU  | CA-CB-CG  | 5.25  | 127.37      | 115.30   |
| 1   | 11-B  | 173  | GLN  | CA-CB-CG  | 5.25  | 124.94      | 113.40   |
| 1   | 13-A  | 1050 | MET  | N-CA-CB   | 5.25  | 120.05      | 110.60   |
| 1   | 16-B  | 58   | PHE  | CB-CG-CD1 | 5.25  | 124.47      | 120.80   |
| 1   | 17-A  | 731  | MET  | CA-CB-CG  | 5.25  | 122.22      | 113.30   |
| 1   | 20-C  | 1034 | LEU  | CA-CB-CG  | 5.25  | 127.37      | 115.30   |
| 1   | 5-C   | 762  | GLN  | N-CA-CB   | 5.25  | 120.04      | 110.60   |
| 1   | 13-C  | 1007 | TYR  | CA-CB-CG  | 5.25  | 123.37      | 113.40   |
| 1   | 18-A  | 568  | ASP  | CB-CG-OD1 | 5.25  | 123.02      | 118.30   |
| 1   | 19-A  | 742  | ILE  | CA-CB-CG2 | 5.25  | 121.39      | 110.90   |
| 1   | 15-C  | 864  | LEU  | CB-CG-CD2 | 5.24  | 119.91      | 111.00   |
| 1   | 17-B  | 864  | LEU  | CA-CB-CG  | 5.24  | 127.36      | 115.30   |
| 1   | 3-B   | 304  | LYS  | CB-CG-CD  | 5.24  | 125.23      | 111.60   |
| 1   | 4-B   | 959  | LEU  | CB-CG-CD2 | 5.24  | 119.91      | 111.00   |
| 1   | 3-A   | 1092 | GLU  | CA-CB-CG  | 5.24  | 124.93      | 113.40   |
| 1   | 9-A   | 1050 | MET  | CB-CA-C   | -5.24 | 99.92       | 110.40   |
| 1   | 19-A  | 53   | ASP  | CB-CA-C   | 5.24  | 120.88      | 110.40   |
| 1   | 9-A   | 117  | LEU  | CA-CB-CG  | 5.24  | 127.34      | 115.30   |
| 1   | 9-B   | 762  | GLN  | CA-CB-CG  | 5.24  | 124.92      | 113.40   |
| 1   | 11-A  | 88   | ASP  | CB-CG-OD1 | -5.23 | 113.59      | 118.30   |
| 1   | 13-B  | 1107 | ARG  | CB-CA-C   | -5.23 | 99.94       | 110.40   |
| 1   | 18-C  | 877  | LEU  | CB-CG-CD2 | 5.23  | 119.90      | 111.00   |
| 1   | 8-B   | 611  | LEU  | CB-CG-CD1 | -5.23 | 102.11      | 111.00   |
| 1   | 8-C   | 945  | LEU  | CA-CB-CG  | 5.23  | 127.33      | 115.30   |
| 1   | 17-C  | 767  | LEU  | CB-CG-CD2 | 5.23  | 119.89      | 111.00   |
| 1   | 10-A  | 900  | MET  | CG-SD-CE  | -5.23 | 91.84       | 100.20   |
| 1   | 15-C  | 979  | ASP  | CB-CG-OD1 | 5.23  | 123.01      | 118.30   |
| 1   | 20-A  | 303  | LEU  | CA-CB-CG  | 5.23  | 127.32      | 115.30   |
| 1   | 8-B   | 298  | GLU  | CA-CB-CG  | 5.23  | 124.90      | 113.40   |
| 1   | 9-A   | 1012 | LEU  | CA-CB-CG  | 5.23  | 127.32      | 115.30   |
| 1   | 13-A  | 954  | GLN  | N-CA-CB   | 5.23  | 120.01      | 110.60   |
| 1   | 13-B  | 754  | LEU  | CA-CB-CG  | 5.23  | 127.32      | 115.30   |
| 1   | 7-C   | 214  | ARG  | CA-CB-CG  | 5.22  | 124.88      | 113.40   |
| 1   | 11-C  | 53   | ASP  | CB-CG-OD1 | 5.22  | 123.00      | 118.30   |
| 1   | 17-C  | 948  | LEU  | CA-CB-CG  | 5.22  | 127.31      | 115.30   |
| 1   | 1-C   | 1050 | MET  | CG-SD-CE  | -5.22 | 91.85       | 100.20   |
| 1   | 5-A   | 945  | LEU  | CA-CB-CG  | 5.22  | 127.30      | 115.30   |
| 1   | 5-C   | 585  | LEU  | CA-CB-CG  | 5.22  | 127.30      | 115.30   |
| 1   | 17-B  | 359  | SER  | C-N-CA    | 5.22  | 134.74      | 121.70   |
| 1   | 3-C   | 153  | MET  | CB-CG-SD  | 5.21  | 128.04      | 112.40   |
| 1   | 4-B   | 169  | GLU  | CA-CB-CG  | 5.21  | 124.87      | 113.40   |
| 1   | 18-A  | 822  | LEU  | CB-CG-CD1 | -5.21 | 102.14      | 111.00   |

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| Mol | Chain | Res  | Type | Atoms     | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1   | 2-A   | 905  | ARG  | CG-CD-NE  | 5.21  | 122.74      | 111.80   |
| 1   | 4-C   | 54   | LEU  | CA-CB-CG  | 5.21  | 127.29      | 115.30   |
| 1   | 15-B  | 1012 | LEU  | CB-CG-CD2 | 5.21  | 119.86      | 111.00   |
| 1   | 20-C  | 966  | LEU  | CB-CG-CD2 | 5.21  | 119.86      | 111.00   |
| 1   | 15-A  | 1024 | LEU  | CB-CG-CD2 | 5.21  | 119.85      | 111.00   |
| 1   | 19-C  | 53   | ASP  | CB-CG-OD2 | 5.21  | 122.99      | 118.30   |
| 1   | 3-A   | 755  | GLN  | N-CA-CB   | -5.21 | 101.23      | 110.60   |
| 1   | 4-B   | 58   | PHE  | CB-CG-CD1 | 5.21  | 124.44      | 120.80   |
| 1   | 10-B  | 52   | GLN  | CA-CB-CG  | 5.21  | 124.86      | 113.40   |
| 1   | 18-B  | 938  | LEU  | CB-CG-CD2 | 5.21  | 119.85      | 111.00   |
| 1   | 15-C  | 762  | GLN  | CA-CB-CG  | 5.21  | 124.85      | 113.40   |
| 1   | 4-A   | 223  | LEU  | CA-CB-CG  | 5.20  | 127.27      | 115.30   |
| 1   | 6-A   | 611  | LEU  | CB-CG-CD1 | -5.20 | 102.15      | 111.00   |
| 1   | 13-B  | 948  | LEU  | CA-CB-CG  | 5.20  | 127.27      | 115.30   |
| 1   | 18-B  | 754  | LEU  | CA-CB-CG  | 5.20  | 127.27      | 115.30   |
| 1   | 4-B   | 898  | PHE  | CB-CG-CD2 | -5.20 | 117.16      | 120.80   |
| 1   | 14-A  | 755  | GLN  | CA-CB-CG  | 5.20  | 124.84      | 113.40   |
| 1   | 14-B  | 1004 | LEU  | CA-CB-CG  | 5.20  | 127.26      | 115.30   |
| 1   | 11-A  | 290  | ASP  | CB-CG-OD2 | 5.20  | 122.98      | 118.30   |
| 1   | 13-A  | 671  | CYS  | CA-CB-SG  | 5.20  | 123.35      | 114.00   |
| 1   | 18-C  | 759  | PHE  | CB-CG-CD2 | -5.19 | 117.16      | 120.80   |
| 1   | 20-B  | 650  | LEU  | CA-CB-CG  | 5.19  | 127.25      | 115.30   |
| 1   | 2-A   | 201  | PHE  | CB-CG-CD2 | 5.19  | 124.44      | 120.80   |
| 1   | 6-B   | 513  | LEU  | CA-CB-CG  | 5.19  | 127.24      | 115.30   |
| 1   | 7-C   | 865  | LEU  | CA-CB-CG  | 5.19  | 127.24      | 115.30   |
| 1   | 13-B  | 938  | LEU  | CA-CB-CG  | 5.19  | 127.24      | 115.30   |
| 1   | 2-C   | 90   | VAL  | CA-CB-CG1 | 5.19  | 118.69      | 110.90   |
| 1   | 11-A  | 1063 | LEU  | CA-CB-CG  | 5.19  | 127.24      | 115.30   |
| 1   | 19-C  | 90   | VAL  | CA-CB-CG1 | 5.19  | 118.68      | 110.90   |
| 1   | 2-A   | 153  | MET  | N-CA-CB   | 5.19  | 119.94      | 110.60   |
| 1   | 8-B   | 189  | LEU  | CB-CG-CD2 | -5.19 | 102.18      | 111.00   |
| 1   | 15-A  | 786  | LYS  | CA-CB-CG  | 5.19  | 124.81      | 113.40   |
| 1   | 17-A  | 864  | LEU  | CA-CB-CG  | 5.18  | 127.22      | 115.30   |
| 1   | 3-C   | 964  | LYS  | CA-CB-CG  | 5.18  | 124.80      | 113.40   |
| 1   | 18-A  | 1024 | LEU  | CA-CB-CG  | 5.18  | 127.22      | 115.30   |
| 1   | 19-B  | 229  | LEU  | CA-CB-CG  | 5.18  | 127.22      | 115.30   |
| 1   | 19-B  | 1092 | GLU  | CA-CB-CG  | 5.18  | 124.80      | 113.40   |
| 1   | 1-B   | 945  | LEU  | CA-CB-CG  | 5.18  | 127.21      | 115.30   |
| 1   | 2-A   | 201  | PHE  | CB-CG-CD1 | -5.18 | 117.17      | 120.80   |
| 1   | 2-C   | 864  | LEU  | CB-CG-CD2 | 5.18  | 119.80      | 111.00   |
| 1   | 15-A  | 822  | LEU  | CB-CG-CD2 | 5.18  | 119.80      | 111.00   |
| 1   | 14-B  | 359  | SER  | C-N-CA    | 5.18  | 134.64      | 121.70   |

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| Mol | Chain | Res  | Type | Atoms     | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1   | 14-B  | 754  | LEU  | CA-CB-CG  | 5.18  | 127.21      | 115.30   |
| 1   | 11-C  | 877  | LEU  | CB-CG-CD2 | 5.17  | 119.80      | 111.00   |
| 1   | 16-C  | 767  | LEU  | CB-CG-CD2 | 5.17  | 119.80      | 111.00   |
| 1   | 20-A  | 53   | ASP  | CB-CA-C   | 5.17  | 120.75      | 110.40   |
| 1   | 11-B  | 767  | LEU  | CB-CG-CD2 | 5.17  | 119.79      | 111.00   |
| 1   | 5-C   | 1111 | GLU  | CA-CB-CG  | 5.17  | 124.77      | 113.40   |
| 1   | 20-C  | 153  | MET  | CB-CG-SD  | 5.17  | 127.91      | 112.40   |
| 1   | 1-B   | 1010 | GLN  | CA-CB-CG  | 5.17  | 124.77      | 113.40   |
| 1   | 8-A   | 731  | MET  | CA-CB-CG  | 5.17  | 122.09      | 113.30   |
| 1   | 15-B  | 515  | PHE  | CB-CG-CD2 | 5.17  | 124.42      | 120.80   |
| 1   | 19-A  | 675  | GLN  | CB-CA-C   | 5.17  | 120.73      | 110.40   |
| 1   | 13-A  | 194  | PHE  | CB-CG-CD2 | -5.17 | 117.18      | 120.80   |
| 1   | 5-C   | 271  | GLN  | CA-CB-CG  | 5.17  | 124.76      | 113.40   |
| 1   | 18-C  | 650  | LEU  | CA-CB-CG  | 5.17  | 127.18      | 115.30   |
| 1   | 5-C   | 660  | TYR  | CA-CB-CG  | 5.16  | 123.21      | 113.40   |
| 1   | 7-C   | 877  | LEU  | CB-CG-CD2 | 5.16  | 119.78      | 111.00   |
| 1   | 8-C   | 865  | LEU  | CA-CB-CG  | 5.16  | 127.17      | 115.30   |
| 1   | 15-C  | 303  | LEU  | CA-CB-CG  | 5.16  | 127.17      | 115.30   |
| 1   | 1-A   | 878  | LEU  | CB-CG-CD2 | 5.16  | 119.77      | 111.00   |
| 1   | 16-B  | 287  | ASP  | CB-CG-OD1 | 5.16  | 122.94      | 118.30   |
| 1   | 4-C   | 755  | GLN  | CA-CB-CG  | 5.16  | 124.75      | 113.40   |
| 1   | 7-A   | 959  | LEU  | CA-CB-CG  | 5.16  | 127.16      | 115.30   |
| 1   | 10-A  | 53   | ASP  | CB-CA-C   | 5.16  | 120.71      | 110.40   |
| 1   | 3-B   | 133  | PHE  | CB-CG-CD2 | -5.16 | 117.19      | 120.80   |
| 1   | 15-B  | 212  | LEU  | CA-CB-CG  | 5.15  | 127.15      | 115.30   |
| 1   | 19-C  | 729  | VAL  | CA-CB-CG1 | 5.15  | 118.63      | 110.90   |
| 1   | 2-A   | 1111 | GLU  | CA-CB-CG  | 5.15  | 124.73      | 113.40   |
| 1   | 3-A   | 1024 | LEU  | CA-CB-CG  | 5.15  | 127.14      | 115.30   |
| 1   | 17-A  | 671  | CYS  | CA-CB-SG  | 5.15  | 123.27      | 114.00   |
| 1   | 7-C   | 660  | TYR  | CA-CB-CG  | 5.15  | 123.18      | 113.40   |
| 1   | 9-B   | 53   | ASP  | CB-CA-C   | 5.15  | 120.70      | 110.40   |
| 1   | 12-A  | 135  | PHE  | CB-CG-CD2 | 5.15  | 124.40      | 120.80   |
| 1   | 15-B  | 153  | MET  | CA-CB-CG  | 5.15  | 122.05      | 113.30   |
| 1   | 1-C   | 948  | LEU  | CA-CB-CG  | 5.14  | 127.13      | 115.30   |
| 1   | 16-A  | 977  | LEU  | CA-CB-CG  | 5.14  | 127.13      | 115.30   |
| 1   | 20-C  | 414  | GLN  | CB-CA-C   | 5.14  | 120.69      | 110.40   |
| 1   | 20-C  | 1029 | MET  | CB-CG-SD  | 5.14  | 127.83      | 112.40   |
| 1   | 8-B   | 455  | LEU  | CA-CB-CG  | 5.14  | 127.12      | 115.30   |
| 1   | 15-B  | 861  | LEU  | CA-CB-CG  | 5.14  | 127.12      | 115.30   |
| 1   | 10-C  | 52   | GLN  | CA-CB-CG  | 5.14  | 124.71      | 113.40   |
| 1   | 12-A  | 53   | ASP  | CB-CA-C   | 5.14  | 120.68      | 110.40   |
| 1   | 12-C  | 954  | GLN  | N-CA-CB   | 5.14  | 119.85      | 110.60   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 17-C  | 40   | ASP  | CB-CA-C    | 5.14  | 120.68      | 110.40   |
| 1   | 19-A  | 900  | MET  | CG-SD-CE   | -5.14 | 91.98       | 100.20   |
| 1   | 1-A   | 675  | GLN  | CA-CB-CG   | 5.14  | 124.70      | 113.40   |
| 1   | 12-B  | 973  | ILE  | CG1-CB-CG2 | 5.14  | 122.70      | 111.40   |
| 1   | 6-A   | 745  | ASP  | CB-CG-OD2  | -5.14 | 113.68      | 118.30   |
| 1   | 11-C  | 276  | LEU  | CA-CB-CG   | 5.14  | 127.11      | 115.30   |
| 1   | 6-B   | 981  | LEU  | CB-CG-CD2  | 5.13  | 119.73      | 111.00   |
| 1   | 11-A  | 759  | PHE  | CB-CG-CD2  | -5.13 | 117.21      | 120.80   |
| 1   | 4-A   | 916  | LEU  | CA-CB-CG   | 5.13  | 127.11      | 115.30   |
| 1   | 9-B   | 945  | LEU  | CA-CB-CG   | 5.13  | 127.10      | 115.30   |
| 1   | 12-A  | 765  | ARG  | CA-CB-CG   | 5.13  | 124.69      | 113.40   |
| 1   | 7-B   | 454  | ARG  | CD-NE-CZ   | 5.13  | 130.78      | 123.60   |
| 1   | 7-B   | 740  | MET  | CA-CB-CG   | 5.13  | 122.02      | 113.30   |
| 1   | 19-A  | 864  | LEU  | CA-CB-CG   | 5.13  | 127.09      | 115.30   |
| 1   | 17-A  | 88   | ASP  | CB-CG-OD2  | 5.13  | 122.91      | 118.30   |
| 1   | 20-A  | 902  | MET  | CB-CG-SD   | 5.13  | 127.78      | 112.40   |
| 1   | 3-B   | 861  | LEU  | CA-CB-CG   | 5.12  | 127.08      | 115.30   |
| 1   | 9-A   | 959  | LEU  | CA-CB-CG   | 5.12  | 127.08      | 115.30   |
| 1   | 14-C  | 389  | ASP  | CB-CG-OD1  | 5.12  | 122.91      | 118.30   |
| 1   | 15-A  | 959  | LEU  | CA-CB-CG   | 5.12  | 127.08      | 115.30   |
| 1   | 17-C  | 53   | ASP  | CB-CA-C    | 5.12  | 120.65      | 110.40   |
| 1   | 6-C   | 301  | CYS  | CA-CB-SG   | 5.12  | 123.22      | 114.00   |
| 1   | 15-A  | 959  | LEU  | CB-CG-CD2  | 5.12  | 119.70      | 111.00   |
| 1   | 2-C   | 737  | ASP  | CB-CA-C    | 5.12  | 120.64      | 110.40   |
| 1   | 4-C   | 1005 | GLN  | CA-CB-CG   | 5.12  | 124.66      | 113.40   |
| 1   | 6-A   | 877  | LEU  | CA-CB-CG   | 5.12  | 127.07      | 115.30   |
| 1   | 7-B   | 52   | GLN  | CA-CB-CG   | 5.12  | 124.66      | 113.40   |
| 1   | 11-C  | 319  | ARG  | CG-CD-NE   | 5.12  | 122.55      | 111.80   |
| 1   | 16-B  | 1103 | PHE  | CB-CG-CD1  | 5.12  | 124.38      | 120.80   |
| 1   | 1-A   | 697  | MET  | CB-CG-SD   | 5.12  | 127.75      | 112.40   |
| 1   | 1-B   | 878  | LEU  | CB-CG-CD2  | 5.12  | 119.70      | 111.00   |
| 1   | 5-B   | 515  | PHE  | CB-CG-CD1  | 5.12  | 124.38      | 120.80   |
| 1   | 9-A   | 755  | GLN  | N-CA-CB    | -5.12 | 101.39      | 110.60   |
| 1   | 14-C  | 428  | ASP  | CB-CG-OD2  | -5.12 | 113.70      | 118.30   |
| 1   | 4-B   | 922  | LEU  | CA-CB-CG   | 5.11  | 127.06      | 115.30   |
| 1   | 4-C   | 994  | ASP  | CB-CG-OD2  | 5.11  | 122.90      | 118.30   |
| 1   | 6-C   | 55   | PHE  | CB-CG-CD1  | 5.11  | 124.38      | 120.80   |
| 1   | 9-A   | 938  | LEU  | CA-CB-CG   | 5.11  | 127.06      | 115.30   |
| 1   | 7-C   | 1005 | GLN  | CA-CB-CG   | 5.11  | 124.64      | 113.40   |
| 1   | 12-C  | 938  | LEU  | CB-CG-CD2  | 5.11  | 119.68      | 111.00   |
| 1   | 18-B  | 52   | GLN  | CA-CB-CG   | 5.11  | 124.64      | 113.40   |
| 1   | 6-C   | 1018 | ILE  | CG1-CB-CG2 | -5.11 | 100.17      | 111.40   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 9-C   | 52   | GLN  | CA-CB-CG   | 5.11  | 124.63      | 113.40   |
| 1   | 17-A  | 822  | LEU  | CA-CB-CG   | 5.11  | 127.04      | 115.30   |
| 1   | 3-B   | 763  | LEU  | CA-CB-CG   | 5.10  | 127.04      | 115.30   |
| 1   | 13-C  | 737  | ASP  | CB-CG-OD2  | 5.10  | 122.89      | 118.30   |
| 1   | 1-A   | 984  | LEU  | CA-CB-CG   | 5.10  | 127.04      | 115.30   |
| 1   | 10-C  | 895  | GLN  | CA-CB-CG   | 5.10  | 124.62      | 113.40   |
| 1   | 15-A  | 568  | ASP  | CB-CA-C    | 5.10  | 120.61      | 110.40   |
| 1   | 17-A  | 53   | ASP  | CB-CA-C    | 5.10  | 120.61      | 110.40   |
| 1   | 6-B   | 902  | MET  | CB-CG-SD   | 5.10  | 127.70      | 112.40   |
| 1   | 3-A   | 53   | ASP  | CB-CA-C    | 5.10  | 120.60      | 110.40   |
| 1   | 7-B   | 985  | ASP  | CB-CA-C    | 5.10  | 120.59      | 110.40   |
| 1   | 11-C  | 902  | MET  | CA-CB-CG   | 5.10  | 121.97      | 113.30   |
| 1   | 18-B  | 985  | ASP  | CB-CA-C    | 5.10  | 120.59      | 110.40   |
| 1   | 11-B  | 964  | LYS  | CB-CG-CD   | 5.09  | 124.85      | 111.60   |
| 1   | 14-B  | 1002 | GLN  | CA-CB-CG   | 5.09  | 124.61      | 113.40   |
| 1   | 16-A  | 902  | MET  | CB-CG-SD   | 5.09  | 127.68      | 112.40   |
| 1   | 17-B  | 177  | MET  | CB-CG-SD   | 5.09  | 127.69      | 112.40   |
| 1   | 9-B   | 780  | GLU  | CA-CB-CG   | 5.09  | 124.60      | 113.40   |
| 1   | 13-A  | 727  | LEU  | CB-CG-CD1  | 5.09  | 119.66      | 111.00   |
| 1   | 20-B  | 611  | LEU  | CA-CB-CG   | 5.09  | 127.01      | 115.30   |
| 1   | 20-C  | 895  | GLN  | CA-CB-CG   | 5.09  | 124.60      | 113.40   |
| 1   | 1-A   | 303  | LEU  | CA-CB-CG   | 5.09  | 127.00      | 115.30   |
| 1   | 1-C   | 1029 | MET  | CB-CG-SD   | 5.09  | 127.67      | 112.40   |
| 1   | 2-A   | 738  | CYS  | CA-CB-SG   | 5.09  | 123.16      | 114.00   |
| 1   | 13-B  | 948  | LEU  | CB-CG-CD2  | -5.09 | 102.35      | 111.00   |
| 1   | 20-A  | 731  | MET  | CA-CB-CG   | 5.09  | 121.95      | 113.30   |
| 1   | 12-A  | 731  | MET  | CA-CB-CG   | 5.08  | 121.94      | 113.30   |
| 1   | 16-C  | 44   | ARG  | NE-CZ-NH1  | 5.08  | 122.84      | 120.30   |
| 1   | 9-A   | 663  | ASP  | CB-CG-OD1  | 5.08  | 122.88      | 118.30   |
| 1   | 17-A  | 742  | ILE  | CG1-CB-CG2 | -5.08 | 100.21      | 111.40   |
| 1   | 17-B  | 513  | LEU  | CA-CB-CG   | 5.08  | 126.98      | 115.30   |
| 1   | 13-C  | 802  | PHE  | CB-CG-CD1  | -5.08 | 117.25      | 120.80   |
| 1   | 17-B  | 985  | ASP  | N-CA-CB    | -5.08 | 101.46      | 110.60   |
| 1   | 19-C  | 1029 | MET  | CA-CB-CG   | 5.08  | 121.93      | 113.30   |
| 1   | 6-B   | 934  | ILE  | CG1-CB-CG2 | -5.08 | 100.23      | 111.40   |
| 1   | 13-B  | 898  | PHE  | CB-CG-CD1  | 5.08  | 124.35      | 120.80   |
| 1   | 16-C  | 934  | ILE  | CG1-CB-CG2 | -5.08 | 100.23      | 111.40   |
| 1   | 6-C   | 84   | LEU  | CA-CB-CG   | 5.08  | 126.97      | 115.30   |
| 1   | 11-C  | 802  | PHE  | CB-CG-CD1  | 5.08  | 124.35      | 120.80   |
| 1   | 12-B  | 993  | ILE  | CG1-CB-CG2 | -5.08 | 100.23      | 111.40   |
| 1   | 6-B   | 359  | SER  | C-N-CA     | 5.07  | 134.38      | 121.70   |
| 1   | 10-B  | 390  | LEU  | CA-CB-CG   | 5.07  | 126.97      | 115.30   |

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| Mol | Chain | Res  | Type | Atoms      | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1   | 17-B  | 981  | LEU  | CA-CB-CG   | 5.07  | 126.97      | 115.30   |
| 1   | 9-C   | 748  | GLU  | CA-CB-CG   | 5.07  | 124.56      | 113.40   |
| 1   | 1-B   | 822  | LEU  | CA-CB-CG   | 5.07  | 126.96      | 115.30   |
| 1   | 17-C  | 765  | ARG  | CG-CD-NE   | 5.07  | 122.44      | 111.80   |
| 1   | 9-A   | 54   | LEU  | CA-CB-CG   | 5.07  | 126.96      | 115.30   |
| 1   | 6-C   | 740  | MET  | CG-SD-CE   | 5.07  | 108.31      | 100.20   |
| 1   | 15-A  | 1063 | LEU  | CA-CB-CG   | 5.07  | 126.95      | 115.30   |
| 1   | 3-B   | 697  | MET  | CA-CB-CG   | 5.06  | 121.91      | 113.30   |
| 1   | 6-B   | 168  | PHE  | CB-CG-CD1  | -5.06 | 117.25      | 120.80   |
| 1   | 18-C  | 699  | LEU  | CA-CB-CG   | 5.06  | 126.95      | 115.30   |
| 1   | 18-C  | 934  | ILE  | CG1-CB-CG2 | -5.06 | 100.27      | 111.40   |
| 1   | 12-B  | 922  | LEU  | CA-CB-CG   | 5.06  | 126.94      | 115.30   |
| 1   | 2-A   | 753  | LEU  | CA-CB-CG   | 5.06  | 126.93      | 115.30   |
| 1   | 3-C   | 1002 | GLN  | CA-CB-CG   | 5.06  | 124.53      | 113.40   |
| 1   | 7-A   | 564  | GLN  | CA-CB-CG   | 5.06  | 124.53      | 113.40   |
| 1   | 9-A   | 864  | LEU  | CB-CG-CD2  | 5.06  | 119.60      | 111.00   |
| 1   | 20-B  | 957  | GLN  | CA-CB-CG   | 5.06  | 124.52      | 113.40   |
| 1   | 7-C   | 293  | LEU  | CA-CB-CG   | 5.05  | 126.93      | 115.30   |
| 1   | 11-A  | 731  | MET  | CA-CB-CG   | 5.05  | 121.89      | 113.30   |
| 1   | 13-C  | 902  | MET  | CA-CB-CG   | 5.05  | 121.89      | 113.30   |
| 1   | 6-C   | 177  | MET  | CA-CB-CG   | 5.05  | 121.89      | 113.30   |
| 1   | 16-B  | 318  | PHE  | CB-CG-CD1  | -5.05 | 117.26      | 120.80   |
| 1   | 2-B   | 922  | LEU  | CA-CB-CG   | 5.05  | 126.91      | 115.30   |
| 1   | 9-A   | 731  | MET  | CA-CB-CG   | 5.05  | 121.88      | 113.30   |
| 1   | 18-B  | 276  | LEU  | CA-CB-CG   | 5.05  | 126.91      | 115.30   |
| 1   | 19-C  | 168  | PHE  | CB-CG-CD1  | -5.05 | 117.27      | 120.80   |
| 1   | 8-A   | 568  | ASP  | CB-CA-C    | 5.04  | 120.49      | 110.40   |
| 1   | 19-A  | 959  | LEU  | CA-CB-CG   | 5.04  | 126.90      | 115.30   |
| 1   | 12-A  | 189  | LEU  | CA-CB-CG   | 5.04  | 126.90      | 115.30   |
| 1   | 20-C  | 90   | VAL  | CA-CB-CG1  | 5.04  | 118.46      | 110.90   |
| 1   | 18-B  | 58   | PHE  | CB-CG-CD1  | 5.04  | 124.33      | 120.80   |
| 1   | 9-C   | 870  | ILE  | CG1-CB-CG2 | -5.04 | 100.31      | 111.40   |
| 1   | 11-B  | 303  | LEU  | CA-CB-CG   | 5.04  | 126.89      | 115.30   |
| 1   | 17-A  | 568  | ASP  | CB-CA-C    | 5.04  | 120.48      | 110.40   |
| 1   | 18-B  | 177  | MET  | CG-SD-CE   | -5.04 | 92.14       | 100.20   |
| 1   | 7-B   | 945  | LEU  | CA-CB-CG   | 5.04  | 126.88      | 115.30   |
| 1   | 17-A  | 1012 | LEU  | CB-CG-CD2  | 5.04  | 119.56      | 111.00   |
| 1   | 18-B  | 1010 | GLN  | CB-CA-C    | 5.03  | 120.47      | 110.40   |
| 1   | 18-C  | 1004 | LEU  | CA-CB-CG   | 5.03  | 126.88      | 115.30   |
| 1   | 20-B  | 54   | LEU  | CA-CB-CG   | 5.03  | 126.88      | 115.30   |
| 1   | 7-C   | 1024 | LEU  | CA-CB-CG   | 5.03  | 126.87      | 115.30   |
| 1   | 7-C   | 979  | ASP  | CB-CG-OD1  | 5.03  | 122.83      | 118.30   |

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| Mol | Chain | Res  | Type | Atoms     | Z     | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1   | 4-A   | 298  | GLU  | CA-CB-CG  | 5.03  | 124.46      | 113.40   |
| 1   | 4-B   | 916  | LEU  | CA-CB-CG  | 5.03  | 126.86      | 115.30   |
| 1   | 3-B   | 997  | ILE  | CA-CB-CG1 | 5.02  | 120.55      | 111.00   |
| 1   | 5-A   | 663  | ASP  | CB-CG-OD2 | 5.02  | 122.82      | 118.30   |
| 1   | 7-B   | 552  | LEU  | CA-CB-CG  | 5.02  | 126.86      | 115.30   |
| 1   | 20-A  | 966  | LEU  | CA-CB-CG  | 5.02  | 126.86      | 115.30   |
| 1   | 17-A  | 1063 | LEU  | CA-CB-CG  | 5.02  | 126.85      | 115.30   |
| 1   | 16-A  | 554  | GLU  | CA-CB-CG  | 5.02  | 124.45      | 113.40   |
| 1   | 19-C  | 1032 | CYS  | CA-CB-SG  | -5.02 | 104.96      | 114.00   |
| 1   | 9-C   | 984  | LEU  | CA-CB-CG  | 5.02  | 126.84      | 115.30   |
| 1   | 17-B  | 922  | LEU  | CA-CB-CG  | 5.02  | 126.84      | 115.30   |
| 1   | 18-B  | 895  | GLN  | CA-CB-CG  | 5.02  | 124.44      | 113.40   |
| 1   | 8-B   | 304  | LYS  | CB-CG-CD  | 5.02  | 124.64      | 111.60   |
| 1   | 10-B  | 764  | ASN  | N-CA-CB   | 5.02  | 119.63      | 110.60   |
| 1   | 20-A  | 699  | LEU  | CB-CG-CD2 | 5.01  | 119.52      | 111.00   |
| 1   | 14-C  | 773  | GLU  | CA-CB-CG  | 5.01  | 124.43      | 113.40   |
| 1   | 5-A   | 140  | PHE  | N-CA-CB   | 5.01  | 119.62      | 110.60   |
| 1   | 11-B  | 301  | CYS  | CA-CB-SG  | 5.01  | 123.02      | 114.00   |
| 1   | 11-B  | 731  | MET  | CB-CG-SD  | 5.01  | 127.43      | 112.40   |
| 1   | 2-B   | 990  | GLU  | CA-CB-CG  | 5.01  | 124.42      | 113.40   |
| 1   | 8-A   | 990  | GLU  | CA-CB-CG  | 5.01  | 124.41      | 113.40   |
| 1   | 15-A  | 1012 | LEU  | CA-CB-CG  | 5.01  | 126.81      | 115.30   |
| 1   | 18-B  | 922  | LEU  | CA-CB-CG  | 5.01  | 126.81      | 115.30   |
| 1   | 11-A  | 270  | LEU  | CA-CB-CG  | 5.00  | 126.81      | 115.30   |
| 1   | 1-A   | 1092 | GLU  | N-CA-CB   | 5.00  | 119.61      | 110.60   |
| 1   | 2-C   | 574  | ASP  | CB-CG-OD1 | 5.00  | 122.80      | 118.30   |
| 1   | 8-A   | 964  | LYS  | CA-CB-CG  | 5.00  | 124.41      | 113.40   |
| 1   | 8-A   | 1019 | ARG  | NE-CZ-NH1 | 5.00  | 122.80      | 120.30   |
| 1   | 12-C  | 1024 | LEU  | CA-CB-CG  | 5.00  | 126.81      | 115.30   |

There are no chirality outliers.

All (7) planarity outliers are listed below:

| Mol | Chain | Res  | Type | Group     |
|-----|-------|------|------|-----------|
| 1   | 13-B  | 1107 | ARG  | Sidechain |
| 1   | 13-B  | 765  | ARG  | Sidechain |
| 1   | 13-B  | 86   | PHE  | Sidechain |
| 1   | 16-B  | 152  | TRP  | Mainchain |
| 1   | 17-C  | 737  | ASP  | Sidechain |
| 1   | 18-A  | 984  | LEU  | Peptide   |
| 1   | 9-B   | 1107 | ARG  | Sidechain |

## 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   | 1-A   | 8454  | 0        | 8246     | 118     | 0            |
| 1   | 1-B   | 8454  | 0        | 8246     | 108     | 0            |
| 1   | 1-C   | 8454  | 0        | 8246     | 96      | 0            |
| 1   | 2-A   | 8454  | 0        | 8246     | 119     | 0            |
| 1   | 2-B   | 8454  | 0        | 8246     | 112     | 0            |
| 1   | 2-C   | 8454  | 0        | 8248     | 106     | 0            |
| 1   | 3-A   | 8454  | 0        | 8246     | 109     | 0            |
| 1   | 3-B   | 8454  | 0        | 8246     | 113     | 0            |
| 1   | 3-C   | 8454  | 0        | 8246     | 100     | 0            |
| 1   | 4-A   | 8454  | 0        | 8246     | 118     | 0            |
| 1   | 4-B   | 8454  | 0        | 8246     | 103     | 0            |
| 1   | 4-C   | 8454  | 0        | 8248     | 121     | 0            |
| 1   | 5-A   | 8454  | 0        | 8246     | 91      | 0            |
| 1   | 5-B   | 8454  | 0        | 8246     | 85      | 0            |
| 1   | 5-C   | 8454  | 0        | 8246     | 86      | 0            |
| 1   | 6-A   | 8454  | 0        | 8246     | 82      | 0            |
| 1   | 6-B   | 8454  | 0        | 8246     | 123     | 0            |
| 1   | 6-C   | 8454  | 0        | 8246     | 108     | 0            |
| 1   | 7-A   | 8454  | 0        | 8246     | 94      | 0            |
| 1   | 7-B   | 8454  | 0        | 8246     | 100     | 0            |
| 1   | 7-C   | 8454  | 0        | 8246     | 102     | 0            |
| 1   | 8-A   | 8454  | 0        | 8246     | 103     | 0            |
| 1   | 8-B   | 8454  | 0        | 8246     | 129     | 0            |
| 1   | 8-C   | 8454  | 0        | 8246     | 108     | 0            |
| 1   | 9-A   | 8454  | 0        | 8246     | 130     | 0            |
| 1   | 9-B   | 8454  | 0        | 8246     | 129     | 0            |
| 1   | 9-C   | 8454  | 0        | 8248     | 145     | 0            |
| 1   | 10-A  | 8454  | 0        | 8246     | 128     | 0            |
| 1   | 10-B  | 8454  | 0        | 8246     | 119     | 0            |
| 1   | 10-C  | 8454  | 0        | 8247     | 130     | 0            |
| 1   | 11-A  | 8454  | 0        | 8246     | 101     | 0            |
| 1   | 11-B  | 8454  | 0        | 8246     | 118     | 0            |
| 1   | 11-C  | 8454  | 0        | 8246     | 115     | 0            |
| 1   | 12-A  | 8454  | 0        | 8246     | 103     | 0            |
| 1   | 12-B  | 8454  | 0        | 8246     | 93      | 0            |
| 1   | 12-C  | 8454  | 0        | 8246     | 106     | 0            |
| 1   | 13-A  | 8454  | 0        | 8246     | 111     | 0            |

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| Mol | Chain | Non-H  | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|--------|----------|----------|---------|--------------|
| 1   | 13-B  | 8454   | 0        | 8246     | 107     | 0            |
| 1   | 13-C  | 8454   | 0        | 8247     | 119     | 0            |
| 1   | 14-A  | 8454   | 0        | 8246     | 113     | 0            |
| 1   | 14-B  | 8454   | 0        | 8246     | 135     | 0            |
| 1   | 14-C  | 8454   | 0        | 8248     | 115     | 0            |
| 1   | 15-A  | 8454   | 0        | 8246     | 106     | 0            |
| 1   | 15-B  | 8454   | 0        | 8246     | 108     | 0            |
| 1   | 15-C  | 8454   | 0        | 8248     | 112     | 0            |
| 1   | 16-A  | 8454   | 0        | 8246     | 113     | 0            |
| 1   | 16-B  | 8454   | 0        | 8246     | 104     | 0            |
| 1   | 16-C  | 8454   | 0        | 8246     | 96      | 0            |
| 1   | 17-A  | 8454   | 0        | 8246     | 97      | 0            |
| 1   | 17-B  | 8454   | 0        | 8246     | 125     | 0            |
| 1   | 17-C  | 8454   | 0        | 8246     | 100     | 0            |
| 1   | 18-A  | 8454   | 0        | 8246     | 117     | 0            |
| 1   | 18-B  | 8454   | 0        | 8246     | 132     | 0            |
| 1   | 18-C  | 8454   | 0        | 8246     | 126     | 0            |
| 1   | 19-A  | 8454   | 0        | 8246     | 86      | 0            |
| 1   | 19-B  | 8454   | 0        | 8246     | 90      | 0            |
| 1   | 19-C  | 8454   | 0        | 8248     | 108     | 0            |
| 1   | 20-A  | 8454   | 0        | 8246     | 115     | 0            |
| 1   | 20-B  | 8454   | 0        | 8246     | 108     | 0            |
| 1   | 20-C  | 8454   | 0        | 8248     | 130     | 0            |
| All | All   | 507240 | 0        | 494776   | 6040    | 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 6.

All (6040) 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:B:14:GLN:N     | 1:B:255:SER:HG  | 1.69                     | 0.90              |
| 1:B:14:GLN:N     | 1:B:255:SER:HG  | 1.73                     | 0.87              |
| 1:B:14:GLN:N     | 1:B:255:SER:HG  | 1.75                     | 0.84              |
| 1:C:214:ARG:HH11 | 1:C:215:GLY:H   | 1.25                     | 0.83              |
| 1:C:312:ILE:HD11 | 1:C:596:SER:HB3 | 1.61                     | 0.82              |
| 1:A:969:ASN:OD1  | 1:B:755:GLN:NE2 | 2.12                     | 0.82              |
| 1:B:14:GLN:N     | 1:B:255:SER:HG  | 1.80                     | 0.80              |
| 1:A:319:ARG:HH22 | 1:B:740:MET:HB2 | 1.48                     | 0.79              |
| 1:B:312:ILE:HD11 | 1:B:596:SER:HB3 | 1.65                     | 0.79              |
| 1:A:969:ASN:OD1  | 1:B:755:GLN:NE2 | 2.16                     | 0.78              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:C:57:PRO:HG3   | 1:C:273:ARG:HE    | 1.50                     | 0.77              |
| 1:A:969:ASN:HD21 | 1:B:755:GLN:HG2   | 1.51                     | 0.76              |
| 1:C:312:ILE:HD11 | 1:C:596:SER:HB3   | 1.66                     | 0.76              |
| 1:B:312:ILE:HD11 | 1:B:596:SER:HB3   | 1.68                     | 0.76              |
| 1:A:731:MET:HG3  | 1:A:955:ASN:HD21  | 1.50                     | 0.75              |
| 1:A:1017:GLU:OE1 | 1:B:1019:ARG:NH1  | 2.17                     | 0.75              |
| 1:B:312:ILE:HD11 | 1:B:596:SER:HB3   | 1.68                     | 0.74              |
| 1:C:884:SER:HB3  | 1:C:887:THR:HB    | 1.70                     | 0.73              |
| 1:A:969:ASN:OD1  | 1:B:755:GLN:NE2   | 2.21                     | 0.73              |
| 1:C:314:GLN:HE22 | 1:C:594:GLY:HA3   | 1.51                     | 0.73              |
| 1:A:992:GLN:HE21 | 1:A:995:ARG:HH21  | 1.36                     | 0.73              |
| 1:C:858:LEU:HD13 | 1:C:959:LEU:HD12  | 1.70                     | 0.72              |
| 1:C:953:ASN:O    | 1:C:957:GLN:HB2   | 1.88                     | 0.72              |
| 1:C:552:LEU:HB3  | 1:C:585:LEU:HD23  | 1.71                     | 0.72              |
| 1:A:598:ILE:HD11 | 1:A:666:ILE:HD11  | 1.71                     | 0.72              |
| 1:B:749:CYS:O    | 1:B:753:LEU:HB2   | 1.90                     | 0.72              |
| 1:C:291:CYS:HB2  | 1:C:298:GLU:HA    | 1.71                     | 0.72              |
| 1:B:362:VAL:HG21 | 1:B:526:GLY:H     | 1.55                     | 0.72              |
| 1:B:592:PHE:O    | 1:C:854:LYS:NZ    | 2.23                     | 0.72              |
| 1:A:666:ILE:HG12 | 1:A:671:CYS:HA    | 1.72                     | 0.72              |
| 1:A:1089:PHE:HB3 | 1:B:913:GLN:HE21  | 1.53                     | 0.72              |
| 1:B:381:GLY:HA3  | 1:C:983:ARG:HH12  | 1.54                     | 0.72              |
| 1:A:14:GLN:N     | 1:A:255:SER:HG    | 1.88                     | 0.72              |
| 1:C:312:ILE:HD11 | 1:C:596:SER:HB3   | 1.72                     | 0.72              |
| 1:A:312:ILE:HD11 | 1:A:596:SER:HB3   | 1.72                     | 0.72              |
| 1:A:869:MET:HG2  | 1:C:699:LEU:HD11  | 1.72                     | 0.71              |
| 1:C:763:LEU:HD22 | 1:C:1004:LEU:HD22 | 1.72                     | 0.71              |
| 1:C:555:SER:HB2  | 1:C:586:ASP:HB2   | 1.71                     | 0.71              |
| 1:C:729:VAL:HG21 | 1:C:781:VAL:HG11  | 1.71                     | 0.71              |
| 1:B:312:ILE:HD11 | 1:B:596:SER:HB3   | 1.72                     | 0.71              |
| 1:A:197:ILE:HB   | 1:A:202:LYS:HZ1   | 1.55                     | 0.71              |
| 1:C:129:LYS:NZ   | 1:C:131:CYS:SG    | 2.63                     | 0.71              |
| 1:B:214:ARG:HE   | 1:B:215:GLY:H     | 1.38                     | 0.71              |
| 1:A:598:ILE:HD11 | 1:A:666:ILE:HD11  | 1.72                     | 0.70              |
| 1:C:312:ILE:HD11 | 1:C:596:SER:HB3   | 1.74                     | 0.70              |
| 1:A:983:ARG:HG3  | 1:A:984:LEU:HD12  | 1.72                     | 0.70              |
| 1:A:106:PHE:HB2  | 1:A:117:LEU:HB2   | 1.73                     | 0.70              |
| 1:A:740:MET:SD   | 1:C:319:ARG:NH2   | 2.63                     | 0.70              |
| 1:C:212:LEU:HD22 | 1:C:217:PRO:HD3   | 1.73                     | 0.70              |
| 1:C:312:ILE:HD11 | 1:C:596:SER:HB3   | 1.72                     | 0.70              |
| 1:B:902:MET:HE1  | 1:B:905:ARG:HD2   | 1.73                     | 0.70              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:984:LEU:HD11  | 1:A:988:GLU:HB2   | 1.74                     | 0.70              |
| 1:A:1054:GLN:HB2  | 1:A:1061:VAL:HG22 | 1.72                     | 0.70              |
| 1:A:1091:ARG:NH1  | 1:A:1118:ASP:O    | 2.24                     | 0.70              |
| 1:A:312:ILE:HD11  | 1:A:596:SER:HB3   | 1.73                     | 0.70              |
| 1:C:555:SER:HB2   | 1:C:586:ASP:HB2   | 1.74                     | 0.70              |
| 1:B:362:VAL:HG21  | 1:B:526:GLY:H     | 1.57                     | 0.70              |
| 1:A:106:PHE:HB2   | 1:A:117:LEU:HB3   | 1.74                     | 0.70              |
| 1:C:14:GLN:N      | 1:C:255:SER:HG    | 1.88                     | 0.70              |
| 1:C:1051:SER:HG   | 1:C:1064:HIS:HD1  | 1.39                     | 0.70              |
| 1:A:1039:ARG:HH11 | 1:C:1039:ARG:HH12 | 1.40                     | 0.69              |
| 1:B:731:MET:SD    | 1:B:774:GLN:NE2   | 2.65                     | 0.69              |
| 1:C:312:ILE:HD11  | 1:C:596:SER:HB3   | 1.71                     | 0.69              |
| 1:B:767:LEU:HA    | 1:B:770:ILE:HD12  | 1.73                     | 0.69              |
| 1:B:317:ASN:ND2   | 1:C:737:ASP:OD2   | 2.25                     | 0.69              |
| 1:C:555:SER:HB2   | 1:C:586:ASP:HB2   | 1.75                     | 0.69              |
| 1:A:106:PHE:HB2   | 1:A:117:LEU:HB3   | 1.75                     | 0.69              |
| 1:B:1043:CYS:O    | 1:B:1064:HIS:ND1  | 2.25                     | 0.69              |
| 1:C:714:ILE:HD12  | 1:C:715:PRO:HD2   | 1.73                     | 0.69              |
| 1:A:770:ILE:O     | 1:A:774:GLN:HB2   | 1.91                     | 0.69              |
| 1:A:394:ASN:HB2   | 1:A:516:GLU:HB3   | 1.75                     | 0.69              |
| 1:A:1129:VAL:HG12 | 1:B:917:TYR:HB3   | 1.75                     | 0.69              |
| 1:B:312:ILE:HD13  | 1:B:598:ILE:HG13  | 1.74                     | 0.69              |
| 1:B:978:ASN:OD1   | 1:B:978:ASN:N     | 2.25                     | 0.69              |
| 1:A:230:PRO:HB2   | 1:C:357:ARG:HH12  | 1.57                     | 0.69              |
| 1:A:394:ASN:HB2   | 1:A:516:GLU:HB3   | 1.73                     | 0.69              |
| 1:A:1035:GLY:HA3  | 1:C:1040:VAL:HG21 | 1.75                     | 0.69              |
| 1:B:914:ASN:ND2   | 1:B:1111:GLU:OE2  | 2.24                     | 0.69              |
| 1:C:310:LYS:HG2   | 1:C:664:ILE:HD11  | 1.75                     | 0.69              |
| 1:A:394:ASN:HB2   | 1:A:516:GLU:HB3   | 1.73                     | 0.69              |
| 1:C:312:ILE:HD11  | 1:C:596:SER:HB3   | 1.73                     | 0.69              |
| 1:C:555:SER:HB2   | 1:C:586:ASP:HB2   | 1.74                     | 0.69              |
| 1:B:971:GLY:HA3   | 1:B:995:ARG:HH21  | 1.57                     | 0.69              |
| 1:A:969:ASN:OD1   | 1:B:755:GLN:NE2   | 2.26                     | 0.68              |
| 1:B:901:GLN:HE21  | 1:B:905:ARG:HE    | 1.41                     | 0.68              |
| 1:C:201:PHE:HB3   | 1:C:229:LEU:HB2   | 1.75                     | 0.68              |
| 1:A:547:THR:HB    | 1:B:978:ASN:HD22  | 1.59                     | 0.68              |
| 1:B:1010:GLN:OE1  | 1:B:1014:ARG:NH2  | 2.25                     | 0.68              |
| 1:A:729:VAL:HG12  | 1:A:1059:GLY:HA2  | 1.76                     | 0.68              |
| 1:A:732:THR:OG1   | 1:A:955:ASN:ND2   | 2.26                     | 0.68              |
| 1:B:596:SER:HB2   | 1:B:611:LEU:HB3   | 1.73                     | 0.68              |
| 1:C:312:ILE:HD11  | 1:C:596:SER:HB3   | 1.73                     | 0.68              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:362:VAL:HG21  | 1:B:526:GLY:H     | 1.59                     | 0.68              |
| 1:B:731:MET:H     | 1:B:774:GLN:HE22  | 1.42                     | 0.68              |
| 1:B:714:ILE:HD12  | 1:B:715:PRO:HD2   | 1.75                     | 0.68              |
| 1:A:1032:CYS:HA   | 1:A:1048:HIS:HE1  | 1.59                     | 0.68              |
| 1:C:742:ILE:HD11  | 1:C:997:ILE:HA    | 1.75                     | 0.68              |
| 1:C:1083:HIS:HB3  | 1:C:1088:HIS:HE1  | 1.58                     | 0.68              |
| 1:B:332:ILE:HG12  | 1:B:524:VAL:HG13  | 1.76                     | 0.68              |
| 1:B:596:SER:HB3   | 1:B:611:LEU:HB3   | 1.76                     | 0.68              |
| 1:B:596:SER:HB2   | 1:B:611:LEU:HB3   | 1.76                     | 0.68              |
| 1:C:902:MET:HB2   | 1:C:916:LEU:HD21  | 1.76                     | 0.68              |
| 1:B:362:VAL:HG21  | 1:B:526:GLY:H     | 1.57                     | 0.68              |
| 1:B:1014:ARG:HA   | 1:B:1017:GLU:HG3  | 1.75                     | 0.68              |
| 1:A:1013:ILE:HG21 | 1:B:1012:LEU:HD12 | 1.76                     | 0.68              |
| 1:C:293:LEU:HD23  | 1:C:294:ASP:HB2   | 1.76                     | 0.68              |
| 1:C:896:ILE:HD12  | 1:C:897:PRO:HD2   | 1.74                     | 0.68              |
| 1:C:1010:GLN:HE22 | 1:C:1014:ARG:HE   | 1.42                     | 0.68              |
| 1:A:189:LEU:HD22  | 1:A:210:ILE:HD13  | 1.76                     | 0.68              |
| 1:C:714:ILE:HD12  | 1:C:715:PRO:HD2   | 1.74                     | 0.68              |
| 1:B:125:ASN:ND2   | 1:B:172:SER:O     | 2.27                     | 0.68              |
| 1:A:767:LEU:HA    | 1:A:770:ILE:HD12  | 1.76                     | 0.68              |
| 1:C:555:SER:HB2   | 1:C:586:ASP:HB2   | 1.75                     | 0.67              |
| 1:C:312:ILE:HD11  | 1:C:596:SER:HB3   | 1.76                     | 0.67              |
| 1:A:57:PRO:HG3    | 1:A:273:ARG:HG3   | 1.77                     | 0.67              |
| 1:C:452:LEU:HB3   | 1:C:492:LEU:HD11  | 1.75                     | 0.67              |
| 1:C:201:PHE:HB3   | 1:C:229:LEU:HB2   | 1.75                     | 0.67              |
| 1:A:825:LYS:HD2   | 1:A:945:LEU:HD12  | 1.75                     | 0.67              |
| 1:C:560:LEU:HB2   | 1:C:563:GLN:HG3   | 1.76                     | 0.67              |
| 1:A:755:GLN:NE2   | 1:C:969:ASN:OD1   | 2.28                     | 0.67              |
| 1:C:731:MET:HB3   | 1:C:774:GLN:HE22  | 1.60                     | 0.67              |
| 1:C:312:ILE:HD11  | 1:C:596:SER:HB3   | 1.74                     | 0.67              |
| 1:B:763:LEU:HD22  | 1:B:1008:VAL:HG11 | 1.75                     | 0.67              |
| 1:B:731:MET:SD    | 1:B:731:MET:N     | 2.68                     | 0.67              |
| 1:A:755:GLN:OE1   | 1:C:969:ASN:ND2   | 2.28                     | 0.67              |
| 1:C:296:LEU:HB2   | 1:C:608:VAL:HG21  | 1.77                     | 0.67              |
| 1:B:969:ASN:OD1   | 1:C:755:GLN:NE2   | 2.28                     | 0.67              |
| 1:C:57:PRO:HG3    | 1:C:273:ARG:HD2   | 1.75                     | 0.67              |
| 1:A:777:ASN:OD1   | 1:A:1019:ARG:NH2  | 2.28                     | 0.67              |
| 1:A:296:LEU:HB2   | 1:A:608:VAL:HG21  | 1.76                     | 0.67              |
| 1:A:971:GLY:H     | 1:B:755:GLN:HE22  | 1.40                     | 0.67              |
| 1:A:1017:GLU:OE1  | 1:B:1019:ARG:NH1  | 2.27                     | 0.67              |
| 1:B:592:PHE:HZ    | 1:C:857:GLY:HA2   | 1.60                     | 0.67              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:B:57:PRO:HG3   | 1:B:273:ARG:HG3   | 1.76                     | 0.67              |
| 1:B:394:ASN:HD22 | 1:B:396:TYR:HE1   | 1.42                     | 0.67              |
| 1:A:189:LEU:HD22 | 1:A:210:ILE:HD13  | 1.77                     | 0.67              |
| 1:C:560:LEU:HD23 | 1:C:562:PHE:H     | 1.60                     | 0.67              |
| 1:A:1089:PHE:HB3 | 1:B:913:GLN:HE21  | 1.60                     | 0.67              |
| 1:A:206:LYS:HB2  | 1:A:223:LEU:HA    | 1.77                     | 0.67              |
| 1:B:858:LEU:HD23 | 1:B:959:LEU:HD12  | 1.76                     | 0.67              |
| 1:B:971:GLY:HA3  | 1:B:995:ARG:HH22  | 1.58                     | 0.67              |
| 1:A:57:PRO:HG3   | 1:A:273:ARG:HG3   | 1.76                     | 0.67              |
| 1:A:864:LEU:HD11 | 1:C:665:PRO:HB2   | 1.77                     | 0.67              |
| 1:A:913:GLN:HE21 | 1:C:1089:PHE:HB3  | 1.61                     | 0.66              |
| 1:B:731:MET:SD   | 1:B:774:GLN:NE2   | 2.67                     | 0.66              |
| 1:B:901:GLN:HE21 | 1:B:905:ARG:HE    | 1.42                     | 0.66              |
| 1:B:93:ALA:HB3   | 1:B:266:TYR:HB2   | 1.77                     | 0.66              |
| 1:C:418:ILE:HA   | 1:C:422:ASN:HD22  | 1.59                     | 0.66              |
| 1:C:596:SER:HB2  | 1:C:611:LEU:HB3   | 1.77                     | 0.66              |
| 1:A:189:LEU:HD22 | 1:A:210:ILE:HD13  | 1.77                     | 0.66              |
| 1:C:314:GLN:HE22 | 1:C:594:GLY:HA3   | 1.60                     | 0.66              |
| 1:B:129:LYS:HD2  | 1:B:169:GLU:HG3   | 1.77                     | 0.66              |
| 1:B:312:ILE:HD11 | 1:B:596:SER:HB3   | 1.76                     | 0.66              |
| 1:B:1010:GLN:HB3 | 1:B:1014:ARG:HH21 | 1.60                     | 0.66              |
| 1:A:726:ILE:HD13 | 1:A:1061:VAL:HG12 | 1.78                     | 0.66              |
| 1:C:784:GLN:HE21 | 1:C:1029:MET:HG3  | 1.58                     | 0.66              |
| 1:B:662:CYS:HB2  | 1:B:697:MET:HG2   | 1.77                     | 0.66              |
| 1:A:271:GLN:HB2  | 1:A:273:ARG:HH12  | 1.59                     | 0.66              |
| 1:A:57:PRO:HG3   | 1:A:273:ARG:HD2   | 1.77                     | 0.66              |
| 1:B:362:VAL:HG21 | 1:B:526:GLY:H     | 1.60                     | 0.66              |
| 1:A:1002:GLN:HA  | 1:A:1005:GLN:HE21 | 1.61                     | 0.66              |
| 1:B:278:LYS:NZ   | 1:B:286:THR:OG1   | 2.29                     | 0.66              |
| 1:A:776:LYS:NZ   | 1:A:780:GLU:OE1   | 2.24                     | 0.66              |
| 1:A:369:TYR:HB3  | 1:C:487:ASN:HD21  | 1.61                     | 0.66              |
| 1:C:560:LEU:HD23 | 1:C:562:PHE:H     | 1.61                     | 0.66              |
| 1:B:362:VAL:HG21 | 1:B:526:GLY:H     | 1.59                     | 0.66              |
| 1:C:884:SER:HB3  | 1:C:887:THR:HB    | 1.78                     | 0.66              |
| 1:A:418:ILE:HA   | 1:A:422:ASN:HD22  | 1.59                     | 0.66              |
| 1:B:93:ALA:HB3   | 1:B:266:TYR:HB2   | 1.75                     | 0.66              |
| 1:B:736:VAL:HG22 | 1:B:858:LEU:HG    | 1.78                     | 0.66              |
| 1:A:776:LYS:NZ   | 1:A:780:GLU:OE2   | 2.28                     | 0.66              |
| 1:A:765:ARG:NH1  | 1:C:957:GLN:OE1   | 2.29                     | 0.66              |
| 1:C:314:GLN:NE2  | 1:C:316:SER:O     | 2.29                     | 0.66              |
| 1:B:715:PRO:HD3  | 1:C:894:LEU:HD21  | 1.78                     | 0.66              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:1089:PHE:HB3  | 1:B:913:GLN:HE21  | 1.61                     | 0.66              |
| 1:A:1129:VAL:HG12 | 1:B:917:TYR:HB3   | 1.78                     | 0.66              |
| 1:B:214:ARG:HE    | 1:B:215:GLY:H     | 1.43                     | 0.66              |
| 1:C:212:LEU:HD22  | 1:C:217:PRO:HD3   | 1.79                     | 0.65              |
| 1:C:729:VAL:HG21  | 1:C:781:VAL:HG11  | 1.77                     | 0.65              |
| 1:C:189:LEU:HD22  | 1:C:210:ILE:HD13  | 1.76                     | 0.65              |
| 1:C:119:ILE:HD12  | 1:C:128:ILE:HG12  | 1.78                     | 0.65              |
| 1:C:84:LEU:HD12   | 1:C:85:PRO:HD2    | 1.76                     | 0.65              |
| 1:A:897:PRO:HG2   | 1:A:900:MET:HB2   | 1.77                     | 0.65              |
| 1:A:201:PHE:HB3   | 1:A:229:LEU:HB2   | 1.78                     | 0.65              |
| 1:C:206:LYS:HB3   | 1:C:223:LEU:HD13  | 1.77                     | 0.65              |
| 1:A:726:ILE:HD12  | 1:A:1061:VAL:HG22 | 1.77                     | 0.65              |
| 1:B:815:ARG:HG2   | 1:B:819:GLU:HG3   | 1.77                     | 0.65              |
| 1:B:596:SER:HB2   | 1:B:611:LEU:HB3   | 1.78                     | 0.65              |
| 1:C:905:ARG:NH1   | 1:C:1049:LEU:O    | 2.29                     | 0.65              |
| 1:A:323:THR:OG1   | 1:A:324:GLU:OE1   | 2.14                     | 0.65              |
| 1:C:452:LEU:HB3   | 1:C:492:LEU:HD11  | 1.79                     | 0.65              |
| 1:B:332:ILE:HG12  | 1:B:524:VAL:HG13  | 1.79                     | 0.65              |
| 1:A:317:ASN:ND2   | 1:B:737:ASP:OD1   | 2.29                     | 0.65              |
| 1:B:727:LEU:HD21  | 1:B:1024:LEU:HD22 | 1.78                     | 0.65              |
| 1:A:201:PHE:HB2   | 1:A:229:LEU:HB2   | 1.77                     | 0.65              |
| 1:B:1129:VAL:HG23 | 1:C:917:TYR:HB3   | 1.78                     | 0.65              |
| 1:B:332:ILE:HG12  | 1:B:524:VAL:HG13  | 1.79                     | 0.65              |
| 1:C:576:VAL:HG13  | 1:C:587:ILE:HD11  | 1.78                     | 0.65              |
| 1:A:106:PHE:HB2   | 1:A:117:LEU:HB2   | 1.79                     | 0.65              |
| 1:A:314:GLN:HE22  | 1:A:594:GLY:HA3   | 1.61                     | 0.65              |
| 1:C:126:VAL:HG21  | 1:C:226:LEU:HD21  | 1.79                     | 0.65              |
| 1:A:905:ARG:NH1   | 1:A:1049:LEU:O    | 2.29                     | 0.65              |
| 1:C:293:LEU:HD23  | 1:C:294:ASP:HB2   | 1.77                     | 0.65              |
| 1:A:31:SER:HB2    | 1:A:34:ARG:HB2    | 1.78                     | 0.65              |
| 1:A:357:ARG:NH2   | 1:A:394:ASN:OD1   | 2.29                     | 0.65              |
| 1:B:971:GLY:HA3   | 1:B:995:ARG:HH22  | 1.62                     | 0.65              |
| 1:C:568:ASP:OD2   | 1:C:569:ILE:N     | 2.30                     | 0.65              |
| 1:B:93:ALA:HB3    | 1:B:266:TYR:HB2   | 1.77                     | 0.65              |
| 1:A:53:ASP:OD1    | 1:A:54:LEU:N      | 2.30                     | 0.65              |
| 1:C:851:CYS:HA    | 1:C:854:LYS:HG3   | 1.79                     | 0.65              |
| 1:A:765:ARG:NH1   | 1:C:957:GLN:OE1   | 2.30                     | 0.65              |
| 1:A:956:ALA:O     | 1:A:960:ASN:HB2   | 1.97                     | 0.64              |
| 1:B:293:LEU:HD23  | 1:B:294:ASP:HB2   | 1.79                     | 0.64              |
| 1:B:106:PHE:HB2   | 1:B:117:LEU:HB2   | 1.78                     | 0.64              |
| 1:A:1017:GLU:OE2  | 1:B:1019:ARG:NH1  | 2.30                     | 0.64              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:273:ARG:HE    | 1:A:292:ALA:HB3   | 1.61                     | 0.64              |
| 1:A:791:THR:HG21  | 1:A:806:LEU:HD21  | 1.79                     | 0.64              |
| 1:C:93:ALA:HB3    | 1:C:266:TYR:HB2   | 1.79                     | 0.64              |
| 1:B:594:GLY:HA3   | 1:B:613:GLN:HE21  | 1.62                     | 0.64              |
| 1:A:104:TRP:H     | 1:A:119:ILE:HB    | 1.62                     | 0.64              |
| 1:B:592:PHE:HZ    | 1:C:857:GLY:HA2   | 1.63                     | 0.64              |
| 1:B:153:MET:SD    | 1:B:153:MET:N     | 2.69                     | 0.64              |
| 1:A:106:PHE:HB2   | 1:A:117:LEU:HB3   | 1.78                     | 0.64              |
| 1:C:984:LEU:HD13  | 1:C:988:GLU:HG3   | 1.79                     | 0.64              |
| 1:A:57:PRO:HG3    | 1:A:273:ARG:HG3   | 1.78                     | 0.64              |
| 1:B:83:VAL:HA     | 1:B:239:GLN:HE22  | 1.63                     | 0.64              |
| 1:A:120:VAL:HB    | 1:A:127:VAL:HB    | 1.80                     | 0.64              |
| 1:C:14:GLN:N      | 1:C:255:SER:HG    | 1.96                     | 0.64              |
| 1:B:715:PRO:HD3   | 1:C:894:LEU:HD21  | 1.79                     | 0.64              |
| 1:A:819:GLU:HA    | 1:A:822:LEU:HB2   | 1.78                     | 0.64              |
| 1:A:1089:PHE:HB3  | 1:B:913:GLN:HE21  | 1.62                     | 0.64              |
| 1:C:396:TYR:HB2   | 1:C:514:SER:HB2   | 1.79                     | 0.64              |
| 1:B:896:ILE:HG23  | 1:B:901:GLN:HE21  | 1.62                     | 0.64              |
| 1:B:858:LEU:HD21  | 1:B:962:LEU:HD23  | 1.80                     | 0.64              |
| 1:C:312:ILE:HD11  | 1:C:596:SER:HB3   | 1.80                     | 0.64              |
| 1:A:337:PRO:HB2   | 1:A:340:GLU:HG2   | 1.78                     | 0.64              |
| 1:A:759:PHE:HA    | 1:A:762:GLN:HG3   | 1.79                     | 0.64              |
| 1:C:954:GLN:OE1   | 1:C:1014:ARG:NH1  | 2.31                     | 0.64              |
| 1:C:385:THR:O     | 1:C:388:ASN:ND2   | 2.30                     | 0.64              |
| 1:B:1028:LYS:O    | 1:B:1032:CYS:HB2  | 1.97                     | 0.64              |
| 1:A:1013:ILE:HG21 | 1:B:1012:LEU:HD12 | 1.80                     | 0.64              |
| 1:A:992:GLN:OE1   | 1:A:995:ARG:NH2   | 2.31                     | 0.64              |
| 1:B:93:ALA:HB3    | 1:B:266:TYR:HB2   | 1.80                     | 0.64              |
| 1:A:189:LEU:HD22  | 1:A:210:ILE:HD13  | 1.80                     | 0.64              |
| 1:A:106:PHE:HB2   | 1:A:117:LEU:HB3   | 1.80                     | 0.64              |
| 1:C:610:VAL:HG13  | 1:C:651:ILE:HG13  | 1.79                     | 0.64              |
| 1:C:452:LEU:HB3   | 1:C:492:LEU:HD11  | 1.80                     | 0.64              |
| 1:C:53:ASP:OD1    | 1:C:54:LEU:N      | 2.31                     | 0.64              |
| 1:B:951:VAL:HA    | 1:B:954:GLN:HE21  | 1.63                     | 0.64              |
| 1:A:273:ARG:HE    | 1:A:292:ALA:HB3   | 1.63                     | 0.64              |
| 1:C:784:GLN:HE21  | 1:C:1029:MET:HG3  | 1.63                     | 0.64              |
| 1:A:740:MET:HB2   | 1:C:319:ARG:HH12  | 1.63                     | 0.64              |
| 1:C:563:GLN:O     | 1:C:577:ARG:NH1   | 2.31                     | 0.64              |
| 1:A:104:TRP:HB2   | 1:A:106:PHE:HE2   | 1.62                     | 0.64              |
| 1:A:825:LYS:NZ    | 1:A:938:LEU:O     | 2.28                     | 0.64              |
| 1:B:969:ASN:OD1   | 1:C:755:GLN:NE2   | 2.31                     | 0.64              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:997:ILE:O    | 1:A:1001:LEU:HB2  | 1.98                     | 0.64              |
| 1:A:784:GLN:HE21 | 1:A:784:GLN:HA    | 1.63                     | 0.64              |
| 1:C:201:PHE:HB3  | 1:C:229:LEU:HB2   | 1.79                     | 0.64              |
| 1:A:914:ASN:ND2  | 1:A:918:GLU:OE2   | 2.30                     | 0.64              |
| 1:A:326:ILE:HD11 | 1:A:534:VAL:HG12  | 1.78                     | 0.64              |
| 1:B:457:ARG:NH1  | 1:B:459:SER:O     | 2.30                     | 0.64              |
| 1:C:53:ASP:OD1   | 1:C:54:LEU:N      | 2.30                     | 0.64              |
| 1:A:971:GLY:H    | 1:B:755:GLN:HE22  | 1.43                     | 0.64              |
| 1:A:667:GLY:HA2  | 1:B:864:LEU:HA    | 1.78                     | 0.63              |
| 1:B:430:THR:HB   | 1:C:983:ARG:HH21  | 1.63                     | 0.63              |
| 1:C:825:LYS:NZ   | 1:C:938:LEU:O     | 2.29                     | 0.63              |
| 1:C:126:VAL:HG21 | 1:C:226:LEU:HD21  | 1.79                     | 0.63              |
| 1:C:896:ILE:HD12 | 1:C:897:PRO:HD2   | 1.78                     | 0.63              |
| 1:C:106:PHE:HB2  | 1:C:117:LEU:HB3   | 1.79                     | 0.63              |
| 1:A:896:ILE:HD12 | 1:A:897:PRO:HD2   | 1.80                     | 0.63              |
| 1:A:312:ILE:HD11 | 1:A:596:SER:HB3   | 1.79                     | 0.63              |
| 1:B:729:VAL:HG21 | 1:B:781:VAL:HG11  | 1.78                     | 0.63              |
| 1:C:905:ARG:NH1  | 1:C:1049:LEU:O    | 2.30                     | 0.63              |
| 1:C:708:SER:HB3  | 1:C:711:SER:HB3   | 1.80                     | 0.63              |
| 1:C:858:LEU:HD13 | 1:C:959:LEU:HD22  | 1.80                     | 0.63              |
| 1:B:596:SER:HB2  | 1:B:611:LEU:HB3   | 1.81                     | 0.63              |
| 1:B:44:ARG:HH21  | 1:B:49:HIS:HB2    | 1.63                     | 0.63              |
| 1:A:905:ARG:NH1  | 1:A:1049:LEU:O    | 2.32                     | 0.63              |
| 1:C:896:ILE:HD12 | 1:C:897:PRO:HD2   | 1.80                     | 0.63              |
| 1:A:896:ILE:HD12 | 1:A:897:PRO:HD2   | 1.81                     | 0.63              |
| 1:B:853:GLN:HG3  | 1:B:959:LEU:HD13  | 1.81                     | 0.63              |
| 1:A:666:ILE:HG12 | 1:A:671:CYS:HA    | 1.80                     | 0.63              |
| 1:A:903:ALA:HB1  | 1:A:913:GLN:HG2   | 1.80                     | 0.63              |
| 1:C:746:SER:OG   | 1:C:748:GLU:OE1   | 2.17                     | 0.63              |
| 1:C:825:LYS:NZ   | 1:C:938:LEU:O     | 2.30                     | 0.63              |
| 1:A:57:PRO:HG3   | 1:A:273:ARG:HG3   | 1.81                     | 0.63              |
| 1:C:312:ILE:HD11 | 1:C:596:SER:HB3   | 1.81                     | 0.63              |
| 1:C:596:SER:HB2  | 1:C:611:LEU:HB3   | 1.80                     | 0.63              |
| 1:A:903:ALA:HB1  | 1:A:913:GLN:HG2   | 1.79                     | 0.63              |
| 1:C:120:VAL:HB   | 1:C:127:VAL:HB    | 1.80                     | 0.63              |
| 1:A:825:LYS:HB3  | 1:A:945:LEU:HD21  | 1.80                     | 0.63              |
| 1:B:666:ILE:HD13 | 1:B:670:ILE:HG22  | 1.79                     | 0.63              |
| 1:A:850:ILE:HG22 | 1:A:854:LYS:HE2   | 1.80                     | 0.63              |
| 1:A:1049:LEU:HB2 | 1:A:1065:VAL:HG23 | 1.79                     | 0.63              |
| 1:B:310:LYS:HG2  | 1:B:664:ILE:HD11  | 1.79                     | 0.63              |
| 1:A:819:GLU:HA   | 1:A:822:LEU:HB2   | 1.80                     | 0.63              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:866:THR:H     | 1:B:869:MET:HE3   | 1.62                     | 0.63              |
| 1:B:92:PHE:HB3    | 1:B:192:PHE:HB2   | 1.80                     | 0.63              |
| 1:C:889:GLY:HA3   | 1:C:1034:LEU:HD21 | 1.79                     | 0.63              |
| 1:A:819:GLU:HA    | 1:A:822:LEU:HB2   | 1.80                     | 0.63              |
| 1:B:52:GLN:NE2    | 1:B:274:THR:OG1   | 2.32                     | 0.63              |
| 1:A:773:GLU:OE2   | 1:A:1019:ARG:NH1  | 2.32                     | 0.63              |
| 1:B:519:HIS:O     | 1:B:564:GLN:NE2   | 2.31                     | 0.63              |
| 1:A:894:LEU:HD21  | 1:C:715:PRO:HD3   | 1.79                     | 0.63              |
| 1:B:697:MET:HG2   | 1:C:869:MET:HE1   | 1.80                     | 0.63              |
| 1:C:452:LEU:HB3   | 1:C:492:LEU:HD11  | 1.81                     | 0.63              |
| 1:C:310:LYS:HG2   | 1:C:664:ILE:HD11  | 1.80                     | 0.63              |
| 1:C:385:THR:O     | 1:C:388:ASN:ND2   | 2.31                     | 0.63              |
| 1:A:1129:VAL:HG12 | 1:B:917:TYR:HB3   | 1.79                     | 0.63              |
| 1:A:206:LYS:HB2   | 1:A:223:LEU:HA    | 1.81                     | 0.63              |
| 1:A:394:ASN:HB2   | 1:A:516:GLU:HB3   | 1.79                     | 0.63              |
| 1:A:396:TYR:HB2   | 1:A:514:SER:HB3   | 1.79                     | 0.63              |
| 1:C:609:ALA:HB2   | 1:C:692:ILE:HG21  | 1.81                     | 0.63              |
| 1:A:1013:ILE:HG21 | 1:B:1012:LEU:HB3  | 1.81                     | 0.63              |
| 1:B:784:GLN:HE21  | 1:B:1029:MET:HG3  | 1.61                     | 0.63              |
| 1:A:896:ILE:HD12  | 1:A:897:PRO:HD2   | 1.81                     | 0.63              |
| 1:B:858:LEU:HD23  | 1:B:959:LEU:HD12  | 1.79                     | 0.63              |
| 1:C:53:ASP:OD1    | 1:C:54:LEU:N      | 2.31                     | 0.63              |
| 1:C:295:PRO:HA    | 1:C:298:GLU:HG3   | 1.81                     | 0.63              |
| 1:C:418:ILE:HA    | 1:C:422:ASN:HD22  | 1.64                     | 0.63              |
| 1:C:905:ARG:NH1   | 1:C:1049:LEU:O    | 2.32                     | 0.63              |
| 1:B:1010:GLN:OE1  | 1:B:1014:ARG:NH1  | 2.31                     | 0.62              |
| 1:B:1030:SER:HA   | 1:B:1034:LEU:HD23 | 1.81                     | 0.62              |
| 1:C:909:ILE:O     | 1:C:1108:ASN:ND2  | 2.32                     | 0.62              |
| 1:A:319:ARG:HH12  | 1:B:740:MET:HB2   | 1.63                     | 0.62              |
| 1:A:370:ASN:O     | 1:C:487:ASN:ND2   | 2.32                     | 0.62              |
| 1:A:729:VAL:HG12  | 1:A:1059:GLY:HA2  | 1.80                     | 0.62              |
| 1:B:18:PHE:HB2    | 1:B:21:ARG:HB2    | 1.81                     | 0.62              |
| 1:C:418:ILE:HA    | 1:C:422:ASN:HD22  | 1.64                     | 0.62              |
| 1:A:896:ILE:HD12  | 1:A:897:PRO:HD2   | 1.81                     | 0.62              |
| 1:A:317:ASN:ND2   | 1:B:737:ASP:OD1   | 2.30                     | 0.62              |
| 1:A:206:LYS:HB2   | 1:A:223:LEU:HA    | 1.81                     | 0.62              |
| 1:A:955:ASN:HD22  | 1:A:955:ASN:H     | 1.45                     | 0.62              |
| 1:A:896:ILE:HD12  | 1:A:897:PRO:HD2   | 1.80                     | 0.62              |
| 1:B:317:ASN:ND2   | 1:C:737:ASP:OD2   | 2.32                     | 0.62              |
| 1:A:1005:GLN:OE1  | 1:C:1002:GLN:NE2  | 2.29                     | 0.62              |
| 1:A:224:GLU:HG3   | 1:C:560:LEU:HD11  | 1.81                     | 0.62              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:C:189:LEU:HD22 | 1:C:210:ILE:HD13 | 1.82                     | 0.62              |
| 1:C:312:ILE:HD11 | 1:C:596:SER:HB3  | 1.82                     | 0.62              |
| 1:A:394:ASN:HB2  | 1:A:516:GLU:HB3  | 1.80                     | 0.62              |
| 1:A:106:PHE:HB2  | 1:A:117:LEU:HB3  | 1.79                     | 0.62              |
| 1:B:905:ARG:NH1  | 1:B:1049:LEU:O   | 2.33                     | 0.62              |
| 1:C:53:ASP:OD1   | 1:C:54:LEU:N     | 2.32                     | 0.62              |
| 1:A:418:ILE:HA   | 1:A:422:ASN:HD22 | 1.65                     | 0.62              |
| 1:C:858:LEU:HD13 | 1:C:959:LEU:HD22 | 1.82                     | 0.62              |
| 1:C:896:ILE:HD12 | 1:C:897:PRO:HD2  | 1.81                     | 0.62              |
| 1:A:41:LYS:NZ    | 1:C:562:PHE:O    | 2.29                     | 0.62              |
| 1:A:819:GLU:HA   | 1:A:822:LEU:HB2  | 1.81                     | 0.62              |
| 1:B:40:ASP:OD1   | 1:B:41:LYS:N     | 2.33                     | 0.62              |
| 1:A:896:ILE:HD12 | 1:A:897:PRO:HD2  | 1.82                     | 0.62              |
| 1:B:749:CYS:O    | 1:B:753:LEU:HB2  | 2.00                     | 0.62              |
| 1:B:557:LYS:NZ   | 1:B:574:ASP:OD2  | 2.32                     | 0.62              |
| 1:B:1084:ASP:OD2 | 1:B:1086:LYS:NZ  | 2.32                     | 0.62              |
| 1:A:57:PRO:HG3   | 1:A:273:ARG:HG3  | 1.81                     | 0.62              |
| 1:A:418:ILE:HA   | 1:A:422:ASN:HD22 | 1.65                     | 0.62              |
| 1:C:312:ILE:HD13 | 1:C:598:ILE:HG13 | 1.81                     | 0.62              |
| 1:A:905:ARG:NH1  | 1:A:1049:LEU:O   | 2.32                     | 0.62              |
| 1:B:433:VAL:HA   | 1:B:512:VAL:HG12 | 1.82                     | 0.62              |
| 1:B:362:VAL:HG21 | 1:B:526:GLY:H    | 1.63                     | 0.62              |
| 1:A:569:ILE:O    | 1:B:964:LYS:NZ   | 2.32                     | 0.62              |
| 1:C:189:LEU:HD12 | 1:C:210:ILE:HD13 | 1.81                     | 0.62              |
| 1:A:201:PHE:HB2  | 1:A:229:LEU:HB2  | 1.81                     | 0.62              |
| 1:C:552:LEU:HB3  | 1:C:585:LEU:HD23 | 1.82                     | 0.62              |
| 1:A:120:VAL:HB   | 1:A:127:VAL:HB   | 1.81                     | 0.62              |
| 1:A:729:VAL:HG22 | 1:A:1059:GLY:HA2 | 1.81                     | 0.62              |
| 1:C:314:GLN:NE2  | 1:C:316:SER:O    | 2.32                     | 0.62              |
| 1:A:120:VAL:HB   | 1:A:127:VAL:HB   | 1.81                     | 0.62              |
| 1:B:119:ILE:HG12 | 1:B:128:ILE:HD12 | 1.82                     | 0.62              |
| 1:B:776:LYS:NZ   | 1:B:780:GLU:OE1  | 2.33                     | 0.62              |
| 1:B:598:ILE:HB   | 1:B:609:ALA:HB3  | 1.80                     | 0.62              |
| 1:B:430:THR:HB   | 1:C:983:ARG:HH21 | 1.64                     | 0.62              |
| 1:B:1074:ASN:OD1 | 1:C:895:GLN:NE2  | 2.31                     | 0.62              |
| 1:C:394:ASN:HB2  | 1:C:516:GLU:HB3  | 1.81                     | 0.62              |
| 1:C:53:ASP:OD1   | 1:C:54:LEU:N     | 2.33                     | 0.62              |
| 1:C:418:ILE:HA   | 1:C:422:ASN:HD22 | 1.65                     | 0.62              |
| 1:A:319:ARG:NH2  | 1:B:740:MET:SD   | 2.72                     | 0.62              |
| 1:A:93:ALA:HB3   | 1:A:266:TYR:HB2  | 1.81                     | 0.62              |
| 1:A:201:PHE:HB3  | 1:A:229:LEU:HB2  | 1.82                     | 0.62              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:B:901:GLN:HE21  | 1:B:905:ARG:HE   | 1.48                     | 0.62              |
| 1:C:312:ILE:HD11  | 1:C:596:SER:HB3  | 1.81                     | 0.62              |
| 1:A:379:CYS:SG    | 1:A:380:TYR:N    | 2.73                     | 0.62              |
| 1:A:273:ARG:HE    | 1:A:292:ALA:HB3  | 1.65                     | 0.62              |
| 1:B:1107:ARG:HH11 | 1:C:904:TYR:HD1  | 1.47                     | 0.62              |
| 1:C:596:SER:HB2   | 1:C:611:LEU:HB3  | 1.82                     | 0.62              |
| 1:C:896:ILE:HD12  | 1:C:897:PRO:HD2  | 1.81                     | 0.62              |
| 1:A:776:LYS:NZ    | 1:A:780:GLU:OE1  | 2.33                     | 0.62              |
| 1:A:745:ASP:OD1   | 1:C:319:ARG:NH2  | 2.31                     | 0.62              |
| 1:A:708:SER:HB3   | 1:A:711:SER:HB3  | 1.81                     | 0.62              |
| 1:A:1031:GLU:HB3  | 1:A:1037:SER:HB2 | 1.82                     | 0.62              |
| 1:B:594:GLY:HA3   | 1:B:613:GLN:HE21 | 1.64                     | 0.62              |
| 1:C:884:SER:HB3   | 1:C:887:THR:HB   | 1.81                     | 0.62              |
| 1:C:784:GLN:HE21  | 1:C:1029:MET:HG3 | 1.65                     | 0.62              |
| 1:A:104:TRP:H     | 1:A:119:ILE:HB   | 1.64                     | 0.62              |
| 1:A:791:THR:HG21  | 1:A:806:LEU:HD21 | 1.82                     | 0.61              |
| 1:A:418:ILE:HA    | 1:A:422:ASN:HD22 | 1.64                     | 0.61              |
| 1:B:408:ARG:O     | 1:B:408:ARG:NE   | 2.29                     | 0.61              |
| 1:A:326:ILE:HD11  | 1:A:533:LEU:HA   | 1.82                     | 0.61              |
| 1:B:293:LEU:HD23  | 1:B:294:ASP:HB2  | 1.82                     | 0.61              |
| 1:A:896:ILE:HD12  | 1:A:897:PRO:HD2  | 1.81                     | 0.61              |
| 1:A:733:LYS:NZ    | 1:A:862:PRO:O    | 2.33                     | 0.61              |
| 1:B:126:VAL:HB    | 1:B:172:SER:HB3  | 1.82                     | 0.61              |
| 1:A:665:PRO:HB2   | 1:B:864:LEU:HD11 | 1.82                     | 0.61              |
| 1:B:594:GLY:HA3   | 1:B:613:GLN:HE21 | 1.65                     | 0.61              |
| 1:C:394:ASN:HB2   | 1:C:516:GLU:HB3  | 1.81                     | 0.61              |
| 1:B:858:LEU:HD23  | 1:B:959:LEU:HD12 | 1.82                     | 0.61              |
| 1:C:418:ILE:HA    | 1:C:422:ASN:HD22 | 1.66                     | 0.61              |
| 1:A:418:ILE:HA    | 1:A:422:ASN:HD22 | 1.65                     | 0.61              |
| 1:A:869:MET:HB3   | 1:C:699:LEU:HD11 | 1.81                     | 0.61              |
| 1:C:293:LEU:HD23  | 1:C:294:ASP:HB2  | 1.82                     | 0.61              |
| 1:A:819:GLU:HA    | 1:A:822:LEU:HB2  | 1.82                     | 0.61              |
| 1:B:709:ASN:ND2   | 1:C:796:ASP:OD1  | 2.33                     | 0.61              |
| 1:B:362:VAL:HG21  | 1:B:526:GLY:H    | 1.65                     | 0.61              |
| 1:A:770:ILE:O     | 1:A:774:GLN:HB3  | 2.01                     | 0.61              |
| 1:A:1089:PHE:HB3  | 1:B:913:GLN:HE21 | 1.65                     | 0.61              |
| 1:A:997:ILE:O     | 1:A:1001:LEU:HB2 | 2.00                     | 0.61              |
| 1:C:17:ASN:HB2    | 1:C:21:ARG:HD3   | 1.82                     | 0.61              |
| 1:A:596:SER:HB2   | 1:A:611:LEU:HB3  | 1.81                     | 0.61              |
| 1:A:765:ARG:HH22  | 1:C:957:GLN:HG2  | 1.65                     | 0.61              |
| 1:C:596:SER:HB2   | 1:C:611:LEU:HB3  | 1.82                     | 0.61              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:667:GLY:HA2  | 1:B:864:LEU:HA    | 1.82                     | 0.61              |
| 1:B:738:CYS:HB2  | 1:B:763:LEU:HD11  | 1.82                     | 0.61              |
| 1:C:104:TRP:H    | 1:C:119:ILE:HB    | 1.65                     | 0.61              |
| 1:C:1010:GLN:HB2 | 1:C:1014:ARG:HH21 | 1.66                     | 0.61              |
| 1:C:201:PHE:HB3  | 1:C:229:LEU:HB2   | 1.83                     | 0.61              |
| 1:A:120:VAL:HB   | 1:A:127:VAL:HB    | 1.81                     | 0.61              |
| 1:A:758:SER:OG   | 1:C:965:GLN:NE2   | 2.33                     | 0.61              |
| 1:A:201:PHE:HD1  | 1:A:229:LEU:HD13  | 1.65                     | 0.61              |
| 1:B:409:GLN:O    | 1:B:414:GLN:NE2   | 2.31                     | 0.61              |
| 1:C:896:ILE:HD12 | 1:C:897:PRO:HD2   | 1.82                     | 0.61              |
| 1:A:896:ILE:HD12 | 1:A:897:PRO:HD2   | 1.83                     | 0.61              |
| 1:A:965:GLN:HE21 | 1:A:965:GLN:HA    | 1.65                     | 0.61              |
| 1:A:328:ARG:NH1  | 1:A:531:THR:O     | 2.34                     | 0.61              |
| 1:B:362:VAL:HG21 | 1:B:526:GLY:H     | 1.65                     | 0.61              |
| 1:B:858:LEU:HD21 | 1:B:962:LEU:HD23  | 1.82                     | 0.61              |
| 1:C:642:VAL:HG23 | 1:C:651:ILE:HG22  | 1.82                     | 0.61              |
| 1:A:206:LYS:HB2  | 1:A:223:LEU:HA    | 1.82                     | 0.61              |
| 1:B:53:ASP:OD1   | 1:B:54:LEU:N      | 2.32                     | 0.61              |
| 1:A:729:VAL:HG22 | 1:A:1059:GLY:HA2  | 1.82                     | 0.61              |
| 1:B:201:PHE:HB3  | 1:B:229:LEU:HB2   | 1.83                     | 0.61              |
| 1:A:418:ILE:HA   | 1:A:422:ASN:HD22  | 1.63                     | 0.61              |
| 1:C:40:ASP:OD2   | 1:C:41:LYS:N      | 2.33                     | 0.61              |
| 1:A:969:ASN:ND2  | 1:B:755:GLN:OE1   | 2.26                     | 0.61              |
| 1:C:906:PHE:HB3  | 1:C:911:VAL:HB    | 1.83                     | 0.61              |
| 1:B:84:LEU:HD12  | 1:B:85:PRO:HD2    | 1.83                     | 0.61              |
| 1:C:401:VAL:HG22 | 1:C:509:ARG:HG2   | 1.82                     | 0.61              |
| 1:B:905:ARG:NH1  | 1:B:1049:LEU:O    | 2.34                     | 0.61              |
| 1:A:699:LEU:HD11 | 1:B:869:MET:HB3   | 1.83                     | 0.61              |
| 1:A:894:LEU:HD11 | 1:C:715:PRO:HD3   | 1.83                     | 0.61              |
| 1:A:896:ILE:HD12 | 1:A:897:PRO:HD2   | 1.82                     | 0.61              |
| 1:A:418:ILE:HA   | 1:A:422:ASN:HD22  | 1.65                     | 0.61              |
| 1:B:562:PHE:O    | 1:C:41:LYS:NZ     | 2.32                     | 0.61              |
| 1:C:594:GLY:HA3  | 1:C:613:GLN:HE21  | 1.65                     | 0.61              |
| 1:A:730:SER:HA   | 1:A:774:GLN:HE22  | 1.65                     | 0.61              |
| 1:A:866:THR:OG1  | 1:A:869:MET:SD    | 2.56                     | 0.61              |
| 1:B:139:PRO:HG2  | 1:B:245:HIS:HE1   | 1.66                     | 0.61              |
| 1:A:296:LEU:HB2  | 1:A:608:VAL:HG21  | 1.83                     | 0.61              |
| 1:B:905:ARG:NH1  | 1:B:1049:LEU:O    | 2.33                     | 0.61              |
| 1:A:897:PRO:HG2  | 1:A:900:MET:HG2   | 1.81                     | 0.61              |
| 1:C:884:SER:HB3  | 1:C:887:THR:HB    | 1.83                     | 0.61              |
| 1:B:715:PRO:HD3  | 1:C:894:LEU:HD21  | 1.82                     | 0.61              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:457:ARG:NH1   | 1:B:459:SER:O     | 2.34                     | 0.61              |
| 1:B:946:GLY:HA2   | 1:B:949:GLN:HB2   | 1.83                     | 0.61              |
| 1:A:896:ILE:HD12  | 1:A:897:PRO:HD2   | 1.82                     | 0.61              |
| 1:A:185:ASN:ND2   | 1:A:212:LEU:O     | 2.33                     | 0.61              |
| 1:A:731:MET:HB3   | 1:A:774:GLN:HE22  | 1.64                     | 0.61              |
| 1:A:763:LEU:HD22  | 1:A:1004:LEU:HD23 | 1.82                     | 0.61              |
| 1:A:773:GLU:OE1   | 1:A:1019:ARG:NE   | 2.34                     | 0.60              |
| 1:B:357:ARG:HD3   | 1:B:396:TYR:HE1   | 1.64                     | 0.60              |
| 1:A:418:ILE:HA    | 1:A:422:ASN:HD22  | 1.65                     | 0.60              |
| 1:A:418:ILE:HA    | 1:A:422:ASN:HD22  | 1.63                     | 0.60              |
| 1:A:357:ARG:NH2   | 1:A:394:ASN:OD1   | 2.34                     | 0.60              |
| 1:A:894:LEU:HD11  | 1:C:715:PRO:HD3   | 1.83                     | 0.60              |
| 1:A:189:LEU:HD22  | 1:A:210:ILE:HD13  | 1.81                     | 0.60              |
| 1:A:896:ILE:HD12  | 1:A:897:PRO:HD2   | 1.82                     | 0.60              |
| 1:C:563:GLN:O     | 1:C:577:ARG:NH2   | 2.34                     | 0.60              |
| 1:C:197:ILE:HB    | 1:C:202:LYS:HZ1   | 1.65                     | 0.60              |
| 1:C:896:ILE:HD12  | 1:C:897:PRO:HD2   | 1.84                     | 0.60              |
| 1:C:35:GLY:HA3    | 1:C:56:LEU:HB3    | 1.82                     | 0.60              |
| 1:B:668:ALA:H     | 1:C:864:LEU:HA    | 1.64                     | 0.60              |
| 1:C:201:PHE:HB3   | 1:C:229:LEU:HB2   | 1.83                     | 0.60              |
| 1:B:204:TYR:HA    | 1:B:225:PRO:HA    | 1.83                     | 0.60              |
| 1:B:312:ILE:HD13  | 1:B:598:ILE:HG13  | 1.83                     | 0.60              |
| 1:C:596:SER:HB2   | 1:C:611:LEU:HB3   | 1.83                     | 0.60              |
| 1:C:870:ILE:HD12  | 1:C:1055:SER:HB2  | 1.82                     | 0.60              |
| 1:A:418:ILE:HA    | 1:A:422:ASN:HD22  | 1.64                     | 0.60              |
| 1:A:92:PHE:HB2    | 1:A:192:PHE:HB2   | 1.84                     | 0.60              |
| 1:C:958:ALA:HB1   | 1:C:1007:TYR:HE2  | 1.66                     | 0.60              |
| 1:A:1129:VAL:HG12 | 1:B:917:TYR:HB3   | 1.83                     | 0.60              |
| 1:C:825:LYS:NZ    | 1:C:938:LEU:O     | 2.31                     | 0.60              |
| 1:A:826:VAL:HG23  | 1:A:945:LEU:HD22  | 1.82                     | 0.60              |
| 1:A:120:VAL:HB    | 1:A:127:VAL:HB    | 1.83                     | 0.60              |
| 1:A:914:ASN:ND2   | 1:C:1123:SER:OG   | 2.34                     | 0.60              |
| 1:A:869:MET:HG2   | 1:C:699:LEU:HD11  | 1.84                     | 0.60              |
| 1:C:905:ARG:NH1   | 1:C:1049:LEU:O    | 2.34                     | 0.60              |
| 1:C:598:ILE:HB    | 1:C:609:ALA:HB3   | 1.83                     | 0.60              |
| 1:A:729:VAL:HG22  | 1:A:1059:GLY:HA2  | 1.83                     | 0.60              |
| 1:C:1054:GLN:HB2  | 1:C:1061:VAL:HB   | 1.83                     | 0.60              |
| 1:B:394:ASN:ND2   | 1:C:200:TYR:OH    | 2.34                     | 0.60              |
| 1:A:547:THR:HG21  | 1:B:978:ASN:HB2   | 1.84                     | 0.60              |
| 1:C:896:ILE:HD12  | 1:C:897:PRO:HD2   | 1.83                     | 0.60              |
| 1:C:330:PRO:HD3   | 1:C:544:ASN:HD22  | 1.65                     | 0.60              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:396:TYR:HB2  | 1:A:514:SER:HB3   | 1.82                     | 0.60              |
| 1:A:914:ASN:ND2  | 1:C:1123:SER:OG   | 2.34                     | 0.60              |
| 1:A:896:ILE:HD12 | 1:A:897:PRO:HD2   | 1.84                     | 0.60              |
| 1:C:309:GLU:OE1  | 1:C:310:LYS:N     | 2.33                     | 0.60              |
| 1:A:200:TYR:HA   | 1:A:230:PRO:HA    | 1.83                     | 0.60              |
| 1:A:726:ILE:HD13 | 1:A:1061:VAL:HG12 | 1.83                     | 0.60              |
| 1:A:185:ASN:ND2  | 1:A:211:ASN:OD1   | 2.34                     | 0.60              |
| 1:A:729:VAL:HG12 | 1:A:1059:GLY:HA2  | 1.84                     | 0.60              |
| 1:A:383:SER:H    | 1:A:386:LYS:HE3   | 1.66                     | 0.60              |
| 1:A:905:ARG:NH1  | 1:A:1049:LEU:O    | 2.34                     | 0.60              |
| 1:B:715:PRO:HD3  | 1:C:894:LEU:HD21  | 1.83                     | 0.60              |
| 1:A:869:MET:HG2  | 1:C:699:LEU:HD11  | 1.82                     | 0.60              |
| 1:B:715:PRO:HD3  | 1:C:894:LEU:HD21  | 1.82                     | 0.60              |
| 1:B:954:GLN:HB2  | 1:B:1014:ARG:HH12 | 1.67                     | 0.60              |
| 1:C:57:PRO:HG3   | 1:C:273:ARG:HE    | 1.66                     | 0.60              |
| 1:A:742:ILE:HD12 | 1:A:753:LEU:HD21  | 1.83                     | 0.60              |
| 1:B:57:PRO:HG3   | 1:B:273:ARG:HD2   | 1.83                     | 0.60              |
| 1:C:825:LYS:HE3  | 1:C:942:ALA:HA    | 1.83                     | 0.60              |
| 1:C:53:ASP:OD2   | 1:C:54:LEU:N      | 2.34                     | 0.60              |
| 1:A:396:TYR:HB2  | 1:A:514:SER:HB3   | 1.84                     | 0.60              |
| 1:A:896:ILE:HD12 | 1:A:897:PRO:HD2   | 1.84                     | 0.60              |
| 1:C:64:TRP:HE1   | 1:C:214:ARG:HH21  | 1.49                     | 0.60              |
| 1:C:905:ARG:NH1  | 1:C:1049:LEU:O    | 2.34                     | 0.60              |
| 1:C:975:SER:O    | 1:C:1000:ARG:NH2  | 2.35                     | 0.60              |
| 1:B:901:GLN:HE21 | 1:B:905:ARG:HE    | 1.48                     | 0.60              |
| 1:A:106:PHE:HB2  | 1:A:117:LEU:HB3   | 1.84                     | 0.60              |
| 1:A:896:ILE:HD12 | 1:A:897:PRO:HD2   | 1.84                     | 0.60              |
| 1:B:992:GLN:OE1  | 1:B:995:ARG:NH2   | 2.35                     | 0.60              |
| 1:B:24:LEU:HD11  | 1:B:78:ARG:HB3    | 1.84                     | 0.60              |
| 1:C:738:CYS:HB3  | 1:C:763:LEU:HD11  | 1.83                     | 0.60              |
| 1:B:293:LEU:HD23 | 1:B:294:ASP:HB2   | 1.84                     | 0.60              |
| 1:A:189:LEU:HD22 | 1:A:210:ILE:HD13  | 1.82                     | 0.60              |
| 1:A:418:ILE:HA   | 1:A:422:ASN:HD22  | 1.66                     | 0.60              |
| 1:B:741:TYR:HE2  | 1:B:1004:LEU:HB2  | 1.67                     | 0.60              |
| 1:A:323:THR:OG1  | 1:A:324:GLU:OE2   | 2.14                     | 0.60              |
| 1:A:896:ILE:HD12 | 1:A:897:PRO:HD2   | 1.83                     | 0.60              |
| 1:A:206:LYS:HB2  | 1:A:223:LEU:HA    | 1.84                     | 0.60              |
| 1:B:105:ILE:HB   | 1:B:239:GLN:HB2   | 1.84                     | 0.60              |
| 1:C:896:ILE:HD12 | 1:C:897:PRO:HD2   | 1.82                     | 0.60              |
| 1:A:564:GLN:H    | 1:B:43:PHE:HD1    | 1.49                     | 0.60              |
| 1:C:58:PHE:HD2   | 1:C:290:ASP:HB2   | 1.66                     | 0.60              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:984:LEU:HD11  | 1:C:988:GLU:HB2   | 1.84                     | 0.60              |
| 1:A:917:TYR:HB3   | 1:C:1129:VAL:HG22 | 1.83                     | 0.60              |
| 1:B:424:LYS:HD2   | 1:B:463:PRO:HG3   | 1.83                     | 0.60              |
| 1:C:777:ASN:HD21  | 1:C:1019:ARG:HG2  | 1.66                     | 0.60              |
| 1:A:569:ILE:O     | 1:B:964:LYS:NZ    | 2.33                     | 0.60              |
| 1:A:914:ASN:HD21  | 1:C:1121:PHE:HE1  | 1.50                     | 0.60              |
| 1:B:957:GLN:HB3   | 1:C:765:ARG:HH12  | 1.67                     | 0.60              |
| 1:A:394:ASN:HB2   | 1:A:516:GLU:HB3   | 1.84                     | 0.60              |
| 1:B:804:GLN:NE2   | 1:B:935:GLN:OE1   | 2.35                     | 0.60              |
| 1:B:858:LEU:HD23  | 1:B:959:LEU:HD12  | 1.82                     | 0.60              |
| 1:A:917:TYR:HB3   | 1:C:1129:VAL:HG22 | 1.83                     | 0.60              |
| 1:A:869:MET:HG2   | 1:C:699:LEU:HD11  | 1.84                     | 0.60              |
| 1:B:592:PHE:HZ    | 1:C:857:GLY:HA2   | 1.67                     | 0.60              |
| 1:A:770:ILE:HD11  | 1:A:1012:LEU:HD13 | 1.84                     | 0.60              |
| 1:C:1002:GLN:OE1  | 1:C:1005:GLN:NE2  | 2.34                     | 0.60              |
| 1:C:825:LYS:NZ    | 1:C:938:LEU:O     | 2.28                     | 0.60              |
| 1:A:726:ILE:HG13  | 1:A:1061:VAL:HG23 | 1.83                     | 0.60              |
| 1:A:774:GLN:HE21  | 1:A:1018:ILE:HD12 | 1.67                     | 0.60              |
| 1:C:896:ILE:HD12  | 1:C:897:PRO:HD2   | 1.84                     | 0.60              |
| 1:B:293:LEU:HD23  | 1:B:294:ASP:HB2   | 1.83                     | 0.60              |
| 1:B:676:THR:HA    | 1:B:690:GLN:HG2   | 1.84                     | 0.60              |
| 1:B:105:ILE:HB    | 1:B:239:GLN:HB2   | 1.84                     | 0.60              |
| 1:C:206:LYS:HE2   | 1:C:208:THR:HB    | 1.82                     | 0.60              |
| 1:A:784:GLN:HE21  | 1:A:1029:MET:HG3  | 1.67                     | 0.59              |
| 1:A:567:ARG:HG2   | 1:B:42:VAL:HG21   | 1.84                     | 0.59              |
| 1:B:92:PHE:HB3    | 1:B:192:PHE:HB2   | 1.84                     | 0.59              |
| 1:A:230:PRO:HB2   | 1:C:357:ARG:HH12  | 1.67                     | 0.59              |
| 1:B:742:ILE:O     | 1:B:1000:ARG:NH1  | 2.35                     | 0.59              |
| 1:B:763:LEU:HD22  | 1:B:1008:VAL:HG11 | 1.84                     | 0.59              |
| 1:B:1019:ARG:HH21 | 1:B:1023:ASN:HD21 | 1.49                     | 0.59              |
| 1:B:126:VAL:HB    | 1:B:172:SER:HB3   | 1.83                     | 0.59              |
| 1:B:725:GLU:OE2   | 1:B:1064:HIS:NE2  | 2.35                     | 0.59              |
| 1:A:418:ILE:HA    | 1:A:422:ASN:HD22  | 1.65                     | 0.59              |
| 1:A:765:ARG:HD3   | 1:C:957:GLN:OE1   | 2.01                     | 0.59              |
| 1:A:1105:THR:HG23 | 1:A:1111:GLU:H    | 1.67                     | 0.59              |
| 1:A:699:LEU:HD11  | 1:B:869:MET:HB3   | 1.83                     | 0.59              |
| 1:C:401:VAL:HG22  | 1:C:509:ARG:HG2   | 1.84                     | 0.59              |
| 1:C:104:TRP:H     | 1:C:119:ILE:HB    | 1.67                     | 0.59              |
| 1:C:884:SER:HB3   | 1:C:887:THR:HB    | 1.84                     | 0.59              |
| 1:A:727:LEU:HD21  | 1:A:1028:LYS:HD2  | 1.82                     | 0.59              |
| 1:A:1012:LEU:HB3  | 1:C:1013:ILE:HG21 | 1.84                     | 0.59              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:B:310:LYS:HG2  | 1:B:664:ILE:HD11  | 1.84                     | 0.59              |
| 1:C:120:VAL:HB   | 1:C:127:VAL:HB    | 1.85                     | 0.59              |
| 1:C:310:LYS:HG3  | 1:C:600:PRO:HA    | 1.83                     | 0.59              |
| 1:B:866:THR:H    | 1:B:869:MET:HE3   | 1.68                     | 0.59              |
| 1:A:564:GLN:OE1  | 1:A:577:ARG:NH2   | 2.36                     | 0.59              |
| 1:B:417:ASN:O    | 1:B:421:TYR:HB2   | 2.02                     | 0.59              |
| 1:C:616:ASN:OD1  | 1:C:644:GLN:NE2   | 2.35                     | 0.59              |
| 1:B:314:GLN:HE22 | 1:B:594:GLY:HA3   | 1.66                     | 0.59              |
| 1:C:746:SER:O    | 1:C:750:SER:OG    | 2.19                     | 0.59              |
| 1:A:394:ASN:HB2  | 1:A:516:GLU:HB3   | 1.83                     | 0.59              |
| 1:A:206:LYS:HB2  | 1:A:223:LEU:HA    | 1.84                     | 0.59              |
| 1:C:858:LEU:HD13 | 1:C:959:LEU:HD22  | 1.83                     | 0.59              |
| 1:C:896:ILE:HD12 | 1:C:897:PRO:HD2   | 1.84                     | 0.59              |
| 1:B:189:LEU:HD22 | 1:B:210:ILE:HD13  | 1.84                     | 0.59              |
| 1:C:708:SER:HB3  | 1:C:711:SER:HB3   | 1.85                     | 0.59              |
| 1:C:452:LEU:HB3  | 1:C:492:LEU:HD11  | 1.85                     | 0.59              |
| 1:C:971:GLY:O    | 1:C:995:ARG:NH1   | 2.36                     | 0.59              |
| 1:A:357:ARG:NH2  | 1:A:394:ASN:OD1   | 2.36                     | 0.59              |
| 1:C:564:GLN:HA   | 1:C:577:ARG:HD2   | 1.84                     | 0.59              |
| 1:A:917:TYR:HB3  | 1:C:1129:VAL:HG22 | 1.85                     | 0.59              |
| 1:A:185:ASN:ND2  | 1:A:211:ASN:OD1   | 2.36                     | 0.59              |
| 1:A:946:GLY:HA2  | 1:A:949:GLN:HB3   | 1.84                     | 0.59              |
| 1:A:917:TYR:HB3  | 1:C:1129:VAL:HG22 | 1.84                     | 0.59              |
| 1:B:24:LEU:HD11  | 1:B:78:ARG:HB3    | 1.85                     | 0.59              |
| 1:B:54:LEU:HB2   | 1:B:195:LYS:HE2   | 1.83                     | 0.59              |
| 1:B:316:SER:OG   | 1:B:317:ASN:N     | 2.35                     | 0.59              |
| 1:C:983:ARG:HG3  | 1:C:984:LEU:HD23  | 1.83                     | 0.59              |
| 1:C:312:ILE:HD13 | 1:C:598:ILE:HG13  | 1.84                     | 0.59              |
| 1:B:749:CYS:O    | 1:B:753:LEU:HB2   | 2.03                     | 0.59              |
| 1:B:727:LEU:HD21 | 1:B:1028:LYS:HD3  | 1.83                     | 0.59              |
| 1:C:1118:ASP:OD1 | 1:C:1118:ASP:N    | 2.36                     | 0.59              |
| 1:A:293:LEU:HD23 | 1:A:294:ASP:HB2   | 1.82                     | 0.59              |
| 1:A:396:TYR:HB2  | 1:A:514:SER:HB3   | 1.84                     | 0.59              |
| 1:A:727:LEU:HD21 | 1:A:1028:LYS:HD2  | 1.83                     | 0.59              |
| 1:A:858:LEU:HD11 | 1:A:962:LEU:HD22  | 1.84                     | 0.59              |
| 1:B:126:VAL:HB   | 1:B:172:SER:HB3   | 1.85                     | 0.59              |
| 1:A:1010:GLN:OE1 | 1:A:1014:ARG:NH1  | 2.36                     | 0.59              |
| 1:A:997:ILE:O    | 1:A:1001:LEU:HB2  | 2.02                     | 0.59              |
| 1:B:401:VAL:HG22 | 1:B:509:ARG:HG2   | 1.85                     | 0.59              |
| 1:B:596:SER:HB2  | 1:B:611:LEU:HB3   | 1.85                     | 0.59              |
| 1:B:594:GLY:HA3  | 1:B:613:GLN:HE21  | 1.68                     | 0.59              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:108:THR:O     | 1:B:237:ARG:NH2   | 2.35                     | 0.59              |
| 1:A:969:ASN:OD1   | 1:B:755:GLN:NE2   | 2.36                     | 0.59              |
| 1:B:715:PRO:HD3   | 1:C:894:LEU:HD21  | 1.85                     | 0.59              |
| 1:A:727:LEU:HD11  | 1:A:1024:LEU:HD22 | 1.84                     | 0.59              |
| 1:C:1028:LYS:NZ   | 1:C:1042:PHE:O    | 2.36                     | 0.59              |
| 1:C:37:TYR:OH     | 1:C:195:LYS:NZ    | 2.35                     | 0.59              |
| 1:B:729:VAL:O     | 1:B:777:ASN:ND2   | 2.36                     | 0.59              |
| 1:A:1121:PHE:HE1  | 1:B:914:ASN:HD21  | 1.51                     | 0.59              |
| 1:A:108:THR:HA    | 1:A:236:THR:H     | 1.68                     | 0.59              |
| 1:C:596:SER:HB2   | 1:C:611:LEU:HB3   | 1.84                     | 0.59              |
| 1:B:93:ALA:HB3    | 1:B:266:TYR:HB2   | 1.85                     | 0.59              |
| 1:C:128:ILE:HG21  | 1:C:229:LEU:HD21  | 1.83                     | 0.59              |
| 1:B:92:PHE:HE1    | 1:B:94:SER:HB2    | 1.68                     | 0.59              |
| 1:A:201:PHE:HB3   | 1:A:229:LEU:HB2   | 1.83                     | 0.59              |
| 1:A:299:THR:HG22  | 1:A:597:VAL:HG11  | 1.83                     | 0.59              |
| 1:C:329:PHE:H     | 1:C:529:LYS:HD3   | 1.67                     | 0.59              |
| 1:B:777:ASN:HB3   | 1:B:1019:ARG:HH21 | 1.68                     | 0.59              |
| 1:A:774:GLN:HE22  | 1:A:1018:ILE:HD11 | 1.68                     | 0.59              |
| 1:B:87:ASN:OD1    | 1:B:88:ASP:N      | 2.35                     | 0.59              |
| 1:B:901:GLN:HE21  | 1:B:905:ARG:HE    | 1.50                     | 0.59              |
| 1:A:665:PRO:HB2   | 1:B:864:LEU:HD11  | 1.85                     | 0.59              |
| 1:B:353:TRP:HE1   | 1:B:355:ARG:HH21  | 1.51                     | 0.59              |
| 1:C:105:ILE:HG13  | 1:C:241:LEU:HD21  | 1.85                     | 0.59              |
| 1:A:1121:PHE:HE1  | 1:B:914:ASN:HD21  | 1.51                     | 0.59              |
| 1:A:917:TYR:HB3   | 1:C:1129:VAL:HG22 | 1.85                     | 0.59              |
| 1:B:310:LYS:NZ    | 1:B:663:ASP:OD1   | 2.32                     | 0.59              |
| 1:B:24:LEU:HD11   | 1:B:78:ARG:HB3    | 1.85                     | 0.59              |
| 1:A:396:TYR:HB2   | 1:A:514:SER:HB3   | 1.84                     | 0.59              |
| 1:B:396:TYR:HB2   | 1:B:514:SER:HB2   | 1.82                     | 0.59              |
| 1:C:975:SER:O     | 1:C:1000:ARG:NH2  | 2.35                     | 0.59              |
| 1:B:105:ILE:HB    | 1:B:239:GLN:HB2   | 1.84                     | 0.59              |
| 1:B:396:TYR:HB2   | 1:B:514:SER:HB2   | 1.84                     | 0.59              |
| 1:C:273:ARG:HD3   | 1:C:292:ALA:HB3   | 1.85                     | 0.59              |
| 1:A:825:LYS:HB3   | 1:A:945:LEU:HD21  | 1.84                     | 0.58              |
| 1:B:106:PHE:HD2   | 1:B:117:LEU:HD22  | 1.68                     | 0.58              |
| 1:B:1115:ILE:HG22 | 1:B:1137:VAL:HG13 | 1.84                     | 0.58              |
| 1:A:370:ASN:OD1   | 1:C:487:ASN:ND2   | 2.36                     | 0.58              |
| 1:B:896:ILE:HD12  | 1:B:897:PRO:HD2   | 1.85                     | 0.58              |
| 1:B:95:THR:HG22   | 1:B:189:LEU:HD11  | 1.85                     | 0.58              |
| 1:A:969:ASN:HD21  | 1:B:755:GLN:HG2   | 1.68                     | 0.58              |
| 1:B:905:ARG:NH1   | 1:B:1049:LEU:O    | 2.36                     | 0.58              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:992:GLN:HG2   | 1:C:995:ARG:HH21  | 1.68                     | 0.58              |
| 1:C:1019:ARG:O    | 1:C:1023:ASN:ND2  | 2.31                     | 0.58              |
| 1:A:971:GLY:H     | 1:B:755:GLN:HE22  | 1.51                     | 0.58              |
| 1:C:1019:ARG:O    | 1:C:1023:ASN:ND2  | 2.32                     | 0.58              |
| 1:B:557:LYS:NZ    | 1:B:574:ASP:OD2   | 2.37                     | 0.58              |
| 1:C:314:GLN:NE2   | 1:C:316:SER:O     | 2.36                     | 0.58              |
| 1:B:362:VAL:HG21  | 1:B:526:GLY:H     | 1.68                     | 0.58              |
| 1:B:858:LEU:HD23  | 1:B:959:LEU:HD12  | 1.85                     | 0.58              |
| 1:B:332:ILE:HG12  | 1:B:524:VAL:HG13  | 1.85                     | 0.58              |
| 1:A:108:THR:O     | 1:A:237:ARG:NH1   | 2.35                     | 0.58              |
| 1:A:917:TYR:HB3   | 1:C:1129:VAL:HG22 | 1.85                     | 0.58              |
| 1:A:296:LEU:HB2   | 1:A:608:VAL:HG21  | 1.83                     | 0.58              |
| 1:B:48:LEU:HB3    | 1:B:276:LEU:HD11  | 1.85                     | 0.58              |
| 1:C:69:HIS:O      | 1:C:77:LYS:N      | 2.37                     | 0.58              |
| 1:A:1084:ASP:OD2  | 1:A:1086:LYS:NZ   | 2.36                     | 0.58              |
| 1:C:784:GLN:HE21  | 1:C:1029:MET:HG3  | 1.66                     | 0.58              |
| 1:C:108:THR:O     | 1:C:237:ARG:NH2   | 2.36                     | 0.58              |
| 1:C:310:LYS:HG3   | 1:C:600:PRO:HA    | 1.84                     | 0.58              |
| 1:A:185:ASN:ND2   | 1:A:211:ASN:OD1   | 2.36                     | 0.58              |
| 1:C:126:VAL:HG21  | 1:C:226:LEU:HD21  | 1.86                     | 0.58              |
| 1:C:889:GLY:HA3   | 1:C:1034:LEU:HD21 | 1.84                     | 0.58              |
| 1:B:1031:GLU:HG3  | 1:B:1037:SER:HB2  | 1.85                     | 0.58              |
| 1:A:992:GLN:OE1   | 1:A:995:ARG:NH2   | 2.36                     | 0.58              |
| 1:B:747:THR:O     | 1:B:751:ASN:ND2   | 2.36                     | 0.58              |
| 1:A:759:PHE:HA    | 1:A:762:GLN:HG3   | 1.86                     | 0.58              |
| 1:C:401:VAL:HG22  | 1:C:509:ARG:HG2   | 1.85                     | 0.58              |
| 1:A:317:ASN:ND2   | 1:B:737:ASP:OD1   | 2.36                     | 0.58              |
| 1:C:729:VAL:HG21  | 1:C:781:VAL:HG11  | 1.84                     | 0.58              |
| 1:A:726:ILE:HG12  | 1:A:1061:VAL:HG22 | 1.86                     | 0.58              |
| 1:A:866:THR:H     | 1:A:869:MET:HE2   | 1.67                     | 0.58              |
| 1:A:185:ASN:ND2   | 1:A:211:ASN:OD1   | 2.37                     | 0.58              |
| 1:B:896:ILE:HD12  | 1:B:897:PRO:HD2   | 1.86                     | 0.58              |
| 1:A:394:ASN:HB2   | 1:A:516:GLU:HB3   | 1.86                     | 0.58              |
| 1:A:295:PRO:HA    | 1:A:298:GLU:HG2   | 1.85                     | 0.58              |
| 1:A:1019:ARG:NH1  | 1:C:1017:GLU:OE2  | 2.36                     | 0.58              |
| 1:B:328:ARG:NH2   | 1:B:531:THR:O     | 2.36                     | 0.58              |
| 1:B:1010:GLN:HE22 | 1:B:1014:ARG:HE   | 1.52                     | 0.58              |
| 1:B:1118:ASP:OD1  | 1:B:1118:ASP:N    | 2.36                     | 0.58              |
| 1:B:353:TRP:HE1   | 1:B:355:ARG:HH21  | 1.51                     | 0.58              |
| 1:B:742:ILE:O     | 1:B:1000:ARG:NH1  | 2.36                     | 0.58              |
| 1:C:106:PHE:HB2   | 1:C:117:LEU:HB3   | 1.85                     | 0.58              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:31:SER:HB3   | 1:A:34:ARG:HB2    | 1.86                     | 0.58              |
| 1:A:185:ASN:ND2  | 1:A:211:ASN:OD1   | 2.37                     | 0.58              |
| 1:A:896:ILE:HD12 | 1:A:897:PRO:HD2   | 1.85                     | 0.58              |
| 1:A:93:ALA:HB3   | 1:A:266:TYR:HB2   | 1.86                     | 0.58              |
| 1:B:905:ARG:NH1  | 1:B:1049:LEU:O    | 2.36                     | 0.58              |
| 1:B:992:GLN:HE21 | 1:B:995:ARG:HD3   | 1.68                     | 0.58              |
| 1:A:271:GLN:HE22 | 1:A:273:ARG:HD3   | 1.69                     | 0.58              |
| 1:A:761:THR:O    | 1:A:765:ARG:HG2   | 2.03                     | 0.58              |
| 1:A:1091:ARG:NH2 | 1:A:1118:ASP:O    | 2.37                     | 0.58              |
| 1:B:189:LEU:HD22 | 1:B:210:ILE:HD13  | 1.84                     | 0.58              |
| 1:A:291:CYS:HB2  | 1:A:298:GLU:HA    | 1.86                     | 0.58              |
| 1:C:312:ILE:HD11 | 1:C:596:SER:HB3   | 1.85                     | 0.58              |
| 1:A:784:GLN:NE2  | 1:C:1041:ASP:OD2  | 2.36                     | 0.58              |
| 1:B:702:GLU:HG2  | 1:C:788:ILE:HD11  | 1.86                     | 0.58              |
| 1:A:92:PHE:HB2   | 1:A:192:PHE:HB2   | 1.86                     | 0.58              |
| 1:A:567:ARG:HD3  | 1:A:571:ASP:HA    | 1.85                     | 0.58              |
| 1:B:173:GLN:NE2  | 1:B:174:PRO:O     | 2.36                     | 0.58              |
| 1:C:33:THR:OG1   | 1:C:219:GLY:O     | 2.21                     | 0.58              |
| 1:A:878:LEU:HD21 | 1:A:1054:GLN:HE22 | 1.69                     | 0.58              |
| 1:B:858:LEU:HD23 | 1:B:959:LEU:HD12  | 1.84                     | 0.58              |
| 1:C:396:TYR:HB2  | 1:C:514:SER:HB3   | 1.85                     | 0.58              |
| 1:C:473:TYR:H    | 1:C:491:PRO:HD3   | 1.68                     | 0.58              |
| 1:A:1089:PHE:HB3 | 1:B:913:GLN:HE21  | 1.69                     | 0.58              |
| 1:A:1120:THR:OG1 | 1:A:1121:PHE:N    | 2.36                     | 0.58              |
| 1:B:93:ALA:HB3   | 1:B:266:TYR:HB2   | 1.85                     | 0.58              |
| 1:B:815:ARG:HG3  | 1:B:819:GLU:HB2   | 1.86                     | 0.58              |
| 1:B:1028:LYS:NZ  | 1:B:1042:PHE:O    | 2.37                     | 0.58              |
| 1:A:790:LYS:HE2  | 1:C:704:SER:HB2   | 1.86                     | 0.58              |
| 1:B:424:LYS:HD2  | 1:B:463:PRO:HG3   | 1.86                     | 0.58              |
| 1:A:1005:GLN:NE2 | 1:C:1002:GLN:OE1  | 2.37                     | 0.58              |
| 1:B:858:LEU:HD23 | 1:B:959:LEU:HD12  | 1.85                     | 0.58              |
| 1:B:310:LYS:HG2  | 1:B:664:ILE:HD11  | 1.85                     | 0.58              |
| 1:B:784:GLN:HE21 | 1:B:1029:MET:HG3  | 1.69                     | 0.58              |
| 1:B:946:GLY:HA2  | 1:B:949:GLN:HB2   | 1.85                     | 0.58              |
| 1:B:1014:ARG:HA  | 1:B:1017:GLU:HG3  | 1.84                     | 0.58              |
| 1:C:17:ASN:HB2   | 1:C:21:ARG:HD3    | 1.84                     | 0.58              |
| 1:B:141:LEU:HD23 | 1:B:159:VAL:HG21  | 1.85                     | 0.58              |
| 1:A:792:PRO:HG3  | 1:C:707:TYR:HB3   | 1.86                     | 0.58              |
| 1:B:18:PHE:HB2   | 1:B:21:ARG:HB2    | 1.85                     | 0.58              |
| 1:A:569:ILE:O    | 1:B:964:LYS:NZ    | 2.37                     | 0.58              |
| 1:C:1028:LYS:NZ  | 1:C:1042:PHE:O    | 2.37                     | 0.58              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:767:LEU:HA   | 1:A:770:ILE:HD12 | 1.84                     | 0.58              |
| 1:C:984:LEU:HD12 | 1:C:989:ALA:HA   | 1.86                     | 0.58              |
| 1:C:31:SER:HB2   | 1:C:34:ARG:HB2   | 1.85                     | 0.58              |
| 1:C:299:THR:HG22 | 1:C:597:VAL:HG11 | 1.86                     | 0.58              |
| 1:A:394:ASN:HB2  | 1:A:516:GLU:HB3  | 1.85                     | 0.58              |
| 1:C:316:SER:OG   | 1:C:317:ASN:N    | 2.37                     | 0.58              |
| 1:C:337:PRO:HG3  | 1:C:356:LYS:HD3  | 1.86                     | 0.58              |
| 1:A:896:ILE:HD12 | 1:A:897:PRO:HD2  | 1.86                     | 0.58              |
| 1:C:915:VAL:O    | 1:C:919:ASN:ND2  | 2.37                     | 0.57              |
| 1:C:1091:ARG:NH2 | 1:C:1120:THR:O   | 2.37                     | 0.57              |
| 1:A:733:LYS:HD2  | 1:A:771:ALA:HB1  | 1.86                     | 0.57              |
| 1:C:896:ILE:HD12 | 1:C:897:PRO:HD2  | 1.85                     | 0.57              |
| 1:A:735:SER:HB3  | 1:A:861:LEU:HD21 | 1.86                     | 0.57              |
| 1:C:312:ILE:HD11 | 1:C:596:SER:HB3  | 1.85                     | 0.57              |
| 1:B:1028:LYS:NZ  | 1:B:1042:PHE:O   | 2.38                     | 0.57              |
| 1:A:43:PHE:H     | 1:C:566:GLY:HA2  | 1.68                     | 0.57              |
| 1:A:896:ILE:HD12 | 1:A:897:PRO:HD2  | 1.86                     | 0.57              |
| 1:A:185:ASN:ND2  | 1:A:211:ASN:OD1  | 2.36                     | 0.57              |
| 1:B:24:LEU:HD11  | 1:B:78:ARG:HB3   | 1.86                     | 0.57              |
| 1:A:296:LEU:HB2  | 1:A:608:VAL:HG21 | 1.86                     | 0.57              |
| 1:C:328:ARG:HH22 | 1:C:533:LEU:N    | 2.01                     | 0.57              |
| 1:A:1031:GLU:HB3 | 1:A:1037:SER:HB3 | 1.86                     | 0.57              |
| 1:C:887:THR:HG21 | 1:C:894:LEU:HG   | 1.86                     | 0.57              |
| 1:B:896:ILE:HD12 | 1:B:897:PRO:HD2  | 1.86                     | 0.57              |
| 1:B:312:ILE:HD11 | 1:B:596:SER:HB3  | 1.84                     | 0.57              |
| 1:C:984:LEU:HD12 | 1:C:988:GLU:HB2  | 1.84                     | 0.57              |
| 1:B:896:ILE:HD12 | 1:B:897:PRO:HD2  | 1.86                     | 0.57              |
| 1:C:731:MET:HE1  | 1:C:1014:ARG:HB3 | 1.86                     | 0.57              |
| 1:C:784:GLN:HE21 | 1:C:1029:MET:HG3 | 1.68                     | 0.57              |
| 1:C:725:GLU:OE2  | 1:C:1064:HIS:NE2 | 2.38                     | 0.57              |
| 1:B:92:PHE:HB3   | 1:B:192:PHE:HB2  | 1.86                     | 0.57              |
| 1:B:950:ASP:OD2  | 1:B:954:GLN:NE2  | 2.37                     | 0.57              |
| 1:A:596:SER:HB2  | 1:A:611:LEU:HB3  | 1.86                     | 0.57              |
| 1:C:905:ARG:NH1  | 1:C:1049:LEU:O   | 2.37                     | 0.57              |
| 1:B:711:SER:OG   | 1:C:895:GLN:OE1  | 2.22                     | 0.57              |
| 1:C:598:ILE:HB   | 1:C:609:ALA:HB3  | 1.85                     | 0.57              |
| 1:C:126:VAL:H    | 1:C:172:SER:HB3  | 1.69                     | 0.57              |
| 1:A:1089:PHE:HB3 | 1:B:913:GLN:HE21 | 1.69                     | 0.57              |
| 1:B:311:GLY:HA2  | 1:B:664:ILE:HD12 | 1.86                     | 0.57              |
| 1:C:326:ILE:HD12 | 1:C:539:VAL:HG21 | 1.86                     | 0.57              |
| 1:C:555:SER:HB2  | 1:C:586:ASP:HB2  | 1.86                     | 0.57              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:897:PRO:HG2   | 1:A:900:MET:HG2   | 1.87                     | 0.57              |
| 1:B:396:TYR:HB2   | 1:B:514:SER:HB2   | 1.86                     | 0.57              |
| 1:B:732:THR:OG1   | 1:B:955:ASN:ND2   | 2.37                     | 0.57              |
| 1:C:93:ALA:HB3    | 1:C:266:TYR:HB2   | 1.86                     | 0.57              |
| 1:B:314:GLN:HE22  | 1:B:594:GLY:HA3   | 1.68                     | 0.57              |
| 1:A:699:LEU:HB3   | 1:B:788:ILE:HD11  | 1.85                     | 0.57              |
| 1:C:598:ILE:HB    | 1:C:609:ALA:HB3   | 1.86                     | 0.57              |
| 1:A:394:ASN:HB2   | 1:A:516:GLU:HB3   | 1.85                     | 0.57              |
| 1:B:596:SER:HB2   | 1:B:611:LEU:HB3   | 1.87                     | 0.57              |
| 1:C:1051:SER:OG   | 1:C:1064:HIS:ND1  | 2.32                     | 0.57              |
| 1:B:316:SER:OG    | 1:B:317:ASN:N     | 2.38                     | 0.57              |
| 1:B:896:ILE:HD12  | 1:B:897:PRO:HD2   | 1.87                     | 0.57              |
| 1:C:40:ASP:OD1    | 1:C:41:LYS:N      | 2.35                     | 0.57              |
| 1:A:396:TYR:HB2   | 1:A:514:SER:HB3   | 1.84                     | 0.57              |
| 1:A:201:PHE:HB3   | 1:A:229:LEU:HB2   | 1.85                     | 0.57              |
| 1:B:736:VAL:HG22  | 1:B:858:LEU:HG    | 1.86                     | 0.57              |
| 1:C:645:THR:HG23  | 1:C:647:ALA:H     | 1.67                     | 0.57              |
| 1:A:17:ASN:HB2    | 1:A:21:ARG:HD3    | 1.86                     | 0.57              |
| 1:A:726:ILE:HG23  | 1:A:1061:VAL:HG12 | 1.86                     | 0.57              |
| 1:C:312:ILE:HD11  | 1:C:596:SER:HB3   | 1.87                     | 0.57              |
| 1:C:742:ILE:O     | 1:C:1000:ARG:NH1  | 2.37                     | 0.57              |
| 1:C:1105:THR:HG23 | 1:C:1111:GLU:H    | 1.69                     | 0.57              |
| 1:C:598:ILE:HB    | 1:C:609:ALA:HB3   | 1.86                     | 0.57              |
| 1:C:896:ILE:HD12  | 1:C:897:PRO:HD2   | 1.87                     | 0.57              |
| 1:A:790:LYS:NZ    | 1:C:702:GLU:OE1   | 2.37                     | 0.57              |
| 1:B:905:ARG:NH1   | 1:B:1049:LEU:O    | 2.37                     | 0.57              |
| 1:C:726:ILE:HG23  | 1:C:947:LYS:HE2   | 1.85                     | 0.57              |
| 1:A:957:GLN:OE1   | 1:B:765:ARG:NH2   | 2.36                     | 0.57              |
| 1:A:120:VAL:HB    | 1:A:127:VAL:HB    | 1.86                     | 0.57              |
| 1:B:596:SER:HB2   | 1:B:611:LEU:HB3   | 1.86                     | 0.57              |
| 1:A:1006:THR:OG1  | 1:B:1005:GLN:OE1  | 2.21                     | 0.57              |
| 1:C:708:SER:HB3   | 1:C:711:SER:HB3   | 1.87                     | 0.57              |
| 1:C:40:ASP:OD1    | 1:C:41:LYS:N      | 2.36                     | 0.57              |
| 1:A:90:VAL:HG11   | 1:A:238:PHE:HE2   | 1.69                     | 0.57              |
| 1:A:819:GLU:HA    | 1:A:822:LEU:HG    | 1.87                     | 0.57              |
| 1:A:971:GLY:H     | 1:B:755:GLN:HE22  | 1.50                     | 0.57              |
| 1:C:983:ARG:HG3   | 1:C:984:LEU:HD23  | 1.87                     | 0.57              |
| 1:C:394:ASN:HB2   | 1:C:516:GLU:HB3   | 1.87                     | 0.57              |
| 1:A:120:VAL:HB    | 1:A:127:VAL:HB    | 1.86                     | 0.57              |
| 1:C:552:LEU:HB3   | 1:C:585:LEU:HD23  | 1.86                     | 0.57              |
| 1:C:350:VAL:O     | 1:C:466:ARG:NH2   | 2.36                     | 0.57              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:316:SER:OG   | 1:A:317:ASN:N     | 2.37                     | 0.57              |
| 1:B:858:LEU:HD23 | 1:B:959:LEU:HD12  | 1.87                     | 0.57              |
| 1:C:96:GLU:OE1   | 1:C:99:ASN:ND2    | 2.34                     | 0.57              |
| 1:A:901:GLN:OE1  | 1:A:905:ARG:NH2   | 2.37                     | 0.57              |
| 1:B:278:LYS:HD3  | 1:B:287:ASP:HB3   | 1.86                     | 0.57              |
| 1:A:341:VAL:HG11 | 1:A:356:LYS:HG3   | 1.86                     | 0.57              |
| 1:A:796:ASP:OD2  | 1:C:709:ASN:ND2   | 2.36                     | 0.57              |
| 1:B:52:GLN:OE1   | 1:B:274:THR:OG1   | 2.23                     | 0.57              |
| 1:B:773:GLU:OE1  | 1:B:1019:ARG:NE   | 2.38                     | 0.57              |
| 1:C:879:ALA:O    | 1:C:883:THR:OG1   | 2.18                     | 0.57              |
| 1:A:984:LEU:HD11 | 1:A:988:GLU:HB2   | 1.85                     | 0.57              |
| 1:B:715:PRO:HD3  | 1:C:894:LEU:HD21  | 1.87                     | 0.57              |
| 1:A:901:GLN:OE1  | 1:A:905:ARG:NH2   | 2.35                     | 0.57              |
| 1:A:826:VAL:HG22 | 1:A:945:LEU:HD13  | 1.87                     | 0.57              |
| 1:C:401:VAL:HG22 | 1:C:509:ARG:HG2   | 1.87                     | 0.57              |
| 1:B:896:ILE:HD12 | 1:B:897:PRO:HD2   | 1.87                     | 0.57              |
| 1:B:330:PRO:HD3  | 1:B:579:PRO:HB2   | 1.86                     | 0.57              |
| 1:A:108:THR:HA   | 1:A:236:THR:H     | 1.69                     | 0.57              |
| 1:A:784:GLN:HE21 | 1:A:1029:MET:HG3  | 1.68                     | 0.57              |
| 1:A:206:LYS:HB2  | 1:A:223:LEU:HA    | 1.87                     | 0.57              |
| 1:B:715:PRO:HD3  | 1:C:894:LEU:HD21  | 1.86                     | 0.57              |
| 1:A:866:THR:OG1  | 1:A:869:MET:SD    | 2.63                     | 0.57              |
| 1:B:596:SER:HB2  | 1:B:611:LEU:HB3   | 1.86                     | 0.57              |
| 1:C:802:PHE:HB3  | 1:C:806:LEU:HD23  | 1.86                     | 0.57              |
| 1:C:35:GLY:HA3   | 1:C:56:LEU:HB3    | 1.85                     | 0.57              |
| 1:C:742:ILE:O    | 1:C:1000:ARG:NH1  | 2.38                     | 0.57              |
| 1:A:93:ALA:HB3   | 1:A:266:TYR:HB2   | 1.87                     | 0.57              |
| 1:C:896:ILE:HD12 | 1:C:897:PRO:HD2   | 1.85                     | 0.57              |
| 1:A:230:PRO:HB2  | 1:C:357:ARG:HH12  | 1.69                     | 0.57              |
| 1:C:452:LEU:HB3  | 1:C:492:LEU:HD11  | 1.86                     | 0.57              |
| 1:A:1120:THR:OG1 | 1:A:1121:PHE:N    | 2.38                     | 0.57              |
| 1:C:767:LEU:HA   | 1:C:770:ILE:HG22  | 1.86                     | 0.57              |
| 1:A:345:THR:O    | 1:A:509:ARG:NH2   | 2.38                     | 0.57              |
| 1:B:767:LEU:HD21 | 1:B:1008:VAL:HG12 | 1.87                     | 0.57              |
| 1:C:189:LEU:HD22 | 1:C:210:ILE:HD13  | 1.87                     | 0.57              |
| 1:B:856:ASN:HD22 | 1:B:858:LEU:HD13  | 1.68                     | 0.57              |
| 1:B:336:CYS:HB3  | 1:B:358:ILE:HD12  | 1.85                     | 0.57              |
| 1:A:596:SER:HB2  | 1:A:611:LEU:HB3   | 1.86                     | 0.57              |
| 1:B:896:ILE:HD12 | 1:B:897:PRO:HD2   | 1.87                     | 0.57              |
| 1:C:889:GLY:HA3  | 1:C:1034:LEU:HD21 | 1.86                     | 0.57              |
| 1:B:596:SER:HB2  | 1:B:611:LEU:HB3   | 1.87                     | 0.56              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:C:99:ASN:O     | 1:C:102:ARG:NH1   | 2.38                     | 0.56              |
| 1:C:17:ASN:HB2   | 1:C:21:ARG:HD3    | 1.86                     | 0.56              |
| 1:C:34:ARG:HB3   | 1:C:91:TYR:HE1    | 1.68                     | 0.56              |
| 1:C:99:ASN:O     | 1:C:102:ARG:NH1   | 2.38                     | 0.56              |
| 1:C:560:LEU:HD23 | 1:C:562:PHE:H     | 1.70                     | 0.56              |
| 1:B:408:ARG:HD2  | 1:B:409:GLN:HG3   | 1.86                     | 0.56              |
| 1:C:394:ASN:HB2  | 1:C:516:GLU:HB3   | 1.87                     | 0.56              |
| 1:A:826:VAL:HG23 | 1:A:945:LEU:HD22  | 1.87                     | 0.56              |
| 1:C:310:LYS:HG3  | 1:C:600:PRO:HA    | 1.86                     | 0.56              |
| 1:B:316:SER:OG   | 1:B:317:ASN:N     | 2.35                     | 0.56              |
| 1:A:1005:GLN:NE2 | 1:C:1002:GLN:OE1  | 2.31                     | 0.56              |
| 1:B:905:ARG:NH1  | 1:B:1049:LEU:O    | 2.38                     | 0.56              |
| 1:A:567:ARG:HD3  | 1:A:571:ASP:HA    | 1.86                     | 0.56              |
| 1:A:917:TYR:HB3  | 1:C:1129:VAL:HG22 | 1.87                     | 0.56              |
| 1:A:609:ALA:HB2  | 1:A:692:ILE:HG21  | 1.86                     | 0.56              |
| 1:A:1043:CYS:O   | 1:A:1064:HIS:ND1  | 2.38                     | 0.56              |
| 1:A:345:THR:O    | 1:A:509:ARG:NH2   | 2.37                     | 0.56              |
| 1:A:596:SER:HB2  | 1:A:611:LEU:HB3   | 1.85                     | 0.56              |
| 1:C:271:GLN:HG2  | 1:C:272:PRO:HD2   | 1.88                     | 0.56              |
| 1:C:802:PHE:HB3  | 1:C:806:LEU:HD23  | 1.86                     | 0.56              |
| 1:C:326:ILE:HD12 | 1:C:539:VAL:HG21  | 1.87                     | 0.56              |
| 1:A:592:PHE:HZ   | 1:B:857:GLY:HA2   | 1.70                     | 0.56              |
| 1:A:905:ARG:NH1  | 1:A:1049:LEU:O    | 2.37                     | 0.56              |
| 1:B:1028:LYS:NZ  | 1:B:1042:PHE:O    | 2.33                     | 0.56              |
| 1:C:552:LEU:HB3  | 1:C:585:LEU:HD23  | 1.87                     | 0.56              |
| 1:A:473:TYR:H    | 1:A:491:PRO:HD3   | 1.68                     | 0.56              |
| 1:A:396:TYR:HB2  | 1:A:514:SER:HB3   | 1.88                     | 0.56              |
| 1:B:985:ASP:OD1  | 1:B:987:PRO:HD2   | 2.05                     | 0.56              |
| 1:C:675:GLN:OE1  | 1:C:676:THR:N     | 2.39                     | 0.56              |
| 1:B:312:ILE:HD13 | 1:B:598:ILE:HG13  | 1.85                     | 0.56              |
| 1:B:403:ARG:NH2  | 1:B:406:GLU:OE2   | 2.39                     | 0.56              |
| 1:B:971:GLY:HA3  | 1:B:995:ARG:HH22  | 1.69                     | 0.56              |
| 1:A:15:CYS:O     | 1:A:137:ASN:ND2   | 2.39                     | 0.56              |
| 1:C:719:THR:HG23 | 1:C:1070:ALA:HB2  | 1.87                     | 0.56              |
| 1:C:742:ILE:O    | 1:C:1000:ARG:NH1  | 2.38                     | 0.56              |
| 1:B:24:LEU:HD11  | 1:B:78:ARG:HB3    | 1.87                     | 0.56              |
| 1:B:763:LEU:HD22 | 1:B:1004:LEU:HD21 | 1.87                     | 0.56              |
| 1:C:277:LEU:HD11 | 1:C:285:ILE:HG12  | 1.87                     | 0.56              |
| 1:B:594:GLY:HA3  | 1:B:613:GLN:HE21  | 1.69                     | 0.56              |
| 1:A:596:SER:HB2  | 1:A:611:LEU:HB3   | 1.86                     | 0.56              |
| 1:A:92:PHE:HB2   | 1:A:192:PHE:HB2   | 1.88                     | 0.56              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:742:ILE:O    | 1:A:1000:ARG:NH1  | 2.39                     | 0.56              |
| 1:C:858:LEU:HD13 | 1:C:959:LEU:HD22  | 1.87                     | 0.56              |
| 1:A:913:GLN:HE21 | 1:C:1089:PHE:HB3  | 1.70                     | 0.56              |
| 1:C:763:LEU:HD12 | 1:C:1008:VAL:HG11 | 1.87                     | 0.56              |
| 1:B:896:ILE:HD12 | 1:B:897:PRO:HD2   | 1.88                     | 0.56              |
| 1:A:742:ILE:HD12 | 1:A:753:LEU:HD21  | 1.87                     | 0.56              |
| 1:C:316:SER:OG   | 1:C:317:ASN:N     | 2.37                     | 0.56              |
| 1:A:737:ASP:OD2  | 1:C:317:ASN:ND2   | 2.37                     | 0.56              |
| 1:B:952:VAL:HA   | 1:B:955:ASN:HD21  | 1.70                     | 0.56              |
| 1:A:963:VAL:HG21 | 1:C:570:ALA:HB1   | 1.88                     | 0.56              |
| 1:C:302:THR:HG21 | 1:C:315:THR:HB    | 1.88                     | 0.56              |
| 1:A:1017:GLU:OE1 | 1:B:1019:ARG:NH1  | 2.39                     | 0.56              |
| 1:C:93:ALA:HB3   | 1:C:266:TYR:HB2   | 1.86                     | 0.56              |
| 1:A:271:GLN:HG2  | 1:A:272:PRO:HD2   | 1.87                     | 0.56              |
| 1:B:424:LYS:HD2  | 1:B:463:PRO:HG3   | 1.87                     | 0.56              |
| 1:A:200:TYR:HD1  | 1:A:202:LYS:HE3   | 1.70                     | 0.56              |
| 1:B:1118:ASP:N   | 1:B:1118:ASP:OD1  | 2.38                     | 0.56              |
| 1:C:720:ILE:HD11 | 1:C:927:PHE:HB2   | 1.85                     | 0.56              |
| 1:B:185:ASN:ND2  | 1:B:211:ASN:OD1   | 2.39                     | 0.56              |
| 1:B:401:VAL:HG22 | 1:B:509:ARG:HG2   | 1.88                     | 0.56              |
| 1:C:106:PHE:HB2  | 1:C:117:LEU:HB3   | 1.86                     | 0.56              |
| 1:B:53:ASP:OD1   | 1:B:195:LYS:NZ    | 2.38                     | 0.56              |
| 1:A:645:THR:HG23 | 1:A:647:ALA:H     | 1.70                     | 0.56              |
| 1:A:611:LEU:HD12 | 1:A:650:LEU:HD13  | 1.86                     | 0.56              |
| 1:B:709:ASN:OD1  | 1:B:709:ASN:N     | 2.38                     | 0.56              |
| 1:A:312:ILE:HD11 | 1:A:596:SER:HB3   | 1.87                     | 0.56              |
| 1:C:954:GLN:HA   | 1:C:957:GLN:HG3   | 1.87                     | 0.56              |
| 1:A:1121:PHE:HE1 | 1:B:914:ASN:HD21  | 1.52                     | 0.56              |
| 1:C:896:ILE:HD12 | 1:C:897:PRO:HD2   | 1.86                     | 0.56              |
| 1:B:92:PHE:HE1   | 1:B:94:SER:HB2    | 1.70                     | 0.56              |
| 1:C:18:PHE:HB2   | 1:C:21:ARG:HB2    | 1.87                     | 0.56              |
| 1:C:316:SER:OG   | 1:C:317:ASN:N     | 2.39                     | 0.56              |
| 1:A:774:GLN:HA   | 1:A:777:ASN:HD21  | 1.71                     | 0.56              |
| 1:B:552:LEU:HD22 | 1:B:585:LEU:HD12  | 1.86                     | 0.56              |
| 1:C:912:THR:HG22 | 1:C:914:ASN:H     | 1.71                     | 0.56              |
| 1:B:357:ARG:HD3  | 1:B:394:ASN:HD21  | 1.70                     | 0.56              |
| 1:B:589:PRO:HG2  | 1:C:855:PHE:HB3   | 1.88                     | 0.56              |
| 1:C:726:ILE:HD12 | 1:C:1061:VAL:HG22 | 1.88                     | 0.56              |
| 1:B:38:TYR:HE2   | 1:B:224:GLU:HG3   | 1.71                     | 0.56              |
| 1:A:346:ARG:HH12 | 1:A:442:ASP:HA    | 1.70                     | 0.56              |
| 1:C:295:PRO:HG2  | 1:C:608:VAL:HG11  | 1.87                     | 0.56              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:329:PHE:HD2  | 1:A:330:PRO:HD2   | 1.71                     | 0.56              |
| 1:A:31:SER:HB2   | 1:A:34:ARG:HB2    | 1.88                     | 0.56              |
| 1:A:905:ARG:NH1  | 1:A:1049:LEU:O    | 2.37                     | 0.56              |
| 1:C:897:PRO:HG2  | 1:C:900:MET:HB2   | 1.87                     | 0.56              |
| 1:C:452:LEU:HD13 | 1:C:492:LEU:HD21  | 1.88                     | 0.56              |
| 1:A:596:SER:HB2  | 1:A:611:LEU:HB3   | 1.88                     | 0.56              |
| 1:B:38:TYR:HE2   | 1:B:224:GLU:HG3   | 1.71                     | 0.56              |
| 1:A:394:ASN:HB2  | 1:A:516:GLU:HB3   | 1.88                     | 0.56              |
| 1:A:971:GLY:O    | 1:A:995:ARG:NH1   | 2.38                     | 0.56              |
| 1:B:126:VAL:HB   | 1:B:172:SER:HB3   | 1.88                     | 0.56              |
| 1:A:729:VAL:HG11 | 1:A:781:VAL:HG11  | 1.88                     | 0.56              |
| 1:A:296:LEU:HB2  | 1:A:608:VAL:HG21  | 1.87                     | 0.56              |
| 1:B:40:ASP:OD1   | 1:B:41:LYS:N      | 2.38                     | 0.56              |
| 1:C:858:LEU:HD13 | 1:C:959:LEU:HD22  | 1.86                     | 0.56              |
| 1:C:777:ASN:HD21 | 1:C:1019:ARG:HG2  | 1.70                     | 0.56              |
| 1:B:1086:LYS:HE2 | 1:B:1122:VAL:HG21 | 1.87                     | 0.56              |
| 1:B:878:LEU:HD21 | 1:B:1054:GLN:HE22 | 1.71                     | 0.56              |
| 1:C:560:LEU:HD23 | 1:C:562:PHE:H     | 1.70                     | 0.56              |
| 1:A:727:LEU:HD12 | 1:A:1025:ALA:HB2  | 1.88                     | 0.56              |
| 1:A:1006:THR:OG1 | 1:B:1005:GLN:OE1  | 2.23                     | 0.56              |
| 1:B:736:VAL:HG22 | 1:B:858:LEU:HG    | 1.87                     | 0.56              |
| 1:B:316:SER:OG   | 1:B:317:ASN:N     | 2.39                     | 0.56              |
| 1:A:189:LEU:HD23 | 1:A:210:ILE:HD13  | 1.86                     | 0.56              |
| 1:B:535:LYS:NZ   | 1:B:554:GLU:OE2   | 2.38                     | 0.56              |
| 1:B:742:ILE:O    | 1:B:1000:ARG:NH1  | 2.39                     | 0.56              |
| 1:C:896:ILE:HD12 | 1:C:897:PRO:HD2   | 1.86                     | 0.56              |
| 1:A:43:PHE:H     | 1:C:566:GLY:HA2   | 1.71                     | 0.56              |
| 1:A:983:ARG:NH1  | 1:C:429:PHE:O     | 2.39                     | 0.56              |
| 1:C:596:SER:HB2  | 1:C:611:LEU:HB3   | 1.88                     | 0.56              |
| 1:B:896:ILE:HD12 | 1:B:897:PRO:HD2   | 1.88                     | 0.56              |
| 1:C:802:PHE:HE2  | 1:C:882:ILE:HD13  | 1.69                     | 0.56              |
| 1:A:31:SER:HB2   | 1:A:34:ARG:HB2    | 1.88                     | 0.56              |
| 1:A:206:LYS:HB2  | 1:A:223:LEU:HA    | 1.86                     | 0.56              |
| 1:B:1052:PHE:HB2 | 1:B:1063:LEU:HB2  | 1.88                     | 0.56              |
| 1:C:719:THR:HG23 | 1:C:1070:ALA:HB2  | 1.88                     | 0.56              |
| 1:B:905:ARG:NH1  | 1:B:1049:LEU:O    | 2.39                     | 0.56              |
| 1:A:48:LEU:HB3   | 1:A:276:LEU:HD11  | 1.88                     | 0.56              |
| 1:B:535:LYS:NZ   | 1:B:554:GLU:OE2   | 2.39                     | 0.56              |
| 1:B:747:THR:O    | 1:B:751:ASN:ND2   | 2.39                     | 0.56              |
| 1:A:946:GLY:HA2  | 1:A:949:GLN:HB2   | 1.88                     | 0.56              |
| 1:B:201:PHE:HB3  | 1:B:229:LEU:HB2   | 1.88                     | 0.56              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:B:594:GLY:HA3  | 1:B:613:GLN:HE21  | 1.70                     | 0.56              |
| 1:C:896:ILE:HD12 | 1:C:897:PRO:HD2   | 1.88                     | 0.56              |
| 1:A:784:GLN:HG2  | 1:A:1034:LEU:HD11 | 1.88                     | 0.56              |
| 1:C:1002:GLN:O   | 1:C:1005:GLN:NE2  | 2.39                     | 0.56              |
| 1:B:985:ASP:OD1  | 1:B:987:PRO:HD2   | 2.06                     | 0.56              |
| 1:A:185:ASN:ND2  | 1:A:211:ASN:OD1   | 2.39                     | 0.56              |
| 1:A:857:GLY:HA2  | 1:C:592:PHE:HZ    | 1.71                     | 0.56              |
| 1:B:858:LEU:HD23 | 1:B:959:LEU:HD12  | 1.88                     | 0.56              |
| 1:B:914:ASN:ND2  | 1:B:1111:GLU:OE2  | 2.40                     | 0.56              |
| 1:C:330:PRO:O    | 1:C:529:LYS:NZ    | 2.37                     | 0.56              |
| 1:B:24:LEU:HD11  | 1:B:78:ARG:HB3    | 1.88                     | 0.56              |
| 1:A:917:TYR:HB3  | 1:C:1129:VAL:HG22 | 1.88                     | 0.56              |
| 1:C:31:SER:HB3   | 1:C:34:ARG:HB2    | 1.88                     | 0.55              |
| 1:B:1116:THR:OG1 | 1:B:1118:ASP:OD1  | 2.21                     | 0.55              |
| 1:C:201:PHE:HB3  | 1:C:229:LEU:HB2   | 1.88                     | 0.55              |
| 1:B:201:PHE:HB3  | 1:B:229:LEU:HB2   | 1.87                     | 0.55              |
| 1:A:645:THR:HG23 | 1:A:647:ALA:H     | 1.71                     | 0.55              |
| 1:C:914:ASN:OD1  | 1:C:914:ASN:N     | 2.39                     | 0.55              |
| 1:C:92:PHE:HE2   | 1:C:94:SER:HB2    | 1.71                     | 0.55              |
| 1:C:401:VAL:HG22 | 1:C:509:ARG:HG2   | 1.89                     | 0.55              |
| 1:C:806:LEU:HD12 | 1:C:807:PRO:HD2   | 1.88                     | 0.55              |
| 1:C:984:LEU:HB3  | 1:C:988:GLU:HG2   | 1.88                     | 0.55              |
| 1:A:569:ILE:O    | 1:B:964:LYS:NZ    | 2.38                     | 0.55              |
| 1:C:57:PRO:HG3   | 1:C:273:ARG:HG3   | 1.87                     | 0.55              |
| 1:A:185:ASN:ND2  | 1:A:211:ASN:OD1   | 2.39                     | 0.55              |
| 1:A:317:ASN:ND2  | 1:B:737:ASP:OD1   | 2.39                     | 0.55              |
| 1:B:52:GLN:OE1   | 1:B:274:THR:OG1   | 2.21                     | 0.55              |
| 1:B:763:LEU:HD12 | 1:B:1008:VAL:HG11 | 1.88                     | 0.55              |
| 1:C:362:VAL:HG21 | 1:C:524:VAL:HB    | 1.89                     | 0.55              |
| 1:C:722:VAL:HG22 | 1:C:1065:VAL:HG12 | 1.88                     | 0.55              |
| 1:B:396:TYR:HB2  | 1:B:514:SER:HB2   | 1.88                     | 0.55              |
| 1:A:1005:GLN:HA  | 1:A:1008:VAL:HG12 | 1.88                     | 0.55              |
| 1:C:598:ILE:HB   | 1:C:609:ALA:HB3   | 1.88                     | 0.55              |
| 1:A:740:MET:HG3  | 1:C:319:ARG:HH22  | 1.71                     | 0.55              |
| 1:C:57:PRO:HG3   | 1:C:273:ARG:HD2   | 1.88                     | 0.55              |
| 1:B:737:ASP:OD1  | 1:B:737:ASP:N     | 2.36                     | 0.55              |
| 1:B:296:LEU:HB2  | 1:B:608:VAL:HG21  | 1.88                     | 0.55              |
| 1:A:755:GLN:NE2  | 1:C:969:ASN:OD1   | 2.38                     | 0.55              |
| 1:B:332:ILE:HG12 | 1:B:524:VAL:HG13  | 1.88                     | 0.55              |
| 1:A:975:SER:O    | 1:A:1000:ARG:NH2  | 2.40                     | 0.55              |
| 1:B:295:PRO:HA   | 1:B:298:GLU:HG2   | 1.88                     | 0.55              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:902:MET:HB2   | 1:C:916:LEU:HD11  | 1.86                     | 0.55              |
| 1:B:570:ALA:HB1   | 1:C:963:VAL:HG11  | 1.88                     | 0.55              |
| 1:C:316:SER:OG    | 1:C:317:ASN:N     | 2.39                     | 0.55              |
| 1:B:749:CYS:O     | 1:B:753:LEU:HB3   | 2.06                     | 0.55              |
| 1:A:31:SER:HB3    | 1:A:34:ARG:HB2    | 1.89                     | 0.55              |
| 1:A:206:LYS:HB2   | 1:A:223:LEU:HA    | 1.87                     | 0.55              |
| 1:B:139:PRO:HG2   | 1:B:245:HIS:HE1   | 1.72                     | 0.55              |
| 1:C:732:THR:HG23  | 1:C:955:ASN:HD22  | 1.71                     | 0.55              |
| 1:A:51:THR:HG22   | 1:A:277:LEU:HD11  | 1.88                     | 0.55              |
| 1:A:869:MET:HG2   | 1:C:699:LEU:HD21  | 1.88                     | 0.55              |
| 1:B:35:GLY:HA3    | 1:B:56:LEU:HB3    | 1.88                     | 0.55              |
| 1:B:95:THR:HG22   | 1:B:189:LEU:HD11  | 1.88                     | 0.55              |
| 1:B:323:THR:OG1   | 1:B:324:GLU:OE1   | 2.22                     | 0.55              |
| 1:B:1028:LYS:NZ   | 1:B:1042:PHE:O    | 2.35                     | 0.55              |
| 1:A:345:THR:O     | 1:A:509:ARG:NH2   | 2.40                     | 0.55              |
| 1:A:663:ASP:OD2   | 1:A:664:ILE:N     | 2.38                     | 0.55              |
| 1:C:957:GLN:O     | 1:C:961:THR:OG1   | 2.17                     | 0.55              |
| 1:A:735:SER:HB3   | 1:A:861:LEU:HD21  | 1.86                     | 0.55              |
| 1:C:310:LYS:HG3   | 1:C:600:PRO:HA    | 1.88                     | 0.55              |
| 1:C:1118:ASP:OD1  | 1:C:1118:ASP:N    | 2.37                     | 0.55              |
| 1:B:312:ILE:HD13  | 1:B:598:ILE:HG13  | 1.89                     | 0.55              |
| 1:C:905:ARG:HB3   | 1:C:1049:LEU:HD22 | 1.89                     | 0.55              |
| 1:B:411:ALA:HB3   | 1:B:414:GLN:HG2   | 1.89                     | 0.55              |
| 1:A:1121:PHE:HE1  | 1:B:914:ASN:HD21  | 1.55                     | 0.55              |
| 1:B:83:VAL:HG13   | 1:B:239:GLN:HE22  | 1.72                     | 0.55              |
| 1:C:312:ILE:HG22  | 1:C:664:ILE:HD11  | 1.88                     | 0.55              |
| 1:C:568:ASP:OD1   | 1:C:569:ILE:N     | 2.38                     | 0.55              |
| 1:C:914:ASN:ND2   | 1:C:1111:GLU:OE1  | 2.39                     | 0.55              |
| 1:B:1130:ILE:HD11 | 1:C:920:GLN:HE22  | 1.71                     | 0.55              |
| 1:A:879:ALA:O     | 1:A:883:THR:OG1   | 2.23                     | 0.55              |
| 1:C:108:THR:O     | 1:C:237:ARG:NH2   | 2.39                     | 0.55              |
| 1:C:851:CYS:HA    | 1:C:854:LYS:HE3   | 1.89                     | 0.55              |
| 1:B:362:VAL:HG21  | 1:B:526:GLY:H     | 1.71                     | 0.55              |
| 1:A:564:GLN:OE1   | 1:A:577:ARG:NE    | 2.38                     | 0.55              |
| 1:A:905:ARG:NH1   | 1:A:1049:LEU:O    | 2.39                     | 0.55              |
| 1:B:896:ILE:HD12  | 1:B:897:PRO:HD2   | 1.87                     | 0.55              |
| 1:B:314:GLN:HE22  | 1:B:594:GLY:HA3   | 1.72                     | 0.55              |
| 1:A:108:THR:OG1   | 1:A:234:ASN:O     | 2.24                     | 0.55              |
| 1:C:726:ILE:HD11  | 1:C:1061:VAL:HG22 | 1.89                     | 0.55              |
| 1:A:895:GLN:NE2   | 1:C:711:SER:OG    | 2.39                     | 0.55              |
| 1:C:310:LYS:HG2   | 1:C:664:ILE:HD11  | 1.88                     | 0.55              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:108:THR:OG1   | 1:A:234:ASN:O     | 2.24                     | 0.55              |
| 1:A:1013:ILE:HD13 | 1:B:1012:LEU:HD11 | 1.88                     | 0.55              |
| 1:B:53:ASP:OD1    | 1:B:54:LEU:N      | 2.38                     | 0.55              |
| 1:B:1028:LYS:O    | 1:B:1032:CYS:HB2  | 2.06                     | 0.55              |
| 1:A:17:ASN:HB2    | 1:A:21:ARG:HD3    | 1.89                     | 0.55              |
| 1:C:767:LEU:HA    | 1:C:770:ILE:HG22  | 1.88                     | 0.55              |
| 1:B:742:ILE:O     | 1:B:1000:ARG:NH1  | 2.39                     | 0.55              |
| 1:C:552:LEU:HB3   | 1:C:585:LEU:HD23  | 1.89                     | 0.55              |
| 1:C:126:VAL:H     | 1:C:172:SER:HB3   | 1.72                     | 0.55              |
| 1:A:645:THR:HG23  | 1:A:647:ALA:H     | 1.72                     | 0.55              |
| 1:B:310:LYS:HG2   | 1:B:664:ILE:HD11  | 1.88                     | 0.55              |
| 1:A:310:LYS:NZ    | 1:A:663:ASP:OD1   | 2.31                     | 0.55              |
| 1:A:394:ASN:HB2   | 1:A:516:GLU:HB3   | 1.87                     | 0.55              |
| 1:A:296:LEU:HB2   | 1:A:608:VAL:HG21  | 1.87                     | 0.55              |
| 1:A:383:SER:HA    | 1:C:487:ASN:HD22  | 1.72                     | 0.55              |
| 1:C:85:PRO:HA     | 1:C:237:ARG:HG3   | 1.87                     | 0.55              |
| 1:A:676:THR:HA    | 1:A:690:GLN:HG2   | 1.89                     | 0.55              |
| 1:A:93:ALA:HB3    | 1:A:266:TYR:HB2   | 1.88                     | 0.55              |
| 1:A:906:PHE:HB3   | 1:A:911:VAL:HB    | 1.89                     | 0.55              |
| 1:B:48:LEU:O      | 1:B:304:LYS:NZ    | 2.39                     | 0.55              |
| 1:C:299:THR:HG22  | 1:C:597:VAL:HG11  | 1.89                     | 0.55              |
| 1:C:316:SER:OG    | 1:C:317:ASN:N     | 2.40                     | 0.55              |
| 1:B:1052:PHE:HB2  | 1:B:1063:LEU:HB2  | 1.88                     | 0.55              |
| 1:C:729:VAL:HG22  | 1:C:1059:GLY:HA2  | 1.88                     | 0.55              |
| 1:A:819:GLU:HA    | 1:A:822:LEU:HB2   | 1.89                     | 0.55              |
| 1:A:294:ASP:N     | 1:A:294:ASP:OD2   | 2.40                     | 0.55              |
| 1:B:782:PHE:HB3   | 1:B:873:TYR:HD2   | 1.71                     | 0.55              |
| 1:B:731:MET:H     | 1:B:774:GLN:NE2   | 2.05                     | 0.55              |
| 1:A:869:MET:HG2   | 1:C:699:LEU:HD21  | 1.88                     | 0.55              |
| 1:B:896:ILE:HD12  | 1:B:897:PRO:HD2   | 1.87                     | 0.55              |
| 1:B:1019:ARG:NH1  | 1:B:1023:ASN:OD1  | 2.40                     | 0.55              |
| 1:B:715:PRO:HD3   | 1:C:894:LEU:HD21  | 1.88                     | 0.55              |
| 1:B:617:CYS:N     | 1:B:649:CYS:SG    | 2.78                     | 0.55              |
| 1:B:896:ILE:HD12  | 1:B:897:PRO:HD2   | 1.88                     | 0.55              |
| 1:A:733:LYS:HE3   | 1:A:771:ALA:HB1   | 1.88                     | 0.55              |
| 1:A:295:PRO:HG2   | 1:A:608:VAL:HG11  | 1.87                     | 0.55              |
| 1:A:767:LEU:HA    | 1:A:770:ILE:HG22  | 1.88                     | 0.55              |
| 1:B:484:LYS:HD2   | 1:B:490:PHE:HB2   | 1.88                     | 0.55              |
| 1:A:473:TYR:H     | 1:A:491:PRO:HD3   | 1.72                     | 0.55              |
| 1:B:473:TYR:H     | 1:B:491:PRO:HG2   | 1.72                     | 0.55              |
| 1:A:730:SER:HB2   | 1:A:774:GLN:HE21  | 1.72                     | 0.55              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:552:LEU:HB3  | 1:A:585:LEU:HD23  | 1.89                     | 0.55              |
| 1:A:564:GLN:OE1  | 1:A:577:ARG:NH2   | 2.40                     | 0.55              |
| 1:B:185:ASN:ND2  | 1:B:211:ASN:OD1   | 2.36                     | 0.55              |
| 1:B:594:GLY:HA3  | 1:B:613:GLN:HE21  | 1.72                     | 0.55              |
| 1:C:719:THR:HG23 | 1:C:1070:ALA:HB2  | 1.89                     | 0.55              |
| 1:A:295:PRO:HG2  | 1:A:608:VAL:HG11  | 1.88                     | 0.55              |
| 1:A:983:ARG:HD3  | 1:C:430:THR:HG22  | 1.89                     | 0.55              |
| 1:A:749:CYS:HB2  | 1:A:993:ILE:HD11  | 1.88                     | 0.55              |
| 1:B:105:ILE:HB   | 1:B:239:GLN:HB2   | 1.88                     | 0.55              |
| 1:B:596:SER:HB2  | 1:B:611:LEU:HB3   | 1.89                     | 0.55              |
| 1:A:563:GLN:O    | 1:A:577:ARG:NH2   | 2.38                     | 0.55              |
| 1:A:394:ASN:HB2  | 1:A:516:GLU:HB3   | 1.89                     | 0.55              |
| 1:A:975:SER:O    | 1:A:1000:ARG:NH2  | 2.40                     | 0.55              |
| 1:A:92:PHE:HE1   | 1:A:265:TYR:HB2   | 1.70                     | 0.55              |
| 1:A:733:LYS:NZ   | 1:A:862:PRO:O     | 2.40                     | 0.55              |
| 1:C:53:ASP:OD1   | 1:C:54:LEU:N      | 2.38                     | 0.55              |
| 1:A:53:ASP:OD2   | 1:A:54:LEU:N      | 2.40                     | 0.55              |
| 1:A:1052:PHE:HB2 | 1:A:1063:LEU:HB2  | 1.89                     | 0.55              |
| 1:A:130:VAL:HB   | 1:A:168:PHE:HB3   | 1.88                     | 0.55              |
| 1:C:719:THR:HG23 | 1:C:1070:ALA:HB2  | 1.88                     | 0.55              |
| 1:C:726:ILE:HG22 | 1:C:1061:VAL:HG22 | 1.88                     | 0.55              |
| 1:B:104:TRP:HB2  | 1:B:106:PHE:HE1   | 1.72                     | 0.55              |
| 1:C:731:MET:HG2  | 1:C:774:GLN:HE21  | 1.72                     | 0.55              |
| 1:A:185:ASN:ND2  | 1:A:211:ASN:OD1   | 2.40                     | 0.55              |
| 1:B:676:THR:HA   | 1:B:690:GLN:HG2   | 1.89                     | 0.55              |
| 1:A:596:SER:HB2  | 1:A:611:LEU:HB3   | 1.88                     | 0.55              |
| 1:A:983:ARG:HD3  | 1:A:984:LEU:HD23  | 1.89                     | 0.55              |
| 1:B:106:PHE:HB3  | 1:B:235:ILE:HD13  | 1.88                     | 0.55              |
| 1:A:645:THR:HG23 | 1:A:647:ALA:H     | 1.71                     | 0.55              |
| 1:A:913:GLN:HE21 | 1:C:1089:PHE:HB3  | 1.72                     | 0.55              |
| 1:B:396:TYR:HB2  | 1:B:514:SER:HB3   | 1.89                     | 0.55              |
| 1:A:201:PHE:HB3  | 1:A:229:LEU:HB2   | 1.89                     | 0.55              |
| 1:A:1089:PHE:HB3 | 1:B:913:GLN:HE21  | 1.72                     | 0.55              |
| 1:B:328:ARG:NH1  | 1:B:580:GLN:OE1   | 2.40                     | 0.55              |
| 1:C:99:ASN:O     | 1:C:102:ARG:NH1   | 2.35                     | 0.55              |
| 1:B:389:ASP:OD1  | 1:B:389:ASP:N     | 2.40                     | 0.55              |
| 1:A:130:VAL:HB   | 1:A:168:PHE:HB3   | 1.88                     | 0.55              |
| 1:C:954:GLN:HA   | 1:C:957:GLN:HG3   | 1.88                     | 0.55              |
| 1:A:913:GLN:HE22 | 1:C:1090:PRO:HD2  | 1.71                     | 0.55              |
| 1:A:784:GLN:HG2  | 1:A:1034:LEU:HD11 | 1.89                     | 0.55              |
| 1:B:592:PHE:HZ   | 1:C:857:GLY:HA2   | 1.72                     | 0.55              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:C:1015:ALA:O   | 1:C:1019:ARG:HB3  | 2.07                     | 0.55              |
| 1:C:1139:ASP:HB3 | 1:C:1142:GLN:HG2  | 1.89                     | 0.55              |
| 1:A:108:THR:OG1  | 1:A:234:ASN:O     | 2.25                     | 0.54              |
| 1:A:345:THR:O    | 1:A:509:ARG:NH2   | 2.41                     | 0.54              |
| 1:A:592:PHE:HZ   | 1:B:857:GLY:HA2   | 1.72                     | 0.54              |
| 1:A:722:VAL:HG12 | 1:A:930:ALA:HB1   | 1.90                     | 0.54              |
| 1:A:230:PRO:HB2  | 1:C:357:ARG:HH12  | 1.72                     | 0.54              |
| 1:A:975:SER:O    | 1:A:1000:ARG:NH2  | 2.40                     | 0.54              |
| 1:A:866:THR:OG1  | 1:A:869:MET:SD    | 2.62                     | 0.54              |
| 1:B:985:ASP:OD1  | 1:B:987:PRO:HD2   | 2.07                     | 0.54              |
| 1:B:992:GLN:OE1  | 1:B:995:ARG:NH2   | 2.40                     | 0.54              |
| 1:C:394:ASN:HB2  | 1:C:516:GLU:HB3   | 1.89                     | 0.54              |
| 1:C:722:VAL:HG12 | 1:C:930:ALA:HB1   | 1.90                     | 0.54              |
| 1:A:17:ASN:HB2   | 1:A:21:ARG:HD3    | 1.90                     | 0.54              |
| 1:B:337:PRO:HD2  | 1:B:358:ILE:HD13  | 1.88                     | 0.54              |
| 1:A:905:ARG:NH1  | 1:A:1049:LEU:O    | 2.40                     | 0.54              |
| 1:A:100:ILE:HG23 | 1:A:247:SER:HB3   | 1.89                     | 0.54              |
| 1:A:569:ILE:O    | 1:B:964:LYS:NZ    | 2.39                     | 0.54              |
| 1:C:193:VAL:HB   | 1:C:204:TYR:HD2   | 1.71                     | 0.54              |
| 1:C:1049:LEU:HB2 | 1:C:1065:VAL:HG23 | 1.88                     | 0.54              |
| 1:C:126:VAL:HG21 | 1:C:226:LEU:HD21  | 1.88                     | 0.54              |
| 1:A:896:ILE:HD12 | 1:A:897:PRO:HD2   | 1.88                     | 0.54              |
| 1:A:357:ARG:NH2  | 1:A:394:ASN:OD1   | 2.40                     | 0.54              |
| 1:C:105:ILE:HG13 | 1:C:241:LEU:HD21  | 1.90                     | 0.54              |
| 1:C:314:GLN:NE2  | 1:C:316:SER:O     | 2.41                     | 0.54              |
| 1:A:667:GLY:HA2  | 1:B:864:LEU:HA    | 1.88                     | 0.54              |
| 1:C:140:PHE:HA   | 1:C:246:ILE:HG12  | 1.87                     | 0.54              |
| 1:A:1102:TRP:HD1 | 1:A:1135:ASN:HD22 | 1.56                     | 0.54              |
| 1:B:35:GLY:HA3   | 1:B:56:LEU:HB3    | 1.89                     | 0.54              |
| 1:C:802:PHE:HB3  | 1:C:806:LEU:HD23  | 1.89                     | 0.54              |
| 1:B:535:LYS:NZ   | 1:B:554:GLU:OE2   | 2.40                     | 0.54              |
| 1:C:345:THR:O    | 1:C:509:ARG:NH2   | 2.40                     | 0.54              |
| 1:C:126:VAL:HG21 | 1:C:226:LEU:HD21  | 1.89                     | 0.54              |
| 1:C:567:ARG:HD3  | 1:C:571:ASP:HA    | 1.89                     | 0.54              |
| 1:C:596:SER:HB2  | 1:C:611:LEU:HB3   | 1.89                     | 0.54              |
| 1:B:709:ASN:ND2  | 1:C:796:ASP:OD2   | 2.35                     | 0.54              |
| 1:C:596:SER:HB2  | 1:C:611:LEU:HB3   | 1.89                     | 0.54              |
| 1:C:731:MET:HB3  | 1:C:774:GLN:HE22  | 1.71                     | 0.54              |
| 1:A:1052:PHE:HB2 | 1:A:1063:LEU:HB2  | 1.90                     | 0.54              |
| 1:A:971:GLY:O    | 1:A:995:ARG:NH1   | 2.38                     | 0.54              |
| 1:B:592:PHE:HZ   | 1:C:857:GLY:HA2   | 1.71                     | 0.54              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:1012:LEU:HB3 | 1:C:1013:ILE:HG21 | 1.89                     | 0.54              |
| 1:A:130:VAL:HB   | 1:A:168:PHE:HB3   | 1.90                     | 0.54              |
| 1:B:332:ILE:HG12 | 1:B:524:VAL:HG13  | 1.90                     | 0.54              |
| 1:A:383:SER:HB2  | 1:A:386:LYS:HG2   | 1.88                     | 0.54              |
| 1:C:729:VAL:HG12 | 1:C:1059:GLY:HA2  | 1.89                     | 0.54              |
| 1:A:735:SER:HA   | 1:A:767:LEU:HD23  | 1.90                     | 0.54              |
| 1:A:644:GLN:NE2  | 1:A:645:THR:O     | 2.39                     | 0.54              |
| 1:A:560:LEU:HB2  | 1:A:563:GLN:HG3   | 1.89                     | 0.54              |
| 1:A:197:ILE:HB   | 1:A:202:LYS:HZ1   | 1.72                     | 0.54              |
| 1:B:707:TYR:HD2  | 1:C:792:PRO:HG3   | 1.72                     | 0.54              |
| 1:A:784:GLN:HG2  | 1:A:1034:LEU:HD21 | 1.89                     | 0.54              |
| 1:C:1010:GLN:OE1 | 1:C:1014:ARG:NH2  | 2.40                     | 0.54              |
| 1:B:312:ILE:HD11 | 1:B:596:SER:HB2   | 1.90                     | 0.54              |
| 1:C:1002:GLN:O   | 1:C:1005:GLN:NE2  | 2.40                     | 0.54              |
| 1:A:983:ARG:HG3  | 1:A:984:LEU:HD23  | 1.90                     | 0.54              |
| 1:A:902:MET:HE1  | 1:A:1049:LEU:HD13 | 1.88                     | 0.54              |
| 1:A:909:ILE:O    | 1:A:1108:ASN:ND2  | 2.41                     | 0.54              |
| 1:B:858:LEU:HD23 | 1:B:959:LEU:HD12  | 1.90                     | 0.54              |
| 1:C:802:PHE:HE2  | 1:C:882:ILE:HD12  | 1.73                     | 0.54              |
| 1:B:58:PHE:HB2   | 1:B:293:LEU:HD22  | 1.87                     | 0.54              |
| 1:C:326:ILE:HG23 | 1:C:328:ARG:HE    | 1.72                     | 0.54              |
| 1:C:452:LEU:HD23 | 1:C:492:LEU:HB3   | 1.90                     | 0.54              |
| 1:B:907:ASN:OD1  | 1:B:913:GLN:NE2   | 2.40                     | 0.54              |
| 1:B:1039:ARG:NE  | 1:C:1031:GLU:OE2  | 2.34                     | 0.54              |
| 1:B:452:LEU:HD22 | 1:B:492:LEU:HD11  | 1.88                     | 0.54              |
| 1:C:108:THR:O    | 1:C:237:ARG:NH2   | 2.41                     | 0.54              |
| 1:C:190:ARG:NH2  | 1:C:205:SER:OG    | 2.40                     | 0.54              |
| 1:A:1054:GLN:HB2 | 1:A:1061:VAL:HG22 | 1.90                     | 0.54              |
| 1:C:984:LEU:HD13 | 1:C:988:GLU:HG2   | 1.90                     | 0.54              |
| 1:B:896:ILE:HD12 | 1:B:897:PRO:HD2   | 1.88                     | 0.54              |
| 1:C:555:SER:HB3  | 1:C:586:ASP:HB2   | 1.89                     | 0.54              |
| 1:B:901:GLN:HE21 | 1:B:905:ARG:HE    | 1.53                     | 0.54              |
| 1:A:345:THR:O    | 1:A:509:ARG:NH2   | 2.41                     | 0.54              |
| 1:A:971:GLY:H    | 1:B:755:GLN:NE2   | 2.05                     | 0.54              |
| 1:C:396:TYR:HB2  | 1:C:514:SER:HB2   | 1.89                     | 0.54              |
| 1:B:401:VAL:HG22 | 1:B:509:ARG:HG2   | 1.90                     | 0.54              |
| 1:C:763:LEU:HD22 | 1:C:1008:VAL:HG11 | 1.89                     | 0.54              |
| 1:A:645:THR:HG23 | 1:A:647:ALA:H     | 1.73                     | 0.54              |
| 1:A:869:MET:HG2  | 1:C:699:LEU:HD11  | 1.90                     | 0.54              |
| 1:C:206:LYS:HB2  | 1:C:223:LEU:HA    | 1.89                     | 0.54              |
| 1:B:973:ILE:HD13 | 1:B:983:ARG:HH12  | 1.72                     | 0.54              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:C:596:SER:HB2  | 1:C:611:LEU:HB3   | 1.90                     | 0.54              |
| 1:C:193:VAL:HB   | 1:C:204:TYR:HB2   | 1.88                     | 0.54              |
| 1:B:535:LYS:NZ   | 1:B:554:GLU:OE2   | 2.40                     | 0.54              |
| 1:C:767:LEU:HA   | 1:C:770:ILE:HG22  | 1.90                     | 0.54              |
| 1:B:912:THR:HG22 | 1:B:914:ASN:H     | 1.73                     | 0.54              |
| 1:C:851:CYS:HA   | 1:C:854:LYS:HE3   | 1.89                     | 0.54              |
| 1:C:591:SER:HB3  | 1:C:615:VAL:HG12  | 1.88                     | 0.54              |
| 1:A:917:TYR:HB3  | 1:C:1129:VAL:HG22 | 1.89                     | 0.54              |
| 1:C:108:THR:O    | 1:C:237:ARG:NH2   | 2.40                     | 0.54              |
| 1:C:401:VAL:HG22 | 1:C:509:ARG:HG2   | 1.88                     | 0.54              |
| 1:C:1010:GLN:HB3 | 1:C:1014:ARG:HH21 | 1.72                     | 0.54              |
| 1:B:474:GLN:HG3  | 1:B:479:PRO:HA    | 1.89                     | 0.54              |
| 1:C:915:VAL:HG11 | 1:C:1108:ASN:HB2  | 1.90                     | 0.54              |
| 1:C:1118:ASP:OD1 | 1:C:1118:ASP:N    | 2.38                     | 0.54              |
| 1:A:666:ILE:HG12 | 1:A:671:CYS:HA    | 1.90                     | 0.54              |
| 1:A:912:THR:H    | 1:A:1106:GLN:HE22 | 1.55                     | 0.54              |
| 1:B:749:CYS:O    | 1:B:753:LEU:CB    | 2.55                     | 0.54              |
| 1:A:676:THR:HA   | 1:A:690:GLN:HG2   | 1.89                     | 0.54              |
| 1:A:1005:GLN:NE2 | 1:C:1002:GLN:OE1  | 2.37                     | 0.54              |
| 1:A:93:ALA:HB3   | 1:A:266:TYR:HB2   | 1.90                     | 0.54              |
| 1:A:733:LYS:HE3  | 1:A:771:ALA:HB1   | 1.89                     | 0.54              |
| 1:C:850:ILE:HG22 | 1:C:854:LYS:HE2   | 1.90                     | 0.54              |
| 1:C:1102:TRP:HB2 | 1:C:1135:ASN:HD22 | 1.73                     | 0.54              |
| 1:B:722:VAL:HG12 | 1:B:930:ALA:HB1   | 1.90                     | 0.54              |
| 1:B:293:LEU:HD23 | 1:B:294:ASP:HB2   | 1.88                     | 0.54              |
| 1:B:676:THR:HA   | 1:B:690:GLN:HG2   | 1.88                     | 0.54              |
| 1:B:1116:THR:OG1 | 1:B:1118:ASP:OD1  | 2.24                     | 0.54              |
| 1:A:765:ARG:NH1  | 1:C:957:GLN:OE1   | 2.40                     | 0.54              |
| 1:A:914:ASN:OD1  | 1:C:1123:SER:OG   | 2.18                     | 0.54              |
| 1:B:433:VAL:HA   | 1:B:512:VAL:HG12  | 1.89                     | 0.54              |
| 1:B:466:ARG:HH22 | 1:C:233:ILE:HG22  | 1.73                     | 0.54              |
| 1:B:956:ALA:O    | 1:B:960:ASN:HB2   | 2.07                     | 0.54              |
| 1:B:616:ASN:OD1  | 1:B:644:GLN:NE2   | 2.41                     | 0.54              |
| 1:B:736:VAL:HG22 | 1:B:858:LEU:HG    | 1.90                     | 0.54              |
| 1:C:473:TYR:H    | 1:C:491:PRO:HD3   | 1.72                     | 0.54              |
| 1:C:773:GLU:HA   | 1:C:776:LYS:HE3   | 1.89                     | 0.54              |
| 1:A:33:THR:OG1   | 1:A:219:GLY:O     | 2.22                     | 0.54              |
| 1:B:971:GLY:H    | 1:C:755:GLN:HE22  | 1.56                     | 0.54              |
| 1:B:796:ASP:N    | 1:B:796:ASP:OD2   | 2.40                     | 0.54              |
| 1:C:314:GLN:NE2  | 1:C:595:VAL:O     | 2.41                     | 0.54              |
| 1:C:902:MET:HB2  | 1:C:916:LEU:HD21  | 1.89                     | 0.54              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:C:742:ILE:O     | 1:C:1000:ARG:NH1 | 2.41                     | 0.54              |
| 1:C:40:ASP:OD2    | 1:C:41:LYS:N     | 2.39                     | 0.54              |
| 1:A:291:CYS:HB2   | 1:A:298:GLU:HA   | 1.90                     | 0.54              |
| 1:A:328:ARG:NH1   | 1:A:531:THR:O    | 2.41                     | 0.54              |
| 1:B:898:PHE:HA    | 1:B:901:GLN:HB3  | 1.89                     | 0.54              |
| 1:B:617:CYS:N     | 1:B:649:CYS:SG   | 2.80                     | 0.54              |
| 1:B:293:LEU:HD23  | 1:B:294:ASP:HB2  | 1.89                     | 0.54              |
| 1:A:104:TRP:H     | 1:A:119:ILE:HB   | 1.73                     | 0.54              |
| 1:A:278:LYS:NZ    | 1:A:287:ASP:OD2  | 2.37                     | 0.54              |
| 1:A:739:THR:HA    | 1:A:753:LEU:HD11 | 1.89                     | 0.54              |
| 1:A:729:VAL:HG22  | 1:A:1059:GLY:HA2 | 1.89                     | 0.54              |
| 1:B:758:SER:O     | 1:B:761:THR:OG1  | 2.23                     | 0.54              |
| 1:A:31:SER:HB2    | 1:A:34:ARG:HB2   | 1.90                     | 0.54              |
| 1:A:894:LEU:HD21  | 1:C:715:PRO:HD3  | 1.90                     | 0.54              |
| 1:A:108:THR:OG1   | 1:A:234:ASN:O    | 2.25                     | 0.54              |
| 1:B:277:LEU:HD22  | 1:B:285:ILE:HD13 | 1.90                     | 0.54              |
| 1:B:931:ILE:HA    | 1:B:934:ILE:HG22 | 1.90                     | 0.54              |
| 1:C:117:LEU:HB2   | 1:C:233:ILE:HD11 | 1.89                     | 0.54              |
| 1:C:902:MET:HB2   | 1:C:916:LEU:HD21 | 1.90                     | 0.54              |
| 1:A:896:ILE:HD12  | 1:A:897:PRO:HD2  | 1.90                     | 0.54              |
| 1:A:1028:LYS:NZ   | 1:A:1042:PHE:O   | 2.41                     | 0.54              |
| 1:B:417:ASN:O     | 1:B:421:TYR:HB2  | 2.08                     | 0.54              |
| 1:C:599:THR:HG22  | 1:C:608:VAL:HA   | 1.90                     | 0.54              |
| 1:B:38:TYR:HE2    | 1:B:224:GLU:HG3  | 1.72                     | 0.54              |
| 1:C:719:THR:HG23  | 1:C:1070:ALA:HB2 | 1.90                     | 0.54              |
| 1:C:293:LEU:HD23  | 1:C:294:ASP:HB2  | 1.90                     | 0.54              |
| 1:C:737:ASP:OD1   | 1:C:740:MET:N    | 2.25                     | 0.54              |
| 1:C:796:ASP:OD1   | 1:C:796:ASP:N    | 2.40                     | 0.54              |
| 1:B:762:GLN:HG3   | 1:B:765:ARG:HH22 | 1.73                     | 0.54              |
| 1:C:596:SER:HB2   | 1:C:611:LEU:HB3  | 1.89                     | 0.54              |
| 1:B:312:ILE:HD13  | 1:B:598:ILE:HG13 | 1.90                     | 0.54              |
| 1:C:108:THR:O     | 1:C:237:ARG:NH2  | 2.41                     | 0.54              |
| 1:A:53:ASP:OD2    | 1:A:54:LEU:N     | 2.40                     | 0.54              |
| 1:C:345:THR:O     | 1:C:509:ARG:NH2  | 2.41                     | 0.54              |
| 1:C:326:ILE:HD12  | 1:C:539:VAL:HG21 | 1.90                     | 0.54              |
| 1:A:289:VAL:HG11  | 1:A:300:LYS:HD2  | 1.88                     | 0.54              |
| 1:B:328:ARG:HH12  | 1:B:533:LEU:HD22 | 1.72                     | 0.54              |
| 1:A:1013:ILE:HG21 | 1:B:1012:LEU:HB3 | 1.90                     | 0.54              |
| 1:A:108:THR:OG1   | 1:A:234:ASN:O    | 2.26                     | 0.54              |
| 1:B:905:ARG:NH1   | 1:B:1049:LEU:O   | 2.41                     | 0.54              |
| 1:C:185:ASN:ND2   | 1:C:211:ASN:OD1  | 2.41                     | 0.54              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:473:TYR:H    | 1:A:491:PRO:HD3  | 1.72                     | 0.54              |
| 1:B:773:GLU:OE2  | 1:B:1019:ARG:NH2 | 2.40                     | 0.54              |
| 1:C:401:VAL:HG22 | 1:C:509:ARG:HG2  | 1.89                     | 0.54              |
| 1:A:825:LYS:NZ   | 1:A:938:LEU:O    | 2.32                     | 0.54              |
| 1:A:971:GLY:O    | 1:A:995:ARG:NH1  | 2.41                     | 0.54              |
| 1:B:720:ILE:HG22 | 1:B:926:GLN:HB3  | 1.90                     | 0.54              |
| 1:C:902:MET:HB2  | 1:C:916:LEU:HD21 | 1.89                     | 0.54              |
| 1:A:296:LEU:HB2  | 1:A:608:VAL:HG21 | 1.88                     | 0.54              |
| 1:C:394:ASN:HB2  | 1:C:516:GLU:HB3  | 1.89                     | 0.54              |
| 1:A:983:ARG:HG3  | 1:A:984:LEU:HD23 | 1.90                     | 0.54              |
| 1:A:866:THR:H    | 1:A:869:MET:HE2  | 1.73                     | 0.54              |
| 1:B:93:ALA:HB3   | 1:B:266:TYR:HB2  | 1.89                     | 0.54              |
| 1:C:328:ARG:HE   | 1:C:580:GLN:HE21 | 1.56                     | 0.54              |
| 1:A:96:GLU:OE1   | 1:A:99:ASN:ND2   | 2.36                     | 0.53              |
| 1:A:770:ILE:O    | 1:A:774:GLN:HB2  | 2.08                     | 0.53              |
| 1:B:311:GLY:HA2  | 1:B:664:ILE:HD12 | 1.89                     | 0.53              |
| 1:C:316:SER:OG   | 1:C:317:ASN:N    | 2.41                     | 0.53              |
| 1:C:1002:GLN:HA  | 1:C:1005:GLN:HG3 | 1.89                     | 0.53              |
| 1:B:915:VAL:O    | 1:B:919:ASN:HB2  | 2.08                     | 0.53              |
| 1:B:742:ILE:O    | 1:B:1000:ARG:NH1 | 2.42                     | 0.53              |
| 1:A:329:PHE:HD2  | 1:A:528:LYS:HB3  | 1.71                     | 0.53              |
| 1:B:896:ILE:HD12 | 1:B:897:PRO:HD2  | 1.88                     | 0.53              |
| 1:C:813:SER:OG   | 1:C:868:GLU:OE2  | 2.26                     | 0.53              |
| 1:C:18:PHE:HB2   | 1:C:21:ARG:HB2   | 1.89                     | 0.53              |
| 1:C:819:GLU:HA   | 1:C:822:LEU:HG   | 1.89                     | 0.53              |
| 1:B:596:SER:HB2  | 1:B:611:LEU:HB3  | 1.90                     | 0.53              |
| 1:A:476:GLY:H    | 1:A:487:ASN:HB3  | 1.73                     | 0.53              |
| 1:C:546:LEU:HD11 | 1:C:576:VAL:HG11 | 1.88                     | 0.53              |
| 1:C:120:VAL:HB   | 1:C:127:VAL:HB   | 1.90                     | 0.53              |
| 1:C:596:SER:HB2  | 1:C:611:LEU:HB3  | 1.89                     | 0.53              |
| 1:C:396:TYR:HB2  | 1:C:514:SER:HB2  | 1.89                     | 0.53              |
| 1:C:718:PHE:HB2  | 1:C:1067:TYR:HE1 | 1.73                     | 0.53              |
| 1:B:37:TYR:OH    | 1:B:195:LYS:NZ   | 2.37                     | 0.53              |
| 1:B:1118:ASP:OD2 | 1:B:1118:ASP:N   | 2.38                     | 0.53              |
| 1:B:822:LEU:HD23 | 1:B:1056:ALA:HB2 | 1.90                     | 0.53              |
| 1:C:310:LYS:HG3  | 1:C:600:PRO:HA   | 1.91                     | 0.53              |
| 1:C:909:ILE:HG13 | 1:C:911:VAL:HG23 | 1.91                     | 0.53              |
| 1:C:858:LEU:HD13 | 1:C:959:LEU:HD22 | 1.89                     | 0.53              |
| 1:B:905:ARG:NH1  | 1:B:1049:LEU:O   | 2.41                     | 0.53              |
| 1:B:736:VAL:HG22 | 1:B:858:LEU:HG   | 1.89                     | 0.53              |
| 1:B:850:ILE:HG23 | 1:B:860:VAL:HG11 | 1.90                     | 0.53              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:314:GLN:NE2  | 1:A:595:VAL:O     | 2.41                     | 0.53              |
| 1:A:776:LYS:NZ   | 1:A:780:GLU:OE1   | 2.42                     | 0.53              |
| 1:B:896:ILE:HD12 | 1:B:897:PRO:HD2   | 1.90                     | 0.53              |
| 1:B:906:PHE:HB3  | 1:B:911:VAL:HB    | 1.90                     | 0.53              |
| 1:B:905:ARG:NH1  | 1:B:1049:LEU:O    | 2.42                     | 0.53              |
| 1:A:733:LYS:HE3  | 1:A:771:ALA:HB1   | 1.90                     | 0.53              |
| 1:A:1030:SER:HA  | 1:A:1034:LEU:HD23 | 1.90                     | 0.53              |
| 1:A:108:THR:OG1  | 1:A:234:ASN:O     | 2.26                     | 0.53              |
| 1:A:120:VAL:HB   | 1:A:127:VAL:HB    | 1.89                     | 0.53              |
| 1:C:31:SER:HB3   | 1:C:34:ARG:HB2    | 1.90                     | 0.53              |
| 1:B:1139:ASP:HB3 | 1:B:1142:GLN:HG2  | 1.90                     | 0.53              |
| 1:C:889:GLY:HA3  | 1:C:1034:LEU:HD21 | 1.89                     | 0.53              |
| 1:A:87:ASN:OD1   | 1:A:87:ASN:N      | 2.41                     | 0.53              |
| 1:A:1120:THR:OG1 | 1:A:1121:PHE:N    | 2.41                     | 0.53              |
| 1:B:35:GLY:HA3   | 1:B:56:LEU:HB3    | 1.90                     | 0.53              |
| 1:C:120:VAL:HB   | 1:C:127:VAL:HB    | 1.90                     | 0.53              |
| 1:C:598:ILE:HB   | 1:C:609:ALA:HB3   | 1.90                     | 0.53              |
| 1:A:473:TYR:H    | 1:A:491:PRO:HD3   | 1.73                     | 0.53              |
| 1:B:119:ILE:HG12 | 1:B:128:ILE:HD12  | 1.91                     | 0.53              |
| 1:C:850:ILE:HG22 | 1:C:854:LYS:HE2   | 1.90                     | 0.53              |
| 1:C:953:ASN:O    | 1:C:957:GLN:HB2   | 2.08                     | 0.53              |
| 1:A:1035:GLY:HA3 | 1:C:1040:VAL:HG21 | 1.91                     | 0.53              |
| 1:B:985:ASP:OD1  | 1:B:987:PRO:HD2   | 2.08                     | 0.53              |
| 1:A:742:ILE:O    | 1:A:1000:ARG:NH1  | 2.39                     | 0.53              |
| 1:C:401:VAL:HG22 | 1:C:509:ARG:HG2   | 1.89                     | 0.53              |
| 1:C:1118:ASP:OD1 | 1:C:1118:ASP:N    | 2.37                     | 0.53              |
| 1:A:741:TYR:HE1  | 1:A:1004:LEU:HD13 | 1.73                     | 0.53              |
| 1:B:117:LEU:HD11 | 1:B:233:ILE:HD11  | 1.91                     | 0.53              |
| 1:A:92:PHE:HE2   | 1:A:265:TYR:HB2   | 1.73                     | 0.53              |
| 1:A:96:GLU:OE1   | 1:A:99:ASN:ND2    | 2.34                     | 0.53              |
| 1:C:616:ASN:HA   | 1:C:644:GLN:HE22  | 1.73                     | 0.53              |
| 1:B:979:ASP:N    | 1:B:979:ASP:OD1   | 2.41                     | 0.53              |
| 1:B:311:GLY:HA2  | 1:B:664:ILE:HD12  | 1.90                     | 0.53              |
| 1:B:1120:THR:OG1 | 1:B:1121:PHE:N    | 2.41                     | 0.53              |
| 1:C:1139:ASP:HB3 | 1:C:1142:GLN:HG2  | 1.89                     | 0.53              |
| 1:A:323:THR:OG1  | 1:A:324:GLU:OE2   | 2.27                     | 0.53              |
| 1:A:345:THR:O    | 1:A:509:ARG:NH2   | 2.42                     | 0.53              |
| 1:B:24:LEU:HD11  | 1:B:78:ARG:HB3    | 1.90                     | 0.53              |
| 1:B:121:ASN:ND2  | 1:B:177:MET:SD    | 2.81                     | 0.53              |
| 1:B:484:LYS:HD2  | 1:B:490:PHE:HB2   | 1.90                     | 0.53              |
| 1:C:102:ARG:NH1  | 1:C:121:ASN:O     | 2.41                     | 0.53              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:B:394:ASN:OD1  | 1:B:394:ASN:N     | 2.41                     | 0.53              |
| 1:B:1054:GLN:HB2 | 1:B:1061:VAL:HG13 | 1.91                     | 0.53              |
| 1:A:792:PRO:HG3  | 1:C:707:TYR:HB3   | 1.91                     | 0.53              |
| 1:C:130:VAL:HB   | 1:C:168:PHE:HB3   | 1.91                     | 0.53              |
| 1:B:238:PHE:O    | 1:B:239:GLN:NE2   | 2.42                     | 0.53              |
| 1:B:93:ALA:HB3   | 1:B:266:TYR:HB2   | 1.90                     | 0.53              |
| 1:C:327:VAL:C    | 1:C:328:ARG:HD3   | 2.29                     | 0.53              |
| 1:B:858:LEU:HD23 | 1:B:959:LEU:HD12  | 1.89                     | 0.53              |
| 1:B:594:GLY:HA3  | 1:B:613:GLN:HE21  | 1.73                     | 0.53              |
| 1:C:983:ARG:HE   | 1:C:984:LEU:HD23  | 1.73                     | 0.53              |
| 1:B:362:VAL:HG21 | 1:B:526:GLY:H     | 1.73                     | 0.53              |
| 1:B:1002:GLN:HA  | 1:B:1005:GLN:HG3  | 1.89                     | 0.53              |
| 1:A:31:SER:HB3   | 1:A:34:ARG:HB2    | 1.90                     | 0.53              |
| 1:A:1121:PHE:HE1 | 1:B:914:ASN:HD21  | 1.56                     | 0.53              |
| 1:C:1091:ARG:NH2 | 1:C:1120:THR:O    | 2.41                     | 0.53              |
| 1:A:43:PHE:HB2   | 1:C:563:GLN:HE22  | 1.74                     | 0.53              |
| 1:A:394:ASN:HB2  | 1:A:516:GLU:HB3   | 1.90                     | 0.53              |
| 1:C:296:LEU:HB2  | 1:C:608:VAL:HG21  | 1.90                     | 0.53              |
| 1:B:452:LEU:HB3  | 1:B:492:LEU:HD11  | 1.90                     | 0.53              |
| 1:C:24:LEU:HD11  | 1:C:78:ARG:HB3    | 1.91                     | 0.53              |
| 1:A:43:PHE:H     | 1:C:566:GLY:HA2   | 1.74                     | 0.53              |
| 1:C:57:PRO:HG3   | 1:C:273:ARG:HE    | 1.73                     | 0.53              |
| 1:C:84:LEU:HD11  | 1:C:267:VAL:HG11  | 1.90                     | 0.53              |
| 1:B:612:TYR:HB2  | 1:B:649:CYS:HB3   | 1.89                     | 0.53              |
| 1:B:108:THR:O    | 1:B:237:ARG:NH2   | 2.41                     | 0.53              |
| 1:B:38:TYR:HE2   | 1:B:224:GLU:HG3   | 1.73                     | 0.53              |
| 1:A:204:TYR:HD1  | 1:A:225:PRO:HA    | 1.74                     | 0.53              |
| 1:B:362:VAL:HG21 | 1:B:526:GLY:H     | 1.73                     | 0.53              |
| 1:B:126:VAL:HB   | 1:B:172:SER:HB3   | 1.89                     | 0.53              |
| 1:C:676:THR:HA   | 1:C:690:GLN:HG2   | 1.90                     | 0.53              |
| 1:A:1120:THR:OG1 | 1:A:1121:PHE:N    | 2.41                     | 0.53              |
| 1:C:759:PHE:HA   | 1:C:762:GLN:HG3   | 1.90                     | 0.53              |
| 1:C:345:THR:O    | 1:C:509:ARG:NH2   | 2.41                     | 0.53              |
| 1:A:741:TYR:HD1  | 1:A:742:ILE:HD13  | 1.73                     | 0.53              |
| 1:B:977:LEU:HD21 | 1:B:996:LEU:HD23  | 1.91                     | 0.53              |
| 1:B:896:ILE:HD12 | 1:B:897:PRO:HD2   | 1.90                     | 0.53              |
| 1:B:1030:SER:HA  | 1:B:1034:LEU:HD23 | 1.89                     | 0.53              |
| 1:A:310:LYS:HG2  | 1:A:664:ILE:HD11  | 1.91                     | 0.53              |
| 1:A:971:GLY:O    | 1:A:995:ARG:NH1   | 2.41                     | 0.53              |
| 1:C:296:LEU:HB2  | 1:C:608:VAL:HG21  | 1.90                     | 0.53              |
| 1:C:741:TYR:HE2  | 1:C:1004:LEU:HD13 | 1.73                     | 0.53              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:130:VAL:HB    | 1:A:168:PHE:HB3   | 1.89                     | 0.53              |
| 1:B:396:TYR:HB2   | 1:B:514:SER:HB2   | 1.91                     | 0.53              |
| 1:C:396:TYR:HB2   | 1:C:514:SER:HB2   | 1.90                     | 0.53              |
| 1:B:394:ASN:HB3   | 1:B:516:GLU:HB2   | 1.90                     | 0.53              |
| 1:B:403:ARG:HG2   | 1:B:497:PHE:HE1   | 1.74                     | 0.53              |
| 1:A:719:THR:HG23  | 1:A:1070:ALA:HB2  | 1.91                     | 0.53              |
| 1:B:35:GLY:HA3    | 1:B:56:LEU:HB3    | 1.91                     | 0.53              |
| 1:C:598:ILE:HG23  | 1:C:664:ILE:HD11  | 1.90                     | 0.53              |
| 1:A:865:LEU:HD11  | 1:A:873:TYR:HE1   | 1.74                     | 0.53              |
| 1:B:742:ILE:O     | 1:B:1000:ARG:NH1  | 2.41                     | 0.53              |
| 1:C:106:PHE:HB3   | 1:C:235:ILE:HD13  | 1.90                     | 0.53              |
| 1:A:106:PHE:HB2   | 1:A:117:LEU:HB3   | 1.89                     | 0.53              |
| 1:B:126:VAL:HB    | 1:B:172:SER:HB3   | 1.90                     | 0.53              |
| 1:C:965:GLN:HE21  | 1:C:970:PHE:HZ    | 1.55                     | 0.53              |
| 1:A:312:ILE:HD11  | 1:A:596:SER:HB3   | 1.91                     | 0.53              |
| 1:A:17:ASN:HB2    | 1:A:21:ARG:HD3    | 1.91                     | 0.53              |
| 1:A:1010:GLN:OE1  | 1:A:1014:ARG:NH1  | 2.42                     | 0.53              |
| 1:C:1105:THR:HG23 | 1:C:1111:GLU:H    | 1.74                     | 0.53              |
| 1:A:969:ASN:OD1   | 1:B:755:GLN:NE2   | 2.42                     | 0.53              |
| 1:A:1105:THR:HG23 | 1:A:1111:GLU:H    | 1.73                     | 0.53              |
| 1:A:732:THR:OG1   | 1:A:955:ASN:ND2   | 2.41                     | 0.53              |
| 1:A:906:PHE:HB3   | 1:A:911:VAL:HB    | 1.90                     | 0.53              |
| 1:B:52:GLN:OE1    | 1:B:274:THR:OG1   | 2.24                     | 0.53              |
| 1:B:35:GLY:HA3    | 1:B:56:LEU:HB3    | 1.91                     | 0.53              |
| 1:A:1017:GLU:OE2  | 1:B:1019:ARG:NH1  | 2.41                     | 0.53              |
| 1:B:551:VAL:HB    | 1:B:588:THR:HB    | 1.91                     | 0.53              |
| 1:B:611:LEU:HD11  | 1:B:666:ILE:HG23  | 1.91                     | 0.53              |
| 1:B:1149:LYS:HG3  | 1:C:1152:LEU:HD21 | 1.89                     | 0.53              |
| 1:C:326:ILE:HD12  | 1:C:539:VAL:HG21  | 1.90                     | 0.53              |
| 1:C:396:TYR:HB2   | 1:C:514:SER:HB2   | 1.89                     | 0.53              |
| 1:A:296:LEU:HB2   | 1:A:608:VAL:HG21  | 1.90                     | 0.53              |
| 1:A:48:LEU:HB3    | 1:A:276:LEU:HD11  | 1.89                     | 0.53              |
| 1:B:53:ASP:OD1    | 1:B:54:LEU:N      | 2.39                     | 0.53              |
| 1:A:733:LYS:NZ    | 1:A:862:PRO:O     | 2.41                     | 0.53              |
| 1:B:106:PHE:HD2   | 1:B:117:LEU:HD22  | 1.74                     | 0.53              |
| 1:B:666:ILE:HD11  | 1:B:672:ALA:HB2   | 1.91                     | 0.53              |
| 1:C:328:ARG:NH2   | 1:C:580:GLN:OE1   | 2.42                     | 0.53              |
| 1:A:141:LEU:HD13  | 1:A:154:GLU:HG3   | 1.91                     | 0.53              |
| 1:B:748:GLU:OE1   | 1:B:748:GLU:N     | 2.41                     | 0.53              |
| 1:B:896:ILE:HD12  | 1:B:897:PRO:HD2   | 1.90                     | 0.53              |
| 1:A:31:SER:HB3    | 1:A:34:ARG:HB2    | 1.91                     | 0.53              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:825:LYS:NZ    | 1:A:938:LEU:O     | 2.37                     | 0.53              |
| 1:B:741:TYR:HE2   | 1:B:1004:LEU:HB2  | 1.74                     | 0.53              |
| 1:A:17:ASN:HB2    | 1:A:21:ARG:HD3    | 1.91                     | 0.53              |
| 1:C:676:THR:HA    | 1:C:690:GLN:HG2   | 1.91                     | 0.53              |
| 1:C:811:LYS:HG2   | 1:C:812:PRO:HD2   | 1.90                     | 0.53              |
| 1:A:1152:LEU:HD21 | 1:C:1149:LYS:HG3  | 1.89                     | 0.53              |
| 1:C:18:PHE:HB2    | 1:C:21:ARG:HB2    | 1.91                     | 0.53              |
| 1:B:749:CYS:O     | 1:B:753:LEU:HB2   | 2.09                     | 0.53              |
| 1:B:896:ILE:HD12  | 1:B:897:PRO:HD2   | 1.91                     | 0.53              |
| 1:C:52:GLN:OE1    | 1:C:274:THR:OG1   | 2.23                     | 0.53              |
| 1:C:1019:ARG:O    | 1:C:1023:ASN:ND2  | 2.34                     | 0.53              |
| 1:B:819:GLU:HA    | 1:B:822:LEU:HB2   | 1.91                     | 0.53              |
| 1:B:535:LYS:NZ    | 1:B:554:GLU:OE2   | 2.42                     | 0.53              |
| 1:C:129:LYS:HD3   | 1:C:133:PHE:HZ    | 1.73                     | 0.53              |
| 1:B:312:ILE:HD11  | 1:B:596:SER:HB3   | 1.89                     | 0.53              |
| 1:A:1121:PHE:HE1  | 1:B:914:ASN:HD21  | 1.57                     | 0.53              |
| 1:C:53:ASP:OD2    | 1:C:195:LYS:NZ    | 2.41                     | 0.53              |
| 1:A:729:VAL:HG12  | 1:A:1059:GLY:HA2  | 1.91                     | 0.53              |
| 1:A:784:GLN:HG3   | 1:A:1034:LEU:HD11 | 1.91                     | 0.53              |
| 1:C:33:THR:OG1    | 1:C:219:GLY:O     | 2.26                     | 0.53              |
| 1:C:598:ILE:HB    | 1:C:609:ALA:HB3   | 1.91                     | 0.53              |
| 1:C:48:LEU:HB3    | 1:C:276:LEU:HD21  | 1.91                     | 0.53              |
| 1:B:1031:GLU:HG3  | 1:B:1042:PHE:HE2  | 1.73                     | 0.53              |
| 1:B:738:CYS:HB2   | 1:B:763:LEU:HD21  | 1.89                     | 0.53              |
| 1:B:1091:ARG:NH1  | 1:B:1120:THR:O    | 2.42                     | 0.53              |
| 1:C:293:LEU:HD23  | 1:C:294:ASP:HB3   | 1.90                     | 0.53              |
| 1:C:598:ILE:HB    | 1:C:609:ALA:HB3   | 1.90                     | 0.53              |
| 1:A:293:LEU:HD12  | 1:A:294:ASP:HB2   | 1.91                     | 0.53              |
| 1:C:212:LEU:HD13  | 1:C:217:PRO:HD3   | 1.91                     | 0.53              |
| 1:C:295:PRO:HA    | 1:C:298:GLU:HG2   | 1.91                     | 0.53              |
| 1:C:337:PRO:HG3   | 1:C:356:LYS:HD3   | 1.91                     | 0.53              |
| 1:C:560:LEU:HD23  | 1:C:562:PHE:H     | 1.74                     | 0.53              |
| 1:A:1050:MET:HG2  | 1:A:1065:VAL:HB   | 1.90                     | 0.53              |
| 1:A:897:PRO:HG2   | 1:A:900:MET:HG2   | 1.91                     | 0.53              |
| 1:C:992:GLN:OE1   | 1:C:995:ARG:NH2   | 2.40                     | 0.53              |
| 1:A:328:ARG:HD3   | 1:A:543:PHE:HE1   | 1.74                     | 0.53              |
| 1:A:737:ASP:OD2   | 1:C:317:ASN:ND2   | 2.42                     | 0.53              |
| 1:B:767:LEU:HA    | 1:B:770:ILE:HG22  | 1.89                     | 0.53              |
| 1:A:598:ILE:HG22  | 1:A:692:ILE:HD13  | 1.91                     | 0.52              |
| 1:C:212:LEU:HD22  | 1:C:217:PRO:HD3   | 1.90                     | 0.52              |
| 1:A:203:ILE:HD13  | 1:A:227:VAL:HG13  | 1.92                     | 0.52              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:430:THR:HG22  | 1:C:983:ARG:HH11  | 1.72                     | 0.52              |
| 1:B:563:GLN:O     | 1:B:577:ARG:NH1   | 2.41                     | 0.52              |
| 1:A:644:GLN:NE2   | 1:A:645:THR:O     | 2.42                     | 0.52              |
| 1:A:767:LEU:HA    | 1:A:770:ILE:HG12  | 1.91                     | 0.52              |
| 1:A:727:LEU:HD21  | 1:A:1028:LYS:HD2  | 1.91                     | 0.52              |
| 1:C:807:PRO:HA    | 1:C:816:SER:HA    | 1.90                     | 0.52              |
| 1:A:819:GLU:HA    | 1:A:822:LEU:HB2   | 1.90                     | 0.52              |
| 1:A:971:GLY:O     | 1:A:995:ARG:NH2   | 2.42                     | 0.52              |
| 1:B:152:TRP:HB3   | 1:B:179:LEU:HD12  | 1.90                     | 0.52              |
| 1:C:733:LYS:HE3   | 1:C:771:ALA:HB1   | 1.90                     | 0.52              |
| 1:A:858:LEU:HD13  | 1:A:959:LEU:HB3   | 1.91                     | 0.52              |
| 1:B:362:VAL:HG21  | 1:B:526:GLY:H     | 1.74                     | 0.52              |
| 1:C:204:TYR:HD1   | 1:C:225:PRO:HA    | 1.74                     | 0.52              |
| 1:A:394:ASN:HB2   | 1:A:516:GLU:HB3   | 1.90                     | 0.52              |
| 1:A:299:THR:HG22  | 1:A:597:VAL:HG11  | 1.92                     | 0.52              |
| 1:A:894:LEU:HD11  | 1:C:715:PRO:HD3   | 1.91                     | 0.52              |
| 1:A:1005:GLN:HA   | 1:A:1008:VAL:HG12 | 1.91                     | 0.52              |
| 1:B:1028:LYS:NZ   | 1:B:1042:PHE:O    | 2.42                     | 0.52              |
| 1:B:38:TYR:HE2    | 1:B:224:GLU:HG3   | 1.74                     | 0.52              |
| 1:B:40:ASP:OD1    | 1:B:41:LYS:N      | 2.39                     | 0.52              |
| 1:B:759:PHE:HA    | 1:B:762:GLN:HG3   | 1.90                     | 0.52              |
| 1:B:726:ILE:HD12  | 1:B:1061:VAL:HG22 | 1.92                     | 0.52              |
| 1:C:784:GLN:HA    | 1:C:784:GLN:HE21  | 1.75                     | 0.52              |
| 1:A:294:ASP:OD1   | 1:A:294:ASP:N     | 2.42                     | 0.52              |
| 1:A:569:ILE:O     | 1:B:964:LYS:NZ    | 2.42                     | 0.52              |
| 1:A:560:LEU:HB2   | 1:A:563:GLN:HG2   | 1.91                     | 0.52              |
| 1:C:884:SER:HG    | 1:C:887:THR:HG1   | 1.57                     | 0.52              |
| 1:C:1091:ARG:NH2  | 1:C:1120:THR:O    | 2.42                     | 0.52              |
| 1:A:741:TYR:HE1   | 1:A:1004:LEU:HD13 | 1.74                     | 0.52              |
| 1:C:34:ARG:HB3    | 1:C:91:TYR:HE1    | 1.73                     | 0.52              |
| 1:C:326:ILE:HD12  | 1:C:539:VAL:HG21  | 1.90                     | 0.52              |
| 1:A:345:THR:O     | 1:A:509:ARG:NH2   | 2.43                     | 0.52              |
| 1:A:906:PHE:HB3   | 1:A:911:VAL:HB    | 1.91                     | 0.52              |
| 1:C:954:GLN:OE1   | 1:C:1014:ARG:NH1  | 2.43                     | 0.52              |
| 1:A:917:TYR:HB3   | 1:C:1129:VAL:HG22 | 1.91                     | 0.52              |
| 1:B:55:PHE:HB2    | 1:B:273:ARG:HB2   | 1.91                     | 0.52              |
| 1:A:779:GLN:NE2   | 1:A:779:GLN:O     | 2.42                     | 0.52              |
| 1:B:1105:THR:HG23 | 1:B:1111:GLU:H    | 1.73                     | 0.52              |
| 1:A:53:ASP:OD2    | 1:A:54:LEU:N      | 2.41                     | 0.52              |
| 1:B:190:ARG:HB3   | 1:B:192:PHE:HE2   | 1.74                     | 0.52              |
| 1:B:273:ARG:HH21  | 1:B:292:ALA:HB3   | 1.74                     | 0.52              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:B:773:GLU:OE1   | 1:B:1019:ARG:NE  | 2.32                     | 0.52              |
| 1:B:1090:PRO:HG2  | 1:C:913:GLN:HE22 | 1.74                     | 0.52              |
| 1:A:1043:CYS:O    | 1:A:1064:HIS:ND1 | 2.42                     | 0.52              |
| 1:C:719:THR:HG23  | 1:C:1070:ALA:HB2 | 1.91                     | 0.52              |
| 1:A:776:LYS:NZ    | 1:A:780:GLU:OE2  | 2.42                     | 0.52              |
| 1:C:878:LEU:O     | 1:C:882:ILE:HG12 | 2.09                     | 0.52              |
| 1:B:108:THR:O     | 1:B:237:ARG:NH2  | 2.42                     | 0.52              |
| 1:A:92:PHE:HB2    | 1:A:192:PHE:HB2  | 1.89                     | 0.52              |
| 1:B:1037:SER:H    | 1:B:1048:HIS:HD2 | 1.55                     | 0.52              |
| 1:C:299:THR:HG22  | 1:C:597:VAL:HG11 | 1.90                     | 0.52              |
| 1:A:755:GLN:HG2   | 1:C:969:ASN:HD21 | 1.72                     | 0.52              |
| 1:B:117:LEU:HD22  | 1:B:130:VAL:HG22 | 1.89                     | 0.52              |
| 1:C:609:ALA:HB2   | 1:C:692:ILE:HG21 | 1.91                     | 0.52              |
| 1:B:1129:VAL:HG22 | 1:C:917:TYR:HB3  | 1.91                     | 0.52              |
| 1:C:229:LEU:HG    | 1:C:231:ILE:HG12 | 1.92                     | 0.52              |
| 1:A:345:THR:O     | 1:A:509:ARG:NH2  | 2.42                     | 0.52              |
| 1:A:1105:THR:HG23 | 1:A:1111:GLU:H   | 1.73                     | 0.52              |
| 1:A:296:LEU:O     | 1:A:299:THR:OG1  | 2.25                     | 0.52              |
| 1:A:206:LYS:NZ    | 1:A:222:ALA:O    | 2.42                     | 0.52              |
| 1:C:96:GLU:OE1    | 1:C:99:ASN:ND2   | 2.36                     | 0.52              |
| 1:B:736:VAL:HG22  | 1:B:858:LEU:HG   | 1.91                     | 0.52              |
| 1:A:1013:ILE:HG21 | 1:B:1012:LEU:HB3 | 1.90                     | 0.52              |
| 1:C:858:LEU:HD13  | 1:C:959:LEU:HD22 | 1.91                     | 0.52              |
| 1:A:792:PRO:HG3   | 1:C:707:TYR:HB3  | 1.90                     | 0.52              |
| 1:A:951:VAL:O     | 1:A:954:GLN:NE2  | 2.42                     | 0.52              |
| 1:C:32:PHE:HE1    | 1:C:218:GLN:HG2  | 1.73                     | 0.52              |
| 1:B:311:GLY:HA2   | 1:B:664:ILE:HD12 | 1.91                     | 0.52              |
| 1:C:826:VAL:HG22  | 1:C:945:LEU:HD13 | 1.92                     | 0.52              |
| 1:A:897:PRO:HG2   | 1:A:900:MET:HG2  | 1.91                     | 0.52              |
| 1:A:990:GLU:HA    | 1:A:993:ILE:HG22 | 1.90                     | 0.52              |
| 1:C:96:GLU:OE1    | 1:C:99:ASN:ND2   | 2.35                     | 0.52              |
| 1:B:749:CYS:O     | 1:B:753:LEU:CB   | 2.57                     | 0.52              |
| 1:B:905:ARG:NH1   | 1:B:1049:LEU:O   | 2.43                     | 0.52              |
| 1:C:761:THR:O     | 1:C:765:ARG:HG2  | 2.10                     | 0.52              |
| 1:A:293:LEU:HD12  | 1:A:294:ASP:HB2  | 1.90                     | 0.52              |
| 1:A:40:ASP:OD1    | 1:A:41:LYS:N     | 2.33                     | 0.52              |
| 1:C:100:ILE:HG23  | 1:C:247:SER:HB3  | 1.92                     | 0.52              |
| 1:C:1019:ARG:O    | 1:C:1023:ASN:ND2 | 2.39                     | 0.52              |
| 1:C:596:SER:HB2   | 1:C:611:LEU:HB3  | 1.91                     | 0.52              |
| 1:C:784:GLN:HA    | 1:C:784:GLN:HE21 | 1.75                     | 0.52              |
| 1:A:394:ASN:HB2   | 1:A:516:GLU:HB3  | 1.91                     | 0.52              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:193:VAL:HG13 | 1:A:270:LEU:HD21  | 1.92                     | 0.52              |
| 1:C:555:SER:HB3  | 1:C:586:ASP:HB2   | 1.90                     | 0.52              |
| 1:B:120:VAL:HG12 | 1:B:241:LEU:HD11  | 1.90                     | 0.52              |
| 1:B:796:ASP:N    | 1:B:796:ASP:OD2   | 2.42                     | 0.52              |
| 1:C:742:ILE:HG12 | 1:C:997:ILE:HG22  | 1.91                     | 0.52              |
| 1:A:792:PRO:HG3  | 1:C:707:TYR:HB3   | 1.92                     | 0.52              |
| 1:B:101:ILE:HB   | 1:B:190:ARG:HH22  | 1.75                     | 0.52              |
| 1:B:825:LYS:HB2  | 1:B:945:LEU:HD21  | 1.91                     | 0.52              |
| 1:C:328:ARG:NH2  | 1:C:530:SER:O     | 2.41                     | 0.52              |
| 1:C:17:ASN:HB2   | 1:C:21:ARG:HD3    | 1.90                     | 0.52              |
| 1:A:722:VAL:HG13 | 1:A:934:ILE:HD11  | 1.91                     | 0.52              |
| 1:B:1017:GLU:OE2 | 1:C:1019:ARG:NH1  | 2.43                     | 0.52              |
| 1:B:1028:LYS:O   | 1:B:1032:CYS:HB2  | 2.09                     | 0.52              |
| 1:B:332:ILE:HG12 | 1:B:524:VAL:HG13  | 1.90                     | 0.52              |
| 1:A:120:VAL:HB   | 1:A:127:VAL:HB    | 1.92                     | 0.52              |
| 1:B:736:VAL:HG22 | 1:B:858:LEU:HG    | 1.91                     | 0.52              |
| 1:C:866:THR:OG1  | 1:C:867:ASP:N     | 2.43                     | 0.52              |
| 1:A:592:PHE:HZ   | 1:B:857:GLY:HA2   | 1.74                     | 0.52              |
| 1:B:699:LEU:HB2  | 1:C:788:ILE:HD11  | 1.90                     | 0.52              |
| 1:C:902:MET:HB2  | 1:C:916:LEU:HD21  | 1.92                     | 0.52              |
| 1:A:345:THR:HG22 | 1:A:346:ARG:HG2   | 1.92                     | 0.52              |
| 1:B:498:GLN:HE22 | 1:B:501:TYR:HB2   | 1.75                     | 0.52              |
| 1:B:736:VAL:HG22 | 1:B:858:LEU:HG    | 1.91                     | 0.52              |
| 1:C:737:ASP:OD1  | 1:C:737:ASP:N     | 2.42                     | 0.52              |
| 1:C:1002:GLN:HA  | 1:C:1005:GLN:HG3  | 1.91                     | 0.52              |
| 1:C:1019:ARG:HE  | 1:C:1023:ASN:HD21 | 1.58                     | 0.52              |
| 1:A:1043:CYS:O   | 1:A:1064:HIS:ND1  | 2.43                     | 0.52              |
| 1:C:326:ILE:HD12 | 1:C:539:VAL:HG21  | 1.92                     | 0.52              |
| 1:C:866:THR:OG1  | 1:C:867:ASP:N     | 2.42                     | 0.52              |
| 1:A:857:GLY:HA2  | 1:C:592:PHE:HZ    | 1.74                     | 0.52              |
| 1:C:784:GLN:HA   | 1:C:784:GLN:HE21  | 1.74                     | 0.52              |
| 1:A:581:THR:OG1  | 1:A:583:GLU:OE1   | 2.26                     | 0.52              |
| 1:A:664:ILE:HD12 | 1:A:665:PRO:HD2   | 1.92                     | 0.52              |
| 1:A:729:VAL:HG21 | 1:A:781:VAL:HG11  | 1.92                     | 0.52              |
| 1:A:17:ASN:HB2   | 1:A:21:ARG:HD3    | 1.91                     | 0.52              |
| 1:A:729:VAL:HG22 | 1:A:1059:GLY:HA2  | 1.91                     | 0.52              |
| 1:B:332:ILE:HG12 | 1:B:524:VAL:HG13  | 1.91                     | 0.52              |
| 1:B:362:VAL:HG21 | 1:B:526:GLY:H     | 1.75                     | 0.52              |
| 1:B:896:ILE:HD12 | 1:B:897:PRO:HD2   | 1.91                     | 0.52              |
| 1:C:130:VAL:HB   | 1:C:168:PHE:HB3   | 1.92                     | 0.52              |
| 1:A:975:SER:O    | 1:A:1000:ARG:NH2  | 2.42                     | 0.52              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:1155:TYR:O   | 1:A:1159:HIS:ND1  | 2.33                     | 0.52              |
| 1:C:906:PHE:HB3  | 1:C:911:VAL:HB    | 1.91                     | 0.52              |
| 1:B:53:ASP:HB3   | 1:B:55:PHE:HE1    | 1.75                     | 0.52              |
| 1:A:1005:GLN:HA  | 1:A:1008:VAL:HG12 | 1.92                     | 0.52              |
| 1:B:152:TRP:HB3  | 1:B:179:LEU:HD12  | 1.90                     | 0.52              |
| 1:B:362:VAL:HG21 | 1:B:526:GLY:H     | 1.75                     | 0.52              |
| 1:B:952:VAL:HA   | 1:B:955:ASN:ND2   | 2.25                     | 0.52              |
| 1:A:905:ARG:NH1  | 1:A:1049:LEU:O    | 2.42                     | 0.52              |
| 1:A:206:LYS:HB2  | 1:A:223:LEU:HA    | 1.92                     | 0.52              |
| 1:C:1084:ASP:OD2 | 1:C:1086:LYS:NZ   | 2.43                     | 0.52              |
| 1:A:310:LYS:HG3  | 1:A:600:PRO:HA    | 1.92                     | 0.52              |
| 1:A:866:THR:OG1  | 1:A:869:MET:SD    | 2.65                     | 0.52              |
| 1:B:543:PHE:HE1  | 1:B:585:LEU:HD11  | 1.74                     | 0.52              |
| 1:B:565:PHE:O    | 1:C:43:PHE:HB3    | 2.10                     | 0.52              |
| 1:A:742:ILE:O    | 1:A:1000:ARG:NH1  | 2.42                     | 0.52              |
| 1:B:784:GLN:HG3  | 1:B:1034:LEU:HD21 | 1.91                     | 0.52              |
| 1:C:328:ARG:NH1  | 1:C:531:THR:O     | 2.43                     | 0.52              |
| 1:A:345:THR:O    | 1:A:509:ARG:NH2   | 2.43                     | 0.52              |
| 1:A:708:SER:HB3  | 1:A:711:SER:HB3   | 1.91                     | 0.52              |
| 1:C:994:ASP:HA   | 1:C:997:ILE:HG12  | 1.91                     | 0.52              |
| 1:B:214:ARG:NE   | 1:B:215:GLY:H     | 2.08                     | 0.52              |
| 1:A:1002:GLN:OE1 | 1:B:1005:GLN:NE2  | 2.40                     | 0.52              |
| 1:C:57:PRO:HG3   | 1:C:273:ARG:HE    | 1.74                     | 0.52              |
| 1:C:731:MET:HB3  | 1:C:774:GLN:NE2   | 2.25                     | 0.52              |
| 1:A:826:VAL:HG23 | 1:A:945:LEU:HD13  | 1.92                     | 0.52              |
| 1:B:457:ARG:NH2  | 1:B:459:SER:OG    | 2.43                     | 0.52              |
| 1:A:857:GLY:HA2  | 1:C:592:PHE:HZ    | 1.75                     | 0.52              |
| 1:C:93:ALA:HB3   | 1:C:266:TYR:HB2   | 1.92                     | 0.52              |
| 1:B:52:GLN:OE1   | 1:B:274:THR:OG1   | 2.27                     | 0.52              |
| 1:B:430:THR:O    | 1:C:983:ARG:NH2   | 2.43                     | 0.52              |
| 1:C:58:PHE:HD2   | 1:C:290:ASP:HB2   | 1.75                     | 0.52              |
| 1:C:117:LEU:HB2  | 1:C:233:ILE:HD11  | 1.91                     | 0.52              |
| 1:C:1019:ARG:O   | 1:C:1023:ASN:ND2  | 2.35                     | 0.52              |
| 1:A:214:ARG:HD2  | 1:A:215:GLY:H     | 1.74                     | 0.52              |
| 1:A:204:TYR:HD1  | 1:A:225:PRO:HA    | 1.75                     | 0.52              |
| 1:C:710:ASN:OD1  | 1:C:710:ASN:N     | 2.39                     | 0.52              |
| 1:C:35:GLY:HA3   | 1:C:56:LEU:HB3    | 1.91                     | 0.52              |
| 1:A:729:VAL:O    | 1:A:777:ASN:ND2   | 2.38                     | 0.52              |
| 1:B:92:PHE:HB3   | 1:B:192:PHE:HB2   | 1.92                     | 0.52              |
| 1:C:37:TYR:OH    | 1:C:53:ASP:OD2    | 2.28                     | 0.52              |
| 1:C:452:LEU:HD23 | 1:C:492:LEU:HB3   | 1.91                     | 0.52              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:92:PHE:HB3   | 1:B:192:PHE:HB2  | 1.92                     | 0.52              |
| 1:A:1028:LYS:NZ  | 1:A:1042:PHE:O   | 2.43                     | 0.52              |
| 1:B:736:VAL:HG22 | 1:B:858:LEU:HG   | 1.92                     | 0.52              |
| 1:C:96:GLU:OE1   | 1:C:99:ASN:ND2   | 2.35                     | 0.52              |
| 1:C:1100:THR:OG1 | 1:C:1101:HIS:N   | 2.43                     | 0.52              |
| 1:B:825:LYS:NZ   | 1:B:938:LEU:O    | 2.40                     | 0.52              |
| 1:B:971:GLY:HA3  | 1:B:995:ARG:HH22 | 1.75                     | 0.52              |
| 1:A:310:LYS:HG2  | 1:A:664:ILE:HD11 | 1.90                     | 0.52              |
| 1:B:598:ILE:HB   | 1:B:609:ALA:HB3  | 1.92                     | 0.52              |
| 1:A:106:PHE:HB2  | 1:A:117:LEU:HB2  | 1.91                     | 0.52              |
| 1:C:309:GLU:OE2  | 1:C:310:LYS:N    | 2.40                     | 0.52              |
| 1:B:52:GLN:OE1   | 1:B:274:THR:OG1  | 2.27                     | 0.52              |
| 1:B:667:GLY:HA2  | 1:C:864:LEU:HG   | 1.91                     | 0.52              |
| 1:B:452:LEU:HD22 | 1:B:492:LEU:HD11 | 1.92                     | 0.52              |
| 1:B:898:PHE:HA   | 1:B:901:GLN:HB3  | 1.92                     | 0.52              |
| 1:C:201:PHE:HB3  | 1:C:229:LEU:HB2  | 1.92                     | 0.52              |
| 1:A:51:THR:HG22  | 1:A:277:LEU:HD11 | 1.91                     | 0.52              |
| 1:A:48:LEU:HD22  | 1:A:278:LYS:HG2  | 1.92                     | 0.52              |
| 1:B:452:LEU:HB3  | 1:B:492:LEU:HD11 | 1.91                     | 0.52              |
| 1:C:212:LEU:HD22 | 1:C:217:PRO:HD3  | 1.92                     | 0.52              |
| 1:C:756:TYR:HB3  | 1:C:759:PHE:HE1  | 1.75                     | 0.52              |
| 1:A:813:SER:OG   | 1:A:868:GLU:OE2  | 2.28                     | 0.52              |
| 1:B:357:ARG:NH2  | 1:C:200:TYR:OH   | 2.43                     | 0.52              |
| 1:B:362:VAL:HG21 | 1:B:526:GLY:H    | 1.75                     | 0.52              |
| 1:B:92:PHE:HB3   | 1:B:192:PHE:HB2  | 1.92                     | 0.52              |
| 1:C:644:GLN:NE2  | 1:C:645:THR:O    | 2.42                     | 0.52              |
| 1:A:707:TYR:HE2  | 1:B:897:PRO:HA   | 1.75                     | 0.52              |
| 1:B:317:ASN:N    | 1:B:317:ASN:OD1  | 2.42                     | 0.52              |
| 1:C:351:TYR:HE2  | 1:C:470:THR:HG22 | 1.75                     | 0.52              |
| 1:B:914:ASN:N    | 1:B:914:ASN:OD1  | 2.42                     | 0.52              |
| 1:B:784:GLN:HE21 | 1:B:784:GLN:HA   | 1.75                     | 0.52              |
| 1:C:825:LYS:NZ   | 1:C:938:LEU:O    | 2.40                     | 0.52              |
| 1:B:37:TYR:OH    | 1:B:54:LEU:O     | 2.26                     | 0.52              |
| 1:B:985:ASP:OD1  | 1:B:987:PRO:HD2  | 2.09                     | 0.52              |
| 1:A:905:ARG:NH1  | 1:A:1049:LEU:O   | 2.43                     | 0.52              |
| 1:A:17:ASN:HB2   | 1:A:21:ARG:HD3   | 1.92                     | 0.52              |
| 1:C:866:THR:OG1  | 1:C:867:ASP:N    | 2.43                     | 0.52              |
| 1:A:134:GLN:HG3  | 1:A:161:SER:H    | 1.75                     | 0.52              |
| 1:A:302:THR:HG21 | 1:A:315:THR:HA   | 1.92                     | 0.52              |
| 1:C:560:LEU:HD23 | 1:C:562:PHE:H    | 1.75                     | 0.52              |
| 1:A:596:SER:HB2  | 1:A:611:LEU:HB3  | 1.92                     | 0.51              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:1012:LEU:HB3  | 1:C:1013:ILE:HG21 | 1.92                     | 0.51              |
| 1:B:108:THR:O     | 1:B:237:ARG:NH2   | 2.42                     | 0.51              |
| 1:A:708:SER:HB3   | 1:A:711:SER:HB3   | 1.92                     | 0.51              |
| 1:B:535:LYS:NZ    | 1:B:554:GLU:OE2   | 2.42                     | 0.51              |
| 1:B:713:ALA:HB3   | 1:C:894:LEU:HB3   | 1.92                     | 0.51              |
| 1:C:971:GLY:O     | 1:C:995:ARG:NH1   | 2.42                     | 0.51              |
| 1:A:1121:PHE:HE1  | 1:B:914:ASN:HD21  | 1.56                     | 0.51              |
| 1:A:1030:SER:HB2  | 1:C:1041:ASP:HB3  | 1.92                     | 0.51              |
| 1:A:476:GLY:H     | 1:A:487:ASN:HB3   | 1.76                     | 0.51              |
| 1:B:864:LEU:HG    | 1:B:865:LEU:HD22  | 1.92                     | 0.51              |
| 1:C:851:CYS:HA    | 1:C:854:LYS:HE2   | 1.91                     | 0.51              |
| 1:A:1038:LYS:HD2  | 1:C:1038:LYS:HZ1  | 1.75                     | 0.51              |
| 1:B:749:CYS:O     | 1:B:753:LEU:CB    | 2.58                     | 0.51              |
| 1:A:708:SER:HB3   | 1:A:711:SER:HB3   | 1.92                     | 0.51              |
| 1:B:37:TYR:OH     | 1:B:53:ASP:OD1    | 2.27                     | 0.51              |
| 1:C:108:THR:OG1   | 1:C:234:ASN:O     | 2.28                     | 0.51              |
| 1:B:722:VAL:HG22  | 1:B:1065:VAL:HG12 | 1.91                     | 0.51              |
| 1:B:749:CYS:O     | 1:B:753:LEU:CB    | 2.59                     | 0.51              |
| 1:A:33:THR:OG1    | 1:A:219:GLY:O     | 2.24                     | 0.51              |
| 1:B:898:PHE:HA    | 1:B:901:GLN:HB3   | 1.92                     | 0.51              |
| 1:B:993:ILE:O     | 1:B:997:ILE:HD12  | 2.10                     | 0.51              |
| 1:A:1121:PHE:HE1  | 1:B:914:ASN:HD21  | 1.58                     | 0.51              |
| 1:C:310:LYS:HG2   | 1:C:664:ILE:HD11  | 1.90                     | 0.51              |
| 1:C:1028:LYS:HB3  | 1:C:1062:PHE:HE1  | 1.75                     | 0.51              |
| 1:A:48:LEU:HB3    | 1:A:276:LEU:HD11  | 1.92                     | 0.51              |
| 1:C:767:LEU:HA    | 1:C:770:ILE:HG22  | 1.90                     | 0.51              |
| 1:B:722:VAL:HG12  | 1:B:930:ALA:HB1   | 1.92                     | 0.51              |
| 1:C:212:LEU:HD22  | 1:C:217:PRO:HD3   | 1.92                     | 0.51              |
| 1:A:130:VAL:HB    | 1:A:168:PHE:HB3   | 1.90                     | 0.51              |
| 1:A:1033:VAL:HG22 | 1:A:1051:SER:HB2  | 1.91                     | 0.51              |
| 1:C:293:LEU:HD23  | 1:C:294:ASP:HB2   | 1.92                     | 0.51              |
| 1:C:93:ALA:HB3    | 1:C:266:TYR:HB2   | 1.93                     | 0.51              |
| 1:B:316:SER:OG    | 1:B:317:ASN:N     | 2.43                     | 0.51              |
| 1:B:336:CYS:HA    | 1:B:358:ILE:HD13  | 1.92                     | 0.51              |
| 1:C:37:TYR:OH     | 1:C:53:ASP:OD1    | 2.29                     | 0.51              |
| 1:B:24:LEU:HD11   | 1:B:78:ARG:HB3    | 1.92                     | 0.51              |
| 1:A:291:CYS:HA    | 1:A:297:SER:HB3   | 1.92                     | 0.51              |
| 1:C:720:ILE:HD12  | 1:C:923:ILE:HG23  | 1.92                     | 0.51              |
| 1:C:777:ASN:O     | 1:C:781:VAL:HG12  | 2.10                     | 0.51              |
| 1:C:1002:GLN:O    | 1:C:1005:GLN:NE2  | 2.43                     | 0.51              |
| 1:A:190:ARG:HH12  | 1:A:207:HIS:HB2   | 1.74                     | 0.51              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:722:VAL:HG12 | 1:A:930:ALA:HB1   | 1.92                     | 0.51              |
| 1:B:1086:LYS:HE2 | 1:B:1122:VAL:HG11 | 1.92                     | 0.51              |
| 1:A:611:LEU:HD12 | 1:A:650:LEU:HD13  | 1.92                     | 0.51              |
| 1:A:731:MET:HB3  | 1:A:774:GLN:NE2   | 2.26                     | 0.51              |
| 1:A:1121:PHE:HE1 | 1:B:914:ASN:HD21  | 1.58                     | 0.51              |
| 1:A:552:LEU:HB3  | 1:A:585:LEU:HD23  | 1.92                     | 0.51              |
| 1:A:566:GLY:HA2  | 1:B:43:PHE:H      | 1.74                     | 0.51              |
| 1:B:734:THR:HG21 | 1:B:959:LEU:HD11  | 1.92                     | 0.51              |
| 1:C:92:PHE:HE1   | 1:C:265:TYR:HB2   | 1.75                     | 0.51              |
| 1:C:784:GLN:HE21 | 1:C:1029:MET:HG3  | 1.75                     | 0.51              |
| 1:C:722:VAL:HG12 | 1:C:930:ALA:HB1   | 1.92                     | 0.51              |
| 1:C:858:LEU:HD13 | 1:C:959:LEU:HD22  | 1.93                     | 0.51              |
| 1:C:394:ASN:HB2  | 1:C:516:GLU:HB3   | 1.92                     | 0.51              |
| 1:A:930:ALA:HA   | 1:A:933:LYS:HE2   | 1.93                     | 0.51              |
| 1:A:719:THR:HG23 | 1:A:1070:ALA:HB2  | 1.92                     | 0.51              |
| 1:B:319:ARG:HH21 | 1:C:745:ASP:H     | 1.57                     | 0.51              |
| 1:B:796:ASP:OD1  | 1:B:796:ASP:N     | 2.44                     | 0.51              |
| 1:C:774:GLN:HE21 | 1:C:777:ASN:HD21  | 1.59                     | 0.51              |
| 1:C:1005:GLN:HA  | 1:C:1008:VAL:HG22 | 1.92                     | 0.51              |
| 1:A:566:GLY:HA2  | 1:B:43:PHE:H      | 1.74                     | 0.51              |
| 1:B:353:TRP:HE1  | 1:B:355:ARG:HE    | 1.59                     | 0.51              |
| 1:C:946:GLY:HA2  | 1:C:949:GLN:HB3   | 1.92                     | 0.51              |
| 1:A:294:ASP:OD1  | 1:A:294:ASP:N     | 2.37                     | 0.51              |
| 1:B:885:GLY:HA3  | 1:B:901:GLN:NE2   | 2.25                     | 0.51              |
| 1:A:914:ASN:HD21 | 1:C:1121:PHE:HE1  | 1.59                     | 0.51              |
| 1:A:1155:TYR:O   | 1:A:1159:HIS:ND1  | 2.33                     | 0.51              |
| 1:A:567:ARG:HE   | 1:B:42:VAL:HG11   | 1.75                     | 0.51              |
| 1:B:310:LYS:HG3  | 1:B:600:PRO:HA    | 1.92                     | 0.51              |
| 1:C:141:LEU:HD13 | 1:C:154:GLU:HG3   | 1.93                     | 0.51              |
| 1:A:914:ASN:HD21 | 1:C:1121:PHE:HE1  | 1.58                     | 0.51              |
| 1:A:1049:LEU:HB2 | 1:A:1065:VAL:HG12 | 1.91                     | 0.51              |
| 1:A:1118:ASP:OD1 | 1:A:1118:ASP:N    | 2.38                     | 0.51              |
| 1:C:954:GLN:HB3  | 1:C:1014:ARG:HH11 | 1.75                     | 0.51              |
| 1:A:328:ARG:NH1  | 1:A:531:THR:O     | 2.43                     | 0.51              |
| 1:B:35:GLY:HA3   | 1:B:56:LEU:HB3    | 1.93                     | 0.51              |
| 1:B:951:VAL:O    | 1:B:954:GLN:NE2   | 2.44                     | 0.51              |
| 1:C:89:GLY:HA3   | 1:C:270:LEU:HD12  | 1.93                     | 0.51              |
| 1:C:185:ASN:ND2  | 1:C:211:ASN:OD1   | 2.43                     | 0.51              |
| 1:C:664:ILE:HD12 | 1:C:665:PRO:HD2   | 1.93                     | 0.51              |
| 1:B:57:PRO:HG3   | 1:B:273:ARG:HG3   | 1.92                     | 0.51              |
| 1:B:784:GLN:HE21 | 1:B:784:GLN:HA    | 1.76                     | 0.51              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:362:VAL:HG21  | 1:C:524:VAL:HB    | 1.91                     | 0.51              |
| 1:A:755:GLN:O     | 1:C:969:ASN:ND2   | 2.43                     | 0.51              |
| 1:B:878:LEU:HD21  | 1:B:1054:GLN:HE22 | 1.74                     | 0.51              |
| 1:C:960:ASN:OD1   | 1:C:964:LYS:NZ    | 2.32                     | 0.51              |
| 1:C:719:THR:HG23  | 1:C:1070:ALA:HB2  | 1.91                     | 0.51              |
| 1:A:733:LYS:HE3   | 1:A:771:ALA:HB1   | 1.92                     | 0.51              |
| 1:B:52:GLN:OE1    | 1:B:274:THR:OG1   | 2.27                     | 0.51              |
| 1:A:141:LEU:HB2   | 1:A:246:ILE:HD13  | 1.93                     | 0.51              |
| 1:A:299:THR:HG22  | 1:A:597:VAL:HG11  | 1.92                     | 0.51              |
| 1:A:1089:PHE:HB3  | 1:B:913:GLN:HE21  | 1.76                     | 0.51              |
| 1:A:308:VAL:N     | 1:A:602:THR:OG1   | 2.43                     | 0.51              |
| 1:A:909:ILE:HG13  | 1:A:911:VAL:HG23  | 1.92                     | 0.51              |
| 1:A:913:GLN:HE21  | 1:C:1089:PHE:HB3  | 1.76                     | 0.51              |
| 1:C:650:LEU:HD21  | 1:C:653:ALA:HB3   | 1.91                     | 0.51              |
| 1:A:185:ASN:ND2   | 1:A:211:ASN:OD1   | 2.43                     | 0.51              |
| 1:A:965:GLN:NE2   | 1:B:758:SER:OG    | 2.43                     | 0.51              |
| 1:B:592:PHE:HZ    | 1:C:857:GLY:HA2   | 1.75                     | 0.51              |
| 1:C:777:ASN:O     | 1:C:781:VAL:HG12  | 2.11                     | 0.51              |
| 1:C:813:SER:OG    | 1:C:868:GLU:OE2   | 2.26                     | 0.51              |
| 1:A:971:GLY:H     | 1:B:755:GLN:NE2   | 2.08                     | 0.51              |
| 1:C:206:LYS:HB2   | 1:C:223:LEU:HA    | 1.92                     | 0.51              |
| 1:A:40:ASP:OD2    | 1:A:41:LYS:N      | 2.34                     | 0.51              |
| 1:B:38:TYR:HE2    | 1:B:224:GLU:HG3   | 1.76                     | 0.51              |
| 1:B:296:LEU:HB2   | 1:B:608:VAL:HG21  | 1.93                     | 0.51              |
| 1:B:856:ASN:HD22  | 1:B:858:LEU:HD13  | 1.76                     | 0.51              |
| 1:C:1155:TYR:O    | 1:C:1159:HIS:ND1  | 2.33                     | 0.51              |
| 1:C:193:VAL:HB    | 1:C:204:TYR:HD2   | 1.74                     | 0.51              |
| 1:A:711:SER:OG    | 1:B:895:GLN:OE1   | 2.28                     | 0.51              |
| 1:A:720:ILE:HD11  | 1:A:1065:VAL:HG22 | 1.92                     | 0.51              |
| 1:B:92:PHE:HB3    | 1:B:192:PHE:HB2   | 1.93                     | 0.51              |
| 1:C:746:SER:O     | 1:C:750:SER:OG    | 2.27                     | 0.51              |
| 1:B:141:LEU:HD12  | 1:B:142:GLY:H     | 1.76                     | 0.51              |
| 1:A:767:LEU:HA    | 1:A:770:ILE:HG22  | 1.91                     | 0.51              |
| 1:B:287:ASP:OD2   | 1:B:288:ALA:N     | 2.43                     | 0.51              |
| 1:A:1105:THR:HG23 | 1:A:1111:GLU:H    | 1.76                     | 0.51              |
| 1:B:484:LYS:HD2   | 1:B:490:PHE:HB2   | 1.93                     | 0.51              |
| 1:A:130:VAL:HB    | 1:A:168:PHE:HB3   | 1.92                     | 0.51              |
| 1:B:741:TYR:HD1   | 1:B:1004:LEU:HD22 | 1.76                     | 0.51              |
| 1:B:141:LEU:HD12  | 1:B:246:ILE:HG12  | 1.92                     | 0.51              |
| 1:A:722:VAL:HG12  | 1:A:930:ALA:HB1   | 1.92                     | 0.51              |
| 1:C:759:PHE:HA    | 1:C:762:GLN:HE21  | 1.75                     | 0.51              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:C:314:GLN:HE22 | 1:C:594:GLY:HA3   | 1.76                     | 0.51              |
| 1:B:433:VAL:HA   | 1:B:512:VAL:HG12  | 1.92                     | 0.51              |
| 1:A:1012:LEU:HB3 | 1:C:1013:ILE:HG21 | 1.93                     | 0.51              |
| 1:A:714:ILE:HD13 | 1:A:1075:PHE:HD2  | 1.76                     | 0.51              |
| 1:C:69:HIS:O     | 1:C:77:LYS:N      | 2.44                     | 0.51              |
| 1:C:998:THR:HA   | 1:C:1001:LEU:HG   | 1.92                     | 0.51              |
| 1:A:790:LYS:HE2  | 1:C:704:SER:HB2   | 1.92                     | 0.51              |
| 1:B:277:LEU:HD22 | 1:B:285:ILE:HD13  | 1.93                     | 0.51              |
| 1:B:394:ASN:HB2  | 1:B:516:GLU:HB2   | 1.92                     | 0.51              |
| 1:A:120:VAL:HB   | 1:A:127:VAL:HB    | 1.93                     | 0.51              |
| 1:B:332:ILE:HA   | 1:B:524:VAL:HG22  | 1.93                     | 0.51              |
| 1:C:984:LEU:HB3  | 1:C:988:GLU:HG2   | 1.92                     | 0.51              |
| 1:A:727:LEU:HD21 | 1:A:1028:LYS:HD2  | 1.93                     | 0.51              |
| 1:C:108:THR:OG1  | 1:C:234:ASN:O     | 2.29                     | 0.51              |
| 1:A:206:LYS:HB2  | 1:A:223:LEU:HA    | 1.93                     | 0.51              |
| 1:B:742:ILE:O    | 1:B:1000:ARG:NH1  | 2.44                     | 0.51              |
| 1:A:310:LYS:HG3  | 1:A:600:PRO:HA    | 1.92                     | 0.51              |
| 1:A:731:MET:HB3  | 1:A:774:GLN:HE22  | 1.76                     | 0.51              |
| 1:A:1030:SER:HA  | 1:A:1034:LEU:HD23 | 1.93                     | 0.51              |
| 1:B:484:LYS:HD2  | 1:B:490:PHE:HB2   | 1.93                     | 0.51              |
| 1:C:1031:GLU:HG3 | 1:C:1042:PHE:HE1  | 1.75                     | 0.51              |
| 1:A:1010:GLN:OE1 | 1:A:1014:ARG:NH1  | 2.40                     | 0.51              |
| 1:B:733:LYS:NZ   | 1:B:862:PRO:O     | 2.44                     | 0.51              |
| 1:B:759:PHE:HA   | 1:B:762:GLN:HG3   | 1.93                     | 0.51              |
| 1:A:108:THR:OG1  | 1:A:234:ASN:O     | 2.28                     | 0.51              |
| 1:A:1010:GLN:HA  | 1:A:1013:ILE:HG13 | 1.93                     | 0.51              |
| 1:C:328:ARG:NH2  | 1:C:580:GLN:OE1   | 2.44                     | 0.51              |
| 1:C:813:SER:OG   | 1:C:868:GLU:OE2   | 2.28                     | 0.51              |
| 1:A:596:SER:HB2  | 1:A:611:LEU:HB3   | 1.93                     | 0.51              |
| 1:C:204:TYR:HD1  | 1:C:225:PRO:HA    | 1.75                     | 0.51              |
| 1:C:886:TRP:HH2  | 1:C:904:TYR:HB3   | 1.76                     | 0.51              |
| 1:A:792:PRO:HG3  | 1:C:707:TYR:HB3   | 1.92                     | 0.51              |
| 1:C:1028:LYS:NZ  | 1:C:1042:PHE:O    | 2.43                     | 0.51              |
| 1:A:930:ALA:HA   | 1:A:933:LYS:HE2   | 1.93                     | 0.51              |
| 1:B:357:ARG:HH12 | 1:B:394:ASN:HA    | 1.76                     | 0.51              |
| 1:C:212:LEU:HD22 | 1:C:217:PRO:HD3   | 1.92                     | 0.51              |
| 1:B:915:VAL:O    | 1:B:919:ASN:ND2   | 2.38                     | 0.51              |
| 1:C:191:GLU:HG2  | 1:C:223:LEU:HD21  | 1.91                     | 0.51              |
| 1:C:825:LYS:HE2  | 1:C:945:LEU:HD23  | 1.93                     | 0.51              |
| 1:A:722:VAL:HG12 | 1:A:930:ALA:HB1   | 1.93                     | 0.51              |
| 1:A:770:ILE:O    | 1:A:774:GLN:CB    | 2.59                     | 0.51              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:564:GLN:HA    | 1:A:577:ARG:HE    | 1.76                     | 0.51              |
| 1:B:159:VAL:HG12  | 1:B:160:TYR:CD2   | 2.46                     | 0.51              |
| 1:C:763:LEU:HD22  | 1:C:1008:VAL:HG21 | 1.91                     | 0.51              |
| 1:A:782:PHE:HB3   | 1:A:873:TYR:HD2   | 1.75                     | 0.51              |
| 1:C:567:ARG:NH1   | 1:C:573:THR:OG1   | 2.43                     | 0.51              |
| 1:A:337:PRO:HB2   | 1:A:340:GLU:HG2   | 1.92                     | 0.51              |
| 1:B:1115:ILE:HG22 | 1:B:1137:VAL:HG23 | 1.93                     | 0.51              |
| 1:C:314:GLN:HA    | 1:C:314:GLN:HE21  | 1.73                     | 0.51              |
| 1:B:796:ASP:N     | 1:B:796:ASP:OD2   | 2.44                     | 0.51              |
| 1:C:214:ARG:HD2   | 1:C:215:GLY:H     | 1.75                     | 0.51              |
| 1:C:393:THR:HA    | 1:C:522:ALA:HA    | 1.92                     | 0.51              |
| 1:B:733:LYS:HE3   | 1:B:771:ALA:HB1   | 1.93                     | 0.51              |
| 1:C:708:SER:HB3   | 1:C:711:SER:HB3   | 1.93                     | 0.51              |
| 1:C:458:LYS:HB3   | 1:C:474:GLN:HB3   | 1.93                     | 0.51              |
| 1:C:996:LEU:HD11  | 1:C:1000:ARG:HE   | 1.75                     | 0.51              |
| 1:A:109:THR:OG1   | 1:A:111:ASP:OD1   | 2.28                     | 0.51              |
| 1:A:1123:SER:OG   | 1:B:914:ASN:ND2   | 2.44                     | 0.51              |
| 1:C:727:LEU:HD11  | 1:C:1028:LYS:HD2  | 1.91                     | 0.51              |
| 1:B:905:ARG:NH1   | 1:B:1049:LEU:O    | 2.44                     | 0.51              |
| 1:B:676:THR:HA    | 1:B:690:GLN:HG2   | 1.92                     | 0.51              |
| 1:B:957:GLN:HE21  | 1:B:957:GLN:HA    | 1.75                     | 0.51              |
| 1:B:106:PHE:HB2   | 1:B:117:LEU:HB3   | 1.93                     | 0.51              |
| 1:A:289:VAL:HG11  | 1:A:300:LYS:HD2   | 1.91                     | 0.51              |
| 1:A:1155:TYR:O    | 1:A:1159:HIS:ND1  | 2.34                     | 0.51              |
| 1:C:206:LYS:HE3   | 1:C:208:THR:HB    | 1.92                     | 0.51              |
| 1:A:201:PHE:HB3   | 1:A:229:LEU:HB3   | 1.93                     | 0.51              |
| 1:A:1005:GLN:HA   | 1:A:1008:VAL:HG12 | 1.93                     | 0.51              |
| 1:B:429:PHE:HZ    | 1:B:512:VAL:HB    | 1.76                     | 0.51              |
| 1:B:1091:ARG:NH2  | 1:B:1120:THR:O    | 2.44                     | 0.51              |
| 1:A:957:GLN:HG3   | 1:B:765:ARG:HH12  | 1.74                     | 0.51              |
| 1:B:985:ASP:OD1   | 1:B:987:PRO:HD2   | 2.10                     | 0.51              |
| 1:C:596:SER:HB2   | 1:C:611:LEU:HB3   | 1.93                     | 0.51              |
| 1:C:719:THR:HG23  | 1:C:1070:ALA:HB2  | 1.93                     | 0.51              |
| 1:A:476:GLY:H     | 1:A:487:ASN:HB3   | 1.76                     | 0.51              |
| 1:A:763:LEU:HD22  | 1:A:1008:VAL:HG11 | 1.93                     | 0.51              |
| 1:C:1009:THR:O    | 1:C:1013:ILE:HG13 | 2.10                     | 0.51              |
| 1:A:567:ARG:HD3   | 1:A:571:ASP:HA    | 1.93                     | 0.51              |
| 1:A:578:ASP:OD2   | 1:A:581:THR:OG1   | 2.28                     | 0.51              |
| 1:A:825:LYS:HE3   | 1:A:939:SER:HA    | 1.93                     | 0.51              |
| 1:B:946:GLY:HA2   | 1:B:949:GLN:HB2   | 1.92                     | 0.51              |
| 1:B:931:ILE:HA    | 1:B:934:ILE:HG22  | 1.93                     | 0.51              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:950:ASP:O     | 1:B:954:GLN:HG3   | 2.11                     | 0.51              |
| 1:B:954:GLN:HB2   | 1:B:1014:ARG:HH21 | 1.75                     | 0.51              |
| 1:B:48:LEU:HB3    | 1:B:276:LEU:HD11  | 1.93                     | 0.51              |
| 1:C:206:LYS:NZ    | 1:C:221:SER:OG    | 2.40                     | 0.51              |
| 1:B:106:PHE:HB2   | 1:B:117:LEU:HB2   | 1.93                     | 0.51              |
| 1:B:1033:VAL:HG22 | 1:B:1051:SER:HB2  | 1.92                     | 0.51              |
| 1:B:733:LYS:HE3   | 1:B:771:ALA:HB1   | 1.92                     | 0.51              |
| 1:B:1090:PRO:HG2  | 1:C:913:GLN:HE22  | 1.76                     | 0.51              |
| 1:B:738:CYS:HB2   | 1:B:763:LEU:HD11  | 1.93                     | 0.51              |
| 1:A:296:LEU:HB2   | 1:A:608:VAL:HG21  | 1.92                     | 0.51              |
| 1:A:1129:VAL:HG12 | 1:B:917:TYR:HB3   | 1.93                     | 0.51              |
| 1:C:299:THR:HG22  | 1:C:597:VAL:HG11  | 1.92                     | 0.51              |
| 1:A:43:PHE:H      | 1:C:566:GLY:HA2   | 1.76                     | 0.50              |
| 1:A:749:CYS:HA    | 1:A:752:LEU:HD12  | 1.92                     | 0.50              |
| 1:B:103:GLY:HA3   | 1:B:120:VAL:HA    | 1.92                     | 0.50              |
| 1:B:185:ASN:ND2   | 1:B:211:ASN:OD1   | 2.38                     | 0.50              |
| 1:C:295:PRO:HG2   | 1:C:608:VAL:HG11  | 1.93                     | 0.50              |
| 1:C:949:GLN:O     | 1:C:953:ASN:ND2   | 2.44                     | 0.50              |
| 1:B:563:GLN:O     | 1:B:577:ARG:NH1   | 2.43                     | 0.50              |
| 1:A:93:ALA:HB3    | 1:A:266:TYR:HB2   | 1.94                     | 0.50              |
| 1:C:819:GLU:HA    | 1:C:822:LEU:HG    | 1.93                     | 0.50              |
| 1:A:969:ASN:OD1   | 1:B:755:GLN:NE2   | 2.43                     | 0.50              |
| 1:B:48:LEU:O      | 1:B:304:LYS:NZ    | 2.43                     | 0.50              |
| 1:B:762:GLN:OE1   | 1:B:765:ARG:NH2   | 2.44                     | 0.50              |
| 1:B:748:GLU:OE1   | 1:B:748:GLU:N     | 2.44                     | 0.50              |
| 1:C:731:MET:HB2   | 1:C:955:ASN:HD21  | 1.76                     | 0.50              |
| 1:C:931:ILE:HA    | 1:C:934:ILE:HG22  | 1.93                     | 0.50              |
| 1:A:379:CYS:SG    | 1:C:487:ASN:ND2   | 2.73                     | 0.50              |
| 1:C:1014:ARG:HA   | 1:C:1017:GLU:HG3  | 1.94                     | 0.50              |
| 1:A:560:LEU:HB2   | 1:A:563:GLN:HG2   | 1.92                     | 0.50              |
| 1:C:777:ASN:O     | 1:C:781:VAL:HG12  | 2.11                     | 0.50              |
| 1:A:1012:LEU:HD12 | 1:C:1013:ILE:HG21 | 1.93                     | 0.50              |
| 1:C:962:LEU:HD21  | 1:C:1007:TYR:CG   | 2.46                     | 0.50              |
| 1:A:566:GLY:HA2   | 1:B:43:PHE:H      | 1.74                     | 0.50              |
| 1:A:666:ILE:HG12  | 1:A:671:CYS:HA    | 1.91                     | 0.50              |
| 1:B:182:LYS:HD3   | 1:B:187:LYS:HD2   | 1.93                     | 0.50              |
| 1:A:96:GLU:OE1    | 1:A:99:ASN:ND2    | 2.36                     | 0.50              |
| 1:A:396:TYR:HB2   | 1:A:514:SER:HB3   | 1.93                     | 0.50              |
| 1:C:295:PRO:HG2   | 1:C:608:VAL:HG11  | 1.92                     | 0.50              |
| 1:C:560:LEU:O     | 1:C:577:ARG:NH2   | 2.43                     | 0.50              |
| 1:C:743:CYS:HB2   | 1:C:977:LEU:HD22  | 1.93                     | 0.50              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:C:1118:ASP:OD1 | 1:C:1118:ASP:N    | 2.44                     | 0.50              |
| 1:B:741:TYR:HE2  | 1:B:966:LEU:HG    | 1.75                     | 0.50              |
| 1:C:874:THR:HG21 | 1:C:1055:SER:HB3  | 1.93                     | 0.50              |
| 1:C:1100:THR:OG1 | 1:C:1101:HIS:N    | 2.43                     | 0.50              |
| 1:A:551:VAL:HB   | 1:A:588:THR:HG23  | 1.91                     | 0.50              |
| 1:C:1028:LYS:NZ  | 1:C:1042:PHE:O    | 2.43                     | 0.50              |
| 1:C:896:ILE:HD12 | 1:C:897:PRO:HD2   | 1.92                     | 0.50              |
| 1:C:741:TYR:OH   | 1:C:962:LEU:O     | 2.24                     | 0.50              |
| 1:A:755:GLN:NE2  | 1:C:969:ASN:OD1   | 2.44                     | 0.50              |
| 1:A:770:ILE:O    | 1:A:774:GLN:HB2   | 2.11                     | 0.50              |
| 1:B:296:LEU:HB2  | 1:B:608:VAL:HG21  | 1.93                     | 0.50              |
| 1:A:734:THR:HG21 | 1:A:959:LEU:HD11  | 1.93                     | 0.50              |
| 1:C:357:ARG:HD2  | 1:C:396:TYR:HE1   | 1.76                     | 0.50              |
| 1:A:914:ASN:HD21 | 1:C:1121:PHE:HE1  | 1.59                     | 0.50              |
| 1:C:948:LEU:HD21 | 1:C:1059:GLY:HA3  | 1.92                     | 0.50              |
| 1:A:53:ASP:OD2   | 1:A:54:LEU:N      | 2.41                     | 0.50              |
| 1:B:83:VAL:HG22  | 1:B:239:GLN:HG2   | 1.93                     | 0.50              |
| 1:B:1028:LYS:NZ  | 1:B:1042:PHE:O    | 2.42                     | 0.50              |
| 1:C:189:LEU:HD22 | 1:C:210:ILE:HD13  | 1.91                     | 0.50              |
| 1:A:100:ILE:HG23 | 1:A:247:SER:HB3   | 1.94                     | 0.50              |
| 1:B:287:ASP:OD1  | 1:B:288:ALA:N     | 2.44                     | 0.50              |
| 1:C:21:ARG:HA    | 1:C:79:PHE:HB3    | 1.93                     | 0.50              |
| 1:A:1089:PHE:HB3 | 1:B:913:GLN:HE21  | 1.75                     | 0.50              |
| 1:C:189:LEU:HD22 | 1:C:210:ILE:HD13  | 1.93                     | 0.50              |
| 1:A:719:THR:HG23 | 1:A:1070:ALA:HB2  | 1.94                     | 0.50              |
| 1:A:784:GLN:HA   | 1:A:784:GLN:NE2   | 2.26                     | 0.50              |
| 1:B:770:ILE:O    | 1:B:774:GLN:CB    | 2.59                     | 0.50              |
| 1:C:1009:THR:O   | 1:C:1013:ILE:HG23 | 2.11                     | 0.50              |
| 1:C:311:GLY:HA2  | 1:C:664:ILE:HG12  | 1.93                     | 0.50              |
| 1:C:858:LEU:HD13 | 1:C:959:LEU:HB3   | 1.93                     | 0.50              |
| 1:A:17:ASN:HB2   | 1:A:21:ARG:HD3    | 1.92                     | 0.50              |
| 1:A:1009:THR:O   | 1:A:1013:ILE:HG13 | 2.12                     | 0.50              |
| 1:B:152:TRP:HB3  | 1:B:179:LEU:HD12  | 1.92                     | 0.50              |
| 1:B:784:GLN:HG3  | 1:B:1034:LEU:HD11 | 1.93                     | 0.50              |
| 1:C:984:LEU:HD11 | 1:C:988:GLU:HB2   | 1.93                     | 0.50              |
| 1:A:296:LEU:HB2  | 1:A:608:VAL:HG21  | 1.93                     | 0.50              |
| 1:C:729:VAL:HG12 | 1:C:1059:GLY:HA2  | 1.93                     | 0.50              |
| 1:C:990:GLU:HA   | 1:C:993:ILE:HG22  | 1.93                     | 0.50              |
| 1:A:48:LEU:HD23  | 1:A:276:LEU:HD21  | 1.92                     | 0.50              |
| 1:A:1086:LYS:HA  | 1:A:1125:ASN:HA   | 1.94                     | 0.50              |
| 1:B:206:LYS:HB2  | 1:B:223:LEU:HA    | 1.94                     | 0.50              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:296:LEU:O     | 1:A:299:THR:OG1   | 2.29                     | 0.50              |
| 1:B:271:GLN:HG2   | 1:B:272:PRO:HD2   | 1.92                     | 0.50              |
| 1:C:296:LEU:O     | 1:C:299:THR:OG1   | 2.22                     | 0.50              |
| 1:A:273:ARG:HE    | 1:A:292:ALA:HB3   | 1.75                     | 0.50              |
| 1:C:946:GLY:HA2   | 1:C:949:GLN:HB2   | 1.94                     | 0.50              |
| 1:B:858:LEU:HD21  | 1:B:962:LEU:HD22  | 1.94                     | 0.50              |
| 1:B:759:PHE:HD2   | 1:B:1001:LEU:HD11 | 1.77                     | 0.50              |
| 1:C:126:VAL:HG21  | 1:C:226:LEU:HD21  | 1.92                     | 0.50              |
| 1:A:130:VAL:HB    | 1:A:168:PHE:HB3   | 1.93                     | 0.50              |
| 1:C:1010:GLN:OE1  | 1:C:1014:ARG:NH2  | 2.35                     | 0.50              |
| 1:A:733:LYS:HE3   | 1:A:771:ALA:HB1   | 1.92                     | 0.50              |
| 1:A:552:LEU:HB3   | 1:A:585:LEU:HD22  | 1.93                     | 0.50              |
| 1:B:44:ARG:HE     | 1:B:279:TYR:HE2   | 1.59                     | 0.50              |
| 1:B:985:ASP:OD1   | 1:B:987:PRO:HD2   | 2.12                     | 0.50              |
| 1:A:92:PHE:HB2    | 1:A:192:PHE:HB2   | 1.94                     | 0.50              |
| 1:A:949:GLN:HA    | 1:A:952:VAL:HG22  | 1.93                     | 0.50              |
| 1:C:212:LEU:HD22  | 1:C:217:PRO:HD3   | 1.92                     | 0.50              |
| 1:C:21:ARG:HA     | 1:C:79:PHE:HB3    | 1.93                     | 0.50              |
| 1:B:1010:GLN:HA   | 1:B:1013:ILE:HD12 | 1.91                     | 0.50              |
| 1:C:567:ARG:HH22  | 1:C:571:ASP:HB3   | 1.76                     | 0.50              |
| 1:A:901:GLN:OE1   | 1:A:905:ARG:NE    | 2.44                     | 0.50              |
| 1:A:87:ASN:OD1    | 1:A:87:ASN:N      | 2.44                     | 0.50              |
| 1:A:1121:PHE:HE1  | 1:B:914:ASN:HD21  | 1.58                     | 0.50              |
| 1:B:954:GLN:HG3   | 1:B:1014:ARG:HD3  | 1.94                     | 0.50              |
| 1:C:35:GLY:HA3    | 1:C:56:LEU:HB3    | 1.93                     | 0.50              |
| 1:A:906:PHE:HB3   | 1:A:911:VAL:HB    | 1.93                     | 0.50              |
| 1:A:722:VAL:HG12  | 1:A:930:ALA:HB1   | 1.94                     | 0.50              |
| 1:C:971:GLY:O     | 1:C:995:ARG:NH1   | 2.44                     | 0.50              |
| 1:A:1004:LEU:HD12 | 1:A:1007:TYR:HB3  | 1.94                     | 0.50              |
| 1:C:773:GLU:HA    | 1:C:776:LYS:HE3   | 1.92                     | 0.50              |
| 1:C:177:MET:HB2   | 1:C:190:ARG:HH21  | 1.77                     | 0.50              |
| 1:B:310:LYS:HG3   | 1:B:600:PRO:HA    | 1.93                     | 0.50              |
| 1:C:543:PHE:HD2   | 1:C:576:VAL:HG21  | 1.77                     | 0.50              |
| 1:C:741:TYR:HE2   | 1:C:1004:LEU:HB2  | 1.77                     | 0.50              |
| 1:B:592:PHE:HZ    | 1:C:857:GLY:HA2   | 1.77                     | 0.50              |
| 1:C:598:ILE:HG23  | 1:C:664:ILE:HD11  | 1.93                     | 0.50              |
| 1:B:24:LEU:HD11   | 1:B:78:ARG:HB3    | 1.94                     | 0.50              |
| 1:B:784:GLN:HG3   | 1:B:1034:LEU:HD21 | 1.93                     | 0.50              |
| 1:C:204:TYR:HD1   | 1:C:225:PRO:HA    | 1.76                     | 0.50              |
| 1:A:667:GLY:HA2   | 1:B:864:LEU:HA    | 1.93                     | 0.50              |
| 1:C:222:ALA:HB2   | 1:C:285:ILE:HB    | 1.94                     | 0.50              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:954:GLN:OE1   | 1:B:1014:ARG:NH1  | 2.45                     | 0.50              |
| 1:C:185:ASN:ND2   | 1:C:211:ASN:OD1   | 2.44                     | 0.50              |
| 1:C:906:PHE:HA    | 1:C:909:ILE:HG12  | 1.94                     | 0.50              |
| 1:C:726:ILE:HD12  | 1:C:1061:VAL:HG22 | 1.92                     | 0.50              |
| 1:A:120:VAL:HB    | 1:A:127:VAL:HB    | 1.93                     | 0.50              |
| 1:B:598:ILE:HB    | 1:B:609:ALA:HB3   | 1.92                     | 0.50              |
| 1:C:345:THR:O     | 1:C:509:ARG:NH2   | 2.44                     | 0.50              |
| 1:A:1155:TYR:O    | 1:A:1159:HIS:ND1  | 2.33                     | 0.50              |
| 1:B:979:ASP:O     | 1:B:983:ARG:HG2   | 2.11                     | 0.50              |
| 1:C:1118:ASP:OD1  | 1:C:1118:ASP:N    | 2.45                     | 0.50              |
| 1:B:37:TYR:OH     | 1:B:54:LEU:O      | 2.28                     | 0.50              |
| 1:B:535:LYS:NZ    | 1:B:554:GLU:OE2   | 2.45                     | 0.50              |
| 1:C:807:PRO:HA    | 1:C:816:SER:HA    | 1.94                     | 0.50              |
| 1:A:777:ASN:O     | 1:A:781:VAL:HG12  | 2.12                     | 0.50              |
| 1:C:33:THR:OG1    | 1:C:219:GLY:O     | 2.29                     | 0.50              |
| 1:A:1028:LYS:NZ   | 1:A:1042:PHE:O    | 2.44                     | 0.50              |
| 1:A:130:VAL:HB    | 1:A:168:PHE:HB3   | 1.93                     | 0.50              |
| 1:A:1129:VAL:HG12 | 1:B:917:TYR:HB3   | 1.94                     | 0.50              |
| 1:C:591:SER:HB3   | 1:C:615:VAL:HG12  | 1.94                     | 0.50              |
| 1:A:702:GLU:HA    | 1:B:788:ILE:HB    | 1.94                     | 0.50              |
| 1:A:1155:TYR:O    | 1:A:1159:HIS:ND1  | 2.34                     | 0.50              |
| 1:A:328:ARG:HD3   | 1:A:543:PHE:HE2   | 1.77                     | 0.50              |
| 1:A:329:PHE:HD2   | 1:A:528:LYS:HB3   | 1.77                     | 0.50              |
| 1:A:345:THR:HG22  | 1:A:346:ARG:HG2   | 1.94                     | 0.50              |
| 1:B:318:PHE:N     | 1:B:593:GLY:O     | 2.45                     | 0.50              |
| 1:C:560:LEU:HB2   | 1:C:563:GLN:HG2   | 1.94                     | 0.50              |
| 1:C:616:ASN:OD1   | 1:C:644:GLN:NE2   | 2.45                     | 0.50              |
| 1:C:918:GLU:OE2   | 1:C:918:GLU:N     | 2.45                     | 0.50              |
| 1:A:777:ASN:O     | 1:A:781:VAL:HG12  | 2.12                     | 0.50              |
| 1:B:353:TRP:HE1   | 1:B:355:ARG:HE    | 1.59                     | 0.50              |
| 1:A:317:ASN:ND2   | 1:B:737:ASP:OD2   | 2.45                     | 0.50              |
| 1:A:328:ARG:HD3   | 1:A:543:PHE:HE2   | 1.77                     | 0.50              |
| 1:C:189:LEU:HD22  | 1:C:210:ILE:HD13  | 1.92                     | 0.50              |
| 1:C:708:SER:HB3   | 1:C:711:SER:HB3   | 1.93                     | 0.50              |
| 1:A:379:CYS:SG    | 1:C:487:ASN:ND2   | 2.76                     | 0.50              |
| 1:A:905:ARG:NH1   | 1:A:1049:LEU:O    | 2.44                     | 0.50              |
| 1:C:737:ASP:HB3   | 1:C:740:MET:HG2   | 1.92                     | 0.50              |
| 1:C:784:GLN:HA    | 1:C:784:GLN:HE21  | 1.76                     | 0.50              |
| 1:B:733:LYS:NZ    | 1:B:861:LEU:O     | 2.42                     | 0.50              |
| 1:A:702:GLU:HA    | 1:B:788:ILE:HB    | 1.94                     | 0.50              |
| 1:B:37:TYR:OH     | 1:B:54:LEU:O      | 2.27                     | 0.50              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:807:PRO:HA    | 1:C:816:SER:HA    | 1.92                     | 0.50              |
| 1:A:699:LEU:HB2   | 1:B:788:ILE:HD11  | 1.92                     | 0.50              |
| 1:B:457:ARG:NH1   | 1:B:459:SER:OG    | 2.44                     | 0.50              |
| 1:B:102:ARG:HB3   | 1:B:121:ASN:HB3   | 1.93                     | 0.50              |
| 1:C:866:THR:OG1   | 1:C:867:ASP:N     | 2.44                     | 0.50              |
| 1:A:193:VAL:HG13  | 1:A:270:LEU:HD21  | 1.93                     | 0.50              |
| 1:B:666:ILE:HD11  | 1:B:672:ALA:HB2   | 1.94                     | 0.50              |
| 1:B:134:GLN:OE1   | 1:B:162:SER:OG    | 2.30                     | 0.50              |
| 1:C:994:ASP:HA    | 1:C:997:ILE:HG12  | 1.93                     | 0.50              |
| 1:A:913:GLN:HE22  | 1:C:1090:PRO:HD2  | 1.77                     | 0.50              |
| 1:A:738:CYS:HB3   | 1:A:763:LEU:HD11  | 1.93                     | 0.50              |
| 1:B:332:ILE:HG12  | 1:B:524:VAL:HG13  | 1.94                     | 0.50              |
| 1:C:310:LYS:HG2   | 1:C:664:ILE:HD11  | 1.93                     | 0.50              |
| 1:A:567:ARG:HD3   | 1:A:571:ASP:HA    | 1.94                     | 0.50              |
| 1:A:1128:VAL:HG11 | 1:B:918:GLU:HG3   | 1.93                     | 0.50              |
| 1:B:330:PRO:HB3   | 1:B:580:GLN:HA    | 1.94                     | 0.50              |
| 1:C:82:PRO:O      | 1:C:239:GLN:NE2   | 2.45                     | 0.50              |
| 1:B:389:ASP:OD1   | 1:B:389:ASP:N     | 2.40                     | 0.50              |
| 1:B:748:GLU:N     | 1:B:748:GLU:OE2   | 2.44                     | 0.50              |
| 1:C:708:SER:HB3   | 1:C:711:SER:HB3   | 1.94                     | 0.50              |
| 1:B:314:GLN:HE22  | 1:B:594:GLY:HA3   | 1.77                     | 0.50              |
| 1:B:822:LEU:HD13  | 1:B:945:LEU:HD21  | 1.94                     | 0.50              |
| 1:B:736:VAL:HG22  | 1:B:858:LEU:HG    | 1.93                     | 0.50              |
| 1:B:37:TYR:OH     | 1:B:54:LEU:O      | 2.23                     | 0.50              |
| 1:A:777:ASN:O     | 1:A:781:VAL:HG12  | 2.11                     | 0.50              |
| 1:B:302:THR:HG21  | 1:B:315:THR:HA    | 1.94                     | 0.50              |
| 1:C:108:THR:O     | 1:C:237:ARG:NH2   | 2.45                     | 0.50              |
| 1:B:389:ASP:OD2   | 1:B:389:ASP:N     | 2.42                     | 0.50              |
| 1:B:737:ASP:OD1   | 1:B:737:ASP:N     | 2.31                     | 0.50              |
| 1:C:48:LEU:HB3    | 1:C:276:LEU:HD11  | 1.93                     | 0.50              |
| 1:A:906:PHE:HB3   | 1:A:911:VAL:HB    | 1.94                     | 0.50              |
| 1:A:985:ASP:OD1   | 1:A:987:PRO:HD2   | 2.11                     | 0.50              |
| 1:B:108:THR:O     | 1:B:237:ARG:NH2   | 2.45                     | 0.50              |
| 1:A:667:GLY:HA2   | 1:B:864:LEU:HA    | 1.93                     | 0.50              |
| 1:B:965:GLN:OE1   | 1:C:758:SER:OG    | 2.24                     | 0.50              |
| 1:A:676:THR:HA    | 1:A:690:GLN:HG2   | 1.93                     | 0.50              |
| 1:A:92:PHE:HE2    | 1:A:94:SER:HB2    | 1.77                     | 0.50              |
| 1:B:1118:ASP:OD1  | 1:B:1118:ASP:N    | 2.44                     | 0.50              |
| 1:A:452:LEU:HD23  | 1:A:492:LEU:HB3   | 1.92                     | 0.50              |
| 1:A:326:ILE:HD12  | 1:A:539:VAL:HG21  | 1.94                     | 0.50              |
| 1:A:774:GLN:NE2   | 1:A:1018:ILE:HD12 | 2.27                     | 0.50              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:C:113:LYS:HG3  | 1:C:114:THR:HG23  | 1.93                     | 0.50              |
| 1:C:710:ASN:OD1  | 1:C:710:ASN:N     | 2.38                     | 0.50              |
| 1:A:946:GLY:HA2  | 1:A:949:GLN:HB3   | 1.94                     | 0.50              |
| 1:B:189:LEU:HD22 | 1:B:210:ILE:HD13  | 1.93                     | 0.50              |
| 1:B:442:ASP:OD1  | 1:B:509:ARG:NH2   | 2.42                     | 0.50              |
| 1:A:963:VAL:HG21 | 1:C:570:ALA:HB1   | 1.94                     | 0.50              |
| 1:A:40:ASP:OD2   | 1:A:41:LYS:N      | 2.34                     | 0.50              |
| 1:A:108:THR:OG1  | 1:A:234:ASN:O     | 2.30                     | 0.50              |
| 1:A:345:THR:HG22 | 1:A:346:ARG:HG2   | 1.94                     | 0.50              |
| 1:B:24:LEU:HD11  | 1:B:78:ARG:HB3    | 1.94                     | 0.50              |
| 1:C:1155:TYR:O   | 1:C:1159:HIS:ND1  | 2.34                     | 0.49              |
| 1:B:52:GLN:OE1   | 1:B:274:THR:OG1   | 2.30                     | 0.49              |
| 1:A:302:THR:HG21 | 1:A:315:THR:HG22  | 1.93                     | 0.49              |
| 1:B:401:VAL:HG22 | 1:B:509:ARG:HG2   | 1.93                     | 0.49              |
| 1:B:646:ARG:HH22 | 1:C:850:ILE:HG21  | 1.76                     | 0.49              |
| 1:B:666:ILE:HD11 | 1:B:672:ALA:HB2   | 1.94                     | 0.49              |
| 1:A:328:ARG:HD3  | 1:A:543:PHE:HE2   | 1.75                     | 0.49              |
| 1:B:296:LEU:HD11 | 1:B:308:VAL:HG11  | 1.93                     | 0.49              |
| 1:C:141:LEU:HD13 | 1:C:154:GLU:HG3   | 1.95                     | 0.49              |
| 1:C:1084:ASP:OD2 | 1:C:1086:LYS:NZ   | 2.45                     | 0.49              |
| 1:A:212:LEU:HD13 | 1:A:217:PRO:HD3   | 1.94                     | 0.49              |
| 1:C:598:ILE:HB   | 1:C:609:ALA:HB3   | 1.94                     | 0.49              |
| 1:B:355:ARG:HH12 | 1:B:464:PHE:HE1   | 1.59                     | 0.49              |
| 1:B:401:VAL:HG22 | 1:B:509:ARG:HG2   | 1.94                     | 0.49              |
| 1:C:204:TYR:HD1  | 1:C:225:PRO:HA    | 1.77                     | 0.49              |
| 1:A:702:GLU:HA   | 1:B:788:ILE:HB    | 1.93                     | 0.49              |
| 1:C:851:CYS:HA   | 1:C:854:LYS:HG2   | 1.94                     | 0.49              |
| 1:B:592:PHE:HZ   | 1:C:857:GLY:HA2   | 1.77                     | 0.49              |
| 1:B:957:GLN:NE2  | 1:C:762:GLN:OE1   | 2.41                     | 0.49              |
| 1:C:708:SER:HB3  | 1:C:711:SER:HB3   | 1.94                     | 0.49              |
| 1:C:767:LEU:HA   | 1:C:770:ILE:HG12  | 1.93                     | 0.49              |
| 1:A:89:GLY:HA3   | 1:A:270:LEU:HD12  | 1.94                     | 0.49              |
| 1:A:702:GLU:HA   | 1:B:788:ILE:HB    | 1.94                     | 0.49              |
| 1:B:599:THR:HG22 | 1:B:608:VAL:HA    | 1.94                     | 0.49              |
| 1:B:746:SER:OG   | 1:B:748:GLU:OE1   | 2.30                     | 0.49              |
| 1:B:535:LYS:NZ   | 1:B:554:GLU:OE2   | 2.45                     | 0.49              |
| 1:C:906:PHE:HA   | 1:C:909:ILE:HG12  | 1.93                     | 0.49              |
| 1:A:777:ASN:O    | 1:A:781:VAL:HG12  | 2.12                     | 0.49              |
| 1:A:1015:ALA:HA  | 1:A:1018:ILE:HG22 | 1.92                     | 0.49              |
| 1:A:611:LEU:HD12 | 1:A:650:LEU:HD13  | 1.94                     | 0.49              |
| 1:B:535:LYS:NZ   | 1:B:554:GLU:OE2   | 2.45                     | 0.49              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:C:204:TYR:HD1  | 1:C:225:PRO:HA    | 1.76                     | 0.49              |
| 1:A:574:ASP:HA   | 1:A:587:ILE:HB    | 1.93                     | 0.49              |
| 1:B:777:ASN:OD1  | 1:B:777:ASN:N     | 2.45                     | 0.49              |
| 1:A:792:PRO:HG3  | 1:C:707:TYR:HB3   | 1.94                     | 0.49              |
| 1:C:64:TRP:HE1   | 1:C:214:ARG:NH1   | 2.10                     | 0.49              |
| 1:C:1015:ALA:HA  | 1:C:1018:ILE:HG22 | 1.94                     | 0.49              |
| 1:A:1010:GLN:HB3 | 1:A:1014:ARG:HH22 | 1.77                     | 0.49              |
| 1:B:37:TYR:OH    | 1:B:53:ASP:OD1    | 2.30                     | 0.49              |
| 1:C:767:LEU:HA   | 1:C:770:ILE:HG12  | 1.94                     | 0.49              |
| 1:C:1091:ARG:NH2 | 1:C:1120:THR:O    | 2.46                     | 0.49              |
| 1:A:100:ILE:HG23 | 1:A:247:SER:HB3   | 1.95                     | 0.49              |
| 1:A:777:ASN:O    | 1:A:781:VAL:HG12  | 2.12                     | 0.49              |
| 1:C:50:SER:OG    | 1:C:304:LYS:NZ    | 2.45                     | 0.49              |
| 1:B:42:VAL:HG11  | 1:B:44:ARG:HH21   | 1.77                     | 0.49              |
| 1:A:568:ASP:OD2  | 1:A:569:ILE:N     | 2.36                     | 0.49              |
| 1:B:57:PRO:HG3   | 1:B:273:ARG:HG3   | 1.92                     | 0.49              |
| 1:B:296:LEU:HB2  | 1:B:608:VAL:HG21  | 1.94                     | 0.49              |
| 1:B:302:THR:HG21 | 1:B:315:THR:HA    | 1.93                     | 0.49              |
| 1:B:598:ILE:HB   | 1:B:609:ALA:HB3   | 1.94                     | 0.49              |
| 1:B:1090:PRO:HG2 | 1:C:913:GLN:HE22  | 1.77                     | 0.49              |
| 1:B:796:ASP:N    | 1:B:796:ASP:OD2   | 2.45                     | 0.49              |
| 1:A:565:PHE:HE1  | 1:A:567:ARG:HH12  | 1.60                     | 0.49              |
| 1:A:767:LEU:HA   | 1:A:770:ILE:HG22  | 1.94                     | 0.49              |
| 1:A:792:PRO:HG3  | 1:C:707:TYR:HB3   | 1.95                     | 0.49              |
| 1:C:65:PHE:C     | 1:C:66:HIS:HD1    | 2.15                     | 0.49              |
| 1:B:353:TRP:HE1  | 1:B:355:ARG:HH21  | 1.59                     | 0.49              |
| 1:B:1028:LYS:O   | 1:B:1032:CYS:HB2  | 2.11                     | 0.49              |
| 1:B:190:ARG:HE   | 1:B:192:PHE:HZ    | 1.60                     | 0.49              |
| 1:B:592:PHE:HZ   | 1:C:857:GLY:HA2   | 1.76                     | 0.49              |
| 1:C:578:ASP:OD2  | 1:C:581:THR:OG1   | 2.28                     | 0.49              |
| 1:A:864:LEU:HD22 | 1:A:865:LEU:HD22  | 1.95                     | 0.49              |
| 1:B:159:VAL:HG12 | 1:B:160:TYR:CD2   | 2.47                     | 0.49              |
| 1:B:172:SER:OG   | 1:B:173:GLN:N     | 2.46                     | 0.49              |
| 1:B:362:VAL:HB   | 1:B:524:VAL:HG12  | 1.94                     | 0.49              |
| 1:C:87:ASN:OD1   | 1:C:87:ASN:N      | 2.45                     | 0.49              |
| 1:B:807:PRO:HA   | 1:B:816:SER:HA    | 1.94                     | 0.49              |
| 1:C:212:LEU:HD22 | 1:C:217:PRO:HD3   | 1.93                     | 0.49              |
| 1:C:422:ASN:HD21 | 1:C:453:TYR:HB2   | 1.76                     | 0.49              |
| 1:A:454:ARG:NH2  | 1:A:469:SER:O     | 2.45                     | 0.49              |
| 1:B:1041:ASP:HB3 | 1:C:1030:SER:HB2  | 1.95                     | 0.49              |
| 1:A:295:PRO:HG2  | 1:A:608:VAL:HG11  | 1.94                     | 0.49              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:742:ILE:O     | 1:A:1000:ARG:NH1  | 2.45                     | 0.49              |
| 1:B:756:TYR:OH    | 1:B:994:ASP:OD2   | 2.29                     | 0.49              |
| 1:C:141:LEU:HB2   | 1:C:246:ILE:HD13  | 1.95                     | 0.49              |
| 1:C:273:ARG:NH1   | 1:C:290:ASP:OD2   | 2.44                     | 0.49              |
| 1:C:99:ASN:O      | 1:C:102:ARG:NH1   | 2.44                     | 0.49              |
| 1:B:598:ILE:HD11  | 1:B:611:LEU:HD12  | 1.94                     | 0.49              |
| 1:B:1096:VAL:HG13 | 1:B:1103:PHE:HB2  | 1.95                     | 0.49              |
| 1:C:31:SER:HB3    | 1:C:34:ARG:HB2    | 1.94                     | 0.49              |
| 1:C:879:ALA:O     | 1:C:883:THR:OG1   | 2.28                     | 0.49              |
| 1:B:53:ASP:HB3    | 1:B:55:PHE:HE1    | 1.78                     | 0.49              |
| 1:A:204:TYR:HD1   | 1:A:225:PRO:HA    | 1.77                     | 0.49              |
| 1:B:33:THR:OG1    | 1:B:219:GLY:O     | 2.26                     | 0.49              |
| 1:B:92:PHE:HB3    | 1:B:192:PHE:HB2   | 1.95                     | 0.49              |
| 1:C:205:SER:HB2   | 1:C:226:LEU:HB2   | 1.94                     | 0.49              |
| 1:B:727:LEU:HG    | 1:B:1025:ALA:HB2  | 1.93                     | 0.49              |
| 1:C:66:HIS:HA     | 1:C:264:ALA:HA    | 1.95                     | 0.49              |
| 1:C:884:SER:OG    | 1:C:887:THR:OG1   | 2.29                     | 0.49              |
| 1:C:708:SER:HB3   | 1:C:711:SER:HB3   | 1.95                     | 0.49              |
| 1:C:1010:GLN:OE1  | 1:C:1014:ARG:NH2  | 2.46                     | 0.49              |
| 1:B:782:PHE:HB3   | 1:B:873:TYR:HD2   | 1.78                     | 0.49              |
| 1:A:782:PHE:HB3   | 1:A:873:TYR:HD1   | 1.76                     | 0.49              |
| 1:A:902:MET:HE1   | 1:A:905:ARG:HD2   | 1.94                     | 0.49              |
| 1:B:974:SER:H     | 1:B:980:ILE:HD11  | 1.77                     | 0.49              |
| 1:A:452:LEU:HD23  | 1:A:492:LEU:HB3   | 1.94                     | 0.49              |
| 1:A:946:GLY:HA2   | 1:A:949:GLN:HB2   | 1.95                     | 0.49              |
| 1:A:1015:ALA:HA   | 1:A:1018:ILE:HG22 | 1.95                     | 0.49              |
| 1:A:1013:ILE:HD12 | 1:B:1012:LEU:HD12 | 1.94                     | 0.49              |
| 1:A:1155:TYR:O    | 1:A:1159:HIS:ND1  | 2.33                     | 0.49              |
| 1:C:82:PRO:O      | 1:C:239:GLN:NE2   | 2.46                     | 0.49              |
| 1:C:902:MET:HB2   | 1:C:916:LEU:HD21  | 1.94                     | 0.49              |
| 1:B:737:ASP:OD1   | 1:B:737:ASP:N     | 2.45                     | 0.49              |
| 1:C:763:LEU:HD12  | 1:C:1008:VAL:HG11 | 1.95                     | 0.49              |
| 1:A:667:GLY:HA2   | 1:B:864:LEU:HA    | 1.94                     | 0.49              |
| 1:B:707:TYR:HB2   | 1:C:792:PRO:HG2   | 1.93                     | 0.49              |
| 1:A:120:VAL:HB    | 1:A:127:VAL:HB    | 1.94                     | 0.49              |
| 1:B:37:TYR:OH     | 1:B:53:ASP:OD1    | 2.30                     | 0.49              |
| 1:B:357:ARG:HH22  | 1:B:359:SER:H     | 1.59                     | 0.49              |
| 1:C:969:ASN:ND2   | 1:C:972:ALA:O     | 2.46                     | 0.49              |
| 1:B:596:SER:HB2   | 1:B:611:LEU:HB3   | 1.93                     | 0.49              |
| 1:A:339:GLY:HA2   | 1:A:342:PHE:CD1   | 2.48                     | 0.49              |
| 1:A:965:GLN:O     | 1:A:968:SER:OG    | 2.31                     | 0.49              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:484:LYS:HD2   | 1:B:490:PHE:HB2   | 1.93                     | 0.49              |
| 1:B:1084:ASP:OD2  | 1:B:1086:LYS:NZ   | 2.45                     | 0.49              |
| 1:C:287:ASP:OD2   | 1:C:288:ALA:N     | 2.45                     | 0.49              |
| 1:C:564:GLN:N     | 1:C:564:GLN:OE1   | 2.46                     | 0.49              |
| 1:C:108:THR:O     | 1:C:237:ARG:NH1   | 2.38                     | 0.49              |
| 1:A:1030:SER:HB2  | 1:C:1041:ASP:HB3  | 1.95                     | 0.49              |
| 1:A:205:SER:O     | 1:A:224:GLU:N     | 2.46                     | 0.49              |
| 1:C:1050:MET:HG2  | 1:C:1065:VAL:HG22 | 1.93                     | 0.49              |
| 1:A:345:THR:HG22  | 1:A:346:ARG:HG2   | 1.94                     | 0.49              |
| 1:C:66:HIS:HA     | 1:C:264:ALA:HA    | 1.93                     | 0.49              |
| 1:C:729:VAL:HG12  | 1:C:1059:GLY:HA2  | 1.93                     | 0.49              |
| 1:C:733:LYS:HE3   | 1:C:771:ALA:HB1   | 1.94                     | 0.49              |
| 1:C:1118:ASP:OD1  | 1:C:1118:ASP:N    | 2.42                     | 0.49              |
| 1:A:328:ARG:HD3   | 1:A:543:PHE:HE2   | 1.76                     | 0.49              |
| 1:A:645:THR:HG23  | 1:A:647:ALA:H     | 1.78                     | 0.49              |
| 1:B:104:TRP:HB2   | 1:B:106:PHE:HE1   | 1.78                     | 0.49              |
| 1:B:403:ARG:HG2   | 1:B:497:PHE:HE1   | 1.77                     | 0.49              |
| 1:A:726:ILE:HG13  | 1:A:1061:VAL:HG23 | 1.95                     | 0.49              |
| 1:A:917:TYR:HB3   | 1:C:1129:VAL:HG22 | 1.93                     | 0.49              |
| 1:C:31:SER:HB2    | 1:C:34:ARG:HB2    | 1.94                     | 0.49              |
| 1:A:777:ASN:O     | 1:A:781:VAL:HG12  | 2.13                     | 0.49              |
| 1:C:1049:LEU:HB2  | 1:C:1065:VAL:HG23 | 1.95                     | 0.49              |
| 1:A:278:LYS:NZ    | 1:A:287:ASP:OD2   | 2.37                     | 0.49              |
| 1:C:117:LEU:HB2   | 1:C:233:ILE:HD11  | 1.94                     | 0.49              |
| 1:B:746:SER:OG    | 1:B:748:GLU:OE1   | 2.30                     | 0.49              |
| 1:B:120:VAL:HG12  | 1:B:241:LEU:HD11  | 1.93                     | 0.49              |
| 1:A:473:TYR:H     | 1:A:491:PRO:HD3   | 1.77                     | 0.49              |
| 1:B:311:GLY:HA2   | 1:B:664:ILE:HD12  | 1.93                     | 0.49              |
| 1:B:878:LEU:O     | 1:B:882:ILE:HG12  | 2.12                     | 0.49              |
| 1:C:563:GLN:O     | 1:C:577:ARG:NH1   | 2.46                     | 0.49              |
| 1:C:645:THR:HG23  | 1:C:647:ALA:H     | 1.76                     | 0.49              |
| 1:A:857:GLY:HA2   | 1:C:592:PHE:HZ    | 1.76                     | 0.49              |
| 1:B:722:VAL:HG12  | 1:B:930:ALA:HB1   | 1.94                     | 0.49              |
| 1:B:1096:VAL:HG13 | 1:B:1103:PHE:HB2  | 1.95                     | 0.49              |
| 1:C:665:PRO:HA    | 1:C:671:CYS:HB2   | 1.94                     | 0.49              |
| 1:B:773:GLU:OE1   | 1:B:774:GLN:NE2   | 2.44                     | 0.49              |
| 1:C:296:LEU:HB2   | 1:C:608:VAL:HG21  | 1.94                     | 0.49              |
| 1:A:717:ASN:OD1   | 1:A:718:PHE:N     | 2.46                     | 0.49              |
| 1:A:970:PHE:HB3   | 1:B:755:GLN:HE21  | 1.77                     | 0.49              |
| 1:B:738:CYS:SG    | 1:B:739:THR:N     | 2.85                     | 0.49              |
| 1:B:784:GLN:HE21  | 1:B:784:GLN:HA    | 1.78                     | 0.49              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:B:1028:LYS:O   | 1:B:1032:CYS:HB2  | 2.12                     | 0.49              |
| 1:B:1091:ARG:NH1 | 1:B:1120:THR:O    | 2.43                     | 0.49              |
| 1:B:58:PHE:HD2   | 1:B:290:ASP:HB2   | 1.78                     | 0.49              |
| 1:A:401:VAL:HG22 | 1:A:509:ARG:HG2   | 1.93                     | 0.49              |
| 1:B:731:MET:H    | 1:B:774:GLN:NE2   | 2.10                     | 0.49              |
| 1:A:564:GLN:HE22 | 1:B:41:LYS:HG3    | 1.77                     | 0.49              |
| 1:B:433:VAL:HA   | 1:B:512:VAL:HG12  | 1.95                     | 0.49              |
| 1:C:309:GLU:N    | 1:C:309:GLU:OE1   | 2.45                     | 0.49              |
| 1:C:742:ILE:HG21 | 1:C:753:LEU:HD22  | 1.94                     | 0.49              |
| 1:A:965:GLN:HA   | 1:A:965:GLN:NE2   | 2.26                     | 0.49              |
| 1:B:598:ILE:HD11 | 1:B:611:LEU:HD12  | 1.94                     | 0.49              |
| 1:B:797:PHE:HE2  | 1:B:802:PHE:HB2   | 1.77                     | 0.49              |
| 1:C:777:ASN:O    | 1:C:781:VAL:HG12  | 2.13                     | 0.49              |
| 1:B:120:VAL:HG12 | 1:B:241:LEU:HD11  | 1.95                     | 0.49              |
| 1:C:758:SER:O    | 1:C:761:THR:OG1   | 2.23                     | 0.49              |
| 1:B:1091:ARG:NH1 | 1:B:1118:ASP:O    | 2.46                     | 0.49              |
| 1:C:314:GLN:HE22 | 1:C:595:VAL:N     | 2.11                     | 0.49              |
| 1:C:452:LEU:HD23 | 1:C:492:LEU:HB3   | 1.94                     | 0.49              |
| 1:A:311:GLY:HA2  | 1:A:664:ILE:HD12  | 1.94                     | 0.49              |
| 1:A:777:ASN:O    | 1:A:781:VAL:HG12  | 2.12                     | 0.49              |
| 1:C:312:ILE:HD11 | 1:C:596:SER:HB3   | 1.95                     | 0.49              |
| 1:B:1086:LYS:HE2 | 1:B:1122:VAL:HG21 | 1.94                     | 0.49              |
| 1:B:733:LYS:HD2  | 1:B:771:ALA:HB1   | 1.94                     | 0.49              |
| 1:C:87:ASN:OD1   | 1:C:87:ASN:N      | 2.43                     | 0.49              |
| 1:A:21:ARG:HD3   | 1:A:79:PHE:HD2    | 1.78                     | 0.49              |
| 1:A:1019:ARG:NE  | 1:C:1017:GLU:OE1  | 2.46                     | 0.49              |
| 1:B:985:ASP:OD2  | 1:B:987:PRO:HD2   | 2.13                     | 0.49              |
| 1:A:777:ASN:O    | 1:A:781:VAL:HG12  | 2.12                     | 0.49              |
| 1:A:898:PHE:N    | 1:C:707:TYR:OH    | 2.44                     | 0.49              |
| 1:A:189:LEU:HD22 | 1:A:210:ILE:HD13  | 1.95                     | 0.49              |
| 1:B:35:GLY:HA3   | 1:B:56:LEU:HB3    | 1.95                     | 0.49              |
| 1:A:731:MET:H    | 1:A:774:GLN:HE21  | 1.60                     | 0.49              |
| 1:A:905:ARG:NH1  | 1:A:1036:GLN:HB2  | 2.28                     | 0.49              |
| 1:B:55:PHE:HB2   | 1:B:273:ARG:HB2   | 1.95                     | 0.49              |
| 1:B:376:THR:HB   | 1:B:435:ALA:HB3   | 1.94                     | 0.49              |
| 1:C:310:LYS:HG3  | 1:C:600:PRO:HA    | 1.94                     | 0.49              |
| 1:B:1039:ARG:HB3 | 1:C:1031:GLU:OE1  | 2.12                     | 0.49              |
| 1:C:946:GLY:HA2  | 1:C:949:GLN:HB2   | 1.93                     | 0.49              |
| 1:A:552:LEU:HB3  | 1:A:585:LEU:HD23  | 1.94                     | 0.49              |
| 1:C:37:TYR:OH    | 1:C:53:ASP:OD1    | 2.27                     | 0.49              |
| 1:C:1019:ARG:O   | 1:C:1023:ASN:ND2  | 2.35                     | 0.49              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:296:LEU:HB2   | 1:A:608:VAL:HG21  | 1.95                     | 0.49              |
| 1:C:931:ILE:HA    | 1:C:934:ILE:HG22  | 1.94                     | 0.49              |
| 1:B:26:PRO:HA     | 1:B:65:PHE:HE1    | 1.78                     | 0.49              |
| 1:C:206:LYS:HE2   | 1:C:208:THR:HB    | 1.93                     | 0.49              |
| 1:A:205:SER:O     | 1:A:224:GLU:N     | 2.45                     | 0.49              |
| 1:A:1040:VAL:O    | 1:B:1030:SER:OG   | 2.31                     | 0.49              |
| 1:B:423:TYR:OH    | 1:B:514:SER:OG    | 2.29                     | 0.49              |
| 1:B:296:LEU:HB3   | 1:B:608:VAL:HG21  | 1.95                     | 0.49              |
| 1:B:1091:ARG:NH1  | 1:B:1118:ASP:O    | 2.46                     | 0.49              |
| 1:A:1005:GLN:HA   | 1:A:1008:VAL:HG12 | 1.95                     | 0.49              |
| 1:B:287:ASP:OD1   | 1:B:288:ALA:N     | 2.46                     | 0.49              |
| 1:B:457:ARG:NH2   | 1:B:459:SER:OG    | 2.45                     | 0.49              |
| 1:A:535:LYS:NZ    | 1:A:554:GLU:OE1   | 2.36                     | 0.49              |
| 1:C:1052:PHE:HB2  | 1:C:1063:LEU:HB2  | 1.93                     | 0.49              |
| 1:A:819:GLU:HA    | 1:A:822:LEU:HB2   | 1.95                     | 0.49              |
| 1:B:53:ASP:OD2    | 1:B:54:LEU:N      | 2.42                     | 0.49              |
| 1:A:31:SER:HB2    | 1:A:34:ARG:HB2    | 1.95                     | 0.49              |
| 1:A:733:LYS:NZ    | 1:A:862:PRO:O     | 2.45                     | 0.49              |
| 1:A:857:GLY:HA2   | 1:C:592:PHE:HZ    | 1.78                     | 0.49              |
| 1:A:767:LEU:HA    | 1:A:770:ILE:HG22  | 1.94                     | 0.49              |
| 1:B:1091:ARG:NH1  | 1:B:1120:THR:O    | 2.46                     | 0.49              |
| 1:C:802:PHE:HE1   | 1:C:927:PHE:HE1   | 1.61                     | 0.49              |
| 1:A:788:ILE:HD11  | 1:C:699:LEU:HB3   | 1.95                     | 0.49              |
| 1:C:298:GLU:O     | 1:C:302:THR:OG1   | 2.25                     | 0.49              |
| 1:B:35:GLY:HA3    | 1:B:56:LEU:HB3    | 1.94                     | 0.49              |
| 1:B:452:LEU:HB3   | 1:B:492:LEU:HD11  | 1.93                     | 0.49              |
| 1:A:903:ALA:HB1   | 1:A:913:GLN:HG2   | 1.95                     | 0.49              |
| 1:A:1015:ALA:HA   | 1:A:1018:ILE:HG22 | 1.94                     | 0.49              |
| 1:B:271:GLN:HG2   | 1:B:273:ARG:HH21  | 1.77                     | 0.49              |
| 1:C:719:THR:HG23  | 1:C:1070:ALA:HB2  | 1.94                     | 0.49              |
| 1:A:755:GLN:O     | 1:C:968:SER:OG    | 2.25                     | 0.49              |
| 1:C:204:TYR:HD1   | 1:C:225:PRO:HA    | 1.77                     | 0.49              |
| 1:B:914:ASN:N     | 1:B:914:ASN:OD1   | 2.43                     | 0.49              |
| 1:A:204:TYR:HD1   | 1:A:225:PRO:HA    | 1.77                     | 0.49              |
| 1:B:598:ILE:HB    | 1:B:609:ALA:HB3   | 1.94                     | 0.49              |
| 1:A:37:TYR:OH     | 1:A:53:ASP:OD1    | 2.26                     | 0.49              |
| 1:A:93:ALA:HB3    | 1:A:266:TYR:HB2   | 1.95                     | 0.49              |
| 1:A:819:GLU:HA    | 1:A:822:LEU:HB2   | 1.95                     | 0.49              |
| 1:C:1027:THR:HG22 | 1:C:1042:PHE:HZ   | 1.78                     | 0.49              |
| 1:B:189:LEU:HD13  | 1:B:210:ILE:HD11  | 1.95                     | 0.49              |
| 1:B:535:LYS:NZ    | 1:B:554:GLU:OE2   | 2.46                     | 0.49              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:69:HIS:O      | 1:C:77:LYS:N      | 2.46                     | 0.49              |
| 1:A:735:SER:OG    | 1:A:859:THR:OG1   | 2.27                     | 0.49              |
| 1:C:598:ILE:HB    | 1:C:609:ALA:HB3   | 1.95                     | 0.49              |
| 1:B:957:GLN:HE21  | 1:C:765:ARG:HE    | 1.59                     | 0.49              |
| 1:A:473:TYR:H     | 1:A:491:PRO:HD3   | 1.76                     | 0.49              |
| 1:B:287:ASP:OD1   | 1:B:288:ALA:N     | 2.46                     | 0.49              |
| 1:A:1129:VAL:HG22 | 1:B:917:TYR:HB3   | 1.94                     | 0.49              |
| 1:C:189:LEU:HD22  | 1:C:210:ILE:HD13  | 1.95                     | 0.49              |
| 1:C:578:ASP:OD2   | 1:C:581:THR:OG1   | 2.30                     | 0.49              |
| 1:A:345:THR:HG22  | 1:A:346:ARG:HG2   | 1.95                     | 0.49              |
| 1:C:971:GLY:O     | 1:C:995:ARG:NH1   | 2.46                     | 0.49              |
| 1:B:666:ILE:HD11  | 1:B:672:ALA:HB2   | 1.95                     | 0.49              |
| 1:A:717:ASN:OD1   | 1:A:718:PHE:N     | 2.46                     | 0.49              |
| 1:C:521:PRO:HG3   | 1:C:564:GLN:HE21  | 1.78                     | 0.49              |
| 1:A:592:PHE:HZ    | 1:B:857:GLY:HA2   | 1.78                     | 0.49              |
| 1:B:977:LEU:HD21  | 1:B:996:LEU:HD23  | 1.94                     | 0.49              |
| 1:A:1040:VAL:N    | 1:B:1031:GLU:OE2  | 2.46                     | 0.49              |
| 1:B:1030:SER:HA   | 1:B:1034:LEU:HD12 | 1.95                     | 0.49              |
| 1:C:329:PHE:HD2   | 1:C:528:LYS:HB3   | 1.78                     | 0.49              |
| 1:A:92:PHE:HB2    | 1:A:192:PHE:HB2   | 1.95                     | 0.49              |
| 1:A:765:ARG:NH2   | 1:C:957:GLN:OE1   | 2.46                     | 0.49              |
| 1:B:328:ARG:HH12  | 1:B:533:LEU:HD22  | 1.78                     | 0.49              |
| 1:A:1012:LEU:HB3  | 1:C:1013:ILE:HG21 | 1.94                     | 0.49              |
| 1:C:333:THR:OG1   | 1:C:360:ASN:OD1   | 2.30                     | 0.49              |
| 1:C:769:GLY:HA2   | 1:C:772:VAL:HG12  | 1.95                     | 0.49              |
| 1:C:965:GLN:O     | 1:C:968:SER:OG    | 2.31                     | 0.49              |
| 1:C:108:THR:OG1   | 1:C:234:ASN:O     | 2.31                     | 0.49              |
| 1:A:31:SER:HB3    | 1:A:34:ARG:HB2    | 1.95                     | 0.49              |
| 1:A:596:SER:HB2   | 1:A:611:LEU:HB3   | 1.95                     | 0.49              |
| 1:B:392:PHE:HD2   | 1:B:515:PHE:HD1   | 1.59                     | 0.49              |
| 1:B:484:LYS:HD2   | 1:B:490:PHE:HB2   | 1.95                     | 0.49              |
| 1:A:765:ARG:HD2   | 1:C:957:GLN:OE1   | 2.13                     | 0.49              |
| 1:A:792:PRO:HG3   | 1:C:707:TYR:HB3   | 1.94                     | 0.49              |
| 1:A:1033:VAL:HG22 | 1:A:1051:SER:HB2  | 1.95                     | 0.49              |
| 1:B:760:CYS:HA    | 1:B:763:LEU:HG    | 1.95                     | 0.49              |
| 1:B:484:LYS:HD2   | 1:B:490:PHE:HB2   | 1.95                     | 0.49              |
| 1:A:902:MET:HB2   | 1:A:916:LEU:HD21  | 1.94                     | 0.49              |
| 1:B:96:GLU:OE1    | 1:B:100:ILE:N     | 2.46                     | 0.49              |
| 1:B:310:LYS:HG2   | 1:B:664:ILE:HD11  | 1.94                     | 0.49              |
| 1:C:222:ALA:HB2   | 1:C:285:ILE:HB    | 1.95                     | 0.49              |
| 1:B:866:THR:H     | 1:B:869:MET:HE3   | 1.78                     | 0.48              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:560:LEU:HB2   | 1:C:563:GLN:HG2   | 1.93                     | 0.48              |
| 1:C:1014:ARG:HA   | 1:C:1017:GLU:HG3  | 1.96                     | 0.48              |
| 1:B:1028:LYS:NZ   | 1:B:1032:CYS:SG   | 2.79                     | 0.48              |
| 1:C:345:THR:HG22  | 1:C:346:ARG:HG2   | 1.95                     | 0.48              |
| 1:C:813:SER:OG    | 1:C:868:GLU:OE2   | 2.27                     | 0.48              |
| 1:C:1081:ILE:HG13 | 1:C:1115:ILE:HD13 | 1.93                     | 0.48              |
| 1:A:813:SER:OG    | 1:A:868:GLU:OE2   | 2.25                     | 0.48              |
| 1:A:825:LYS:HD3   | 1:A:942:ALA:HA    | 1.94                     | 0.48              |
| 1:B:392:PHE:HD2   | 1:B:517:LEU:HD13  | 1.78                     | 0.48              |
| 1:C:65:PHE:O      | 1:C:66:HIS:ND1    | 2.39                     | 0.48              |
| 1:C:905:ARG:NH1   | 1:C:1049:LEU:O    | 2.46                     | 0.48              |
| 1:A:825:LYS:NZ    | 1:A:938:LEU:O     | 2.40                     | 0.48              |
| 1:A:906:PHE:HB3   | 1:A:911:VAL:HB    | 1.95                     | 0.48              |
| 1:A:984:LEU:HB2   | 1:A:989:ALA:HB2   | 1.96                     | 0.48              |
| 1:B:898:PHE:HA    | 1:B:901:GLN:HB3   | 1.95                     | 0.48              |
| 1:B:1107:ARG:HH22 | 1:C:904:TYR:HB2   | 1.77                     | 0.48              |
| 1:A:707:TYR:HE2   | 1:B:897:PRO:HA    | 1.78                     | 0.48              |
| 1:B:96:GLU:OE1    | 1:B:100:ILE:N     | 2.46                     | 0.48              |
| 1:B:598:ILE:HB    | 1:B:609:ALA:HB3   | 1.94                     | 0.48              |
| 1:B:774:GLN:HA    | 1:B:777:ASN:HD21  | 1.78                     | 0.48              |
| 1:B:1052:PHE:HB2  | 1:B:1063:LEU:HB2  | 1.95                     | 0.48              |
| 1:B:1115:ILE:HG22 | 1:B:1137:VAL:HG23 | 1.95                     | 0.48              |
| 1:C:931:ILE:HA    | 1:C:934:ILE:HG22  | 1.95                     | 0.48              |
| 1:A:905:ARG:NH1   | 1:A:1049:LEU:O    | 2.45                     | 0.48              |
| 1:B:406:GLU:HB3   | 1:B:410:ILE:HD12  | 1.95                     | 0.48              |
| 1:C:741:TYR:HD1   | 1:C:742:ILE:HD13  | 1.78                     | 0.48              |
| 1:C:807:PRO:HA    | 1:C:816:SER:HA    | 1.95                     | 0.48              |
| 1:C:1081:ILE:HG23 | 1:C:1135:ASN:HB2  | 1.94                     | 0.48              |
| 1:B:49:HIS:CE1    | 1:B:51:THR:HG22   | 2.48                     | 0.48              |
| 1:C:905:ARG:HH11  | 1:C:1050:MET:HE2  | 1.78                     | 0.48              |
| 1:C:454:ARG:NH1   | 1:C:467:ASP:OD2   | 2.46                     | 0.48              |
| 1:B:617:CYS:N     | 1:B:649:CYS:SG    | 2.82                     | 0.48              |
| 1:A:881:THR:HG23  | 1:A:882:ILE:HD13  | 1.96                     | 0.48              |
| 1:B:773:GLU:OE1   | 1:B:1019:ARG:NH2  | 2.39                     | 0.48              |
| 1:B:773:GLU:OE1   | 1:B:777:ASN:ND2   | 2.46                     | 0.48              |
| 1:C:18:PHE:HB2    | 1:C:21:ARG:HB2    | 1.95                     | 0.48              |
| 1:A:396:TYR:HB2   | 1:A:514:SER:HB3   | 1.93                     | 0.48              |
| 1:A:930:ALA:HA    | 1:A:933:LYS:HE2   | 1.95                     | 0.48              |
| 1:B:203:ILE:HG23  | 1:B:227:VAL:H     | 1.77                     | 0.48              |
| 1:A:825:LYS:HD3   | 1:A:942:ALA:HA    | 1.95                     | 0.48              |
| 1:C:345:THR:HG22  | 1:C:346:ARG:HG2   | 1.94                     | 0.48              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:33:THR:OG1   | 1:A:219:GLY:O     | 2.29                     | 0.48              |
| 1:A:881:THR:HG23 | 1:A:882:ILE:HD13  | 1.94                     | 0.48              |
| 1:B:357:ARG:NH2  | 1:C:230:PRO:O     | 2.46                     | 0.48              |
| 1:A:302:THR:HG21 | 1:A:315:THR:HG22  | 1.96                     | 0.48              |
| 1:B:551:VAL:N    | 1:B:588:THR:O     | 2.41                     | 0.48              |
| 1:B:52:GLN:OE1   | 1:B:274:THR:OG1   | 2.29                     | 0.48              |
| 1:B:735:SER:HA   | 1:B:767:LEU:HG    | 1.95                     | 0.48              |
| 1:B:858:LEU:HD21 | 1:B:962:LEU:HD23  | 1.94                     | 0.48              |
| 1:C:31:SER:HB2   | 1:C:34:ARG:HB2    | 1.95                     | 0.48              |
| 1:C:310:LYS:HG2  | 1:C:664:ILE:HD11  | 1.94                     | 0.48              |
| 1:C:1015:ALA:HA  | 1:C:1018:ILE:HG22 | 1.95                     | 0.48              |
| 1:B:665:PRO:HB2  | 1:C:864:LEU:HD11  | 1.96                     | 0.48              |
| 1:B:316:SER:OG   | 1:B:317:ASN:N     | 2.46                     | 0.48              |
| 1:A:645:THR:HG23 | 1:A:647:ALA:H     | 1.79                     | 0.48              |
| 1:A:15:CYS:HA    | 1:A:137:ASN:HB2   | 1.95                     | 0.48              |
| 1:B:318:PHE:HE2  | 1:B:615:VAL:HG21  | 1.78                     | 0.48              |
| 1:B:971:GLY:H    | 1:C:755:GLN:HE22  | 1.60                     | 0.48              |
| 1:B:1135:ASN:OD1 | 1:B:1136:THR:N    | 2.41                     | 0.48              |
| 1:C:1015:ALA:HA  | 1:C:1018:ILE:HG22 | 1.94                     | 0.48              |
| 1:A:43:PHE:H     | 1:C:566:GLY:HA2   | 1.79                     | 0.48              |
| 1:B:733:LYS:HE3  | 1:B:771:ALA:HB1   | 1.94                     | 0.48              |
| 1:C:598:ILE:HB   | 1:C:609:ALA:HB3   | 1.94                     | 0.48              |
| 1:A:1043:CYS:O   | 1:A:1064:HIS:ND1  | 2.46                     | 0.48              |
| 1:A:107:GLY:H    | 1:A:235:ILE:HG23  | 1.78                     | 0.48              |
| 1:C:742:ILE:HG12 | 1:C:997:ILE:HG22  | 1.96                     | 0.48              |
| 1:C:978:ASN:O    | 1:C:982:SER:OG    | 2.28                     | 0.48              |
| 1:A:914:ASN:OD1  | 1:A:914:ASN:N     | 2.46                     | 0.48              |
| 1:C:552:LEU:HB3  | 1:C:585:LEU:HD23  | 1.96                     | 0.48              |
| 1:A:1028:LYS:NZ  | 1:A:1042:PHE:O    | 2.47                     | 0.48              |
| 1:B:873:TYR:O    | 1:B:877:LEU:HB2   | 2.14                     | 0.48              |
| 1:C:299:THR:HG22 | 1:C:597:VAL:HG11  | 1.96                     | 0.48              |
| 1:B:401:VAL:HG22 | 1:B:509:ARG:HG2   | 1.95                     | 0.48              |
| 1:B:443:SER:HB3  | 1:B:499:PRO:HG3   | 1.96                     | 0.48              |
| 1:B:68:ILE:HG12  | 1:B:78:ARG:HB2    | 1.96                     | 0.48              |
| 1:C:960:ASN:HA   | 1:C:963:VAL:HG22  | 1.95                     | 0.48              |
| 1:B:108:THR:OG1  | 1:B:234:ASN:O     | 2.30                     | 0.48              |
| 1:B:901:GLN:HE21 | 1:B:905:ARG:HE    | 1.60                     | 0.48              |
| 1:C:296:LEU:HB2  | 1:C:608:VAL:HG21  | 1.96                     | 0.48              |
| 1:B:452:LEU:HB3  | 1:B:492:LEU:HD11  | 1.96                     | 0.48              |
| 1:B:642:VAL:HG13 | 1:B:651:ILE:HG22  | 1.95                     | 0.48              |
| 1:C:472:ILE:HA   | 1:C:491:PRO:HG2   | 1.95                     | 0.48              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:737:ASP:OD1   | 1:C:740:MET:HB3   | 2.14                     | 0.48              |
| 1:A:676:THR:HA    | 1:A:690:GLN:HG2   | 1.94                     | 0.48              |
| 1:A:722:VAL:HG22  | 1:A:930:ALA:HB1   | 1.95                     | 0.48              |
| 1:C:99:ASN:O      | 1:C:102:ARG:NH2   | 2.45                     | 0.48              |
| 1:C:710:ASN:OD1   | 1:C:710:ASN:N     | 2.41                     | 0.48              |
| 1:B:912:THR:HG22  | 1:B:914:ASN:H     | 1.78                     | 0.48              |
| 1:C:326:ILE:HD11  | 1:C:534:VAL:HB    | 1.96                     | 0.48              |
| 1:B:24:LEU:HD12   | 1:B:80:ALA:HB2    | 1.95                     | 0.48              |
| 1:B:864:LEU:HG    | 1:B:865:LEU:HD23  | 1.95                     | 0.48              |
| 1:C:293:LEU:HD23  | 1:C:294:ASP:HB3   | 1.95                     | 0.48              |
| 1:B:898:PHE:HA    | 1:B:901:GLN:HB3   | 1.94                     | 0.48              |
| 1:A:58:PHE:HB2    | 1:A:293:LEU:HD21  | 1.93                     | 0.48              |
| 1:C:345:THR:HG22  | 1:C:346:ARG:HG2   | 1.96                     | 0.48              |
| 1:B:851:CYS:HA    | 1:B:854:LYS:HE2   | 1.95                     | 0.48              |
| 1:C:1100:THR:OG1  | 1:C:1101:HIS:N    | 2.47                     | 0.48              |
| 1:C:396:TYR:HB2   | 1:C:514:SER:HB2   | 1.96                     | 0.48              |
| 1:C:578:ASP:OD2   | 1:C:581:THR:N     | 2.45                     | 0.48              |
| 1:A:1043:CYS:O    | 1:A:1064:HIS:ND1  | 2.45                     | 0.48              |
| 1:A:287:ASP:OD1   | 1:A:288:ALA:N     | 2.45                     | 0.48              |
| 1:C:886:TRP:HH2   | 1:C:904:TYR:HB3   | 1.78                     | 0.48              |
| 1:A:476:GLY:H     | 1:A:487:ASN:HB3   | 1.79                     | 0.48              |
| 1:A:869:MET:HG2   | 1:C:699:LEU:HD11  | 1.96                     | 0.48              |
| 1:A:767:LEU:HA    | 1:A:770:ILE:HG12  | 1.96                     | 0.48              |
| 1:C:35:GLY:HA3    | 1:C:56:LEU:HB3    | 1.96                     | 0.48              |
| 1:C:596:SER:HB2   | 1:C:611:LEU:HB3   | 1.94                     | 0.48              |
| 1:A:961:THR:HA    | 1:A:964:LYS:HD2   | 1.93                     | 0.48              |
| 1:B:40:ASP:OD2    | 1:B:41:LYS:N      | 2.46                     | 0.48              |
| 1:A:792:PRO:HG3   | 1:C:707:TYR:HB3   | 1.96                     | 0.48              |
| 1:B:442:ASP:OD1   | 1:B:509:ARG:NH2   | 2.44                     | 0.48              |
| 1:C:777:ASN:O     | 1:C:781:VAL:HG12  | 2.13                     | 0.48              |
| 1:B:287:ASP:OD1   | 1:B:288:ALA:N     | 2.47                     | 0.48              |
| 1:C:224:GLU:N     | 1:C:224:GLU:OE1   | 2.46                     | 0.48              |
| 1:C:763:LEU:HD22  | 1:C:1008:VAL:HG21 | 1.94                     | 0.48              |
| 1:A:598:ILE:HB    | 1:A:609:ALA:HB3   | 1.96                     | 0.48              |
| 1:A:770:ILE:HD12  | 1:A:1015:ALA:HB2  | 1.96                     | 0.48              |
| 1:C:108:THR:OG1   | 1:C:234:ASN:O     | 2.31                     | 0.48              |
| 1:A:108:THR:O     | 1:A:237:ARG:NH1   | 2.46                     | 0.48              |
| 1:A:1155:TYR:O    | 1:A:1159:HIS:ND1  | 2.34                     | 0.48              |
| 1:A:1116:THR:HG22 | 1:A:1138:TYR:HD2  | 1.78                     | 0.48              |
| 1:A:102:ARG:NH1   | 1:A:121:ASN:O     | 2.44                     | 0.48              |
| 1:C:819:GLU:HA    | 1:C:822:LEU:HG    | 1.96                     | 0.48              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:1010:GLN:OE1  | 1:A:1014:ARG:NH1  | 2.47                     | 0.48              |
| 1:B:452:LEU:HB3   | 1:B:492:LEU:HD11  | 1.96                     | 0.48              |
| 1:B:1118:ASP:OD2  | 1:B:1118:ASP:N    | 2.44                     | 0.48              |
| 1:C:886:TRP:HB3   | 1:C:1035:GLY:HA2  | 1.96                     | 0.48              |
| 1:A:96:GLU:OE1    | 1:A:99:ASN:ND2    | 2.38                     | 0.48              |
| 1:B:722:VAL:HG12  | 1:B:930:ALA:HB1   | 1.95                     | 0.48              |
| 1:C:1102:TRP:HB2  | 1:C:1135:ASN:HD22 | 1.78                     | 0.48              |
| 1:A:345:THR:HG22  | 1:A:346:ARG:HG2   | 1.95                     | 0.48              |
| 1:C:345:THR:HG22  | 1:C:346:ARG:HG2   | 1.95                     | 0.48              |
| 1:C:185:ASN:ND2   | 1:C:212:LEU:O     | 2.46                     | 0.48              |
| 1:C:328:ARG:HH22  | 1:C:532:ASN:HA    | 1.78                     | 0.48              |
| 1:C:729:VAL:HG12  | 1:C:1059:GLY:HA2  | 1.95                     | 0.48              |
| 1:B:394:ASN:HB2   | 1:B:516:GLU:HB2   | 1.96                     | 0.48              |
| 1:C:17:ASN:HB2    | 1:C:21:ARG:HD3    | 1.95                     | 0.48              |
| 1:C:983:ARG:HG3   | 1:C:984:LEU:HD22  | 1.94                     | 0.48              |
| 1:A:1010:GLN:HE22 | 1:A:1014:ARG:HD3  | 1.79                     | 0.48              |
| 1:B:954:GLN:HA    | 1:B:957:GLN:HG3   | 1.95                     | 0.48              |
| 1:A:1035:GLY:HA3  | 1:C:1040:VAL:HG11 | 1.96                     | 0.48              |
| 1:B:977:LEU:HD21  | 1:B:996:LEU:HD23  | 1.96                     | 0.48              |
| 1:B:310:LYS:HG2   | 1:B:664:ILE:HD11  | 1.94                     | 0.48              |
| 1:B:1084:ASP:OD2  | 1:B:1086:LYS:NZ   | 2.46                     | 0.48              |
| 1:B:1123:SER:OG   | 1:C:914:ASN:OD1   | 2.27                     | 0.48              |
| 1:A:699:LEU:HD11  | 1:B:869:MET:HB3   | 1.95                     | 0.48              |
| 1:C:296:LEU:HB2   | 1:C:608:VAL:HG21  | 1.96                     | 0.48              |
| 1:A:777:ASN:O     | 1:A:781:VAL:HG12  | 2.13                     | 0.48              |
| 1:B:977:LEU:HD21  | 1:B:996:LEU:HD23  | 1.95                     | 0.48              |
| 1:C:473:TYR:H     | 1:C:491:PRO:HG2   | 1.79                     | 0.48              |
| 1:A:296:LEU:O     | 1:A:299:THR:OG1   | 2.30                     | 0.48              |
| 1:A:971:GLY:O     | 1:A:995:ARG:NH1   | 2.47                     | 0.48              |
| 1:A:345:THR:HG22  | 1:A:346:ARG:HG2   | 1.96                     | 0.48              |
| 1:A:719:THR:HG23  | 1:A:1070:ALA:HB2  | 1.95                     | 0.48              |
| 1:A:296:LEU:HB2   | 1:A:608:VAL:HG21  | 1.94                     | 0.48              |
| 1:A:731:MET:HB3   | 1:A:774:GLN:HE22  | 1.79                     | 0.48              |
| 1:B:642:VAL:HG13  | 1:B:651:ILE:HG22  | 1.95                     | 0.48              |
| 1:B:725:GLU:OE1   | 1:B:1064:HIS:NE2  | 2.46                     | 0.48              |
| 1:B:14:GLN:N      | 1:B:255:SER:OG    | 2.42                     | 0.48              |
| 1:B:189:LEU:HD22  | 1:B:210:ILE:HD13  | 1.95                     | 0.48              |
| 1:B:901:GLN:HE21  | 1:B:905:ARG:HE    | 1.60                     | 0.48              |
| 1:A:1086:LYS:HA   | 1:A:1125:ASN:HA   | 1.95                     | 0.48              |
| 1:B:18:PHE:HB2    | 1:B:21:ARG:HB2    | 1.96                     | 0.48              |
| 1:B:117:LEU:HD13  | 1:B:235:ILE:HD11  | 1.96                     | 0.48              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:182:LYS:HD3   | 1:B:187:LYS:HD2   | 1.94                     | 0.48              |
| 1:C:729:VAL:HG12  | 1:C:1059:GLY:HA2  | 1.95                     | 0.48              |
| 1:B:1015:ALA:HA   | 1:B:1018:ILE:HG22 | 1.96                     | 0.48              |
| 1:A:53:ASP:OD2    | 1:A:195:LYS:NZ    | 2.43                     | 0.48              |
| 1:C:906:PHE:HA    | 1:C:909:ILE:HG12  | 1.95                     | 0.48              |
| 1:A:326:ILE:HD12  | 1:A:539:VAL:HG21  | 1.95                     | 0.48              |
| 1:B:737:ASP:OD1   | 1:B:740:MET:HB2   | 2.14                     | 0.48              |
| 1:A:611:LEU:HB2   | 1:A:650:LEU:HD13  | 1.94                     | 0.48              |
| 1:B:403:ARG:HG2   | 1:B:497:PHE:HE1   | 1.79                     | 0.48              |
| 1:B:878:LEU:O     | 1:B:882:ILE:HG12  | 2.13                     | 0.48              |
| 1:B:1135:ASN:OD1  | 1:B:1136:THR:N    | 2.41                     | 0.48              |
| 1:B:287:ASP:OD2   | 1:B:288:ALA:N     | 2.47                     | 0.48              |
| 1:B:1009:THR:O    | 1:B:1013:ILE:HG13 | 2.13                     | 0.48              |
| 1:B:96:GLU:OE1    | 1:B:100:ILE:N     | 2.47                     | 0.48              |
| 1:B:736:VAL:HG22  | 1:B:858:LEU:HG    | 1.95                     | 0.48              |
| 1:C:172:SER:OG    | 1:C:173:GLN:N     | 2.45                     | 0.48              |
| 1:A:777:ASN:OD1   | 1:A:1019:ARG:NH2  | 2.47                     | 0.48              |
| 1:A:802:PHE:HD1   | 1:A:805:ILE:HD11  | 1.78                     | 0.48              |
| 1:B:896:ILE:HD12  | 1:B:897:PRO:HD2   | 1.96                     | 0.48              |
| 1:C:40:ASP:OD2    | 1:C:41:LYS:N      | 2.44                     | 0.48              |
| 1:B:104:TRP:HB2   | 1:B:106:PHE:CE1   | 2.49                     | 0.48              |
| 1:C:916:LEU:O     | 1:C:920:GLN:HB2   | 2.14                     | 0.48              |
| 1:C:870:ILE:HD12  | 1:C:1055:SER:HB2  | 1.95                     | 0.48              |
| 1:B:126:VAL:HB    | 1:B:172:SER:HB3   | 1.95                     | 0.48              |
| 1:C:777:ASN:O     | 1:C:781:VAL:HG12  | 2.13                     | 0.48              |
| 1:A:733:LYS:NZ    | 1:A:862:PRO:O     | 2.46                     | 0.48              |
| 1:B:1135:ASN:OD1  | 1:B:1136:THR:N    | 2.42                     | 0.48              |
| 1:A:1040:VAL:HG11 | 1:B:1035:GLY:HA3  | 1.96                     | 0.48              |
| 1:B:152:TRP:HB3   | 1:B:179:LEU:HD12  | 1.96                     | 0.48              |
| 1:C:311:GLY:HA2   | 1:C:664:ILE:HD12  | 1.96                     | 0.48              |
| 1:C:763:LEU:HD13  | 1:C:1008:VAL:HG11 | 1.95                     | 0.48              |
| 1:B:332:ILE:HG12  | 1:B:524:VAL:HG22  | 1.96                     | 0.48              |
| 1:A:273:ARG:HH22  | 1:A:293:LEU:HB2   | 1.78                     | 0.48              |
| 1:A:905:ARG:HH12  | 1:A:1036:GLN:HB2  | 1.79                     | 0.48              |
| 1:B:421:TYR:HE2   | 1:B:457:ARG:H     | 1.61                     | 0.48              |
| 1:C:650:LEU:HD21  | 1:C:653:ALA:HB3   | 1.96                     | 0.48              |
| 1:B:355:ARG:HH22  | 1:B:464:PHE:HE2   | 1.62                     | 0.48              |
| 1:C:898:PHE:HA    | 1:C:901:GLN:HB2   | 1.96                     | 0.48              |
| 1:A:200:TYR:HD1   | 1:A:202:LYS:HE3   | 1.78                     | 0.48              |
| 1:C:819:GLU:HA    | 1:C:822:LEU:HD12  | 1.96                     | 0.48              |
| 1:A:784:GLN:HG3   | 1:A:1034:LEU:HD21 | 1.95                     | 0.48              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:172:SER:OG    | 1:B:173:GLN:N     | 2.47                     | 0.48              |
| 1:C:742:ILE:HG21  | 1:C:753:LEU:HD22  | 1.95                     | 0.48              |
| 1:A:58:PHE:HB2    | 1:A:293:LEU:HD21  | 1.96                     | 0.48              |
| 1:C:193:VAL:HG13  | 1:C:223:LEU:HD22  | 1.96                     | 0.48              |
| 1:C:879:ALA:HA    | 1:C:882:ILE:HG22  | 1.94                     | 0.48              |
| 1:C:931:ILE:HA    | 1:C:934:ILE:HG22  | 1.94                     | 0.48              |
| 1:B:722:VAL:HG12  | 1:B:930:ALA:HB1   | 1.95                     | 0.48              |
| 1:B:858:LEU:HD23  | 1:B:959:LEU:HD12  | 1.94                     | 0.48              |
| 1:A:707:TYR:HB3   | 1:B:792:PRO:HG3   | 1.96                     | 0.48              |
| 1:C:287:ASP:OD1   | 1:C:288:ALA:N     | 2.47                     | 0.48              |
| 1:A:393:THR:HA    | 1:A:522:ALA:HA    | 1.95                     | 0.48              |
| 1:A:914:ASN:HD21  | 1:C:1121:PHE:HE1  | 1.62                     | 0.48              |
| 1:C:299:THR:HG22  | 1:C:597:VAL:HG11  | 1.96                     | 0.48              |
| 1:B:18:PHE:HB2    | 1:B:21:ARG:HB2    | 1.95                     | 0.48              |
| 1:B:106:PHE:HB3   | 1:B:235:ILE:HD13  | 1.96                     | 0.48              |
| 1:C:597:VAL:HG23  | 1:C:608:VAL:HG13  | 1.96                     | 0.48              |
| 1:B:394:ASN:HB2   | 1:B:516:GLU:HB2   | 1.96                     | 0.48              |
| 1:A:130:VAL:HB    | 1:A:168:PHE:HB3   | 1.96                     | 0.48              |
| 1:B:35:GLY:HA3    | 1:B:56:LEU:HB3    | 1.94                     | 0.48              |
| 1:A:777:ASN:O     | 1:A:781:VAL:HG12  | 2.14                     | 0.48              |
| 1:B:287:ASP:OD1   | 1:B:288:ALA:N     | 2.47                     | 0.48              |
| 1:A:1031:GLU:OE2  | 1:C:1039:ARG:NE   | 2.47                     | 0.48              |
| 1:B:332:ILE:HA    | 1:B:524:VAL:HG22  | 1.96                     | 0.48              |
| 1:C:99:ASN:OD1    | 1:C:190:ARG:NE    | 2.46                     | 0.48              |
| 1:A:731:MET:H     | 1:A:774:GLN:HE21  | 1.60                     | 0.48              |
| 1:C:759:PHE:HD2   | 1:C:1001:LEU:HD11 | 1.79                     | 0.48              |
| 1:C:1081:ILE:HG13 | 1:C:1115:ILE:HD13 | 1.95                     | 0.48              |
| 1:B:957:GLN:O     | 1:B:961:THR:HG23  | 2.14                     | 0.48              |
| 1:C:717:ASN:OD1   | 1:C:718:PHE:N     | 2.46                     | 0.48              |
| 1:C:345:THR:HG22  | 1:C:346:ARG:HG2   | 1.95                     | 0.48              |
| 1:A:776:LYS:NZ    | 1:A:780:GLU:OE2   | 2.42                     | 0.48              |
| 1:C:1083:HIS:HB3  | 1:C:1088:HIS:CE1  | 2.46                     | 0.48              |
| 1:A:1041:ASP:HB3  | 1:B:1030:SER:HB2  | 1.96                     | 0.48              |
| 1:C:454:ARG:NH1   | 1:C:467:ASP:OD2   | 2.46                     | 0.48              |
| 1:A:319:ARG:HH22  | 1:B:740:MET:HB2   | 1.78                     | 0.48              |
| 1:A:1043:CYS:O    | 1:A:1064:HIS:ND1  | 2.47                     | 0.48              |
| 1:B:108:THR:OG1   | 1:B:234:ASN:O     | 2.32                     | 0.48              |
| 1:A:123:ALA:HB1   | 1:A:179:LEU:HD11  | 1.96                     | 0.48              |
| 1:B:108:THR:OG1   | 1:B:234:ASN:O     | 2.31                     | 0.48              |
| 1:C:866:THR:OG1   | 1:C:867:ASP:N     | 2.47                     | 0.48              |
| 1:C:1015:ALA:HA   | 1:C:1018:ILE:HG22 | 1.95                     | 0.48              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:1035:GLY:HA3 | 1:C:1040:VAL:HG11 | 1.96                     | 0.48              |
| 1:C:334:ASN:OD1  | 1:C:335:LEU:N     | 2.43                     | 0.48              |
| 1:A:345:THR:HG22 | 1:A:346:ARG:HG2   | 1.95                     | 0.48              |
| 1:B:1049:LEU:HB2 | 1:B:1065:VAL:HG13 | 1.95                     | 0.48              |
| 1:A:731:MET:HG2  | 1:A:955:ASN:OD1   | 2.14                     | 0.48              |
| 1:B:592:PHE:HZ   | 1:C:857:GLY:HA2   | 1.79                     | 0.48              |
| 1:B:311:GLY:HA2  | 1:B:664:ILE:HD12  | 1.94                     | 0.48              |
| 1:C:334:ASN:OD1  | 1:C:335:LEU:N     | 2.43                     | 0.48              |
| 1:A:17:ASN:HB2   | 1:A:21:ARG:HD3    | 1.96                     | 0.48              |
| 1:A:310:LYS:HG2  | 1:A:664:ILE:HD11  | 1.96                     | 0.48              |
| 1:A:562:PHE:HD2  | 1:B:41:LYS:HZ2    | 1.59                     | 0.48              |
| 1:C:1102:TRP:HB2 | 1:C:1135:ASN:HD22 | 1.78                     | 0.48              |
| 1:A:717:ASN:OD1  | 1:A:718:PHE:N     | 2.47                     | 0.48              |
| 1:B:951:VAL:HA   | 1:B:954:GLN:HG3   | 1.95                     | 0.48              |
| 1:C:108:THR:OG1  | 1:C:234:ASN:O     | 2.32                     | 0.48              |
| 1:C:1086:LYS:HD2 | 1:C:1122:VAL:HB   | 1.95                     | 0.48              |
| 1:B:101:ILE:HB   | 1:B:190:ARG:HH22  | 1.78                     | 0.48              |
| 1:B:204:TYR:HD1  | 1:B:225:PRO:HA    | 1.79                     | 0.48              |
| 1:B:825:LYS:HZ2  | 1:B:942:ALA:HA    | 1.79                     | 0.48              |
| 1:B:53:ASP:OD2   | 1:B:54:LEU:N      | 2.41                     | 0.48              |
| 1:C:310:LYS:HG3  | 1:C:600:PRO:HA    | 1.96                     | 0.48              |
| 1:C:984:LEU:HD12 | 1:C:985:ASP:H     | 1.77                     | 0.48              |
| 1:C:454:ARG:NH1  | 1:C:467:ASP:OD2   | 2.47                     | 0.48              |
| 1:A:666:ILE:HG12 | 1:A:671:CYS:HA    | 1.96                     | 0.48              |
| 1:B:37:TYR:OH    | 1:B:53:ASP:OD1    | 2.31                     | 0.48              |
| 1:B:699:LEU:HB2  | 1:C:788:ILE:HD11  | 1.96                     | 0.48              |
| 1:C:310:LYS:HG2  | 1:C:664:ILE:HD11  | 1.96                     | 0.48              |
| 1:C:737:ASP:HB3  | 1:C:740:MET:HG2   | 1.96                     | 0.48              |
| 1:B:105:ILE:HB   | 1:B:239:GLN:HB2   | 1.96                     | 0.48              |
| 1:C:1120:THR:OG1 | 1:C:1121:PHE:N    | 2.46                     | 0.48              |
| 1:A:699:LEU:HB2  | 1:B:788:ILE:HD11  | 1.95                     | 0.48              |
| 1:B:957:GLN:HB3  | 1:C:765:ARG:HH12  | 1.79                     | 0.48              |
| 1:A:667:GLY:HA2  | 1:B:864:LEU:HA    | 1.95                     | 0.48              |
| 1:B:404:GLY:HA3  | 1:B:504:GLY:HA2   | 1.96                     | 0.48              |
| 1:C:931:ILE:HA   | 1:C:934:ILE:HG22  | 1.95                     | 0.48              |
| 1:A:825:LYS:HD2  | 1:A:945:LEU:HD22  | 1.95                     | 0.48              |
| 1:A:31:SER:HB2   | 1:A:34:ARG:HB2    | 1.95                     | 0.47              |
| 1:A:552:LEU:HB3  | 1:A:585:LEU:HD23  | 1.95                     | 0.47              |
| 1:B:108:THR:O    | 1:B:237:ARG:NH2   | 2.46                     | 0.47              |
| 1:A:193:VAL:HG23 | 1:A:270:LEU:HD21  | 1.96                     | 0.47              |
| 1:A:205:SER:N    | 1:A:224:GLU:O     | 2.42                     | 0.47              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:B:360:ASN:OD1  | 1:B:523:THR:OG1   | 2.30                     | 0.47              |
| 1:C:966:LEU:O    | 1:C:975:SER:OG    | 2.31                     | 0.47              |
| 1:C:345:THR:HG22 | 1:C:346:ARG:HG2   | 1.96                     | 0.47              |
| 1:A:345:THR:HG22 | 1:A:346:ARG:HG2   | 1.95                     | 0.47              |
| 1:A:206:LYS:HB2  | 1:A:223:LEU:HA    | 1.96                     | 0.47              |
| 1:A:592:PHE:HZ   | 1:B:857:GLY:HA2   | 1.77                     | 0.47              |
| 1:A:767:LEU:HA   | 1:A:770:ILE:HG12  | 1.95                     | 0.47              |
| 1:B:120:VAL:HG22 | 1:B:241:LEU:HD11  | 1.95                     | 0.47              |
| 1:B:131:CYS:HB2  | 1:B:133:PHE:CE1   | 2.49                     | 0.47              |
| 1:C:296:LEU:HB2  | 1:C:608:VAL:HG21  | 1.95                     | 0.47              |
| 1:A:578:ASP:OD2  | 1:A:581:THR:OG1   | 2.31                     | 0.47              |
| 1:A:1012:LEU:HG  | 1:C:1013:ILE:HG13 | 1.95                     | 0.47              |
| 1:A:1135:ASN:OD1 | 1:A:1136:THR:N    | 2.40                     | 0.47              |
| 1:C:731:MET:HB2  | 1:C:955:ASN:HD21  | 1.79                     | 0.47              |
| 1:A:717:ASN:OD1  | 1:A:718:PHE:N     | 2.47                     | 0.47              |
| 1:B:484:LYS:HD2  | 1:B:490:PHE:HB2   | 1.95                     | 0.47              |
| 1:C:1155:TYR:O   | 1:C:1159:HIS:ND1  | 2.34                     | 0.47              |
| 1:A:106:PHE:HB2  | 1:A:117:LEU:HB3   | 1.96                     | 0.47              |
| 1:A:206:LYS:HB2  | 1:A:223:LEU:HA    | 1.95                     | 0.47              |
| 1:C:345:THR:HG22 | 1:C:346:ARG:HG2   | 1.95                     | 0.47              |
| 1:A:81:ASN:OD1   | 1:A:239:GLN:NE2   | 2.46                     | 0.47              |
| 1:B:92:PHE:HE2   | 1:B:94:SER:HB2    | 1.79                     | 0.47              |
| 1:B:535:LYS:NZ   | 1:B:554:GLU:OE2   | 2.47                     | 0.47              |
| 1:B:742:ILE:O    | 1:B:1000:ARG:NH1  | 2.47                     | 0.47              |
| 1:C:106:PHE:HB2  | 1:C:117:LEU:HB3   | 1.97                     | 0.47              |
| 1:A:731:MET:HE2  | 1:A:1018:ILE:HG13 | 1.96                     | 0.47              |
| 1:B:898:PHE:HA   | 1:B:901:GLN:HB3   | 1.95                     | 0.47              |
| 1:B:1118:ASP:OD1 | 1:B:1118:ASP:N    | 2.38                     | 0.47              |
| 1:B:990:GLU:HA   | 1:B:993:ILE:HD12  | 1.95                     | 0.47              |
| 1:B:37:TYR:OH    | 1:B:54:LEU:O      | 2.21                     | 0.47              |
| 1:B:731:MET:SD   | 1:B:774:GLN:NE2   | 2.87                     | 0.47              |
| 1:C:18:PHE:HB2   | 1:C:21:ARG:HB2    | 1.97                     | 0.47              |
| 1:A:904:TYR:HB2  | 1:C:1107:ARG:NH1  | 2.28                     | 0.47              |
| 1:A:104:TRP:HD1  | 1:A:240:THR:HG23  | 1.79                     | 0.47              |
| 1:A:866:THR:OG1  | 1:A:869:MET:SD    | 2.66                     | 0.47              |
| 1:B:796:ASP:N    | 1:B:796:ASP:OD2   | 2.47                     | 0.47              |
| 1:C:884:SER:OG   | 1:C:894:LEU:N     | 2.47                     | 0.47              |
| 1:C:784:GLN:HE21 | 1:C:1029:MET:HG3  | 1.79                     | 0.47              |
| 1:A:596:SER:HB2  | 1:A:611:LEU:HB3   | 1.96                     | 0.47              |
| 1:C:1135:ASN:OD1 | 1:C:1136:THR:N    | 2.41                     | 0.47              |
| 1:A:611:LEU:HD12 | 1:A:650:LEU:HD13  | 1.94                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:332:ILE:HA    | 1:B:524:VAL:HG22  | 1.97                     | 0.47              |
| 1:B:357:ARG:NH2   | 1:B:394:ASN:OD1   | 2.48                     | 0.47              |
| 1:C:912:THR:HG23  | 1:C:914:ASN:HB2   | 1.95                     | 0.47              |
| 1:A:566:GLY:HA2   | 1:B:43:PHE:H      | 1.78                     | 0.47              |
| 1:B:401:VAL:HG22  | 1:B:509:ARG:HG2   | 1.95                     | 0.47              |
| 1:A:43:PHE:H      | 1:C:566:GLY:HA2   | 1.79                     | 0.47              |
| 1:B:1040:VAL:HG21 | 1:C:1035:GLY:HA3  | 1.97                     | 0.47              |
| 1:C:204:TYR:HD1   | 1:C:225:PRO:HA    | 1.79                     | 0.47              |
| 1:C:598:ILE:HB    | 1:C:609:ALA:HB3   | 1.96                     | 0.47              |
| 1:A:212:LEU:HD13  | 1:A:217:PRO:HD3   | 1.96                     | 0.47              |
| 1:B:293:LEU:HD23  | 1:B:294:ASP:HB2   | 1.96                     | 0.47              |
| 1:A:100:ILE:HG23  | 1:A:247:SER:HB3   | 1.96                     | 0.47              |
| 1:A:1019:ARG:NH1  | 1:A:1023:ASN:OD1  | 2.47                     | 0.47              |
| 1:B:551:VAL:HB    | 1:B:588:THR:HB    | 1.97                     | 0.47              |
| 1:B:1084:ASP:OD2  | 1:B:1086:LYS:NZ   | 2.47                     | 0.47              |
| 1:C:538:CYS:HB2   | 1:C:590:CYS:HB3   | 1.53                     | 0.47              |
| 1:A:765:ARG:HD3   | 1:C:957:GLN:HE22  | 1.79                     | 0.47              |
| 1:B:92:PHE:HE1    | 1:B:94:SER:HB2    | 1.79                     | 0.47              |
| 1:B:931:ILE:HA    | 1:B:934:ILE:HG22  | 1.95                     | 0.47              |
| 1:C:553:THR:O     | 1:C:586:ASP:N     | 2.44                     | 0.47              |
| 1:B:387:LEU:HD23  | 1:B:390:LEU:HD12  | 1.95                     | 0.47              |
| 1:C:295:PRO:HG2   | 1:C:608:VAL:HG11  | 1.97                     | 0.47              |
| 1:A:722:VAL:HG22  | 1:A:930:ALA:HB1   | 1.96                     | 0.47              |
| 1:A:881:THR:HG23  | 1:A:882:ILE:HD13  | 1.95                     | 0.47              |
| 1:B:24:LEU:HD11   | 1:B:78:ARG:HB3    | 1.96                     | 0.47              |
| 1:B:108:THR:OG1   | 1:B:234:ASN:O     | 2.32                     | 0.47              |
| 1:B:35:GLY:HA3    | 1:B:56:LEU:HB3    | 1.96                     | 0.47              |
| 1:A:345:THR:HG22  | 1:A:346:ARG:HG2   | 1.96                     | 0.47              |
| 1:B:1039:ARG:HB3  | 1:C:1031:GLU:OE1  | 2.14                     | 0.47              |
| 1:A:767:LEU:HA    | 1:A:770:ILE:HG12  | 1.96                     | 0.47              |
| 1:A:201:PHE:HD2   | 1:A:229:LEU:HD23  | 1.78                     | 0.47              |
| 1:C:35:GLY:HA3    | 1:C:56:LEU:HB3    | 1.95                     | 0.47              |
| 1:A:717:ASN:OD1   | 1:A:718:PHE:N     | 2.46                     | 0.47              |
| 1:B:912:THR:HG22  | 1:B:914:ASN:H     | 1.80                     | 0.47              |
| 1:B:971:GLY:O     | 1:B:995:ARG:NH2   | 2.47                     | 0.47              |
| 1:C:131:CYS:HB2   | 1:C:133:PHE:CE1   | 2.48                     | 0.47              |
| 1:A:1041:ASP:OD2  | 1:B:1030:SER:HB2  | 2.13                     | 0.47              |
| 1:A:767:LEU:HD13  | 1:A:770:ILE:HD12  | 1.95                     | 0.47              |
| 1:A:189:LEU:HD22  | 1:A:210:ILE:HD13  | 1.95                     | 0.47              |
| 1:A:741:TYR:HD1   | 1:A:1004:LEU:HD22 | 1.77                     | 0.47              |
| 1:B:663:ASP:N     | 1:B:671:CYS:SG    | 2.87                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:746:SER:OG    | 1:B:748:GLU:OE1   | 2.30                     | 0.47              |
| 1:B:1028:LYS:O    | 1:B:1032:CYS:HB2  | 2.14                     | 0.47              |
| 1:A:567:ARG:HD3   | 1:A:571:ASP:HA    | 1.96                     | 0.47              |
| 1:C:99:ASN:O      | 1:C:102:ARG:NH1   | 2.47                     | 0.47              |
| 1:C:1009:THR:O    | 1:C:1013:ILE:HG13 | 2.14                     | 0.47              |
| 1:B:57:PRO:HG3    | 1:B:273:ARG:HG3   | 1.96                     | 0.47              |
| 1:A:983:ARG:HG3   | 1:A:984:LEU:HD23  | 1.95                     | 0.47              |
| 1:A:984:LEU:HB3   | 1:A:988:GLU:HG2   | 1.96                     | 0.47              |
| 1:A:1049:LEU:HD12 | 1:A:1065:VAL:HG12 | 1.95                     | 0.47              |
| 1:A:1129:VAL:HG22 | 1:B:917:TYR:HB3   | 1.96                     | 0.47              |
| 1:B:299:THR:HG22  | 1:B:597:VAL:HG11  | 1.95                     | 0.47              |
| 1:A:37:TYR:OH     | 1:A:53:ASP:OD2    | 2.28                     | 0.47              |
| 1:A:345:THR:HG22  | 1:A:346:ARG:HG2   | 1.96                     | 0.47              |
| 1:C:901:GLN:HE22  | 1:C:905:ARG:CZ    | 2.28                     | 0.47              |
| 1:B:53:ASP:OD2    | 1:B:54:LEU:N      | 2.43                     | 0.47              |
| 1:C:1002:GLN:O    | 1:C:1006:THR:HG23 | 2.14                     | 0.47              |
| 1:B:361:CYS:HB3   | 1:B:524:VAL:O     | 2.15                     | 0.47              |
| 1:B:763:LEU:HD22  | 1:B:1008:VAL:HG21 | 1.95                     | 0.47              |
| 1:B:214:ARG:NH1   | 1:B:215:GLY:H     | 2.13                     | 0.47              |
| 1:B:663:ASP:N     | 1:B:671:CYS:SG    | 2.86                     | 0.47              |
| 1:B:741:TYR:HE1   | 1:B:1004:LEU:HB2  | 1.79                     | 0.47              |
| 1:C:866:THR:OG1   | 1:C:867:ASP:N     | 2.47                     | 0.47              |
| 1:C:106:PHE:HB2   | 1:C:117:LEU:HB3   | 1.96                     | 0.47              |
| 1:B:456:PHE:HE2   | 1:B:475:ALA:HA    | 1.79                     | 0.47              |
| 1:A:1047:TYR:HB2  | 1:A:1067:TYR:HB3  | 1.95                     | 0.47              |
| 1:B:1028:LYS:O    | 1:B:1032:CYS:HB2  | 2.14                     | 0.47              |
| 1:B:159:VAL:HG12  | 1:B:160:TYR:CD2   | 2.50                     | 0.47              |
| 1:B:1091:ARG:NH1  | 1:B:1118:ASP:O    | 2.47                     | 0.47              |
| 1:B:106:PHE:HB2   | 1:B:117:LEU:HB3   | 1.95                     | 0.47              |
| 1:B:1014:ARG:HA   | 1:B:1017:GLU:HG3  | 1.96                     | 0.47              |
| 1:C:185:ASN:ND2   | 1:C:211:ASN:OD1   | 2.47                     | 0.47              |
| 1:C:18:PHE:HB2    | 1:C:21:ARG:HB2    | 1.97                     | 0.47              |
| 1:A:19:THR:HG23   | 1:A:256:SER:HB2   | 1.97                     | 0.47              |
| 1:C:576:VAL:HG22  | 1:C:587:ILE:HD11  | 1.97                     | 0.47              |
| 1:B:295:PRO:HA    | 1:B:298:GLU:OE1   | 2.14                     | 0.47              |
| 1:C:326:ILE:HD11  | 1:C:534:VAL:HB    | 1.97                     | 0.47              |
| 1:A:206:LYS:HE2   | 1:A:208:THR:HB    | 1.95                     | 0.47              |
| 1:A:909:ILE:HG13  | 1:A:911:VAL:HG23  | 1.96                     | 0.47              |
| 1:C:314:GLN:OE1   | 1:C:315:THR:N     | 2.47                     | 0.47              |
| 1:B:48:LEU:O      | 1:B:304:LYS:NZ    | 2.47                     | 0.47              |
| 1:B:749:CYS:O     | 1:B:753:LEU:HB3   | 2.15                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:930:ALA:HA    | 1:A:933:LYS:HE2   | 1.97                     | 0.47              |
| 1:A:702:GLU:HA    | 1:B:788:ILE:HB    | 1.96                     | 0.47              |
| 1:A:1015:ALA:HA   | 1:A:1018:ILE:HG22 | 1.95                     | 0.47              |
| 1:B:642:VAL:HG22  | 1:B:651:ILE:HG22  | 1.96                     | 0.47              |
| 1:C:345:THR:HG22  | 1:C:346:ARG:HG2   | 1.95                     | 0.47              |
| 1:C:554:GLU:HA    | 1:C:585:LEU:HA    | 1.96                     | 0.47              |
| 1:B:314:GLN:NE2   | 1:B:316:SER:O     | 2.47                     | 0.47              |
| 1:A:955:ASN:HD22  | 1:A:955:ASN:HA    | 1.53                     | 0.47              |
| 1:A:37:TYR:OH     | 1:A:53:ASP:OD1    | 2.27                     | 0.47              |
| 1:B:37:TYR:OH     | 1:B:53:ASP:OD2    | 2.32                     | 0.47              |
| 1:B:1094:VAL:HG13 | 1:B:1107:ARG:HH21 | 1.79                     | 0.47              |
| 1:A:108:THR:O     | 1:A:237:ARG:NH1   | 2.48                     | 0.47              |
| 1:A:726:ILE:HD11  | 1:A:948:LEU:HD11  | 1.95                     | 0.47              |
| 1:A:394:ASN:HB2   | 1:A:516:GLU:HB3   | 1.97                     | 0.47              |
| 1:A:1049:LEU:HB2  | 1:A:1065:VAL:HG12 | 1.96                     | 0.47              |
| 1:A:702:GLU:HG2   | 1:B:790:LYS:NZ    | 2.29                     | 0.47              |
| 1:A:717:ASN:OD1   | 1:A:718:PHE:N     | 2.48                     | 0.47              |
| 1:B:206:LYS:HB2   | 1:B:223:LEU:HA    | 1.96                     | 0.47              |
| 1:C:140:PHE:HZ    | 1:C:255:SER:HB2   | 1.79                     | 0.47              |
| 1:B:1039:ARG:NE   | 1:C:1031:GLU:OE2  | 2.35                     | 0.47              |
| 1:B:44:ARG:NH2    | 1:B:279:TYR:OH    | 2.47                     | 0.47              |
| 1:B:276:LEU:HD12  | 1:B:301:CYS:HA    | 1.95                     | 0.47              |
| 1:B:864:LEU:HG    | 1:B:865:LEU:HD22  | 1.96                     | 0.47              |
| 1:C:484:LYS:HD2   | 1:C:490:PHE:HB2   | 1.96                     | 0.47              |
| 1:C:560:LEU:HD22  | 1:C:563:GLN:HG3   | 1.95                     | 0.47              |
| 1:A:1030:SER:HB2  | 1:C:1041:ASP:HB3  | 1.97                     | 0.47              |
| 1:C:37:TYR:OH     | 1:C:195:LYS:NZ    | 2.41                     | 0.47              |
| 1:A:759:PHE:HA    | 1:A:762:GLN:HG3   | 1.97                     | 0.47              |
| 1:B:44:ARG:NH1    | 1:B:279:TYR:OH    | 2.47                     | 0.47              |
| 1:B:1116:THR:OG1  | 1:B:1118:ASP:OD2  | 2.33                     | 0.47              |
| 1:A:345:THR:O     | 1:A:509:ARG:NH2   | 2.48                     | 0.47              |
| 1:A:1037:SER:OG   | 1:A:1043:CYS:SG   | 2.63                     | 0.47              |
| 1:C:596:SER:HB2   | 1:C:611:LEU:HB3   | 1.96                     | 0.47              |
| 1:C:906:PHE:HB3   | 1:C:911:VAL:HB    | 1.96                     | 0.47              |
| 1:A:1035:GLY:HA3  | 1:C:1040:VAL:HG11 | 1.97                     | 0.47              |
| 1:A:826:VAL:HG23  | 1:A:945:LEU:HD22  | 1.95                     | 0.47              |
| 1:C:192:PHE:HB3   | 1:C:203:ILE:HD11  | 1.96                     | 0.47              |
| 1:A:103:GLY:HA3   | 1:A:119:ILE:O     | 2.14                     | 0.47              |
| 1:B:332:ILE:HG12  | 1:B:524:VAL:HG13  | 1.96                     | 0.47              |
| 1:C:1102:TRP:HB2  | 1:C:1135:ASN:HD22 | 1.79                     | 0.47              |
| 1:A:57:PRO:HG3    | 1:A:273:ARG:HG3   | 1.95                     | 0.47              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:717:ASN:OD1  | 1:A:718:PHE:N     | 2.48                     | 0.47              |
| 1:A:1028:LYS:O   | 1:A:1032:CYS:HB2  | 2.14                     | 0.47              |
| 1:B:361:CYS:H    | 1:B:522:ALA:HB1   | 1.80                     | 0.47              |
| 1:B:430:THR:HG21 | 1:C:983:ARG:HE    | 1.80                     | 0.47              |
| 1:A:289:VAL:HG11 | 1:A:300:LYS:HD2   | 1.96                     | 0.47              |
| 1:B:777:ASN:O    | 1:B:781:VAL:HG12  | 2.15                     | 0.47              |
| 1:B:973:ILE:HB   | 1:B:980:ILE:HD11  | 1.96                     | 0.47              |
| 1:A:35:GLY:HA3   | 1:A:56:LEU:HB3    | 1.95                     | 0.47              |
| 1:B:741:TYR:HE2  | 1:B:1004:LEU:HB2  | 1.80                     | 0.47              |
| 1:C:56:LEU:HD22  | 1:C:91:TYR:HD1    | 1.79                     | 0.47              |
| 1:B:108:THR:OG1  | 1:B:234:ASN:O     | 2.32                     | 0.47              |
| 1:C:825:LYS:NZ   | 1:C:938:LEU:O     | 2.35                     | 0.47              |
| 1:A:971:GLY:H    | 1:B:755:GLN:NE2   | 2.09                     | 0.47              |
| 1:B:452:LEU:HB3  | 1:B:492:LEU:HD11  | 1.95                     | 0.47              |
| 1:C:33:THR:OG1   | 1:C:219:GLY:O     | 2.31                     | 0.47              |
| 1:C:35:GLY:HA3   | 1:C:56:LEU:HB3    | 1.96                     | 0.47              |
| 1:A:904:TYR:HB2  | 1:C:1107:ARG:HH12 | 1.79                     | 0.47              |
| 1:B:287:ASP:OD2  | 1:B:288:ALA:N     | 2.47                     | 0.47              |
| 1:A:204:TYR:HD1  | 1:A:225:PRO:HA    | 1.79                     | 0.47              |
| 1:A:915:VAL:O    | 1:A:919:ASN:HB2   | 2.14                     | 0.47              |
| 1:B:396:TYR:HB2  | 1:B:514:SER:HB2   | 1.97                     | 0.47              |
| 1:C:931:ILE:HA   | 1:C:934:ILE:HG22  | 1.97                     | 0.47              |
| 1:A:345:THR:HG22 | 1:A:346:ARG:HG2   | 1.96                     | 0.47              |
| 1:A:347:PHE:HB2  | 1:A:401:VAL:HG23  | 1.97                     | 0.47              |
| 1:B:189:LEU:HD12 | 1:B:189:LEU:HA    | 1.82                     | 0.47              |
| 1:B:394:ASN:HD21 | 1:B:516:GLU:HB2   | 1.80                     | 0.47              |
| 1:C:975:SER:O    | 1:C:1000:ARG:NH2  | 2.48                     | 0.47              |
| 1:A:105:ILE:HB   | 1:A:241:LEU:HD21  | 1.97                     | 0.47              |
| 1:A:212:LEU:HD13 | 1:A:217:PRO:HD3   | 1.97                     | 0.47              |
| 1:A:295:PRO:HA   | 1:A:298:GLU:HG3   | 1.96                     | 0.47              |
| 1:A:611:LEU:HD12 | 1:A:650:LEU:HD13  | 1.95                     | 0.47              |
| 1:B:591:SER:HB3  | 1:B:615:VAL:HG23  | 1.97                     | 0.47              |
| 1:C:726:ILE:HG13 | 1:C:1061:VAL:HG23 | 1.97                     | 0.47              |
| 1:A:108:THR:OG1  | 1:A:234:ASN:O     | 2.29                     | 0.47              |
| 1:A:946:GLY:HA2  | 1:A:949:GLN:HB3   | 1.97                     | 0.47              |
| 1:B:931:ILE:HA   | 1:B:934:ILE:HG22  | 1.96                     | 0.47              |
| 1:C:84:LEU:HD22  | 1:C:267:VAL:HG11  | 1.97                     | 0.47              |
| 1:C:616:ASN:OD1  | 1:C:644:GLN:NE2   | 2.39                     | 0.47              |
| 1:A:765:ARG:HD2  | 1:C:957:GLN:HE22  | 1.79                     | 0.47              |
| 1:A:1035:GLY:HA3 | 1:C:1040:VAL:HG21 | 1.96                     | 0.47              |
| 1:C:719:THR:HG23 | 1:C:1070:ALA:HB2  | 1.96                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:1015:ALA:HA   | 1:C:1018:ILE:HG22 | 1.95                     | 0.47              |
| 1:A:777:ASN:O     | 1:A:781:VAL:HG12  | 2.14                     | 0.47              |
| 1:C:214:ARG:HD2   | 1:C:215:GLY:N     | 2.30                     | 0.47              |
| 1:C:552:LEU:HB3   | 1:C:585:LEU:HD12  | 1.97                     | 0.47              |
| 1:A:320:VAL:HG13  | 1:A:590:CYS:HB3   | 1.97                     | 0.47              |
| 1:A:578:ASP:OD2   | 1:A:581:THR:OG1   | 2.33                     | 0.47              |
| 1:C:201:PHE:HB3   | 1:C:229:LEU:HB2   | 1.97                     | 0.47              |
| 1:C:311:GLY:HA2   | 1:C:664:ILE:HD12  | 1.97                     | 0.47              |
| 1:C:457:ARG:NH1   | 1:C:459:SER:OG    | 2.45                     | 0.47              |
| 1:A:950:ASP:N     | 1:A:950:ASP:OD1   | 2.43                     | 0.47              |
| 1:B:108:THR:OG1   | 1:B:234:ASN:O     | 2.33                     | 0.47              |
| 1:B:748:GLU:OE2   | 1:B:748:GLU:N     | 2.46                     | 0.47              |
| 1:B:101:ILE:HA    | 1:B:246:ILE:HG21  | 1.96                     | 0.47              |
| 1:C:710:ASN:OD1   | 1:C:710:ASN:N     | 2.43                     | 0.47              |
| 1:A:1028:LYS:NZ   | 1:A:1042:PHE:O    | 2.47                     | 0.47              |
| 1:B:201:PHE:HB3   | 1:B:229:LEU:HB2   | 1.97                     | 0.47              |
| 1:C:40:ASP:OD1    | 1:C:41:LYS:N      | 2.39                     | 0.47              |
| 1:C:710:ASN:OD1   | 1:C:710:ASN:N     | 2.42                     | 0.47              |
| 1:C:1049:LEU:HB2  | 1:C:1065:VAL:HG23 | 1.96                     | 0.47              |
| 1:A:189:LEU:HD22  | 1:A:210:ILE:HD13  | 1.95                     | 0.47              |
| 1:A:711:SER:OG    | 1:B:895:GLN:NE2   | 2.48                     | 0.47              |
| 1:C:778:THR:O     | 1:C:782:PHE:HB2   | 2.14                     | 0.47              |
| 1:A:913:GLN:HE22  | 1:C:1090:PRO:HG2  | 1.79                     | 0.47              |
| 1:B:713:ALA:HB2   | 1:C:895:GLN:HE21  | 1.80                     | 0.47              |
| 1:C:759:PHE:O     | 1:C:763:LEU:HG    | 2.15                     | 0.47              |
| 1:A:897:PRO:HD2   | 1:C:712:ILE:HD13  | 1.96                     | 0.47              |
| 1:A:1013:ILE:HG21 | 1:B:1012:LEU:HB3  | 1.97                     | 0.47              |
| 1:C:117:LEU:HD13  | 1:C:235:ILE:HD11  | 1.96                     | 0.47              |
| 1:A:197:ILE:HB    | 1:A:202:LYS:HZ1   | 1.78                     | 0.47              |
| 1:A:473:TYR:H     | 1:A:491:PRO:HD3   | 1.79                     | 0.47              |
| 1:A:950:ASP:O     | 1:A:954:GLN:HG2   | 2.14                     | 0.47              |
| 1:B:748:GLU:N     | 1:B:748:GLU:OE2   | 2.46                     | 0.47              |
| 1:C:85:PRO:O      | 1:C:269:TYR:OH    | 2.28                     | 0.47              |
| 1:C:866:THR:OG1   | 1:C:867:ASP:N     | 2.48                     | 0.47              |
| 1:A:345:THR:HG22  | 1:A:346:ARG:HG2   | 1.96                     | 0.47              |
| 1:C:345:THR:HG22  | 1:C:346:ARG:HG2   | 1.96                     | 0.47              |
| 1:C:946:GLY:HA2   | 1:C:949:GLN:HB3   | 1.97                     | 0.47              |
| 1:C:1002:GLN:O    | 1:C:1006:THR:HG23 | 2.14                     | 0.47              |
| 1:A:964:LYS:O     | 1:A:967:SER:OG    | 2.32                     | 0.47              |
| 1:B:319:ARG:HH22  | 1:C:745:ASP:H     | 1.62                     | 0.47              |
| 1:B:774:GLN:HE22  | 1:B:1018:ILE:HG21 | 1.79                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:973:ILE:HG13  | 1:B:992:GLN:HE21  | 1.79                     | 0.47              |
| 1:B:38:TYR:HE2    | 1:B:224:GLU:HG2   | 1.80                     | 0.47              |
| 1:A:699:LEU:HD23  | 1:A:699:LEU:HA    | 1.83                     | 0.47              |
| 1:B:188:ASN:OD1   | 1:B:207:HIS:NE2   | 2.38                     | 0.47              |
| 1:B:206:LYS:HB2   | 1:B:223:LEU:HA    | 1.97                     | 0.47              |
| 1:B:314:GLN:HE22  | 1:B:594:GLY:HA3   | 1.80                     | 0.47              |
| 1:B:360:ASN:OD1   | 1:B:523:THR:OG1   | 2.28                     | 0.47              |
| 1:B:809:PRO:O     | 1:B:814:LYS:NZ    | 2.47                     | 0.47              |
| 1:B:1013:ILE:HG21 | 1:C:1012:LEU:HB3  | 1.95                     | 0.47              |
| 1:C:177:MET:SD    | 1:C:207:HIS:ND1   | 2.87                     | 0.47              |
| 1:C:350:VAL:HG22  | 1:C:401:VAL:H     | 1.79                     | 0.47              |
| 1:C:484:LYS:HE3   | 1:C:489:TYR:HA    | 1.96                     | 0.47              |
| 1:A:774:GLN:HE22  | 1:A:1018:ILE:HG12 | 1.80                     | 0.47              |
| 1:C:722:VAL:HG12  | 1:C:930:ALA:HB1   | 1.96                     | 0.47              |
| 1:B:969:ASN:HA    | 1:B:975:SER:HB3   | 1.97                     | 0.47              |
| 1:C:201:PHE:HB3   | 1:C:229:LEU:HB2   | 1.97                     | 0.47              |
| 1:C:214:ARG:NH2   | 1:C:266:TYR:OH    | 2.45                     | 0.47              |
| 1:C:309:GLU:N     | 1:C:309:GLU:OE1   | 2.48                     | 0.47              |
| 1:C:295:PRO:HG2   | 1:C:608:VAL:HG11  | 1.96                     | 0.47              |
| 1:B:856:ASN:HD22  | 1:B:858:LEU:HD13  | 1.79                     | 0.47              |
| 1:C:299:THR:HG22  | 1:C:597:VAL:HG11  | 1.96                     | 0.47              |
| 1:A:726:ILE:HG13  | 1:A:948:LEU:HD13  | 1.97                     | 0.47              |
| 1:B:361:CYS:HB3   | 1:B:524:VAL:O     | 2.15                     | 0.47              |
| 1:B:377:PHE:HE1   | 1:B:432:CYS:HB3   | 1.80                     | 0.47              |
| 1:C:906:PHE:HB3   | 1:C:911:VAL:HB    | 1.97                     | 0.47              |
| 1:B:516:GLU:OE2   | 1:C:200:TYR:OH    | 2.27                     | 0.47              |
| 1:B:717:ASN:OD1   | 1:B:718:PHE:N     | 2.47                     | 0.47              |
| 1:C:329:PHE:HZ    | 1:C:544:ASN:H     | 1.63                     | 0.47              |
| 1:A:857:GLY:HA2   | 1:C:592:PHE:CZ    | 2.50                     | 0.47              |
| 1:A:1012:LEU:HB3  | 1:C:1013:ILE:HD13 | 1.96                     | 0.47              |
| 1:B:49:HIS:CE1    | 1:B:51:THR:HG22   | 2.50                     | 0.47              |
| 1:A:37:TYR:OH     | 1:A:53:ASP:OD2    | 2.28                     | 0.47              |
| 1:B:91:TYR:HE1    | 1:B:93:ALA:HB2    | 1.79                     | 0.47              |
| 1:C:345:THR:O     | 1:C:509:ARG:NH2   | 2.48                     | 0.47              |
| 1:C:866:THR:H     | 1:C:869:MET:HG3   | 1.80                     | 0.47              |
| 1:A:314:GLN:HE22  | 1:A:594:GLY:HA3   | 1.80                     | 0.47              |
| 1:C:722:VAL:HG22  | 1:C:1065:VAL:HG22 | 1.96                     | 0.47              |
| 1:A:722:VAL:HG22  | 1:A:930:ALA:HB1   | 1.97                     | 0.47              |
| 1:A:866:THR:HG22  | 1:A:869:MET:SD    | 2.54                     | 0.47              |
| 1:B:201:PHE:HB3   | 1:B:229:LEU:HB2   | 1.97                     | 0.47              |
| 1:B:535:LYS:NZ    | 1:B:554:GLU:OE2   | 2.48                     | 0.47              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:B:319:ARG:NH2  | 1:C:745:ASP:OD1   | 2.47                     | 0.47              |
| 1:C:201:PHE:HE1  | 1:C:203:ILE:HD11  | 1.79                     | 0.47              |
| 1:C:83:VAL:HG22  | 1:C:239:GLN:HG2   | 1.97                     | 0.47              |
| 1:C:295:PRO:HG2  | 1:C:608:VAL:HG11  | 1.95                     | 0.47              |
| 1:C:1014:ARG:O   | 1:C:1018:ILE:HG12 | 2.15                     | 0.47              |
| 1:C:1043:CYS:HB2 | 1:C:1048:HIS:HD2  | 1.80                     | 0.47              |
| 1:A:370:ASN:O    | 1:C:487:ASN:ND2   | 2.46                     | 0.47              |
| 1:A:702:GLU:HA   | 1:B:788:ILE:HB    | 1.97                     | 0.47              |
| 1:A:955:ASN:HD22 | 1:A:955:ASN:N     | 2.11                     | 0.47              |
| 1:B:92:PHE:HB3   | 1:B:192:PHE:HB2   | 1.96                     | 0.47              |
| 1:B:995:ARG:NH2  | 1:C:756:TYR:OH    | 2.48                     | 0.47              |
| 1:A:31:SER:HB2   | 1:A:34:ARG:HB2    | 1.97                     | 0.47              |
| 1:B:387:LEU:HD22 | 1:B:390:LEU:HD11  | 1.97                     | 0.47              |
| 1:A:120:VAL:HB   | 1:A:127:VAL:HB    | 1.96                     | 0.47              |
| 1:C:326:ILE:HD12 | 1:C:539:VAL:HG21  | 1.97                     | 0.47              |
| 1:A:864:LEU:HD23 | 1:C:697:MET:HE1   | 1.97                     | 0.47              |
| 1:C:214:ARG:HE   | 1:C:215:GLY:H     | 1.63                     | 0.47              |
| 1:B:158:ARG:O    | 1:B:158:ARG:NE    | 2.48                     | 0.47              |
| 1:B:858:LEU:HD23 | 1:B:959:LEU:HD22  | 1.96                     | 0.47              |
| 1:C:858:LEU:HD13 | 1:C:959:LEU:HD22  | 1.97                     | 0.47              |
| 1:A:37:TYR:OH    | 1:A:54:LEU:O      | 2.32                     | 0.47              |
| 1:A:452:LEU:HD23 | 1:A:492:LEU:HB3   | 1.96                     | 0.47              |
| 1:A:596:SER:OG   | 1:A:613:GLN:NE2   | 2.48                     | 0.47              |
| 1:C:91:TYR:OH    | 1:C:191:GLU:OE1   | 2.33                     | 0.47              |
| 1:A:733:LYS:HE3  | 1:A:771:ALA:HB1   | 1.95                     | 0.47              |
| 1:B:108:THR:O    | 1:B:237:ARG:NH2   | 2.48                     | 0.47              |
| 1:C:878:LEU:O    | 1:C:882:ILE:HG13  | 2.15                     | 0.47              |
| 1:A:578:ASP:OD2  | 1:A:581:THR:OG1   | 2.29                     | 0.47              |
| 1:A:984:LEU:HD23 | 1:A:988:GLU:HG3   | 1.96                     | 0.47              |
| 1:C:106:PHE:HB3  | 1:C:235:ILE:HD13  | 1.96                     | 0.47              |
| 1:A:120:VAL:HB   | 1:A:127:VAL:HB    | 1.97                     | 0.47              |
| 1:A:909:ILE:HG13 | 1:A:911:VAL:HG23  | 1.96                     | 0.47              |
| 1:B:84:LEU:HD22  | 1:B:267:VAL:HG11  | 1.96                     | 0.47              |
| 1:B:733:LYS:HG3  | 1:B:861:LEU:HB2   | 1.96                     | 0.47              |
| 1:A:676:THR:HA   | 1:A:690:GLN:HG2   | 1.96                     | 0.47              |
| 1:A:914:ASN:ND2  | 1:A:1111:GLU:OE2  | 2.47                     | 0.47              |
| 1:B:729:VAL:O    | 1:B:777:ASN:ND2   | 2.48                     | 0.47              |
| 1:C:763:LEU:HD11 | 1:C:1008:VAL:HG21 | 1.97                     | 0.47              |
| 1:A:717:ASN:OD1  | 1:A:718:PHE:N     | 2.48                     | 0.47              |
| 1:A:18:PHE:HB2   | 1:A:21:ARG:HB2    | 1.96                     | 0.47              |
| 1:A:596:SER:OG   | 1:A:613:GLN:NE2   | 2.47                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:86:PHE:CE1    | 1:A:89:GLY:HA2    | 2.50                     | 0.47              |
| 1:B:535:LYS:NZ    | 1:B:554:GLU:OE2   | 2.48                     | 0.47              |
| 1:C:807:PRO:HA    | 1:C:816:SER:HA    | 1.97                     | 0.47              |
| 1:A:104:TRP:H     | 1:A:119:ILE:HB    | 1.79                     | 0.47              |
| 1:B:139:PRO:HG2   | 1:B:245:HIS:CE1   | 2.50                     | 0.47              |
| 1:B:1106:GLN:NE2  | 1:B:1111:GLU:OE1  | 2.48                     | 0.47              |
| 1:B:185:ASN:ND2   | 1:B:211:ASN:OD1   | 2.48                     | 0.47              |
| 1:A:879:ALA:O     | 1:A:883:THR:OG1   | 2.29                     | 0.47              |
| 1:B:170:TYR:HE1   | 1:B:227:VAL:HG11  | 1.80                     | 0.47              |
| 1:B:733:LYS:HE3   | 1:B:771:ALA:HB1   | 1.95                     | 0.47              |
| 1:A:865:LEU:HB3   | 1:A:870:ILE:HD11  | 1.96                     | 0.47              |
| 1:B:457:ARG:NH1   | 1:B:459:SER:OG    | 2.47                     | 0.47              |
| 1:B:717:ASN:OD1   | 1:B:718:PHE:N     | 2.47                     | 0.47              |
| 1:C:66:HIS:HA     | 1:C:264:ALA:HA    | 1.96                     | 0.47              |
| 1:C:193:VAL:HB    | 1:C:204:TYR:HB2   | 1.97                     | 0.47              |
| 1:A:983:ARG:HG3   | 1:A:984:LEU:HD23  | 1.95                     | 0.47              |
| 1:B:212:LEU:HD12  | 1:B:217:PRO:HD3   | 1.96                     | 0.47              |
| 1:B:971:GLY:H     | 1:C:755:GLN:NE2   | 2.13                     | 0.47              |
| 1:A:1015:ALA:HA   | 1:A:1018:ILE:HG22 | 1.97                     | 0.47              |
| 1:C:205:SER:N     | 1:C:224:GLU:O     | 2.37                     | 0.47              |
| 1:A:676:THR:HA    | 1:A:690:GLN:HG2   | 1.97                     | 0.47              |
| 1:C:866:THR:OG1   | 1:C:867:ASP:N     | 2.48                     | 0.47              |
| 1:A:205:SER:N     | 1:A:224:GLU:O     | 2.45                     | 0.47              |
| 1:B:1006:THR:HG22 | 1:C:1005:GLN:NE2  | 2.30                     | 0.47              |
| 1:C:866:THR:OG1   | 1:C:867:ASP:N     | 2.48                     | 0.47              |
| 1:A:1035:GLY:HA3  | 1:C:1040:VAL:HG21 | 1.96                     | 0.46              |
| 1:B:452:LEU:HB3   | 1:B:492:LEU:HD11  | 1.96                     | 0.46              |
| 1:B:1107:ARG:HH21 | 1:C:896:ILE:HD11  | 1.80                     | 0.46              |
| 1:C:310:LYS:HG2   | 1:C:664:ILE:HD11  | 1.97                     | 0.46              |
| 1:C:802:PHE:HB3   | 1:C:805:ILE:HG22  | 1.97                     | 0.46              |
| 1:A:345:THR:HG22  | 1:A:346:ARG:HG2   | 1.97                     | 0.46              |
| 1:A:374:PHE:HB2   | 1:A:377:PHE:HE1   | 1.80                     | 0.46              |
| 1:C:329:PHE:H     | 1:C:529:LYS:HE2   | 1.80                     | 0.46              |
| 1:C:710:ASN:OD1   | 1:C:710:ASN:N     | 2.39                     | 0.46              |
| 1:A:865:LEU:HD13  | 1:A:869:MET:HE2   | 1.97                     | 0.46              |
| 1:A:965:GLN:HE22  | 1:B:758:SER:HG    | 1.61                     | 0.46              |
| 1:A:1096:VAL:HG13 | 1:A:1103:PHE:HB2  | 1.95                     | 0.46              |
| 1:C:128:ILE:HD13  | 1:C:170:TYR:CD1   | 2.50                     | 0.46              |
| 1:C:84:LEU:HD22   | 1:C:267:VAL:HG11  | 1.96                     | 0.46              |
| 1:C:126:VAL:H     | 1:C:172:SER:HB3   | 1.80                     | 0.46              |
| 1:B:189:LEU:HD12  | 1:B:189:LEU:HA    | 1.77                     | 0.46              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:C:1155:TYR:O   | 1:C:1159:HIS:ND1  | 2.34                     | 0.46              |
| 1:A:37:TYR:OH    | 1:A:54:LEU:O      | 2.34                     | 0.46              |
| 1:A:201:PHE:HB3  | 1:A:229:LEU:HB2   | 1.96                     | 0.46              |
| 1:C:334:ASN:OD1  | 1:C:335:LEU:N     | 2.44                     | 0.46              |
| 1:C:1102:TRP:HB2 | 1:C:1135:ASN:HD22 | 1.80                     | 0.46              |
| 1:B:749:CYS:O    | 1:B:753:LEU:HB3   | 2.15                     | 0.46              |
| 1:B:931:ILE:HA   | 1:B:934:ILE:HG22  | 1.97                     | 0.46              |
| 1:C:424:LYS:NZ   | 1:C:463:PRO:HG3   | 2.30                     | 0.46              |
| 1:A:914:ASN:OD1  | 1:A:914:ASN:N     | 2.48                     | 0.46              |
| 1:B:513:LEU:HB3  | 1:B:515:PHE:HE2   | 1.80                     | 0.46              |
| 1:C:295:PRO:HG2  | 1:C:608:VAL:HG11  | 1.97                     | 0.46              |
| 1:C:563:GLN:O    | 1:C:577:ARG:NH2   | 2.35                     | 0.46              |
| 1:C:1116:THR:OG1 | 1:C:1118:ASP:OD2  | 2.26                     | 0.46              |
| 1:A:727:LEU:HD11 | 1:A:1028:LYS:HD2  | 1.97                     | 0.46              |
| 1:A:551:VAL:HG13 | 1:A:588:THR:HG23  | 1.97                     | 0.46              |
| 1:A:128:ILE:HG21 | 1:A:229:LEU:HD21  | 1.96                     | 0.46              |
| 1:B:1054:GLN:HB2 | 1:B:1061:VAL:HB   | 1.96                     | 0.46              |
| 1:C:106:PHE:HB2  | 1:C:117:LEU:HB3   | 1.97                     | 0.46              |
| 1:C:931:ILE:HA   | 1:C:934:ILE:HG22  | 1.97                     | 0.46              |
| 1:C:1155:TYR:O   | 1:C:1159:HIS:ND1  | 2.34                     | 0.46              |
| 1:A:394:ASN:HB2  | 1:A:516:GLU:HB3   | 1.95                     | 0.46              |
| 1:A:1054:GLN:HB2 | 1:A:1061:VAL:HG13 | 1.96                     | 0.46              |
| 1:C:708:SER:HB3  | 1:C:711:SER:HB3   | 1.97                     | 0.46              |
| 1:B:970:PHE:HA   | 1:C:756:TYR:HD1   | 1.80                     | 0.46              |
| 1:B:729:VAL:HG12 | 1:B:1059:GLY:HA2  | 1.97                     | 0.46              |
| 1:C:737:ASP:OD1  | 1:C:740:MET:HB2   | 2.15                     | 0.46              |
| 1:C:1135:ASN:OD1 | 1:C:1136:THR:N    | 2.40                     | 0.46              |
| 1:A:717:ASN:OD1  | 1:A:718:PHE:N     | 2.47                     | 0.46              |
| 1:B:912:THR:HG22 | 1:B:914:ASN:H     | 1.80                     | 0.46              |
| 1:C:866:THR:OG1  | 1:C:867:ASP:N     | 2.48                     | 0.46              |
| 1:A:345:THR:HG22 | 1:A:346:ARG:HG2   | 1.97                     | 0.46              |
| 1:B:805:ILE:HB   | 1:B:1054:GLN:HE22 | 1.80                     | 0.46              |
| 1:A:992:GLN:OE1  | 1:A:992:GLN:N     | 2.48                     | 0.46              |
| 1:B:457:ARG:NH1  | 1:B:459:SER:OG    | 2.47                     | 0.46              |
| 1:B:598:ILE:HD11 | 1:B:611:LEU:HD12  | 1.98                     | 0.46              |
| 1:A:1135:ASN:OD1 | 1:A:1136:THR:N    | 2.41                     | 0.46              |
| 1:A:41:LYS:NZ    | 1:C:562:PHE:O     | 2.30                     | 0.46              |
| 1:A:299:THR:HG22 | 1:A:597:VAL:HG11  | 1.97                     | 0.46              |
| 1:A:310:LYS:HG2  | 1:A:664:ILE:HD11  | 1.97                     | 0.46              |
| 1:B:914:ASN:N    | 1:B:914:ASN:OD1   | 2.48                     | 0.46              |
| 1:C:719:THR:HG23 | 1:C:1070:ALA:HB2  | 1.97                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:206:LYS:HD2   | 1:A:207:HIS:N     | 2.30                     | 0.46              |
| 1:A:906:PHE:HB3   | 1:A:911:VAL:HB    | 1.98                     | 0.46              |
| 1:C:717:ASN:OD1   | 1:C:718:PHE:N     | 2.48                     | 0.46              |
| 1:C:826:VAL:HB    | 1:C:1057:PRO:HG2  | 1.97                     | 0.46              |
| 1:A:720:ILE:HG13  | 1:A:923:ILE:HG23  | 1.97                     | 0.46              |
| 1:A:781:VAL:HG23  | 1:A:1026:ALA:HA   | 1.96                     | 0.46              |
| 1:C:1116:THR:OG1  | 1:C:1118:ASP:OD1  | 2.33                     | 0.46              |
| 1:C:328:ARG:HH11  | 1:C:533:LEU:HD13  | 1.80                     | 0.46              |
| 1:C:761:THR:O     | 1:C:765:ARG:HG2   | 2.15                     | 0.46              |
| 1:C:929:SER:O     | 1:C:933:LYS:HD3   | 2.15                     | 0.46              |
| 1:C:1028:LYS:O    | 1:C:1032:CYS:HB2  | 2.15                     | 0.46              |
| 1:A:1155:TYR:O    | 1:A:1159:HIS:ND1  | 2.34                     | 0.46              |
| 1:C:345:THR:HG22  | 1:C:346:ARG:HG2   | 1.96                     | 0.46              |
| 1:A:1135:ASN:OD1  | 1:A:1136:THR:N    | 2.41                     | 0.46              |
| 1:C:289:VAL:HG11  | 1:C:300:LYS:HD2   | 1.96                     | 0.46              |
| 1:B:777:ASN:O     | 1:B:781:VAL:HG12  | 2.15                     | 0.46              |
| 1:C:48:LEU:HB3    | 1:C:276:LEU:HD11  | 1.96                     | 0.46              |
| 1:B:898:PHE:HA    | 1:B:901:GLN:HB3   | 1.98                     | 0.46              |
| 1:C:601:GLY:O     | 1:C:604:THR:OG1   | 2.33                     | 0.46              |
| 1:C:718:PHE:HE1   | 1:C:919:ASN:HD22  | 1.64                     | 0.46              |
| 1:B:18:PHE:HB2    | 1:B:21:ARG:HB2    | 1.97                     | 0.46              |
| 1:B:1135:ASN:OD1  | 1:B:1136:THR:N    | 2.43                     | 0.46              |
| 1:C:601:GLY:O     | 1:C:604:THR:OG1   | 2.32                     | 0.46              |
| 1:A:205:SER:HB2   | 1:A:226:LEU:HD22  | 1.98                     | 0.46              |
| 1:B:276:LEU:HD22  | 1:B:301:CYS:HA    | 1.97                     | 0.46              |
| 1:B:108:THR:OG1   | 1:B:234:ASN:O     | 2.33                     | 0.46              |
| 1:B:182:LYS:HD3   | 1:B:187:LYS:HD2   | 1.97                     | 0.46              |
| 1:B:336:CYS:HB2   | 1:B:358:ILE:HG21  | 1.98                     | 0.46              |
| 1:C:105:ILE:HG13  | 1:C:241:LEU:HD21  | 1.96                     | 0.46              |
| 1:A:1015:ALA:HA   | 1:A:1018:ILE:HG22 | 1.98                     | 0.46              |
| 1:B:931:ILE:HA    | 1:B:934:ILE:HG22  | 1.97                     | 0.46              |
| 1:C:287:ASP:OD2   | 1:C:288:ALA:N     | 2.48                     | 0.46              |
| 1:C:1116:THR:HG22 | 1:C:1138:TYR:HB3  | 1.96                     | 0.46              |
| 1:A:729:VAL:HG22  | 1:A:1059:GLY:HA2  | 1.97                     | 0.46              |
| 1:A:813:SER:OG    | 1:A:868:GLU:OE2   | 2.26                     | 0.46              |
| 1:B:37:TYR:OH     | 1:B:54:LEU:O      | 2.28                     | 0.46              |
| 1:C:777:ASN:O     | 1:C:781:VAL:HG12  | 2.15                     | 0.46              |
| 1:A:326:ILE:HD12  | 1:A:539:VAL:HG21  | 1.97                     | 0.46              |
| 1:C:81:ASN:OD1    | 1:C:81:ASN:N      | 2.49                     | 0.46              |
| 1:C:96:GLU:OE1    | 1:C:100:ILE:N     | 2.49                     | 0.46              |
| 1:C:717:ASN:OD1   | 1:C:718:PHE:N     | 2.47                     | 0.46              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:14:GLN:N     | 1:A:255:SER:HG    | 2.13                     | 0.46              |
| 1:A:204:TYR:HD1  | 1:A:225:PRO:HA    | 1.80                     | 0.46              |
| 1:A:230:PRO:HB2  | 1:C:357:ARG:HH12  | 1.80                     | 0.46              |
| 1:A:983:ARG:HG3  | 1:A:984:LEU:HD23  | 1.98                     | 0.46              |
| 1:B:1084:ASP:OD2 | 1:B:1086:LYS:NZ   | 2.49                     | 0.46              |
| 1:C:1135:ASN:OD1 | 1:C:1136:THR:N    | 2.41                     | 0.46              |
| 1:C:328:ARG:NH2  | 1:C:580:GLN:OE1   | 2.48                     | 0.46              |
| 1:A:93:ALA:HB3   | 1:A:266:TYR:HB2   | 1.98                     | 0.46              |
| 1:A:1005:GLN:HA  | 1:A:1008:VAL:HG12 | 1.97                     | 0.46              |
| 1:A:1041:ASP:HB3 | 1:B:1030:SER:HB2  | 1.98                     | 0.46              |
| 1:C:296:LEU:HB2  | 1:C:608:VAL:HG21  | 1.96                     | 0.46              |
| 1:A:909:ILE:HG13 | 1:A:911:VAL:HG23  | 1.97                     | 0.46              |
| 1:B:403:ARG:HG2  | 1:B:497:PHE:HE1   | 1.81                     | 0.46              |
| 1:B:330:PRO:HD3  | 1:B:579:PRO:HB2   | 1.96                     | 0.46              |
| 1:A:1084:ASP:OD2 | 1:A:1086:LYS:NZ   | 2.48                     | 0.46              |
| 1:C:108:THR:OG1  | 1:C:234:ASN:O     | 2.33                     | 0.46              |
| 1:C:204:TYR:HD1  | 1:C:225:PRO:HA    | 1.80                     | 0.46              |
| 1:C:751:ASN:HA   | 1:C:754:LEU:HG    | 1.97                     | 0.46              |
| 1:C:295:PRO:HA   | 1:C:298:GLU:HB2   | 1.97                     | 0.46              |
| 1:A:642:VAL:HG23 | 1:A:651:ILE:HG22  | 1.97                     | 0.46              |
| 1:A:717:ASN:OD1  | 1:A:718:PHE:N     | 2.48                     | 0.46              |
| 1:C:957:GLN:HE21 | 1:C:957:GLN:HA    | 1.81                     | 0.46              |
| 1:C:578:ASP:OD2  | 1:C:581:THR:OG1   | 2.29                     | 0.46              |
| 1:B:18:PHE:HB2   | 1:B:21:ARG:HB2    | 1.96                     | 0.46              |
| 1:A:43:PHE:H     | 1:C:566:GLY:HA2   | 1.80                     | 0.46              |
| 1:B:454:ARG:HG2  | 1:B:454:ARG:HH11  | 1.81                     | 0.46              |
| 1:B:361:CYS:H    | 1:B:522:ALA:HB1   | 1.80                     | 0.46              |
| 1:A:247:SER:OG   | 1:A:259:THR:O     | 2.33                     | 0.46              |
| 1:C:470:THR:HB   | 1:C:492:LEU:HD22  | 1.97                     | 0.46              |
| 1:C:473:TYR:H    | 1:C:491:PRO:HG2   | 1.81                     | 0.46              |
| 1:A:598:ILE:HB   | 1:A:609:ALA:HB3   | 1.98                     | 0.46              |
| 1:B:741:TYR:CE2  | 1:B:1004:LEU:HB2  | 2.50                     | 0.46              |
| 1:B:131:CYS:HB2  | 1:B:133:PHE:CE1   | 2.51                     | 0.46              |
| 1:B:190:ARG:HB3  | 1:B:192:PHE:HE2   | 1.81                     | 0.46              |
| 1:B:68:ILE:HG12  | 1:B:78:ARG:HB2    | 1.97                     | 0.46              |
| 1:C:53:ASP:OD1   | 1:C:54:LEU:N      | 2.41                     | 0.46              |
| 1:A:731:MET:H    | 1:A:774:GLN:NE2   | 2.13                     | 0.46              |
| 1:C:728:PRO:HD3  | 1:C:947:LYS:HG3   | 1.98                     | 0.46              |
| 1:A:729:VAL:O    | 1:A:777:ASN:ND2   | 2.48                     | 0.46              |
| 1:B:92:PHE:HB3   | 1:B:192:PHE:HB2   | 1.98                     | 0.46              |
| 1:A:326:ILE:HD12 | 1:A:539:VAL:HG21  | 1.98                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:884:SER:OG    | 1:C:887:THR:OG1   | 2.32                     | 0.46              |
| 1:C:1015:ALA:HA   | 1:C:1018:ILE:HG22 | 1.97                     | 0.46              |
| 1:A:108:THR:OG1   | 1:A:234:ASN:O     | 2.33                     | 0.46              |
| 1:A:734:THR:HG21  | 1:A:959:LEU:HD11  | 1.97                     | 0.46              |
| 1:B:617:CYS:N     | 1:B:649:CYS:SG    | 2.82                     | 0.46              |
| 1:B:18:PHE:HB2    | 1:B:21:ARG:HB2    | 1.98                     | 0.46              |
| 1:B:992:GLN:N     | 1:B:992:GLN:OE1   | 2.48                     | 0.46              |
| 1:C:296:LEU:HB2   | 1:C:608:VAL:HG21  | 1.98                     | 0.46              |
| 1:C:393:THR:HA    | 1:C:522:ALA:HA    | 1.98                     | 0.46              |
| 1:A:1005:GLN:HA   | 1:A:1008:VAL:HG12 | 1.98                     | 0.46              |
| 1:A:1052:PHE:HB2  | 1:A:1063:LEU:HB2  | 1.98                     | 0.46              |
| 1:C:777:ASN:O     | 1:C:781:VAL:HG12  | 2.15                     | 0.46              |
| 1:A:1013:ILE:HD12 | 1:B:1012:LEU:HG   | 1.96                     | 0.46              |
| 1:A:1019:ARG:NH1  | 1:C:1017:GLU:OE2  | 2.49                     | 0.46              |
| 1:B:126:VAL:HB    | 1:B:172:SER:HB3   | 1.97                     | 0.46              |
| 1:A:205:SER:N     | 1:A:224:GLU:O     | 2.34                     | 0.46              |
| 1:A:326:ILE:HD12  | 1:A:539:VAL:HG21  | 1.97                     | 0.46              |
| 1:A:645:THR:HG23  | 1:A:647:ALA:H     | 1.81                     | 0.46              |
| 1:B:455:LEU:N     | 1:B:493:GLN:OE1   | 2.44                     | 0.46              |
| 1:C:438:SER:HB3   | 1:C:509:ARG:HG3   | 1.97                     | 0.46              |
| 1:C:1002:GLN:O    | 1:C:1005:GLN:NE2  | 2.49                     | 0.46              |
| 1:B:361:CYS:HB3   | 1:B:524:VAL:O     | 2.15                     | 0.46              |
| 1:C:1002:GLN:O    | 1:C:1006:THR:HG23 | 2.15                     | 0.46              |
| 1:A:43:PHE:HB3    | 1:C:566:GLY:HA2   | 1.98                     | 0.46              |
| 1:B:54:LEU:HD23   | 1:B:195:LYS:HG3   | 1.97                     | 0.46              |
| 1:C:717:ASN:OD1   | 1:C:718:PHE:N     | 2.48                     | 0.46              |
| 1:A:120:VAL:HB    | 1:A:127:VAL:HB    | 1.97                     | 0.46              |
| 1:A:1121:PHE:HE1  | 1:B:914:ASN:HD21  | 1.62                     | 0.46              |
| 1:B:709:ASN:ND2   | 1:C:796:ASP:OD2   | 2.42                     | 0.46              |
| 1:C:388:ASN:HB2   | 1:C:526:GLY:HA2   | 1.97                     | 0.46              |
| 1:C:597:VAL:HG13  | 1:C:608:VAL:HG13  | 1.98                     | 0.46              |
| 1:A:389:ASP:OD1   | 1:A:389:ASP:N     | 2.42                     | 0.46              |
| 1:A:41:LYS:O      | 1:C:563:GLN:NE2   | 2.44                     | 0.46              |
| 1:A:247:SER:OG    | 1:A:259:THR:O     | 2.33                     | 0.46              |
| 1:A:761:THR:O     | 1:A:765:ARG:HG2   | 2.16                     | 0.46              |
| 1:A:909:ILE:O     | 1:A:1108:ASN:ND2  | 2.49                     | 0.46              |
| 1:C:736:VAL:HG21  | 1:C:1007:TYR:HE2  | 1.81                     | 0.46              |
| 1:A:452:LEU:HD23  | 1:A:492:LEU:HB3   | 1.97                     | 0.46              |
| 1:C:733:LYS:HE3   | 1:C:771:ALA:HB1   | 1.98                     | 0.46              |
| 1:C:1031:GLU:HB3  | 1:C:1037:SER:HB2  | 1.97                     | 0.46              |
| 1:B:906:PHE:HB3   | 1:B:911:VAL:HB    | 1.98                     | 0.46              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:C:126:VAL:H    | 1:C:172:SER:HB3   | 1.80                     | 0.46              |
| 1:B:43:PHE:HE1   | 1:B:283:GLY:HA3   | 1.80                     | 0.46              |
| 1:A:1028:LYS:O   | 1:A:1032:CYS:HB2  | 2.16                     | 0.46              |
| 1:A:130:VAL:HB   | 1:A:168:PHE:HB3   | 1.96                     | 0.46              |
| 1:B:423:TYR:OH   | 1:B:514:SER:OG    | 2.32                     | 0.46              |
| 1:B:214:ARG:HE   | 1:B:215:GLY:N     | 2.08                     | 0.46              |
| 1:A:946:GLY:HA2  | 1:A:949:GLN:HB2   | 1.96                     | 0.46              |
| 1:B:717:ASN:OD1  | 1:B:718:PHE:N     | 2.48                     | 0.46              |
| 1:B:770:ILE:HD11 | 1:B:1012:LEU:HD22 | 1.97                     | 0.46              |
| 1:B:53:ASP:HB3   | 1:B:55:PHE:HE2    | 1.80                     | 0.46              |
| 1:B:190:ARG:HB3  | 1:B:192:PHE:HE2   | 1.81                     | 0.46              |
| 1:B:610:VAL:HG13 | 1:B:651:ILE:HB    | 1.96                     | 0.46              |
| 1:B:717:ASN:OD1  | 1:B:718:PHE:N     | 2.47                     | 0.46              |
| 1:A:43:PHE:HE1   | 1:A:283:GLY:HA3   | 1.81                     | 0.46              |
| 1:A:1028:LYS:NZ  | 1:A:1042:PHE:O    | 2.49                     | 0.46              |
| 1:B:319:ARG:NH2  | 1:C:745:ASP:H     | 2.14                     | 0.46              |
| 1:A:48:LEU:HB3   | 1:A:276:LEU:HD11  | 1.97                     | 0.46              |
| 1:C:92:PHE:CE1   | 1:C:265:TYR:HB2   | 2.51                     | 0.46              |
| 1:C:296:LEU:HB2  | 1:C:608:VAL:HG21  | 1.97                     | 0.46              |
| 1:A:917:TYR:HB3  | 1:C:1129:VAL:HG22 | 1.96                     | 0.46              |
| 1:A:949:GLN:HA   | 1:A:952:VAL:HG22  | 1.98                     | 0.46              |
| 1:A:1155:TYR:O   | 1:A:1159:HIS:ND1  | 2.34                     | 0.46              |
| 1:B:394:ASN:HB2  | 1:B:516:GLU:HB2   | 1.97                     | 0.46              |
| 1:B:931:ILE:HA   | 1:B:934:ILE:HG22  | 1.97                     | 0.46              |
| 1:B:44:ARG:HE    | 1:B:279:TYR:HE2   | 1.63                     | 0.46              |
| 1:B:131:CYS:HB2  | 1:B:133:PHE:CE1   | 2.50                     | 0.46              |
| 1:B:193:VAL:HB   | 1:B:204:TYR:HD2   | 1.80                     | 0.46              |
| 1:A:667:GLY:HA2  | 1:B:864:LEU:HA    | 1.97                     | 0.46              |
| 1:A:717:ASN:OD1  | 1:A:718:PHE:N     | 2.48                     | 0.46              |
| 1:B:573:THR:HG22 | 1:B:587:ILE:HG13  | 1.98                     | 0.46              |
| 1:B:710:ASN:OD1  | 1:B:710:ASN:N     | 2.44                     | 0.46              |
| 1:B:774:GLN:HE21 | 1:B:774:GLN:HA    | 1.81                     | 0.46              |
| 1:B:105:ILE:HB   | 1:B:239:GLN:HB2   | 1.97                     | 0.46              |
| 1:C:206:LYS:HB3  | 1:C:223:LEU:HD13  | 1.98                     | 0.46              |
| 1:C:296:LEU:HB3  | 1:C:608:VAL:HG21  | 1.97                     | 0.46              |
| 1:C:538:CYS:HB3  | 1:C:590:CYS:HB3   | 1.64                     | 0.46              |
| 1:A:950:ASP:O    | 1:A:954:GLN:HG3   | 2.15                     | 0.46              |
| 1:B:206:LYS:HE2  | 1:B:208:THR:HB    | 1.96                     | 0.46              |
| 1:B:1123:SER:OG  | 1:C:914:ASN:ND2   | 2.48                     | 0.46              |
| 1:C:909:ILE:O    | 1:C:1108:ASN:ND2  | 2.49                     | 0.46              |
| 1:C:642:VAL:HG23 | 1:C:651:ILE:HG22  | 1.98                     | 0.46              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:C:1135:ASN:OD1  | 1:C:1136:THR:N   | 2.40                     | 0.46              |
| 1:C:742:ILE:O     | 1:C:1000:ARG:NH1 | 2.47                     | 0.46              |
| 1:C:96:GLU:OE1    | 1:C:99:ASN:ND2   | 2.37                     | 0.46              |
| 1:C:345:THR:HG22  | 1:C:346:ARG:HG2  | 1.98                     | 0.46              |
| 1:A:426:PRO:HG2   | 1:A:429:PHE:HB2  | 1.97                     | 0.46              |
| 1:A:326:ILE:HD12  | 1:A:539:VAL:HG21 | 1.95                     | 0.46              |
| 1:C:351:TYR:HE1   | 1:C:453:TYR:HA   | 1.80                     | 0.46              |
| 1:A:31:SER:HB2    | 1:A:34:ARG:HB2   | 1.97                     | 0.46              |
| 1:B:14:GLN:N      | 1:B:255:SER:HG   | 2.14                     | 0.46              |
| 1:B:104:TRP:HB2   | 1:B:106:PHE:HE1  | 1.80                     | 0.46              |
| 1:B:871:ALA:HA    | 1:B:874:THR:HG22 | 1.97                     | 0.46              |
| 1:C:204:TYR:HD1   | 1:C:225:PRO:HA   | 1.81                     | 0.46              |
| 1:A:93:ALA:HB3    | 1:A:266:TYR:HB2  | 1.98                     | 0.46              |
| 1:C:955:ASN:OD1   | 1:C:1014:ARG:NH1 | 2.49                     | 0.46              |
| 1:B:96:GLU:OE1    | 1:B:100:ILE:N    | 2.47                     | 0.46              |
| 1:B:1100:THR:OG1  | 1:B:1101:HIS:N   | 2.48                     | 0.46              |
| 1:A:290:ASP:HB3   | 1:A:293:LEU:HD23 | 1.98                     | 0.46              |
| 1:C:804:GLN:NE2   | 1:C:935:GLN:OE1  | 2.38                     | 0.46              |
| 1:A:879:ALA:O     | 1:A:883:THR:OG1  | 2.32                     | 0.46              |
| 1:B:189:LEU:HD12  | 1:B:189:LEU:HA   | 1.83                     | 0.46              |
| 1:B:946:GLY:HA2   | 1:B:949:GLN:HB2  | 1.98                     | 0.46              |
| 1:C:396:TYR:HB2   | 1:C:514:SER:HB3  | 1.98                     | 0.46              |
| 1:C:717:ASN:OD1   | 1:C:718:PHE:N    | 2.48                     | 0.46              |
| 1:A:722:VAL:HG12  | 1:A:930:ALA:HB1  | 1.97                     | 0.46              |
| 1:A:452:LEU:HD23  | 1:A:492:LEU:HB3  | 1.97                     | 0.46              |
| 1:A:906:PHE:HB3   | 1:A:911:VAL:HB   | 1.98                     | 0.46              |
| 1:B:1010:GLN:O    | 1:B:1014:ARG:HG2 | 2.15                     | 0.46              |
| 1:C:858:LEU:HD13  | 1:C:959:LEU:HD22 | 1.98                     | 0.46              |
| 1:A:1096:VAL:HG13 | 1:A:1103:PHE:HB2 | 1.97                     | 0.46              |
| 1:B:128:ILE:HG21  | 1:B:229:LEU:HD21 | 1.98                     | 0.46              |
| 1:A:807:PRO:HA    | 1:A:816:SER:HA   | 1.98                     | 0.46              |
| 1:A:913:GLN:HE21  | 1:C:1089:PHE:HB3 | 1.81                     | 0.46              |
| 1:A:1033:VAL:HG22 | 1:A:1051:SER:HB2 | 1.97                     | 0.46              |
| 1:C:733:LYS:HE3   | 1:C:771:ALA:HB1  | 1.97                     | 0.46              |
| 1:A:291:CYS:HB2   | 1:A:298:GLU:HA   | 1.98                     | 0.46              |
| 1:B:971:GLY:H     | 1:C:755:GLN:HE22 | 1.62                     | 0.46              |
| 1:A:983:ARG:HD3   | 1:A:984:LEU:HD23 | 1.98                     | 0.46              |
| 1:A:578:ASP:OD2   | 1:A:581:THR:OG1  | 2.34                     | 0.46              |
| 1:C:977:LEU:HD11  | 1:C:993:ILE:HD12 | 1.97                     | 0.46              |
| 1:B:57:PRO:HG3    | 1:B:273:ARG:HG3  | 1.97                     | 0.46              |
| 1:C:344:ALA:HB3   | 1:C:347:PHE:HE2  | 1.80                     | 0.46              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:C:751:ASN:HA   | 1:C:754:LEU:HG    | 1.98                     | 0.46              |
| 1:C:1002:GLN:HA  | 1:C:1005:GLN:HG3  | 1.98                     | 0.46              |
| 1:A:707:TYR:HD2  | 1:B:883:THR:HG23  | 1.81                     | 0.46              |
| 1:A:813:SER:OG   | 1:A:815:ARG:NH1   | 2.49                     | 0.46              |
| 1:C:984:LEU:HD12 | 1:C:989:ALA:HA    | 1.98                     | 0.46              |
| 1:B:717:ASN:OD1  | 1:B:718:PHE:N     | 2.48                     | 0.46              |
| 1:A:770:ILE:O    | 1:A:774:GLN:HB2   | 2.16                     | 0.46              |
| 1:A:598:ILE:HB   | 1:A:609:ALA:HB3   | 1.98                     | 0.46              |
| 1:A:201:PHE:HB3  | 1:A:229:LEU:HB2   | 1.98                     | 0.46              |
| 1:B:669:GLY:N    | 1:C:864:LEU:O     | 2.47                     | 0.46              |
| 1:A:37:TYR:OH    | 1:A:53:ASP:OD2    | 2.33                     | 0.46              |
| 1:A:273:ARG:HH22 | 1:A:293:LEU:HB2   | 1.81                     | 0.46              |
| 1:A:314:GLN:NE2  | 1:A:613:GLN:OE1   | 2.43                     | 0.46              |
| 1:A:1028:LYS:NZ  | 1:A:1042:PHE:O    | 2.46                     | 0.46              |
| 1:B:717:ASN:OD1  | 1:B:718:PHE:N     | 2.48                     | 0.46              |
| 1:C:33:THR:OG1   | 1:C:219:GLY:O     | 2.29                     | 0.46              |
| 1:C:185:ASN:ND2  | 1:C:212:LEU:O     | 2.48                     | 0.46              |
| 1:C:204:TYR:HD1  | 1:C:225:PRO:HA    | 1.79                     | 0.46              |
| 1:C:950:ASP:O    | 1:C:954:GLN:HG3   | 2.16                     | 0.46              |
| 1:B:429:PHE:CZ   | 1:B:512:VAL:HB    | 2.51                     | 0.46              |
| 1:B:934:ILE:HD12 | 1:B:934:ILE:HA    | 1.83                     | 0.46              |
| 1:B:1010:GLN:HA  | 1:B:1013:ILE:HD12 | 1.98                     | 0.46              |
| 1:C:91:TYR:HD1   | 1:C:193:VAL:HG12  | 1.81                     | 0.46              |
| 1:B:1015:ALA:HA  | 1:B:1018:ILE:HG22 | 1.96                     | 0.46              |
| 1:A:323:THR:OG1  | 1:A:537:LYS:NZ    | 2.33                     | 0.46              |
| 1:A:1089:PHE:HB3 | 1:B:913:GLN:HE21  | 1.81                     | 0.46              |
| 1:A:289:VAL:HG11 | 1:A:300:LYS:HD2   | 1.97                     | 0.46              |
| 1:B:84:LEU:HD22  | 1:B:267:VAL:HG11  | 1.97                     | 0.46              |
| 1:B:759:PHE:HA   | 1:B:762:GLN:HE21  | 1.81                     | 0.46              |
| 1:A:741:TYR:HD1  | 1:A:742:ILE:HD13  | 1.80                     | 0.46              |
| 1:B:37:TYR:OH    | 1:B:53:ASP:OD2    | 2.34                     | 0.46              |
| 1:B:188:ASN:OD1  | 1:B:207:HIS:NE2   | 2.46                     | 0.46              |
| 1:A:1135:ASN:OD1 | 1:A:1136:THR:N    | 2.41                     | 0.46              |
| 1:B:776:LYS:O    | 1:B:780:GLU:HG3   | 2.16                     | 0.46              |
| 1:B:108:THR:OG1  | 1:B:234:ASN:O     | 2.33                     | 0.46              |
| 1:A:954:GLN:HA   | 1:A:957:GLN:HG3   | 1.98                     | 0.46              |
| 1:B:777:ASN:O    | 1:B:781:VAL:HG12  | 2.15                     | 0.46              |
| 1:B:1091:ARG:NH1 | 1:B:1120:THR:O    | 2.46                     | 0.46              |
| 1:B:663:ASP:N    | 1:B:671:CYS:SG    | 2.89                     | 0.46              |
| 1:C:108:THR:OG1  | 1:C:234:ASN:O     | 2.34                     | 0.46              |
| 1:C:1135:ASN:OD1 | 1:C:1136:THR:N    | 2.43                     | 0.46              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:108:THR:HB   | 1:A:114:THR:HG21  | 1.98                     | 0.46              |
| 1:C:596:SER:HB2  | 1:C:611:LEU:HB3   | 1.97                     | 0.46              |
| 1:A:578:ASP:OD2  | 1:A:581:THR:OG1   | 2.28                     | 0.46              |
| 1:C:666:ILE:HG12 | 1:C:671:CYS:HA    | 1.98                     | 0.46              |
| 1:C:676:THR:HA   | 1:C:690:GLN:HG2   | 1.97                     | 0.46              |
| 1:C:1002:GLN:O   | 1:C:1006:THR:HG23 | 2.15                     | 0.46              |
| 1:A:733:LYS:NZ   | 1:A:862:PRO:O     | 2.49                     | 0.46              |
| 1:C:289:VAL:HG11 | 1:C:300:LYS:HD2   | 1.97                     | 0.46              |
| 1:C:452:LEU:HD23 | 1:C:492:LEU:HB3   | 1.98                     | 0.46              |
| 1:A:527:PRO:HG2  | 1:A:529:LYS:HZ1   | 1.81                     | 0.46              |
| 1:C:950:ASP:O    | 1:C:954:GLN:HG3   | 2.16                     | 0.46              |
| 1:B:356:LYS:H    | 1:B:356:LYS:HG2   | 1.64                     | 0.46              |
| 1:C:708:SER:HB3  | 1:C:711:SER:HB3   | 1.98                     | 0.46              |
| 1:A:326:ILE:HD12 | 1:A:539:VAL:HG21  | 1.98                     | 0.46              |
| 1:A:1002:GLN:O   | 1:A:1006:THR:HG23 | 2.15                     | 0.46              |
| 1:B:224:GLU:N    | 1:B:224:GLU:OE1   | 2.49                     | 0.46              |
| 1:A:452:LEU:HD23 | 1:A:492:LEU:HB3   | 1.97                     | 0.46              |
| 1:C:554:GLU:HA   | 1:C:585:LEU:HA    | 1.98                     | 0.46              |
| 1:A:564:GLN:NE2  | 1:B:41:LYS:HE2    | 2.31                     | 0.46              |
| 1:A:599:THR:HG22 | 1:A:608:VAL:HA    | 1.98                     | 0.46              |
| 1:A:914:ASN:OD1  | 1:A:914:ASN:N     | 2.46                     | 0.46              |
| 1:B:931:ILE:HA   | 1:B:934:ILE:HG22  | 1.98                     | 0.46              |
| 1:B:172:SER:OG   | 1:B:173:GLN:N     | 2.49                     | 0.46              |
| 1:C:717:ASN:OD1  | 1:C:718:PHE:N     | 2.48                     | 0.46              |
| 1:C:733:LYS:HE3  | 1:C:771:ALA:HB1   | 1.98                     | 0.46              |
| 1:B:878:LEU:O    | 1:B:882:ILE:HG12  | 2.16                     | 0.46              |
| 1:C:722:VAL:HG12 | 1:C:930:ALA:HB1   | 1.98                     | 0.46              |
| 1:A:707:TYR:HD2  | 1:B:883:THR:HG23  | 1.81                     | 0.46              |
| 1:C:38:TYR:HE2   | 1:C:224:GLU:HG3   | 1.81                     | 0.46              |
| 1:A:1121:PHE:HE1 | 1:B:914:ASN:HD21  | 1.63                     | 0.46              |
| 1:B:901:GLN:HE21 | 1:B:905:ARG:NE    | 2.13                     | 0.46              |
| 1:B:742:ILE:HG13 | 1:B:753:LEU:HD22  | 1.98                     | 0.46              |
| 1:C:994:ASP:O    | 1:C:998:THR:HG23  | 2.16                     | 0.46              |
| 1:A:742:ILE:HG21 | 1:A:997:ILE:HG22  | 1.98                     | 0.46              |
| 1:C:733:LYS:HB2  | 1:C:861:LEU:HB2   | 1.98                     | 0.46              |
| 1:C:298:GLU:O    | 1:C:302:THR:HG23  | 2.16                     | 0.46              |
| 1:C:1135:ASN:OD1 | 1:C:1136:THR:N    | 2.41                     | 0.46              |
| 1:B:1090:PRO:HA  | 1:B:1120:THR:HG22 | 1.97                     | 0.46              |
| 1:A:396:TYR:HB2  | 1:A:514:SER:HB3   | 1.97                     | 0.46              |
| 1:B:708:SER:OG   | 1:B:710:ASN:OD1   | 2.32                     | 0.46              |
| 1:C:91:TYR:HD1   | 1:C:193:VAL:HG12  | 1.81                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:699:LEU:HA    | 1:B:699:LEU:HD23  | 1.72                     | 0.46              |
| 1:A:53:ASP:HB3    | 1:A:55:PHE:CE2    | 2.50                     | 0.46              |
| 1:A:293:LEU:HD23  | 1:A:294:ASP:HB2   | 1.98                     | 0.46              |
| 1:C:807:PRO:HA    | 1:C:816:SER:HA    | 1.98                     | 0.46              |
| 1:A:717:ASN:OD1   | 1:A:718:PHE:N     | 2.49                     | 0.46              |
| 1:B:1040:VAL:HG21 | 1:C:1035:GLY:HA3  | 1.97                     | 0.46              |
| 1:A:206:LYS:HD2   | 1:A:207:HIS:N     | 2.31                     | 0.46              |
| 1:A:212:LEU:HD13  | 1:A:217:PRO:HD3   | 1.98                     | 0.46              |
| 1:C:40:ASP:OD2    | 1:C:41:LYS:N      | 2.42                     | 0.46              |
| 1:C:1135:ASN:OD1  | 1:C:1136:THR:N    | 2.42                     | 0.46              |
| 1:A:951:VAL:O     | 1:A:955:ASN:ND2   | 2.49                     | 0.45              |
| 1:C:866:THR:HG22  | 1:C:869:MET:HG3   | 1.97                     | 0.45              |
| 1:B:699:LEU:HD23  | 1:B:699:LEU:HA    | 1.72                     | 0.45              |
| 1:B:717:ASN:OD1   | 1:B:718:PHE:N     | 2.48                     | 0.45              |
| 1:C:931:ILE:HA    | 1:C:934:ILE:HG22  | 1.98                     | 0.45              |
| 1:A:216:LEU:HD21  | 1:A:266:TYR:HE2   | 1.81                     | 0.45              |
| 1:A:708:SER:HB3   | 1:A:711:SER:HB3   | 1.98                     | 0.45              |
| 1:B:1015:ALA:HA   | 1:B:1018:ILE:HG22 | 1.97                     | 0.45              |
| 1:C:1002:GLN:O    | 1:C:1006:THR:HG23 | 2.15                     | 0.45              |
| 1:A:897:PRO:HG2   | 1:A:900:MET:HG2   | 1.98                     | 0.45              |
| 1:B:296:LEU:HB2   | 1:B:608:VAL:HG21  | 1.98                     | 0.45              |
| 1:A:1110:TYR:CZ   | 1:A:1112:PRO:HG3  | 2.51                     | 0.45              |
| 1:B:725:GLU:OE1   | 1:B:1028:LYS:NZ   | 2.37                     | 0.45              |
| 1:C:425:LEU:HD22  | 1:C:512:VAL:HG11  | 1.98                     | 0.45              |
| 1:C:782:PHE:HD1   | 1:C:782:PHE:HA    | 1.65                     | 0.45              |
| 1:B:92:PHE:HE2    | 1:B:94:SER:HB2    | 1.80                     | 0.45              |
| 1:B:319:ARG:HG2   | 1:B:321:GLN:HE22  | 1.80                     | 0.45              |
| 1:B:1102:TRP:HB2  | 1:B:1135:ASN:HD22 | 1.81                     | 0.45              |
| 1:A:318:PHE:HZ    | 1:A:615:VAL:HG21  | 1.80                     | 0.45              |
| 1:B:108:THR:O     | 1:B:237:ARG:NH2   | 2.49                     | 0.45              |
| 1:B:759:PHE:HA    | 1:B:762:GLN:HG3   | 1.98                     | 0.45              |
| 1:C:807:PRO:HA    | 1:C:816:SER:HA    | 1.97                     | 0.45              |
| 1:A:1013:ILE:HD13 | 1:B:1012:LEU:HG   | 1.97                     | 0.45              |
| 1:C:1015:ALA:HA   | 1:C:1018:ILE:HG22 | 1.98                     | 0.45              |
| 1:A:906:PHE:HB3   | 1:A:911:VAL:HB    | 1.98                     | 0.45              |
| 1:A:365:TYR:HD1   | 1:A:368:LEU:HD12  | 1.82                     | 0.45              |
| 1:B:742:ILE:HG13  | 1:B:753:LEU:HD22  | 1.99                     | 0.45              |
| 1:A:702:GLU:HA    | 1:B:788:ILE:HB    | 1.98                     | 0.45              |
| 1:B:597:VAL:HG13  | 1:B:608:VAL:HG13  | 1.98                     | 0.45              |
| 1:B:105:ILE:HB    | 1:B:239:GLN:HB2   | 1.98                     | 0.45              |
| 1:C:767:LEU:HA    | 1:C:770:ILE:HG22  | 1.98                     | 0.45              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:C:1155:TYR:O   | 1:C:1159:HIS:ND1  | 2.34                     | 0.45              |
| 1:A:247:SER:OG   | 1:A:259:THR:O     | 2.32                     | 0.45              |
| 1:A:345:THR:HG22 | 1:A:346:ARG:HG2   | 1.97                     | 0.45              |
| 1:A:1049:LEU:HB2 | 1:A:1065:VAL:HG23 | 1.97                     | 0.45              |
| 1:B:676:THR:HA   | 1:B:690:GLN:HG2   | 1.97                     | 0.45              |
| 1:C:1135:ASN:OD1 | 1:C:1136:THR:N    | 2.42                     | 0.45              |
| 1:B:452:LEU:HB3  | 1:B:492:LEU:HD11  | 1.97                     | 0.45              |
| 1:B:214:ARG:NH1  | 1:B:215:GLY:H     | 2.13                     | 0.45              |
| 1:B:42:VAL:HG21  | 1:B:44:ARG:HH21   | 1.81                     | 0.45              |
| 1:B:977:LEU:HD21 | 1:B:996:LEU:HD23  | 1.98                     | 0.45              |
| 1:C:189:LEU:HD22 | 1:C:210:ILE:HD13  | 1.96                     | 0.45              |
| 1:A:473:TYR:H    | 1:A:491:PRO:HD3   | 1.80                     | 0.45              |
| 1:B:655:HIS:HA   | 1:B:694:ALA:HB3   | 1.99                     | 0.45              |
| 1:B:956:ALA:O    | 1:B:960:ASN:HB2   | 2.15                     | 0.45              |
| 1:C:200:TYR:HE1  | 1:C:230:PRO:HB3   | 1.81                     | 0.45              |
| 1:C:201:PHE:HB3  | 1:C:229:LEU:HB2   | 1.98                     | 0.45              |
| 1:A:287:ASP:OD2  | 1:A:288:ALA:N     | 2.49                     | 0.45              |
| 1:C:858:LEU:HD13 | 1:C:959:LEU:HD22  | 1.97                     | 0.45              |
| 1:A:906:PHE:HB3  | 1:A:911:VAL:HB    | 1.98                     | 0.45              |
| 1:A:755:GLN:NE2  | 1:C:971:GLY:H     | 2.14                     | 0.45              |
| 1:A:1155:TYR:O   | 1:A:1159:HIS:ND1  | 2.33                     | 0.45              |
| 1:B:276:LEU:HD12 | 1:B:301:CYS:HA    | 1.98                     | 0.45              |
| 1:A:1135:ASN:OD1 | 1:A:1136:THR:N    | 2.39                     | 0.45              |
| 1:A:55:PHE:O     | 1:A:271:GLN:N     | 2.36                     | 0.45              |
| 1:B:726:ILE:HD12 | 1:B:1061:VAL:HG22 | 1.98                     | 0.45              |
| 1:B:742:ILE:HG13 | 1:B:753:LEU:HD22  | 1.99                     | 0.45              |
| 1:C:426:PRO:HG2  | 1:C:429:PHE:HB2   | 1.98                     | 0.45              |
| 1:C:821:LEU:O    | 1:C:825:LYS:HB2   | 2.16                     | 0.45              |
| 1:A:1135:ASN:OD1 | 1:A:1136:THR:N    | 2.41                     | 0.45              |
| 1:C:805:ILE:HD12 | 1:C:805:ILE:HA    | 1.83                     | 0.45              |
| 1:C:1135:ASN:OD1 | 1:C:1136:THR:N    | 2.42                     | 0.45              |
| 1:A:1041:ASP:OD1 | 1:B:1030:SER:HB2  | 2.17                     | 0.45              |
| 1:C:898:PHE:HA   | 1:C:901:GLN:HB2   | 1.98                     | 0.45              |
| 1:B:24:LEU:HD12  | 1:B:80:ALA:HB2    | 1.99                     | 0.45              |
| 1:A:96:GLU:OE1   | 1:A:99:ASN:ND2    | 2.43                     | 0.45              |
| 1:B:26:PRO:HA    | 1:B:65:PHE:HE1    | 1.82                     | 0.45              |
| 1:B:96:GLU:OE1   | 1:B:100:ILE:N     | 2.47                     | 0.45              |
| 1:B:530:SER:HA   | 1:B:580:GLN:HE22  | 1.82                     | 0.45              |
| 1:B:105:ILE:HB   | 1:B:239:GLN:HB2   | 1.98                     | 0.45              |
| 1:B:124:THR:OG1  | 1:B:125:ASN:N     | 2.50                     | 0.45              |
| 1:B:934:ILE:HD12 | 1:B:934:ILE:HA    | 1.76                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:867:ASP:HA    | 1:C:870:ILE:HG22  | 1.99                     | 0.45              |
| 1:B:296:LEU:HB2   | 1:B:608:VAL:HG21  | 1.98                     | 0.45              |
| 1:C:393:THR:HA    | 1:C:522:ALA:HA    | 1.98                     | 0.45              |
| 1:A:393:THR:HA    | 1:A:522:ALA:HA    | 1.97                     | 0.45              |
| 1:A:717:ASN:OD1   | 1:A:718:PHE:N     | 2.49                     | 0.45              |
| 1:B:452:LEU:HD13  | 1:B:492:LEU:HD11  | 1.97                     | 0.45              |
| 1:C:1155:TYR:O    | 1:C:1159:HIS:ND1  | 2.34                     | 0.45              |
| 1:A:1115:ILE:HG22 | 1:A:1137:VAL:HG13 | 1.98                     | 0.45              |
| 1:B:901:GLN:HE21  | 1:B:905:ARG:NE    | 2.15                     | 0.45              |
| 1:C:118:LEU:HD22  | 1:C:129:LYS:HG2   | 1.98                     | 0.45              |
| 1:A:676:THR:HA    | 1:A:690:GLN:HG2   | 1.98                     | 0.45              |
| 1:A:1128:VAL:HG11 | 1:B:918:GLU:HG3   | 1.98                     | 0.45              |
| 1:C:858:LEU:HD21  | 1:C:962:LEU:HD23  | 1.98                     | 0.45              |
| 1:C:802:PHE:HE2   | 1:C:927:PHE:HE1   | 1.65                     | 0.45              |
| 1:A:1037:SER:OG   | 1:A:1043:CYS:SG   | 2.66                     | 0.45              |
| 1:B:214:ARG:NH1   | 1:B:215:GLY:H     | 2.15                     | 0.45              |
| 1:B:1115:ILE:HG22 | 1:B:1137:VAL:HG13 | 1.97                     | 0.45              |
| 1:C:329:PHE:HD2   | 1:C:528:LYS:HB3   | 1.82                     | 0.45              |
| 1:C:396:TYR:HB2   | 1:C:514:SER:HB3   | 1.97                     | 0.45              |
| 1:C:578:ASP:OD2   | 1:C:581:THR:OG1   | 2.31                     | 0.45              |
| 1:B:226:LEU:HG    | 1:B:227:VAL:HG13  | 1.97                     | 0.45              |
| 1:C:58:PHE:HB2    | 1:C:293:LEU:HD22  | 1.99                     | 0.45              |
| 1:A:565:PHE:HB3   | 1:A:576:VAL:HG23  | 1.97                     | 0.45              |
| 1:A:969:ASN:HD21  | 1:A:972:ALA:N     | 2.15                     | 0.45              |
| 1:B:1103:PHE:CD2  | 1:B:1112:PRO:HB3  | 2.51                     | 0.45              |
| 1:B:58:PHE:HB2    | 1:B:293:LEU:HD22  | 1.99                     | 0.45              |
| 1:B:909:ILE:HD13  | 1:B:1049:LEU:HD21 | 1.98                     | 0.45              |
| 1:B:96:GLU:OE1    | 1:B:100:ILE:N     | 2.47                     | 0.45              |
| 1:B:777:ASN:O     | 1:B:781:VAL:HG12  | 2.16                     | 0.45              |
| 1:C:710:ASN:OD1   | 1:C:710:ASN:N     | 2.41                     | 0.45              |
| 1:A:212:LEU:HD13  | 1:A:217:PRO:HD3   | 1.99                     | 0.45              |
| 1:C:769:GLY:HA2   | 1:C:772:VAL:HG12  | 1.98                     | 0.45              |
| 1:A:919:ASN:HD22  | 1:A:922:LEU:HD23  | 1.82                     | 0.45              |
| 1:B:50:SER:HB2    | 1:B:276:LEU:HD12  | 1.98                     | 0.45              |
| 1:B:1038:LYS:HD3  | 1:B:1038:LYS:HA   | 1.62                     | 0.45              |
| 1:C:1118:ASP:OD1  | 1:C:1118:ASP:N    | 2.38                     | 0.45              |
| 1:B:777:ASN:O     | 1:B:781:VAL:HG12  | 2.17                     | 0.45              |
| 1:B:273:ARG:HA    | 1:B:273:ARG:HD3   | 1.77                     | 0.45              |
| 1:C:650:LEU:HD21  | 1:C:653:ALA:HB3   | 1.99                     | 0.45              |
| 1:A:717:ASN:OD1   | 1:A:718:PHE:N     | 2.48                     | 0.45              |
| 1:B:950:ASP:O     | 1:B:954:GLN:HG2   | 2.15                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:131:CYS:HB2   | 1:C:133:PHE:CE1   | 2.50                     | 0.45              |
| 1:C:975:SER:O     | 1:C:1000:ARG:NH2  | 2.49                     | 0.45              |
| 1:A:913:GLN:HE22  | 1:C:1090:PRO:HG2  | 1.82                     | 0.45              |
| 1:A:965:GLN:O     | 1:A:968:SER:OG    | 2.31                     | 0.45              |
| 1:C:388:ASN:HB2   | 1:C:526:GLY:HA2   | 1.98                     | 0.45              |
| 1:A:708:SER:HB3   | 1:A:711:SER:HB3   | 1.97                     | 0.45              |
| 1:B:92:PHE:HE2    | 1:B:94:SER:HB2    | 1.81                     | 0.45              |
| 1:B:403:ARG:HG2   | 1:B:497:PHE:HE1   | 1.81                     | 0.45              |
| 1:A:96:GLU:OE1    | 1:A:99:ASN:ND2    | 2.36                     | 0.45              |
| 1:B:312:ILE:HD13  | 1:B:598:ILE:HD13  | 1.98                     | 0.45              |
| 1:A:345:THR:HG22  | 1:A:346:ARG:HG2   | 1.97                     | 0.45              |
| 1:B:591:SER:HB2   | 1:B:615:VAL:HG23  | 1.97                     | 0.45              |
| 1:B:1114:ILE:HD12 | 1:B:1115:ILE:H    | 1.81                     | 0.45              |
| 1:B:66:HIS:HA     | 1:B:264:ALA:HA    | 1.99                     | 0.45              |
| 1:A:302:THR:HG21  | 1:A:315:THR:HA    | 1.98                     | 0.45              |
| 1:A:600:PRO:HD3   | 1:A:692:ILE:HD11  | 1.98                     | 0.45              |
| 1:A:971:GLY:O     | 1:A:995:ARG:NH1   | 2.48                     | 0.45              |
| 1:B:361:CYS:HB3   | 1:B:524:VAL:O     | 2.16                     | 0.45              |
| 1:B:201:PHE:HB3   | 1:B:229:LEU:HB2   | 1.99                     | 0.45              |
| 1:C:720:ILE:HD12  | 1:C:923:ILE:HG23  | 1.98                     | 0.45              |
| 1:A:717:ASN:OD1   | 1:A:718:PHE:N     | 2.48                     | 0.45              |
| 1:B:717:ASN:OD1   | 1:B:718:PHE:N     | 2.48                     | 0.45              |
| 1:B:770:ILE:HA    | 1:B:773:GLU:HG3   | 1.97                     | 0.45              |
| 1:C:476:GLY:H     | 1:C:487:ASN:HB3   | 1.81                     | 0.45              |
| 1:A:717:ASN:OD1   | 1:A:718:PHE:N     | 2.49                     | 0.45              |
| 1:A:1012:LEU:HB3  | 1:C:1013:ILE:HG21 | 1.98                     | 0.45              |
| 1:A:1135:ASN:OD1  | 1:A:1136:THR:N    | 2.43                     | 0.45              |
| 1:A:902:MET:HE1   | 1:A:905:ARG:HD2   | 1.99                     | 0.45              |
| 1:A:904:TYR:HB2   | 1:C:1107:ARG:NH1  | 2.32                     | 0.45              |
| 1:A:564:GLN:HE22  | 1:B:41:LYS:HE2    | 1.82                     | 0.45              |
| 1:A:985:ASP:O     | 1:A:989:ALA:CB    | 2.64                     | 0.45              |
| 1:B:878:LEU:O     | 1:B:882:ILE:HG12  | 2.17                     | 0.45              |
| 1:B:866:THR:O     | 1:B:870:ILE:HG12  | 2.16                     | 0.45              |
| 1:B:774:GLN:HA    | 1:B:777:ASN:HD21  | 1.82                     | 0.45              |
| 1:B:717:ASN:OD1   | 1:B:718:PHE:N     | 2.48                     | 0.45              |
| 1:B:1031:GLU:HG3  | 1:B:1037:SER:HB2  | 1.99                     | 0.45              |
| 1:C:35:GLY:HA3    | 1:C:56:LEU:HB3    | 1.98                     | 0.45              |
| 1:B:452:LEU:HB3   | 1:B:492:LEU:HD11  | 1.98                     | 0.45              |
| 1:A:910:GLY:O     | 1:A:1106:GLN:NE2  | 2.49                     | 0.45              |
| 1:A:1123:SER:OG   | 1:B:914:ASN:ND2   | 2.50                     | 0.45              |
| 1:B:361:CYS:HB3   | 1:B:524:VAL:O     | 2.16                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:770:ILE:O     | 1:B:774:GLN:HB3   | 2.16                     | 0.45              |
| 1:B:425:LEU:HD21  | 1:B:512:VAL:HG11  | 1.99                     | 0.45              |
| 1:B:1015:ALA:HA   | 1:B:1018:ILE:HG22 | 1.97                     | 0.45              |
| 1:B:759:PHE:HA    | 1:B:762:GLN:OE1   | 2.16                     | 0.45              |
| 1:B:767:LEU:HA    | 1:B:770:ILE:HG12  | 1.99                     | 0.45              |
| 1:B:1028:LYS:O    | 1:B:1032:CYS:HB2  | 2.16                     | 0.45              |
| 1:C:1106:GLN:OE1  | 1:C:1106:GLN:N    | 2.49                     | 0.45              |
| 1:A:271:GLN:HG2   | 1:A:272:PRO:HD2   | 1.99                     | 0.45              |
| 1:A:1105:THR:HG23 | 1:A:1111:GLU:H    | 1.81                     | 0.45              |
| 1:B:458:LYS:NZ    | 1:B:473:TYR:HB3   | 2.32                     | 0.45              |
| 1:C:1135:ASN:OD1  | 1:C:1136:THR:N    | 2.43                     | 0.45              |
| 1:C:1047:TYR:HB2  | 1:C:1067:TYR:HB3  | 1.98                     | 0.45              |
| 1:A:273:ARG:HH21  | 1:A:292:ALA:HB3   | 1.81                     | 0.45              |
| 1:A:1129:VAL:HG22 | 1:B:917:TYR:HB3   | 1.98                     | 0.45              |
| 1:B:577:ARG:NE    | 1:B:583:GLU:O     | 2.50                     | 0.45              |
| 1:B:990:GLU:HA    | 1:B:993:ILE:HD12  | 1.99                     | 0.45              |
| 1:A:825:LYS:HD3   | 1:A:942:ALA:HA    | 1.99                     | 0.45              |
| 1:B:759:PHE:HA    | 1:B:762:GLN:NE2   | 2.32                     | 0.45              |
| 1:B:1118:ASP:OD1  | 1:B:1118:ASP:N    | 2.36                     | 0.45              |
| 1:A:913:GLN:NE2   | 1:C:1090:PRO:HD2  | 2.32                     | 0.45              |
| 1:B:985:ASP:OD2   | 1:B:987:PRO:HD2   | 2.17                     | 0.45              |
| 1:C:807:PRO:HA    | 1:C:816:SER:HA    | 1.98                     | 0.45              |
| 1:B:878:LEU:O     | 1:B:882:ILE:HG12  | 2.17                     | 0.45              |
| 1:A:287:ASP:OD1   | 1:A:288:ALA:N     | 2.49                     | 0.45              |
| 1:C:984:LEU:HD12  | 1:C:988:GLU:HG3   | 1.99                     | 0.45              |
| 1:A:1012:LEU:HG   | 1:C:1013:ILE:HD13 | 1.99                     | 0.45              |
| 1:A:1049:LEU:HD12 | 1:A:1065:VAL:HG12 | 1.98                     | 0.45              |
| 1:B:559:PHE:HB3   | 1:B:577:ARG:HH22  | 1.81                     | 0.45              |
| 1:C:660:TYR:O     | 1:C:698:SER:OG    | 2.34                     | 0.45              |
| 1:A:564:GLN:N     | 1:A:564:GLN:OE1   | 2.47                     | 0.45              |
| 1:A:570:ALA:HB1   | 1:B:963:VAL:HG21  | 1.97                     | 0.45              |
| 1:B:717:ASN:OD1   | 1:B:718:PHE:N     | 2.49                     | 0.45              |
| 1:C:770:ILE:O     | 1:C:774:GLN:HB3   | 2.17                     | 0.45              |
| 1:C:1155:TYR:O    | 1:C:1159:HIS:ND1  | 2.34                     | 0.45              |
| 1:A:1128:VAL:HG11 | 1:B:918:GLU:HG3   | 1.99                     | 0.45              |
| 1:B:314:GLN:OE1   | 1:B:315:THR:N     | 2.49                     | 0.45              |
| 1:B:616:ASN:OD1   | 1:B:644:GLN:NE2   | 2.49                     | 0.45              |
| 1:B:780:GLU:OE1   | 1:B:1019:ARG:NH2  | 2.39                     | 0.45              |
| 1:A:212:LEU:HD13  | 1:A:217:PRO:HD3   | 1.97                     | 0.45              |
| 1:C:889:GLY:HA3   | 1:C:1034:LEU:HD11 | 1.99                     | 0.45              |
| 1:B:759:PHE:HA    | 1:B:762:GLN:HG3   | 1.99                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:95:THR:HG22   | 1:A:189:LEU:HD22  | 1.98                     | 0.45              |
| 1:B:133:PHE:HB3   | 1:B:160:TYR:HE1   | 1.81                     | 0.45              |
| 1:C:473:TYR:H     | 1:C:491:PRO:HD3   | 1.80                     | 0.45              |
| 1:C:168:PHE:HD1   | 1:C:169:GLU:N     | 2.15                     | 0.45              |
| 1:A:1035:GLY:HA3  | 1:C:1040:VAL:HG11 | 1.98                     | 0.45              |
| 1:B:37:TYR:OH     | 1:B:54:LEU:O      | 2.28                     | 0.45              |
| 1:C:84:LEU:HD22   | 1:C:267:VAL:HG11  | 1.99                     | 0.45              |
| 1:B:815:ARG:HD3   | 1:B:823:PHE:CD2   | 2.51                     | 0.45              |
| 1:C:37:TYR:OH     | 1:C:195:LYS:NZ    | 2.49                     | 0.45              |
| 1:A:31:SER:HB3    | 1:A:34:ARG:HB2    | 1.98                     | 0.45              |
| 1:A:733:LYS:NZ    | 1:A:862:PRO:O     | 2.45                     | 0.45              |
| 1:B:782:PHE:HB3   | 1:B:873:TYR:HD2   | 1.81                     | 0.45              |
| 1:B:592:PHE:HZ    | 1:C:857:GLY:HA2   | 1.81                     | 0.45              |
| 1:B:592:PHE:CZ    | 1:C:857:GLY:HA2   | 2.50                     | 0.45              |
| 1:C:38:TYR:HE2    | 1:C:224:GLU:HG2   | 1.81                     | 0.45              |
| 1:B:733:LYS:HE3   | 1:B:771:ALA:HB1   | 1.97                     | 0.45              |
| 1:B:1019:ARG:NH1  | 1:B:1023:ASN:OD1  | 2.49                     | 0.45              |
| 1:B:332:ILE:HA    | 1:B:524:VAL:HG22  | 1.99                     | 0.45              |
| 1:C:117:LEU:HD13  | 1:C:235:ILE:HD11  | 1.97                     | 0.45              |
| 1:C:333:THR:OG1   | 1:C:360:ASN:OD1   | 2.34                     | 0.45              |
| 1:A:1052:PHE:HB2  | 1:A:1063:LEU:HB2  | 1.99                     | 0.45              |
| 1:B:159:VAL:HG12  | 1:B:160:TYR:HD2   | 1.82                     | 0.45              |
| 1:A:755:GLN:HE22  | 1:C:971:GLY:HA2   | 1.82                     | 0.45              |
| 1:C:1135:ASN:OD1  | 1:C:1136:THR:N    | 2.42                     | 0.45              |
| 1:B:310:LYS:HG3   | 1:B:600:PRO:HA    | 1.99                     | 0.45              |
| 1:C:276:LEU:HG    | 1:C:306:PHE:HE1   | 1.82                     | 0.45              |
| 1:C:552:LEU:HB3   | 1:C:585:LEU:HD23  | 1.97                     | 0.45              |
| 1:C:717:ASN:OD1   | 1:C:718:PHE:N     | 2.49                     | 0.45              |
| 1:C:906:PHE:HB3   | 1:C:911:VAL:HB    | 1.99                     | 0.45              |
| 1:A:707:TYR:HB3   | 1:B:792:PRO:HG3   | 1.99                     | 0.45              |
| 1:C:770:ILE:HD12  | 1:C:1015:ALA:HB2  | 1.99                     | 0.45              |
| 1:C:888:PHE:HE2   | 1:C:1034:LEU:HD22 | 1.82                     | 0.45              |
| 1:A:776:LYS:HZ1   | 1:A:1019:ARG:HH22 | 1.63                     | 0.45              |
| 1:A:1035:GLY:HA3  | 1:C:1040:VAL:HG21 | 1.99                     | 0.45              |
| 1:B:864:LEU:HG    | 1:B:865:LEU:HD22  | 1.98                     | 0.45              |
| 1:B:1115:ILE:HG22 | 1:B:1137:VAL:HG13 | 1.99                     | 0.45              |
| 1:A:323:THR:OG1   | 1:A:537:LYS:NZ    | 2.49                     | 0.45              |
| 1:B:642:VAL:HG13  | 1:B:651:ILE:HG22  | 1.98                     | 0.45              |
| 1:C:878:LEU:O     | 1:C:882:ILE:HG12  | 2.17                     | 0.45              |
| 1:A:564:GLN:HA    | 1:A:577:ARG:HE    | 1.82                     | 0.45              |
| 1:A:393:THR:HA    | 1:A:522:ALA:HA    | 1.98                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:1091:ARG:NH2  | 1:B:1120:THR:O    | 2.50                     | 0.45              |
| 1:C:90:VAL:HG21   | 1:C:238:PHE:CE2   | 2.52                     | 0.45              |
| 1:A:418:ILE:O     | 1:A:422:ASN:HB2   | 2.17                     | 0.45              |
| 1:A:1041:ASP:HB3  | 1:B:1030:SER:HB2  | 1.97                     | 0.45              |
| 1:B:1027:THR:HG22 | 1:B:1042:PHE:HZ   | 1.82                     | 0.45              |
| 1:C:106:PHE:HD2   | 1:C:117:LEU:HD23  | 1.81                     | 0.45              |
| 1:C:962:LEU:HD22  | 1:C:1007:TYR:CD2  | 2.52                     | 0.45              |
| 1:A:48:LEU:O      | 1:A:304:LYS:NZ    | 2.35                     | 0.45              |
| 1:C:172:SER:OG    | 1:C:173:GLN:N     | 2.49                     | 0.45              |
| 1:C:598:ILE:HB    | 1:C:609:ALA:HB3   | 1.98                     | 0.45              |
| 1:C:898:PHE:HA    | 1:C:901:GLN:HB2   | 1.99                     | 0.45              |
| 1:A:984:LEU:HD12  | 1:A:989:ALA:HA    | 1.99                     | 0.45              |
| 1:B:204:TYR:HA    | 1:B:225:PRO:HA    | 1.98                     | 0.45              |
| 1:B:540:ASN:OD1   | 1:B:540:ASN:N     | 2.43                     | 0.45              |
| 1:C:1029:MET:HE1  | 1:C:1033:VAL:HG21 | 1.99                     | 0.45              |
| 1:B:37:TYR:OH     | 1:B:53:ASP:OD1    | 2.35                     | 0.45              |
| 1:B:189:LEU:HD22  | 1:B:210:ILE:HD13  | 1.99                     | 0.45              |
| 1:B:214:ARG:HD3   | 1:B:215:GLY:H     | 1.82                     | 0.45              |
| 1:B:905:ARG:NH1   | 1:B:1049:LEU:O    | 2.50                     | 0.45              |
| 1:C:316:SER:OG    | 1:C:317:ASN:N     | 2.50                     | 0.45              |
| 1:C:826:VAL:HG22  | 1:C:945:LEU:HD13  | 1.97                     | 0.45              |
| 1:A:807:PRO:HA    | 1:A:816:SER:HA    | 1.99                     | 0.45              |
| 1:B:64:TRP:HE1    | 1:B:214:ARG:HH21  | 1.65                     | 0.45              |
| 1:B:189:LEU:HD12  | 1:B:189:LEU:HA    | 1.77                     | 0.45              |
| 1:B:878:LEU:O     | 1:B:882:ILE:HD12  | 2.17                     | 0.45              |
| 1:A:328:ARG:NH1   | 1:A:531:THR:O     | 2.50                     | 0.45              |
| 1:A:866:THR:O     | 1:A:870:ILE:HG12  | 2.16                     | 0.45              |
| 1:A:990:GLU:HA    | 1:A:993:ILE:HG22  | 1.98                     | 0.45              |
| 1:B:66:HIS:HA     | 1:B:264:ALA:HA    | 1.97                     | 0.45              |
| 1:A:719:THR:HG23  | 1:A:1070:ALA:HB2  | 1.97                     | 0.45              |
| 1:B:717:ASN:OD1   | 1:B:718:PHE:N     | 2.48                     | 0.45              |
| 1:A:1005:GLN:HA   | 1:A:1008:VAL:HG12 | 1.99                     | 0.45              |
| 1:C:402:ILE:HG21  | 1:C:418:ILE:HD13  | 1.98                     | 0.45              |
| 1:B:318:PHE:HE1   | 1:B:615:VAL:HG21  | 1.82                     | 0.45              |
| 1:C:96:GLU:OE1    | 1:C:100:ILE:N     | 2.50                     | 0.45              |
| 1:C:805:ILE:HD12  | 1:C:1054:GLN:HE21 | 1.82                     | 0.45              |
| 1:B:931:ILE:HA    | 1:B:934:ILE:HG22  | 1.98                     | 0.45              |
| 1:A:355:ARG:HH22  | 1:A:464:PHE:HB3   | 1.82                     | 0.45              |
| 1:B:617:CYS:N     | 1:B:649:CYS:SG    | 2.83                     | 0.45              |
| 1:B:701:VAL:HG13  | 1:C:787:GLN:HG2   | 1.99                     | 0.45              |
| 1:A:951:VAL:HA    | 1:A:954:GLN:HE21  | 1.81                     | 0.45              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:B:974:SER:OG   | 1:B:979:ASP:OD1   | 2.34                     | 0.45              |
| 1:A:326:ILE:HD12 | 1:A:539:VAL:HG21  | 1.98                     | 0.45              |
| 1:B:642:VAL:HG13 | 1:B:651:ILE:HG22  | 1.99                     | 0.45              |
| 1:B:1106:GLN:NE2 | 1:B:1111:GLU:OE2  | 2.45                     | 0.45              |
| 1:C:39:PRO:HG3   | 1:C:51:THR:HG21   | 1.99                     | 0.45              |
| 1:C:418:ILE:O    | 1:C:422:ASN:HB2   | 2.16                     | 0.45              |
| 1:C:777:ASN:O    | 1:C:781:VAL:HG12  | 2.16                     | 0.45              |
| 1:C:983:ARG:NE   | 1:C:984:LEU:HD23  | 2.32                     | 0.45              |
| 1:A:1002:GLN:O   | 1:A:1006:THR:HG23 | 2.16                     | 0.45              |
| 1:B:497:PHE:CE2  | 1:B:507:PRO:HB3   | 2.52                     | 0.45              |
| 1:C:426:PRO:HG2  | 1:C:429:PHE:HB2   | 1.98                     | 0.45              |
| 1:A:31:SER:HB3   | 1:A:34:ARG:HB2    | 1.98                     | 0.45              |
| 1:A:339:GLY:HA2  | 1:A:342:PHE:HD1   | 1.81                     | 0.45              |
| 1:A:699:LEU:HB2  | 1:B:788:ILE:HD11  | 1.97                     | 0.45              |
| 1:A:741:TYR:HD2  | 1:A:1004:LEU:HD22 | 1.81                     | 0.45              |
| 1:B:330:PRO:HB3  | 1:B:580:GLN:HA    | 1.99                     | 0.45              |
| 1:B:969:ASN:OD1  | 1:B:972:ALA:N     | 2.50                     | 0.45              |
| 1:C:56:LEU:HD22  | 1:C:91:TYR:HD1    | 1.81                     | 0.45              |
| 1:C:610:VAL:HG13 | 1:C:651:ILE:HG13  | 1.99                     | 0.45              |
| 1:A:273:ARG:HD2  | 1:A:292:ALA:HB3   | 1.98                     | 0.45              |
| 1:A:532:ASN:OD1  | 1:A:533:LEU:N     | 2.50                     | 0.45              |
| 1:C:912:THR:HG22 | 1:C:1106:GLN:HG2  | 1.98                     | 0.45              |
| 1:A:1002:GLN:O   | 1:A:1006:THR:HG23 | 2.17                     | 0.45              |
| 1:B:457:ARG:NH1  | 1:B:459:SER:OG    | 2.49                     | 0.45              |
| 1:A:345:THR:HG22 | 1:A:346:ARG:HG2   | 1.99                     | 0.45              |
| 1:B:722:VAL:HG12 | 1:B:930:ALA:HB1   | 1.99                     | 0.45              |
| 1:B:777:ASN:O    | 1:B:781:VAL:HG12  | 2.17                     | 0.45              |
| 1:B:883:THR:O    | 1:B:901:GLN:NE2   | 2.50                     | 0.45              |
| 1:C:328:ARG:HD3  | 1:C:533:LEU:HB2   | 1.99                     | 0.45              |
| 1:A:205:SER:N    | 1:A:224:GLU:O     | 2.37                     | 0.45              |
| 1:A:476:GLY:H    | 1:A:487:ASN:HB3   | 1.82                     | 0.45              |
| 1:A:866:THR:O    | 1:A:870:ILE:HG12  | 2.16                     | 0.45              |
| 1:A:984:LEU:HD12 | 1:A:989:ALA:HA    | 1.99                     | 0.45              |
| 1:B:909:ILE:HA   | 1:B:1038:LYS:NZ   | 2.32                     | 0.45              |
| 1:A:774:GLN:HA   | 1:A:777:ASN:ND2   | 2.31                     | 0.45              |
| 1:B:214:ARG:HD3  | 1:B:215:GLY:H     | 1.82                     | 0.45              |
| 1:A:903:ALA:HB1  | 1:A:913:GLN:HG2   | 1.98                     | 0.45              |
| 1:B:332:ILE:HA   | 1:B:524:VAL:HG22  | 1.99                     | 0.45              |
| 1:A:887:THR:HG21 | 1:A:894:LEU:HB2   | 1.98                     | 0.45              |
| 1:B:442:ASP:OD2  | 1:B:509:ARG:NE    | 2.50                     | 0.45              |
| 1:B:381:GLY:HA3  | 1:C:983:ARG:NH1   | 2.32                     | 0.45              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:667:GLY:HA2  | 1:B:864:LEU:HA    | 1.98                     | 0.45              |
| 1:B:189:LEU:HG   | 1:B:210:ILE:HD13  | 1.99                     | 0.45              |
| 1:C:31:SER:HB3   | 1:C:34:ARG:HB2    | 1.99                     | 0.45              |
| 1:A:168:PHE:HD2  | 1:A:231:ILE:HG13  | 1.81                     | 0.45              |
| 1:A:807:PRO:HA   | 1:A:816:SER:HA    | 1.99                     | 0.45              |
| 1:B:746:SER:OG   | 1:B:748:GLU:OE1   | 2.35                     | 0.45              |
| 1:B:773:GLU:OE1  | 1:B:1019:ARG:NH2  | 2.50                     | 0.45              |
| 1:C:784:GLN:HG2  | 1:C:785:VAL:HG13  | 1.98                     | 0.45              |
| 1:A:547:THR:OG1  | 1:B:978:ASN:ND2   | 2.48                     | 0.45              |
| 1:C:931:ILE:HA   | 1:C:934:ILE:HG22  | 1.99                     | 0.45              |
| 1:A:329:PHE:HD2  | 1:A:528:LYS:HB3   | 1.82                     | 0.45              |
| 1:A:365:TYR:HD1  | 1:A:368:LEU:HD12  | 1.82                     | 0.45              |
| 1:B:188:ASN:OD1  | 1:B:207:HIS:NE2   | 2.38                     | 0.45              |
| 1:A:957:GLN:HG2  | 1:B:765:ARG:HH12  | 1.82                     | 0.45              |
| 1:C:1047:TYR:HD2 | 1:C:1067:TYR:HD2  | 1.65                     | 0.45              |
| 1:A:96:GLU:OE1   | 1:A:99:ASN:ND2    | 2.39                     | 0.45              |
| 1:A:109:THR:HA   | 1:A:237:ARG:HH12  | 1.82                     | 0.45              |
| 1:A:347:PHE:H    | 1:A:509:ARG:HH12  | 1.64                     | 0.45              |
| 1:A:717:ASN:HB3  | 1:A:1071:GLN:HG3  | 1.98                     | 0.45              |
| 1:B:733:LYS:HE2  | 1:B:861:LEU:HB2   | 1.99                     | 0.45              |
| 1:C:1102:TRP:HB2 | 1:C:1135:ASN:HD22 | 1.82                     | 0.45              |
| 1:A:869:MET:HG2  | 1:C:699:LEU:HD21  | 1.98                     | 0.45              |
| 1:B:822:LEU:HD23 | 1:B:1056:ALA:HB2  | 1.99                     | 0.45              |
| 1:C:393:THR:HA   | 1:C:522:ALA:HA    | 1.97                     | 0.45              |
| 1:B:204:TYR:CZ   | 1:B:225:PRO:HB3   | 2.52                     | 0.45              |
| 1:A:193:VAL:HG13 | 1:A:270:LEU:HD21  | 1.99                     | 0.45              |
| 1:B:805:ILE:HB   | 1:B:1054:GLN:HE22 | 1.82                     | 0.45              |
| 1:B:295:PRO:HG2  | 1:B:608:VAL:HG11  | 1.98                     | 0.45              |
| 1:B:456:PHE:HD2  | 1:B:475:ALA:HB1   | 1.82                     | 0.45              |
| 1:A:741:TYR:CD2  | 1:A:1004:LEU:HD22 | 2.52                     | 0.45              |
| 1:C:578:ASP:OD2  | 1:C:581:THR:OG1   | 2.33                     | 0.45              |
| 1:A:792:PRO:HG3  | 1:C:707:TYR:HB3   | 1.98                     | 0.45              |
| 1:A:825:LYS:HD3  | 1:A:942:ALA:HA    | 1.98                     | 0.45              |
| 1:A:993:ILE:O    | 1:A:997:ILE:HG12  | 2.16                     | 0.45              |
| 1:B:717:ASN:OD1  | 1:B:718:PHE:N     | 2.48                     | 0.45              |
| 1:B:722:VAL:HG12 | 1:B:930:ALA:HB1   | 1.98                     | 0.45              |
| 1:A:717:ASN:OD1  | 1:A:718:PHE:N     | 2.48                     | 0.45              |
| 1:C:777:ASN:O    | 1:C:781:VAL:HG12  | 2.16                     | 0.45              |
| 1:C:931:ILE:HA   | 1:C:934:ILE:HG22  | 1.99                     | 0.45              |
| 1:A:314:GLN:HE22 | 1:A:595:VAL:N     | 2.15                     | 0.45              |
| 1:A:365:TYR:HD1  | 1:A:368:LEU:HD12  | 1.82                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:567:ARG:HG3   | 1:B:572:THR:O     | 2.17                     | 0.45              |
| 1:A:312:ILE:HD11  | 1:A:598:ILE:HG23  | 1.98                     | 0.45              |
| 1:B:224:GLU:N     | 1:B:224:GLU:OE1   | 2.50                     | 0.45              |
| 1:B:717:ASN:OD1   | 1:B:718:PHE:N     | 2.49                     | 0.45              |
| 1:C:58:PHE:CD2    | 1:C:290:ASP:HB2   | 2.50                     | 0.45              |
| 1:B:298:GLU:O     | 1:B:302:THR:HG23  | 2.17                     | 0.45              |
| 1:B:995:ARG:NH2   | 1:C:994:ASP:OD2   | 2.50                     | 0.45              |
| 1:B:1046:GLY:HA2  | 1:C:890:ALA:HA    | 1.99                     | 0.45              |
| 1:B:1105:THR:HG23 | 1:B:1111:GLU:H    | 1.81                     | 0.45              |
| 1:C:295:PRO:HA    | 1:C:298:GLU:OE1   | 2.17                     | 0.45              |
| 1:A:770:ILE:O     | 1:A:774:GLN:HB2   | 2.17                     | 0.45              |
| 1:A:909:ILE:HG13  | 1:A:911:VAL:HG23  | 1.98                     | 0.45              |
| 1:B:376:THR:HB    | 1:B:435:ALA:HB3   | 1.98                     | 0.45              |
| 1:B:528:LYS:HD2   | 1:B:529:LYS:H     | 1.82                     | 0.45              |
| 1:A:702:GLU:HA    | 1:B:788:ILE:HB    | 1.98                     | 0.45              |
| 1:A:106:PHE:HB2   | 1:A:117:LEU:HB3   | 1.99                     | 0.45              |
| 1:C:318:PHE:N     | 1:C:593:GLY:O     | 2.47                     | 0.45              |
| 1:A:92:PHE:CE2    | 1:A:94:SER:HB2    | 2.52                     | 0.45              |
| 1:A:722:VAL:HG22  | 1:A:930:ALA:HB1   | 1.99                     | 0.45              |
| 1:C:120:VAL:HB    | 1:C:127:VAL:HB    | 1.98                     | 0.45              |
| 1:C:197:ILE:HB    | 1:C:202:LYS:NZ    | 2.32                     | 0.45              |
| 1:C:807:PRO:HA    | 1:C:816:SER:HA    | 1.99                     | 0.45              |
| 1:C:1038:LYS:HE2  | 1:C:1038:LYS:HB2  | 1.82                     | 0.45              |
| 1:C:1135:ASN:OD1  | 1:C:1136:THR:N    | 2.44                     | 0.45              |
| 1:A:983:ARG:NH2   | 1:C:412:PRO:O     | 2.50                     | 0.45              |
| 1:B:591:SER:HB2   | 1:B:615:VAL:HG23  | 1.98                     | 0.45              |
| 1:B:159:VAL:HG12  | 1:B:160:TYR:CD1   | 2.51                     | 0.45              |
| 1:B:878:LEU:O     | 1:B:882:ILE:HG12  | 2.18                     | 0.45              |
| 1:C:567:ARG:HH21  | 1:C:571:ASP:HB3   | 1.82                     | 0.45              |
| 1:C:731:MET:HB3   | 1:C:774:GLN:HE22  | 1.82                     | 0.45              |
| 1:A:1096:VAL:HG13 | 1:A:1103:PHE:HB2  | 1.98                     | 0.45              |
| 1:A:1155:TYR:O    | 1:A:1159:HIS:ND1  | 2.33                     | 0.45              |
| 1:B:55:PHE:HB2    | 1:B:273:ARG:HB2   | 1.98                     | 0.45              |
| 1:B:666:ILE:HD12  | 1:B:670:ILE:HG22  | 1.98                     | 0.45              |
| 1:A:581:THR:OG1   | 1:A:583:GLU:OE2   | 2.28                     | 0.45              |
| 1:B:96:GLU:OE1    | 1:B:100:ILE:N     | 2.49                     | 0.45              |
| 1:C:906:PHE:HB3   | 1:C:911:VAL:HB    | 1.98                     | 0.45              |
| 1:B:770:ILE:HD12  | 1:B:774:GLN:HE21  | 1.82                     | 0.45              |
| 1:B:1039:ARG:NE   | 1:C:1031:GLU:OE1  | 2.32                     | 0.45              |
| 1:C:35:GLY:HA3    | 1:C:56:LEU:HB3    | 1.99                     | 0.45              |
| 1:C:1002:GLN:HA   | 1:C:1005:GLN:HE21 | 1.82                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:769:GLY:HA2   | 1:C:772:VAL:HG12  | 1.99                     | 0.45              |
| 1:A:946:GLY:HA2   | 1:A:949:GLN:HB3   | 1.99                     | 0.44              |
| 1:B:1040:VAL:HG11 | 1:C:1034:LEU:HD22 | 1.99                     | 0.44              |
| 1:B:1118:ASP:OD1  | 1:B:1118:ASP:N    | 2.35                     | 0.44              |
| 1:C:555:SER:HB3   | 1:C:584:ILE:HG22  | 1.99                     | 0.44              |
| 1:A:33:THR:OG1    | 1:A:219:GLY:O     | 2.29                     | 0.44              |
| 1:C:418:ILE:O     | 1:C:422:ASN:HB2   | 2.17                     | 0.44              |
| 1:A:759:PHE:O     | 1:A:763:LEU:HG    | 2.17                     | 0.44              |
| 1:B:742:ILE:O     | 1:B:1000:ARG:NH1  | 2.50                     | 0.44              |
| 1:B:762:GLN:HA    | 1:B:765:ARG:HG2   | 1.98                     | 0.44              |
| 1:B:57:PRO:HG3    | 1:B:273:ARG:HG3   | 1.99                     | 0.44              |
| 1:C:118:LEU:HD22  | 1:C:159:VAL:HG11  | 1.99                     | 0.44              |
| 1:B:394:ASN:HB3   | 1:B:516:GLU:HG2   | 1.99                     | 0.44              |
| 1:B:946:GLY:HA2   | 1:B:949:GLN:HB2   | 1.99                     | 0.44              |
| 1:C:204:TYR:HD1   | 1:C:225:PRO:HA    | 1.81                     | 0.44              |
| 1:C:718:PHE:HE1   | 1:C:923:ILE:HD11  | 1.81                     | 0.44              |
| 1:B:37:TYR:OH     | 1:B:53:ASP:OD1    | 2.35                     | 0.44              |
| 1:B:914:ASN:N     | 1:B:914:ASN:OD1   | 2.50                     | 0.44              |
| 1:C:393:THR:HA    | 1:C:522:ALA:HA    | 1.99                     | 0.44              |
| 1:C:756:TYR:HB3   | 1:C:759:PHE:HE2   | 1.82                     | 0.44              |
| 1:A:985:ASP:N     | 1:A:988:GLU:OE1   | 2.39                     | 0.44              |
| 1:B:710:ASN:OD1   | 1:B:710:ASN:N     | 2.45                     | 0.44              |
| 1:C:33:THR:HB     | 1:C:220:PHE:HD1   | 1.81                     | 0.44              |
| 1:C:717:ASN:OD1   | 1:C:718:PHE:N     | 2.49                     | 0.44              |
| 1:A:336:CYS:HB2   | 1:A:338:PHE:CE1   | 2.52                     | 0.44              |
| 1:A:722:VAL:HG12  | 1:A:930:ALA:HB1   | 1.98                     | 0.44              |
| 1:A:1002:GLN:O    | 1:A:1006:THR:HG23 | 2.17                     | 0.44              |
| 1:A:1135:ASN:OD1  | 1:A:1136:THR:N    | 2.40                     | 0.44              |
| 1:C:33:THR:HB     | 1:C:220:PHE:HD1   | 1.82                     | 0.44              |
| 1:C:106:PHE:HB3   | 1:C:235:ILE:HD13  | 1.99                     | 0.44              |
| 1:C:295:PRO:HG2   | 1:C:608:VAL:HG11  | 1.99                     | 0.44              |
| 1:C:717:ASN:OD1   | 1:C:718:PHE:N     | 2.48                     | 0.44              |
| 1:C:870:ILE:O     | 1:C:874:THR:HG23  | 2.16                     | 0.44              |
| 1:B:85:PRO:O      | 1:B:269:TYR:OH    | 2.26                     | 0.44              |
| 1:B:296:LEU:HG    | 1:B:300:LYS:HE3   | 1.99                     | 0.44              |
| 1:B:330:PRO:HD3   | 1:B:579:PRO:HB2   | 1.99                     | 0.44              |
| 1:C:769:GLY:HA2   | 1:C:772:VAL:HG12  | 1.98                     | 0.44              |
| 1:C:326:ILE:HD12  | 1:C:539:VAL:HG21  | 1.98                     | 0.44              |
| 1:B:992:GLN:OE1   | 1:B:995:ARG:NH2   | 2.32                     | 0.44              |
| 1:A:934:ILE:HA    | 1:A:934:ILE:HD12  | 1.83                     | 0.44              |
| 1:C:37:TYR:OH     | 1:C:195:LYS:NZ    | 2.44                     | 0.44              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:C:767:LEU:HA   | 1:C:770:ILE:HG22  | 1.98                     | 0.44              |
| 1:A:598:ILE:HG21 | 1:A:672:ALA:HB3   | 1.99                     | 0.44              |
| 1:A:1135:ASN:OD1 | 1:A:1136:THR:N    | 2.41                     | 0.44              |
| 1:B:702:GLU:HG3  | 1:C:790:LYS:HE3   | 1.99                     | 0.44              |
| 1:C:206:LYS:HB2  | 1:C:223:LEU:HA    | 1.99                     | 0.44              |
| 1:A:956:ALA:O    | 1:A:960:ASN:HB2   | 2.17                     | 0.44              |
| 1:B:82:PRO:HG2   | 1:B:84:LEU:HD11   | 1.99                     | 0.44              |
| 1:B:330:PRO:HD3  | 1:B:579:PRO:HB2   | 1.99                     | 0.44              |
| 1:B:946:GLY:HA2  | 1:B:949:GLN:HB2   | 1.99                     | 0.44              |
| 1:A:591:SER:HB2  | 1:A:615:VAL:HG12  | 1.98                     | 0.44              |
| 1:B:1015:ALA:HA  | 1:B:1018:ILE:HG22 | 2.00                     | 0.44              |
| 1:A:816:SER:N    | 1:A:819:GLU:OE2   | 2.40                     | 0.44              |
| 1:A:273:ARG:HD3  | 1:A:292:ALA:HB3   | 1.97                     | 0.44              |
| 1:B:168:PHE:HD2  | 1:B:169:GLU:N     | 2.16                     | 0.44              |
| 1:B:877:LEU:O    | 1:B:881:THR:HG23  | 2.17                     | 0.44              |
| 1:B:1002:GLN:O   | 1:B:1005:GLN:NE2  | 2.50                     | 0.44              |
| 1:C:452:LEU:HD23 | 1:C:492:LEU:HB3   | 1.99                     | 0.44              |
| 1:A:328:ARG:HD3  | 1:A:543:PHE:HE1   | 1.82                     | 0.44              |
| 1:A:773:GLU:OE2  | 1:A:1019:ARG:NE   | 2.50                     | 0.44              |
| 1:B:96:GLU:OE1   | 1:B:100:ILE:N     | 2.49                     | 0.44              |
| 1:B:203:ILE:HG23 | 1:B:226:LEU:HB3   | 1.99                     | 0.44              |
| 1:B:676:THR:HA   | 1:B:690:GLN:HG2   | 1.99                     | 0.44              |
| 1:C:708:SER:HB3  | 1:C:711:SER:HB3   | 1.99                     | 0.44              |
| 1:B:783:ALA:HB2  | 1:B:873:TYR:CE2   | 2.52                     | 0.44              |
| 1:A:394:ASN:HB2  | 1:A:516:GLU:HB3   | 1.99                     | 0.44              |
| 1:A:774:GLN:HA   | 1:A:777:ASN:OD1   | 2.17                     | 0.44              |
| 1:B:40:ASP:OD1   | 1:B:42:VAL:HG12   | 2.17                     | 0.44              |
| 1:A:567:ARG:HD3  | 1:A:571:ASP:HA    | 1.99                     | 0.44              |
| 1:A:769:GLY:HA2  | 1:A:772:VAL:HG12  | 1.99                     | 0.44              |
| 1:A:949:GLN:HA   | 1:A:952:VAL:HG22  | 1.99                     | 0.44              |
| 1:A:1155:TYR:O   | 1:A:1159:HIS:ND1  | 2.34                     | 0.44              |
| 1:B:596:SER:HB3  | 1:B:611:LEU:HB3   | 1.99                     | 0.44              |
| 1:B:620:VAL:HG11 | 1:B:642:VAL:HG11  | 2.00                     | 0.44              |
| 1:B:774:GLN:HE22 | 1:B:1018:ILE:HG21 | 1.81                     | 0.44              |
| 1:A:1086:LYS:HA  | 1:A:1125:ASN:HA   | 1.99                     | 0.44              |
| 1:B:35:GLY:HA3   | 1:B:56:LEU:HB3    | 1.98                     | 0.44              |
| 1:C:819:GLU:HA   | 1:C:822:LEU:HG    | 1.99                     | 0.44              |
| 1:A:1041:ASP:HB3 | 1:B:1030:SER:HB2  | 1.98                     | 0.44              |
| 1:B:131:CYS:HB2  | 1:B:133:PHE:CE1   | 2.52                     | 0.44              |
| 1:C:1135:ASN:OD1 | 1:C:1136:THR:N    | 2.45                     | 0.44              |
| 1:B:743:CYS:HB3  | 1:B:977:LEU:HD12  | 2.00                     | 0.44              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:326:ILE:HD12 | 1:A:539:VAL:HG21  | 1.98                     | 0.44              |
| 1:C:741:TYR:CE2  | 1:C:1004:LEU:HB2  | 2.52                     | 0.44              |
| 1:A:717:ASN:OD1  | 1:A:718:PHE:N     | 2.49                     | 0.44              |
| 1:C:201:PHE:CE1  | 1:C:203:ILE:HD11  | 2.53                     | 0.44              |
| 1:C:1005:GLN:O   | 1:C:1009:THR:HG23 | 2.17                     | 0.44              |
| 1:A:65:PHE:HE1   | 1:A:84:LEU:HD11   | 1.83                     | 0.44              |
| 1:B:33:THR:OG1   | 1:B:219:GLY:O     | 2.32                     | 0.44              |
| 1:B:1103:PHE:CD2 | 1:B:1112:PRO:HB3  | 2.52                     | 0.44              |
| 1:C:323:THR:OG1  | 1:C:324:GLU:OE2   | 2.28                     | 0.44              |
| 1:B:430:THR:HG22 | 1:C:983:ARG:HD3   | 1.98                     | 0.44              |
| 1:A:418:ILE:O    | 1:A:422:ASN:HB2   | 2.18                     | 0.44              |
| 1:B:158:ARG:O    | 1:B:158:ARG:NH1   | 2.51                     | 0.44              |
| 1:C:328:ARG:HD2  | 1:C:533:LEU:HB2   | 1.99                     | 0.44              |
| 1:A:1035:GLY:HA3 | 1:C:1040:VAL:HG11 | 1.99                     | 0.44              |
| 1:B:1103:PHE:CD1 | 1:B:1112:PRO:HB3  | 2.52                     | 0.44              |
| 1:C:212:LEU:HD22 | 1:C:217:PRO:HD3   | 1.99                     | 0.44              |
| 1:B:87:ASN:OD1   | 1:B:88:ASP:N      | 2.50                     | 0.44              |
| 1:B:992:GLN:HB3  | 1:B:995:ARG:HH21  | 1.82                     | 0.44              |
| 1:B:204:TYR:HD1  | 1:B:225:PRO:HA    | 1.82                     | 0.44              |
| 1:B:864:LEU:HG   | 1:B:865:LEU:HD22  | 2.00                     | 0.44              |
| 1:C:200:TYR:O    | 1:C:202:LYS:NZ    | 2.50                     | 0.44              |
| 1:C:310:LYS:HZ3  | 1:C:664:ILE:HG22  | 1.82                     | 0.44              |
| 1:C:763:LEU:HD12 | 1:C:1008:VAL:HG11 | 1.98                     | 0.44              |
| 1:C:888:PHE:HE1  | 1:C:1034:LEU:HD22 | 1.82                     | 0.44              |
| 1:A:295:PRO:HG2  | 1:A:608:VAL:HG11  | 2.00                     | 0.44              |
| 1:A:931:ILE:HA   | 1:A:934:ILE:HG22  | 1.99                     | 0.44              |
| 1:C:599:THR:HG22 | 1:C:608:VAL:HA    | 1.99                     | 0.44              |
| 1:B:14:GLN:N     | 1:B:255:SER:OG    | 2.44                     | 0.44              |
| 1:A:1121:PHE:HE1 | 1:B:914:ASN:HD21  | 1.66                     | 0.44              |
| 1:C:717:ASN:OD1  | 1:C:718:PHE:N     | 2.48                     | 0.44              |
| 1:C:1139:ASP:HB3 | 1:C:1142:GLN:HG2  | 1.99                     | 0.44              |
| 1:A:226:LEU:HD12 | 1:A:226:LEU:HA    | 1.89                     | 0.44              |
| 1:B:898:PHE:HA   | 1:B:901:GLN:HB3   | 1.98                     | 0.44              |
| 1:A:418:ILE:O    | 1:A:422:ASN:HB2   | 2.18                     | 0.44              |
| 1:A:865:LEU:HA   | 1:A:869:MET:HE1   | 1.98                     | 0.44              |
| 1:A:1002:GLN:O   | 1:A:1006:THR:HG23 | 2.17                     | 0.44              |
| 1:C:552:LEU:HB3  | 1:C:585:LEU:HD23  | 2.00                     | 0.44              |
| 1:C:931:ILE:HA   | 1:C:934:ILE:HG22  | 1.98                     | 0.44              |
| 1:A:375:SER:HB2  | 1:A:436:TRP:HA    | 1.98                     | 0.44              |
| 1:A:1049:LEU:HB2 | 1:A:1065:VAL:HG12 | 1.99                     | 0.44              |
| 1:C:785:VAL:HG22 | 1:C:787:GLN:H     | 1.82                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:970:PHE:N     | 1:B:755:GLN:HE22  | 2.15                     | 0.44              |
| 1:C:334:ASN:OD1   | 1:C:335:LEU:N     | 2.43                     | 0.44              |
| 1:C:206:LYS:HD2   | 1:C:207:HIS:N     | 2.33                     | 0.44              |
| 1:C:201:PHE:HB3   | 1:C:229:LEU:HB2   | 1.98                     | 0.44              |
| 1:C:299:THR:HG22  | 1:C:315:THR:HG21  | 1.98                     | 0.44              |
| 1:C:396:TYR:HB2   | 1:C:514:SER:HB3   | 1.99                     | 0.44              |
| 1:C:1081:ILE:HG13 | 1:C:1115:ILE:HD13 | 1.99                     | 0.44              |
| 1:A:676:THR:HA    | 1:A:690:GLN:HG2   | 1.98                     | 0.44              |
| 1:A:738:CYS:O     | 1:A:742:ILE:HG12  | 2.17                     | 0.44              |
| 1:A:742:ILE:O     | 1:A:1000:ARG:NH1  | 2.50                     | 0.44              |
| 1:B:764:ASN:O     | 1:B:768:THR:HG23  | 2.18                     | 0.44              |
| 1:B:1015:ALA:HA   | 1:B:1018:ILE:HG22 | 1.99                     | 0.44              |
| 1:B:1027:THR:HG22 | 1:B:1042:PHE:HZ   | 1.83                     | 0.44              |
| 1:C:866:THR:OG1   | 1:C:867:ASP:N     | 2.50                     | 0.44              |
| 1:C:994:ASP:O     | 1:C:998:THR:HG23  | 2.18                     | 0.44              |
| 1:A:866:THR:H     | 1:A:869:MET:HE2   | 1.83                     | 0.44              |
| 1:C:906:PHE:HA    | 1:C:909:ILE:HG12  | 1.99                     | 0.44              |
| 1:B:291:CYS:HB3   | 1:B:301:CYS:HB3   | 1.71                     | 0.44              |
| 1:C:316:SER:OG    | 1:C:317:ASN:N     | 2.50                     | 0.44              |
| 1:C:1135:ASN:OD1  | 1:C:1136:THR:N    | 2.43                     | 0.44              |
| 1:A:197:ILE:HB    | 1:A:202:LYS:HZ1   | 1.81                     | 0.44              |
| 1:A:578:ASP:OD2   | 1:A:581:THR:OG1   | 2.30                     | 0.44              |
| 1:A:784:GLN:HG2   | 1:A:1034:LEU:HD21 | 2.00                     | 0.44              |
| 1:A:1005:GLN:O    | 1:A:1009:THR:HG23 | 2.18                     | 0.44              |
| 1:A:676:THR:HA    | 1:A:690:GLN:HG2   | 1.98                     | 0.44              |
| 1:B:457:ARG:NH2   | 1:B:459:SER:OG    | 2.50                     | 0.44              |
| 1:B:729:VAL:HG12  | 1:B:1059:GLY:HA2  | 1.98                     | 0.44              |
| 1:A:914:ASN:OD1   | 1:C:1123:SER:OG   | 2.35                     | 0.44              |
| 1:C:1002:GLN:HA   | 1:C:1005:GLN:HE21 | 1.81                     | 0.44              |
| 1:C:726:ILE:HD12  | 1:C:1061:VAL:HG22 | 1.99                     | 0.44              |
| 1:B:577:ARG:NH1   | 1:B:582:LEU:HA    | 2.32                     | 0.44              |
| 1:B:361:CYS:HB3   | 1:B:524:VAL:O     | 2.17                     | 0.44              |
| 1:C:564:GLN:OE1   | 1:C:564:GLN:N     | 2.44                     | 0.44              |
| 1:A:909:ILE:HG13  | 1:A:911:VAL:HG23  | 1.98                     | 0.44              |
| 1:A:1005:GLN:HA   | 1:A:1008:VAL:HG12 | 1.99                     | 0.44              |
| 1:C:758:SER:O     | 1:C:761:THR:OG1   | 2.36                     | 0.44              |
| 1:A:299:THR:HG22  | 1:A:597:VAL:HG11  | 1.99                     | 0.44              |
| 1:A:906:PHE:CE2   | 1:A:916:LEU:HD13  | 2.53                     | 0.44              |
| 1:A:1116:THR:HG22 | 1:A:1138:TYR:HD2  | 1.83                     | 0.44              |
| 1:C:931:ILE:HA    | 1:C:934:ILE:HG22  | 1.98                     | 0.44              |
| 1:A:426:PRO:HG2   | 1:A:429:PHE:HB2   | 1.99                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:772:VAL:HG22  | 1:A:776:LYS:HE3   | 2.00                     | 0.44              |
| 1:A:977:LEU:HD11  | 1:A:1000:ARG:HH12 | 1.83                     | 0.44              |
| 1:C:774:GLN:HA    | 1:C:777:ASN:HD21  | 1.82                     | 0.44              |
| 1:C:1116:THR:OG1  | 1:C:1118:ASP:OD1  | 2.36                     | 0.44              |
| 1:A:375:SER:HB2   | 1:A:436:TRP:HA    | 1.99                     | 0.44              |
| 1:B:809:PRO:HA    | 1:B:814:LYS:HE2   | 1.98                     | 0.44              |
| 1:C:597:VAL:HG13  | 1:C:608:VAL:HG13  | 1.98                     | 0.44              |
| 1:A:676:THR:HA    | 1:A:690:GLN:HG2   | 1.99                     | 0.44              |
| 1:A:726:ILE:O     | 1:A:947:LYS:NZ    | 2.46                     | 0.44              |
| 1:A:752:LEU:HA    | 1:A:755:GLN:NE2   | 2.32                     | 0.44              |
| 1:C:762:GLN:OE1   | 1:C:765:ARG:NH2   | 2.50                     | 0.44              |
| 1:B:889:GLY:HA3   | 1:B:1034:LEU:HD21 | 1.98                     | 0.44              |
| 1:A:239:GLN:HE21  | 1:A:240:THR:H     | 1.64                     | 0.44              |
| 1:B:877:LEU:HD12  | 1:B:877:LEU:HA    | 1.85                     | 0.44              |
| 1:B:229:LEU:HG    | 1:B:231:ILE:HG13  | 2.00                     | 0.44              |
| 1:A:592:PHE:CZ    | 1:B:857:GLY:HA2   | 2.53                     | 0.44              |
| 1:A:756:TYR:HB3   | 1:A:759:PHE:HE2   | 1.83                     | 0.44              |
| 1:C:396:TYR:HB2   | 1:C:514:SER:HB2   | 1.99                     | 0.44              |
| 1:A:227:VAL:HG22  | 1:A:229:LEU:HD12  | 2.00                     | 0.44              |
| 1:A:1002:GLN:O    | 1:A:1006:THR:HG23 | 2.16                     | 0.44              |
| 1:A:699:LEU:HB3   | 1:B:788:ILE:HD11  | 2.00                     | 0.44              |
| 1:A:1135:ASN:OD1  | 1:A:1136:THR:N    | 2.41                     | 0.44              |
| 1:C:933:LYS:HE2   | 1:C:933:LYS:HB2   | 1.85                     | 0.44              |
| 1:A:205:SER:HB3   | 1:A:226:LEU:HD22  | 1.99                     | 0.44              |
| 1:A:106:PHE:HD1   | 1:A:235:ILE:HD13  | 1.83                     | 0.44              |
| 1:A:866:THR:OG1   | 1:A:867:ASP:N     | 2.51                     | 0.44              |
| 1:A:985:ASP:OD1   | 1:A:987:PRO:HD2   | 2.18                     | 0.44              |
| 1:C:316:SER:OG    | 1:C:317:ASN:N     | 2.51                     | 0.44              |
| 1:C:326:ILE:HD12  | 1:C:539:VAL:HG21  | 1.99                     | 0.44              |
| 1:A:57:PRO:HG3    | 1:A:273:ARG:HE    | 1.83                     | 0.44              |
| 1:A:904:TYR:HB2   | 1:C:1107:ARG:HH12 | 1.82                     | 0.44              |
| 1:B:985:ASP:N     | 1:B:988:GLU:OE2   | 2.47                     | 0.44              |
| 1:A:825:LYS:NZ    | 1:A:938:LEU:O     | 2.40                     | 0.44              |
| 1:A:881:THR:HG23  | 1:A:882:ILE:HD13  | 1.98                     | 0.44              |
| 1:B:906:PHE:HB3   | 1:B:911:VAL:HB    | 1.99                     | 0.44              |
| 1:A:914:ASN:HD21  | 1:C:1121:PHE:HE1  | 1.64                     | 0.44              |
| 1:B:1115:ILE:HG22 | 1:B:1137:VAL:HG23 | 2.00                     | 0.44              |
| 1:C:33:THR:HB     | 1:C:220:PHE:HD1   | 1.83                     | 0.44              |
| 1:C:807:PRO:HA    | 1:C:816:SER:HA    | 1.99                     | 0.44              |
| 1:C:1003:SER:HA   | 1:C:1006:THR:HG23 | 1.99                     | 0.44              |
| 1:A:909:ILE:O     | 1:A:1108:ASN:ND2  | 2.51                     | 0.44              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:C:741:TYR:HE1  | 1:C:962:LEU:HD11  | 1.83                     | 0.44              |
| 1:C:807:PRO:HA   | 1:C:816:SER:HA    | 1.98                     | 0.44              |
| 1:C:1002:GLN:O   | 1:C:1006:THR:HG23 | 2.18                     | 0.44              |
| 1:B:717:ASN:OD1  | 1:B:718:PHE:N     | 2.48                     | 0.44              |
| 1:B:1086:LYS:HG3 | 1:B:1122:VAL:HG13 | 2.00                     | 0.44              |
| 1:A:825:LYS:HD3  | 1:A:942:ALA:HA    | 2.00                     | 0.44              |
| 1:C:775:ASP:O    | 1:C:778:THR:OG1   | 2.33                     | 0.44              |
| 1:C:1155:TYR:O   | 1:C:1159:HIS:ND1  | 2.34                     | 0.44              |
| 1:B:713:ALA:HB2  | 1:C:895:GLN:HE21  | 1.83                     | 0.44              |
| 1:C:119:ILE:HD13 | 1:C:128:ILE:HG22  | 2.00                     | 0.44              |
| 1:C:365:TYR:HD1  | 1:C:368:LEU:HD12  | 1.83                     | 0.44              |
| 1:A:965:GLN:O    | 1:A:968:SER:OG    | 2.35                     | 0.44              |
| 1:B:296:LEU:HB2  | 1:B:608:VAL:HG21  | 2.00                     | 0.44              |
| 1:B:699:LEU:HB2  | 1:C:788:ILE:HD11  | 1.99                     | 0.44              |
| 1:A:365:TYR:HD1  | 1:A:368:LEU:HD12  | 1.83                     | 0.44              |
| 1:B:777:ASN:O    | 1:B:781:VAL:HG12  | 2.18                     | 0.44              |
| 1:C:769:GLY:HA2  | 1:C:772:VAL:HG12  | 2.00                     | 0.44              |
| 1:C:403:ARG:HG2  | 1:C:497:PHE:HE1   | 1.82                     | 0.44              |
| 1:A:102:ARG:NH1  | 1:A:121:ASN:O     | 2.51                     | 0.44              |
| 1:C:733:LYS:HE3  | 1:C:771:ALA:HB1   | 1.98                     | 0.44              |
| 1:A:42:VAL:HG11  | 1:A:44:ARG:HH21   | 1.81                     | 0.44              |
| 1:A:1035:GLY:HA3 | 1:C:1040:VAL:HG21 | 2.00                     | 0.44              |
| 1:A:1054:GLN:N   | 1:A:1061:VAL:O    | 2.50                     | 0.44              |
| 1:C:83:VAL:HG22  | 1:C:239:GLN:HG2   | 2.00                     | 0.44              |
| 1:A:957:GLN:HE21 | 1:B:765:ARG:HE    | 1.65                     | 0.44              |
| 1:A:1030:SER:HB2 | 1:C:1041:ASP:HB3  | 1.99                     | 0.44              |
| 1:C:717:ASN:OD1  | 1:C:718:PHE:N     | 2.48                     | 0.44              |
| 1:B:452:LEU:HB3  | 1:B:492:LEU:HD11  | 2.00                     | 0.44              |
| 1:C:717:ASN:OD1  | 1:C:718:PHE:N     | 2.47                     | 0.44              |
| 1:C:1002:GLN:O   | 1:C:1006:THR:HG23 | 2.18                     | 0.44              |
| 1:B:850:ILE:HG23 | 1:B:860:VAL:HB    | 1.99                     | 0.44              |
| 1:B:969:ASN:OD1  | 1:C:755:GLN:HG2   | 2.18                     | 0.44              |
| 1:C:37:TYR:OH    | 1:C:54:LEU:O      | 2.34                     | 0.44              |
| 1:A:1135:ASN:OD1 | 1:A:1136:THR:N    | 2.41                     | 0.44              |
| 1:C:296:LEU:HB2  | 1:C:608:VAL:HG21  | 1.98                     | 0.44              |
| 1:C:869:MET:HB2  | 1:C:869:MET:HE2   | 1.89                     | 0.44              |
| 1:A:913:GLN:HE22 | 1:C:1090:PRO:HD2  | 1.83                     | 0.44              |
| 1:B:774:GLN:HA   | 1:B:777:ASN:HD21  | 1.83                     | 0.44              |
| 1:B:1010:GLN:OE1 | 1:B:1014:ARG:NH1  | 2.50                     | 0.44              |
| 1:A:866:THR:O    | 1:A:870:ILE:HG12  | 2.17                     | 0.44              |
| 1:B:1015:ALA:HA  | 1:B:1018:ILE:HG22 | 1.99                     | 0.44              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:C:819:GLU:HA   | 1:C:822:LEU:HG    | 1.98                     | 0.44              |
| 1:B:401:VAL:HG22 | 1:B:509:ARG:HG2   | 1.99                     | 0.44              |
| 1:B:784:GLN:HA   | 1:B:784:GLN:NE2   | 2.32                     | 0.44              |
| 1:C:141:LEU:HD13 | 1:C:154:GLU:HG3   | 2.00                     | 0.44              |
| 1:B:360:ASN:OD1  | 1:B:523:THR:OG1   | 2.25                     | 0.44              |
| 1:B:966:LEU:HD23 | 1:B:966:LEU:HA    | 1.78                     | 0.44              |
| 1:C:659:SER:HB3  | 1:C:698:SER:HB2   | 1.99                     | 0.44              |
| 1:B:563:GLN:NE2  | 1:C:282:ASN:O     | 2.46                     | 0.44              |
| 1:C:426:PRO:HG2  | 1:C:429:PHE:HB2   | 1.99                     | 0.44              |
| 1:C:927:PHE:O    | 1:C:931:ILE:HG13  | 2.17                     | 0.44              |
| 1:A:990:GLU:N    | 1:A:990:GLU:OE2   | 2.50                     | 0.44              |
| 1:A:596:SER:HB2  | 1:A:611:LEU:HD22  | 1.99                     | 0.44              |
| 1:A:1155:TYR:O   | 1:A:1159:HIS:ND1  | 2.34                     | 0.44              |
| 1:C:203:ILE:HD13 | 1:C:227:VAL:HG13  | 2.00                     | 0.44              |
| 1:B:295:PRO:HG2  | 1:B:608:VAL:HG11  | 1.98                     | 0.44              |
| 1:A:984:LEU:HD11 | 1:A:988:GLU:HB2   | 2.00                     | 0.44              |
| 1:B:273:ARG:NH2  | 1:B:290:ASP:OD2   | 2.48                     | 0.44              |
| 1:C:426:PRO:HG2  | 1:C:429:PHE:HB2   | 2.00                     | 0.44              |
| 1:A:774:GLN:HE22 | 1:A:1018:ILE:HG21 | 1.82                     | 0.44              |
| 1:A:993:ILE:HD13 | 1:A:993:ILE:HG21  | 1.83                     | 0.44              |
| 1:A:1035:GLY:HA3 | 1:C:1040:VAL:HG11 | 2.00                     | 0.44              |
| 1:B:766:ALA:O    | 1:B:770:ILE:HG12  | 2.17                     | 0.44              |
| 1:C:204:TYR:HA   | 1:C:225:PRO:HA    | 2.00                     | 0.44              |
| 1:C:717:ASN:OD1  | 1:C:718:PHE:N     | 2.48                     | 0.44              |
| 1:A:733:LYS:NZ   | 1:A:863:PRO:HA    | 2.32                     | 0.44              |
| 1:A:1086:LYS:HA  | 1:A:1125:ASN:HA   | 1.99                     | 0.44              |
| 1:B:106:PHE:HB2  | 1:B:117:LEU:HB2   | 2.00                     | 0.44              |
| 1:C:201:PHE:HE1  | 1:C:203:ILE:HD11  | 1.83                     | 0.44              |
| 1:C:1051:SER:HB3 | 1:C:1064:HIS:ND1  | 2.33                     | 0.44              |
| 1:A:742:ILE:HG21 | 1:A:997:ILE:HG22  | 2.00                     | 0.44              |
| 1:B:1100:THR:OG1 | 1:B:1101:HIS:N    | 2.50                     | 0.44              |
| 1:C:676:THR:HA   | 1:C:690:GLN:HG2   | 1.99                     | 0.44              |
| 1:B:131:CYS:HB2  | 1:B:133:PHE:CE1   | 2.52                     | 0.44              |
| 1:C:365:TYR:HD1  | 1:C:368:LEU:HD12  | 1.83                     | 0.44              |
| 1:A:51:THR:HG22  | 1:A:277:LEU:HD11  | 1.99                     | 0.44              |
| 1:A:365:TYR:HD1  | 1:A:368:LEU:HD12  | 1.82                     | 0.44              |
| 1:A:418:ILE:O    | 1:A:422:ASN:HB2   | 2.18                     | 0.44              |
| 1:C:1002:GLN:O   | 1:C:1005:GLN:NE2  | 2.51                     | 0.44              |
| 1:A:858:LEU:HD13 | 1:A:959:LEU:HB2   | 2.00                     | 0.44              |
| 1:B:1054:GLN:HB2 | 1:B:1061:VAL:HG13 | 1.99                     | 0.44              |
| 1:C:456:PHE:HE2  | 1:C:489:TYR:HD2   | 1.66                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:1015:ALA:HA   | 1:A:1018:ILE:HG22 | 2.00                     | 0.44              |
| 1:C:788:ILE:HD12  | 1:C:876:ALA:HB2   | 1.98                     | 0.44              |
| 1:A:554:GLU:HA    | 1:A:585:LEU:HA    | 2.00                     | 0.44              |
| 1:B:484:LYS:HD2   | 1:B:490:PHE:HB2   | 1.99                     | 0.44              |
| 1:B:594:GLY:HA3   | 1:B:613:GLN:HE21  | 1.83                     | 0.44              |
| 1:C:108:THR:OG1   | 1:C:234:ASN:O     | 2.36                     | 0.44              |
| 1:A:225:PRO:HB2   | 1:C:562:PHE:HZ    | 1.83                     | 0.44              |
| 1:A:1051:SER:HB3  | 1:A:1064:HIS:HD1  | 1.82                     | 0.44              |
| 1:A:1086:LYS:HG3  | 1:A:1122:VAL:HG13 | 2.00                     | 0.44              |
| 1:B:662:CYS:HB2   | 1:B:697:MET:SD    | 2.58                     | 0.44              |
| 1:B:825:LYS:HZ2   | 1:B:942:ALA:HA    | 1.82                     | 0.44              |
| 1:B:456:PHE:CE2   | 1:B:475:ALA:HA    | 2.52                     | 0.44              |
| 1:A:722:VAL:HG12  | 1:A:930:ALA:HB1   | 1.99                     | 0.44              |
| 1:B:777:ASN:O     | 1:B:781:VAL:HG12  | 2.18                     | 0.44              |
| 1:C:741:TYR:CE2   | 1:C:1004:LEU:HD13 | 2.52                     | 0.44              |
| 1:A:17:ASN:HB2    | 1:A:21:ARG:HD3    | 2.00                     | 0.44              |
| 1:A:35:GLY:HA3    | 1:A:56:LEU:HB3    | 2.00                     | 0.44              |
| 1:A:759:PHE:O     | 1:A:763:LEU:HG    | 2.17                     | 0.44              |
| 1:A:989:ALA:O     | 1:A:993:ILE:HG13  | 2.18                     | 0.44              |
| 1:A:645:THR:OG1   | 1:A:648:GLY:O     | 2.33                     | 0.44              |
| 1:B:1002:GLN:NE2  | 1:C:1005:GLN:OE1  | 2.49                     | 0.44              |
| 1:C:552:LEU:HD12  | 1:C:585:LEU:HD13  | 1.99                     | 0.44              |
| 1:C:1153:ASP:HA   | 1:C:1156:PHE:CD2  | 2.52                     | 0.44              |
| 1:A:296:LEU:HB2   | 1:A:608:VAL:HG21  | 1.99                     | 0.44              |
| 1:A:866:THR:HG22  | 1:A:869:MET:SD    | 2.58                     | 0.44              |
| 1:B:1105:THR:HG23 | 1:B:1111:GLU:H    | 1.83                     | 0.44              |
| 1:C:770:ILE:O     | 1:C:774:GLN:HB2   | 2.18                     | 0.44              |
| 1:A:273:ARG:HE    | 1:A:292:ALA:HB3   | 1.83                     | 0.44              |
| 1:B:777:ASN:HA    | 1:B:780:GLU:OE1   | 2.18                     | 0.44              |
| 1:B:782:PHE:HB3   | 1:B:873:TYR:HD2   | 1.83                     | 0.44              |
| 1:C:963:VAL:HA    | 1:C:966:LEU:HD23  | 2.00                     | 0.44              |
| 1:C:1002:GLN:HA   | 1:C:1005:GLN:HG3  | 2.00                     | 0.44              |
| 1:A:52:GLN:OE1    | 1:A:274:THR:OG1   | 2.25                     | 0.44              |
| 1:A:819:GLU:HA    | 1:A:822:LEU:HB2   | 1.99                     | 0.44              |
| 1:A:1002:GLN:O    | 1:A:1006:THR:HG23 | 2.18                     | 0.44              |
| 1:B:1017:GLU:OE1  | 1:C:1019:ARG:NH1  | 2.51                     | 0.44              |
| 1:C:18:PHE:HB2    | 1:C:21:ARG:HB2    | 1.98                     | 0.44              |
| 1:C:1028:LYS:O    | 1:C:1032:CYS:HB2  | 2.17                     | 0.44              |
| 1:C:552:LEU:HD22  | 1:C:585:LEU:HD13  | 1.99                     | 0.44              |
| 1:C:1049:LEU:HB2  | 1:C:1065:VAL:HG23 | 2.00                     | 0.44              |
| 1:B:92:PHE:HE2    | 1:B:94:SER:HB2    | 1.83                     | 0.44              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:C:19:THR:HG23  | 1:C:256:SER:HB2   | 2.00                     | 0.44              |
| 1:A:866:THR:O    | 1:A:870:ILE:HG23  | 2.18                     | 0.44              |
| 1:C:117:LEU:HD13 | 1:C:235:ILE:HD11  | 2.00                     | 0.44              |
| 1:C:201:PHE:HB3  | 1:C:229:LEU:HB2   | 1.99                     | 0.44              |
| 1:A:1135:ASN:OD1 | 1:A:1136:THR:N    | 2.42                     | 0.44              |
| 1:B:901:GLN:HE21 | 1:B:905:ARG:NE    | 2.16                     | 0.44              |
| 1:B:946:GLY:HA2  | 1:B:949:GLN:HB2   | 1.99                     | 0.44              |
| 1:C:206:LYS:HB2  | 1:C:223:LEU:HA    | 2.00                     | 0.44              |
| 1:C:1118:ASP:OD1 | 1:C:1118:ASP:N    | 2.51                     | 0.44              |
| 1:A:58:PHE:HD1   | 1:A:290:ASP:HB2   | 1.83                     | 0.44              |
| 1:A:761:THR:O    | 1:A:765:ARG:HG2   | 2.18                     | 0.44              |
| 1:C:277:LEU:HD22 | 1:C:285:ILE:HD13  | 1.98                     | 0.44              |
| 1:B:1039:ARG:HB3 | 1:C:1031:GLU:OE1  | 2.17                     | 0.44              |
| 1:B:296:LEU:HB2  | 1:B:608:VAL:HG21  | 1.98                     | 0.44              |
| 1:B:774:GLN:HA   | 1:B:777:ASN:HD21  | 1.82                     | 0.44              |
| 1:C:458:LYS:HE3  | 1:C:474:GLN:NE2   | 2.32                     | 0.44              |
| 1:A:741:TYR:CE2  | 1:A:1004:LEU:HD13 | 2.53                     | 0.44              |
| 1:A:964:LYS:HE2  | 1:A:964:LYS:HB2   | 1.82                     | 0.44              |
| 1:A:365:TYR:HD1  | 1:A:368:LEU:HD12  | 1.83                     | 0.44              |
| 1:B:287:ASP:OD1  | 1:B:288:ALA:N     | 2.50                     | 0.44              |
| 1:B:566:GLY:N    | 1:B:575:ALA:O     | 2.43                     | 0.44              |
| 1:C:901:GLN:HE22 | 1:C:905:ARG:NH2   | 2.16                     | 0.44              |
| 1:A:532:ASN:OD1  | 1:A:533:LEU:N     | 2.51                     | 0.44              |
| 1:B:68:ILE:HA    | 1:B:262:ALA:HA    | 1.99                     | 0.44              |
| 1:B:361:CYS:HB3  | 1:B:524:VAL:O     | 2.18                     | 0.44              |
| 1:C:320:VAL:HG23 | 1:C:590:CYS:HB3   | 1.99                     | 0.44              |
| 1:A:722:VAL:HG12 | 1:A:930:ALA:HB1   | 1.98                     | 0.44              |
| 1:B:616:ASN:OD1  | 1:B:644:GLN:NE2   | 2.50                     | 0.44              |
| 1:B:946:GLY:HA2  | 1:B:949:GLN:HB2   | 1.98                     | 0.44              |
| 1:C:204:TYR:HD1  | 1:C:225:PRO:HA    | 1.81                     | 0.44              |
| 1:A:41:LYS:HG2   | 1:C:562:PHE:CE2   | 2.53                     | 0.44              |
| 1:B:717:ASN:OD1  | 1:B:718:PHE:N     | 2.50                     | 0.44              |
| 1:C:365:TYR:HD1  | 1:C:368:LEU:HD12  | 1.83                     | 0.44              |
| 1:C:769:GLY:HA2  | 1:C:772:VAL:HG22  | 2.00                     | 0.44              |
| 1:B:108:THR:OG1  | 1:B:234:ASN:O     | 2.35                     | 0.44              |
| 1:B:357:ARG:NH2  | 1:B:394:ASN:OD1   | 2.48                     | 0.44              |
| 1:C:189:LEU:HD12 | 1:C:189:LEU:HA    | 1.83                     | 0.44              |
| 1:B:92:PHE:HE1   | 1:B:94:SER:HB2    | 1.83                     | 0.44              |
| 1:C:596:SER:HB2  | 1:C:611:LEU:HD23  | 1.99                     | 0.44              |
| 1:B:131:CYS:HB2  | 1:B:133:PHE:CE1   | 2.53                     | 0.44              |
| 1:B:717:ASN:OD1  | 1:B:718:PHE:N     | 2.48                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:914:ASN:N     | 1:B:914:ASN:OD1   | 2.50                     | 0.44              |
| 1:C:962:LEU:HD12  | 1:C:962:LEU:HA    | 1.81                     | 0.44              |
| 1:A:365:TYR:HD1   | 1:A:368:LEU:HD12  | 1.83                     | 0.44              |
| 1:A:702:GLU:HA    | 1:B:788:ILE:HB    | 2.00                     | 0.44              |
| 1:C:727:LEU:HD11  | 1:C:1028:LYS:HD2  | 2.00                     | 0.44              |
| 1:A:865:LEU:HB3   | 1:A:870:ILE:HD11  | 2.00                     | 0.44              |
| 1:C:998:THR:HA    | 1:C:1001:LEU:HG   | 2.00                     | 0.44              |
| 1:A:811:LYS:HG3   | 1:A:812:PRO:HD2   | 1.99                     | 0.44              |
| 1:A:102:ARG:O     | 1:A:121:ASN:N     | 2.43                     | 0.44              |
| 1:B:195:LYS:HB3   | 1:B:195:LYS:HE3   | 1.78                     | 0.44              |
| 1:A:39:PRO:HG3    | 1:A:51:THR:HG21   | 2.00                     | 0.44              |
| 1:B:131:CYS:HB2   | 1:B:133:PHE:CE1   | 2.53                     | 0.44              |
| 1:C:931:ILE:HA    | 1:C:934:ILE:HG22  | 2.00                     | 0.44              |
| 1:A:1031:GLU:OE1  | 1:C:1039:ARG:HB3  | 2.17                     | 0.44              |
| 1:B:823:PHE:CD2   | 1:B:1057:PRO:HD3  | 2.51                     | 0.44              |
| 1:A:717:ASN:OD1   | 1:A:718:PHE:N     | 2.50                     | 0.44              |
| 1:C:998:THR:HA    | 1:C:1001:LEU:HG   | 2.00                     | 0.44              |
| 1:B:766:ALA:O     | 1:B:770:ILE:HG12  | 2.18                     | 0.44              |
| 1:C:782:PHE:HD1   | 1:C:782:PHE:HA    | 1.66                     | 0.44              |
| 1:C:791:THR:HG21  | 1:C:806:LEU:HD11  | 1.99                     | 0.44              |
| 1:A:201:PHE:CE2   | 1:A:203:ILE:HD11  | 2.53                     | 0.44              |
| 1:A:770:ILE:HD12  | 1:A:770:ILE:HA    | 1.85                     | 0.44              |
| 1:B:53:ASP:OD1    | 1:B:195:LYS:NZ    | 2.51                     | 0.44              |
| 1:B:567:ARG:NH1   | 1:B:571:ASP:OD1   | 2.51                     | 0.44              |
| 1:B:1028:LYS:NZ   | 1:B:1042:PHE:O    | 2.31                     | 0.44              |
| 1:C:418:ILE:O     | 1:C:422:ASN:HB2   | 2.18                     | 0.44              |
| 1:C:784:GLN:HA    | 1:C:784:GLN:NE2   | 2.32                     | 0.44              |
| 1:C:870:ILE:HD12  | 1:C:870:ILE:HA    | 1.66                     | 0.44              |
| 1:C:884:SER:HG    | 1:C:887:THR:HG1   | 1.66                     | 0.44              |
| 1:A:727:LEU:HD21  | 1:A:1028:LYS:HD2  | 2.00                     | 0.44              |
| 1:A:1089:PHE:HZ   | 1:A:1129:VAL:HG11 | 1.83                     | 0.44              |
| 1:B:737:ASP:OD2   | 1:B:737:ASP:N     | 2.43                     | 0.44              |
| 1:B:182:LYS:HD3   | 1:B:187:LYS:HD2   | 1.99                     | 0.44              |
| 1:B:965:GLN:HE22  | 1:C:758:SER:H     | 1.65                     | 0.44              |
| 1:B:1115:ILE:HG22 | 1:B:1137:VAL:HG13 | 2.00                     | 0.44              |
| 1:C:126:VAL:H     | 1:C:172:SER:HB3   | 1.81                     | 0.44              |
| 1:C:807:PRO:HA    | 1:C:816:SER:HA    | 1.99                     | 0.44              |
| 1:A:901:GLN:OE1   | 1:A:905:ARG:NE    | 2.51                     | 0.43              |
| 1:A:1116:THR:HG22 | 1:A:1138:TYR:HD2  | 1.83                     | 0.43              |
| 1:C:597:VAL:HG13  | 1:C:608:VAL:HG13  | 1.99                     | 0.43              |
| 1:A:1086:LYS:HE2  | 1:A:1122:VAL:HG11 | 1.99                     | 0.43              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:576:VAL:HG23 | 1:A:587:ILE:HD11  | 2.00                     | 0.43              |
| 1:C:759:PHE:O    | 1:C:763:LEU:HG    | 2.17                     | 0.43              |
| 1:A:55:PHE:HB3   | 1:A:275:PHE:HE2   | 1.83                     | 0.43              |
| 1:B:1102:TRP:HE1 | 1:B:1135:ASN:HD22 | 1.66                     | 0.43              |
| 1:A:755:GLN:O    | 1:C:968:SER:OG    | 2.25                     | 0.43              |
| 1:B:762:GLN:HA   | 1:B:765:ARG:NH1   | 2.33                     | 0.43              |
| 1:C:37:TYR:OH    | 1:C:54:LEU:O      | 2.31                     | 0.43              |
| 1:C:38:TYR:HE2   | 1:C:224:GLU:HG3   | 1.83                     | 0.43              |
| 1:B:825:LYS:O    | 1:B:949:GLN:NE2   | 2.51                     | 0.43              |
| 1:B:66:HIS:HA    | 1:B:264:ALA:HA    | 2.00                     | 0.43              |
| 1:B:521:PRO:HD3  | 1:B:564:GLN:OE1   | 2.17                     | 0.43              |
| 1:C:727:LEU:HD11 | 1:C:1028:LYS:HD2  | 1.99                     | 0.43              |
| 1:B:454:ARG:HD2  | 1:B:457:ARG:HG2   | 1.99                     | 0.43              |
| 1:B:662:CYS:HB2  | 1:B:697:MET:SD    | 2.58                     | 0.43              |
| 1:C:96:GLU:OE1   | 1:C:100:ILE:N     | 2.51                     | 0.43              |
| 1:C:105:ILE:HB   | 1:C:239:GLN:HB2   | 2.00                     | 0.43              |
| 1:C:188:ASN:OD1  | 1:C:207:HIS:NE2   | 2.48                     | 0.43              |
| 1:C:807:PRO:HA   | 1:C:816:SER:HA    | 2.00                     | 0.43              |
| 1:B:105:ILE:HB   | 1:B:239:GLN:HB2   | 2.00                     | 0.43              |
| 1:C:949:GLN:HA   | 1:C:952:VAL:HG22  | 2.00                     | 0.43              |
| 1:C:1005:GLN:O   | 1:C:1009:THR:HG23 | 2.18                     | 0.43              |
| 1:A:32:PHE:CD2   | 1:A:33:THR:HG23   | 2.52                     | 0.43              |
| 1:B:131:CYS:HB2  | 1:B:133:PHE:CE1   | 2.52                     | 0.43              |
| 1:C:819:GLU:HA   | 1:C:822:LEU:HG    | 1.99                     | 0.43              |
| 1:C:960:ASN:HB3  | 1:C:964:LYS:NZ    | 2.33                     | 0.43              |
| 1:A:756:TYR:HE1  | 1:A:997:ILE:HD12  | 1.83                     | 0.43              |
| 1:B:783:ALA:HB2  | 1:B:873:TYR:CZ    | 2.53                     | 0.43              |
| 1:B:906:PHE:HB3  | 1:B:911:VAL:HB    | 2.00                     | 0.43              |
| 1:C:866:THR:O    | 1:C:870:ILE:HG12  | 2.18                     | 0.43              |
| 1:A:784:GLN:HG3  | 1:A:1034:LEU:HD21 | 2.00                     | 0.43              |
| 1:A:1041:ASP:HB3 | 1:B:1030:SER:HB2  | 1.99                     | 0.43              |
| 1:B:1031:GLU:HG3 | 1:B:1042:PHE:HE2  | 1.83                     | 0.43              |
| 1:C:994:ASP:HA   | 1:C:997:ILE:HG12  | 2.00                     | 0.43              |
| 1:B:152:TRP:CG   | 1:B:179:LEU:HB2   | 2.53                     | 0.43              |
| 1:B:206:LYS:HZ2  | 1:B:206:LYS:HG3   | 1.74                     | 0.43              |
| 1:C:1118:ASP:OD1 | 1:C:1118:ASP:N    | 2.45                     | 0.43              |
| 1:A:295:PRO:HA   | 1:A:298:GLU:HG2   | 1.99                     | 0.43              |
| 1:A:905:ARG:HD3  | 1:A:1049:LEU:O    | 2.18                     | 0.43              |
| 1:B:1054:GLN:N   | 1:B:1061:VAL:O    | 2.51                     | 0.43              |
| 1:A:949:GLN:HA   | 1:A:952:VAL:HG22  | 2.00                     | 0.43              |
| 1:B:729:VAL:O    | 1:B:777:ASN:ND2   | 2.51                     | 0.43              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:C:130:VAL:HB    | 1:C:168:PHE:HB3  | 2.00                     | 0.43              |
| 1:C:564:GLN:HG3   | 1:C:565:PHE:CD2  | 2.53                     | 0.43              |
| 1:A:955:ASN:N     | 1:A:955:ASN:ND2  | 2.65                     | 0.43              |
| 1:B:44:ARG:HD2    | 1:B:279:TYR:HE2  | 1.83                     | 0.43              |
| 1:A:328:ARG:HD3   | 1:A:543:PHE:HE1  | 1.83                     | 0.43              |
| 1:B:360:ASN:OD1   | 1:B:523:THR:OG1  | 2.28                     | 0.43              |
| 1:B:699:LEU:HB2   | 1:C:788:ILE:HD11 | 2.00                     | 0.43              |
| 1:B:443:SER:HB3   | 1:B:499:PRO:HG3  | 2.00                     | 0.43              |
| 1:B:866:THR:O     | 1:B:870:ILE:HG12 | 2.17                     | 0.43              |
| 1:A:326:ILE:HD11  | 1:A:534:VAL:HB   | 1.99                     | 0.43              |
| 1:A:731:MET:HB3   | 1:A:774:GLN:HE22 | 1.83                     | 0.43              |
| 1:B:312:ILE:HD13  | 1:B:598:ILE:HD13 | 2.00                     | 0.43              |
| 1:B:773:GLU:OE2   | 1:B:1019:ARG:NE  | 2.51                     | 0.43              |
| 1:B:877:LEU:O     | 1:B:881:THR:HG23 | 2.18                     | 0.43              |
| 1:B:931:ILE:HA    | 1:B:934:ILE:HG22 | 2.00                     | 0.43              |
| 1:A:1135:ASN:OD1  | 1:A:1136:THR:N   | 2.41                     | 0.43              |
| 1:A:1081:ILE:HG12 | 1:A:1095:PHE:CE2 | 2.53                     | 0.43              |
| 1:B:39:PRO:HG3    | 1:B:51:THR:HG21  | 2.00                     | 0.43              |
| 1:B:1091:ARG:NH2  | 1:B:1120:THR:O   | 2.51                     | 0.43              |
| 1:C:273:ARG:HA    | 1:C:273:ARG:HD3  | 1.76                     | 0.43              |
| 1:A:592:PHE:CZ    | 1:B:857:GLY:HA2  | 2.53                     | 0.43              |
| 1:B:40:ASP:HB3    | 1:B:42:VAL:HG12  | 2.00                     | 0.43              |
| 1:B:985:ASP:O     | 1:B:989:ALA:CB   | 2.66                     | 0.43              |
| 1:C:347:PHE:CG    | 1:C:399:SER:HB3  | 2.52                     | 0.43              |
| 1:B:717:ASN:OD1   | 1:B:718:PHE:N    | 2.47                     | 0.43              |
| 1:B:1046:GLY:HA2  | 1:C:890:ALA:HA   | 2.00                     | 0.43              |
| 1:B:1103:PHE:CD2  | 1:B:1112:PRO:HB3 | 2.53                     | 0.43              |
| 1:A:326:ILE:HD11  | 1:A:534:VAL:HB   | 2.00                     | 0.43              |
| 1:B:796:ASP:OD1   | 1:B:796:ASP:N    | 2.51                     | 0.43              |
| 1:A:712:ILE:HD13  | 1:B:897:PRO:HD2  | 2.01                     | 0.43              |
| 1:B:182:LYS:HD3   | 1:B:187:LYS:HD2  | 1.99                     | 0.43              |
| 1:B:188:ASN:OD1   | 1:B:207:HIS:NE2  | 2.38                     | 0.43              |
| 1:A:130:VAL:HB    | 1:A:168:PHE:HB3  | 1.99                     | 0.43              |
| 1:A:418:ILE:O     | 1:A:422:ASN:HB2  | 2.19                     | 0.43              |
| 1:B:717:ASN:OD1   | 1:B:718:PHE:N    | 2.47                     | 0.43              |
| 1:A:55:PHE:O      | 1:A:271:GLN:N    | 2.42                     | 0.43              |
| 1:B:774:GLN:HA    | 1:B:777:ASN:HD21 | 1.82                     | 0.43              |
| 1:B:330:PRO:HB3   | 1:B:580:GLN:HA   | 1.99                     | 0.43              |
| 1:A:1128:VAL:HG11 | 1:B:918:GLU:HG3  | 2.00                     | 0.43              |
| 1:B:962:LEU:HD22  | 1:B:1007:TYR:CG  | 2.53                     | 0.43              |
| 1:C:66:HIS:HA     | 1:C:264:ALA:HA   | 2.00                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:564:GLN:HA    | 1:B:577:ARG:HD2   | 2.00                     | 0.43              |
| 1:B:993:ILE:O     | 1:B:997:ILE:HG12  | 2.18                     | 0.43              |
| 1:C:193:VAL:HG23  | 1:C:223:LEU:HD22  | 1.99                     | 0.43              |
| 1:B:26:PRO:HA     | 1:B:65:PHE:HE1    | 1.83                     | 0.43              |
| 1:B:767:LEU:HD13  | 1:B:770:ILE:HD11  | 2.00                     | 0.43              |
| 1:C:1002:GLN:O    | 1:C:1006:THR:HG23 | 2.18                     | 0.43              |
| 1:C:1155:TYR:O    | 1:C:1159:HIS:ND1  | 2.33                     | 0.43              |
| 1:A:17:ASN:HB2    | 1:A:21:ARG:HD3    | 1.98                     | 0.43              |
| 1:A:532:ASN:OD1   | 1:A:533:LEU:N     | 2.51                     | 0.43              |
| 1:A:722:VAL:HG23  | 1:A:934:ILE:HD11  | 1.99                     | 0.43              |
| 1:A:1155:TYR:O    | 1:A:1159:HIS:ND1  | 2.34                     | 0.43              |
| 1:A:807:PRO:HA    | 1:A:816:SER:HA    | 2.00                     | 0.43              |
| 1:B:570:ALA:HB1   | 1:C:963:VAL:HG21  | 2.01                     | 0.43              |
| 1:C:994:ASP:O     | 1:C:998:THR:HG23  | 2.18                     | 0.43              |
| 1:C:296:LEU:HB2   | 1:C:608:VAL:HG21  | 1.99                     | 0.43              |
| 1:A:1129:VAL:HG22 | 1:B:917:TYR:HB3   | 1.99                     | 0.43              |
| 1:B:130:VAL:HB    | 1:B:168:PHE:HB3   | 1.99                     | 0.43              |
| 1:C:206:LYS:HD2   | 1:C:207:HIS:N     | 2.32                     | 0.43              |
| 1:C:1010:GLN:OE1  | 1:C:1014:ARG:NH2  | 2.46                     | 0.43              |
| 1:B:425:LEU:HD21  | 1:B:512:VAL:HG11  | 2.00                     | 0.43              |
| 1:B:598:ILE:HG23  | 1:B:609:ALA:HB3   | 2.00                     | 0.43              |
| 1:C:452:LEU:HD23  | 1:C:492:LEU:HB3   | 2.01                     | 0.43              |
| 1:B:856:ASN:HD22  | 1:B:858:LEU:HD13  | 1.83                     | 0.43              |
| 1:C:737:ASP:O     | 1:C:741:TYR:HB2   | 2.18                     | 0.43              |
| 1:C:1024:LEU:HD11 | 1:C:1028:LYS:HE2  | 1.99                     | 0.43              |
| 1:A:578:ASP:OD2   | 1:A:581:THR:OG1   | 2.30                     | 0.43              |
| 1:C:906:PHE:HA    | 1:C:909:ILE:HG12  | 2.00                     | 0.43              |
| 1:A:1051:SER:HA   | 1:A:1064:HIS:HA   | 2.00                     | 0.43              |
| 1:B:708:SER:HB3   | 1:B:711:SER:HB3   | 2.01                     | 0.43              |
| 1:A:1035:GLY:HA3  | 1:C:1040:VAL:HG21 | 2.00                     | 0.43              |
| 1:B:318:PHE:N     | 1:B:593:GLY:O     | 2.47                     | 0.43              |
| 1:B:992:GLN:N     | 1:B:992:GLN:OE1   | 2.51                     | 0.43              |
| 1:C:1002:GLN:O    | 1:C:1006:THR:HG23 | 2.18                     | 0.43              |
| 1:B:396:TYR:HB2   | 1:B:514:SER:HB2   | 2.01                     | 0.43              |
| 1:A:905:ARG:NH1   | 1:A:1049:LEU:O    | 2.51                     | 0.43              |
| 1:C:96:GLU:OE1    | 1:C:100:ILE:N     | 2.51                     | 0.43              |
| 1:C:994:ASP:HA    | 1:C:997:ILE:HG12  | 2.00                     | 0.43              |
| 1:B:699:LEU:HD21  | 1:C:869:MET:HE3   | 2.00                     | 0.43              |
| 1:B:882:ILE:HD12  | 1:B:882:ILE:HA    | 1.72                     | 0.43              |
| 1:A:969:ASN:HD21  | 1:A:972:ALA:C     | 2.22                     | 0.43              |
| 1:B:769:GLY:HA2   | 1:B:772:VAL:HG12  | 2.00                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:1028:LYS:HZ3  | 1:B:1028:LYS:HG2  | 1.59                     | 0.43              |
| 1:A:326:ILE:HD12  | 1:A:539:VAL:HG21  | 1.99                     | 0.43              |
| 1:B:361:CYS:HB3   | 1:B:524:VAL:O     | 2.18                     | 0.43              |
| 1:B:1010:GLN:O    | 1:B:1013:ILE:HG13 | 2.19                     | 0.43              |
| 1:B:69:HIS:O      | 1:B:77:LYS:N      | 2.51                     | 0.43              |
| 1:B:311:GLY:HA2   | 1:B:664:ILE:HD12  | 2.01                     | 0.43              |
| 1:B:725:GLU:OE2   | 1:B:1028:LYS:NZ   | 2.30                     | 0.43              |
| 1:C:596:SER:OG    | 1:C:613:GLN:NE2   | 2.51                     | 0.43              |
| 1:B:767:LEU:HA    | 1:B:770:ILE:HG12  | 2.00                     | 0.43              |
| 1:B:1115:ILE:HG22 | 1:B:1137:VAL:HG23 | 1.99                     | 0.43              |
| 1:C:35:GLY:HA3    | 1:C:56:LEU:HB3    | 2.01                     | 0.43              |
| 1:A:212:LEU:HD13  | 1:A:217:PRO:HD3   | 2.01                     | 0.43              |
| 1:B:931:ILE:HA    | 1:B:934:ILE:HG22  | 2.00                     | 0.43              |
| 1:A:707:TYR:HE2   | 1:B:797:PHE:HE1   | 1.67                     | 0.43              |
| 1:A:864:LEU:HA    | 1:C:667:GLY:HA2   | 2.00                     | 0.43              |
| 1:A:881:THR:HG23  | 1:A:882:ILE:HD13  | 1.99                     | 0.43              |
| 1:C:329:PHE:HZ    | 1:C:544:ASN:H     | 1.67                     | 0.43              |
| 1:C:964:LYS:HE2   | 1:C:964:LYS:HB2   | 1.80                     | 0.43              |
| 1:A:205:SER:HB3   | 1:A:226:LEU:HD13  | 2.00                     | 0.43              |
| 1:B:97:LYS:HG2    | 1:B:186:PHE:HA    | 2.01                     | 0.43              |
| 1:B:129:LYS:HG2   | 1:B:169:GLU:HG3   | 2.00                     | 0.43              |
| 1:B:710:ASN:OD1   | 1:B:710:ASN:N     | 2.44                     | 0.43              |
| 1:A:476:GLY:H     | 1:A:487:ASN:HB3   | 1.83                     | 0.43              |
| 1:A:396:TYR:HB2   | 1:A:514:SER:HB3   | 1.99                     | 0.43              |
| 1:A:1012:LEU:HB3  | 1:C:1013:ILE:HG21 | 2.01                     | 0.43              |
| 1:B:877:LEU:O     | 1:B:881:THR:HG23  | 2.19                     | 0.43              |
| 1:C:310:LYS:HG3   | 1:C:600:PRO:HA    | 2.00                     | 0.43              |
| 1:B:361:CYS:HB3   | 1:B:524:VAL:O     | 2.18                     | 0.43              |
| 1:B:1015:ALA:HA   | 1:B:1018:ILE:HG22 | 2.00                     | 0.43              |
| 1:C:93:ALA:HB3    | 1:C:266:TYR:HB2   | 2.00                     | 0.43              |
| 1:B:777:ASN:O     | 1:B:781:VAL:HG12  | 2.19                     | 0.43              |
| 1:A:28:TYR:HB3    | 1:A:61:ASN:HB3    | 2.00                     | 0.43              |
| 1:B:957:GLN:O     | 1:B:961:THR:HG23  | 2.19                     | 0.43              |
| 1:C:717:ASN:OD1   | 1:C:718:PHE:N     | 2.49                     | 0.43              |
| 1:C:1045:LYS:HE3  | 1:C:1045:LYS:HB3  | 1.84                     | 0.43              |
| 1:A:708:SER:HB3   | 1:A:711:SER:HB3   | 2.01                     | 0.43              |
| 1:A:865:LEU:HB3   | 1:A:870:ILE:HD11  | 2.00                     | 0.43              |
| 1:B:914:ASN:N     | 1:B:914:ASN:OD1   | 2.51                     | 0.43              |
| 1:B:966:LEU:HD12  | 1:B:966:LEU:HA    | 1.85                     | 0.43              |
| 1:B:995:ARG:HH22  | 1:C:994:ASP:HB2   | 1.84                     | 0.43              |
| 1:B:1115:ILE:HG22 | 1:B:1137:VAL:HG23 | 2.01                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:825:LYS:HD3   | 1:C:942:ALA:HA    | 2.00                     | 0.43              |
| 1:A:938:LEU:HD13  | 1:A:938:LEU:HA    | 1.87                     | 0.43              |
| 1:A:990:GLU:HA    | 1:A:993:ILE:HG12  | 2.00                     | 0.43              |
| 1:B:1119:ASN:OD1  | 1:B:1119:ASN:N    | 2.47                     | 0.43              |
| 1:A:104:TRP:H     | 1:A:119:ILE:HB    | 1.84                     | 0.43              |
| 1:A:277:LEU:HB3   | 1:A:285:ILE:HD12  | 1.99                     | 0.43              |
| 1:B:760:CYS:HA    | 1:B:763:LEU:HG    | 2.00                     | 0.43              |
| 1:C:451:TYR:HB2   | 1:C:495:TYR:CE2   | 2.53                     | 0.43              |
| 1:B:276:LEU:HD13  | 1:B:301:CYS:HB2   | 2.00                     | 0.43              |
| 1:C:216:LEU:HD21  | 1:C:266:TYR:HE2   | 1.84                     | 0.43              |
| 1:B:190:ARG:HB3   | 1:B:192:PHE:CE1   | 2.54                     | 0.43              |
| 1:B:1013:ILE:HG21 | 1:C:1012:LEU:HB3  | 1.99                     | 0.43              |
| 1:A:91:TYR:HD2    | 1:A:193:VAL:HG12  | 1.83                     | 0.43              |
| 1:C:276:LEU:HD22  | 1:C:306:PHE:CE2   | 2.53                     | 0.43              |
| 1:A:664:ILE:O     | 1:A:671:CYS:HB2   | 2.18                     | 0.43              |
| 1:B:562:PHE:HD2   | 1:C:41:LYS:HD2    | 1.83                     | 0.43              |
| 1:A:426:PRO:HG2   | 1:A:429:PHE:HB2   | 1.99                     | 0.43              |
| 1:B:1049:LEU:HB2  | 1:B:1065:VAL:HG13 | 1.99                     | 0.43              |
| 1:A:1039:ARG:HH11 | 1:C:1039:ARG:HH12 | 1.67                     | 0.43              |
| 1:B:95:THR:HG22   | 1:B:189:LEU:HD11  | 2.00                     | 0.43              |
| 1:B:708:SER:HB3   | 1:B:711:SER:HB3   | 2.00                     | 0.43              |
| 1:A:1135:ASN:OD1  | 1:A:1136:THR:N    | 2.41                     | 0.43              |
| 1:C:393:THR:HA    | 1:C:522:ALA:HA    | 2.01                     | 0.43              |
| 1:C:578:ASP:OD2   | 1:C:581:THR:OG1   | 2.34                     | 0.43              |
| 1:A:1155:TYR:O    | 1:A:1159:HIS:ND1  | 2.34                     | 0.43              |
| 1:B:707:TYR:HD2   | 1:C:792:PRO:HG3   | 1.83                     | 0.43              |
| 1:B:1084:ASP:OD1  | 1:B:1086:LYS:HG2  | 2.19                     | 0.43              |
| 1:A:906:PHE:CE2   | 1:A:916:LEU:HD13  | 2.54                     | 0.43              |
| 1:B:1028:LYS:O    | 1:B:1032:CYS:HB2  | 2.19                     | 0.43              |
| 1:B:1110:TYR:CZ   | 1:B:1112:PRO:HG3  | 2.54                     | 0.43              |
| 1:C:898:PHE:HA    | 1:C:901:GLN:HB2   | 2.01                     | 0.43              |
| 1:B:48:LEU:HB3    | 1:B:276:LEU:HD21  | 2.00                     | 0.43              |
| 1:A:229:LEU:HD12  | 1:A:231:ILE:HD11  | 2.00                     | 0.43              |
| 1:C:818:ILE:O     | 1:C:822:LEU:HG    | 2.19                     | 0.43              |
| 1:C:866:THR:HG22  | 1:C:869:MET:SD    | 2.59                     | 0.43              |
| 1:C:1002:GLN:HA   | 1:C:1005:GLN:HE21 | 1.84                     | 0.43              |
| 1:A:906:PHE:CE2   | 1:A:916:LEU:HD13  | 2.53                     | 0.43              |
| 1:B:318:PHE:HE2   | 1:B:615:VAL:HG21  | 1.83                     | 0.43              |
| 1:B:957:GLN:CD    | 1:C:765:ARG:HH12  | 2.22                     | 0.43              |
| 1:C:360:ASN:ND2   | 1:C:523:THR:OG1   | 2.51                     | 0.43              |
| 1:C:866:THR:O     | 1:C:870:ILE:HG12  | 2.18                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:908:GLY:O     | 1:C:1038:LYS:NZ   | 2.40                     | 0.43              |
| 1:B:901:GLN:HE21  | 1:B:905:ARG:NE    | 2.15                     | 0.43              |
| 1:C:998:THR:HA    | 1:C:1001:LEU:HG   | 2.01                     | 0.43              |
| 1:A:858:LEU:HD13  | 1:A:959:LEU:HD12  | 2.01                     | 0.43              |
| 1:C:141:LEU:HB2   | 1:C:246:ILE:HD13  | 2.00                     | 0.43              |
| 1:C:1084:ASP:OD2  | 1:C:1086:LYS:NZ   | 2.50                     | 0.43              |
| 1:A:197:ILE:HB    | 1:A:202:LYS:HZ1   | 1.82                     | 0.43              |
| 1:A:931:ILE:HA    | 1:A:934:ILE:HG22  | 2.00                     | 0.43              |
| 1:A:1041:ASP:HB3  | 1:B:1030:SER:HB2  | 2.00                     | 0.43              |
| 1:C:93:ALA:HB3    | 1:C:266:TYR:HB2   | 2.01                     | 0.43              |
| 1:C:314:GLN:HE21  | 1:C:316:SER:H     | 1.65                     | 0.43              |
| 1:C:758:SER:O     | 1:C:761:THR:OG1   | 2.35                     | 0.43              |
| 1:A:403:ARG:HG2   | 1:A:497:PHE:HE1   | 1.83                     | 0.43              |
| 1:B:702:GLU:HA    | 1:C:788:ILE:HG13  | 2.00                     | 0.43              |
| 1:C:172:SER:OG    | 1:C:173:GLN:N     | 2.52                     | 0.43              |
| 1:C:521:PRO:HG3   | 1:C:564:GLN:HE22  | 1.84                     | 0.43              |
| 1:C:1002:GLN:O    | 1:C:1006:THR:HG23 | 2.19                     | 0.43              |
| 1:A:908:GLY:O     | 1:A:1038:LYS:NZ   | 2.39                     | 0.43              |
| 1:B:897:PRO:HG2   | 1:B:900:MET:HG2   | 2.01                     | 0.43              |
| 1:C:191:GLU:OE2   | 1:C:191:GLU:N     | 2.50                     | 0.43              |
| 1:A:609:ALA:HB2   | 1:A:692:ILE:HG21  | 2.00                     | 0.43              |
| 1:B:1096:VAL:HG23 | 1:B:1103:PHE:HB2  | 2.00                     | 0.43              |
| 1:C:650:LEU:HD21  | 1:C:653:ALA:HB3   | 2.01                     | 0.43              |
| 1:A:906:PHE:CE2   | 1:A:916:LEU:HD13  | 2.54                     | 0.43              |
| 1:B:699:LEU:HD23  | 1:B:699:LEU:HA    | 1.88                     | 0.43              |
| 1:B:985:ASP:OD2   | 1:B:987:PRO:HD2   | 2.19                     | 0.43              |
| 1:B:470:THR:HB    | 1:B:492:LEU:HD22  | 1.99                     | 0.43              |
| 1:A:312:ILE:HD13  | 1:A:312:ILE:HA    | 1.81                     | 0.43              |
| 1:B:497:PHE:CE2   | 1:B:507:PRO:HB3   | 2.53                     | 0.43              |
| 1:B:724:THR:O     | 1:B:724:THR:OG1   | 2.37                     | 0.43              |
| 1:C:101:ILE:HB    | 1:C:190:ARG:HH22  | 1.83                     | 0.43              |
| 1:A:1155:TYR:O    | 1:A:1159:HIS:ND1  | 2.33                     | 0.43              |
| 1:B:722:VAL:HG12  | 1:B:930:ALA:HB1   | 1.99                     | 0.43              |
| 1:B:870:ILE:O     | 1:B:874:THR:HG23  | 2.19                     | 0.43              |
| 1:C:878:LEU:O     | 1:C:882:ILE:HG12  | 2.19                     | 0.43              |
| 1:C:961:THR:HA    | 1:C:964:LYS:HE2   | 2.00                     | 0.43              |
| 1:C:975:SER:O     | 1:C:1000:ARG:NH2  | 2.51                     | 0.43              |
| 1:A:316:SER:OG    | 1:A:317:ASN:N     | 2.52                     | 0.43              |
| 1:B:96:GLU:OE1    | 1:B:100:ILE:N     | 2.51                     | 0.43              |
| 1:B:877:LEU:O     | 1:B:881:THR:HG23  | 2.19                     | 0.43              |
| 1:C:31:SER:HB2    | 1:C:34:ARG:HB2    | 2.01                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:1010:GLN:HB3  | 1:C:1014:ARG:HH21 | 1.83                     | 0.43              |
| 1:C:1081:ILE:HG13 | 1:C:1115:ILE:HD13 | 1.99                     | 0.43              |
| 1:B:1015:ALA:HA   | 1:B:1018:ILE:HG22 | 2.00                     | 0.43              |
| 1:A:273:ARG:HH22  | 1:A:293:LEU:HB2   | 1.83                     | 0.43              |
| 1:A:741:TYR:HD1   | 1:A:742:ILE:HD13  | 1.83                     | 0.43              |
| 1:B:761:THR:O     | 1:B:765:ARG:HG2   | 2.19                     | 0.43              |
| 1:B:946:GLY:HA2   | 1:B:949:GLN:HB2   | 2.00                     | 0.43              |
| 1:C:1047:TYR:HD2  | 1:C:1067:TYR:HD2  | 1.67                     | 0.43              |
| 1:A:717:ASN:HB3   | 1:A:1071:GLN:HG3  | 2.01                     | 0.43              |
| 1:B:969:ASN:OD1   | 1:B:972:ALA:N     | 2.52                     | 0.43              |
| 1:C:642:VAL:HG23  | 1:C:651:ILE:HG22  | 2.00                     | 0.43              |
| 1:C:555:SER:HB3   | 1:C:586:ASP:HB2   | 2.00                     | 0.43              |
| 1:A:815:ARG:HG3   | 1:A:819:GLU:HB3   | 1.99                     | 0.43              |
| 1:B:931:ILE:HA    | 1:B:934:ILE:HG22  | 2.00                     | 0.43              |
| 1:A:552:LEU:HB3   | 1:A:585:LEU:HD23  | 2.01                     | 0.43              |
| 1:C:452:LEU:HD23  | 1:C:492:LEU:HB3   | 1.99                     | 0.43              |
| 1:B:556:ASN:O     | 1:B:558:LYS:NZ    | 2.51                     | 0.43              |
| 1:B:870:ILE:O     | 1:B:874:THR:HG23  | 2.19                     | 0.43              |
| 1:B:738:CYS:O     | 1:B:742:ILE:HG12  | 2.18                     | 0.43              |
| 1:C:328:ARG:HD3   | 1:C:328:ARG:N     | 2.33                     | 0.43              |
| 1:A:731:MET:HB3   | 1:A:774:GLN:NE2   | 2.33                     | 0.43              |
| 1:C:1050:MET:HG2  | 1:C:1065:VAL:HG22 | 2.00                     | 0.43              |
| 1:A:766:ALA:O     | 1:A:770:ILE:HG13  | 2.19                     | 0.43              |
| 1:A:949:GLN:HA    | 1:A:952:VAL:HG22  | 2.00                     | 0.43              |
| 1:B:401:VAL:HG22  | 1:B:509:ARG:HG2   | 2.00                     | 0.43              |
| 1:B:946:GLY:HA2   | 1:B:949:GLN:HB2   | 1.99                     | 0.43              |
| 1:C:418:ILE:O     | 1:C:422:ASN:HB2   | 2.18                     | 0.43              |
| 1:B:993:ILE:O     | 1:B:997:ILE:HG12  | 2.19                     | 0.43              |
| 1:B:1054:GLN:HE21 | 1:B:1063:LEU:HD11 | 1.83                     | 0.43              |
| 1:C:729:VAL:H     | 1:C:1059:GLY:HA2  | 1.84                     | 0.43              |
| 1:B:312:ILE:HD13  | 1:B:598:ILE:HG13  | 2.01                     | 0.43              |
| 1:B:57:PRO:HG3    | 1:B:273:ARG:HG3   | 2.01                     | 0.43              |
| 1:B:722:VAL:HG12  | 1:B:930:ALA:HB1   | 2.00                     | 0.43              |
| 1:C:581:THR:OG1   | 1:C:583:GLU:OE1   | 2.25                     | 0.43              |
| 1:C:864:LEU:HD22  | 1:C:865:LEU:HD22  | 2.01                     | 0.43              |
| 1:C:185:ASN:ND2   | 1:C:211:ASN:OD1   | 2.52                     | 0.43              |
| 1:C:1049:LEU:HD12 | 1:C:1065:VAL:HG12 | 2.00                     | 0.43              |
| 1:A:949:GLN:HA    | 1:A:952:VAL:HG22  | 2.01                     | 0.43              |
| 1:B:717:ASN:OD1   | 1:B:718:PHE:N     | 2.48                     | 0.43              |
| 1:B:771:ALA:HA    | 1:B:774:GLN:HG3   | 2.00                     | 0.43              |
| 1:A:737:ASP:OD2   | 1:A:740:MET:HB2   | 2.19                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:291:CYS:O     | 1:B:297:SER:OG    | 2.35                     | 0.43              |
| 1:B:964:LYS:O     | 1:B:967:SER:OG    | 2.36                     | 0.43              |
| 1:B:1084:ASP:OD2  | 1:B:1086:LYS:NZ   | 2.51                     | 0.43              |
| 1:C:784:GLN:HA    | 1:C:784:GLN:NE2   | 2.33                     | 0.43              |
| 1:A:768:THR:O     | 1:A:772:VAL:HG13  | 2.19                     | 0.43              |
| 1:A:861:LEU:HD13  | 1:A:862:PRO:HD2   | 2.00                     | 0.43              |
| 1:B:746:SER:OG    | 1:B:748:GLU:OE1   | 2.37                     | 0.43              |
| 1:C:993:ILE:O     | 1:C:997:ILE:HG13  | 2.18                     | 0.43              |
| 1:A:1054:GLN:HB2  | 1:A:1061:VAL:HG22 | 2.00                     | 0.43              |
| 1:C:298:GLU:O     | 1:C:302:THR:HG23  | 2.18                     | 0.43              |
| 1:C:1091:ARG:HH12 | 1:C:1121:PHE:HB3  | 1.83                     | 0.43              |
| 1:A:731:MET:HE2   | 1:A:1018:ILE:HG21 | 2.01                     | 0.43              |
| 1:A:770:ILE:O     | 1:A:774:GLN:CB    | 2.63                     | 0.43              |
| 1:B:1033:VAL:HG22 | 1:B:1051:SER:HB2  | 2.00                     | 0.43              |
| 1:B:1076:THR:O    | 1:B:1097:SER:N    | 2.52                     | 0.43              |
| 1:A:702:GLU:HA    | 1:B:788:ILE:HB    | 2.00                     | 0.43              |
| 1:A:296:LEU:HD11  | 1:A:606:ASN:OD1   | 2.18                     | 0.43              |
| 1:A:418:ILE:O     | 1:A:422:ASN:HB2   | 2.19                     | 0.43              |
| 1:B:443:SER:HB3   | 1:B:499:PRO:HG3   | 2.01                     | 0.43              |
| 1:B:877:LEU:O     | 1:B:881:THR:HG23  | 2.19                     | 0.43              |
| 1:B:763:LEU:HD22  | 1:B:1008:VAL:HG21 | 2.01                     | 0.43              |
| 1:A:717:ASN:OD1   | 1:A:718:PHE:N     | 2.50                     | 0.43              |
| 1:B:783:ALA:HB2   | 1:B:873:TYR:CE2   | 2.53                     | 0.43              |
| 1:C:193:VAL:HB    | 1:C:204:TYR:HB2   | 2.01                     | 0.43              |
| 1:A:17:ASN:HB2    | 1:A:21:ARG:HD3    | 2.01                     | 0.43              |
| 1:A:51:THR:HG22   | 1:A:277:LEU:HD11  | 2.01                     | 0.43              |
| 1:C:756:TYR:HB3   | 1:C:759:PHE:CE1   | 2.53                     | 0.43              |
| 1:A:452:LEU:HD23  | 1:A:492:LEU:HB3   | 1.99                     | 0.43              |
| 1:A:737:ASP:OD1   | 1:A:740:MET:HB3   | 2.19                     | 0.43              |
| 1:C:418:ILE:O     | 1:C:422:ASN:HB2   | 2.19                     | 0.43              |
| 1:C:89:GLY:HA3    | 1:C:270:LEU:HD12  | 2.01                     | 0.43              |
| 1:B:182:LYS:HD3   | 1:B:187:LYS:HD2   | 2.01                     | 0.43              |
| 1:C:33:THR:OG1    | 1:C:219:GLY:O     | 2.32                     | 0.43              |
| 1:C:761:THR:O     | 1:C:765:ARG:HG2   | 2.17                     | 0.43              |
| 1:A:426:PRO:HG2   | 1:A:429:PHE:HB2   | 2.00                     | 0.43              |
| 1:A:543:PHE:O     | 1:A:545:GLY:N     | 2.47                     | 0.43              |
| 1:A:344:ALA:O     | 1:A:509:ARG:NH2   | 2.51                     | 0.43              |
| 1:B:424:LYS:HD2   | 1:B:463:PRO:HG3   | 2.01                     | 0.43              |
| 1:C:897:PRO:HG2   | 1:C:900:MET:HB2   | 2.00                     | 0.43              |
| 1:C:934:ILE:HG13  | 1:C:938:LEU:HD23  | 2.00                     | 0.43              |
| 1:A:711:SER:OG    | 1:B:895:GLN:OE1   | 2.31                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:930:ALA:HA    | 1:A:933:LYS:HE2   | 2.01                     | 0.43              |
| 1:B:535:LYS:NZ    | 1:B:554:GLU:OE2   | 2.51                     | 0.43              |
| 1:C:117:LEU:HB2   | 1:C:233:ILE:HD11  | 1.99                     | 0.43              |
| 1:C:396:TYR:HB2   | 1:C:514:SER:HB3   | 2.01                     | 0.43              |
| 1:A:547:THR:OG1   | 1:B:978:ASN:OD1   | 2.32                     | 0.43              |
| 1:C:33:THR:HB     | 1:C:220:PHE:HD1   | 1.84                     | 0.43              |
| 1:C:188:ASN:OD1   | 1:C:207:HIS:NE2   | 2.47                     | 0.43              |
| 1:A:206:LYS:NZ    | 1:A:208:THR:HB    | 2.34                     | 0.43              |
| 1:A:726:ILE:HD11  | 1:A:948:LEU:HD11  | 2.00                     | 0.43              |
| 1:A:856:ASN:HD22  | 1:A:963:VAL:HB    | 1.84                     | 0.43              |
| 1:B:168:PHE:HD2   | 1:B:169:GLU:N     | 2.17                     | 0.43              |
| 1:C:906:PHE:HB3   | 1:C:911:VAL:HB    | 2.01                     | 0.43              |
| 1:A:878:LEU:O     | 1:A:882:ILE:HG12  | 2.19                     | 0.43              |
| 1:C:581:THR:OG1   | 1:C:583:GLU:OE1   | 2.34                     | 0.43              |
| 1:B:983:ARG:NH1   | 1:B:984:LEU:HB2   | 2.33                     | 0.43              |
| 1:A:42:VAL:HG21   | 1:A:44:ARG:HH21   | 1.83                     | 0.43              |
| 1:A:296:LEU:HB2   | 1:A:608:VAL:HG21  | 2.01                     | 0.43              |
| 1:A:756:TYR:HB2   | 1:A:759:PHE:CE2   | 2.54                     | 0.43              |
| 1:A:1081:ILE:HG23 | 1:A:1135:ASN:HB3  | 2.01                     | 0.43              |
| 1:B:332:ILE:HG12  | 1:B:524:VAL:HG13  | 2.01                     | 0.43              |
| 1:B:784:GLN:HA    | 1:B:784:GLN:NE2   | 2.33                     | 0.43              |
| 1:B:866:THR:O     | 1:B:870:ILE:HG12  | 2.19                     | 0.43              |
| 1:B:1010:GLN:OE1  | 1:B:1014:ARG:NH2  | 2.50                     | 0.43              |
| 1:C:782:PHE:CE2   | 1:C:870:ILE:HD11  | 2.53                     | 0.43              |
| 1:C:822:LEU:HD13  | 1:C:1061:VAL:HG21 | 1.99                     | 0.43              |
| 1:A:1035:GLY:HA3  | 1:C:1040:VAL:HG21 | 2.00                     | 0.43              |
| 1:A:205:SER:HB3   | 1:A:226:LEU:HD22  | 2.00                     | 0.43              |
| 1:C:784:GLN:HA    | 1:C:784:GLN:NE2   | 2.34                     | 0.43              |
| 1:A:532:ASN:OD1   | 1:A:533:LEU:N     | 2.51                     | 0.43              |
| 1:C:617:CYS:H     | 1:C:644:GLN:HE22  | 1.65                     | 0.43              |
| 1:C:192:PHE:HB3   | 1:C:194:PHE:CE1   | 2.54                     | 0.43              |
| 1:C:759:PHE:O     | 1:C:763:LEU:HG    | 2.19                     | 0.43              |
| 1:C:805:ILE:HD12  | 1:C:805:ILE:HA    | 1.86                     | 0.43              |
| 1:A:736:VAL:HG22  | 1:A:858:LEU:HD22  | 2.00                     | 0.43              |
| 1:A:911:VAL:HA    | 1:A:1106:GLN:HE22 | 1.84                     | 0.43              |
| 1:A:1005:GLN:O    | 1:A:1009:THR:HG23 | 2.19                     | 0.43              |
| 1:B:870:ILE:O     | 1:B:874:THR:HG23  | 2.19                     | 0.43              |
| 1:C:759:PHE:HA    | 1:C:762:GLN:OE1   | 2.19                     | 0.43              |
| 1:B:914:ASN:N     | 1:B:914:ASN:OD1   | 2.52                     | 0.43              |
| 1:C:310:LYS:NZ    | 1:C:663:ASP:OD2   | 2.45                     | 0.43              |
| 1:C:878:LEU:O     | 1:C:882:ILE:HG12  | 2.18                     | 0.43              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:C:949:GLN:HA   | 1:C:949:GLN:NE2   | 2.34                     | 0.43              |
| 1:B:131:CYS:HB2  | 1:B:133:PHE:CE1   | 2.54                     | 0.43              |
| 1:C:738:CYS:HB2  | 1:C:760:CYS:HB3   | 1.83                     | 0.43              |
| 1:C:1135:ASN:OD1 | 1:C:1136:THR:N    | 2.45                     | 0.43              |
| 1:C:86:PHE:CE1   | 1:C:89:GLY:HA2    | 2.54                     | 0.43              |
| 1:C:870:ILE:O    | 1:C:874:THR:HG23  | 2.19                     | 0.43              |
| 1:A:726:ILE:HD13 | 1:A:945:LEU:HD23  | 2.00                     | 0.43              |
| 1:A:916:LEU:O    | 1:A:920:GLN:HB2   | 2.18                     | 0.43              |
| 1:C:309:GLU:N    | 1:C:309:GLU:OE1   | 2.52                     | 0.43              |
| 1:A:17:ASN:HB2   | 1:A:21:ARG:HD3    | 2.01                     | 0.43              |
| 1:A:38:TYR:HD2   | 1:A:225:PRO:HD3   | 1.84                     | 0.43              |
| 1:A:328:ARG:HD3  | 1:A:543:PHE:HE2   | 1.84                     | 0.43              |
| 1:B:850:ILE:HG22 | 1:B:854:LYS:HE2   | 2.00                     | 0.43              |
| 1:A:866:THR:O    | 1:A:870:ILE:HG12  | 2.19                     | 0.43              |
| 1:C:33:THR:OG1   | 1:C:219:GLY:O     | 2.37                     | 0.43              |
| 1:C:17:ASN:HB2   | 1:C:21:ARG:HD3    | 2.01                     | 0.43              |
| 1:C:35:GLY:HA3   | 1:C:56:LEU:HB3    | 2.00                     | 0.43              |
| 1:C:1118:ASP:OD1 | 1:C:1118:ASP:N    | 2.37                     | 0.43              |
| 1:A:1035:GLY:HA3 | 1:C:1040:VAL:HG21 | 2.00                     | 0.43              |
| 1:B:392:PHE:HD1  | 1:B:517:LEU:HD13  | 1.84                     | 0.43              |
| 1:C:338:PHE:HB3  | 1:C:364:ASP:HB3   | 2.01                     | 0.43              |
| 1:B:361:CYS:HB3  | 1:B:524:VAL:O     | 2.19                     | 0.43              |
| 1:B:412:PRO:HG3  | 1:B:429:PHE:HD1   | 1.84                     | 0.43              |
| 1:C:866:THR:HG22 | 1:C:869:MET:HG3   | 1.99                     | 0.43              |
| 1:B:53:ASP:OD2   | 1:B:54:LEU:N      | 2.41                     | 0.43              |
| 1:B:927:PHE:HE1  | 1:B:1065:VAL:HG11 | 1.84                     | 0.43              |
| 1:A:229:LEU:HD12 | 1:A:231:ILE:HD11  | 2.01                     | 0.43              |
| 1:A:818:ILE:O    | 1:A:822:LEU:HD12  | 2.19                     | 0.43              |
| 1:B:37:TYR:OH    | 1:B:54:LEU:O      | 2.31                     | 0.43              |
| 1:A:197:ILE:HB   | 1:A:202:LYS:NZ    | 2.34                     | 0.43              |
| 1:A:906:PHE:HB3  | 1:A:911:VAL:HB    | 2.01                     | 0.43              |
| 1:B:105:ILE:HB   | 1:B:239:GLN:HB2   | 2.00                     | 0.43              |
| 1:B:954:GLN:HE21 | 1:B:1014:ARG:HH11 | 1.67                     | 0.43              |
| 1:C:291:CYS:HB2  | 1:C:298:GLU:HA    | 2.01                     | 0.43              |
| 1:B:954:GLN:HB2  | 1:B:1014:ARG:NH1  | 2.34                     | 0.43              |
| 1:C:717:ASN:OD1  | 1:C:718:PHE:N     | 2.48                     | 0.43              |
| 1:A:393:THR:HA   | 1:A:522:ALA:HA    | 2.01                     | 0.43              |
| 1:B:37:TYR:OH    | 1:B:54:LEU:O      | 2.28                     | 0.43              |
| 1:B:1086:LYS:HE2 | 1:B:1122:VAL:HG11 | 2.01                     | 0.43              |
| 1:C:105:ILE:HG22 | 1:C:110:LEU:HD22  | 2.01                     | 0.43              |
| 1:A:1005:GLN:O   | 1:A:1009:THR:HG23 | 2.19                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:992:GLN:N     | 1:B:992:GLN:OE1   | 2.52                     | 0.43              |
| 1:B:1006:THR:HG22 | 1:C:1005:GLN:HE21 | 1.83                     | 0.43              |
| 1:A:737:ASP:OD1   | 1:A:740:MET:HB3   | 2.19                     | 0.43              |
| 1:B:726:ILE:HD12  | 1:B:1061:VAL:HG22 | 2.01                     | 0.43              |
| 1:B:870:ILE:O     | 1:B:874:THR:HG23  | 2.19                     | 0.43              |
| 1:A:205:SER:HB2   | 1:A:226:LEU:HD12  | 2.00                     | 0.43              |
| 1:A:1105:THR:HG23 | 1:A:1111:GLU:H    | 1.84                     | 0.43              |
| 1:B:1084:ASP:OD2  | 1:B:1086:LYS:NZ   | 2.50                     | 0.43              |
| 1:A:768:THR:O     | 1:A:772:VAL:HG13  | 2.18                     | 0.43              |
| 1:A:965:GLN:O     | 1:A:968:SER:OG    | 2.37                     | 0.43              |
| 1:B:591:SER:HB3   | 1:B:615:VAL:HG23  | 2.00                     | 0.43              |
| 1:B:733:LYS:HE3   | 1:B:733:LYS:HB3   | 1.91                     | 0.43              |
| 1:A:87:ASN:OD1    | 1:A:87:ASN:N      | 2.50                     | 0.43              |
| 1:A:1141:LEU:HD22 | 1:B:1141:LEU:HD22 | 2.01                     | 0.43              |
| 1:B:985:ASP:OD2   | 1:B:987:PRO:HD2   | 2.19                     | 0.43              |
| 1:A:777:ASN:HB2   | 1:A:1019:ARG:HH21 | 1.84                     | 0.43              |
| 1:C:200:TYR:HE1   | 1:C:230:PRO:HB3   | 1.84                     | 0.43              |
| 1:B:993:ILE:O     | 1:B:997:ILE:HG12  | 2.19                     | 0.43              |
| 1:A:104:TRP:HB2   | 1:A:106:PHE:CE2   | 2.50                     | 0.43              |
| 1:A:984:LEU:HD12  | 1:A:985:ASP:H     | 1.84                     | 0.43              |
| 1:B:24:LEU:HD12   | 1:B:80:ALA:HB2    | 2.01                     | 0.43              |
| 1:B:993:ILE:O     | 1:B:997:ILE:HG12  | 2.19                     | 0.43              |
| 1:C:104:TRP:HB2   | 1:C:106:PHE:CE2   | 2.54                     | 0.43              |
| 1:A:109:THR:OG1   | 1:A:111:ASP:OD1   | 2.26                     | 0.43              |
| 1:A:774:GLN:HE22  | 1:A:1018:ILE:HG21 | 1.84                     | 0.43              |
| 1:C:731:MET:H     | 1:C:774:GLN:HE21  | 1.67                     | 0.43              |
| 1:A:44:ARG:HD2    | 1:A:279:TYR:HE2   | 1.84                     | 0.43              |
| 1:A:796:ASP:OD1   | 1:C:709:ASN:ND2   | 2.52                     | 0.43              |
| 1:A:1040:VAL:HG11 | 1:B:1035:GLY:HA3  | 2.01                     | 0.43              |
| 1:B:1118:ASP:OD1  | 1:B:1118:ASP:N    | 2.38                     | 0.43              |
| 1:A:970:PHE:HB3   | 1:B:755:GLN:NE2   | 2.33                     | 0.43              |
| 1:A:773:GLU:OE1   | 1:A:1019:ARG:NE   | 2.52                     | 0.43              |
| 1:B:130:VAL:HB    | 1:B:168:PHE:HB3   | 2.00                     | 0.43              |
| 1:C:295:PRO:HG2   | 1:C:608:VAL:HG11  | 2.01                     | 0.43              |
| 1:C:362:VAL:HG21  | 1:C:524:VAL:HB    | 2.01                     | 0.43              |
| 1:B:314:GLN:HE22  | 1:B:595:VAL:H     | 1.67                     | 0.43              |
| 1:B:314:GLN:HE22  | 1:B:595:VAL:N     | 2.16                     | 0.43              |
| 1:A:96:GLU:OE1    | 1:A:99:ASN:ND2    | 2.40                     | 0.43              |
| 1:A:224:GLU:HA    | 1:A:225:PRO:HD3   | 1.95                     | 0.43              |
| 1:A:328:ARG:NH2   | 1:A:580:GLN:OE1   | 2.51                     | 0.43              |
| 1:B:342:PHE:HE1   | 1:B:511:VAL:HG11  | 1.84                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:1123:SER:HB3  | 1:C:914:ASN:HD21  | 1.84                     | 0.43              |
| 1:C:915:VAL:O     | 1:C:919:ASN:HB2   | 2.18                     | 0.43              |
| 1:A:768:THR:O     | 1:A:772:VAL:HG13  | 2.19                     | 0.43              |
| 1:B:946:GLY:HA2   | 1:B:949:GLN:HB3   | 2.00                     | 0.43              |
| 1:B:314:GLN:NE2   | 1:B:316:SER:O     | 2.52                     | 0.43              |
| 1:C:337:PRO:HG3   | 1:C:356:LYS:HD3   | 2.01                     | 0.43              |
| 1:C:484:LYS:HE3   | 1:C:489:TYR:HA    | 2.00                     | 0.43              |
| 1:C:971:GLY:O     | 1:C:995:ARG:NH2   | 2.44                     | 0.43              |
| 1:A:426:PRO:HG2   | 1:A:429:PHE:HB2   | 2.00                     | 0.43              |
| 1:A:438:SER:HB3   | 1:A:509:ARG:HG3   | 2.01                     | 0.43              |
| 1:C:777:ASN:O     | 1:C:781:VAL:HG12  | 2.19                     | 0.43              |
| 1:C:870:ILE:O     | 1:C:874:THR:HG23  | 2.19                     | 0.43              |
| 1:B:66:HIS:HA     | 1:B:264:ALA:HA    | 2.01                     | 0.42              |
| 1:B:381:GLY:HA3   | 1:C:983:ARG:HH12  | 1.84                     | 0.42              |
| 1:C:906:PHE:HB3   | 1:C:911:VAL:HB    | 2.00                     | 0.42              |
| 1:C:984:LEU:HB3   | 1:C:988:GLU:HG2   | 2.01                     | 0.42              |
| 1:A:869:MET:HB2   | 1:A:869:MET:HE2   | 1.84                     | 0.42              |
| 1:C:1001:LEU:HD23 | 1:C:1001:LEU:HA   | 1.90                     | 0.42              |
| 1:C:737:ASP:OD1   | 1:C:740:MET:HB2   | 2.19                     | 0.42              |
| 1:B:484:LYS:HD2   | 1:B:490:PHE:HB2   | 2.00                     | 0.42              |
| 1:C:878:LEU:HD21  | 1:C:1054:GLN:HE22 | 1.83                     | 0.42              |
| 1:A:418:ILE:O     | 1:A:422:ASN:HB2   | 2.20                     | 0.42              |
| 1:A:642:VAL:HG13  | 1:A:651:ILE:HG22  | 2.00                     | 0.42              |
| 1:B:403:ARG:HG2   | 1:B:497:PHE:HE1   | 1.84                     | 0.42              |
| 1:C:1081:ILE:HG13 | 1:C:1115:ILE:HD13 | 2.00                     | 0.42              |
| 1:A:1135:ASN:OD1  | 1:A:1136:THR:N    | 2.42                     | 0.42              |
| 1:B:280:ASN:OD1   | 1:B:284:THR:N     | 2.52                     | 0.42              |
| 1:B:1118:ASP:OD1  | 1:B:1118:ASP:N    | 2.41                     | 0.42              |
| 1:C:784:GLN:HA    | 1:C:784:GLN:NE2   | 2.34                     | 0.42              |
| 1:A:193:VAL:HG23  | 1:A:270:LEU:HD21  | 2.01                     | 0.42              |
| 1:A:331:ASN:OD1   | 1:A:580:GLN:NE2   | 2.52                     | 0.42              |
| 1:A:596:SER:HB2   | 1:A:611:LEU:HB3   | 2.00                     | 0.42              |
| 1:C:870:ILE:O     | 1:C:874:THR:HG23  | 2.18                     | 0.42              |
| 1:A:702:GLU:HA    | 1:B:788:ILE:HB    | 2.01                     | 0.42              |
| 1:C:37:TYR:OH     | 1:C:53:ASP:OD1    | 2.33                     | 0.42              |
| 1:B:707:TYR:CD2   | 1:C:792:PRO:HG3   | 2.54                     | 0.42              |
| 1:C:126:VAL:H     | 1:C:172:SER:HB3   | 1.84                     | 0.42              |
| 1:C:731:MET:HG2   | 1:C:774:GLN:NE2   | 2.34                     | 0.42              |
| 1:C:870:ILE:O     | 1:C:874:THR:HG23  | 2.19                     | 0.42              |
| 1:C:1083:HIS:CB   | 1:C:1088:HIS:HE1  | 2.27                     | 0.42              |
| 1:A:323:THR:HB    | 1:A:537:LYS:HZ3   | 1.84                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:452:LEU:HD13  | 1:B:492:LEU:HD11  | 2.01                     | 0.42              |
| 1:B:710:ASN:OD1   | 1:B:710:ASN:N     | 2.45                     | 0.42              |
| 1:C:717:ASN:OD1   | 1:C:718:PHE:N     | 2.50                     | 0.42              |
| 1:C:1041:ASP:HB2  | 1:C:1045:LYS:HD2  | 2.01                     | 0.42              |
| 1:B:979:ASP:HA    | 1:B:982:SER:HG    | 1.84                     | 0.42              |
| 1:C:106:PHE:HD2   | 1:C:117:LEU:HD13  | 1.83                     | 0.42              |
| 1:C:554:GLU:HA    | 1:C:585:LEU:HA    | 2.01                     | 0.42              |
| 1:C:966:LEU:HG    | 1:C:1000:ARG:NH1  | 2.34                     | 0.42              |
| 1:A:1013:ILE:HD13 | 1:B:1012:LEU:HG   | 2.01                     | 0.42              |
| 1:B:933:LYS:HB2   | 1:B:933:LYS:HE2   | 1.88                     | 0.42              |
| 1:C:1080:ALA:HA   | 1:C:1095:PHE:HE2  | 1.84                     | 0.42              |
| 1:A:1005:GLN:O    | 1:A:1009:THR:HG23 | 2.19                     | 0.42              |
| 1:B:1091:ARG:NH2  | 1:B:1120:THR:O    | 2.52                     | 0.42              |
| 1:C:96:GLU:OE1    | 1:C:100:ILE:N     | 2.52                     | 0.42              |
| 1:C:323:THR:OG1   | 1:C:324:GLU:OE2   | 2.27                     | 0.42              |
| 1:C:776:LYS:O     | 1:C:780:GLU:HG2   | 2.20                     | 0.42              |
| 1:A:86:PHE:HD1    | 1:A:90:VAL:HG23   | 1.84                     | 0.42              |
| 1:A:378:LYS:HG3   | 1:A:433:VAL:HB    | 2.01                     | 0.42              |
| 1:B:1135:ASN:OD1  | 1:B:1136:THR:N    | 2.43                     | 0.42              |
| 1:C:650:LEU:HD23  | 1:C:650:LEU:HA    | 1.89                     | 0.42              |
| 1:C:1135:ASN:OD1  | 1:C:1136:THR:N    | 2.43                     | 0.42              |
| 1:A:857:GLY:HA2   | 1:C:592:PHE:HZ    | 1.84                     | 0.42              |
| 1:B:14:GLN:HA     | 1:B:138:ASP:HB3   | 2.01                     | 0.42              |
| 1:B:295:PRO:HG2   | 1:B:608:VAL:HG11  | 2.00                     | 0.42              |
| 1:B:361:CYS:H     | 1:B:522:ALA:HB1   | 1.84                     | 0.42              |
| 1:C:316:SER:OG    | 1:C:317:ASN:N     | 2.52                     | 0.42              |
| 1:C:874:THR:HG21  | 1:C:1055:SER:HB3  | 2.01                     | 0.42              |
| 1:A:742:ILE:HD12  | 1:A:742:ILE:HA    | 1.92                     | 0.42              |
| 1:A:819:GLU:HA    | 1:A:822:LEU:HB2   | 2.01                     | 0.42              |
| 1:A:1002:GLN:O    | 1:A:1006:THR:HG23 | 2.18                     | 0.42              |
| 1:B:139:PRO:HG2   | 1:B:245:HIS:HD1   | 1.82                     | 0.42              |
| 1:B:1041:ASP:HB3  | 1:C:1030:SER:HB3  | 2.01                     | 0.42              |
| 1:C:457:ARG:NH1   | 1:C:459:SER:OG    | 2.52                     | 0.42              |
| 1:A:212:LEU:HD13  | 1:A:217:PRO:HD3   | 2.00                     | 0.42              |
| 1:B:92:PHE:HB3    | 1:B:192:PHE:HB2   | 2.00                     | 0.42              |
| 1:A:1005:GLN:HA   | 1:A:1008:VAL:HG12 | 2.00                     | 0.42              |
| 1:B:1028:LYS:NZ   | 1:B:1042:PHE:O    | 2.52                     | 0.42              |
| 1:A:792:PRO:HG3   | 1:C:707:TYR:HB3   | 2.00                     | 0.42              |
| 1:B:68:ILE:HG12   | 1:B:78:ARG:HB2    | 2.01                     | 0.42              |
| 1:C:887:THR:HG21  | 1:C:894:LEU:HB2   | 2.01                     | 0.42              |
| 1:B:140:PHE:HE2   | 1:B:247:SER:HG    | 1.66                     | 0.42              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:B:321:GLN:OE1  | 1:B:321:GLN:N     | 2.51                     | 0.42              |
| 1:B:756:TYR:CE2  | 1:B:997:ILE:HD12  | 2.54                     | 0.42              |
| 1:C:758:SER:OG   | 1:C:762:GLN:NE2   | 2.52                     | 0.42              |
| 1:C:206:LYS:HB2  | 1:C:223:LEU:HA    | 2.01                     | 0.42              |
| 1:A:316:SER:OG   | 1:A:317:ASN:N     | 2.51                     | 0.42              |
| 1:A:473:TYR:H    | 1:A:491:PRO:HD3   | 1.84                     | 0.42              |
| 1:B:229:LEU:HD12 | 1:B:231:ILE:HD11  | 2.01                     | 0.42              |
| 1:A:676:THR:HA   | 1:A:690:GLN:HG2   | 2.01                     | 0.42              |
| 1:B:708:SER:HB3  | 1:B:711:SER:HB3   | 2.01                     | 0.42              |
| 1:B:738:CYS:HB3  | 1:B:760:CYS:HB3   | 1.84                     | 0.42              |
| 1:B:878:LEU:O    | 1:B:882:ILE:HG12  | 2.19                     | 0.42              |
| 1:C:128:ILE:HG12 | 1:C:229:LEU:HD11  | 2.00                     | 0.42              |
| 1:B:44:ARG:HE    | 1:B:279:TYR:HE2   | 1.67                     | 0.42              |
| 1:B:103:GLY:HA3  | 1:B:119:ILE:O     | 2.19                     | 0.42              |
| 1:C:128:ILE:HD13 | 1:C:170:TYR:HD1   | 1.84                     | 0.42              |
| 1:A:761:THR:O    | 1:A:765:ARG:HG2   | 2.19                     | 0.42              |
| 1:B:617:CYS:N    | 1:B:649:CYS:SG    | 2.85                     | 0.42              |
| 1:B:763:LEU:HD22 | 1:B:1008:VAL:HG11 | 2.01                     | 0.42              |
| 1:C:776:LYS:O    | 1:C:780:GLU:HG2   | 2.18                     | 0.42              |
| 1:C:316:SER:OG   | 1:C:317:ASN:N     | 2.52                     | 0.42              |
| 1:C:365:TYR:HD1  | 1:C:368:LEU:HD12  | 1.84                     | 0.42              |
| 1:A:226:LEU:HD12 | 1:A:226:LEU:HA    | 1.87                     | 0.42              |
| 1:B:189:LEU:HD12 | 1:B:189:LEU:HA    | 1.69                     | 0.42              |
| 1:B:307:THR:HG23 | 1:B:602:THR:HB    | 2.00                     | 0.42              |
| 1:B:596:SER:HB2  | 1:B:611:LEU:HB3   | 2.00                     | 0.42              |
| 1:B:1106:GLN:NE2 | 1:B:1111:GLU:OE1  | 2.52                     | 0.42              |
| 1:A:906:PHE:HB3  | 1:A:911:VAL:HB    | 2.01                     | 0.42              |
| 1:B:761:THR:O    | 1:B:765:ARG:HG2   | 2.19                     | 0.42              |
| 1:A:1135:ASN:OD1 | 1:A:1136:THR:N    | 2.41                     | 0.42              |
| 1:B:332:ILE:HG12 | 1:B:524:VAL:HG13  | 2.01                     | 0.42              |
| 1:A:711:SER:OG   | 1:B:895:GLN:OE1   | 2.37                     | 0.42              |
| 1:A:1135:ASN:OD1 | 1:A:1136:THR:N    | 2.43                     | 0.42              |
| 1:B:776:LYS:O    | 1:B:780:GLU:HG3   | 2.19                     | 0.42              |
| 1:C:31:SER:HB3   | 1:C:34:ARG:HB2    | 2.00                     | 0.42              |
| 1:C:103:GLY:HA3  | 1:C:119:ILE:O     | 2.19                     | 0.42              |
| 1:A:726:ILE:HD12 | 1:A:726:ILE:HA    | 1.84                     | 0.42              |
| 1:B:206:LYS:HB2  | 1:B:223:LEU:HA    | 2.01                     | 0.42              |
| 1:B:707:TYR:HD2  | 1:C:792:PRO:HG3   | 1.84                     | 0.42              |
| 1:B:1110:TYR:CZ  | 1:B:1112:PRO:HG3  | 2.54                     | 0.42              |
| 1:A:294:ASP:N    | 1:A:294:ASP:OD2   | 2.52                     | 0.42              |
| 1:A:676:THR:HA   | 1:A:690:GLN:HG2   | 2.01                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:777:ASN:O     | 1:B:781:VAL:HG12  | 2.20                     | 0.42              |
| 1:B:783:ALA:HB2   | 1:B:873:TYR:CE1   | 2.53                     | 0.42              |
| 1:A:931:ILE:HA    | 1:A:934:ILE:HG22  | 2.02                     | 0.42              |
| 1:B:91:TYR:HE1    | 1:B:93:ALA:HB2    | 1.84                     | 0.42              |
| 1:A:108:THR:O     | 1:A:237:ARG:NH1   | 2.52                     | 0.42              |
| 1:B:1028:LYS:HG2  | 1:B:1042:PHE:CE1  | 2.55                     | 0.42              |
| 1:C:734:THR:HG21  | 1:C:959:LEU:HD21  | 2.01                     | 0.42              |
| 1:B:96:GLU:OE1    | 1:B:100:ILE:N     | 2.52                     | 0.42              |
| 1:B:201:PHE:HD1   | 1:B:229:LEU:HD12  | 1.85                     | 0.42              |
| 1:B:353:TRP:HE1   | 1:B:355:ARG:HH21  | 1.67                     | 0.42              |
| 1:A:676:THR:HA    | 1:A:690:GLN:HG2   | 2.01                     | 0.42              |
| 1:A:869:MET:HG2   | 1:C:699:LEU:HD11  | 2.00                     | 0.42              |
| 1:A:1014:ARG:HA   | 1:A:1017:GLU:HG2  | 2.01                     | 0.42              |
| 1:A:99:ASN:O      | 1:A:102:ARG:NH2   | 2.51                     | 0.42              |
| 1:B:776:LYS:O     | 1:B:780:GLU:HG3   | 2.19                     | 0.42              |
| 1:B:949:GLN:HA    | 1:B:952:VAL:HG22  | 2.01                     | 0.42              |
| 1:C:741:TYR:OH    | 1:C:962:LEU:O     | 2.22                     | 0.42              |
| 1:A:37:TYR:OH     | 1:A:53:ASP:OD1    | 2.31                     | 0.42              |
| 1:B:117:LEU:HD13  | 1:B:235:ILE:HD11  | 2.02                     | 0.42              |
| 1:B:296:LEU:HB2   | 1:B:608:VAL:HG21  | 2.00                     | 0.42              |
| 1:B:1118:ASP:OD1  | 1:B:1118:ASP:N    | 2.36                     | 0.42              |
| 1:A:58:PHE:HD1    | 1:A:290:ASP:HB2   | 1.85                     | 0.42              |
| 1:A:866:THR:O     | 1:A:870:ILE:HG12  | 2.18                     | 0.42              |
| 1:A:977:LEU:H     | 1:A:977:LEU:HG    | 1.42                     | 0.42              |
| 1:C:38:TYR:HE2    | 1:C:224:GLU:HG3   | 1.83                     | 0.42              |
| 1:A:1128:VAL:HG11 | 1:B:918:GLU:HG3   | 2.01                     | 0.42              |
| 1:B:611:LEU:HD12  | 1:B:650:LEU:HD13  | 2.00                     | 0.42              |
| 1:C:106:PHE:HD2   | 1:C:117:LEU:HD22  | 1.84                     | 0.42              |
| 1:A:194:PHE:HD1   | 1:A:203:ILE:HD11  | 1.84                     | 0.42              |
| 1:B:1116:THR:HG22 | 1:B:1138:TYR:HD2  | 1.83                     | 0.42              |
| 1:A:33:THR:OG1    | 1:A:219:GLY:O     | 2.28                     | 0.42              |
| 1:A:326:ILE:HD12  | 1:A:534:VAL:HG12  | 2.01                     | 0.42              |
| 1:C:193:VAL:HG22  | 1:C:204:TYR:HB2   | 2.02                     | 0.42              |
| 1:A:866:THR:O     | 1:A:870:ILE:HG12  | 2.19                     | 0.42              |
| 1:A:1012:LEU:HB2  | 1:C:1013:ILE:HD13 | 2.02                     | 0.42              |
| 1:B:562:PHE:HD2   | 1:C:41:LYS:HD2    | 1.84                     | 0.42              |
| 1:C:714:ILE:HD13  | 1:C:714:ILE:HA    | 1.87                     | 0.42              |
| 1:C:1005:GLN:O    | 1:C:1009:THR:HG23 | 2.19                     | 0.42              |
| 1:B:589:PRO:HG2   | 1:C:855:PHE:HB3   | 2.00                     | 0.42              |
| 1:A:856:ASN:OD1   | 1:A:856:ASN:N     | 2.44                     | 0.42              |
| 1:C:717:ASN:OD1   | 1:C:718:PHE:N     | 2.48                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:877:LEU:O     | 1:B:881:THR:HG23  | 2.19                     | 0.42              |
| 1:C:273:ARG:HD3   | 1:C:273:ARG:HA    | 1.90                     | 0.42              |
| 1:C:323:THR:HG21  | 1:C:537:LYS:HE2   | 2.01                     | 0.42              |
| 1:A:86:PHE:HE1    | 1:A:89:GLY:HA2    | 1.83                     | 0.42              |
| 1:B:931:ILE:HA    | 1:B:934:ILE:HG22  | 2.01                     | 0.42              |
| 1:A:534:VAL:HG11  | 1:A:537:LYS:HE3   | 2.01                     | 0.42              |
| 1:A:1028:LYS:O    | 1:A:1032:CYS:HB2  | 2.19                     | 0.42              |
| 1:B:37:TYR:OH     | 1:B:54:LEU:O      | 2.25                     | 0.42              |
| 1:C:782:PHE:HD1   | 1:C:782:PHE:HA    | 1.74                     | 0.42              |
| 1:A:1015:ALA:HA   | 1:A:1018:ILE:HG22 | 1.99                     | 0.42              |
| 1:C:33:THR:HB     | 1:C:220:PHE:HD1   | 1.84                     | 0.42              |
| 1:A:965:GLN:O     | 1:A:968:SER:OG    | 2.36                     | 0.42              |
| 1:C:986:PRO:O     | 1:C:990:GLU:HG3   | 2.19                     | 0.42              |
| 1:C:1001:LEU:O    | 1:C:1005:GLN:HG3  | 2.20                     | 0.42              |
| 1:A:532:ASN:OD1   | 1:A:533:LEU:N     | 2.52                     | 0.42              |
| 1:C:377:PHE:HE2   | 1:C:434:ILE:HG13  | 1.83                     | 0.42              |
| 1:A:578:ASP:OD2   | 1:A:581:THR:OG1   | 2.31                     | 0.42              |
| 1:A:933:LYS:HE2   | 1:A:933:LYS:HB2   | 1.89                     | 0.42              |
| 1:B:1091:ARG:NH1  | 1:B:1118:ASP:O    | 2.52                     | 0.42              |
| 1:C:37:TYR:OH     | 1:C:53:ASP:OD2    | 2.34                     | 0.42              |
| 1:A:189:LEU:HD22  | 1:A:210:ILE:HD13  | 2.01                     | 0.42              |
| 1:C:741:TYR:CD2   | 1:C:1004:LEU:HD12 | 2.54                     | 0.42              |
| 1:C:869:MET:HB2   | 1:C:869:MET:HE2   | 1.81                     | 0.42              |
| 1:B:192:PHE:HB3   | 1:B:194:PHE:HE1   | 1.83                     | 0.42              |
| 1:A:819:GLU:HA    | 1:A:822:LEU:HB2   | 2.01                     | 0.42              |
| 1:A:1110:TYR:CZ   | 1:A:1112:PRO:HG3  | 2.54                     | 0.42              |
| 1:B:1110:TYR:CZ   | 1:B:1112:PRO:HG3  | 2.54                     | 0.42              |
| 1:C:31:SER:HB2    | 1:C:34:ARG:HB2    | 2.01                     | 0.42              |
| 1:C:365:TYR:HD1   | 1:C:368:LEU:HD12  | 1.84                     | 0.42              |
| 1:C:17:ASN:HB2    | 1:C:21:ARG:HD3    | 2.01                     | 0.42              |
| 1:C:193:VAL:HG23  | 1:C:270:LEU:HD21  | 2.01                     | 0.42              |
| 1:C:782:PHE:HD1   | 1:C:782:PHE:HA    | 1.72                     | 0.42              |
| 1:C:977:LEU:HD12  | 1:C:977:LEU:HA    | 1.68                     | 0.42              |
| 1:C:989:ALA:O     | 1:C:993:ILE:HG12  | 2.20                     | 0.42              |
| 1:C:994:ASP:O     | 1:C:998:THR:HG23  | 2.19                     | 0.42              |
| 1:A:946:GLY:HA2   | 1:A:949:GLN:HB3   | 2.01                     | 0.42              |
| 1:A:1129:VAL:HG13 | 1:A:1132:ILE:HB   | 2.00                     | 0.42              |
| 1:B:1051:SER:HG   | 1:B:1064:HIS:CE1  | 2.33                     | 0.42              |
| 1:C:39:PRO:HG3    | 1:C:51:THR:HG21   | 2.00                     | 0.42              |
| 1:C:774:GLN:HE22  | 1:C:1018:ILE:HG12 | 1.85                     | 0.42              |
| 1:C:777:ASN:O     | 1:C:781:VAL:HG12  | 2.20                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:802:PHE:HE1   | 1:C:882:ILE:HD12  | 1.83                     | 0.42              |
| 1:C:1001:LEU:HD23 | 1:C:1001:LEU:HA   | 1.87                     | 0.42              |
| 1:A:316:SER:OG    | 1:A:317:ASN:N     | 2.52                     | 0.42              |
| 1:C:906:PHE:HA    | 1:C:909:ILE:HG12  | 2.02                     | 0.42              |
| 1:C:983:ARG:HG2   | 1:C:984:LEU:HD23  | 2.01                     | 0.42              |
| 1:C:1010:GLN:HE22 | 1:C:1014:ARG:HE   | 1.66                     | 0.42              |
| 1:B:951:VAL:HA    | 1:B:954:GLN:HG3   | 2.01                     | 0.42              |
| 1:C:418:ILE:O     | 1:C:422:ASN:HB2   | 2.19                     | 0.42              |
| 1:C:886:TRP:HH2   | 1:C:904:TYR:HB3   | 1.84                     | 0.42              |
| 1:C:33:THR:OG1    | 1:C:219:GLY:O     | 2.29                     | 0.42              |
| 1:A:563:GLN:O     | 1:A:577:ARG:NH1   | 2.44                     | 0.42              |
| 1:B:410:ILE:HD12  | 1:B:410:ILE:HA    | 1.82                     | 0.42              |
| 1:C:40:ASP:OD1    | 1:C:41:LYS:N      | 2.53                     | 0.42              |
| 1:A:738:CYS:SG    | 1:A:739:THR:N     | 2.93                     | 0.42              |
| 1:C:96:GLU:OE1    | 1:C:100:ILE:N     | 2.52                     | 0.42              |
| 1:A:476:GLY:H     | 1:A:487:ASN:HB3   | 1.84                     | 0.42              |
| 1:B:776:LYS:NZ    | 1:B:780:GLU:OE2   | 2.52                     | 0.42              |
| 1:A:775:ASP:O     | 1:A:778:THR:OG1   | 2.30                     | 0.42              |
| 1:B:743:CYS:HB3   | 1:B:977:LEU:HD12  | 2.02                     | 0.42              |
| 1:B:968:SER:OG    | 1:C:755:GLN:O     | 2.37                     | 0.42              |
| 1:C:1010:GLN:HG3  | 1:C:1014:ARG:HH21 | 1.84                     | 0.42              |
| 1:C:1119:ASN:OD1  | 1:C:1119:ASN:N    | 2.53                     | 0.42              |
| 1:A:426:PRO:HG2   | 1:A:429:PHE:HB2   | 2.01                     | 0.42              |
| 1:B:993:ILE:O     | 1:B:997:ILE:HG12  | 2.19                     | 0.42              |
| 1:C:984:LEU:HD12  | 1:C:992:GLN:HE21  | 1.84                     | 0.42              |
| 1:B:330:PRO:HB3   | 1:B:580:GLN:HG3   | 2.01                     | 0.42              |
| 1:B:722:VAL:HG12  | 1:B:930:ALA:HB1   | 2.00                     | 0.42              |
| 1:C:1002:GLN:HA   | 1:C:1005:GLN:HG3  | 2.02                     | 0.42              |
| 1:A:729:VAL:HG13  | 1:A:1059:GLY:HA2  | 2.02                     | 0.42              |
| 1:A:1002:GLN:HA   | 1:A:1005:GLN:HG3  | 1.99                     | 0.42              |
| 1:B:92:PHE:HB3    | 1:B:192:PHE:HB2   | 2.01                     | 0.42              |
| 1:B:806:LEU:HD13  | 1:B:807:PRO:HD2   | 2.02                     | 0.42              |
| 1:B:777:ASN:HA    | 1:B:780:GLU:OE2   | 2.19                     | 0.42              |
| 1:C:212:LEU:HD22  | 1:C:217:PRO:HD3   | 2.01                     | 0.42              |
| 1:C:870:ILE:O     | 1:C:874:THR:HG23  | 2.20                     | 0.42              |
| 1:A:35:GLY:HA3    | 1:A:56:LEU:HB3    | 2.01                     | 0.42              |
| 1:A:869:MET:HG2   | 1:C:699:LEU:HD11  | 2.02                     | 0.42              |
| 1:B:1091:ARG:NH1  | 1:B:1118:ASP:O    | 2.53                     | 0.42              |
| 1:C:33:THR:HB     | 1:C:220:PHE:HD1   | 1.84                     | 0.42              |
| 1:A:33:THR:OG1    | 1:A:219:GLY:O     | 2.34                     | 0.42              |
| 1:A:1110:TYR:CZ   | 1:A:1112:PRO:HG3  | 2.55                     | 0.42              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:B:770:ILE:O    | 1:B:774:GLN:HB2   | 2.19                     | 0.42              |
| 1:B:960:ASN:HA   | 1:B:963:VAL:HG22  | 2.02                     | 0.42              |
| 1:A:185:ASN:ND2  | 1:A:212:LEU:O     | 2.52                     | 0.42              |
| 1:A:365:TYR:HD1  | 1:A:368:LEU:HD12  | 1.84                     | 0.42              |
| 1:A:32:PHE:HE2   | 1:A:218:GLN:HE21  | 1.68                     | 0.42              |
| 1:A:53:ASP:OD2   | 1:A:195:LYS:NZ    | 2.51                     | 0.42              |
| 1:A:344:ALA:O    | 1:A:509:ARG:NH1   | 2.53                     | 0.42              |
| 1:B:226:LEU:HD12 | 1:B:226:LEU:HA    | 1.90                     | 0.42              |
| 1:C:717:ASN:OD1  | 1:C:718:PHE:N     | 2.48                     | 0.42              |
| 1:C:729:VAL:HG21 | 1:C:1060:VAL:HG13 | 2.01                     | 0.42              |
| 1:A:857:GLY:HA2  | 1:C:592:PHE:HZ    | 1.84                     | 0.42              |
| 1:B:1086:LYS:HE2 | 1:B:1122:VAL:HG11 | 2.01                     | 0.42              |
| 1:C:948:LEU:HD11 | 1:C:1059:GLY:HA3  | 2.00                     | 0.42              |
| 1:A:141:LEU:HD13 | 1:A:154:GLU:HG3   | 2.00                     | 0.42              |
| 1:A:206:LYS:HZ3  | 1:A:221:SER:HB2   | 1.84                     | 0.42              |
| 1:B:730:SER:O    | 1:B:1058:HIS:HB3  | 2.20                     | 0.42              |
| 1:A:702:GLU:HA   | 1:B:788:ILE:HB    | 2.02                     | 0.42              |
| 1:A:740:MET:SD   | 1:C:319:ARG:NH1   | 2.93                     | 0.42              |
| 1:A:851:CYS:HA   | 1:A:854:LYS:HE3   | 2.01                     | 0.42              |
| 1:C:296:LEU:O    | 1:C:299:THR:OG1   | 2.34                     | 0.42              |
| 1:C:886:TRP:CH2  | 1:C:904:TYR:HB3   | 2.55                     | 0.42              |
| 1:C:737:ASP:O    | 1:C:741:TYR:CB    | 2.67                     | 0.42              |
| 1:A:52:GLN:OE1   | 1:A:274:THR:OG1   | 2.25                     | 0.42              |
| 1:A:1016:ALA:HA  | 1:A:1019:ARG:HH12 | 1.85                     | 0.42              |
| 1:C:931:ILE:HA   | 1:C:934:ILE:HG22  | 2.02                     | 0.42              |
| 1:B:774:GLN:HA   | 1:B:774:GLN:NE2   | 2.34                     | 0.42              |
| 1:B:108:THR:OG1  | 1:B:234:ASN:O     | 2.37                     | 0.42              |
| 1:B:777:ASN:HA   | 1:B:780:GLU:HG2   | 2.02                     | 0.42              |
| 1:B:934:ILE:HD12 | 1:B:934:ILE:HA    | 1.85                     | 0.42              |
| 1:C:1002:GLN:O   | 1:C:1006:THR:HG23 | 2.19                     | 0.42              |
| 1:B:280:ASN:OD1  | 1:B:284:THR:N     | 2.53                     | 0.42              |
| 1:B:946:GLY:HA2  | 1:B:949:GLN:HB2   | 2.01                     | 0.42              |
| 1:A:769:GLY:O    | 1:A:773:GLU:HG3   | 2.20                     | 0.42              |
| 1:B:88:ASP:OD2   | 1:B:271:GLN:NE2   | 2.52                     | 0.42              |
| 1:B:139:PRO:HG2  | 1:B:245:HIS:HD1   | 1.85                     | 0.42              |
| 1:B:401:VAL:HG22 | 1:B:509:ARG:HG2   | 2.02                     | 0.42              |
| 1:B:934:ILE:HA   | 1:B:934:ILE:HD12  | 1.73                     | 0.42              |
| 1:A:323:THR:OG1  | 1:A:324:GLU:OE2   | 2.19                     | 0.42              |
| 1:A:1005:GLN:HA  | 1:A:1008:VAL:HG12 | 2.01                     | 0.42              |
| 1:B:38:TYR:HE2   | 1:B:224:GLU:HG3   | 1.84                     | 0.42              |
| 1:B:357:ARG:NH2  | 1:B:394:ASN:OD1   | 2.53                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:784:GLN:HG3   | 1:B:1034:LEU:HD11 | 2.02                     | 0.42              |
| 1:B:994:ASP:O     | 1:B:998:THR:HG23  | 2.19                     | 0.42              |
| 1:C:731:MET:HB2   | 1:C:955:ASN:HD21  | 1.85                     | 0.42              |
| 1:A:214:ARG:HD3   | 1:A:214:ARG:HA    | 1.93                     | 0.42              |
| 1:A:226:LEU:HG    | 1:A:227:VAL:HG12  | 2.01                     | 0.42              |
| 1:A:825:LYS:HD2   | 1:A:945:LEU:HD23  | 2.02                     | 0.42              |
| 1:C:96:GLU:OE1    | 1:C:100:ILE:N     | 2.53                     | 0.42              |
| 1:C:777:ASN:O     | 1:C:781:VAL:HG12  | 2.20                     | 0.42              |
| 1:C:870:ILE:O     | 1:C:874:THR:HG23  | 2.20                     | 0.42              |
| 1:C:17:ASN:HB2    | 1:C:21:ARG:HD3    | 2.01                     | 0.42              |
| 1:B:957:GLN:O     | 1:B:961:THR:HG23  | 2.19                     | 0.42              |
| 1:B:1102:TRP:HB2  | 1:B:1135:ASN:HD22 | 1.85                     | 0.42              |
| 1:B:104:TRP:HB2   | 1:B:106:PHE:CE2   | 2.55                     | 0.42              |
| 1:B:901:GLN:HE21  | 1:B:905:ARG:NE    | 2.14                     | 0.42              |
| 1:B:1119:ASN:OD1  | 1:B:1119:ASN:N    | 2.50                     | 0.42              |
| 1:A:438:SER:HB3   | 1:A:509:ARG:HG3   | 2.02                     | 0.42              |
| 1:A:897:PRO:HG2   | 1:A:900:MET:HG2   | 2.02                     | 0.42              |
| 1:B:403:ARG:HG2   | 1:B:497:PHE:HE1   | 1.84                     | 0.42              |
| 1:B:1110:TYR:CZ   | 1:B:1112:PRO:HG3  | 2.54                     | 0.42              |
| 1:B:182:LYS:HD3   | 1:B:187:LYS:HD2   | 2.02                     | 0.42              |
| 1:B:330:PRO:HG2   | 1:B:523:THR:HA    | 2.02                     | 0.42              |
| 1:B:699:LEU:HB2   | 1:C:788:ILE:HD11  | 2.01                     | 0.42              |
| 1:B:957:GLN:HG3   | 1:C:765:ARG:NH1   | 2.35                     | 0.42              |
| 1:A:753:LEU:HD12  | 1:A:753:LEU:HA    | 1.87                     | 0.42              |
| 1:A:759:PHE:HA    | 1:A:762:GLN:HG3   | 2.01                     | 0.42              |
| 1:A:1002:GLN:O    | 1:A:1006:THR:HG23 | 2.19                     | 0.42              |
| 1:B:226:LEU:HD12  | 1:B:226:LEU:HA    | 1.88                     | 0.42              |
| 1:C:938:LEU:HD13  | 1:C:938:LEU:HA    | 1.85                     | 0.42              |
| 1:A:230:PRO:HB2   | 1:C:357:ARG:NH1   | 2.34                     | 0.42              |
| 1:A:702:GLU:HA    | 1:B:788:ILE:HB    | 2.01                     | 0.42              |
| 1:A:1015:ALA:HA   | 1:A:1018:ILE:HG22 | 2.01                     | 0.42              |
| 1:A:1128:VAL:HG11 | 1:B:918:GLU:HG3   | 2.02                     | 0.42              |
| 1:B:643:PHE:CE2   | 1:B:645:THR:HG22  | 2.55                     | 0.42              |
| 1:C:452:LEU:HB3   | 1:C:492:LEU:HD11  | 2.00                     | 0.42              |
| 1:A:105:ILE:HB    | 1:A:241:LEU:HD21  | 2.02                     | 0.42              |
| 1:B:870:ILE:O     | 1:B:874:THR:HG23  | 2.19                     | 0.42              |
| 1:B:139:PRO:O     | 1:B:245:HIS:ND1   | 2.53                     | 0.42              |
| 1:B:578:ASP:OD2   | 1:B:581:THR:OG1   | 2.34                     | 0.42              |
| 1:B:951:VAL:HA    | 1:B:954:GLN:HE21  | 1.84                     | 0.42              |
| 1:C:56:LEU:HD22   | 1:C:91:TYR:HD1    | 1.84                     | 0.42              |
| 1:A:329:PHE:HD1   | 1:A:528:LYS:HB3   | 1.84                     | 0.42              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:B:870:ILE:HD12 | 1:B:870:ILE:HA    | 1.93                     | 0.42              |
| 1:A:32:PHE:CD2   | 1:A:33:THR:HG23   | 2.55                     | 0.42              |
| 1:B:82:PRO:HG2   | 1:B:84:LEU:HD11   | 2.01                     | 0.42              |
| 1:B:774:GLN:HA   | 1:B:777:ASN:HD21  | 1.84                     | 0.42              |
| 1:A:320:VAL:HG22 | 1:A:590:CYS:HB3   | 2.02                     | 0.42              |
| 1:A:825:LYS:NZ   | 1:A:938:LEU:O     | 2.38                     | 0.42              |
| 1:B:776:LYS:NZ   | 1:B:780:GLU:OE2   | 2.43                     | 0.42              |
| 1:B:909:ILE:HA   | 1:B:1038:LYS:NZ   | 2.35                     | 0.42              |
| 1:C:805:ILE:O    | 1:C:1054:GLN:NE2  | 2.53                     | 0.42              |
| 1:A:452:LEU:HD23 | 1:A:492:LEU:HB3   | 2.01                     | 0.42              |
| 1:A:676:THR:HA   | 1:A:690:GLN:HG2   | 2.02                     | 0.42              |
| 1:C:1118:ASP:OD1 | 1:C:1118:ASP:N    | 2.38                     | 0.42              |
| 1:A:881:THR:HG23 | 1:A:882:ILE:HD13  | 2.01                     | 0.42              |
| 1:B:722:VAL:HG12 | 1:B:930:ALA:HB1   | 2.01                     | 0.42              |
| 1:C:188:ASN:OD1  | 1:C:207:HIS:NE2   | 2.51                     | 0.42              |
| 1:A:296:LEU:HB3  | 1:A:608:VAL:HG21  | 2.02                     | 0.42              |
| 1:B:722:VAL:HG12 | 1:B:930:ALA:HB1   | 2.01                     | 0.42              |
| 1:B:877:LEU:O    | 1:B:881:THR:HG23  | 2.19                     | 0.42              |
| 1:B:108:THR:OG1  | 1:B:234:ASN:O     | 2.38                     | 0.42              |
| 1:B:336:CYS:HA   | 1:B:337:PRO:HD3   | 1.90                     | 0.42              |
| 1:B:741:TYR:HD1  | 1:B:1004:LEU:HD11 | 1.84                     | 0.42              |
| 1:C:178:ASP:H    | 1:C:207:HIS:HE1   | 1.68                     | 0.42              |
| 1:B:330:PRO:HD3  | 1:B:579:PRO:HB2   | 2.02                     | 0.42              |
| 1:C:1135:ASN:OD1 | 1:C:1136:THR:N    | 2.43                     | 0.42              |
| 1:A:52:GLN:OE1   | 1:A:274:THR:OG1   | 2.26                     | 0.42              |
| 1:A:881:THR:HG23 | 1:A:882:ILE:HD13  | 2.01                     | 0.42              |
| 1:A:1005:GLN:O   | 1:A:1009:THR:HG23 | 2.19                     | 0.42              |
| 1:C:200:TYR:CE1  | 1:C:230:PRO:HB3   | 2.54                     | 0.42              |
| 1:C:568:ASP:OD2  | 1:C:569:ILE:N     | 2.47                     | 0.42              |
| 1:A:906:PHE:CE2  | 1:A:916:LEU:HD13  | 2.55                     | 0.42              |
| 1:B:394:ASN:HB2  | 1:B:516:GLU:HB2   | 2.00                     | 0.42              |
| 1:C:347:PHE:HB2  | 1:C:401:VAL:HG23  | 2.01                     | 0.42              |
| 1:C:731:MET:HG3  | 1:C:955:ASN:HD21  | 1.85                     | 0.42              |
| 1:B:1103:PHE:CD2 | 1:B:1112:PRO:HB3  | 2.54                     | 0.42              |
| 1:C:357:ARG:NE   | 1:C:394:ASN:OD1   | 2.53                     | 0.42              |
| 1:C:452:LEU:HD13 | 1:C:492:LEU:HD21  | 2.01                     | 0.42              |
| 1:A:105:ILE:HB   | 1:A:241:LEU:HD21  | 2.00                     | 0.42              |
| 1:A:443:SER:HB3  | 1:A:499:PRO:HD3   | 2.01                     | 0.42              |
| 1:B:403:ARG:HG2  | 1:B:497:PHE:HE1   | 1.85                     | 0.42              |
| 1:C:975:SER:O    | 1:C:1000:ARG:NH2  | 2.52                     | 0.42              |
| 1:C:1080:ALA:HA  | 1:C:1095:PHE:HE2  | 1.85                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:52:GLN:OE1    | 1:A:274:THR:OG1   | 2.22                     | 0.42              |
| 1:A:205:SER:HB3   | 1:A:226:LEU:HB2   | 2.02                     | 0.42              |
| 1:B:1015:ALA:HA   | 1:B:1018:ILE:HG22 | 2.00                     | 0.42              |
| 1:C:106:PHE:HB3   | 1:C:235:ILE:HD13  | 2.02                     | 0.42              |
| 1:B:783:ALA:HB2   | 1:B:873:TYR:CE2   | 2.53                     | 0.42              |
| 1:B:55:PHE:HB2    | 1:B:273:ARG:HB2   | 2.02                     | 0.42              |
| 1:B:1091:ARG:NH1  | 1:B:1120:THR:O    | 2.51                     | 0.42              |
| 1:C:714:ILE:HD13  | 1:C:714:ILE:HA    | 1.86                     | 0.42              |
| 1:C:989:ALA:O     | 1:C:993:ILE:HG12  | 2.20                     | 0.42              |
| 1:C:1002:GLN:O    | 1:C:1005:GLN:NE2  | 2.53                     | 0.42              |
| 1:A:707:TYR:HB3   | 1:B:792:PRO:HG3   | 2.00                     | 0.42              |
| 1:B:42:VAL:HG11   | 1:B:44:ARG:NH2    | 2.34                     | 0.42              |
| 1:C:898:PHE:HA    | 1:C:901:GLN:HB2   | 2.01                     | 0.42              |
| 1:B:733:LYS:HE3   | 1:B:771:ALA:HB1   | 2.01                     | 0.42              |
| 1:C:474:GLN:HG3   | 1:C:479:PRO:HA    | 2.02                     | 0.42              |
| 1:A:957:GLN:O     | 1:A:961:THR:HG23  | 2.20                     | 0.42              |
| 1:B:1040:VAL:HG21 | 1:C:1035:GLY:HA3  | 2.02                     | 0.42              |
| 1:B:182:LYS:HD3   | 1:B:187:LYS:HD2   | 2.01                     | 0.42              |
| 1:B:303:LEU:HD11  | 1:B:313:TYR:CD2   | 2.54                     | 0.42              |
| 1:B:777:ASN:O     | 1:B:781:VAL:HG12  | 2.19                     | 0.42              |
| 1:A:813:SER:OG    | 1:A:868:GLU:OE2   | 2.27                     | 0.42              |
| 1:C:1119:ASN:OD1  | 1:C:1119:ASN:N    | 2.50                     | 0.42              |
| 1:C:994:ASP:O     | 1:C:998:THR:HG23  | 2.19                     | 0.42              |
| 1:B:809:PRO:HA    | 1:B:814:LYS:HE3   | 2.01                     | 0.42              |
| 1:C:870:ILE:O     | 1:C:874:THR:HG23  | 2.19                     | 0.42              |
| 1:B:901:GLN:HE21  | 1:B:905:ARG:NE    | 2.15                     | 0.42              |
| 1:B:934:ILE:HA    | 1:B:934:ILE:HD12  | 1.69                     | 0.42              |
| 1:A:393:THR:HA    | 1:A:522:ALA:HA    | 2.01                     | 0.42              |
| 1:B:120:VAL:HG12  | 1:B:241:LEU:HD11  | 2.02                     | 0.42              |
| 1:B:193:VAL:HG13  | 1:B:270:LEU:HD11  | 2.00                     | 0.42              |
| 1:B:733:LYS:NZ    | 1:B:863:PRO:HA    | 2.34                     | 0.42              |
| 1:C:276:LEU:HD12  | 1:C:301:CYS:HA    | 2.02                     | 0.42              |
| 1:A:296:LEU:HB2   | 1:A:608:VAL:HG21  | 2.00                     | 0.42              |
| 1:A:1054:GLN:HB2  | 1:A:1061:VAL:HG22 | 2.01                     | 0.42              |
| 1:A:323:THR:HG1   | 1:A:537:LYS:HZ3   | 1.65                     | 0.42              |
| 1:A:726:ILE:HD13  | 1:A:1061:VAL:HG12 | 2.01                     | 0.42              |
| 1:A:897:PRO:HG2   | 1:A:900:MET:HG2   | 2.02                     | 0.42              |
| 1:B:334:ASN:HD21  | 1:B:358:ILE:HD12  | 1.85                     | 0.42              |
| 1:B:908:GLY:C     | 1:B:1038:LYS:HZ3  | 2.23                     | 0.42              |
| 1:B:291:CYS:O     | 1:B:297:SER:OG    | 2.38                     | 0.42              |
| 1:B:784:GLN:HA    | 1:B:784:GLN:NE2   | 2.34                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:992:GLN:HA    | 1:C:995:ARG:HG2   | 2.02                     | 0.42              |
| 1:A:141:LEU:HD21  | 1:A:154:GLU:HG2   | 2.02                     | 0.42              |
| 1:A:418:ILE:O     | 1:A:422:ASN:HB2   | 2.19                     | 0.42              |
| 1:A:1014:ARG:O    | 1:A:1018:ILE:HG12 | 2.20                     | 0.42              |
| 1:A:1118:ASP:OD2  | 1:A:1118:ASP:N    | 2.40                     | 0.42              |
| 1:B:814:LYS:HE2   | 1:B:814:LYS:HB2   | 1.92                     | 0.42              |
| 1:B:193:VAL:HG13  | 1:B:270:LEU:HD11  | 2.02                     | 0.42              |
| 1:B:91:TYR:HD1    | 1:B:193:VAL:HG22  | 1.85                     | 0.42              |
| 1:C:1080:ALA:HA   | 1:C:1095:PHE:HE2  | 1.83                     | 0.42              |
| 1:B:869:MET:HB2   | 1:B:869:MET:HE2   | 1.83                     | 0.42              |
| 1:B:1039:ARG:NE   | 1:C:1031:GLU:OE2  | 2.47                     | 0.42              |
| 1:C:676:THR:HA    | 1:C:690:GLN:HG2   | 2.01                     | 0.42              |
| 1:A:1013:ILE:HG21 | 1:B:1012:LEU:HG   | 2.01                     | 0.42              |
| 1:A:1039:ARG:NH2  | 1:B:1031:GLU:OE2  | 2.45                     | 0.42              |
| 1:C:710:ASN:OD1   | 1:C:710:ASN:N     | 2.42                     | 0.42              |
| 1:C:185:ASN:ND2   | 1:C:211:ASN:OD1   | 2.51                     | 0.42              |
| 1:C:909:ILE:HA    | 1:C:1038:LYS:HE3  | 2.02                     | 0.42              |
| 1:C:1080:ALA:HA   | 1:C:1095:PHE:HE2  | 1.84                     | 0.42              |
| 1:C:717:ASN:OD1   | 1:C:718:PHE:N     | 2.49                     | 0.42              |
| 1:A:1135:ASN:OD1  | 1:A:1136:THR:N    | 2.42                     | 0.42              |
| 1:B:53:ASP:OD2    | 1:B:195:LYS:NZ    | 2.50                     | 0.42              |
| 1:B:280:ASN:OD1   | 1:B:284:THR:N     | 2.53                     | 0.42              |
| 1:B:591:SER:HB3   | 1:B:615:VAL:HG23  | 2.02                     | 0.42              |
| 1:A:731:MET:HB3   | 1:A:774:GLN:HE21  | 1.85                     | 0.42              |
| 1:C:37:TYR:OH     | 1:C:195:LYS:NZ    | 2.47                     | 0.42              |
| 1:C:717:ASN:OD1   | 1:C:718:PHE:N     | 2.49                     | 0.42              |
| 1:A:699:LEU:HB2   | 1:B:788:ILE:HD11  | 2.02                     | 0.42              |
| 1:A:897:PRO:HG2   | 1:A:900:MET:HG2   | 2.01                     | 0.42              |
| 1:A:914:ASN:ND2   | 1:C:1089:PHE:HD2  | 2.17                     | 0.42              |
| 1:B:292:ALA:HA    | 1:B:298:GLU:OE1   | 2.20                     | 0.42              |
| 1:C:1005:GLN:O    | 1:C:1009:THR:HG23 | 2.20                     | 0.42              |
| 1:A:190:ARG:NH1   | 1:A:207:HIS:HB2   | 2.33                     | 0.42              |
| 1:A:765:ARG:HD3   | 1:C:957:GLN:NE2   | 2.35                     | 0.42              |
| 1:A:957:GLN:O     | 1:A:961:THR:HG23  | 2.20                     | 0.42              |
| 1:C:107:GLY:H     | 1:C:235:ILE:HG23  | 1.85                     | 0.42              |
| 1:C:195:LYS:HE3   | 1:C:202:LYS:HE2   | 2.01                     | 0.42              |
| 1:C:758:SER:O     | 1:C:761:THR:OG1   | 2.38                     | 0.42              |
| 1:A:1086:LYS:HA   | 1:A:1125:ASN:HA   | 2.02                     | 0.42              |
| 1:B:378:LYS:HE3   | 1:B:407:VAL:HG13  | 2.02                     | 0.42              |
| 1:C:58:PHE:HD2    | 1:C:290:ASP:HB2   | 1.83                     | 0.42              |
| 1:C:990:GLU:HA    | 1:C:993:ILE:HG22  | 2.02                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:699:LEU:HD11  | 1:B:869:MET:HB3   | 2.01                     | 0.42              |
| 1:B:104:TRP:HB2   | 1:B:106:PHE:CE2   | 2.55                     | 0.42              |
| 1:C:58:PHE:HB2    | 1:C:293:LEU:HD22  | 2.01                     | 0.42              |
| 1:C:1028:LYS:O    | 1:C:1032:CYS:HB2  | 2.20                     | 0.42              |
| 1:A:564:GLN:HA    | 1:A:577:ARG:HD2   | 2.02                     | 0.42              |
| 1:A:667:GLY:HA2   | 1:B:864:LEU:HA    | 2.01                     | 0.42              |
| 1:C:85:PRO:HG2    | 1:C:269:TYR:HE2   | 1.85                     | 0.42              |
| 1:A:80:ALA:C      | 1:A:81:ASN:HD22   | 2.22                     | 0.42              |
| 1:A:287:ASP:OD2   | 1:A:288:ALA:N     | 2.52                     | 0.42              |
| 1:A:1006:THR:HG22 | 1:B:1005:GLN:NE2  | 2.34                     | 0.42              |
| 1:C:365:TYR:HD1   | 1:C:368:LEU:HD12  | 1.85                     | 0.42              |
| 1:B:954:GLN:NE2   | 1:B:1014:ARG:HH11 | 2.18                     | 0.42              |
| 1:C:714:ILE:HD13  | 1:C:714:ILE:HA    | 1.87                     | 0.42              |
| 1:A:543:PHE:O     | 1:A:545:GLY:N     | 2.49                     | 0.42              |
| 1:A:55:PHE:O      | 1:A:271:GLN:N     | 2.38                     | 0.42              |
| 1:A:985:ASP:O     | 1:A:989:ALA:HB2   | 2.20                     | 0.42              |
| 1:A:1141:LEU:HD22 | 1:B:1141:LEU:HD22 | 2.02                     | 0.42              |
| 1:C:56:LEU:HD12   | 1:C:57:PRO:HD2    | 2.01                     | 0.42              |
| 1:C:1102:TRP:HB2  | 1:C:1135:ASN:HD22 | 1.84                     | 0.42              |
| 1:B:563:GLN:O     | 1:B:577:ARG:NH1   | 2.49                     | 0.42              |
| 1:A:204:TYR:HD1   | 1:A:225:PRO:HA    | 1.85                     | 0.42              |
| 1:B:361:CYS:H     | 1:B:522:ALA:HB1   | 1.85                     | 0.42              |
| 1:C:347:PHE:CG    | 1:C:399:SER:HB3   | 2.55                     | 0.42              |
| 1:A:1116:THR:HG22 | 1:A:1138:TYR:HD2  | 1.84                     | 0.42              |
| 1:B:725:GLU:OE1   | 1:B:1064:HIS:NE2  | 2.53                     | 0.42              |
| 1:C:189:LEU:HD22  | 1:C:191:GLU:HG3   | 2.01                     | 0.42              |
| 1:A:874:THR:O     | 1:A:878:LEU:HD22  | 2.20                     | 0.42              |
| 1:C:708:SER:HB3   | 1:C:711:SER:HB3   | 2.02                     | 0.42              |
| 1:A:293:LEU:HD12  | 1:A:294:ASP:HB2   | 2.00                     | 0.42              |
| 1:B:864:LEU:HG    | 1:B:865:LEU:HD22  | 2.02                     | 0.42              |
| 1:C:201:PHE:HB3   | 1:C:229:LEU:HB2   | 2.02                     | 0.42              |
| 1:B:408:ARG:HE    | 1:B:408:ARG:HB3   | 1.55                     | 0.42              |
| 1:C:289:VAL:HG11  | 1:C:300:LYS:HD2   | 2.02                     | 0.42              |
| 1:A:303:LEU:HD21  | 1:A:313:TYR:CD2   | 2.55                     | 0.42              |
| 1:A:906:PHE:CE2   | 1:A:916:LEU:HD13  | 2.54                     | 0.42              |
| 1:B:708:SER:OG    | 1:B:710:ASN:OD1   | 2.37                     | 0.42              |
| 1:C:33:THR:OG1    | 1:C:219:GLY:O     | 2.25                     | 0.42              |
| 1:C:1110:TYR:CZ   | 1:C:1112:PRO:HG3  | 2.55                     | 0.42              |
| 1:A:741:TYR:HD1   | 1:A:742:ILE:HD13  | 1.85                     | 0.42              |
| 1:B:909:ILE:HA    | 1:B:1038:LYS:HZ1  | 1.84                     | 0.42              |
| 1:B:948:LEU:HA    | 1:B:951:VAL:HG12  | 2.02                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:289:VAL:HG11  | 1:A:300:LYS:HD2   | 2.01                     | 0.42              |
| 1:B:1135:ASN:OD1  | 1:B:1136:THR:N    | 2.41                     | 0.42              |
| 1:B:748:GLU:OE1   | 1:B:748:GLU:N     | 2.51                     | 0.42              |
| 1:A:357:ARG:HG3   | 1:A:396:TYR:HE1   | 1.84                     | 0.42              |
| 1:B:1005:GLN:HA   | 1:B:1008:VAL:HG12 | 2.02                     | 0.42              |
| 1:A:1035:GLY:HA3  | 1:C:1040:VAL:HG11 | 2.01                     | 0.42              |
| 1:B:425:LEU:HD21  | 1:B:512:VAL:HG11  | 2.02                     | 0.42              |
| 1:A:107:GLY:H     | 1:A:235:ILE:HG23  | 1.84                     | 0.42              |
| 1:A:600:PRO:HD3   | 1:A:692:ILE:HD11  | 2.00                     | 0.42              |
| 1:A:774:GLN:HE22  | 1:A:1018:ILE:HG21 | 1.85                     | 0.42              |
| 1:B:424:LYS:HD2   | 1:B:463:PRO:HG3   | 2.01                     | 0.42              |
| 1:B:1110:TYR:CZ   | 1:B:1112:PRO:HG3  | 2.55                     | 0.42              |
| 1:A:295:PRO:HG2   | 1:A:608:VAL:HG11  | 2.02                     | 0.42              |
| 1:A:881:THR:HG23  | 1:A:882:ILE:HD13  | 2.02                     | 0.42              |
| 1:C:273:ARG:HH21  | 1:C:292:ALA:HB3   | 1.84                     | 0.42              |
| 1:A:1005:GLN:O    | 1:A:1009:THR:HG23 | 2.19                     | 0.41              |
| 1:B:731:MET:HG2   | 1:B:774:GLN:HE21  | 1.84                     | 0.41              |
| 1:A:914:ASN:OD1   | 1:C:1123:SER:OG   | 2.27                     | 0.41              |
| 1:B:173:GLN:HG2   | 1:B:174:PRO:HD2   | 2.02                     | 0.41              |
| 1:B:965:GLN:O     | 1:B:968:SER:OG    | 2.38                     | 0.41              |
| 1:B:971:GLY:HA3   | 1:B:995:ARG:HH12  | 1.85                     | 0.41              |
| 1:A:783:ALA:HB2   | 1:A:873:TYR:CE2   | 2.55                     | 0.41              |
| 1:B:360:ASN:OD1   | 1:B:523:THR:OG1   | 2.27                     | 0.41              |
| 1:B:805:ILE:HD12  | 1:B:878:LEU:HG    | 2.02                     | 0.41              |
| 1:A:48:LEU:HB3    | 1:A:276:LEU:HD11  | 2.02                     | 0.41              |
| 1:A:81:ASN:O      | 1:A:239:GLN:NE2   | 2.51                     | 0.41              |
| 1:A:1013:ILE:HG22 | 1:C:1013:ILE:HD12 | 2.01                     | 0.41              |
| 1:A:981:LEU:HD21  | 1:A:993:ILE:HD11  | 2.01                     | 0.41              |
| 1:C:1004:LEU:O    | 1:C:1008:VAL:HG13 | 2.19                     | 0.41              |
| 1:B:1024:LEU:HD11 | 1:B:1028:LYS:HE3  | 2.02                     | 0.41              |
| 1:C:737:ASP:OD1   | 1:C:737:ASP:N     | 2.38                     | 0.41              |
| 1:A:96:GLU:OE1    | 1:A:99:ASN:ND2    | 2.44                     | 0.41              |
| 1:A:969:ASN:ND2   | 1:B:755:GLN:HG2   | 2.27                     | 0.41              |
| 1:A:543:PHE:O     | 1:A:545:GLY:N     | 2.49                     | 0.41              |
| 1:A:1052:PHE:HB2  | 1:A:1063:LEU:HB2  | 2.02                     | 0.41              |
| 1:B:336:CYS:HB2   | 1:B:363:ALA:HA    | 2.01                     | 0.41              |
| 1:B:729:VAL:HG12  | 1:B:1059:GLY:HA2  | 2.02                     | 0.41              |
| 1:B:361:CYS:HB3   | 1:B:524:VAL:O     | 2.20                     | 0.41              |
| 1:B:458:LYS:HZ3   | 1:B:474:GLN:H     | 1.68                     | 0.41              |
| 1:B:484:LYS:HD2   | 1:B:490:PHE:HB2   | 2.02                     | 0.41              |
| 1:A:51:THR:OG1    | 1:A:52:GLN:N      | 2.53                     | 0.41              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:C:986:PRO:O    | 1:C:990:GLU:HG3   | 2.20                     | 0.41              |
| 1:B:105:ILE:HB   | 1:B:239:GLN:HB2   | 2.02                     | 0.41              |
| 1:C:1019:ARG:O   | 1:C:1023:ASN:ND2  | 2.35                     | 0.41              |
| 1:B:332:ILE:HA   | 1:B:524:VAL:HG22  | 2.02                     | 0.41              |
| 1:B:877:LEU:O    | 1:B:881:THR:HG23  | 2.20                     | 0.41              |
| 1:A:92:PHE:CE1   | 1:A:94:SER:HB2    | 2.55                     | 0.41              |
| 1:A:756:TYR:HB3  | 1:A:759:PHE:HE2   | 1.85                     | 0.41              |
| 1:A:1135:ASN:OD1 | 1:A:1136:THR:N    | 2.43                     | 0.41              |
| 1:A:383:SER:HB2  | 1:A:386:LYS:HE2   | 2.01                     | 0.41              |
| 1:A:731:MET:HB3  | 1:A:774:GLN:NE2   | 2.35                     | 0.41              |
| 1:A:741:TYR:HE2  | 1:A:1004:LEU:HD13 | 1.85                     | 0.41              |
| 1:B:1145:LEU:HB3 | 1:C:1148:PHE:HE2  | 1.85                     | 0.41              |
| 1:A:204:TYR:HD1  | 1:A:225:PRO:HA    | 1.83                     | 0.41              |
| 1:A:767:LEU:HA   | 1:A:770:ILE:HD12  | 2.02                     | 0.41              |
| 1:B:663:ASP:N    | 1:B:671:CYS:SG    | 2.92                     | 0.41              |
| 1:C:1135:ASN:OD1 | 1:C:1136:THR:N    | 2.43                     | 0.41              |
| 1:A:312:ILE:HD13 | 1:A:598:ILE:HD11  | 2.01                     | 0.41              |
| 1:A:365:TYR:HD1  | 1:A:368:LEU:HD12  | 1.84                     | 0.41              |
| 1:A:741:TYR:CD1  | 1:A:1004:LEU:HD22 | 2.54                     | 0.41              |
| 1:B:29:THR:HB    | 1:B:64:TRP:HB2    | 2.01                     | 0.41              |
| 1:B:92:PHE:HE1   | 1:B:265:TYR:HB2   | 1.85                     | 0.41              |
| 1:C:204:TYR:HD1  | 1:C:225:PRO:HA    | 1.83                     | 0.41              |
| 1:A:731:MET:HG3  | 1:A:955:ASN:ND2   | 2.35                     | 0.41              |
| 1:C:902:MET:HB2  | 1:C:916:LEU:HD11  | 2.01                     | 0.41              |
| 1:B:14:GLN:HA    | 1:B:138:ASP:HB3   | 2.02                     | 0.41              |
| 1:B:993:ILE:O    | 1:B:997:ILE:HG12  | 2.20                     | 0.41              |
| 1:A:870:ILE:O    | 1:A:874:THR:HG23  | 2.20                     | 0.41              |
| 1:A:1005:GLN:O   | 1:A:1009:THR:HG23 | 2.19                     | 0.41              |
| 1:B:193:VAL:HB   | 1:B:204:TYR:HB2   | 2.02                     | 0.41              |
| 1:B:206:LYS:HD2  | 1:B:207:HIS:H     | 1.84                     | 0.41              |
| 1:B:955:ASN:O    | 1:B:959:LEU:HD22  | 2.19                     | 0.41              |
| 1:C:422:ASN:HD21 | 1:C:454:ARG:HB3   | 1.85                     | 0.41              |
| 1:C:598:ILE:HB   | 1:C:609:ALA:HB3   | 2.02                     | 0.41              |
| 1:B:92:PHE:HB3   | 1:B:192:PHE:HB2   | 2.02                     | 0.41              |
| 1:B:1015:ALA:HA  | 1:B:1018:ILE:HG22 | 2.01                     | 0.41              |
| 1:C:957:GLN:HE21 | 1:C:957:GLN:CA    | 2.31                     | 0.41              |
| 1:B:1051:SER:HB3 | 1:B:1064:HIS:HD1  | 1.86                     | 0.41              |
| 1:A:225:PRO:HB2  | 1:C:562:PHE:CZ    | 2.55                     | 0.41              |
| 1:B:1110:TYR:CZ  | 1:B:1112:PRO:HG3  | 2.55                     | 0.41              |
| 1:C:91:TYR:HD1   | 1:C:193:VAL:HG12  | 1.85                     | 0.41              |
| 1:C:777:ASN:O    | 1:C:781:VAL:HG12  | 2.20                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:1002:GLN:HA   | 1:C:1005:GLN:HE21 | 1.84                     | 0.41              |
| 1:A:314:GLN:NE2   | 1:A:594:GLY:HA3   | 2.35                     | 0.41              |
| 1:A:598:ILE:HD13  | 1:A:598:ILE:HA    | 1.88                     | 0.41              |
| 1:A:53:ASP:OD1    | 1:A:54:LEU:N      | 2.53                     | 0.41              |
| 1:A:560:LEU:HB2   | 1:A:563:GLN:HG3   | 2.01                     | 0.41              |
| 1:A:985:ASP:O     | 1:A:989:ALA:CB    | 2.68                     | 0.41              |
| 1:B:206:LYS:HD2   | 1:B:207:HIS:N     | 2.35                     | 0.41              |
| 1:B:1129:VAL:HG22 | 1:C:917:TYR:HB3   | 2.01                     | 0.41              |
| 1:A:775:ASP:O     | 1:A:778:THR:OG1   | 2.29                     | 0.41              |
| 1:A:1102:TRP:HB2  | 1:A:1135:ASN:HD22 | 1.85                     | 0.41              |
| 1:B:53:ASP:OD1    | 1:B:54:LEU:N      | 2.53                     | 0.41              |
| 1:C:1106:GLN:OE1  | 1:C:1106:GLN:N    | 2.52                     | 0.41              |
| 1:B:878:LEU:O     | 1:B:882:ILE:HG12  | 2.19                     | 0.41              |
| 1:C:316:SER:OG    | 1:C:317:ASN:N     | 2.53                     | 0.41              |
| 1:C:365:TYR:HD1   | 1:C:368:LEU:HD12  | 1.85                     | 0.41              |
| 1:C:978:ASN:O     | 1:C:982:SER:OG    | 2.26                     | 0.41              |
| 1:A:142:GLY:HA3   | 1:A:156:GLU:HB2   | 2.01                     | 0.41              |
| 1:B:319:ARG:NE    | 1:C:740:MET:SD    | 2.92                     | 0.41              |
| 1:C:906:PHE:HB3   | 1:C:911:VAL:HB    | 2.02                     | 0.41              |
| 1:A:457:ARG:NH2   | 1:A:467:ASP:OD2   | 2.50                     | 0.41              |
| 1:B:1110:TYR:CZ   | 1:B:1112:PRO:HG3  | 2.55                     | 0.41              |
| 1:A:326:ILE:HD11  | 1:A:534:VAL:HB    | 2.02                     | 0.41              |
| 1:A:726:ILE:HG22  | 1:A:1061:VAL:HG12 | 2.02                     | 0.41              |
| 1:A:426:PRO:HG2   | 1:A:429:PHE:HB2   | 2.02                     | 0.41              |
| 1:A:761:THR:O     | 1:A:765:ARG:HG2   | 2.20                     | 0.41              |
| 1:B:659:SER:HB3   | 1:B:698:SER:HB2   | 2.02                     | 0.41              |
| 1:C:53:ASP:OD2    | 1:C:195:LYS:NZ    | 2.53                     | 0.41              |
| 1:C:770:ILE:HD13  | 1:C:770:ILE:HG21  | 1.84                     | 0.41              |
| 1:A:89:GLY:HA3    | 1:A:270:LEU:HD12  | 2.00                     | 0.41              |
| 1:A:212:LEU:HD13  | 1:A:217:PRO:HD3   | 2.00                     | 0.41              |
| 1:A:347:PHE:HB2   | 1:A:401:VAL:HG23  | 2.01                     | 0.41              |
| 1:A:666:ILE:HG12  | 1:A:671:CYS:HA    | 2.02                     | 0.41              |
| 1:B:276:LEU:HD12  | 1:B:301:CYS:HA    | 2.01                     | 0.41              |
| 1:B:726:ILE:HD12  | 1:B:1061:VAL:HG22 | 2.01                     | 0.41              |
| 1:B:743:CYS:HB3   | 1:B:977:LEU:HD12  | 2.03                     | 0.41              |
| 1:C:130:VAL:HB    | 1:C:168:PHE:HB3   | 2.02                     | 0.41              |
| 1:C:767:LEU:HA    | 1:C:770:ILE:HG12  | 2.02                     | 0.41              |
| 1:C:992:GLN:OE1   | 1:C:992:GLN:N     | 2.38                     | 0.41              |
| 1:A:825:LYS:NZ    | 1:A:938:LEU:O     | 2.41                     | 0.41              |
| 1:C:599:THR:HG22  | 1:C:608:VAL:HA    | 2.02                     | 0.41              |
| 1:C:963:VAL:HA    | 1:C:966:LEU:HD23  | 2.02                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:210:ILE:HD12  | 1:C:217:PRO:HG3   | 2.01                     | 0.41              |
| 1:C:805:ILE:HD12  | 1:C:878:LEU:HD11  | 2.02                     | 0.41              |
| 1:B:1033:VAL:HG22 | 1:B:1051:SER:HB2  | 2.01                     | 0.41              |
| 1:B:104:TRP:HB2   | 1:B:106:PHE:CE1   | 2.55                     | 0.41              |
| 1:C:316:SER:OG    | 1:C:317:ASN:N     | 2.54                     | 0.41              |
| 1:A:204:TYR:HD1   | 1:A:225:PRO:HA    | 1.84                     | 0.41              |
| 1:A:320:VAL:HG13  | 1:A:590:CYS:HB3   | 2.03                     | 0.41              |
| 1:A:426:PRO:HG2   | 1:A:429:PHE:HB2   | 2.01                     | 0.41              |
| 1:A:969:ASN:OD1   | 1:A:969:ASN:N     | 2.53                     | 0.41              |
| 1:A:978:ASN:O     | 1:A:982:SER:OG    | 2.36                     | 0.41              |
| 1:C:117:LEU:HB2   | 1:C:233:ILE:HD11  | 2.02                     | 0.41              |
| 1:A:418:ILE:O     | 1:A:422:ASN:HB2   | 2.19                     | 0.41              |
| 1:B:457:ARG:NE    | 1:B:459:SER:O     | 2.53                     | 0.41              |
| 1:B:970:PHE:O     | 1:B:995:ARG:NH2   | 2.53                     | 0.41              |
| 1:C:865:LEU:HD13  | 1:C:869:MET:HE2   | 2.02                     | 0.41              |
| 1:A:33:THR:OG1    | 1:A:219:GLY:O     | 2.31                     | 0.41              |
| 1:A:83:VAL:HG11   | 1:A:237:ARG:HD2   | 2.02                     | 0.41              |
| 1:C:141:LEU:HB2   | 1:C:246:ILE:HD13  | 2.02                     | 0.41              |
| 1:C:344:ALA:O     | 1:C:509:ARG:NH1   | 2.53                     | 0.41              |
| 1:C:1002:GLN:O    | 1:C:1006:THR:HG23 | 2.20                     | 0.41              |
| 1:C:1014:ARG:HE   | 1:C:1014:ARG:HB2  | 1.72                     | 0.41              |
| 1:B:1135:ASN:OD1  | 1:B:1136:THR:N    | 2.41                     | 0.41              |
| 1:C:53:ASP:OD1    | 1:C:195:LYS:NZ    | 2.47                     | 0.41              |
| 1:A:857:GLY:HA2   | 1:C:592:PHE:HZ    | 1.85                     | 0.41              |
| 1:A:1038:LYS:HE2  | 1:A:1038:LYS:HB2  | 1.83                     | 0.41              |
| 1:B:777:ASN:O     | 1:B:781:VAL:HG12  | 2.21                     | 0.41              |
| 1:C:53:ASP:HB3    | 1:C:55:PHE:HE2    | 1.85                     | 0.41              |
| 1:A:365:TYR:HD1   | 1:A:368:LEU:HD12  | 1.85                     | 0.41              |
| 1:A:776:LYS:NZ    | 1:A:780:GLU:OE1   | 2.47                     | 0.41              |
| 1:B:741:TYR:CE1   | 1:B:1004:LEU:HB2  | 2.54                     | 0.41              |
| 1:C:726:ILE:HD11  | 1:C:948:LEU:HD11  | 2.02                     | 0.41              |
| 1:C:874:THR:HG21  | 1:C:1055:SER:HB3  | 2.01                     | 0.41              |
| 1:A:344:ALA:HB3   | 1:A:347:PHE:HE1   | 1.85                     | 0.41              |
| 1:B:37:TYR:OH     | 1:B:53:ASP:OD1    | 2.37                     | 0.41              |
| 1:B:44:ARG:HD2    | 1:B:279:TYR:HE2   | 1.86                     | 0.41              |
| 1:B:317:ASN:HD22  | 1:B:317:ASN:HA    | 1.66                     | 0.41              |
| 1:C:644:GLN:NE2   | 1:C:645:THR:O     | 2.45                     | 0.41              |
| 1:C:870:ILE:O     | 1:C:874:THR:HG23  | 2.20                     | 0.41              |
| 1:A:52:GLN:OE1    | 1:A:274:THR:OG1   | 2.26                     | 0.41              |
| 1:A:102:ARG:NH1   | 1:A:121:ASN:O     | 2.51                     | 0.41              |
| 1:A:756:TYR:HE2   | 1:A:997:ILE:HD12  | 1.85                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:914:ASN:N     | 1:B:914:ASN:OD1   | 2.53                     | 0.41              |
| 1:B:1009:THR:O    | 1:B:1013:ILE:HG13 | 2.19                     | 0.41              |
| 1:C:901:GLN:HE22  | 1:C:905:ARG:HH21  | 1.68                     | 0.41              |
| 1:A:1005:GLN:O    | 1:A:1009:THR:HG23 | 2.20                     | 0.41              |
| 1:B:710:ASN:OD1   | 1:B:710:ASN:N     | 2.46                     | 0.41              |
| 1:B:762:GLN:HA    | 1:B:765:ARG:NH1   | 2.36                     | 0.41              |
| 1:B:878:LEU:O     | 1:B:882:ILE:HG12  | 2.20                     | 0.41              |
| 1:A:790:LYS:HE3   | 1:C:702:GLU:HG3   | 2.01                     | 0.41              |
| 1:A:931:ILE:HA    | 1:A:934:ILE:HG22  | 2.02                     | 0.41              |
| 1:C:287:ASP:HB3   | 1:C:306:PHE:HE1   | 1.84                     | 0.41              |
| 1:C:302:THR:HG21  | 1:C:315:THR:HA    | 2.02                     | 0.41              |
| 1:B:332:ILE:HG12  | 1:B:524:VAL:HG13  | 2.03                     | 0.41              |
| 1:A:1023:ASN:O    | 1:A:1027:THR:OG1  | 2.31                     | 0.41              |
| 1:A:1155:TYR:O    | 1:A:1159:HIS:ND1  | 2.34                     | 0.41              |
| 1:B:206:LYS:HB2   | 1:B:223:LEU:HA    | 2.02                     | 0.41              |
| 1:C:89:GLY:HA3    | 1:C:270:LEU:HD12  | 2.01                     | 0.41              |
| 1:A:1050:MET:HG2  | 1:A:1065:VAL:HB   | 2.02                     | 0.41              |
| 1:A:312:ILE:HD11  | 1:A:596:SER:HB3   | 2.03                     | 0.41              |
| 1:A:902:MET:HB2   | 1:A:916:LEU:HD11  | 2.02                     | 0.41              |
| 1:C:906:PHE:HB3   | 1:C:911:VAL:HB    | 2.02                     | 0.41              |
| 1:C:1002:GLN:HA   | 1:C:1005:GLN:HG3  | 2.01                     | 0.41              |
| 1:B:37:TYR:OH     | 1:B:53:ASP:OD1    | 2.38                     | 0.41              |
| 1:B:357:ARG:HE    | 1:B:394:ASN:ND2   | 2.18                     | 0.41              |
| 1:B:809:PRO:HA    | 1:B:814:LYS:HE3   | 2.03                     | 0.41              |
| 1:B:993:ILE:O     | 1:B:997:ILE:HG12  | 2.20                     | 0.41              |
| 1:C:426:PRO:HG2   | 1:C:429:PHE:HB2   | 2.03                     | 0.41              |
| 1:A:578:ASP:OD2   | 1:A:581:THR:OG1   | 2.32                     | 0.41              |
| 1:B:332:ILE:HG12  | 1:B:524:VAL:HG13  | 2.01                     | 0.41              |
| 1:B:1051:SER:HG   | 1:B:1064:HIS:CE1  | 2.33                     | 0.41              |
| 1:B:1128:VAL:H    | 1:B:1128:VAL:HG12 | 1.62                     | 0.41              |
| 1:A:224:GLU:HA    | 1:A:225:PRO:HD3   | 1.97                     | 0.41              |
| 1:B:594:GLY:HA3   | 1:B:613:GLN:HE21  | 1.85                     | 0.41              |
| 1:C:1024:LEU:HD11 | 1:C:1028:LYS:HE2  | 2.02                     | 0.41              |
| 1:C:1081:ILE:HG12 | 1:C:1095:PHE:CE2  | 2.56                     | 0.41              |
| 1:A:543:PHE:O     | 1:A:545:GLY:N     | 2.48                     | 0.41              |
| 1:B:456:PHE:CE2   | 1:B:475:ALA:HA    | 2.56                     | 0.41              |
| 1:B:985:ASP:O     | 1:B:989:ALA:HB2   | 2.21                     | 0.41              |
| 1:B:1084:ASP:OD1  | 1:B:1086:LYS:HG2  | 2.21                     | 0.41              |
| 1:C:104:TRP:CD1   | 1:C:240:THR:HA    | 2.55                     | 0.41              |
| 1:C:537:LYS:HG3   | 1:C:539:VAL:HG13  | 2.02                     | 0.41              |
| 1:C:947:LYS:HE2   | 1:C:947:LYS:HB2   | 1.91                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:365:TYR:HD1   | 1:A:368:LEU:HD12  | 1.85                     | 0.41              |
| 1:C:869:MET:HB2   | 1:C:869:MET:HE2   | 1.78                     | 0.41              |
| 1:B:376:THR:HB    | 1:B:435:ALA:HB3   | 2.03                     | 0.41              |
| 1:B:1103:PHE:CD2  | 1:B:1112:PRO:HB3  | 2.54                     | 0.41              |
| 1:C:370:ASN:HD22  | 1:C:384:PRO:HD2   | 1.86                     | 0.41              |
| 1:A:295:PRO:O     | 1:A:299:THR:HG23  | 2.21                     | 0.41              |
| 1:C:787:GLN:OE1   | 1:C:787:GLN:N     | 2.54                     | 0.41              |
| 1:A:766:ALA:O     | 1:A:770:ILE:HG13  | 2.20                     | 0.41              |
| 1:B:1015:ALA:HA   | 1:B:1018:ILE:HG22 | 2.03                     | 0.41              |
| 1:B:1107:ARG:NH1  | 1:C:904:TYR:HB2   | 2.35                     | 0.41              |
| 1:A:203:ILE:HD13  | 1:A:227:VAL:HG13  | 2.01                     | 0.41              |
| 1:B:38:TYR:HE2    | 1:B:224:GLU:HG2   | 1.86                     | 0.41              |
| 1:C:720:ILE:HD11  | 1:C:923:ILE:HD12  | 2.01                     | 0.41              |
| 1:B:35:GLY:HA3    | 1:B:56:LEU:HB3    | 2.03                     | 0.41              |
| 1:B:131:CYS:HB2   | 1:B:133:PHE:CE1   | 2.56                     | 0.41              |
| 1:A:1129:VAL:HG13 | 1:A:1132:ILE:HB   | 2.02                     | 0.41              |
| 1:B:323:THR:OG1   | 1:B:324:GLU:OE2   | 2.34                     | 0.41              |
| 1:B:361:CYS:HB3   | 1:B:524:VAL:O     | 2.20                     | 0.41              |
| 1:C:818:ILE:O     | 1:C:822:LEU:HG    | 2.20                     | 0.41              |
| 1:A:365:TYR:O     | 1:A:369:TYR:HB2   | 2.20                     | 0.41              |
| 1:A:699:LEU:HB2   | 1:B:788:ILE:HD11  | 2.02                     | 0.41              |
| 1:B:666:ILE:HD11  | 1:B:672:ALA:HB2   | 2.03                     | 0.41              |
| 1:C:328:ARG:NH2   | 1:C:533:LEU:H     | 2.18                     | 0.41              |
| 1:B:108:THR:OG1   | 1:B:234:ASN:O     | 2.38                     | 0.41              |
| 1:B:280:ASN:OD1   | 1:B:284:THR:N     | 2.54                     | 0.41              |
| 1:C:200:TYR:CE1   | 1:C:230:PRO:HB3   | 2.54                     | 0.41              |
| 1:A:344:ALA:HB3   | 1:A:347:PHE:HE1   | 1.85                     | 0.41              |
| 1:A:569:ILE:H     | 1:A:569:ILE:HG13  | 1.72                     | 0.41              |
| 1:B:783:ALA:HB2   | 1:B:873:TYR:CE2   | 2.55                     | 0.41              |
| 1:B:1002:GLN:O    | 1:B:1006:THR:HG23 | 2.21                     | 0.41              |
| 1:A:581:THR:OG1   | 1:A:583:GLU:OE2   | 2.38                     | 0.41              |
| 1:B:318:PHE:N     | 1:B:593:GLY:O     | 2.53                     | 0.41              |
| 1:C:931:ILE:HA    | 1:C:934:ILE:HG22  | 2.01                     | 0.41              |
| 1:A:204:TYR:HD2   | 1:A:225:PRO:HA    | 1.85                     | 0.41              |
| 1:A:589:PRO:HG2   | 1:B:855:PHE:O     | 2.21                     | 0.41              |
| 1:C:873:TYR:O     | 1:C:877:LEU:HG    | 2.20                     | 0.41              |
| 1:C:1025:ALA:O    | 1:C:1029:MET:HB2  | 2.21                     | 0.41              |
| 1:A:1116:THR:HG22 | 1:A:1138:TYR:HD2  | 1.85                     | 0.41              |
| 1:A:1129:VAL:HG13 | 1:A:1132:ILE:HB   | 2.02                     | 0.41              |
| 1:B:26:PRO:HA     | 1:B:65:PHE:HE1    | 1.86                     | 0.41              |
| 1:C:108:THR:HA    | 1:C:236:THR:H     | 1.86                     | 0.41              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:B:52:GLN:NE2   | 1:B:273:ARG:O     | 2.54                     | 0.41              |
| 1:C:103:GLY:HA3  | 1:C:120:VAL:HA    | 2.01                     | 0.41              |
| 1:C:715:PRO:HA   | 1:C:1072:GLU:HA   | 2.02                     | 0.41              |
| 1:C:1002:GLN:O   | 1:C:1006:THR:HG23 | 2.21                     | 0.41              |
| 1:C:990:GLU:HA   | 1:C:993:ILE:HG22  | 2.03                     | 0.41              |
| 1:A:598:ILE:HA   | 1:A:598:ILE:HD13  | 1.85                     | 0.41              |
| 1:B:48:LEU:HB3   | 1:B:276:LEU:HD21  | 2.02                     | 0.41              |
| 1:B:86:PHE:HB2   | 1:B:238:PHE:HD1   | 1.84                     | 0.41              |
| 1:B:484:LYS:HD2  | 1:B:490:PHE:HB2   | 2.03                     | 0.41              |
| 1:C:189:LEU:HD12 | 1:C:189:LEU:HA    | 1.93                     | 0.41              |
| 1:A:212:LEU:HD13 | 1:A:217:PRO:HD3   | 2.02                     | 0.41              |
| 1:A:742:ILE:O    | 1:A:1000:ARG:NH1  | 2.53                     | 0.41              |
| 1:C:287:ASP:HB3  | 1:C:306:PHE:HE1   | 1.86                     | 0.41              |
| 1:C:699:LEU:HD23 | 1:C:699:LEU:HA    | 1.91                     | 0.41              |
| 1:A:1005:GLN:HA  | 1:A:1008:VAL:HG12 | 2.03                     | 0.41              |
| 1:B:182:LYS:HD3  | 1:B:187:LYS:HD2   | 2.03                     | 0.41              |
| 1:B:901:GLN:OE1  | 1:B:905:ARG:NE    | 2.54                     | 0.41              |
| 1:B:1084:ASP:OD1 | 1:B:1086:LYS:HG2  | 2.21                     | 0.41              |
| 1:A:96:GLU:OE1   | 1:A:99:ASN:ND2    | 2.39                     | 0.41              |
| 1:A:205:SER:N    | 1:A:224:GLU:O     | 2.39                     | 0.41              |
| 1:B:296:LEU:HG   | 1:B:300:LYS:HE3   | 2.03                     | 0.41              |
| 1:B:756:TYR:HB3  | 1:B:759:PHE:HE2   | 1.85                     | 0.41              |
| 1:C:53:ASP:OD1   | 1:C:54:LEU:N      | 2.54                     | 0.41              |
| 1:A:813:SER:OG   | 1:A:868:GLU:OE2   | 2.30                     | 0.41              |
| 1:B:774:GLN:HA   | 1:B:777:ASN:OD1   | 2.20                     | 0.41              |
| 1:C:999:GLY:O    | 1:C:1002:GLN:HG3  | 2.20                     | 0.41              |
| 1:A:326:ILE:HD12 | 1:A:539:VAL:HG21  | 2.03                     | 0.41              |
| 1:B:430:THR:HG22 | 1:C:983:ARG:CZ    | 2.50                     | 0.41              |
| 1:B:598:ILE:HB   | 1:B:609:ALA:HB3   | 2.01                     | 0.41              |
| 1:B:874:THR:HG21 | 1:B:1055:SER:HB2  | 2.02                     | 0.41              |
| 1:B:1086:LYS:HA  | 1:B:1125:ASN:HA   | 2.02                     | 0.41              |
| 1:B:567:ARG:HH12 | 1:C:42:VAL:HG21   | 1.86                     | 0.41              |
| 1:C:351:TYR:HD2  | 1:C:468:ILE:HG22  | 1.86                     | 0.41              |
| 1:C:778:THR:O    | 1:C:782:PHE:HB2   | 2.20                     | 0.41              |
| 1:A:727:LEU:HD12 | 1:A:1025:ALA:HB2  | 2.02                     | 0.41              |
| 1:A:737:ASP:OD1  | 1:C:317:ASN:ND2   | 2.52                     | 0.41              |
| 1:B:108:THR:OG1  | 1:B:234:ASN:O     | 2.39                     | 0.41              |
| 1:B:564:GLN:HA   | 1:B:577:ARG:HD2   | 2.03                     | 0.41              |
| 1:B:113:LYS:HG3  | 1:B:114:THR:HG23  | 2.03                     | 0.41              |
| 1:B:189:LEU:HD12 | 1:B:189:LEU:HA    | 1.83                     | 0.41              |
| 1:B:295:PRO:HG2  | 1:B:608:VAL:HG11  | 2.02                     | 0.41              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:C:365:TYR:HD1  | 1:C:368:LEU:HD12  | 1.85                     | 0.41              |
| 1:A:141:LEU:HD13 | 1:A:154:GLU:HG3   | 2.03                     | 0.41              |
| 1:B:68:ILE:HG12  | 1:B:78:ARG:HB2    | 2.02                     | 0.41              |
| 1:B:877:LEU:O    | 1:B:881:THR:HG23  | 2.21                     | 0.41              |
| 1:C:878:LEU:O    | 1:C:882:ILE:HG22  | 2.21                     | 0.41              |
| 1:B:159:VAL:HG12 | 1:B:160:TYR:CD2   | 2.56                     | 0.41              |
| 1:C:85:PRO:HG2   | 1:C:269:TYR:HE1   | 1.85                     | 0.41              |
| 1:C:819:GLU:HA   | 1:C:822:LEU:HG    | 2.02                     | 0.41              |
| 1:C:131:CYS:HB2  | 1:C:133:PHE:CE1   | 2.56                     | 0.41              |
| 1:C:1004:LEU:O   | 1:C:1008:VAL:HG13 | 2.21                     | 0.41              |
| 1:A:858:LEU:HD13 | 1:A:959:LEU:HD12  | 2.01                     | 0.41              |
| 1:B:330:PRO:HD3  | 1:B:579:PRO:HB2   | 2.02                     | 0.41              |
| 1:C:454:ARG:NH2  | 1:C:469:SER:O     | 2.51                     | 0.41              |
| 1:C:777:ASN:HB3  | 1:C:1022:ALA:HB1  | 2.02                     | 0.41              |
| 1:A:611:LEU:HD22 | 1:A:666:ILE:HG23  | 2.02                     | 0.41              |
| 1:B:699:LEU:HD11 | 1:C:869:MET:HG2   | 2.03                     | 0.41              |
| 1:A:666:ILE:HD13 | 1:A:666:ILE:HA    | 1.86                     | 0.41              |
| 1:B:396:TYR:HB2  | 1:B:514:SER:HB2   | 2.02                     | 0.41              |
| 1:A:374:PHE:HB2  | 1:A:436:TRP:HB3   | 2.02                     | 0.41              |
| 1:C:206:LYS:HB3  | 1:C:223:LEU:HD22  | 2.03                     | 0.41              |
| 1:C:870:ILE:O    | 1:C:874:THR:HG23  | 2.20                     | 0.41              |
| 1:A:1049:LEU:HB2 | 1:A:1065:VAL:HG12 | 2.02                     | 0.41              |
| 1:B:613:GLN:H    | 1:B:613:GLN:HG2   | 1.69                     | 0.41              |
| 1:B:874:THR:O    | 1:B:878:LEU:HD23  | 2.21                     | 0.41              |
| 1:B:1091:ARG:NH1 | 1:B:1120:THR:O    | 2.52                     | 0.41              |
| 1:B:882:ILE:HD12 | 1:B:882:ILE:HA    | 1.84                     | 0.41              |
| 1:C:426:PRO:HG2  | 1:C:429:PHE:HB2   | 2.03                     | 0.41              |
| 1:C:537:LYS:HG3  | 1:C:539:VAL:HG13  | 2.01                     | 0.41              |
| 1:B:1028:LYS:O   | 1:B:1032:CYS:HB2  | 2.21                     | 0.41              |
| 1:B:1103:PHE:CD2 | 1:B:1112:PRO:HB3  | 2.55                     | 0.41              |
| 1:C:212:LEU:HD22 | 1:C:217:PRO:HD3   | 2.03                     | 0.41              |
| 1:C:295:PRO:HG2  | 1:C:608:VAL:HG11  | 2.02                     | 0.41              |
| 1:A:1001:LEU:O   | 1:A:1005:GLN:HG3  | 2.21                     | 0.41              |
| 1:A:1035:GLY:HA3 | 1:C:1040:VAL:HG21 | 2.02                     | 0.41              |
| 1:B:101:ILE:HA   | 1:B:246:ILE:HG21  | 2.02                     | 0.41              |
| 1:C:34:ARG:HD3   | 1:C:34:ARG:HA     | 1.84                     | 0.41              |
| 1:C:564:GLN:HG2  | 1:C:565:PHE:CD2   | 2.56                     | 0.41              |
| 1:A:52:GLN:OE1   | 1:A:274:THR:OG1   | 2.23                     | 0.41              |
| 1:A:870:ILE:O    | 1:A:874:THR:HG23  | 2.20                     | 0.41              |
| 1:C:731:MET:H    | 1:C:774:GLN:NE2   | 2.19                     | 0.41              |
| 1:A:105:ILE:HB   | 1:A:241:LEU:HD21  | 2.02                     | 0.41              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:699:LEU:HB2  | 1:B:788:ILE:HD11  | 2.03                     | 0.41              |
| 1:C:189:LEU:HD13 | 1:C:189:LEU:HA    | 1.89                     | 0.41              |
| 1:A:329:PHE:HD2  | 1:A:528:LYS:HB3   | 1.85                     | 0.41              |
| 1:C:108:THR:OG1  | 1:C:234:ASN:O     | 2.38                     | 0.41              |
| 1:A:202:LYS:HB3  | 1:A:204:TYR:CE2   | 2.56                     | 0.41              |
| 1:A:212:LEU:HD13 | 1:A:217:PRO:HD3   | 2.02                     | 0.41              |
| 1:A:426:PRO:HG2  | 1:A:429:PHE:HB2   | 2.03                     | 0.41              |
| 1:C:819:GLU:OE2  | 1:C:1055:SER:N    | 2.48                     | 0.41              |
| 1:A:452:LEU:HD23 | 1:A:492:LEU:HB3   | 2.03                     | 0.41              |
| 1:B:362:VAL:HG21 | 1:B:526:GLY:H     | 1.84                     | 0.41              |
| 1:B:541:PHE:CZ   | 1:B:587:ILE:HD12  | 2.55                     | 0.41              |
| 1:C:931:ILE:HA   | 1:C:934:ILE:HG22  | 2.02                     | 0.41              |
| 1:C:975:SER:O    | 1:C:1000:ARG:NH2  | 2.54                     | 0.41              |
| 1:B:289:VAL:HG11 | 1:B:300:LYS:HD2   | 2.01                     | 0.41              |
| 1:B:1002:GLN:O   | 1:B:1006:THR:HG23 | 2.21                     | 0.41              |
| 1:C:902:MET:HB3  | 1:C:916:LEU:HD21  | 2.02                     | 0.41              |
| 1:A:765:ARG:HD3  | 1:C:957:GLN:NE2   | 2.35                     | 0.41              |
| 1:B:659:SER:HB3  | 1:B:698:SER:HB2   | 2.03                     | 0.41              |
| 1:B:1091:ARG:NH1 | 1:B:1118:ASP:O    | 2.53                     | 0.41              |
| 1:A:212:LEU:HD22 | 1:A:217:PRO:HD3   | 2.03                     | 0.41              |
| 1:C:271:GLN:HE22 | 1:C:273:ARG:NH1   | 2.18                     | 0.41              |
| 1:C:273:ARG:NE   | 1:C:290:ASP:OD2   | 2.52                     | 0.41              |
| 1:C:330:PRO:HB3  | 1:C:580:GLN:HA    | 2.02                     | 0.41              |
| 1:A:295:PRO:HG2  | 1:A:608:VAL:HG11  | 2.02                     | 0.41              |
| 1:A:1110:TYR:CZ  | 1:A:1112:PRO:HG3  | 2.56                     | 0.41              |
| 1:B:35:GLY:HA3   | 1:B:56:LEU:HB3    | 2.03                     | 0.41              |
| 1:A:212:LEU:HD13 | 1:A:217:PRO:HD3   | 2.01                     | 0.41              |
| 1:A:328:ARG:NH1  | 1:A:531:THR:O     | 2.54                     | 0.41              |
| 1:B:36:VAL:HG21  | 1:B:220:PHE:CE1   | 2.56                     | 0.41              |
| 1:B:443:SER:HB3  | 1:B:499:PRO:HG3   | 2.02                     | 0.41              |
| 1:B:726:ILE:HD12 | 1:B:1061:VAL:HG22 | 2.03                     | 0.41              |
| 1:C:537:LYS:HG3  | 1:C:539:VAL:HG13  | 2.03                     | 0.41              |
| 1:C:994:ASP:O    | 1:C:998:THR:HG23  | 2.20                     | 0.41              |
| 1:C:714:ILE:HD13 | 1:C:714:ILE:HA    | 1.90                     | 0.41              |
| 1:A:562:PHE:HZ   | 1:B:38:TYR:HD1    | 1.69                     | 0.41              |
| 1:A:780:GLU:OE1  | 1:A:1019:ARG:NH2  | 2.53                     | 0.41              |
| 1:A:906:PHE:CE2  | 1:A:916:LEU:HD13  | 2.56                     | 0.41              |
| 1:B:933:LYS:HB2  | 1:B:933:LYS:HE2   | 1.88                     | 0.41              |
| 1:C:906:PHE:CD2  | 1:C:916:LEU:HG    | 2.56                     | 0.41              |
| 1:C:1086:LYS:HG3 | 1:C:1122:VAL:HG13 | 2.03                     | 0.41              |
| 1:A:38:TYR:HE2   | 1:A:224:GLU:HG2   | 1.85                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:901:GLN:HE21  | 1:B:905:ARG:NE    | 2.19                     | 0.41              |
| 1:C:231:ILE:HG22  | 1:C:233:ILE:HG23  | 2.03                     | 0.41              |
| 1:B:702:GLU:HA    | 1:C:788:ILE:HB    | 2.02                     | 0.41              |
| 1:C:52:GLN:OE1    | 1:C:274:THR:OG1   | 2.38                     | 0.41              |
| 1:A:598:ILE:HG23  | 1:A:664:ILE:HD11  | 2.02                     | 0.41              |
| 1:A:888:PHE:HE1   | 1:A:1034:LEU:HA   | 1.85                     | 0.41              |
| 1:B:48:LEU:HB3    | 1:B:276:LEU:HD11  | 2.02                     | 0.41              |
| 1:A:1081:ILE:HG12 | 1:A:1095:PHE:CE2  | 2.56                     | 0.41              |
| 1:C:578:ASP:OD2   | 1:C:581:THR:OG1   | 2.36                     | 0.41              |
| 1:C:1002:GLN:O    | 1:C:1006:THR:HG23 | 2.20                     | 0.41              |
| 1:A:994:ASP:O     | 1:A:998:THR:HG23  | 2.21                     | 0.41              |
| 1:B:194:PHE:HB3   | 1:B:201:PHE:CZ    | 2.56                     | 0.41              |
| 1:B:298:GLU:HB3   | 1:B:315:THR:HB    | 2.01                     | 0.41              |
| 1:A:41:LYS:NZ     | 1:C:562:PHE:O     | 2.31                     | 0.41              |
| 1:C:141:LEU:HB2   | 1:C:246:ILE:HD13  | 2.02                     | 0.41              |
| 1:C:273:ARG:HD3   | 1:C:273:ARG:HA    | 1.91                     | 0.41              |
| 1:C:365:TYR:HD1   | 1:C:368:LEU:HD12  | 1.85                     | 0.41              |
| 1:C:977:LEU:O     | 1:C:981:LEU:HG    | 2.21                     | 0.41              |
| 1:B:361:CYS:HB3   | 1:B:524:VAL:O     | 2.20                     | 0.41              |
| 1:C:31:SER:HB2    | 1:C:34:ARG:HB2    | 2.03                     | 0.41              |
| 1:B:216:LEU:HD21  | 1:B:266:TYR:HE2   | 1.86                     | 0.41              |
| 1:B:314:GLN:OE1   | 1:B:315:THR:N     | 2.53                     | 0.41              |
| 1:C:802:PHE:HE1   | 1:C:882:ILE:HD12  | 1.86                     | 0.41              |
| 1:C:1005:GLN:O    | 1:C:1009:THR:HG23 | 2.21                     | 0.41              |
| 1:B:566:GLY:HA2   | 1:C:43:PHE:HB3    | 2.03                     | 0.41              |
| 1:C:326:ILE:HD12  | 1:C:539:VAL:HG11  | 2.03                     | 0.41              |
| 1:A:117:LEU:HB2   | 1:A:233:ILE:HD11  | 2.02                     | 0.41              |
| 1:A:355:ARG:HD2   | 1:A:396:TYR:HB3   | 2.03                     | 0.41              |
| 1:B:743:CYS:HB3   | 1:B:977:LEU:HD12  | 2.03                     | 0.41              |
| 1:B:1107:ARG:HD2  | 1:C:904:TYR:OH    | 2.21                     | 0.41              |
| 1:C:66:HIS:HA     | 1:C:264:ALA:HA    | 2.02                     | 0.41              |
| 1:B:26:PRO:HA     | 1:B:65:PHE:HE1    | 1.86                     | 0.41              |
| 1:C:334:ASN:OD1   | 1:C:335:LEU:N     | 2.44                     | 0.41              |
| 1:C:362:VAL:HG21  | 1:C:524:VAL:HB    | 2.02                     | 0.41              |
| 1:A:897:PRO:HD2   | 1:C:712:ILE:HD13  | 2.03                     | 0.41              |
| 1:B:443:SER:HB3   | 1:B:499:PRO:HG3   | 2.01                     | 0.41              |
| 1:B:702:GLU:HA    | 1:C:788:ILE:HB    | 2.01                     | 0.41              |
| 1:B:882:ILE:HD13  | 1:B:898:PHE:HE2   | 1.86                     | 0.41              |
| 1:C:870:ILE:O     | 1:C:874:THR:HG23  | 2.21                     | 0.41              |
| 1:A:532:ASN:OD1   | 1:A:533:LEU:N     | 2.54                     | 0.41              |
| 1:A:858:LEU:HD13  | 1:A:959:LEU:HD12  | 2.02                     | 0.41              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:B:314:GLN:OE1  | 1:B:315:THR:N     | 2.54                     | 0.41              |
| 1:C:40:ASP:OD1   | 1:C:41:LYS:N      | 2.52                     | 0.41              |
| 1:C:1008:VAL:O   | 1:C:1012:LEU:HD22 | 2.20                     | 0.41              |
| 1:B:960:ASN:O    | 1:B:963:VAL:HG12  | 2.21                     | 0.41              |
| 1:C:129:LYS:HG2  | 1:C:133:PHE:HZ    | 1.86                     | 0.41              |
| 1:A:592:PHE:CZ   | 1:B:857:GLY:HA2   | 2.55                     | 0.41              |
| 1:A:946:GLY:HA2  | 1:A:949:GLN:HB3   | 2.03                     | 0.41              |
| 1:A:1030:SER:HA  | 1:A:1034:LEU:HD23 | 2.03                     | 0.41              |
| 1:B:172:SER:OG   | 1:B:173:GLN:N     | 2.53                     | 0.41              |
| 1:C:329:PHE:HD2  | 1:C:528:LYS:HB3   | 1.85                     | 0.41              |
| 1:A:92:PHE:HE2   | 1:A:94:SER:HB2    | 1.86                     | 0.41              |
| 1:B:104:TRP:HE3  | 1:B:106:PHE:HE1   | 1.69                     | 0.41              |
| 1:B:738:CYS:HB2  | 1:B:760:CYS:HB3   | 1.74                     | 0.41              |
| 1:A:318:PHE:HZ   | 1:A:615:VAL:HG21  | 1.86                     | 0.41              |
| 1:C:365:TYR:HD1  | 1:C:368:LEU:HD12  | 1.86                     | 0.41              |
| 1:C:774:GLN:HA   | 1:C:777:ASN:ND2   | 2.36                     | 0.41              |
| 1:A:992:GLN:OE1  | 1:A:995:ARG:NH1   | 2.53                     | 0.41              |
| 1:C:770:ILE:HD12 | 1:C:1015:ALA:HB2  | 2.01                     | 0.41              |
| 1:C:742:ILE:HD11 | 1:C:1001:LEU:HD23 | 2.02                     | 0.41              |
| 1:C:805:ILE:HD12 | 1:C:805:ILE:HA    | 1.81                     | 0.41              |
| 1:A:913:GLN:HE21 | 1:C:1089:PHE:HB3  | 1.85                     | 0.41              |
| 1:A:1110:TYR:CZ  | 1:A:1112:PRO:HG3  | 2.56                     | 0.41              |
| 1:B:783:ALA:HB2  | 1:B:873:TYR:CE2   | 2.56                     | 0.41              |
| 1:B:1135:ASN:OD1 | 1:B:1136:THR:N    | 2.42                     | 0.41              |
| 1:A:1010:GLN:HB3 | 1:A:1014:ARG:HH22 | 1.85                     | 0.41              |
| 1:B:423:TYR:OH   | 1:B:514:SER:OG    | 2.36                     | 0.41              |
| 1:B:1135:ASN:OD1 | 1:B:1136:THR:N    | 2.41                     | 0.41              |
| 1:C:362:VAL:HG21 | 1:C:524:VAL:HB    | 2.02                     | 0.41              |
| 1:C:870:ILE:O    | 1:C:874:THR:HG23  | 2.21                     | 0.41              |
| 1:C:1002:GLN:HA  | 1:C:1005:GLN:HG3  | 2.03                     | 0.41              |
| 1:C:1028:LYS:HE2 | 1:C:1028:LYS:HB2  | 1.86                     | 0.41              |
| 1:B:53:ASP:HB3   | 1:B:55:PHE:HE2    | 1.86                     | 0.41              |
| 1:C:212:LEU:HD13 | 1:C:217:PRO:HD3   | 2.03                     | 0.41              |
| 1:A:90:VAL:HG11  | 1:A:238:PHE:CE2   | 2.56                     | 0.41              |
| 1:B:51:THR:HG23  | 1:B:55:PHE:HZ     | 1.84                     | 0.41              |
| 1:B:131:CYS:HB2  | 1:B:133:PHE:HE2   | 1.85                     | 0.41              |
| 1:B:410:ILE:HG23 | 1:B:425:LEU:HD11  | 2.02                     | 0.41              |
| 1:B:697:MET:HE1  | 1:C:864:LEU:HD23  | 2.03                     | 0.41              |
| 1:C:599:THR:HG22 | 1:C:608:VAL:HA    | 2.02                     | 0.41              |
| 1:C:1049:LEU:HB2 | 1:C:1065:VAL:HG23 | 2.03                     | 0.41              |
| 1:A:357:ARG:HG3  | 1:A:396:TYR:HE1   | 1.86                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:1119:ASN:OD1  | 1:B:1119:ASN:N    | 2.54                     | 0.41              |
| 1:C:96:GLU:OE1    | 1:C:99:ASN:ND2    | 2.43                     | 0.41              |
| 1:A:949:GLN:HA    | 1:A:952:VAL:HG22  | 2.02                     | 0.41              |
| 1:B:374:PHE:HB2   | 1:B:377:PHE:CE1   | 2.56                     | 0.41              |
| 1:B:490:PHE:HA    | 1:B:491:PRO:HD3   | 1.97                     | 0.41              |
| 1:B:874:THR:O     | 1:B:878:LEU:HD23  | 2.20                     | 0.41              |
| 1:A:825:LYS:HD2   | 1:A:945:LEU:HD12  | 2.03                     | 0.41              |
| 1:B:96:GLU:OE1    | 1:B:100:ILE:N     | 2.54                     | 0.41              |
| 1:B:291:CYS:O     | 1:B:297:SER:OG    | 2.37                     | 0.41              |
| 1:B:374:PHE:HB2   | 1:B:377:PHE:CE1   | 2.56                     | 0.41              |
| 1:B:393:THR:HG21  | 1:B:518:LEU:HB2   | 2.02                     | 0.41              |
| 1:B:870:ILE:O     | 1:B:874:THR:HG23  | 2.21                     | 0.41              |
| 1:C:543:PHE:HD2   | 1:C:576:VAL:HG11  | 1.86                     | 0.41              |
| 1:C:737:ASP:OD1   | 1:C:740:MET:HB3   | 2.21                     | 0.41              |
| 1:A:931:ILE:HA    | 1:A:934:ILE:HG22  | 2.02                     | 0.41              |
| 1:B:278:LYS:HB2   | 1:B:306:PHE:CE1   | 2.56                     | 0.41              |
| 1:B:1092:GLU:OE2  | 1:B:1107:ARG:NH1  | 2.54                     | 0.41              |
| 1:C:1104:VAL:HG23 | 1:C:1115:ILE:HG12 | 2.02                     | 0.41              |
| 1:A:534:VAL:HG11  | 1:A:537:LYS:HE3   | 2.02                     | 0.41              |
| 1:B:131:CYS:HB2   | 1:B:133:PHE:HE1   | 1.86                     | 0.41              |
| 1:B:870:ILE:O     | 1:B:874:THR:HG23  | 2.21                     | 0.41              |
| 1:B:877:LEU:O     | 1:B:881:THR:HG23  | 2.21                     | 0.41              |
| 1:C:91:TYR:OH     | 1:C:191:GLU:OE2   | 2.35                     | 0.41              |
| 1:A:383:SER:HA    | 1:C:487:ASN:ND2   | 2.36                     | 0.41              |
| 1:B:1005:GLN:HA   | 1:B:1008:VAL:HG22 | 2.03                     | 0.41              |
| 1:C:422:ASN:HD21  | 1:C:453:TYR:HB2   | 1.86                     | 0.41              |
| 1:A:598:ILE:HD13  | 1:A:598:ILE:HA    | 1.76                     | 0.41              |
| 1:A:656:VAL:HG12  | 1:A:658:ASN:H     | 1.86                     | 0.41              |
| 1:A:961:THR:HA    | 1:A:964:LYS:HE3   | 2.03                     | 0.41              |
| 1:C:426:PRO:HG2   | 1:C:429:PHE:HB2   | 2.03                     | 0.41              |
| 1:A:302:THR:HG21  | 1:A:315:THR:HG22  | 2.02                     | 0.41              |
| 1:B:280:ASN:OD1   | 1:B:284:THR:N     | 2.54                     | 0.41              |
| 1:C:741:TYR:CD2   | 1:C:1004:LEU:HD22 | 2.56                     | 0.41              |
| 1:C:971:GLY:HA3   | 1:C:995:ARG:HE    | 1.86                     | 0.41              |
| 1:A:90:VAL:HG11   | 1:A:238:PHE:CE2   | 2.56                     | 0.41              |
| 1:B:113:LYS:HG3   | 1:B:114:THR:HG23  | 2.03                     | 0.41              |
| 1:B:314:GLN:HE22  | 1:B:595:VAL:N     | 2.18                     | 0.41              |
| 1:A:92:PHE:HE1    | 1:A:94:SER:HB2    | 1.86                     | 0.41              |
| 1:B:972:ALA:HA    | 1:B:995:ARG:HH21  | 1.85                     | 0.41              |
| 1:B:1015:ALA:HA   | 1:B:1018:ILE:HG22 | 2.03                     | 0.41              |
| 1:C:738:CYS:O     | 1:C:742:ILE:HG22  | 2.21                     | 0.41              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:C:800:PHE:HD1  | 1:C:927:PHE:HD1   | 1.68                     | 0.41              |
| 1:C:988:GLU:OE1  | 1:C:988:GLU:N     | 2.43                     | 0.41              |
| 1:A:57:PRO:HG3   | 1:A:273:ARG:HE    | 1.86                     | 0.41              |
| 1:A:426:PRO:HG2  | 1:A:429:PHE:HB2   | 2.03                     | 0.41              |
| 1:A:668:ALA:H    | 1:B:864:LEU:HA    | 1.86                     | 0.41              |
| 1:B:1002:GLN:O   | 1:B:1006:THR:HG23 | 2.21                     | 0.41              |
| 1:C:278:LYS:HE2  | 1:C:287:ASP:HB3   | 2.03                     | 0.41              |
| 1:C:741:TYR:HE2  | 1:C:1004:LEU:HD13 | 1.86                     | 0.41              |
| 1:A:18:PHE:HB2   | 1:A:21:ARG:HB2    | 2.02                     | 0.41              |
| 1:A:201:PHE:HB2  | 1:A:229:LEU:O     | 2.21                     | 0.41              |
| 1:B:774:GLN:HA   | 1:B:777:ASN:ND2   | 2.36                     | 0.41              |
| 1:B:969:ASN:HB3  | 1:C:755:GLN:NE2   | 2.36                     | 0.41              |
| 1:B:1091:ARG:NH1 | 1:B:1118:ASP:O    | 2.52                     | 0.41              |
| 1:A:703:ASN:HB3  | 1:B:787:GLN:HE21  | 1.85                     | 0.41              |
| 1:B:730:SER:HB3  | 1:B:777:ASN:HD21  | 1.85                     | 0.41              |
| 1:C:278:LYS:HD3  | 1:C:287:ASP:HB3   | 2.03                     | 0.41              |
| 1:A:308:VAL:N    | 1:A:602:THR:OG1   | 2.47                     | 0.41              |
| 1:A:881:THR:HG23 | 1:A:882:ILE:HD13  | 2.03                     | 0.41              |
| 1:B:614:GLY:N    | 1:B:647:ALA:O     | 2.38                     | 0.41              |
| 1:C:742:ILE:HG21 | 1:C:997:ILE:HG22  | 2.03                     | 0.41              |
| 1:A:278:LYS:HD3  | 1:A:306:PHE:HD2   | 1.86                     | 0.41              |
| 1:A:905:ARG:HB3  | 1:A:1049:LEU:HD22 | 2.02                     | 0.41              |
| 1:C:954:GLN:HG3  | 1:C:1014:ARG:CZ   | 2.51                     | 0.41              |
| 1:B:717:ASN:OD1  | 1:B:718:PHE:N     | 2.50                     | 0.41              |
| 1:A:994:ASP:HA   | 1:A:997:ILE:HG12  | 2.02                     | 0.41              |
| 1:B:909:ILE:HD13 | 1:B:1049:LEU:HD21 | 2.03                     | 0.41              |
| 1:B:968:SER:OG   | 1:C:755:GLN:O     | 2.39                     | 0.41              |
| 1:A:950:ASP:O    | 1:A:954:GLN:HG2   | 2.21                     | 0.41              |
| 1:A:656:VAL:HG12 | 1:A:658:ASN:H     | 1.86                     | 0.41              |
| 1:B:954:GLN:HG3  | 1:B:1014:ARG:NH1  | 2.36                     | 0.41              |
| 1:C:273:ARG:HD3  | 1:C:292:ALA:HB3   | 2.02                     | 0.41              |
| 1:A:1086:LYS:HG3 | 1:A:1122:VAL:HG13 | 2.03                     | 0.41              |
| 1:B:429:PHE:HZ   | 1:B:512:VAL:HB    | 1.85                     | 0.41              |
| 1:B:452:LEU:HD13 | 1:B:492:LEU:HD11  | 2.03                     | 0.41              |
| 1:B:709:ASN:ND2  | 1:C:796:ASP:OD2   | 2.47                     | 0.41              |
| 1:B:1028:LYS:O   | 1:B:1032:CYS:HB2  | 2.21                     | 0.41              |
| 1:B:1135:ASN:OD1 | 1:B:1136:THR:N    | 2.43                     | 0.41              |
| 1:A:777:ASN:HA   | 1:A:780:GLU:OE2   | 2.21                     | 0.41              |
| 1:A:202:LYS:HB3  | 1:A:204:TYR:CE2   | 2.56                     | 0.41              |
| 1:A:344:ALA:HB3  | 1:A:347:PHE:HE1   | 1.86                     | 0.41              |
| 1:A:571:ASP:OD1  | 1:B:964:LYS:NZ    | 2.41                     | 0.41              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:A:692:ILE:HD12 | 1:A:692:ILE:HA    | 1.93                     | 0.41              |
| 1:A:951:VAL:HA   | 1:A:954:GLN:HG3   | 2.03                     | 0.41              |
| 1:C:870:ILE:O    | 1:C:874:THR:HG23  | 2.21                     | 0.41              |
| 1:B:752:LEU:HD23 | 1:B:752:LEU:HA    | 1.84                     | 0.41              |
| 1:B:761:THR:O    | 1:B:765:ARG:HG2   | 2.21                     | 0.41              |
| 1:C:1002:GLN:HA  | 1:C:1005:GLN:HG3  | 2.03                     | 0.41              |
| 1:A:1002:GLN:O   | 1:A:1006:THR:HG23 | 2.21                     | 0.41              |
| 1:B:126:VAL:HB   | 1:B:172:SER:HB3   | 2.02                     | 0.41              |
| 1:B:878:LEU:O    | 1:B:882:ILE:HG12  | 2.21                     | 0.41              |
| 1:B:906:PHE:HB3  | 1:B:911:VAL:HB    | 2.03                     | 0.41              |
| 1:C:107:GLY:H    | 1:C:235:ILE:HG23  | 1.86                     | 0.41              |
| 1:A:293:LEU:HD12 | 1:A:294:ASP:HB2   | 2.03                     | 0.41              |
| 1:B:190:ARG:HB3  | 1:B:192:PHE:CZ    | 2.55                     | 0.41              |
| 1:C:117:LEU:HD13 | 1:C:235:ILE:HD11  | 2.03                     | 0.41              |
| 1:C:750:SER:O    | 1:C:754:LEU:HD22  | 2.21                     | 0.41              |
| 1:A:206:LYS:HB2  | 1:A:223:LEU:HA    | 2.02                     | 0.41              |
| 1:A:756:TYR:CE2  | 1:A:997:ILE:HD12  | 2.56                     | 0.41              |
| 1:A:212:LEU:HD13 | 1:A:217:PRO:HD3   | 2.03                     | 0.41              |
| 1:B:719:THR:HG23 | 1:B:1070:ALA:HB2  | 2.03                     | 0.41              |
| 1:B:1102:TRP:HB2 | 1:B:1135:ASN:HD22 | 1.86                     | 0.41              |
| 1:A:90:VAL:HG11  | 1:A:238:PHE:CE1   | 2.56                     | 0.41              |
| 1:A:711:SER:HB3  | 1:B:895:GLN:HE21  | 1.86                     | 0.41              |
| 1:A:1106:GLN:OE1 | 1:A:1106:GLN:N    | 2.51                     | 0.41              |
| 1:B:738:CYS:HB3  | 1:B:760:CYS:HB3   | 1.88                     | 0.41              |
| 1:A:1050:MET:HG2 | 1:A:1065:VAL:HB   | 2.02                     | 0.41              |
| 1:B:131:CYS:HB2  | 1:B:133:PHE:CE1   | 2.56                     | 0.41              |
| 1:C:200:TYR:CE1  | 1:C:230:PRO:HB3   | 2.56                     | 0.41              |
| 1:A:759:PHE:CD2  | 1:A:1001:LEU:HD11 | 2.56                     | 0.41              |
| 1:B:53:ASP:OD2   | 1:B:54:LEU:N      | 2.44                     | 0.41              |
| 1:C:560:LEU:HB2  | 1:C:563:GLN:HG2   | 2.03                     | 0.41              |
| 1:C:759:PHE:HD2  | 1:C:762:GLN:HE21  | 1.69                     | 0.41              |
| 1:B:661:GLU:N    | 1:B:661:GLU:OE1   | 2.54                     | 0.41              |
| 1:B:758:SER:HB2  | 1:B:761:THR:OG1   | 2.21                     | 0.41              |
| 1:C:774:GLN:HA   | 1:C:777:ASN:HD21  | 1.85                     | 0.41              |
| 1:A:206:LYS:NZ   | 1:A:208:THR:HB    | 2.36                     | 0.41              |
| 1:B:783:ALA:HB2  | 1:B:873:TYR:CZ    | 2.56                     | 0.41              |
| 1:B:960:ASN:O    | 1:B:964:LYS:HG2   | 2.21                     | 0.41              |
| 1:C:214:ARG:HA   | 1:C:214:ARG:HD2   | 1.92                     | 0.41              |
| 1:B:120:VAL:HG22 | 1:B:241:LEU:HD11  | 2.03                     | 0.41              |
| 1:B:654:GLU:N    | 1:B:654:GLU:OE2   | 2.54                     | 0.41              |
| 1:C:391:CYS:HB3  | 1:C:522:ALA:HB3   | 2.03                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:1002:GLN:O    | 1:C:1006:THR:HG23 | 2.21                     | 0.41              |
| 1:B:666:ILE:HD11  | 1:B:672:ALA:HB2   | 2.03                     | 0.40              |
| 1:B:826:VAL:HA    | 1:B:949:GLN:NE2   | 2.36                     | 0.40              |
| 1:B:950:ASP:O     | 1:B:954:GLN:HG2   | 2.21                     | 0.40              |
| 1:A:738:CYS:HB2   | 1:A:753:LEU:HD21  | 2.03                     | 0.40              |
| 1:A:1002:GLN:O    | 1:A:1006:THR:HG23 | 2.21                     | 0.40              |
| 1:C:204:TYR:HD1   | 1:C:225:PRO:HA    | 1.86                     | 0.40              |
| 1:C:311:GLY:HA2   | 1:C:664:ILE:HD12  | 2.02                     | 0.40              |
| 1:A:592:PHE:CZ    | 1:B:857:GLY:HA2   | 2.56                     | 0.40              |
| 1:B:380:TYR:HE1   | 1:B:430:THR:HA    | 1.86                     | 0.40              |
| 1:B:361:CYS:H     | 1:B:522:ALA:HB1   | 1.86                     | 0.40              |
| 1:A:55:PHE:O      | 1:A:271:GLN:N     | 2.37                     | 0.40              |
| 1:A:1024:LEU:HD11 | 1:A:1028:LYS:HE2  | 2.02                     | 0.40              |
| 1:B:377:PHE:CE1   | 1:B:379:CYS:HB2   | 2.56                     | 0.40              |
| 1:A:204:TYR:HD1   | 1:A:225:PRO:HA    | 1.85                     | 0.40              |
| 1:A:443:SER:HB3   | 1:A:499:PRO:HD3   | 2.02                     | 0.40              |
| 1:A:755:GLN:HE22  | 1:C:971:GLY:HA2   | 1.86                     | 0.40              |
| 1:A:1155:TYR:O    | 1:A:1159:HIS:ND1  | 2.33                     | 0.40              |
| 1:B:392:PHE:CD2   | 1:B:515:PHE:HB3   | 2.56                     | 0.40              |
| 1:C:614:GLY:N     | 1:C:647:ALA:O     | 2.44                     | 0.40              |
| 1:B:93:ALA:HB3    | 1:B:266:TYR:HB2   | 2.03                     | 0.40              |
| 1:B:741:TYR:HD2   | 1:B:1004:LEU:HD12 | 1.86                     | 0.40              |
| 1:B:971:GLY:O     | 1:B:995:ARG:NH1   | 2.54                     | 0.40              |
| 1:C:484:LYS:HE3   | 1:C:489:TYR:HA    | 2.03                     | 0.40              |
| 1:C:962:LEU:HD12  | 1:C:962:LEU:HA    | 1.88                     | 0.40              |
| 1:C:86:PHE:CE1    | 1:C:89:GLY:HA2    | 2.57                     | 0.40              |
| 1:B:790:LYS:N     | 1:B:790:LYS:HD2   | 2.36                     | 0.40              |
| 1:B:898:PHE:HA    | 1:B:901:GLN:HB3   | 2.03                     | 0.40              |
| 1:B:979:ASP:HA    | 1:B:982:SER:HG    | 1.86                     | 0.40              |
| 1:C:905:ARG:HB3   | 1:C:1049:LEU:HD22 | 2.02                     | 0.40              |
| 1:A:733:LYS:HB2   | 1:A:733:LYS:HE2   | 1.84                     | 0.40              |
| 1:B:971:GLY:H     | 1:C:755:GLN:HE21  | 1.67                     | 0.40              |
| 1:A:106:PHE:HD2   | 1:A:235:ILE:HD13  | 1.86                     | 0.40              |
| 1:A:596:SER:HB2   | 1:A:611:LEU:HB3   | 2.03                     | 0.40              |
| 1:C:58:PHE:HD2    | 1:C:290:ASP:HB2   | 1.86                     | 0.40              |
| 1:C:825:LYS:NZ    | 1:C:938:LEU:O     | 2.34                     | 0.40              |
| 1:C:854:LYS:HD2   | 1:C:854:LYS:O     | 2.21                     | 0.40              |
| 1:A:33:THR:OG1    | 1:A:219:GLY:O     | 2.26                     | 0.40              |
| 1:A:914:ASN:OD1   | 1:C:1123:SER:OG   | 2.38                     | 0.40              |
| 1:B:105:ILE:HG22  | 1:B:110:LEU:HD22  | 2.02                     | 0.40              |
| 1:B:729:VAL:O     | 1:B:777:ASN:ND2   | 2.54                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:1102:TRP:HB2  | 1:B:1135:ASN:HD22 | 1.87                     | 0.40              |
| 1:C:560:LEU:HB2   | 1:C:563:GLN:HG2   | 2.03                     | 0.40              |
| 1:C:975:SER:O     | 1:C:1000:ARG:NH2  | 2.54                     | 0.40              |
| 1:A:731:MET:HG3   | 1:A:955:ASN:HD21  | 1.86                     | 0.40              |
| 1:B:823:PHE:HD1   | 1:B:1057:PRO:HD3  | 1.86                     | 0.40              |
| 1:B:826:VAL:HB    | 1:B:1057:PRO:HG2  | 2.02                     | 0.40              |
| 1:C:1114:ILE:HD12 | 1:C:1114:ILE:HA   | 1.85                     | 0.40              |
| 1:B:442:ASP:OD1   | 1:B:509:ARG:NH2   | 2.54                     | 0.40              |
| 1:C:201:PHE:HB3   | 1:C:229:LEU:HB2   | 2.03                     | 0.40              |
| 1:C:791:THR:HA    | 1:C:792:PRO:HD3   | 1.96                     | 0.40              |
| 1:A:86:PHE:HD1    | 1:A:90:VAL:HG13   | 1.86                     | 0.40              |
| 1:A:438:SER:HB3   | 1:A:509:ARG:HG3   | 2.03                     | 0.40              |
| 1:B:733:LYS:HB2   | 1:B:733:LYS:HE2   | 1.85                     | 0.40              |
| 1:C:878:LEU:O     | 1:C:882:ILE:HG22  | 2.21                     | 0.40              |
| 1:B:152:TRP:CG    | 1:B:179:LEU:HD12  | 2.56                     | 0.40              |
| 1:B:869:MET:H     | 1:B:869:MET:HG2   | 1.68                     | 0.40              |
| 1:B:878:LEU:HD13  | 1:B:878:LEU:HA    | 1.94                     | 0.40              |
| 1:B:1030:SER:OG   | 1:B:1031:GLU:OE1  | 2.38                     | 0.40              |
| 1:B:1103:PHE:CD1  | 1:B:1112:PRO:HB3  | 2.56                     | 0.40              |
| 1:C:139:PRO:HB2   | 1:C:241:LEU:HD11  | 2.04                     | 0.40              |
| 1:C:729:VAL:HG22  | 1:C:777:ASN:HD22  | 1.86                     | 0.40              |
| 1:C:950:ASP:OD1   | 1:C:954:GLN:NE2   | 2.54                     | 0.40              |
| 1:A:316:SER:OG    | 1:A:317:ASN:N     | 2.53                     | 0.40              |
| 1:A:319:ARG:NH2   | 1:B:740:MET:HG2   | 2.37                     | 0.40              |
| 1:A:881:THR:HG23  | 1:A:882:ILE:HD13  | 2.03                     | 0.40              |
| 1:A:1104:VAL:HG23 | 1:A:1115:ILE:HG12 | 2.03                     | 0.40              |
| 1:B:172:SER:OG    | 1:B:173:GLN:N     | 2.55                     | 0.40              |
| 1:A:347:PHE:HB2   | 1:A:401:VAL:HG23  | 2.04                     | 0.40              |
| 1:B:280:ASN:OD1   | 1:B:284:THR:N     | 2.54                     | 0.40              |
| 1:B:594:GLY:HA3   | 1:B:613:GLN:HE21  | 1.86                     | 0.40              |
| 1:B:761:THR:O     | 1:B:765:ARG:HB3   | 2.22                     | 0.40              |
| 1:B:995:ARG:NH1   | 1:C:994:ASP:OD1   | 2.54                     | 0.40              |
| 1:A:769:GLY:HA2   | 1:A:772:VAL:HG12  | 2.03                     | 0.40              |
| 1:C:92:PHE:HE2    | 1:C:94:SER:HB2    | 1.86                     | 0.40              |
| 1:C:426:PRO:HG2   | 1:C:429:PHE:HB2   | 2.03                     | 0.40              |
| 1:C:1080:ALA:HA   | 1:C:1095:PHE:HE2  | 1.86                     | 0.40              |
| 1:C:1086:LYS:HG3  | 1:C:1122:VAL:HG13 | 2.02                     | 0.40              |
| 1:A:295:PRO:HG2   | 1:A:608:VAL:HG11  | 2.03                     | 0.40              |
| 1:B:552:LEU:HD12  | 1:B:585:LEU:HD13  | 2.04                     | 0.40              |
| 1:C:946:GLY:HA2   | 1:C:949:GLN:HB3   | 2.04                     | 0.40              |
| 1:B:1128:VAL:HG22 | 1:C:918:GLU:HA    | 2.02                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:962:LEU:HD21  | 1:C:1007:TYR:CG   | 2.57                     | 0.40              |
| 1:B:738:CYS:HB2   | 1:B:763:LEU:HD11  | 2.02                     | 0.40              |
| 1:B:1129:VAL:HG22 | 1:C:917:TYR:HB3   | 2.03                     | 0.40              |
| 1:A:1104:VAL:HG23 | 1:A:1115:ILE:HG12 | 2.02                     | 0.40              |
| 1:B:318:PHE:N     | 1:B:593:GLY:O     | 2.54                     | 0.40              |
| 1:B:906:PHE:HA    | 1:B:909:ILE:HG12  | 2.02                     | 0.40              |
| 1:C:1086:LYS:HG3  | 1:C:1122:VAL:HG13 | 2.02                     | 0.40              |
| 1:A:86:PHE:CE1    | 1:A:89:GLY:HA2    | 2.56                     | 0.40              |
| 1:A:1002:GLN:O    | 1:A:1006:THR:HG23 | 2.21                     | 0.40              |
| 1:B:55:PHE:HE1    | 1:B:275:PHE:H     | 1.69                     | 0.40              |
| 1:C:53:ASP:OD2    | 1:C:195:LYS:NZ    | 2.53                     | 0.40              |
| 1:C:200:TYR:CE2   | 1:C:230:PRO:HB3   | 2.56                     | 0.40              |
| 1:A:48:LEU:O      | 1:A:304:LYS:NZ    | 2.49                     | 0.40              |
| 1:A:597:VAL:HG23  | 1:A:608:VAL:HG13  | 2.03                     | 0.40              |
| 1:B:558:LYS:HE2   | 1:B:558:LYS:HB2   | 1.89                     | 0.40              |
| 1:C:741:TYR:CE1   | 1:C:966:LEU:HD21  | 2.56                     | 0.40              |
| 1:C:33:THR:HA     | 1:C:58:PHE:HD1    | 1.86                     | 0.40              |
| 1:C:201:PHE:HB3   | 1:C:229:LEU:HB3   | 2.02                     | 0.40              |
| 1:A:212:LEU:HD22  | 1:A:217:PRO:HD3   | 2.03                     | 0.40              |
| 1:B:574:ASP:O     | 1:B:587:ILE:HB    | 2.21                     | 0.40              |
| 1:B:725:GLU:OE2   | 1:B:1064:HIS:NE2  | 2.45                     | 0.40              |
| 1:C:222:ALA:HB2   | 1:C:285:ILE:HB    | 2.04                     | 0.40              |
| 1:C:342:PHE:HE1   | 1:C:511:VAL:HG11  | 1.86                     | 0.40              |
| 1:C:782:PHE:HD1   | 1:C:782:PHE:HA    | 1.67                     | 0.40              |
| 1:A:32:PHE:HE1    | 1:A:218:GLN:HE21  | 1.69                     | 0.40              |
| 1:A:1045:LYS:HE3  | 1:A:1045:LYS:HB3  | 1.88                     | 0.40              |
| 1:C:870:ILE:O     | 1:C:874:THR:HG23  | 2.22                     | 0.40              |
| 1:B:767:LEU:HA    | 1:B:770:ILE:HG12  | 2.03                     | 0.40              |
| 1:A:906:PHE:CE2   | 1:A:916:LEU:HD13  | 2.56                     | 0.40              |
| 1:C:1005:GLN:O    | 1:C:1009:THR:HG23 | 2.21                     | 0.40              |
| 1:C:1001:LEU:HA   | 1:C:1001:LEU:HD23 | 1.85                     | 0.40              |
| 1:A:601:GLY:O     | 1:A:604:THR:OG1   | 2.37                     | 0.40              |
| 1:B:106:PHE:CD1   | 1:B:238:PHE:HB2   | 2.57                     | 0.40              |
| 1:B:211:ASN:OD1   | 1:B:211:ASN:N     | 2.54                     | 0.40              |
| 1:C:984:LEU:HB2   | 1:C:989:ALA:HB2   | 2.03                     | 0.40              |
| 1:C:172:SER:OG    | 1:C:173:GLN:N     | 2.54                     | 0.40              |
| 1:C:777:ASN:O     | 1:C:781:VAL:HG12  | 2.22                     | 0.40              |
| 1:C:1002:GLN:O    | 1:C:1005:GLN:NE2  | 2.54                     | 0.40              |
| 1:C:1002:GLN:O    | 1:C:1006:THR:HG23 | 2.21                     | 0.40              |
| 1:C:914:ASN:ND2   | 1:C:1111:GLU:OE2  | 2.52                     | 0.40              |
| 1:B:742:ILE:HD12  | 1:B:997:ILE:HG22  | 2.03                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:955:ASN:HD22  | 1:C:955:ASN:HA    | 1.60                     | 0.40              |
| 1:B:131:CYS:HB2   | 1:B:133:PHE:CE1   | 2.57                     | 0.40              |
| 1:B:591:SER:HB3   | 1:B:615:VAL:HG23  | 2.02                     | 0.40              |
| 1:C:769:GLY:HA2   | 1:C:772:VAL:HG22  | 2.03                     | 0.40              |
| 1:B:994:ASP:O     | 1:B:998:THR:HG23  | 2.22                     | 0.40              |
| 1:C:276:LEU:HD22  | 1:C:306:PHE:CE2   | 2.57                     | 0.40              |
| 1:A:317:ASN:ND2   | 1:B:737:ASP:OD1   | 2.54                     | 0.40              |
| 1:A:913:GLN:HE21  | 1:C:1089:PHE:HB3  | 1.86                     | 0.40              |
| 1:A:1049:LEU:HB2  | 1:A:1065:VAL:HG12 | 2.03                     | 0.40              |
| 1:B:182:LYS:HD3   | 1:B:187:LYS:HD2   | 2.02                     | 0.40              |
| 1:B:722:VAL:HG12  | 1:B:930:ALA:HB1   | 2.04                     | 0.40              |
| 1:A:273:ARG:HD3   | 1:A:273:ARG:HA    | 1.89                     | 0.40              |
| 1:A:666:ILE:HG12  | 1:A:671:CYS:HA    | 2.02                     | 0.40              |
| 1:A:918:GLU:OE1   | 1:A:918:GLU:N     | 2.55                     | 0.40              |
| 1:B:83:VAL:HG22   | 1:B:239:GLN:HE21  | 1.85                     | 0.40              |
| 1:A:730:SER:HB2   | 1:A:774:GLN:NE2   | 2.35                     | 0.40              |
| 1:A:914:ASN:O     | 1:A:918:GLU:HG2   | 2.21                     | 0.40              |
| 1:A:938:LEU:HD13  | 1:A:938:LEU:HA    | 1.91                     | 0.40              |
| 1:B:280:ASN:OD1   | 1:B:284:THR:N     | 2.54                     | 0.40              |
| 1:C:393:THR:HB    | 1:C:516:GLU:HB3   | 2.03                     | 0.40              |
| 1:C:782:PHE:HE2   | 1:C:1060:VAL:HB   | 1.86                     | 0.40              |
| 1:A:906:PHE:CE2   | 1:A:916:LEU:HD13  | 2.56                     | 0.40              |
| 1:C:18:PHE:HB2    | 1:C:21:ARG:HB2    | 2.03                     | 0.40              |
| 1:C:712:ILE:HG21  | 1:C:1077:THR:HB   | 2.02                     | 0.40              |
| 1:C:825:LYS:HD2   | 1:C:942:ALA:HA    | 2.02                     | 0.40              |
| 1:A:1012:LEU:HB3  | 1:C:1013:ILE:HG21 | 2.03                     | 0.40              |
| 1:A:1052:PHE:N    | 1:A:1063:LEU:O    | 2.42                     | 0.40              |
| 1:B:1040:VAL:HG21 | 1:C:1035:GLY:HA3  | 2.03                     | 0.40              |
| 1:A:344:ALA:HB3   | 1:A:347:PHE:HE1   | 1.86                     | 0.40              |
| 1:B:38:TYR:HA     | 1:B:39:PRO:HD3    | 1.94                     | 0.40              |
| 1:B:697:MET:HE2   | 1:B:697:MET:HB2   | 1.99                     | 0.40              |
| 1:C:714:ILE:HD13  | 1:C:714:ILE:HA    | 1.92                     | 0.40              |
| 1:C:777:ASN:O     | 1:C:781:VAL:HG12  | 2.21                     | 0.40              |
| 1:B:33:THR:HB     | 1:B:220:PHE:HD1   | 1.86                     | 0.40              |
| 1:B:452:LEU:HD13  | 1:B:492:LEU:HD21  | 2.03                     | 0.40              |
| 1:B:1139:ASP:HB3  | 1:B:1142:GLN:HG2  | 2.02                     | 0.40              |
| 1:C:131:CYS:HB2   | 1:C:133:PHE:CE1   | 2.56                     | 0.40              |
| 1:C:884:SER:OG    | 1:C:894:LEU:N     | 2.54                     | 0.40              |
| 1:A:1018:ILE:HD13 | 1:A:1018:ILE:HA   | 1.88                     | 0.40              |
| 1:B:577:ARG:HD3   | 1:B:578:ASP:H     | 1.87                     | 0.40              |
| 1:C:1001:LEU:O    | 1:C:1005:GLN:HG3  | 2.21                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:C:1081:ILE:HG13 | 1:C:1115:ILE:HD13 | 2.04                     | 0.40              |
| 1:B:18:PHE:HB2    | 1:B:21:ARG:HB2    | 2.03                     | 0.40              |
| 1:B:741:TYR:CD2   | 1:B:1004:LEU:HD22 | 2.56                     | 0.40              |
| 1:A:699:LEU:HB3   | 1:B:788:ILE:HD11  | 2.03                     | 0.40              |
| 1:A:278:LYS:NZ    | 1:A:306:PHE:HB3   | 2.37                     | 0.40              |
| 1:A:825:LYS:HD3   | 1:A:942:ALA:HA    | 2.03                     | 0.40              |
| 1:B:66:HIS:HA     | 1:B:264:ALA:HA    | 2.03                     | 0.40              |
| 1:B:597:VAL:HG13  | 1:B:608:VAL:HG13  | 2.03                     | 0.40              |
| 1:C:99:ASN:HB3    | 1:C:102:ARG:HH12  | 1.85                     | 0.40              |
| 1:A:35:GLY:HA3    | 1:A:56:LEU:HB3    | 2.03                     | 0.40              |
| 1:A:914:ASN:ND2   | 1:C:1089:PHE:HE2  | 2.19                     | 0.40              |
| 1:B:738:CYS:HB3   | 1:B:760:CYS:HB3   | 1.61                     | 0.40              |
| 1:B:1004:LEU:O    | 1:B:1008:VAL:HG23 | 2.21                     | 0.40              |
| 1:C:316:SER:OG    | 1:C:317:ASN:N     | 2.54                     | 0.40              |
| 1:A:17:ASN:HB2    | 1:A:21:ARG:HD3    | 2.04                     | 0.40              |
| 1:C:1116:THR:OG1  | 1:C:1118:ASP:OD1  | 2.30                     | 0.40              |
| 1:C:1119:ASN:O    | 1:C:1119:ASN:ND2  | 2.53                     | 0.40              |
| 1:B:858:LEU:HD23  | 1:B:959:LEU:HD12  | 2.03                     | 0.40              |
| 1:C:807:PRO:HA    | 1:C:816:SER:HA    | 2.03                     | 0.40              |
| 1:C:884:SER:OG    | 1:C:887:THR:OG1   | 2.36                     | 0.40              |
| 1:C:335:LEU:HB3   | 1:C:364:ASP:HB2   | 2.02                     | 0.40              |
| 1:B:92:PHE:HE2    | 1:B:94:SER:HB2    | 1.86                     | 0.40              |
| 1:A:566:GLY:HA2   | 1:B:43:PHE:H      | 1.85                     | 0.40              |
| 1:A:906:PHE:HD2   | 1:A:909:ILE:HD11  | 1.87                     | 0.40              |
| 1:B:969:ASN:OD1   | 1:B:972:ALA:N     | 2.55                     | 0.40              |
| 1:C:770:ILE:HD13  | 1:C:770:ILE:HG21  | 1.87                     | 0.40              |
| 1:B:726:ILE:HD12  | 1:B:1061:VAL:HG22 | 2.02                     | 0.40              |
| 1:C:1008:VAL:O    | 1:C:1012:LEU:HD22 | 2.21                     | 0.40              |
| 1:C:1014:ARG:O    | 1:C:1018:ILE:HG12 | 2.21                     | 0.40              |
| 1:B:403:ARG:HG2   | 1:B:497:PHE:HE1   | 1.87                     | 0.40              |
| 1:B:528:LYS:HD2   | 1:B:529:LYS:N     | 2.36                     | 0.40              |
| 1:B:953:ASN:O     | 1:B:957:GLN:NE2   | 2.47                     | 0.40              |
| 1:C:946:GLY:HA2   | 1:C:949:GLN:HB3   | 2.02                     | 0.40              |
| 1:A:206:LYS:HD2   | 1:A:207:HIS:N     | 2.36                     | 0.40              |
| 1:A:902:MET:HB2   | 1:A:916:LEU:HD11  | 2.03                     | 0.40              |
| 1:B:1107:ARG:NH2  | 1:C:904:TYR:HB2   | 2.37                     | 0.40              |
| 1:C:38:TYR:HE2    | 1:C:224:GLU:HG2   | 1.87                     | 0.40              |
| 1:A:238:PHE:HZ    | 1:A:267:VAL:HG21  | 1.87                     | 0.40              |
| 1:A:961:THR:HA    | 1:A:964:LYS:HZ2   | 1.87                     | 0.40              |
| 1:B:360:ASN:OD1   | 1:B:523:THR:OG1   | 2.27                     | 0.40              |
| 1:A:103:GLY:HA3   | 1:A:119:ILE:O     | 2.22                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:1013:ILE:HG13 | 1:C:1012:LEU:HG   | 2.02                     | 0.40              |
| 1:B:88:ASP:OD2    | 1:B:271:GLN:NE2   | 2.54                     | 0.40              |
| 1:B:172:SER:OG    | 1:B:173:GLN:N     | 2.54                     | 0.40              |
| 1:B:1156:PHE:HE2  | 1:C:1152:LEU:HD22 | 1.86                     | 0.40              |
| 1:A:247:SER:OG    | 1:A:259:THR:O     | 2.40                     | 0.40              |
| 1:A:957:GLN:HE22  | 1:B:765:ARG:CZ    | 2.34                     | 0.40              |
| 1:A:1054:GLN:HB2  | 1:A:1061:VAL:HG13 | 2.04                     | 0.40              |
| 1:B:130:VAL:HB    | 1:B:168:PHE:HB3   | 2.02                     | 0.40              |
| 1:C:990:GLU:HA    | 1:C:993:ILE:HG12  | 2.03                     | 0.40              |
| 1:B:296:LEU:HD11  | 1:B:308:VAL:HG11  | 2.03                     | 0.40              |
| 1:B:562:PHE:O     | 1:C:41:LYS:NZ     | 2.37                     | 0.40              |
| 1:B:756:TYR:HB3   | 1:B:759:PHE:CE2   | 2.55                     | 0.40              |
| 1:C:316:SER:OG    | 1:C:317:ASN:N     | 2.55                     | 0.40              |
| 1:A:1013:ILE:HG21 | 1:B:1012:LEU:HG   | 2.02                     | 0.40              |
| 1:C:193:VAL:HB    | 1:C:204:TYR:HD2   | 1.87                     | 0.40              |
| 1:C:273:ARG:HD3   | 1:C:273:ARG:HA    | 1.74                     | 0.40              |
| 1:C:310:LYS:HG3   | 1:C:600:PRO:HA    | 2.02                     | 0.40              |
| 1:A:604:THR:OG1   | 1:A:605:SER:N     | 2.54                     | 0.40              |
| 1:A:737:ASP:HB3   | 1:C:317:ASN:ND2   | 2.37                     | 0.40              |
| 1:B:783:ALA:HB2   | 1:B:873:TYR:CZ    | 2.57                     | 0.40              |
| 1:C:1024:LEU:HD11 | 1:C:1028:LYS:HE2  | 2.03                     | 0.40              |
| 1:A:897:PRO:HG2   | 1:A:900:MET:HG2   | 2.02                     | 0.40              |
| 1:B:878:LEU:O     | 1:B:882:ILE:HG12  | 2.21                     | 0.40              |
| 1:C:403:ARG:HG2   | 1:C:497:PHE:HE1   | 1.87                     | 0.40              |
| 1:B:206:LYS:HD2   | 1:B:207:HIS:N     | 2.37                     | 0.40              |
| 1:A:200:TYR:CE1   | 1:A:230:PRO:HB3   | 2.56                     | 0.40              |
| 1:A:326:ILE:HD11  | 1:A:534:VAL:HB    | 2.03                     | 0.40              |
| 1:A:543:PHE:O     | 1:A:545:GLY:N     | 2.50                     | 0.40              |
| 1:A:670:ILE:HD13  | 1:A:696:THR:HA    | 2.04                     | 0.40              |
| 1:A:377:PHE:CE2   | 1:A:434:ILE:HG12  | 2.57                     | 0.40              |
| 1:B:727:LEU:HD11  | 1:B:1024:LEU:HD22 | 2.03                     | 0.40              |
| 1:A:1116:THR:OG1  | 1:A:1118:ASP:OD1  | 2.29                     | 0.40              |
| 1:B:291:CYS:HB2   | 1:B:298:GLU:HA    | 2.03                     | 0.40              |
| 1:B:328:ARG:HH12  | 1:B:533:LEU:HD13  | 1.86                     | 0.40              |
| 1:C:200:TYR:CE1   | 1:C:230:PRO:HB3   | 2.56                     | 0.40              |
| 1:C:878:LEU:O     | 1:C:882:ILE:HG22  | 2.21                     | 0.40              |
| 1:C:877:LEU:O     | 1:C:881:THR:HG23  | 2.21                     | 0.40              |
| 1:A:296:LEU:HB2   | 1:A:608:VAL:HG21  | 2.03                     | 0.40              |
| 1:B:355:ARG:HD3   | 1:B:396:TYR:HB3   | 2.03                     | 0.40              |
| 1:C:865:LEU:HD11  | 1:C:873:TYR:HE2   | 1.86                     | 0.40              |
| 1:A:438:SER:HB3   | 1:A:509:ARG:HG3   | 2.03                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:517:LEU:HD22  | 1:C:983:ARG:HH21  | 1.87                     | 0.40              |
| 1:B:763:LEU:HD22  | 1:B:1008:VAL:HG11 | 2.03                     | 0.40              |
| 1:B:905:ARG:NH1   | 1:B:1049:LEU:O    | 2.54                     | 0.40              |
| 1:B:1086:LYS:HA   | 1:B:1125:ASN:HA   | 2.03                     | 0.40              |
| 1:C:716:THR:N     | 1:C:1071:GLN:O    | 2.48                     | 0.40              |
| 1:A:50:SER:HB2    | 1:A:304:LYS:NZ    | 2.37                     | 0.40              |
| 1:B:104:TRP:HB2   | 1:B:106:PHE:CE1   | 2.57                     | 0.40              |
| 1:C:993:ILE:O     | 1:C:997:ILE:HG12  | 2.22                     | 0.40              |
| 1:A:426:PRO:HG2   | 1:A:429:PHE:HB2   | 2.03                     | 0.40              |
| 1:A:1013:ILE:HG21 | 1:B:1012:LEU:HB3  | 2.02                     | 0.40              |
| 1:A:1035:GLY:HA3  | 1:C:1040:VAL:HG11 | 2.04                     | 0.40              |
| 1:B:192:PHE:HB3   | 1:B:194:PHE:CE2   | 2.56                     | 0.40              |
| 1:A:1129:VAL:HG13 | 1:A:1132:ILE:HB   | 2.03                     | 0.40              |
| 1:A:930:ALA:O     | 1:A:934:ILE:HG12  | 2.21                     | 0.40              |
| 1:B:276:LEU:HD12  | 1:B:301:CYS:HA    | 2.04                     | 0.40              |
| 1:B:1030:SER:O    | 1:B:1034:LEU:HB3  | 2.21                     | 0.40              |
| 1:C:992:GLN:O     | 1:C:996:LEU:HD22  | 2.21                     | 0.40              |
| 1:A:141:LEU:HD13  | 1:A:154:GLU:HG3   | 2.04                     | 0.40              |
| 1:B:797:PHE:HD1   | 1:B:802:PHE:CD2   | 2.40                     | 0.40              |
| 1:C:37:TYR:OH     | 1:C:195:LYS:NZ    | 2.46                     | 0.40              |
| 1:B:374:PHE:HB2   | 1:B:377:PHE:CE1   | 2.57                     | 0.40              |
| 1:B:878:LEU:HD21  | 1:B:1053:PRO:O    | 2.22                     | 0.40              |
| 1:C:53:ASP:HB3    | 1:C:55:PHE:HE2    | 1.87                     | 0.40              |
| 1:C:777:ASN:O     | 1:C:781:VAL:HG12  | 2.21                     | 0.40              |
| 1:C:1001:LEU:HD23 | 1:C:1001:LEU:HA   | 1.84                     | 0.40              |
| 1:C:1002:GLN:HA   | 1:C:1005:GLN:HG3  | 2.03                     | 0.40              |
| 1:A:781:VAL:HG23  | 1:A:1029:MET:HG2  | 2.03                     | 0.40              |
| 1:B:127:VAL:HG12  | 1:B:129:LYS:HE3   | 2.03                     | 0.40              |
| 1:B:707:TYR:HB2   | 1:C:792:PRO:HG2   | 2.04                     | 0.40              |
| 1:C:870:ILE:HD12  | 1:C:873:TYR:HD2   | 1.86                     | 0.40              |
| 1:A:92:PHE:CE2    | 1:A:94:SER:HB2    | 2.57                     | 0.40              |
| 1:A:567:ARG:HG2   | 1:A:573:THR:HA    | 2.04                     | 0.40              |
| 1:A:783:ALA:HB2   | 1:A:873:TYR:CE1   | 2.56                     | 0.40              |
| 1:A:1013:ILE:HD13 | 1:B:1012:LEU:HB2  | 2.03                     | 0.40              |
| 1:B:783:ALA:HB2   | 1:B:873:TYR:CZ    | 2.56                     | 0.40              |
| 1:A:533:LEU:HD21  | 1:A:585:LEU:HD11  | 2.04                     | 0.40              |
| 1:B:104:TRP:HB2   | 1:B:106:PHE:CE1   | 2.53                     | 0.40              |
| 1:B:1103:PHE:CD2  | 1:B:1112:PRO:HB3  | 2.57                     | 0.40              |
| 1:C:870:ILE:O     | 1:C:874:THR:HG23  | 2.20                     | 0.40              |
| 1:A:1096:VAL:HG13 | 1:A:1103:PHE:HB2  | 2.03                     | 0.40              |
| 1:C:106:PHE:HB2   | 1:C:117:LEU:HB2   | 2.04                     | 0.40              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:A:1096:VAL:HG13 | 1:A:1103:PHE:HB2 | 2.02                     | 0.40              |
| 1:B:971:GLY:H     | 1:C:755:GLN:NE2  | 2.19                     | 0.40              |
| 1:C:643:PHE:CE2   | 1:C:645:THR:HG22 | 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   | 1-A   | 1067/1230 (87%) | 1026 (96%) | 40 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 1-B   | 1067/1230 (87%) | 1019 (96%) | 48 (4%) | 0        | 100         | 100 |
| 1   | 1-C   | 1067/1230 (87%) | 1027 (96%) | 39 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 2-A   | 1067/1230 (87%) | 1025 (96%) | 41 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 2-B   | 1067/1230 (87%) | 1019 (96%) | 48 (4%) | 0        | 100         | 100 |
| 1   | 2-C   | 1067/1230 (87%) | 1018 (95%) | 48 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 3-A   | 1067/1230 (87%) | 1026 (96%) | 40 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 3-B   | 1067/1230 (87%) | 1019 (96%) | 48 (4%) | 0        | 100         | 100 |
| 1   | 3-C   | 1067/1230 (87%) | 1026 (96%) | 40 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 4-A   | 1067/1230 (87%) | 1026 (96%) | 40 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 4-B   | 1067/1230 (87%) | 1019 (96%) | 48 (4%) | 0        | 100         | 100 |
| 1   | 4-C   | 1067/1230 (87%) | 1018 (95%) | 48 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 5-A   | 1067/1230 (87%) | 1028 (96%) | 38 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 5-B   | 1067/1230 (87%) | 1020 (96%) | 47 (4%) | 0        | 100         | 100 |
| 1   | 5-C   | 1067/1230 (87%) | 1026 (96%) | 40 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 6-A   | 1067/1230 (87%) | 1025 (96%) | 41 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 6-B   | 1067/1230 (87%) | 1019 (96%) | 48 (4%) | 0        | 100         | 100 |

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| Mol | Chain | Analysed        | Favoured   | Allowed | Outliers | Percentiles |     |
|-----|-------|-----------------|------------|---------|----------|-------------|-----|
| 1   | 6-C   | 1067/1230 (87%) | 1026 (96%) | 40 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 7-A   | 1067/1230 (87%) | 1027 (96%) | 39 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 7-B   | 1067/1230 (87%) | 1020 (96%) | 47 (4%) | 0        | 100         | 100 |
| 1   | 7-C   | 1067/1230 (87%) | 1027 (96%) | 39 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 8-A   | 1067/1230 (87%) | 1025 (96%) | 41 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 8-B   | 1067/1230 (87%) | 1020 (96%) | 47 (4%) | 0        | 100         | 100 |
| 1   | 8-C   | 1067/1230 (87%) | 1025 (96%) | 41 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 9-A   | 1067/1230 (87%) | 1027 (96%) | 39 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 9-B   | 1067/1230 (87%) | 1019 (96%) | 48 (4%) | 0        | 100         | 100 |
| 1   | 9-C   | 1067/1230 (87%) | 1018 (95%) | 48 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 10-A  | 1067/1230 (87%) | 1026 (96%) | 40 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 10-B  | 1067/1230 (87%) | 1018 (95%) | 49 (5%) | 0        | 100         | 100 |
| 1   | 10-C  | 1067/1230 (87%) | 1018 (95%) | 48 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 11-A  | 1067/1230 (87%) | 1027 (96%) | 39 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 11-B  | 1067/1230 (87%) | 1019 (96%) | 48 (4%) | 0        | 100         | 100 |
| 1   | 11-C  | 1067/1230 (87%) | 1026 (96%) | 40 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 12-A  | 1067/1230 (87%) | 1025 (96%) | 41 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 12-B  | 1067/1230 (87%) | 1019 (96%) | 48 (4%) | 0        | 100         | 100 |
| 1   | 12-C  | 1067/1230 (87%) | 1026 (96%) | 40 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 13-A  | 1067/1230 (87%) | 1026 (96%) | 40 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 13-B  | 1067/1230 (87%) | 1020 (96%) | 47 (4%) | 0        | 100         | 100 |
| 1   | 13-C  | 1067/1230 (87%) | 1016 (95%) | 49 (5%) | 2 (0%)   | 44          | 73  |
| 1   | 14-A  | 1067/1230 (87%) | 1028 (96%) | 38 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 14-B  | 1067/1230 (87%) | 1018 (95%) | 49 (5%) | 0        | 100         | 100 |
| 1   | 14-C  | 1067/1230 (87%) | 1016 (95%) | 50 (5%) | 1 (0%)   | 48          | 77  |
| 1   | 15-A  | 1067/1230 (87%) | 1027 (96%) | 39 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 15-B  | 1067/1230 (87%) | 1022 (96%) | 45 (4%) | 0        | 100         | 100 |
| 1   | 15-C  | 1067/1230 (87%) | 1017 (95%) | 49 (5%) | 1 (0%)   | 48          | 77  |
| 1   | 16-A  | 1067/1230 (87%) | 1026 (96%) | 40 (4%) | 1 (0%)   | 48          | 77  |
| 1   | 16-B  | 1067/1230 (87%) | 1019 (96%) | 48 (4%) | 0        | 100         | 100 |
| 1   | 16-C  | 1067/1230 (87%) | 1026 (96%) | 40 (4%) | 1 (0%)   | 48          | 77  |

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| Mol | Chain | Analysed          | Favoured    | Allowed   | Outliers | Percentiles |     |
|-----|-------|-------------------|-------------|-----------|----------|-------------|-----|
| 1   | 17-A  | 1067/1230 (87%)   | 1027 (96%)  | 39 (4%)   | 1 (0%)   | 48          | 77  |
| 1   | 17-B  | 1067/1230 (87%)   | 1019 (96%)  | 48 (4%)   | 0        | 100         | 100 |
| 1   | 17-C  | 1067/1230 (87%)   | 1026 (96%)  | 40 (4%)   | 1 (0%)   | 48          | 77  |
| 1   | 18-A  | 1067/1230 (87%)   | 1024 (96%)  | 41 (4%)   | 2 (0%)   | 44          | 73  |
| 1   | 18-B  | 1067/1230 (87%)   | 1019 (96%)  | 48 (4%)   | 0        | 100         | 100 |
| 1   | 18-C  | 1067/1230 (87%)   | 1027 (96%)  | 39 (4%)   | 1 (0%)   | 48          | 77  |
| 1   | 19-A  | 1067/1230 (87%)   | 1027 (96%)  | 39 (4%)   | 1 (0%)   | 48          | 77  |
| 1   | 19-B  | 1067/1230 (87%)   | 1020 (96%)  | 47 (4%)   | 0        | 100         | 100 |
| 1   | 19-C  | 1067/1230 (87%)   | 1017 (95%)  | 49 (5%)   | 1 (0%)   | 48          | 77  |
| 1   | 20-A  | 1067/1230 (87%)   | 1027 (96%)  | 39 (4%)   | 1 (0%)   | 48          | 77  |
| 1   | 20-B  | 1067/1230 (87%)   | 1019 (96%)  | 48 (4%)   | 0        | 100         | 100 |
| 1   | 20-C  | 1067/1230 (87%)   | 1017 (95%)  | 49 (5%)   | 1 (0%)   | 48          | 77  |
| All | All   | 64020/73800 (87%) | 61354 (96%) | 2624 (4%) | 42 (0%)  | 50          | 77  |

All (42) Ramachandran outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | 18-A  | 984 | LEU  |
| 1   | 1-A   | 544 | ASN  |
| 1   | 1-C   | 544 | ASN  |
| 1   | 2-A   | 544 | ASN  |
| 1   | 3-A   | 544 | ASN  |
| 1   | 3-C   | 544 | ASN  |
| 1   | 4-A   | 544 | ASN  |
| 1   | 6-A   | 544 | ASN  |
| 1   | 7-A   | 544 | ASN  |
| 1   | 8-A   | 544 | ASN  |
| 1   | 8-C   | 544 | ASN  |
| 1   | 9-A   | 544 | ASN  |
| 1   | 10-A  | 544 | ASN  |
| 1   | 11-A  | 544 | ASN  |
| 1   | 11-C  | 544 | ASN  |
| 1   | 12-A  | 544 | ASN  |
| 1   | 12-C  | 544 | ASN  |
| 1   | 13-A  | 544 | ASN  |
| 1   | 14-A  | 544 | ASN  |
| 1   | 15-A  | 544 | ASN  |
| 1   | 16-A  | 544 | ASN  |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | 17-C  | 544 | ASN  |
| 1   | 18-A  | 544 | ASN  |
| 1   | 20-A  | 544 | ASN  |
| 1   | 2-C   | 532 | ASN  |
| 1   | 4-C   | 532 | ASN  |
| 1   | 5-A   | 544 | ASN  |
| 1   | 5-C   | 544 | ASN  |
| 1   | 6-C   | 544 | ASN  |
| 1   | 7-C   | 544 | ASN  |
| 1   | 9-C   | 532 | ASN  |
| 1   | 10-C  | 532 | ASN  |
| 1   | 13-C  | 532 | ASN  |
| 1   | 14-C  | 532 | ASN  |
| 1   | 15-C  | 532 | ASN  |
| 1   | 16-C  | 544 | ASN  |
| 1   | 17-A  | 544 | ASN  |
| 1   | 18-C  | 544 | ASN  |
| 1   | 19-A  | 544 | ASN  |
| 1   | 19-C  | 532 | ASN  |
| 1   | 20-C  | 532 | ASN  |
| 1   | 13-C  | 150 | LYS  |

### 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   | 1-A   | 944/1067 (88%) | 921 (98%) | 23 (2%)  | 44          | 77 |
| 1   | 1-B   | 944/1067 (88%) | 915 (97%) | 29 (3%)  | 35          | 69 |
| 1   | 1-C   | 944/1067 (88%) | 926 (98%) | 18 (2%)  | 52          | 82 |
| 1   | 2-A   | 944/1067 (88%) | 922 (98%) | 22 (2%)  | 45          | 78 |
| 1   | 2-B   | 944/1067 (88%) | 926 (98%) | 18 (2%)  | 52          | 82 |
| 1   | 2-C   | 944/1067 (88%) | 926 (98%) | 18 (2%)  | 52          | 82 |
| 1   | 3-A   | 944/1067 (88%) | 927 (98%) | 17 (2%)  | 54          | 83 |
| 1   | 3-B   | 944/1067 (88%) | 920 (98%) | 24 (2%)  | 42          | 75 |

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| Mol | Chain | Analysed       | Rotameric | Outliers | Percentiles |    |
|-----|-------|----------------|-----------|----------|-------------|----|
| 1   | 3-C   | 944/1067 (88%) | 919 (97%) | 25 (3%)  | 41          | 75 |
| 1   | 4-A   | 944/1067 (88%) | 929 (98%) | 15 (2%)  | 58          | 85 |
| 1   | 4-B   | 944/1067 (88%) | 923 (98%) | 21 (2%)  | 47          | 79 |
| 1   | 4-C   | 944/1067 (88%) | 920 (98%) | 24 (2%)  | 42          | 75 |
| 1   | 5-A   | 944/1067 (88%) | 926 (98%) | 18 (2%)  | 52          | 82 |
| 1   | 5-B   | 944/1067 (88%) | 923 (98%) | 21 (2%)  | 47          | 79 |
| 1   | 5-C   | 944/1067 (88%) | 922 (98%) | 22 (2%)  | 45          | 78 |
| 1   | 6-A   | 944/1067 (88%) | 929 (98%) | 15 (2%)  | 58          | 85 |
| 1   | 6-B   | 944/1067 (88%) | 909 (96%) | 35 (4%)  | 29          | 63 |
| 1   | 6-C   | 944/1067 (88%) | 928 (98%) | 16 (2%)  | 56          | 84 |
| 1   | 7-A   | 944/1067 (88%) | 926 (98%) | 18 (2%)  | 52          | 82 |
| 1   | 7-B   | 944/1067 (88%) | 923 (98%) | 21 (2%)  | 47          | 79 |
| 1   | 7-C   | 944/1067 (88%) | 915 (97%) | 29 (3%)  | 35          | 69 |
| 1   | 8-A   | 944/1067 (88%) | 921 (98%) | 23 (2%)  | 44          | 77 |
| 1   | 8-B   | 944/1067 (88%) | 920 (98%) | 24 (2%)  | 42          | 75 |
| 1   | 8-C   | 944/1067 (88%) | 926 (98%) | 18 (2%)  | 52          | 82 |
| 1   | 9-A   | 944/1067 (88%) | 924 (98%) | 20 (2%)  | 48          | 80 |
| 1   | 9-B   | 944/1067 (88%) | 926 (98%) | 18 (2%)  | 52          | 82 |
| 1   | 9-C   | 944/1067 (88%) | 925 (98%) | 19 (2%)  | 50          | 81 |
| 1   | 10-A  | 944/1067 (88%) | 924 (98%) | 20 (2%)  | 48          | 80 |
| 1   | 10-B  | 944/1067 (88%) | 922 (98%) | 22 (2%)  | 45          | 78 |
| 1   | 10-C  | 944/1067 (88%) | 923 (98%) | 21 (2%)  | 47          | 79 |
| 1   | 11-A  | 944/1067 (88%) | 922 (98%) | 22 (2%)  | 45          | 78 |
| 1   | 11-B  | 944/1067 (88%) | 920 (98%) | 24 (2%)  | 42          | 75 |
| 1   | 11-C  | 944/1067 (88%) | 921 (98%) | 23 (2%)  | 44          | 77 |
| 1   | 12-A  | 944/1067 (88%) | 922 (98%) | 22 (2%)  | 45          | 78 |
| 1   | 12-B  | 944/1067 (88%) | 921 (98%) | 23 (2%)  | 44          | 77 |
| 1   | 12-C  | 944/1067 (88%) | 922 (98%) | 22 (2%)  | 45          | 78 |
| 1   | 13-A  | 944/1067 (88%) | 924 (98%) | 20 (2%)  | 48          | 80 |
| 1   | 13-B  | 944/1067 (88%) | 917 (97%) | 27 (3%)  | 37          | 71 |
| 1   | 13-C  | 944/1067 (88%) | 927 (98%) | 17 (2%)  | 54          | 83 |

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| Mol | Chain | Analysed          | Rotameric   | Outliers  | Percentiles |    |
|-----|-------|-------------------|-------------|-----------|-------------|----|
| 1   | 14-A  | 944/1067 (88%)    | 922 (98%)   | 22 (2%)   | 45          | 78 |
| 1   | 14-B  | 944/1067 (88%)    | 925 (98%)   | 19 (2%)   | 50          | 81 |
| 1   | 14-C  | 944/1067 (88%)    | 932 (99%)   | 12 (1%)   | 65          | 88 |
| 1   | 15-A  | 944/1067 (88%)    | 917 (97%)   | 27 (3%)   | 37          | 71 |
| 1   | 15-B  | 944/1067 (88%)    | 920 (98%)   | 24 (2%)   | 42          | 75 |
| 1   | 15-C  | 944/1067 (88%)    | 920 (98%)   | 24 (2%)   | 42          | 75 |
| 1   | 16-A  | 944/1067 (88%)    | 918 (97%)   | 26 (3%)   | 38          | 72 |
| 1   | 16-B  | 944/1067 (88%)    | 922 (98%)   | 22 (2%)   | 45          | 78 |
| 1   | 16-C  | 944/1067 (88%)    | 918 (97%)   | 26 (3%)   | 38          | 72 |
| 1   | 17-A  | 944/1067 (88%)    | 920 (98%)   | 24 (2%)   | 42          | 75 |
| 1   | 17-B  | 944/1067 (88%)    | 914 (97%)   | 30 (3%)   | 34          | 68 |
| 1   | 17-C  | 944/1067 (88%)    | 924 (98%)   | 20 (2%)   | 48          | 80 |
| 1   | 18-A  | 944/1067 (88%)    | 920 (98%)   | 24 (2%)   | 42          | 75 |
| 1   | 18-B  | 944/1067 (88%)    | 924 (98%)   | 20 (2%)   | 48          | 80 |
| 1   | 18-C  | 944/1067 (88%)    | 925 (98%)   | 19 (2%)   | 50          | 81 |
| 1   | 19-A  | 944/1067 (88%)    | 933 (99%)   | 11 (1%)   | 67          | 89 |
| 1   | 19-B  | 944/1067 (88%)    | 928 (98%)   | 16 (2%)   | 56          | 84 |
| 1   | 19-C  | 944/1067 (88%)    | 925 (98%)   | 19 (2%)   | 50          | 81 |
| 1   | 20-A  | 944/1067 (88%)    | 917 (97%)   | 27 (3%)   | 37          | 71 |
| 1   | 20-B  | 944/1067 (88%)    | 920 (98%)   | 24 (2%)   | 42          | 75 |
| 1   | 20-C  | 944/1067 (88%)    | 921 (98%)   | 23 (2%)   | 44          | 77 |
| All | All   | 56640/64020 (88%) | 55347 (98%) | 1293 (2%) | 46          | 78 |

All (1293) residues with a non-rotameric sidechain are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | 1-A   | 44  | ARG  |
| 1   | 1-A   | 104 | TRP  |
| 1   | 1-A   | 140 | PHE  |
| 1   | 1-A   | 153 | MET  |
| 1   | 1-A   | 194 | PHE  |
| 1   | 1-A   | 200 | TYR  |
| 1   | 1-A   | 201 | PHE  |
| 1   | 1-A   | 265 | TYR  |
| 1   | 1-A   | 318 | PHE  |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 1-A          | 319        | ARG         |
| 1          | 1-A          | 568        | ASP         |
| 1          | 1-A          | 675        | GLN         |
| 1          | 1-A          | 721        | SER         |
| 1          | 1-A          | 730        | SER         |
| 1          | 1-A          | 759        | PHE         |
| 1          | 1-A          | 773        | GLU         |
| 1          | 1-A          | 774        | GLN         |
| 1          | 1-A          | 775        | ASP         |
| 1          | 1-A          | 914        | ASN         |
| 1          | 1-A          | 919        | ASN         |
| 1          | 1-A          | 945        | LEU         |
| 1          | 1-A          | 955        | ASN         |
| 1          | 1-A          | 1041       | ASP         |
| 1          | 1-B          | 45         | SER         |
| 1          | 1-B          | 59         | PHE         |
| 1          | 1-B          | 86         | PHE         |
| 1          | 1-B          | 153        | MET         |
| 1          | 1-B          | 160        | TYR         |
| 1          | 1-B          | 238        | PHE         |
| 1          | 1-B          | 245        | HIS         |
| 1          | 1-B          | 306        | PHE         |
| 1          | 1-B          | 318        | PHE         |
| 1          | 1-B          | 436        | TRP         |
| 1          | 1-B          | 592        | PHE         |
| 1          | 1-B          | 613        | GLN         |
| 1          | 1-B          | 675        | GLN         |
| 1          | 1-B          | 732        | THR         |
| 1          | 1-B          | 735        | SER         |
| 1          | 1-B          | 738        | CYS         |
| 1          | 1-B          | 775        | ASP         |
| 1          | 1-B          | 777        | ASN         |
| 1          | 1-B          | 796        | ASP         |
| 1          | 1-B          | 898        | PHE         |
| 1          | 1-B          | 919        | ASN         |
| 1          | 1-B          | 938        | LEU         |
| 1          | 1-B          | 962        | LEU         |
| 1          | 1-B          | 978        | ASN         |
| 1          | 1-B          | 1030       | SER         |
| 1          | 1-B          | 1038       | LYS         |
| 1          | 1-B          | 1106       | GLN         |
| 1          | 1-B          | 1127       | ASP         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 1-B          | 1138       | TYR         |
| 1          | 1-C          | 30         | ASN         |
| 1          | 1-C          | 170        | TYR         |
| 1          | 1-C          | 200        | TYR         |
| 1          | 1-C          | 238        | PHE         |
| 1          | 1-C          | 318        | PHE         |
| 1          | 1-C          | 562        | PHE         |
| 1          | 1-C          | 711        | SER         |
| 1          | 1-C          | 763        | LEU         |
| 1          | 1-C          | 773        | GLU         |
| 1          | 1-C          | 782        | PHE         |
| 1          | 1-C          | 817        | PHE         |
| 1          | 1-C          | 869        | MET         |
| 1          | 1-C          | 895        | GLN         |
| 1          | 1-C          | 904        | TYR         |
| 1          | 1-C          | 933        | LYS         |
| 1          | 1-C          | 953        | ASN         |
| 1          | 1-C          | 974        | SER         |
| 1          | 1-C          | 1001       | LEU         |
| 1          | 2-A          | 153        | MET         |
| 1          | 2-A          | 221        | SER         |
| 1          | 2-A          | 305        | SER         |
| 1          | 2-A          | 316        | SER         |
| 1          | 2-A          | 377        | PHE         |
| 1          | 2-A          | 386        | LYS         |
| 1          | 2-A          | 464        | PHE         |
| 1          | 2-A          | 558        | LYS         |
| 1          | 2-A          | 721        | SER         |
| 1          | 2-A          | 730        | SER         |
| 1          | 2-A          | 735        | SER         |
| 1          | 2-A          | 737        | ASP         |
| 1          | 2-A          | 759        | PHE         |
| 1          | 2-A          | 777        | ASN         |
| 1          | 2-A          | 823        | PHE         |
| 1          | 2-A          | 856        | ASN         |
| 1          | 2-A          | 914        | ASN         |
| 1          | 2-A          | 919        | ASN         |
| 1          | 2-A          | 945        | LEU         |
| 1          | 2-A          | 965        | GLN         |
| 1          | 2-A          | 967        | SER         |
| 1          | 2-A          | 1017       | GLU         |
| 1          | 2-B          | 53         | ASP         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 2-B          | 153        | MET         |
| 1          | 2-B          | 194        | PHE         |
| 1          | 2-B          | 224        | GLU         |
| 1          | 2-B          | 265        | TYR         |
| 1          | 2-B          | 389        | ASP         |
| 1          | 2-B          | 592        | PHE         |
| 1          | 2-B          | 730        | SER         |
| 1          | 2-B          | 738        | CYS         |
| 1          | 2-B          | 817        | PHE         |
| 1          | 2-B          | 856        | ASN         |
| 1          | 2-B          | 861        | LEU         |
| 1          | 2-B          | 865        | LEU         |
| 1          | 2-B          | 978        | ASN         |
| 1          | 2-B          | 990        | GLU         |
| 1          | 2-B          | 1042       | PHE         |
| 1          | 2-B          | 1101       | HIS         |
| 1          | 2-B          | 1118       | ASP         |
| 1          | 2-C          | 129        | LYS         |
| 1          | 2-C          | 140        | PHE         |
| 1          | 2-C          | 200        | TYR         |
| 1          | 2-C          | 201        | PHE         |
| 1          | 2-C          | 206        | LYS         |
| 1          | 2-C          | 318        | PHE         |
| 1          | 2-C          | 342        | PHE         |
| 1          | 2-C          | 377        | PHE         |
| 1          | 2-C          | 449        | TYR         |
| 1          | 2-C          | 707        | TYR         |
| 1          | 2-C          | 741        | TYR         |
| 1          | 2-C          | 775        | ASP         |
| 1          | 2-C          | 777        | ASN         |
| 1          | 2-C          | 904        | TYR         |
| 1          | 2-C          | 914        | ASN         |
| 1          | 2-C          | 954        | GLN         |
| 1          | 2-C          | 975        | SER         |
| 1          | 2-C          | 1119       | ASN         |
| 1          | 3-A          | 153        | MET         |
| 1          | 3-A          | 200        | TYR         |
| 1          | 3-A          | 314        | GLN         |
| 1          | 3-A          | 321        | GLN         |
| 1          | 3-A          | 721        | SER         |
| 1          | 3-A          | 727        | LEU         |
| 1          | 3-A          | 730        | SER         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 3-A          | 767        | LEU         |
| 1          | 3-A          | 775        | ASP         |
| 1          | 3-A          | 776        | LYS         |
| 1          | 3-A          | 823        | PHE         |
| 1          | 3-A          | 938        | LEU         |
| 1          | 3-A          | 955        | ASN         |
| 1          | 3-A          | 1010       | GLN         |
| 1          | 3-A          | 1017       | GLU         |
| 1          | 3-A          | 1038       | LYS         |
| 1          | 3-A          | 1041       | ASP         |
| 1          | 3-B          | 104        | TRP         |
| 1          | 3-B          | 133        | PHE         |
| 1          | 3-B          | 152        | TRP         |
| 1          | 3-B          | 153        | MET         |
| 1          | 3-B          | 168        | PHE         |
| 1          | 3-B          | 202        | LYS         |
| 1          | 3-B          | 245        | HIS         |
| 1          | 3-B          | 318        | PHE         |
| 1          | 3-B          | 319        | ARG         |
| 1          | 3-B          | 592        | PHE         |
| 1          | 3-B          | 738        | CYS         |
| 1          | 3-B          | 777        | ASN         |
| 1          | 3-B          | 796        | ASP         |
| 1          | 3-B          | 806        | LEU         |
| 1          | 3-B          | 817        | PHE         |
| 1          | 3-B          | 820        | ASP         |
| 1          | 3-B          | 861        | LEU         |
| 1          | 3-B          | 865        | LEU         |
| 1          | 3-B          | 898        | PHE         |
| 1          | 3-B          | 904        | TYR         |
| 1          | 3-B          | 947        | LYS         |
| 1          | 3-B          | 954        | GLN         |
| 1          | 3-B          | 990        | GLU         |
| 1          | 3-B          | 1030       | SER         |
| 1          | 3-C          | 40         | ASP         |
| 1          | 3-C          | 52         | GLN         |
| 1          | 3-C          | 53         | ASP         |
| 1          | 3-C          | 118        | LEU         |
| 1          | 3-C          | 269        | TYR         |
| 1          | 3-C          | 306        | PHE         |
| 1          | 3-C          | 318        | PHE         |
| 1          | 3-C          | 558        | LYS         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 3-C          | 759        | PHE         |
| 1          | 3-C          | 773        | GLU         |
| 1          | 3-C          | 775        | ASP         |
| 1          | 3-C          | 776        | LYS         |
| 1          | 3-C          | 779        | GLN         |
| 1          | 3-C          | 800        | PHE         |
| 1          | 3-C          | 947        | LYS         |
| 1          | 3-C          | 953        | ASN         |
| 1          | 3-C          | 954        | GLN         |
| 1          | 3-C          | 966        | LEU         |
| 1          | 3-C          | 974        | SER         |
| 1          | 3-C          | 990        | GLU         |
| 1          | 3-C          | 1001       | LEU         |
| 1          | 3-C          | 1002       | GLN         |
| 1          | 3-C          | 1017       | GLU         |
| 1          | 3-C          | 1019       | ARG         |
| 1          | 3-C          | 1106       | GLN         |
| 1          | 4-A          | 88         | ASP         |
| 1          | 4-A          | 198        | ASP         |
| 1          | 4-A          | 305        | SER         |
| 1          | 4-A          | 318        | PHE         |
| 1          | 4-A          | 408        | ARG         |
| 1          | 4-A          | 456        | PHE         |
| 1          | 4-A          | 568        | ASP         |
| 1          | 4-A          | 585        | LEU         |
| 1          | 4-A          | 721        | SER         |
| 1          | 4-A          | 763        | LEU         |
| 1          | 4-A          | 950        | ASP         |
| 1          | 4-A          | 957        | GLN         |
| 1          | 4-A          | 983        | ARG         |
| 1          | 4-A          | 1041       | ASP         |
| 1          | 4-A          | 1050       | MET         |
| 1          | 4-B          | 91         | TYR         |
| 1          | 4-B          | 140        | PHE         |
| 1          | 4-B          | 153        | MET         |
| 1          | 4-B          | 168        | PHE         |
| 1          | 4-B          | 205        | SER         |
| 1          | 4-B          | 306        | PHE         |
| 1          | 4-B          | 316        | SER         |
| 1          | 4-B          | 380        | TYR         |
| 1          | 4-B          | 408        | ARG         |
| 1          | 4-B          | 421        | TYR         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 4-B          | 423        | TYR         |
| 1          | 4-B          | 456        | PHE         |
| 1          | 4-B          | 464        | PHE         |
| 1          | 4-B          | 571        | ASP         |
| 1          | 4-B          | 707        | TYR         |
| 1          | 4-B          | 754        | LEU         |
| 1          | 4-B          | 762        | GLN         |
| 1          | 4-B          | 861        | LEU         |
| 1          | 4-B          | 865        | LEU         |
| 1          | 4-B          | 898        | PHE         |
| 1          | 4-B          | 1050       | MET         |
| 1          | 4-C          | 52         | GLN         |
| 1          | 4-C          | 53         | ASP         |
| 1          | 4-C          | 54         | LEU         |
| 1          | 4-C          | 116        | SER         |
| 1          | 4-C          | 204        | TYR         |
| 1          | 4-C          | 265        | TYR         |
| 1          | 4-C          | 271        | GLN         |
| 1          | 4-C          | 351        | TYR         |
| 1          | 4-C          | 495        | TYR         |
| 1          | 4-C          | 546        | LEU         |
| 1          | 4-C          | 673        | SER         |
| 1          | 4-C          | 730        | SER         |
| 1          | 4-C          | 763        | LEU         |
| 1          | 4-C          | 773        | GLU         |
| 1          | 4-C          | 775        | ASP         |
| 1          | 4-C          | 790        | LYS         |
| 1          | 4-C          | 817        | PHE         |
| 1          | 4-C          | 901        | GLN         |
| 1          | 4-C          | 907        | ASN         |
| 1          | 4-C          | 940        | SER         |
| 1          | 4-C          | 957        | GLN         |
| 1          | 4-C          | 967        | SER         |
| 1          | 4-C          | 1002       | GLN         |
| 1          | 4-C          | 1118       | ASP         |
| 1          | 5-A          | 269        | TYR         |
| 1          | 5-A          | 306        | PHE         |
| 1          | 5-A          | 318        | PHE         |
| 1          | 5-A          | 329        | PHE         |
| 1          | 5-A          | 558        | LYS         |
| 1          | 5-A          | 586        | ASP         |
| 1          | 5-A          | 721        | SER         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 5-A          | 730        | SER         |
| 1          | 5-A          | 762        | GLN         |
| 1          | 5-A          | 776        | LYS         |
| 1          | 5-A          | 780        | GLU         |
| 1          | 5-A          | 782        | PHE         |
| 1          | 5-A          | 823        | PHE         |
| 1          | 5-A          | 933        | LYS         |
| 1          | 5-A          | 985        | ASP         |
| 1          | 5-A          | 995        | ARG         |
| 1          | 5-A          | 1019       | ARG         |
| 1          | 5-A          | 1041       | ASP         |
| 1          | 5-B          | 43         | PHE         |
| 1          | 5-B          | 104        | TRP         |
| 1          | 5-B          | 153        | MET         |
| 1          | 5-B          | 201        | PHE         |
| 1          | 5-B          | 271        | GLN         |
| 1          | 5-B          | 318        | PHE         |
| 1          | 5-B          | 613        | GLN         |
| 1          | 5-B          | 671        | CYS         |
| 1          | 5-B          | 697        | MET         |
| 1          | 5-B          | 731        | MET         |
| 1          | 5-B          | 738        | CYS         |
| 1          | 5-B          | 756        | TYR         |
| 1          | 5-B          | 774        | GLN         |
| 1          | 5-B          | 779        | GLN         |
| 1          | 5-B          | 817        | PHE         |
| 1          | 5-B          | 895        | GLN         |
| 1          | 5-B          | 904        | TYR         |
| 1          | 5-B          | 907        | ASN         |
| 1          | 5-B          | 964        | LYS         |
| 1          | 5-B          | 1010       | GLN         |
| 1          | 5-B          | 1118       | ASP         |
| 1          | 5-C          | 30         | ASN         |
| 1          | 5-C          | 37         | TYR         |
| 1          | 5-C          | 53         | ASP         |
| 1          | 5-C          | 66         | HIS         |
| 1          | 5-C          | 81         | ASN         |
| 1          | 5-C          | 201        | PHE         |
| 1          | 5-C          | 269        | TYR         |
| 1          | 5-C          | 543        | PHE         |
| 1          | 5-C          | 567        | ARG         |
| 1          | 5-C          | 707        | TYR         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 5-C          | 730        | SER         |
| 1          | 5-C          | 762        | GLN         |
| 1          | 5-C          | 773        | GLU         |
| 1          | 5-C          | 776        | LYS         |
| 1          | 5-C          | 802        | PHE         |
| 1          | 5-C          | 917        | TYR         |
| 1          | 5-C          | 955        | ASN         |
| 1          | 5-C          | 1002       | GLN         |
| 1          | 5-C          | 1017       | GLU         |
| 1          | 5-C          | 1019       | ARG         |
| 1          | 5-C          | 1055       | SER         |
| 1          | 5-C          | 1118       | ASP         |
| 1          | 6-A          | 104        | TRP         |
| 1          | 6-A          | 153        | MET         |
| 1          | 6-A          | 196        | ASN         |
| 1          | 6-A          | 318        | PHE         |
| 1          | 6-A          | 730        | SER         |
| 1          | 6-A          | 777        | ASN         |
| 1          | 6-A          | 782        | PHE         |
| 1          | 6-A          | 796        | ASP         |
| 1          | 6-A          | 919        | ASN         |
| 1          | 6-A          | 938        | LEU         |
| 1          | 6-A          | 947        | LYS         |
| 1          | 6-A          | 954        | GLN         |
| 1          | 6-A          | 960        | ASN         |
| 1          | 6-A          | 975        | SER         |
| 1          | 6-A          | 1148       | PHE         |
| 1          | 6-B          | 53         | ASP         |
| 1          | 6-B          | 104        | TRP         |
| 1          | 6-B          | 168        | PHE         |
| 1          | 6-B          | 224        | GLU         |
| 1          | 6-B          | 306        | PHE         |
| 1          | 6-B          | 313        | TYR         |
| 1          | 6-B          | 380        | TYR         |
| 1          | 6-B          | 389        | ASP         |
| 1          | 6-B          | 392        | PHE         |
| 1          | 6-B          | 408        | ARG         |
| 1          | 6-B          | 449        | TYR         |
| 1          | 6-B          | 541        | PHE         |
| 1          | 6-B          | 586        | ASP         |
| 1          | 6-B          | 643        | PHE         |
| 1          | 6-B          | 707        | TYR         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 6-B          | 727        | LEU         |
| 1          | 6-B          | 730        | SER         |
| 1          | 6-B          | 731        | MET         |
| 1          | 6-B          | 735        | SER         |
| 1          | 6-B          | 737        | ASP         |
| 1          | 6-B          | 738        | CYS         |
| 1          | 6-B          | 748        | GLU         |
| 1          | 6-B          | 774        | GLN         |
| 1          | 6-B          | 815        | ARG         |
| 1          | 6-B          | 823        | PHE         |
| 1          | 6-B          | 865        | LEU         |
| 1          | 6-B          | 904        | TYR         |
| 1          | 6-B          | 907        | ASN         |
| 1          | 6-B          | 974        | SER         |
| 1          | 6-B          | 990        | GLU         |
| 1          | 6-B          | 1002       | GLN         |
| 1          | 6-B          | 1012       | LEU         |
| 1          | 6-B          | 1019       | ARG         |
| 1          | 6-B          | 1030       | SER         |
| 1          | 6-B          | 1050       | MET         |
| 1          | 6-C          | 104        | TRP         |
| 1          | 6-C          | 140        | PHE         |
| 1          | 6-C          | 202        | LYS         |
| 1          | 6-C          | 273        | ARG         |
| 1          | 6-C          | 309        | GLU         |
| 1          | 6-C          | 730        | SER         |
| 1          | 6-C          | 806        | LEU         |
| 1          | 6-C          | 817        | PHE         |
| 1          | 6-C          | 866        | THR         |
| 1          | 6-C          | 869        | MET         |
| 1          | 6-C          | 895        | GLN         |
| 1          | 6-C          | 938        | LEU         |
| 1          | 6-C          | 940        | SER         |
| 1          | 6-C          | 964        | LYS         |
| 1          | 6-C          | 967        | SER         |
| 1          | 6-C          | 1005       | GLN         |
| 1          | 7-A          | 50         | SER         |
| 1          | 7-A          | 92         | PHE         |
| 1          | 7-A          | 152        | TRP         |
| 1          | 7-A          | 221        | SER         |
| 1          | 7-A          | 318        | PHE         |
| 1          | 7-A          | 564        | GLN         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 7-A          | 730        | SER         |
| 1          | 7-A          | 759        | PHE         |
| 1          | 7-A          | 763        | LEU         |
| 1          | 7-A          | 773        | GLU         |
| 1          | 7-A          | 779        | GLN         |
| 1          | 7-A          | 914        | ASN         |
| 1          | 7-A          | 947        | LYS         |
| 1          | 7-A          | 955        | ASN         |
| 1          | 7-A          | 964        | LYS         |
| 1          | 7-A          | 967        | SER         |
| 1          | 7-A          | 983        | ARG         |
| 1          | 7-A          | 1002       | GLN         |
| 1          | 7-B          | 104        | TRP         |
| 1          | 7-B          | 152        | TRP         |
| 1          | 7-B          | 196        | ASN         |
| 1          | 7-B          | 201        | PHE         |
| 1          | 7-B          | 357        | ARG         |
| 1          | 7-B          | 403        | ARG         |
| 1          | 7-B          | 408        | ARG         |
| 1          | 7-B          | 421        | TYR         |
| 1          | 7-B          | 436        | TRP         |
| 1          | 7-B          | 464        | PHE         |
| 1          | 7-B          | 552        | LEU         |
| 1          | 7-B          | 707        | TYR         |
| 1          | 7-B          | 763        | LEU         |
| 1          | 7-B          | 777        | ASN         |
| 1          | 7-B          | 856        | ASN         |
| 1          | 7-B          | 914        | ASN         |
| 1          | 7-B          | 938        | LEU         |
| 1          | 7-B          | 954        | GLN         |
| 1          | 7-B          | 957        | GLN         |
| 1          | 7-B          | 1010       | GLN         |
| 1          | 7-B          | 1037       | SER         |
| 1          | 7-C          | 52         | GLN         |
| 1          | 7-C          | 53         | ASP         |
| 1          | 7-C          | 153        | MET         |
| 1          | 7-C          | 175        | PHE         |
| 1          | 7-C          | 265        | TYR         |
| 1          | 7-C          | 318        | PHE         |
| 1          | 7-C          | 319        | ARG         |
| 1          | 7-C          | 558        | LYS         |
| 1          | 7-C          | 710        | ASN         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 7-C          | 718        | PHE         |
| 1          | 7-C          | 730        | SER         |
| 1          | 7-C          | 738        | CYS         |
| 1          | 7-C          | 756        | TYR         |
| 1          | 7-C          | 759        | PHE         |
| 1          | 7-C          | 760        | CYS         |
| 1          | 7-C          | 763        | LEU         |
| 1          | 7-C          | 782        | PHE         |
| 1          | 7-C          | 796        | ASP         |
| 1          | 7-C          | 817        | PHE         |
| 1          | 7-C          | 823        | PHE         |
| 1          | 7-C          | 869        | MET         |
| 1          | 7-C          | 888        | PHE         |
| 1          | 7-C          | 967        | SER         |
| 1          | 7-C          | 981        | LEU         |
| 1          | 7-C          | 985        | ASP         |
| 1          | 7-C          | 994        | ASP         |
| 1          | 7-C          | 1050       | MET         |
| 1          | 7-C          | 1055       | SER         |
| 1          | 7-C          | 1086       | LYS         |
| 1          | 8-A          | 104        | TRP         |
| 1          | 8-A          | 194        | PHE         |
| 1          | 8-A          | 238        | PHE         |
| 1          | 8-A          | 273        | ARG         |
| 1          | 8-A          | 306        | PHE         |
| 1          | 8-A          | 318        | PHE         |
| 1          | 8-A          | 558        | LYS         |
| 1          | 8-A          | 568        | ASP         |
| 1          | 8-A          | 759        | PHE         |
| 1          | 8-A          | 763        | LEU         |
| 1          | 8-A          | 774        | GLN         |
| 1          | 8-A          | 775        | ASP         |
| 1          | 8-A          | 776        | LYS         |
| 1          | 8-A          | 823        | PHE         |
| 1          | 8-A          | 947        | LYS         |
| 1          | 8-A          | 955        | ASN         |
| 1          | 8-A          | 964        | LYS         |
| 1          | 8-A          | 967        | SER         |
| 1          | 8-A          | 974        | SER         |
| 1          | 8-A          | 977        | LEU         |
| 1          | 8-A          | 990        | GLU         |
| 1          | 8-A          | 996        | LEU         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 8-A          | 1148       | PHE         |
| 1          | 8-B          | 54         | LEU         |
| 1          | 8-B          | 86         | PHE         |
| 1          | 8-B          | 104        | TRP         |
| 1          | 8-B          | 201        | PHE         |
| 1          | 8-B          | 306        | PHE         |
| 1          | 8-B          | 377        | PHE         |
| 1          | 8-B          | 380        | TYR         |
| 1          | 8-B          | 408        | ARG         |
| 1          | 8-B          | 449        | TYR         |
| 1          | 8-B          | 537        | LYS         |
| 1          | 8-B          | 592        | PHE         |
| 1          | 8-B          | 731        | MET         |
| 1          | 8-B          | 738        | CYS         |
| 1          | 8-B          | 817        | PHE         |
| 1          | 8-B          | 820        | ASP         |
| 1          | 8-B          | 865        | LEU         |
| 1          | 8-B          | 898        | PHE         |
| 1          | 8-B          | 940        | SER         |
| 1          | 8-B          | 957        | GLN         |
| 1          | 8-B          | 964        | LYS         |
| 1          | 8-B          | 990        | GLU         |
| 1          | 8-B          | 1010       | GLN         |
| 1          | 8-B          | 1014       | ARG         |
| 1          | 8-B          | 1050       | MET         |
| 1          | 8-C          | 53         | ASP         |
| 1          | 8-C          | 104        | TRP         |
| 1          | 8-C          | 152        | TRP         |
| 1          | 8-C          | 194        | PHE         |
| 1          | 8-C          | 306        | PHE         |
| 1          | 8-C          | 318        | PHE         |
| 1          | 8-C          | 558        | LYS         |
| 1          | 8-C          | 662        | CYS         |
| 1          | 8-C          | 730        | SER         |
| 1          | 8-C          | 759        | PHE         |
| 1          | 8-C          | 782        | PHE         |
| 1          | 8-C          | 817        | PHE         |
| 1          | 8-C          | 875        | SER         |
| 1          | 8-C          | 914        | ASN         |
| 1          | 8-C          | 940        | SER         |
| 1          | 8-C          | 964        | LYS         |
| 1          | 8-C          | 974        | SER         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 8-C          | 1019       | ARG         |
| 1          | 9-A          | 50         | SER         |
| 1          | 9-A          | 52         | GLN         |
| 1          | 9-A          | 92         | PHE         |
| 1          | 9-A          | 170        | TYR         |
| 1          | 9-A          | 221        | SER         |
| 1          | 9-A          | 273        | ARG         |
| 1          | 9-A          | 318        | PHE         |
| 1          | 9-A          | 392        | PHE         |
| 1          | 9-A          | 408        | ARG         |
| 1          | 9-A          | 423        | TYR         |
| 1          | 9-A          | 568        | ASP         |
| 1          | 9-A          | 658        | ASN         |
| 1          | 9-A          | 741        | TYR         |
| 1          | 9-A          | 776        | LYS         |
| 1          | 9-A          | 777        | ASN         |
| 1          | 9-A          | 916        | LEU         |
| 1          | 9-A          | 919        | ASN         |
| 1          | 9-A          | 955        | ASN         |
| 1          | 9-A          | 965        | GLN         |
| 1          | 9-A          | 1041       | ASP         |
| 1          | 9-B          | 53         | ASP         |
| 1          | 9-B          | 168        | PHE         |
| 1          | 9-B          | 392        | PHE         |
| 1          | 9-B          | 456        | PHE         |
| 1          | 9-B          | 721        | SER         |
| 1          | 9-B          | 730        | SER         |
| 1          | 9-B          | 738        | CYS         |
| 1          | 9-B          | 754        | LEU         |
| 1          | 9-B          | 823        | PHE         |
| 1          | 9-B          | 864        | LEU         |
| 1          | 9-B          | 865        | LEU         |
| 1          | 9-B          | 869        | MET         |
| 1          | 9-B          | 938        | LEU         |
| 1          | 9-B          | 940        | SER         |
| 1          | 9-B          | 957        | GLN         |
| 1          | 9-B          | 964        | LYS         |
| 1          | 9-B          | 979        | ASP         |
| 1          | 9-B          | 1107       | ARG         |
| 1          | 9-C          | 153        | MET         |
| 1          | 9-C          | 201        | PHE         |
| 1          | 9-C          | 223        | LEU         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 9-C          | 273        | ARG         |
| 1          | 9-C          | 317        | ASN         |
| 1          | 9-C          | 318        | PHE         |
| 1          | 9-C          | 423        | TYR         |
| 1          | 9-C          | 558        | LYS         |
| 1          | 9-C          | 571        | ASP         |
| 1          | 9-C          | 580        | GLN         |
| 1          | 9-C          | 658        | ASN         |
| 1          | 9-C          | 730        | SER         |
| 1          | 9-C          | 741        | TYR         |
| 1          | 9-C          | 756        | TYR         |
| 1          | 9-C          | 782        | PHE         |
| 1          | 9-C          | 948        | LEU         |
| 1          | 9-C          | 964        | LYS         |
| 1          | 9-C          | 983        | ARG         |
| 1          | 9-C          | 1055       | SER         |
| 1          | 10-A         | 34         | ARG         |
| 1          | 10-A         | 133        | PHE         |
| 1          | 10-A         | 135        | PHE         |
| 1          | 10-A         | 177        | MET         |
| 1          | 10-A         | 206        | LYS         |
| 1          | 10-A         | 305        | SER         |
| 1          | 10-A         | 318        | PHE         |
| 1          | 10-A         | 365        | TYR         |
| 1          | 10-A         | 374        | PHE         |
| 1          | 10-A         | 436        | TRP         |
| 1          | 10-A         | 558        | LYS         |
| 1          | 10-A         | 711        | SER         |
| 1          | 10-A         | 759        | PHE         |
| 1          | 10-A         | 856        | ASN         |
| 1          | 10-A         | 914        | ASN         |
| 1          | 10-A         | 919        | ASN         |
| 1          | 10-A         | 947        | LYS         |
| 1          | 10-A         | 959        | LEU         |
| 1          | 10-A         | 964        | LYS         |
| 1          | 10-A         | 1050       | MET         |
| 1          | 10-B         | 140        | PHE         |
| 1          | 10-B         | 194        | PHE         |
| 1          | 10-B         | 287        | ASP         |
| 1          | 10-B         | 305        | SER         |
| 1          | 10-B         | 306        | PHE         |
| 1          | 10-B         | 540        | ASN         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 10-B         | 738        | CYS         |
| 1          | 10-B         | 762        | GLN         |
| 1          | 10-B         | 764        | ASN         |
| 1          | 10-B         | 775        | ASP         |
| 1          | 10-B         | 780        | GLU         |
| 1          | 10-B         | 817        | PHE         |
| 1          | 10-B         | 869        | MET         |
| 1          | 10-B         | 898        | PHE         |
| 1          | 10-B         | 904        | TYR         |
| 1          | 10-B         | 914        | ASN         |
| 1          | 10-B         | 919        | ASN         |
| 1          | 10-B         | 945        | LEU         |
| 1          | 10-B         | 970        | PHE         |
| 1          | 10-B         | 995        | ARG         |
| 1          | 10-B         | 1055       | SER         |
| 1          | 10-B         | 1108       | ASN         |
| 1          | 10-C         | 92         | PHE         |
| 1          | 10-C         | 140        | PHE         |
| 1          | 10-C         | 153        | MET         |
| 1          | 10-C         | 168        | PHE         |
| 1          | 10-C         | 201        | PHE         |
| 1          | 10-C         | 318        | PHE         |
| 1          | 10-C         | 536        | ASN         |
| 1          | 10-C         | 543        | PHE         |
| 1          | 10-C         | 650        | LEU         |
| 1          | 10-C         | 663        | ASP         |
| 1          | 10-C         | 707        | TYR         |
| 1          | 10-C         | 762        | GLN         |
| 1          | 10-C         | 773        | GLU         |
| 1          | 10-C         | 782        | PHE         |
| 1          | 10-C         | 901        | GLN         |
| 1          | 10-C         | 949        | GLN         |
| 1          | 10-C         | 953        | ASN         |
| 1          | 10-C         | 966        | LEU         |
| 1          | 10-C         | 974        | SER         |
| 1          | 10-C         | 1014       | ARG         |
| 1          | 10-C         | 1019       | ARG         |
| 1          | 11-A         | 44         | ARG         |
| 1          | 11-A         | 140        | PHE         |
| 1          | 11-A         | 265        | TYR         |
| 1          | 11-A         | 269        | TYR         |
| 1          | 11-A         | 303        | LEU         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 11-A         | 306        | PHE         |
| 1          | 11-A         | 318        | PHE         |
| 1          | 11-A         | 324        | GLU         |
| 1          | 11-A         | 707        | TYR         |
| 1          | 11-A         | 721        | SER         |
| 1          | 11-A         | 730        | SER         |
| 1          | 11-A         | 759        | PHE         |
| 1          | 11-A         | 763        | LEU         |
| 1          | 11-A         | 776        | LYS         |
| 1          | 11-A         | 777        | ASN         |
| 1          | 11-A         | 822        | LEU         |
| 1          | 11-A         | 823        | PHE         |
| 1          | 11-A         | 919        | ASN         |
| 1          | 11-A         | 959        | LEU         |
| 1          | 11-A         | 1017       | GLU         |
| 1          | 11-A         | 1019       | ARG         |
| 1          | 11-A         | 1050       | MET         |
| 1          | 11-B         | 104        | TRP         |
| 1          | 11-B         | 153        | MET         |
| 1          | 11-B         | 271        | GLN         |
| 1          | 11-B         | 291        | CYS         |
| 1          | 11-B         | 306        | PHE         |
| 1          | 11-B         | 392        | PHE         |
| 1          | 11-B         | 456        | PHE         |
| 1          | 11-B         | 508        | TYR         |
| 1          | 11-B         | 731        | MET         |
| 1          | 11-B         | 737        | ASP         |
| 1          | 11-B         | 741        | TYR         |
| 1          | 11-B         | 796        | ASP         |
| 1          | 11-B         | 817        | PHE         |
| 1          | 11-B         | 861        | LEU         |
| 1          | 11-B         | 865        | LEU         |
| 1          | 11-B         | 898        | PHE         |
| 1          | 11-B         | 945        | LEU         |
| 1          | 11-B         | 947        | LYS         |
| 1          | 11-B         | 955        | ASN         |
| 1          | 11-B         | 1012       | LEU         |
| 1          | 11-B         | 1050       | MET         |
| 1          | 11-B         | 1086       | LYS         |
| 1          | 11-B         | 1127       | ASP         |
| 1          | 11-B         | 1138       | TYR         |
| 1          | 11-C         | 50         | SER         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 11-C         | 52         | GLN         |
| 1          | 11-C         | 81         | ASN         |
| 1          | 11-C         | 194        | PHE         |
| 1          | 11-C         | 201        | PHE         |
| 1          | 11-C         | 223        | LEU         |
| 1          | 11-C         | 306        | PHE         |
| 1          | 11-C         | 318        | PHE         |
| 1          | 11-C         | 319        | ARG         |
| 1          | 11-C         | 558        | LYS         |
| 1          | 11-C         | 721        | SER         |
| 1          | 11-C         | 730        | SER         |
| 1          | 11-C         | 775        | ASP         |
| 1          | 11-C         | 776        | LYS         |
| 1          | 11-C         | 886        | TRP         |
| 1          | 11-C         | 888        | PHE         |
| 1          | 11-C         | 904        | TYR         |
| 1          | 11-C         | 914        | ASN         |
| 1          | 11-C         | 933        | LYS         |
| 1          | 11-C         | 938        | LEU         |
| 1          | 11-C         | 967        | SER         |
| 1          | 11-C         | 1055       | SER         |
| 1          | 11-C         | 1138       | TYR         |
| 1          | 12-A         | 53         | ASP         |
| 1          | 12-A         | 153        | MET         |
| 1          | 12-A         | 170        | TYR         |
| 1          | 12-A         | 194        | PHE         |
| 1          | 12-A         | 265        | TYR         |
| 1          | 12-A         | 306        | PHE         |
| 1          | 12-A         | 318        | PHE         |
| 1          | 12-A         | 558        | LYS         |
| 1          | 12-A         | 658        | ASN         |
| 1          | 12-A         | 737        | ASP         |
| 1          | 12-A         | 751        | ASN         |
| 1          | 12-A         | 901        | GLN         |
| 1          | 12-A         | 904        | TYR         |
| 1          | 12-A         | 947        | LYS         |
| 1          | 12-A         | 950        | ASP         |
| 1          | 12-A         | 964        | LYS         |
| 1          | 12-A         | 977        | LEU         |
| 1          | 12-A         | 978        | ASN         |
| 1          | 12-A         | 983        | ARG         |
| 1          | 12-A         | 1019       | ARG         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 12-A         | 1041       | ASP         |
| 1          | 12-A         | 1086       | LYS         |
| 1          | 12-B         | 53         | ASP         |
| 1          | 12-B         | 104        | TRP         |
| 1          | 12-B         | 194        | PHE         |
| 1          | 12-B         | 306        | PHE         |
| 1          | 12-B         | 318        | PHE         |
| 1          | 12-B         | 592        | PHE         |
| 1          | 12-B         | 707        | TYR         |
| 1          | 12-B         | 735        | SER         |
| 1          | 12-B         | 738        | CYS         |
| 1          | 12-B         | 741        | TYR         |
| 1          | 12-B         | 762        | GLN         |
| 1          | 12-B         | 775        | ASP         |
| 1          | 12-B         | 777        | ASN         |
| 1          | 12-B         | 817        | PHE         |
| 1          | 12-B         | 823        | PHE         |
| 1          | 12-B         | 898        | PHE         |
| 1          | 12-B         | 955        | ASN         |
| 1          | 12-B         | 964        | LYS         |
| 1          | 12-B         | 1041       | ASP         |
| 1          | 12-B         | 1050       | MET         |
| 1          | 12-B         | 1055       | SER         |
| 1          | 12-B         | 1118       | ASP         |
| 1          | 12-B         | 1138       | TYR         |
| 1          | 12-C         | 52         | GLN         |
| 1          | 12-C         | 104        | TRP         |
| 1          | 12-C         | 168        | PHE         |
| 1          | 12-C         | 265        | TYR         |
| 1          | 12-C         | 306        | PHE         |
| 1          | 12-C         | 318        | PHE         |
| 1          | 12-C         | 558        | LYS         |
| 1          | 12-C         | 662        | CYS         |
| 1          | 12-C         | 730        | SER         |
| 1          | 12-C         | 750        | SER         |
| 1          | 12-C         | 763        | LEU         |
| 1          | 12-C         | 773        | GLU         |
| 1          | 12-C         | 886        | TRP         |
| 1          | 12-C         | 904        | TYR         |
| 1          | 12-C         | 917        | TYR         |
| 1          | 12-C         | 933        | LYS         |
| 1          | 12-C         | 967        | SER         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 12-C         | 969        | ASN         |
| 1          | 12-C         | 990        | GLU         |
| 1          | 12-C         | 1017       | GLU         |
| 1          | 12-C         | 1037       | SER         |
| 1          | 12-C         | 1055       | SER         |
| 1          | 13-A         | 92         | PHE         |
| 1          | 13-A         | 104        | TRP         |
| 1          | 13-A         | 140        | PHE         |
| 1          | 13-A         | 194        | PHE         |
| 1          | 13-A         | 265        | TYR         |
| 1          | 13-A         | 324        | GLU         |
| 1          | 13-A         | 643        | PHE         |
| 1          | 13-A         | 721        | SER         |
| 1          | 13-A         | 730        | SER         |
| 1          | 13-A         | 756        | TYR         |
| 1          | 13-A         | 763        | LEU         |
| 1          | 13-A         | 767        | LEU         |
| 1          | 13-A         | 776        | LYS         |
| 1          | 13-A         | 954        | GLN         |
| 1          | 13-A         | 957        | GLN         |
| 1          | 13-A         | 967        | SER         |
| 1          | 13-A         | 969        | ASN         |
| 1          | 13-A         | 974        | SER         |
| 1          | 13-A         | 1002       | GLN         |
| 1          | 13-A         | 1118       | ASP         |
| 1          | 13-B         | 50         | SER         |
| 1          | 13-B         | 86         | PHE         |
| 1          | 13-B         | 92         | PHE         |
| 1          | 13-B         | 104        | TRP         |
| 1          | 13-B         | 153        | MET         |
| 1          | 13-B         | 168        | PHE         |
| 1          | 13-B         | 201        | PHE         |
| 1          | 13-B         | 296        | LEU         |
| 1          | 13-B         | 316        | SER         |
| 1          | 13-B         | 317        | ASN         |
| 1          | 13-B         | 558        | LYS         |
| 1          | 13-B         | 730        | SER         |
| 1          | 13-B         | 731        | MET         |
| 1          | 13-B         | 751        | ASN         |
| 1          | 13-B         | 764        | ASN         |
| 1          | 13-B         | 820        | ASP         |
| 1          | 13-B         | 823        | PHE         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 13-B         | 914        | ASN         |
| 1          | 13-B         | 954        | GLN         |
| 1          | 13-B         | 978        | ASN         |
| 1          | 13-B         | 1014       | ARG         |
| 1          | 13-B         | 1019       | ARG         |
| 1          | 13-B         | 1030       | SER         |
| 1          | 13-B         | 1042       | PHE         |
| 1          | 13-B         | 1050       | MET         |
| 1          | 13-B         | 1118       | ASP         |
| 1          | 13-B         | 1142       | GLN         |
| 1          | 13-C         | 140        | PHE         |
| 1          | 13-C         | 153        | MET         |
| 1          | 13-C         | 168        | PHE         |
| 1          | 13-C         | 201        | PHE         |
| 1          | 13-C         | 562        | PHE         |
| 1          | 13-C         | 730        | SER         |
| 1          | 13-C         | 773        | GLU         |
| 1          | 13-C         | 779        | GLN         |
| 1          | 13-C         | 782        | PHE         |
| 1          | 13-C         | 823        | PHE         |
| 1          | 13-C         | 878        | LEU         |
| 1          | 13-C         | 950        | ASP         |
| 1          | 13-C         | 990        | GLU         |
| 1          | 13-C         | 1002       | GLN         |
| 1          | 13-C         | 1007       | TYR         |
| 1          | 13-C         | 1041       | ASP         |
| 1          | 13-C         | 1118       | ASP         |
| 1          | 14-A         | 53         | ASP         |
| 1          | 14-A         | 118        | LEU         |
| 1          | 14-A         | 193        | VAL         |
| 1          | 14-A         | 221        | SER         |
| 1          | 14-A         | 224        | GLU         |
| 1          | 14-A         | 304        | LYS         |
| 1          | 14-A         | 318        | PHE         |
| 1          | 14-A         | 365        | TYR         |
| 1          | 14-A         | 389        | ASP         |
| 1          | 14-A         | 464        | PHE         |
| 1          | 14-A         | 558        | LYS         |
| 1          | 14-A         | 568        | ASP         |
| 1          | 14-A         | 643        | PHE         |
| 1          | 14-A         | 721        | SER         |
| 1          | 14-A         | 763        | LEU         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 14-A         | 775        | ASP         |
| 1          | 14-A         | 823        | PHE         |
| 1          | 14-A         | 914        | ASN         |
| 1          | 14-A         | 957        | GLN         |
| 1          | 14-A         | 967        | SER         |
| 1          | 14-A         | 974        | SER         |
| 1          | 14-A         | 1041       | ASP         |
| 1          | 14-B         | 153        | MET         |
| 1          | 14-B         | 168        | PHE         |
| 1          | 14-B         | 201        | PHE         |
| 1          | 14-B         | 214        | ARG         |
| 1          | 14-B         | 357        | ARG         |
| 1          | 14-B         | 380        | TYR         |
| 1          | 14-B         | 643        | PHE         |
| 1          | 14-B         | 707        | TYR         |
| 1          | 14-B         | 738        | CYS         |
| 1          | 14-B         | 817        | PHE         |
| 1          | 14-B         | 864        | LEU         |
| 1          | 14-B         | 901        | GLN         |
| 1          | 14-B         | 940        | SER         |
| 1          | 14-B         | 990        | GLU         |
| 1          | 14-B         | 1019       | ARG         |
| 1          | 14-B         | 1030       | SER         |
| 1          | 14-B         | 1050       | MET         |
| 1          | 14-B         | 1086       | LYS         |
| 1          | 14-B         | 1108       | ASN         |
| 1          | 14-C         | 200        | TYR         |
| 1          | 14-C         | 309        | GLU         |
| 1          | 14-C         | 318        | PHE         |
| 1          | 14-C         | 423        | TYR         |
| 1          | 14-C         | 466        | ARG         |
| 1          | 14-C         | 776        | LYS         |
| 1          | 14-C         | 823        | PHE         |
| 1          | 14-C         | 901        | GLN         |
| 1          | 14-C         | 938        | LEU         |
| 1          | 14-C         | 1001       | LEU         |
| 1          | 14-C         | 1002       | GLN         |
| 1          | 14-C         | 1055       | SER         |
| 1          | 15-A         | 79         | PHE         |
| 1          | 15-A         | 81         | ASN         |
| 1          | 15-A         | 92         | PHE         |
| 1          | 15-A         | 104        | TRP         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 15-A         | 169        | GLU         |
| 1          | 15-A         | 201        | PHE         |
| 1          | 15-A         | 206        | LYS         |
| 1          | 15-A         | 224        | GLU         |
| 1          | 15-A         | 293        | LEU         |
| 1          | 15-A         | 318        | PHE         |
| 1          | 15-A         | 568        | ASP         |
| 1          | 15-A         | 571        | ASP         |
| 1          | 15-A         | 643        | PHE         |
| 1          | 15-A         | 660        | TYR         |
| 1          | 15-A         | 730        | SER         |
| 1          | 15-A         | 735        | SER         |
| 1          | 15-A         | 796        | ASP         |
| 1          | 15-A         | 884        | SER         |
| 1          | 15-A         | 886        | TRP         |
| 1          | 15-A         | 904        | TYR         |
| 1          | 15-A         | 914        | ASN         |
| 1          | 15-A         | 933        | LYS         |
| 1          | 15-A         | 940        | SER         |
| 1          | 15-A         | 947        | LYS         |
| 1          | 15-A         | 955        | ASN         |
| 1          | 15-A         | 967        | SER         |
| 1          | 15-A         | 1002       | GLN         |
| 1          | 15-B         | 66         | HIS         |
| 1          | 15-B         | 92         | PHE         |
| 1          | 15-B         | 104        | TRP         |
| 1          | 15-B         | 133        | PHE         |
| 1          | 15-B         | 153        | MET         |
| 1          | 15-B         | 168        | PHE         |
| 1          | 15-B         | 238        | PHE         |
| 1          | 15-B         | 273        | ARG         |
| 1          | 15-B         | 456        | PHE         |
| 1          | 15-B         | 546        | LEU         |
| 1          | 15-B         | 558        | LYS         |
| 1          | 15-B         | 592        | PHE         |
| 1          | 15-B         | 596        | SER         |
| 1          | 15-B         | 738        | CYS         |
| 1          | 15-B         | 817        | PHE         |
| 1          | 15-B         | 861        | LEU         |
| 1          | 15-B         | 914        | ASN         |
| 1          | 15-B         | 938        | LEU         |
| 1          | 15-B         | 945        | LEU         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 15-B         | 957        | GLN         |
| 1          | 15-B         | 990        | GLU         |
| 1          | 15-B         | 1007       | TYR         |
| 1          | 15-B         | 1012       | LEU         |
| 1          | 15-B         | 1019       | ARG         |
| 1          | 15-C         | 31         | SER         |
| 1          | 15-C         | 140        | PHE         |
| 1          | 15-C         | 194        | PHE         |
| 1          | 15-C         | 200        | TYR         |
| 1          | 15-C         | 206        | LYS         |
| 1          | 15-C         | 221        | SER         |
| 1          | 15-C         | 273        | ARG         |
| 1          | 15-C         | 306        | PHE         |
| 1          | 15-C         | 316        | SER         |
| 1          | 15-C         | 318        | PHE         |
| 1          | 15-C         | 559        | PHE         |
| 1          | 15-C         | 673        | SER         |
| 1          | 15-C         | 738        | CYS         |
| 1          | 15-C         | 767        | LEU         |
| 1          | 15-C         | 773        | GLU         |
| 1          | 15-C         | 776        | LYS         |
| 1          | 15-C         | 782        | PHE         |
| 1          | 15-C         | 813        | SER         |
| 1          | 15-C         | 823        | PHE         |
| 1          | 15-C         | 912        | THR         |
| 1          | 15-C         | 974        | SER         |
| 1          | 15-C         | 990        | GLU         |
| 1          | 15-C         | 1019       | ARG         |
| 1          | 15-C         | 1066       | THR         |
| 1          | 16-A         | 53         | ASP         |
| 1          | 16-A         | 113        | LYS         |
| 1          | 16-A         | 194        | PHE         |
| 1          | 16-A         | 198        | ASP         |
| 1          | 16-A         | 201        | PHE         |
| 1          | 16-A         | 305        | SER         |
| 1          | 16-A         | 318        | PHE         |
| 1          | 16-A         | 568        | ASP         |
| 1          | 16-A         | 643        | PHE         |
| 1          | 16-A         | 721        | SER         |
| 1          | 16-A         | 730        | SER         |
| 1          | 16-A         | 735        | SER         |
| 1          | 16-A         | 762        | GLN         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 16-A         | 773        | GLU         |
| 1          | 16-A         | 777        | ASN         |
| 1          | 16-A         | 884        | SER         |
| 1          | 16-A         | 950        | ASP         |
| 1          | 16-A         | 959        | LEU         |
| 1          | 16-A         | 967        | SER         |
| 1          | 16-A         | 975        | SER         |
| 1          | 16-A         | 978        | ASN         |
| 1          | 16-A         | 1017       | GLU         |
| 1          | 16-A         | 1041       | ASP         |
| 1          | 16-A         | 1050       | MET         |
| 1          | 16-A         | 1123       | SER         |
| 1          | 16-A         | 1146       | ASP         |
| 1          | 16-B         | 53         | ASP         |
| 1          | 16-B         | 129        | LYS         |
| 1          | 16-B         | 153        | MET         |
| 1          | 16-B         | 276        | LEU         |
| 1          | 16-B         | 296        | LEU         |
| 1          | 16-B         | 305        | SER         |
| 1          | 16-B         | 318        | PHE         |
| 1          | 16-B         | 592        | PHE         |
| 1          | 16-B         | 707        | TYR         |
| 1          | 16-B         | 735        | SER         |
| 1          | 16-B         | 738        | CYS         |
| 1          | 16-B         | 755        | GLN         |
| 1          | 16-B         | 762        | GLN         |
| 1          | 16-B         | 777        | ASN         |
| 1          | 16-B         | 817        | PHE         |
| 1          | 16-B         | 861        | LEU         |
| 1          | 16-B         | 865        | LEU         |
| 1          | 16-B         | 954        | GLN         |
| 1          | 16-B         | 1030       | SER         |
| 1          | 16-B         | 1038       | LYS         |
| 1          | 16-B         | 1041       | ASP         |
| 1          | 16-B         | 1106       | GLN         |
| 1          | 16-C         | 113        | LYS         |
| 1          | 16-C         | 153        | MET         |
| 1          | 16-C         | 201        | PHE         |
| 1          | 16-C         | 306        | PHE         |
| 1          | 16-C         | 314        | GLN         |
| 1          | 16-C         | 318        | PHE         |
| 1          | 16-C         | 533        | LEU         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 16-C         | 562        | PHE         |
| 1          | 16-C         | 643        | PHE         |
| 1          | 16-C         | 663        | ASP         |
| 1          | 16-C         | 730        | SER         |
| 1          | 16-C         | 737        | ASP         |
| 1          | 16-C         | 773        | GLU         |
| 1          | 16-C         | 782        | PHE         |
| 1          | 16-C         | 817        | PHE         |
| 1          | 16-C         | 861        | LEU         |
| 1          | 16-C         | 904        | TYR         |
| 1          | 16-C         | 933        | LYS         |
| 1          | 16-C         | 940        | SER         |
| 1          | 16-C         | 966        | LEU         |
| 1          | 16-C         | 990        | GLU         |
| 1          | 16-C         | 1001       | LEU         |
| 1          | 16-C         | 1005       | GLN         |
| 1          | 16-C         | 1037       | SER         |
| 1          | 16-C         | 1055       | SER         |
| 1          | 16-C         | 1118       | ASP         |
| 1          | 17-A         | 34         | ARG         |
| 1          | 17-A         | 200        | TYR         |
| 1          | 17-A         | 201        | PHE         |
| 1          | 17-A         | 291        | CYS         |
| 1          | 17-A         | 305        | SER         |
| 1          | 17-A         | 306        | PHE         |
| 1          | 17-A         | 334        | ASN         |
| 1          | 17-A         | 536        | ASN         |
| 1          | 17-A         | 558        | LYS         |
| 1          | 17-A         | 562        | PHE         |
| 1          | 17-A         | 568        | ASP         |
| 1          | 17-A         | 663        | ASP         |
| 1          | 17-A         | 730        | SER         |
| 1          | 17-A         | 755        | GLN         |
| 1          | 17-A         | 759        | PHE         |
| 1          | 17-A         | 763        | LEU         |
| 1          | 17-A         | 796        | ASP         |
| 1          | 17-A         | 823        | PHE         |
| 1          | 17-A         | 869        | MET         |
| 1          | 17-A         | 916        | LEU         |
| 1          | 17-A         | 955        | ASN         |
| 1          | 17-A         | 1017       | GLU         |
| 1          | 17-A         | 1041       | ASP         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 17-A         | 1118       | ASP         |
| 1          | 17-B         | 91         | TYR         |
| 1          | 17-B         | 104        | TRP         |
| 1          | 17-B         | 140        | PHE         |
| 1          | 17-B         | 152        | TRP         |
| 1          | 17-B         | 194        | PHE         |
| 1          | 17-B         | 201        | PHE         |
| 1          | 17-B         | 306        | PHE         |
| 1          | 17-B         | 392        | PHE         |
| 1          | 17-B         | 408        | ARG         |
| 1          | 17-B         | 436        | TRP         |
| 1          | 17-B         | 449        | TYR         |
| 1          | 17-B         | 456        | PHE         |
| 1          | 17-B         | 567        | ARG         |
| 1          | 17-B         | 731        | MET         |
| 1          | 17-B         | 733        | LYS         |
| 1          | 17-B         | 749        | CYS         |
| 1          | 17-B         | 760        | CYS         |
| 1          | 17-B         | 762        | GLN         |
| 1          | 17-B         | 765        | ARG         |
| 1          | 17-B         | 774        | GLN         |
| 1          | 17-B         | 796        | ASP         |
| 1          | 17-B         | 817        | PHE         |
| 1          | 17-B         | 820        | ASP         |
| 1          | 17-B         | 823        | PHE         |
| 1          | 17-B         | 865        | LEU         |
| 1          | 17-B         | 898        | PHE         |
| 1          | 17-B         | 960        | ASN         |
| 1          | 17-B         | 994        | ASP         |
| 1          | 17-B         | 1007       | TYR         |
| 1          | 17-B         | 1050       | MET         |
| 1          | 17-C         | 40         | ASP         |
| 1          | 17-C         | 52         | GLN         |
| 1          | 17-C         | 92         | PHE         |
| 1          | 17-C         | 153        | MET         |
| 1          | 17-C         | 201        | PHE         |
| 1          | 17-C         | 245        | HIS         |
| 1          | 17-C         | 306        | PHE         |
| 1          | 17-C         | 318        | PHE         |
| 1          | 17-C         | 319        | ARG         |
| 1          | 17-C         | 558        | LYS         |
| 1          | 17-C         | 612        | TYR         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 17-C         | 663        | ASP         |
| 1          | 17-C         | 721        | SER         |
| 1          | 17-C         | 730        | SER         |
| 1          | 17-C         | 775        | ASP         |
| 1          | 17-C         | 933        | LYS         |
| 1          | 17-C         | 940        | SER         |
| 1          | 17-C         | 967        | SER         |
| 1          | 17-C         | 974        | SER         |
| 1          | 17-C         | 995        | ARG         |
| 1          | 18-A         | 30         | ASN         |
| 1          | 18-A         | 50         | SER         |
| 1          | 18-A         | 160        | TYR         |
| 1          | 18-A         | 177        | MET         |
| 1          | 18-A         | 194        | PHE         |
| 1          | 18-A         | 200        | TYR         |
| 1          | 18-A         | 221        | SER         |
| 1          | 18-A         | 224        | GLU         |
| 1          | 18-A         | 237        | ARG         |
| 1          | 18-A         | 265        | TYR         |
| 1          | 18-A         | 313        | TYR         |
| 1          | 18-A         | 318        | PHE         |
| 1          | 18-A         | 436        | TRP         |
| 1          | 18-A         | 558        | LYS         |
| 1          | 18-A         | 565        | PHE         |
| 1          | 18-A         | 654        | GLU         |
| 1          | 18-A         | 755        | GLN         |
| 1          | 18-A         | 823        | PHE         |
| 1          | 18-A         | 905        | ARG         |
| 1          | 18-A         | 919        | ASN         |
| 1          | 18-A         | 965        | GLN         |
| 1          | 18-A         | 975        | SER         |
| 1          | 18-A         | 985        | ASP         |
| 1          | 18-A         | 1041       | ASP         |
| 1          | 18-B         | 50         | SER         |
| 1          | 18-B         | 92         | PHE         |
| 1          | 18-B         | 198        | ASP         |
| 1          | 18-B         | 304        | LYS         |
| 1          | 18-B         | 318        | PHE         |
| 1          | 18-B         | 380        | TYR         |
| 1          | 18-B         | 392        | PHE         |
| 1          | 18-B         | 592        | PHE         |
| 1          | 18-B         | 612        | TYR         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 18-B         | 730        | SER         |
| 1          | 18-B         | 731        | MET         |
| 1          | 18-B         | 735        | SER         |
| 1          | 18-B         | 741        | TYR         |
| 1          | 18-B         | 775        | ASP         |
| 1          | 18-B         | 776        | LYS         |
| 1          | 18-B         | 817        | PHE         |
| 1          | 18-B         | 964        | LYS         |
| 1          | 18-B         | 1030       | SER         |
| 1          | 18-B         | 1037       | SER         |
| 1          | 18-B         | 1086       | LYS         |
| 1          | 18-C         | 49         | HIS         |
| 1          | 18-C         | 52         | GLN         |
| 1          | 18-C         | 152        | TRP         |
| 1          | 18-C         | 201        | PHE         |
| 1          | 18-C         | 265        | TYR         |
| 1          | 18-C         | 304        | LYS         |
| 1          | 18-C         | 318        | PHE         |
| 1          | 18-C         | 533        | LEU         |
| 1          | 18-C         | 707        | TYR         |
| 1          | 18-C         | 750        | SER         |
| 1          | 18-C         | 775        | ASP         |
| 1          | 18-C         | 782        | PHE         |
| 1          | 18-C         | 940        | SER         |
| 1          | 18-C         | 954        | GLN         |
| 1          | 18-C         | 957        | GLN         |
| 1          | 18-C         | 974        | SER         |
| 1          | 18-C         | 975        | SER         |
| 1          | 18-C         | 1002       | GLN         |
| 1          | 18-C         | 1055       | SER         |
| 1          | 19-A         | 53         | ASP         |
| 1          | 19-A         | 305        | SER         |
| 1          | 19-A         | 306        | PHE         |
| 1          | 19-A         | 643        | PHE         |
| 1          | 19-A         | 658        | ASN         |
| 1          | 19-A         | 735        | SER         |
| 1          | 19-A         | 755        | GLN         |
| 1          | 19-A         | 759        | PHE         |
| 1          | 19-A         | 796        | ASP         |
| 1          | 19-A         | 867        | ASP         |
| 1          | 19-A         | 888        | PHE         |
| 1          | 19-B         | 104        | TRP         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 19-B         | 194        | PHE         |
| 1          | 19-B         | 201        | PHE         |
| 1          | 19-B         | 269        | TYR         |
| 1          | 19-B         | 306        | PHE         |
| 1          | 19-B         | 316        | SER         |
| 1          | 19-B         | 318        | PHE         |
| 1          | 19-B         | 697        | MET         |
| 1          | 19-B         | 707        | TYR         |
| 1          | 19-B         | 817        | PHE         |
| 1          | 19-B         | 861        | LEU         |
| 1          | 19-B         | 865        | LEU         |
| 1          | 19-B         | 904        | TYR         |
| 1          | 19-B         | 975        | SER         |
| 1          | 19-B         | 1007       | TYR         |
| 1          | 19-B         | 1148       | PHE         |
| 1          | 19-C         | 95         | THR         |
| 1          | 19-C         | 104        | TRP         |
| 1          | 19-C         | 168        | PHE         |
| 1          | 19-C         | 296        | LEU         |
| 1          | 19-C         | 535        | LYS         |
| 1          | 19-C         | 650        | LEU         |
| 1          | 19-C         | 673        | SER         |
| 1          | 19-C         | 737        | ASP         |
| 1          | 19-C         | 756        | TYR         |
| 1          | 19-C         | 773        | GLU         |
| 1          | 19-C         | 825        | LYS         |
| 1          | 19-C         | 866        | THR         |
| 1          | 19-C         | 894        | LEU         |
| 1          | 19-C         | 901        | GLN         |
| 1          | 19-C         | 954        | GLN         |
| 1          | 19-C         | 955        | ASN         |
| 1          | 19-C         | 983        | ARG         |
| 1          | 19-C         | 1041       | ASP         |
| 1          | 19-C         | 1111       | GLU         |
| 1          | 20-A         | 50         | SER         |
| 1          | 20-A         | 134        | GLN         |
| 1          | 20-A         | 152        | TRP         |
| 1          | 20-A         | 153        | MET         |
| 1          | 20-A         | 206        | LYS         |
| 1          | 20-A         | 221        | SER         |
| 1          | 20-A         | 369        | TYR         |
| 1          | 20-A         | 386        | LYS         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 20-A         | 568        | ASP         |
| 1          | 20-A         | 571        | ASP         |
| 1          | 20-A         | 751        | ASN         |
| 1          | 20-A         | 762        | GLN         |
| 1          | 20-A         | 763        | LEU         |
| 1          | 20-A         | 773        | GLU         |
| 1          | 20-A         | 776        | LYS         |
| 1          | 20-A         | 861        | LEU         |
| 1          | 20-A         | 867        | ASP         |
| 1          | 20-A         | 884        | SER         |
| 1          | 20-A         | 888        | PHE         |
| 1          | 20-A         | 904        | TYR         |
| 1          | 20-A         | 914        | ASN         |
| 1          | 20-A         | 933        | LYS         |
| 1          | 20-A         | 940        | SER         |
| 1          | 20-A         | 950        | ASP         |
| 1          | 20-A         | 965        | GLN         |
| 1          | 20-A         | 966        | LEU         |
| 1          | 20-A         | 990        | GLU         |
| 1          | 20-B         | 152        | TRP         |
| 1          | 20-B         | 153        | MET         |
| 1          | 20-B         | 160        | TYR         |
| 1          | 20-B         | 173        | GLN         |
| 1          | 20-B         | 201        | PHE         |
| 1          | 20-B         | 697        | MET         |
| 1          | 20-B         | 754        | LEU         |
| 1          | 20-B         | 774        | GLN         |
| 1          | 20-B         | 775        | ASP         |
| 1          | 20-B         | 782        | PHE         |
| 1          | 20-B         | 806        | LEU         |
| 1          | 20-B         | 813        | SER         |
| 1          | 20-B         | 817        | PHE         |
| 1          | 20-B         | 861        | LEU         |
| 1          | 20-B         | 865        | LEU         |
| 1          | 20-B         | 898        | PHE         |
| 1          | 20-B         | 940        | SER         |
| 1          | 20-B         | 955        | ASN         |
| 1          | 20-B         | 957        | GLN         |
| 1          | 20-B         | 979        | ASP         |
| 1          | 20-B         | 1019       | ARG         |
| 1          | 20-B         | 1030       | SER         |
| 1          | 20-B         | 1037       | SER         |

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| Mol | Chain | Res  | Type |
|-----|-------|------|------|
| 1   | 20-B  | 1148 | PHE  |
| 1   | 20-C  | 140  | PHE  |
| 1   | 20-C  | 200  | TYR  |
| 1   | 20-C  | 201  | PHE  |
| 1   | 20-C  | 436  | TRP  |
| 1   | 20-C  | 515  | PHE  |
| 1   | 20-C  | 529  | LYS  |
| 1   | 20-C  | 538  | CYS  |
| 1   | 20-C  | 541  | PHE  |
| 1   | 20-C  | 558  | LYS  |
| 1   | 20-C  | 776  | LYS  |
| 1   | 20-C  | 825  | LYS  |
| 1   | 20-C  | 854  | LYS  |
| 1   | 20-C  | 901  | GLN  |
| 1   | 20-C  | 907  | ASN  |
| 1   | 20-C  | 940  | SER  |
| 1   | 20-C  | 983  | ARG  |
| 1   | 20-C  | 985  | ASP  |
| 1   | 20-C  | 995  | ARG  |
| 1   | 20-C  | 1005 | GLN  |
| 1   | 20-C  | 1010 | GLN  |
| 1   | 20-C  | 1014 | ARG  |
| 1   | 20-C  | 1019 | ARG  |
| 1   | 20-C  | 1050 | MET  |

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (170) such sidechains are listed below:

| Mol | Chain | Res  | Type |
|-----|-------|------|------|
| 1   | 1-A   | 137  | ASN  |
| 1   | 1-A   | 774  | GLN  |
| 1   | 1-A   | 913  | GLN  |
| 1   | 1-B   | 613  | GLN  |
| 1   | 1-B   | 913  | GLN  |
| 1   | 1-B   | 1054 | GLN  |
| 1   | 1-C   | 314  | GLN  |
| 1   | 2-A   | 314  | GLN  |
| 1   | 2-A   | 774  | GLN  |
| 1   | 2-A   | 784  | GLN  |
| 1   | 2-A   | 1005 | GLN  |
| 1   | 2-B   | 317  | ASN  |
| 1   | 2-B   | 913  | GLN  |
| 1   | 2-B   | 1054 | GLN  |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 2-C          | 1005       | GLN         |
| 1          | 3-A          | 755        | GLN         |
| 1          | 3-A          | 913        | GLN         |
| 1          | 3-B          | 52         | GLN         |
| 1          | 3-B          | 913        | GLN         |
| 1          | 3-C          | 314        | GLN         |
| 1          | 3-C          | 969        | ASN         |
| 1          | 3-C          | 992        | GLN         |
| 1          | 3-C          | 1005       | GLN         |
| 1          | 4-A          | 774        | GLN         |
| 1          | 4-A          | 1011       | GLN         |
| 1          | 4-C          | 487        | ASN         |
| 1          | 4-C          | 901        | GLN         |
| 1          | 4-C          | 955        | ASN         |
| 1          | 4-C          | 957        | GLN         |
| 1          | 5-A          | 784        | GLN         |
| 1          | 5-A          | 913        | GLN         |
| 1          | 5-A          | 1002       | GLN         |
| 1          | 5-A          | 1106       | GLN         |
| 1          | 5-B          | 751        | ASN         |
| 1          | 5-B          | 774        | GLN         |
| 1          | 5-B          | 784        | GLN         |
| 1          | 5-B          | 901        | GLN         |
| 1          | 5-B          | 914        | ASN         |
| 1          | 5-B          | 1005       | GLN         |
| 1          | 5-B          | 1054       | GLN         |
| 1          | 6-A          | 955        | ASN         |
| 1          | 6-A          | 969        | ASN         |
| 1          | 6-B          | 613        | GLN         |
| 1          | 6-B          | 755        | GLN         |
| 1          | 6-C          | 314        | GLN         |
| 1          | 6-C          | 613        | GLN         |
| 1          | 6-C          | 784        | GLN         |
| 1          | 6-C          | 787        | GLN         |
| 1          | 7-A          | 314        | GLN         |
| 1          | 7-A          | 613        | GLN         |
| 1          | 7-B          | 784        | GLN         |
| 1          | 7-B          | 901        | GLN         |
| 1          | 7-B          | 949        | GLN         |
| 1          | 7-B          | 955        | ASN         |
| 1          | 7-B          | 957        | GLN         |
| 1          | 7-B          | 1005       | GLN         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 7-C          | 314        | GLN         |
| 1          | 7-C          | 1002       | GLN         |
| 1          | 7-C          | 1005       | GLN         |
| 1          | 8-B          | 613        | GLN         |
| 1          | 8-B          | 901        | GLN         |
| 1          | 8-B          | 913        | GLN         |
| 1          | 8-B          | 1011       | GLN         |
| 1          | 8-C          | 784        | GLN         |
| 1          | 8-C          | 1005       | GLN         |
| 1          | 9-A          | 784        | GLN         |
| 1          | 9-A          | 913        | GLN         |
| 1          | 9-A          | 992        | GLN         |
| 1          | 9-B          | 314        | GLN         |
| 1          | 9-B          | 613        | GLN         |
| 1          | 9-B          | 895        | GLN         |
| 1          | 9-C          | 388        | ASN         |
| 1          | 9-C          | 644        | GLN         |
| 1          | 9-C          | 774        | GLN         |
| 1          | 9-C          | 777        | ASN         |
| 1          | 9-C          | 1088       | HIS         |
| 1          | 10-A         | 137        | ASN         |
| 1          | 10-A         | 755        | GLN         |
| 1          | 10-A         | 1011       | GLN         |
| 1          | 10-B         | 450        | ASN         |
| 1          | 10-B         | 613        | GLN         |
| 1          | 10-B         | 1048       | HIS         |
| 1          | 10-C         | 14         | GLN         |
| 1          | 10-C         | 271        | GLN         |
| 1          | 10-C         | 613        | GLN         |
| 1          | 10-C         | 965        | GLN         |
| 1          | 11-B         | 784        | GLN         |
| 1          | 12-A         | 755        | GLN         |
| 1          | 12-A         | 913        | GLN         |
| 1          | 12-A         | 1005       | GLN         |
| 1          | 12-B         | 777        | ASN         |
| 1          | 12-B         | 784        | GLN         |
| 1          | 12-B         | 914        | ASN         |
| 1          | 12-B         | 954        | GLN         |
| 1          | 12-C         | 314        | GLN         |
| 1          | 12-C         | 755        | GLN         |
| 1          | 12-C         | 1002       | GLN         |
| 1          | 13-B         | 613        | GLN         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | 13-B         | 755        | GLN         |
| 1          | 13-B         | 901        | GLN         |
| 1          | 13-C         | 784        | GLN         |
| 1          | 13-C         | 1005       | GLN         |
| 1          | 14-A         | 755        | GLN         |
| 1          | 14-A         | 949        | GLN         |
| 1          | 14-A         | 953        | ASN         |
| 1          | 14-A         | 955        | ASN         |
| 1          | 14-B         | 314        | GLN         |
| 1          | 14-B         | 613        | GLN         |
| 1          | 14-B         | 913        | GLN         |
| 1          | 14-C         | 388        | ASN         |
| 1          | 14-C         | 755        | GLN         |
| 1          | 14-C         | 777        | ASN         |
| 1          | 14-C         | 969        | ASN         |
| 1          | 14-C         | 1002       | GLN         |
| 1          | 15-A         | 777        | ASN         |
| 1          | 15-A         | 1005       | GLN         |
| 1          | 15-B         | 613        | GLN         |
| 1          | 15-B         | 804        | GLN         |
| 1          | 15-B         | 935        | GLN         |
| 1          | 15-B         | 957        | GLN         |
| 1          | 15-C         | 239        | GLN         |
| 1          | 15-C         | 913        | GLN         |
| 1          | 15-C         | 1005       | GLN         |
| 1          | 16-A         | 314        | GLN         |
| 1          | 16-A         | 613        | GLN         |
| 1          | 16-A         | 774        | GLN         |
| 1          | 16-B         | 239        | GLN         |
| 1          | 16-B         | 762        | GLN         |
| 1          | 16-B         | 913        | GLN         |
| 1          | 16-B         | 914        | ASN         |
| 1          | 16-C         | 49         | HIS         |
| 1          | 16-C         | 755        | GLN         |
| 1          | 16-C         | 777        | ASN         |
| 1          | 17-A         | 314        | GLN         |
| 1          | 17-A         | 613        | GLN         |
| 1          | 17-B         | 755        | GLN         |
| 1          | 17-B         | 774        | GLN         |
| 1          | 17-B         | 1054       | GLN         |
| 1          | 17-C         | 314        | GLN         |
| 1          | 17-C         | 784        | GLN         |

*Continued on next page...*

*Continued from previous page...*

| Mol | Chain | Res  | Type |
|-----|-------|------|------|
| 1   | 18-A  | 913  | GLN  |
| 1   | 18-B  | 81   | ASN  |
| 1   | 18-B  | 125  | ASN  |
| 1   | 18-B  | 239  | GLN  |
| 1   | 18-B  | 613  | GLN  |
| 1   | 18-B  | 774  | GLN  |
| 1   | 18-B  | 784  | GLN  |
| 1   | 18-B  | 913  | GLN  |
| 1   | 18-B  | 965  | GLN  |
| 1   | 18-B  | 1005 | GLN  |
| 1   | 18-C  | 762  | GLN  |
| 1   | 18-C  | 784  | GLN  |
| 1   | 18-C  | 1005 | GLN  |
| 1   | 19-A  | 774  | GLN  |
| 1   | 19-A  | 777  | ASN  |
| 1   | 19-A  | 895  | GLN  |
| 1   | 19-A  | 955  | ASN  |
| 1   | 19-B  | 755  | GLN  |
| 1   | 19-B  | 774  | GLN  |
| 1   | 19-B  | 957  | GLN  |
| 1   | 19-C  | 137  | ASN  |
| 1   | 19-C  | 784  | GLN  |
| 1   | 19-C  | 1005 | GLN  |
| 1   | 19-C  | 1010 | GLN  |
| 1   | 20-B  | 173  | GLN  |
| 1   | 20-B  | 314  | GLN  |
| 1   | 20-B  | 613  | GLN  |
| 1   | 20-B  | 969  | ASN  |
| 1   | 20-C  | 360  | ASN  |
| 1   | 20-C  | 755  | GLN  |

### 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 oligosaccharides 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.

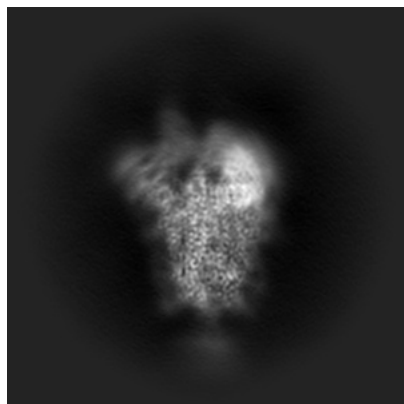
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-51279. These allow visual inspection of the internal detail of the map and identification of artifacts.

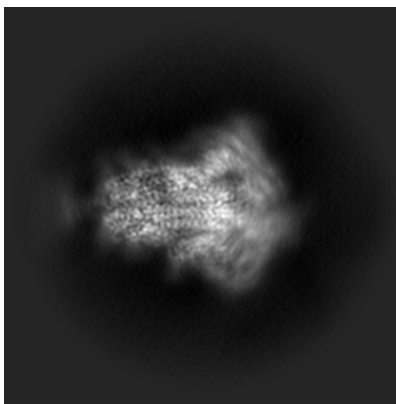
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

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

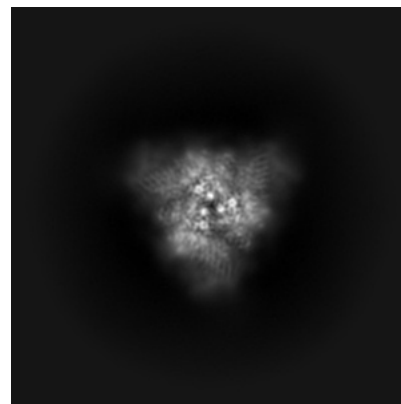
#### 6.1.1 Primary map



X

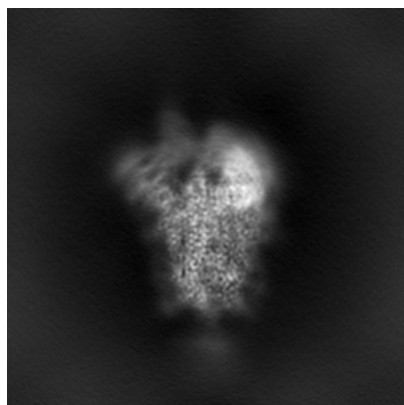


Y

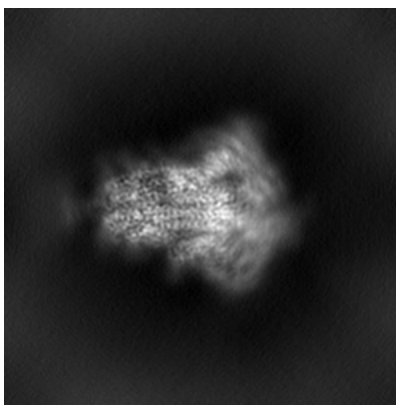


Z

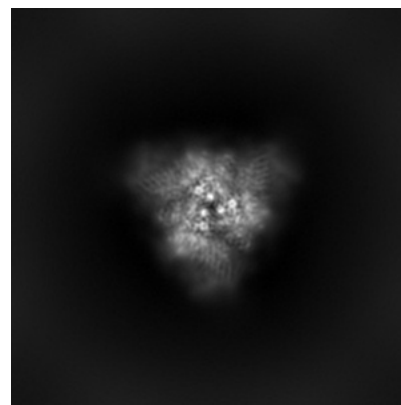
#### 6.1.2 Raw map



X



Y

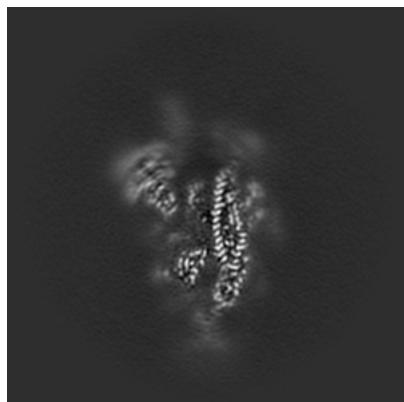


Z

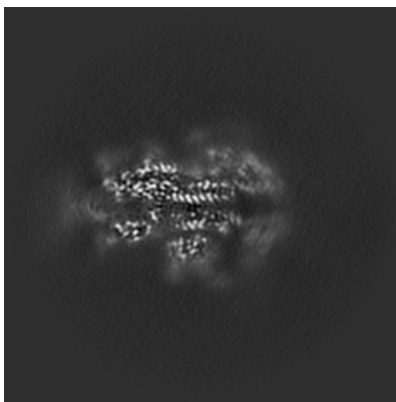
The images above show the map projected in three orthogonal directions.

## 6.2 Central slices [i](#)

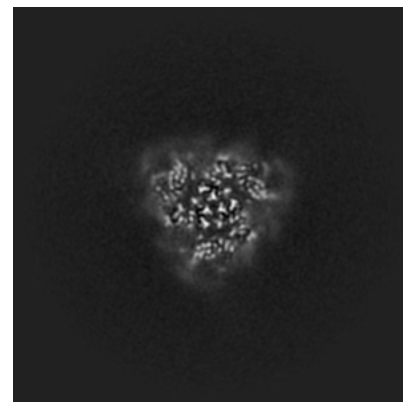
### 6.2.1 Primary map



X Index: 112

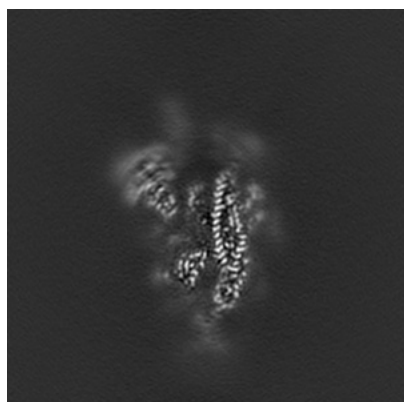


Y Index: 112

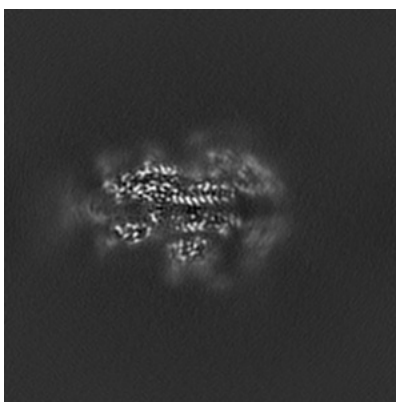


Z Index: 112

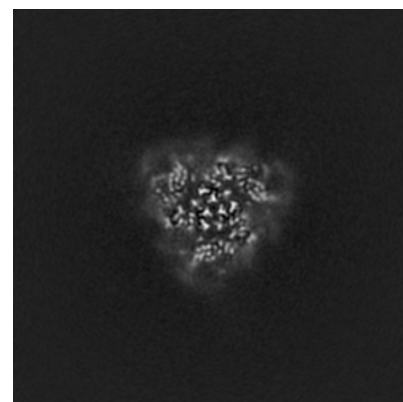
### 6.2.2 Raw map



X Index: 112



Y Index: 112

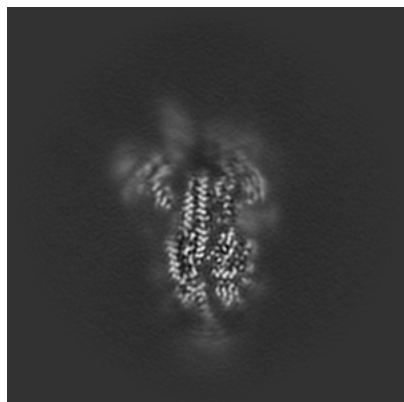


Z Index: 112

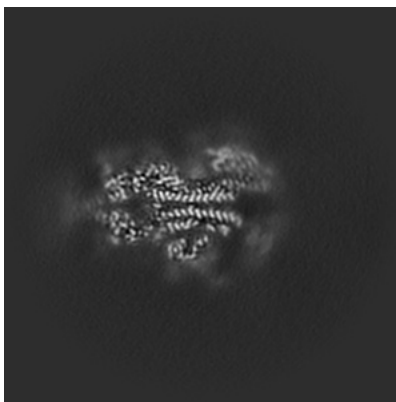
The images above show central slices of the map in three orthogonal directions.

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

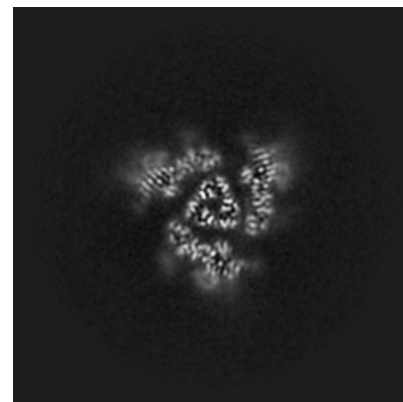
### 6.3.1 Primary map



X Index: 107

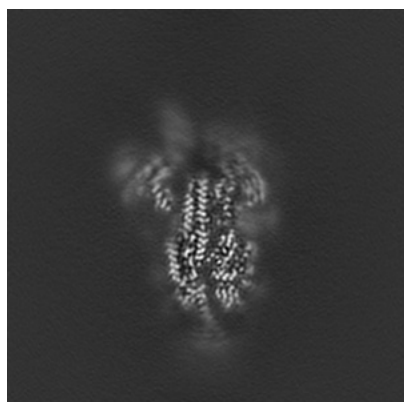


Y Index: 110

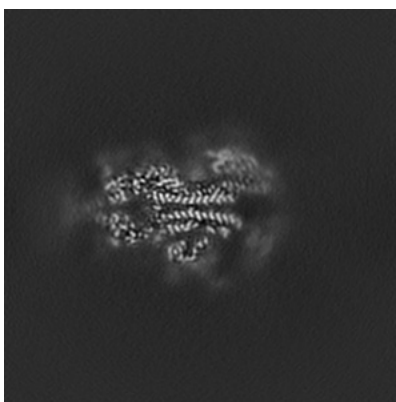


Z Index: 122

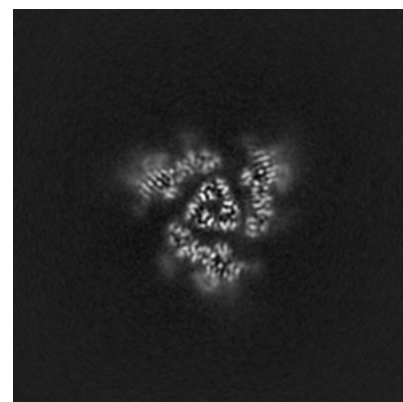
### 6.3.2 Raw map



X Index: 107



Y Index: 110

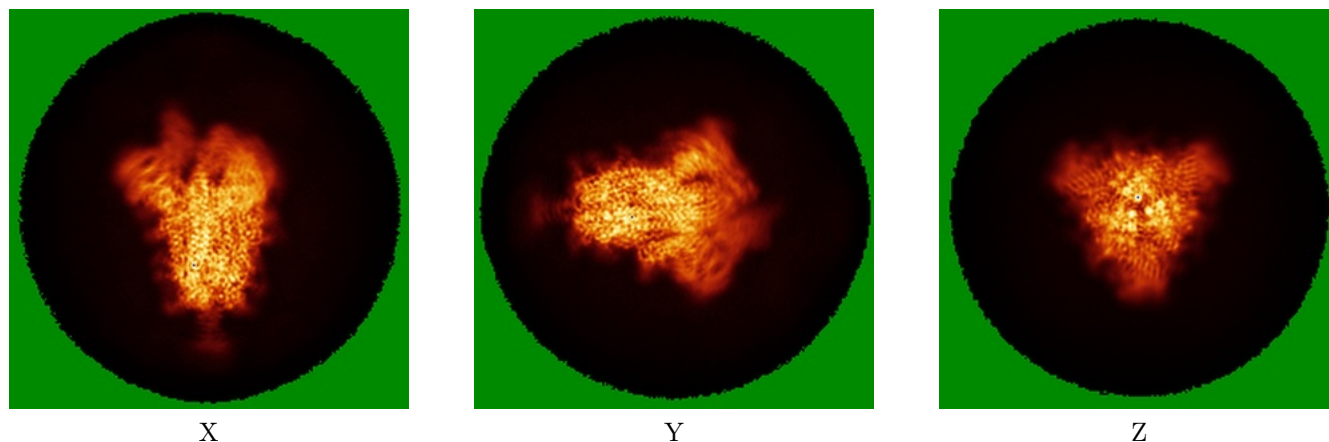


Z Index: 122

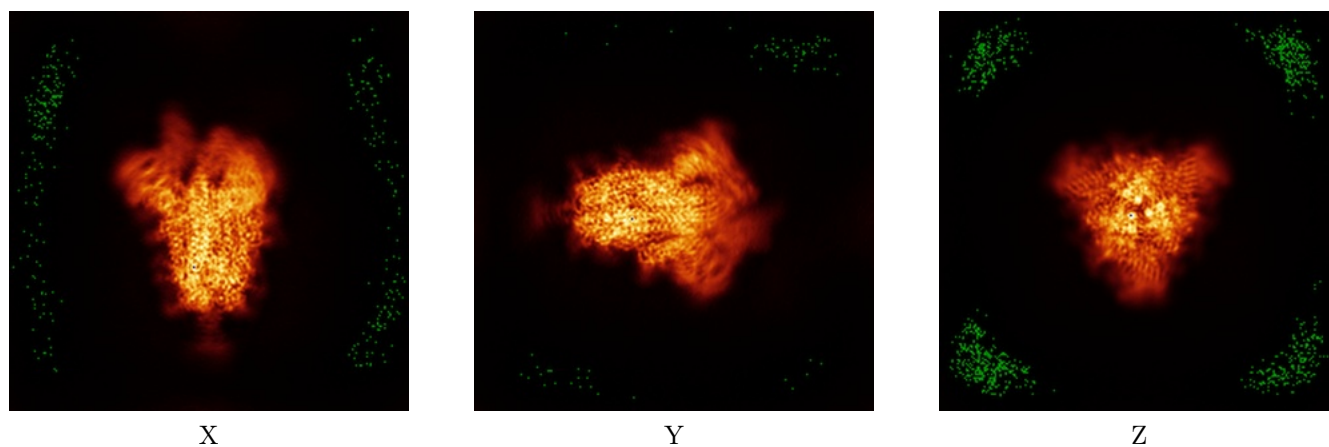
The images above show the largest variance slices of the map in three orthogonal directions.

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

### 6.4.1 Primary map



### 6.4.2 Raw map



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.

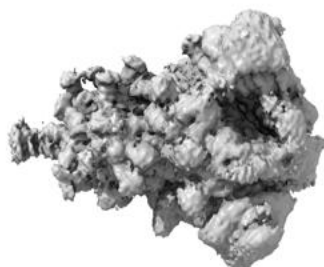


## 6.5 Orthogonal surface views [i](#)

### 6.5.1 Primary map



X



Y



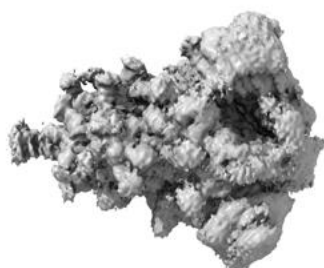
Z

The images above show the 3D surface view of the map at the recommended contour level 0.15. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

### 6.5.2 Raw map



X



Y



Z

These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

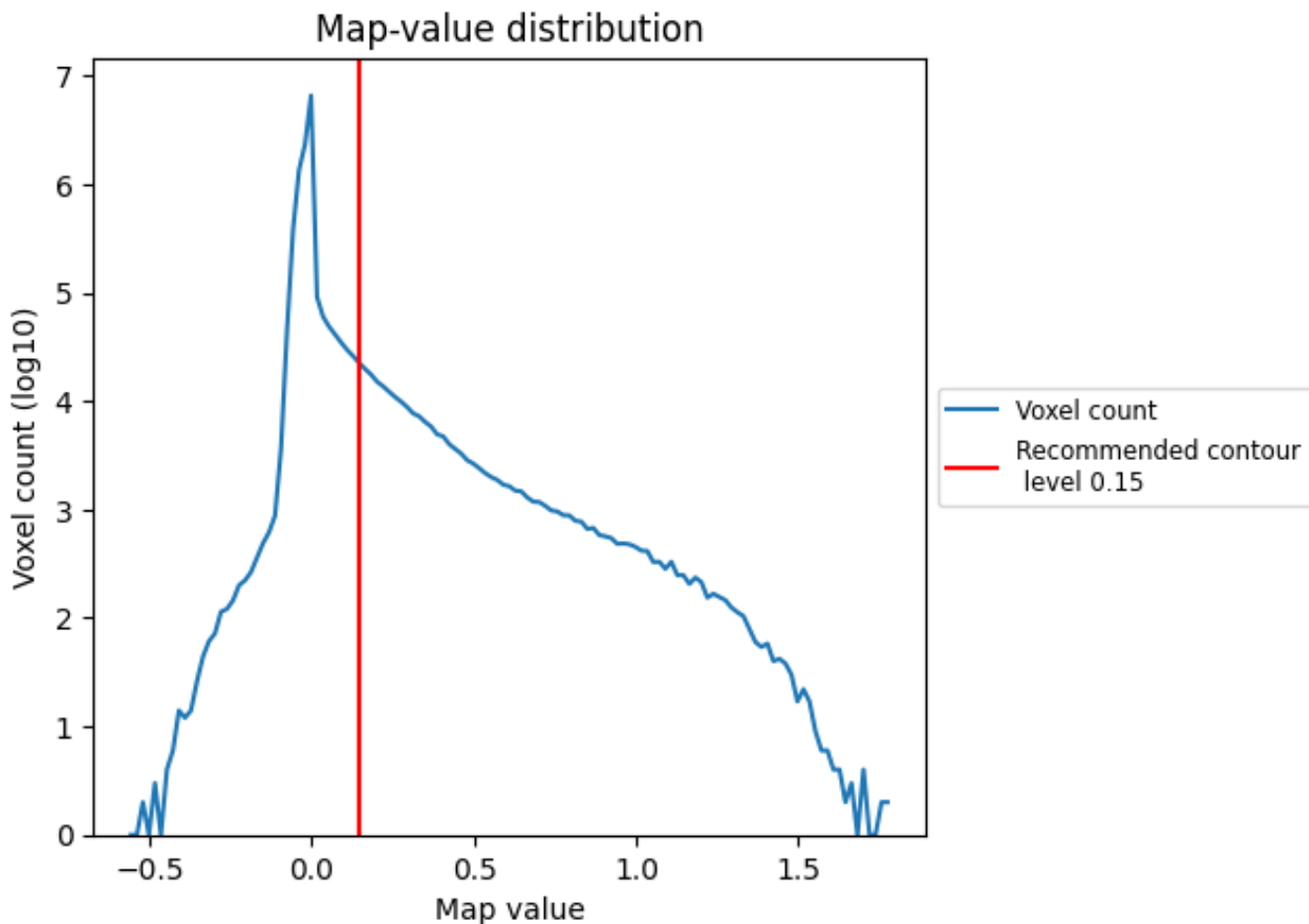
## 6.6 Mask visualisation [i](#)

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

## 7 Map analysis [i](#)

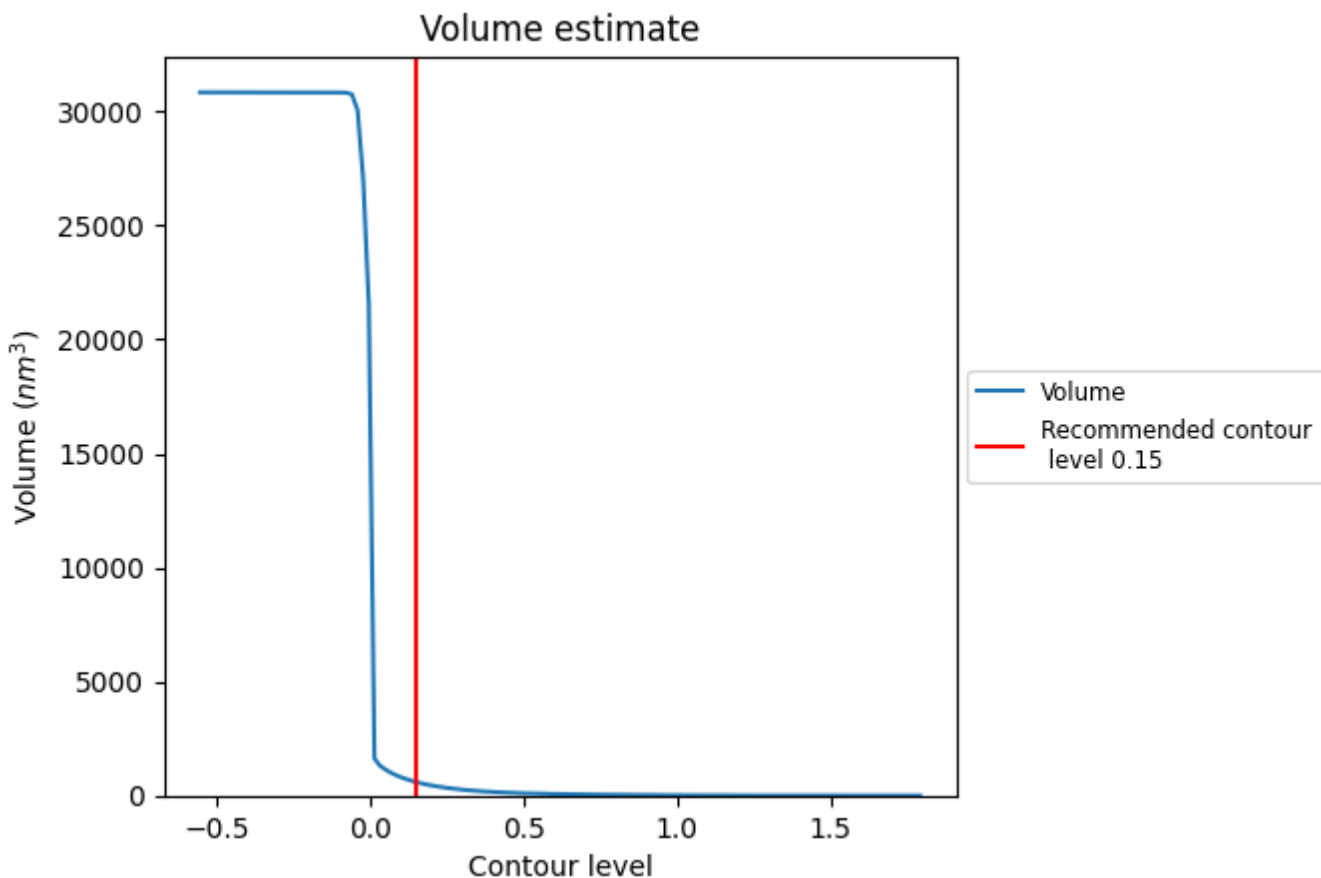
This section contains the results of statistical analysis of the map.

### 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.

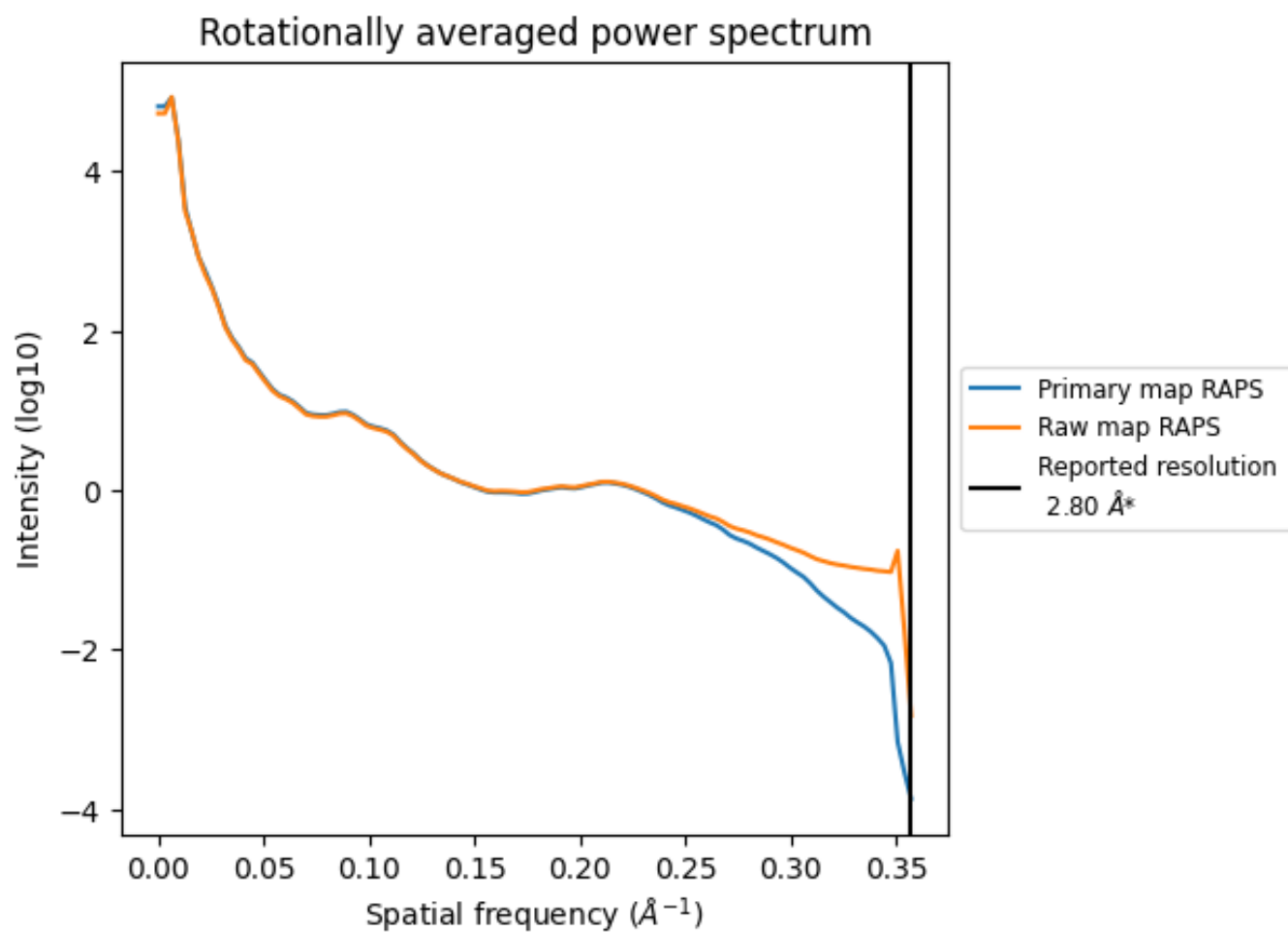
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 588 nm<sup>3</sup>; this corresponds to an approximate mass of 531 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](#)

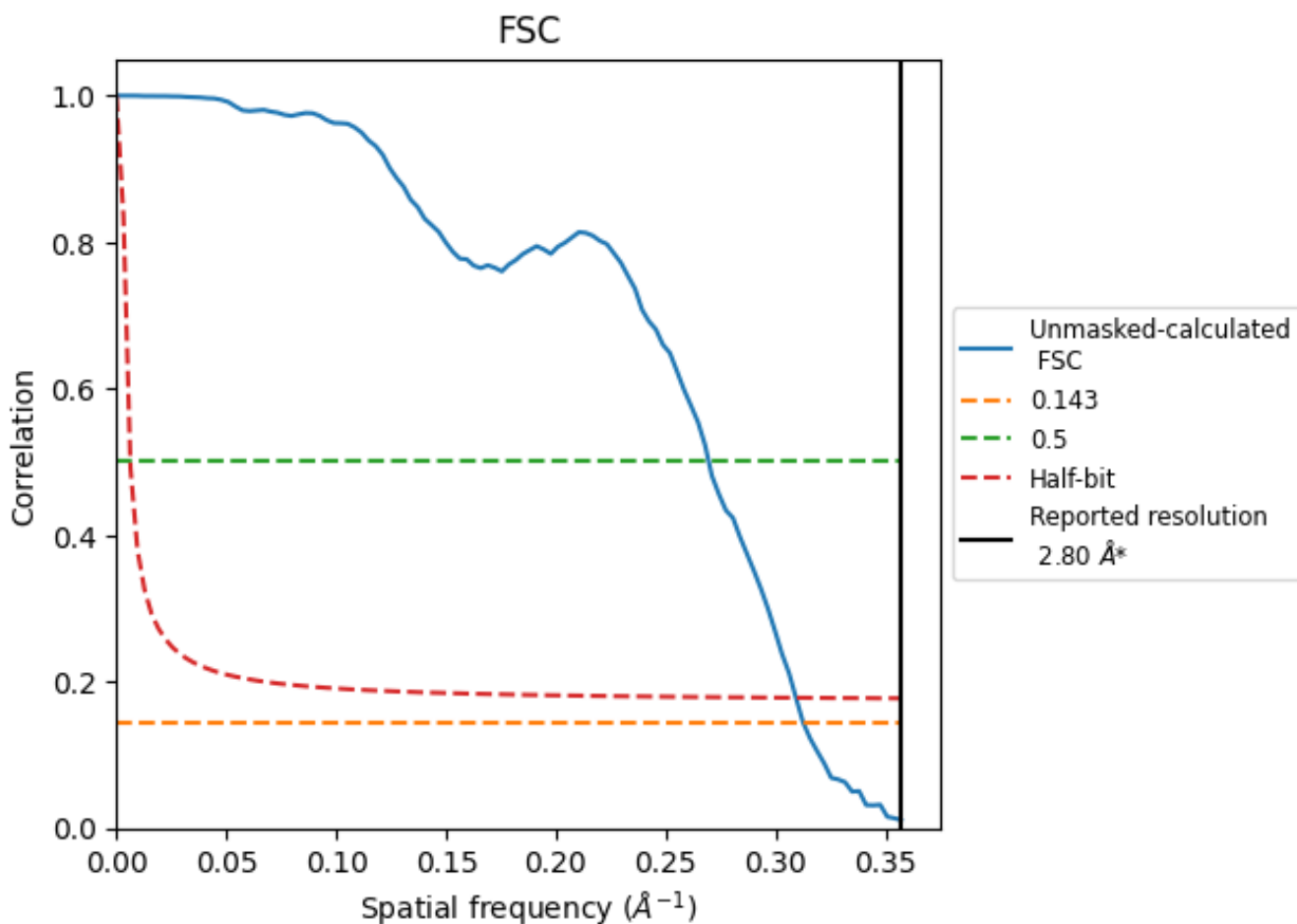


\*Reported resolution corresponds to spatial frequency of 0.357 Å<sup>-1</sup>

## 8 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

### 8.1 FSC [i](#)



\*Reported resolution corresponds to spatial frequency of 0.357 Å<sup>-1</sup>

## 8.2 Resolution estimates [i](#)

| Resolution estimate (Å)   | Estimation criterion (FSC cut-off) |      |          |
|---------------------------|------------------------------------|------|----------|
|                           | 0.143                              | 0.5  | Half-bit |
| Reported by author        | 2.80                               | -    | -        |
| Author-provided FSC curve | -                                  | -    | -        |
| Unmasked-calculated*      | 3.20                               | 3.71 | 3.23     |

\*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 3.20 differs from the reported value 2.8 by more than 10 %

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

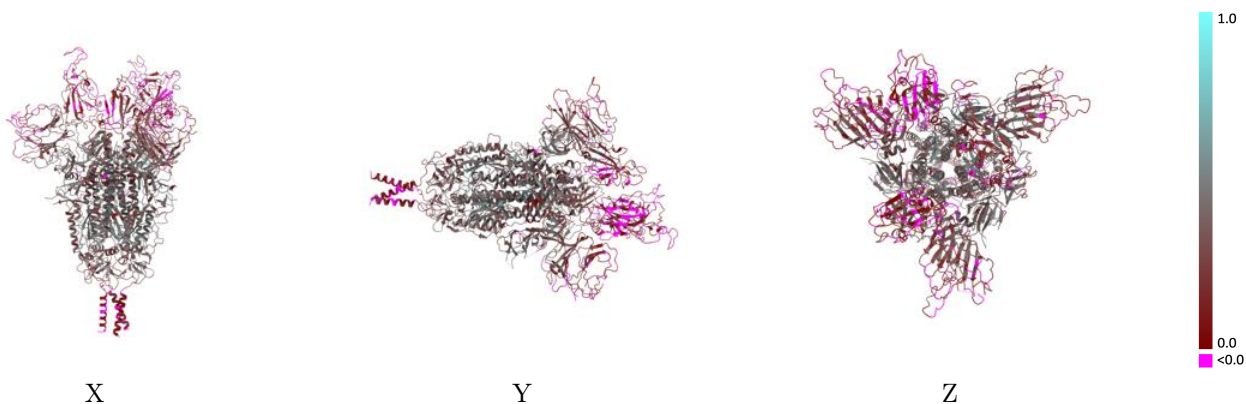
This section contains information regarding the fit between EMDB map EMD-51279 and PDB model 9GDX. Per-residue inclusion information can be found in section [3](#) on page [12](#).

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



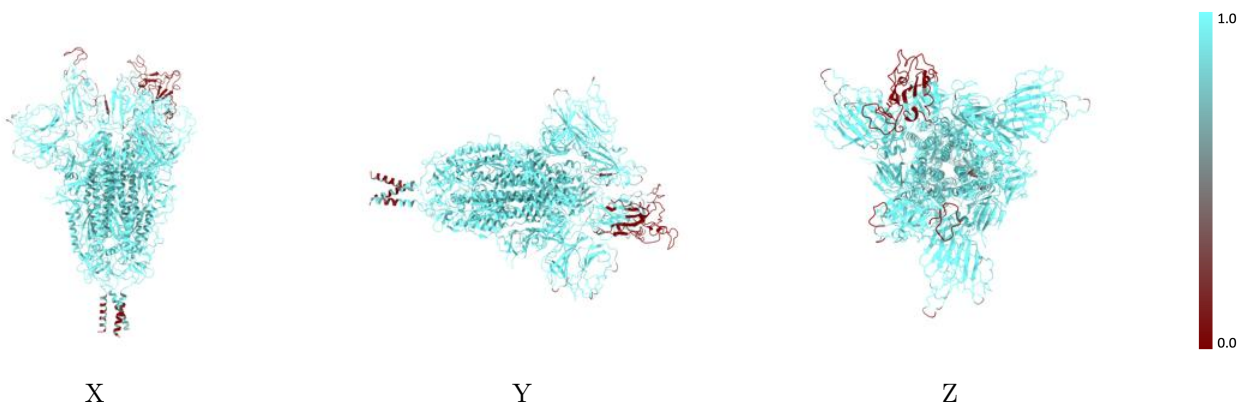
The images above show the 3D surface view of the map at the recommended contour level 0.15 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



The images above show the model with each residue coloured according to 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.

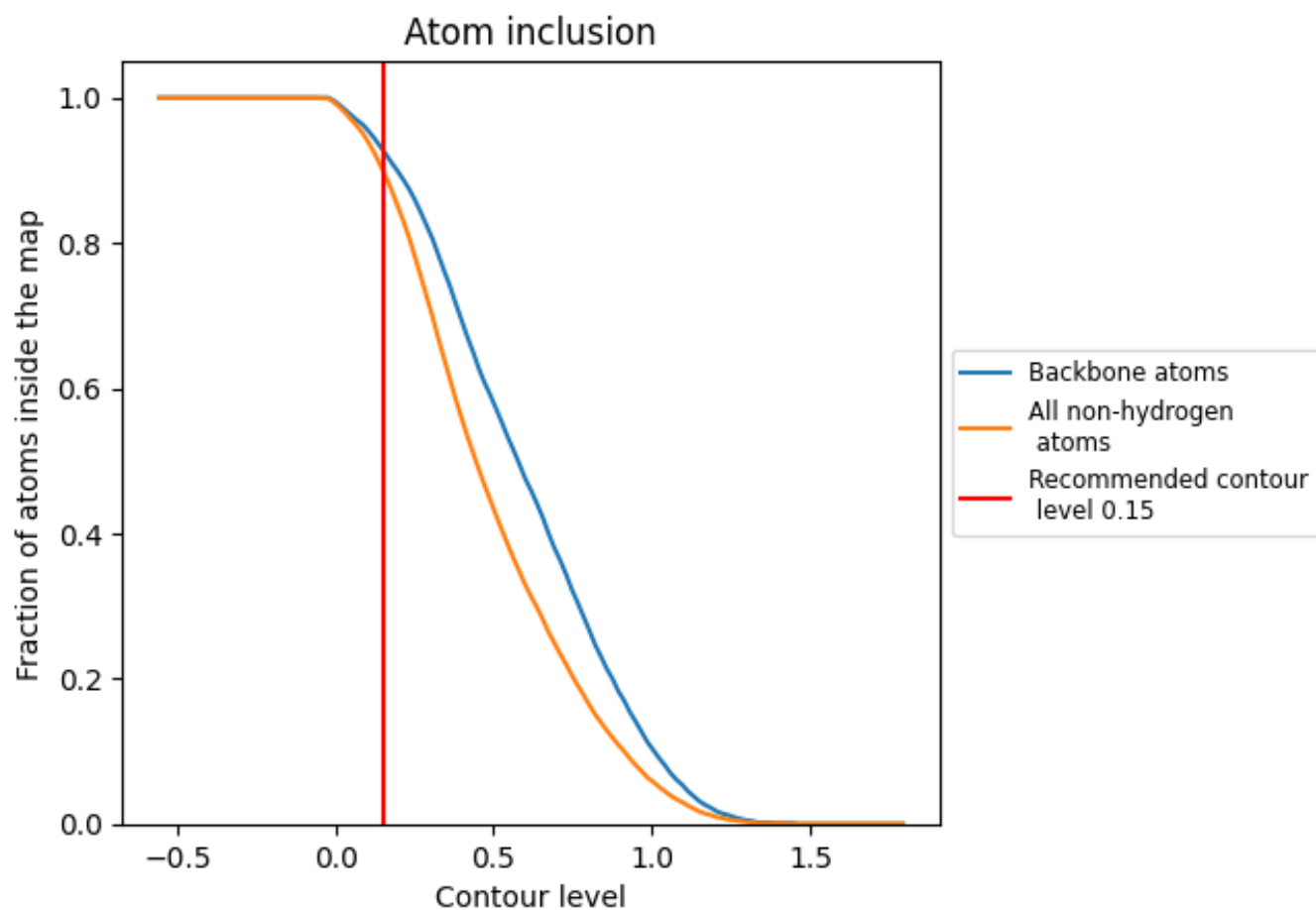
## 9.3 Atom inclusion mapped to coordinate model [\(i\)](#)



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 (0.15).











## 9.4 Atom inclusion [i](#)



At the recommended contour level, 93% of all backbone atoms, 90% 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 (0.15) and Q-score for the entire model and for each chain.

| Chain | Atom inclusion   | Q-score  |
|-------|--|--|
| All   |  0.9000 |  0.2850 |
| A     |  0.9220 |  0.2820 |
| B     |  0.9440 |  0.2910 |
| C     |  0.8350 |  0.2830 |

