



# Full wwPDB X-ray Structure Validation Report ⓘ

Aug 29, 2020 – 11:10 AM BST

PDB ID : 6YFC  
Title : Virus-like particle of bacteriophage AVE019  
Authors : Rumnieks, J.; Kalnins, G.; Sisovs, M.; Lieknina, I.; Tars, K.  
Deposited on : 2020-03-26  
Resolution : 3.25 Å(reported)

This is a Full wwPDB X-ray Structure 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/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467  
Xtriage (Phenix) : 1.13  
EDS : 2.13  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
Refmac : 5.8.0158  
CCP4 : 7.0.044 (Gargrove)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.13

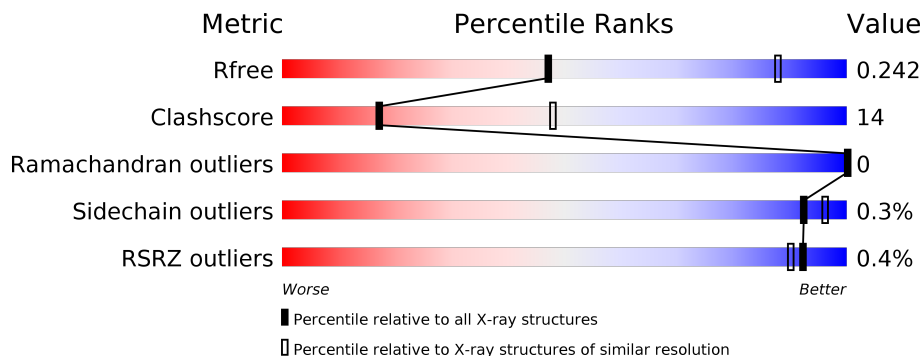
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.25 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<br>(#Entries) | Similar resolution<br>(#Entries, resolution range(Å)) |
|-----------------------|-----------------------------|---|
| $R_{free}$            | 130704                      | 1619 (3.28-3.20)                                      |
| Clashscore            | 141614                      | 1755 (3.28-3.20)                                      |
| Ramachandran outliers | 138981                      | 1728 (3.28-3.20)                                      |
| Sidechain outliers    | 138945                      | 1727 (3.28-3.20)                                      |
| RSRZ outliers         | 127900                      | 1567 (3.28-3.20)                                      |

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower 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 electron density. The numeric value is given above the bar.

| Mol | Chain | Length | Quality of chain  |
|-----|-------|--------|-------------------|
| 1   | AA    | 124    | <br>69% 31%       |
| 1   | AB    | 124    | <br>2% 60% 34% 6% |
| 1   | AC    | 124    | <br>70% 30%       |
| 1   | AD    | 124    | <br>1% 69% 31%    |
| 1   | AE    | 124    | <br>2% 57% 36% 6% |
| 1   | AF    | 124    | <br>69% 31%       |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 1   | AG    | 124    | 70% 30%          |
| 1   | AH    | 124    | % 65% 28% 6%     |
| 1   | AI    | 124    | 69% 31%          |
| 1   | AJ    | 124    | 67% 33%          |
| 1   | AK    | 124    | % 60% 34% 6%     |
| 1   | AL    | 124    | 69% 31%          |
| 1   | AM    | 124    | 62% 38%          |
| 1   | AN    | 124    | % 60% 34% 6%     |
| 1   | AO    | 124    | 70% 30%          |
| 1   | AP    | 124    | 67% 33%          |
| 1   | AQ    | 124    | % 64% 30% 6%     |
| 1   | AR    | 124    | 65% 35%          |
| 1   | AS    | 124    | 65% 35%          |
| 1   | AT    | 124    | % 69% 26% 6%     |
| 1   | AU    | 124    | 70% 30%          |
| 1   | AV    | 124    | % 68% 32%        |
| 1   | AW    | 124    | 2% 62% 32% 6%    |
| 1   | AX    | 124    | 65% 35%          |
| 1   | AY    | 124    | 65% 35%          |
| 1   | AZ    | 124    | % 66% 27% 6%     |
| 1   | BA    | 124    | 70% 30%          |
| 1   | BB    | 124    | 71% 29%          |
| 1   | BC    | 124    | 65% 29% 6%       |
| 1   | BD    | 124    | 67% 33%          |
| 1   | BE    | 124    | 71% 29%          |






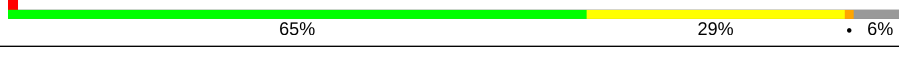

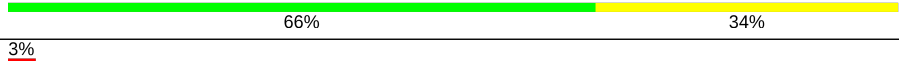

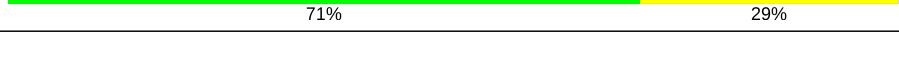
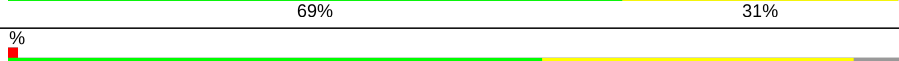
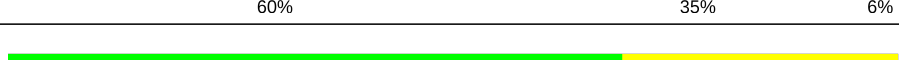
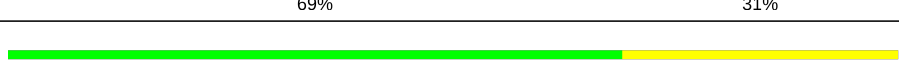

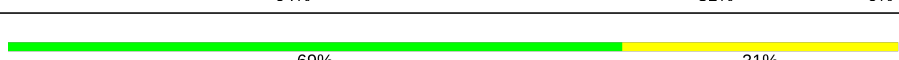


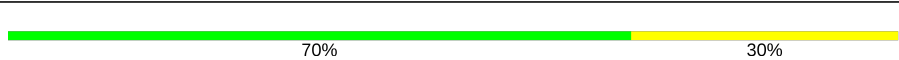



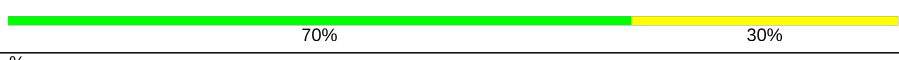
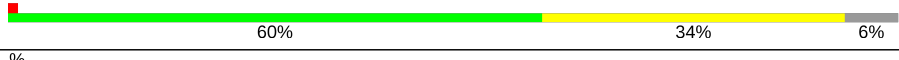


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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 1   | BF    | 124    | %<br>65% 29% 6%  |
| 1   | BG    | 124    | 71% 29%          |
| 1   | BH    | 124    | 70% 30%          |
| 1   | BI    | 124    | %<br>63% 31% 6%  |
| 1   | BJ    | 124    | 71% 29%          |
| 1   | BK    | 124    | 2%<br>65% 35%    |
| 1   | BL    | 124    | %<br>64% 30% 6%  |
| 1   | BM    | 124    | 68% 32%          |
| 1   | BN    | 124    | %<br>65% 35%     |
| 1   | BO    | 124    | %<br>64% 30% 6%  |
| 1   | BP    | 124    | 73% 27%          |
| 1   | BQ    | 124    | 72% 28%          |
| 1   | BR    | 124    | %<br>68% 26% 6%  |
| 1   | BS    | 124    | 72% 28%          |
| 1   | BT    | 124    | 63% 37%          |
| 1   | BU    | 124    | 63% 31% 6%       |
| 1   | BV    | 124    | 72% 28%          |
| 1   | BW    | 124    | 70% 30%          |
| 1   | BX    | 124    | %<br>62% 32% 6%  |
| 1   | BY    | 124    | 69% 31%          |
| 1   | BZ    | 124    | 67% 33%          |
| 1   | CA    | 124    | %<br>61% 32% 6%  |
| 1   | CB    | 124    | 62% 38%          |
| 1   | CC    | 124    | 65% 35%          |
| 1   | CD    | 124    | %<br>65% 29% 6%  |

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| Mol | Chain | Length | Quality of chain  |
|-----|-------|--------|---|
| 1   | CE    | 124    |  %<br>69% 31%         |
| 1   | CF    | 124    |  %<br>68% 32%         |
| 1   | CG    | 124    |  2%<br>65% 29% • 6%   |
| 1   | CH    | 124    |  69% 31%              |
| 1   | CI    | 124    |  70% 30%              |
| 1   | CJ    | 124    |  %<br>65% 29% • 6%    |
| 1   | CK    | 124    |  71% 29%              |
| 1   | CL    | 124    |  66% 34%              |
| 1   | CM    | 124    |  3%<br>67% 27% • 6%   |
| 1   | CN    | 124    |  71% 29%              |
| 1   | CO    | 124    |  69% 31%              |
| 1   | CP    | 124    |  %<br>60% 35% 6%     |
| 1   | CQ    | 124    |  69% 31%            |
| 1   | CR    | 124    |  69% 31%            |
| 1   | CS    | 124    |  %<br>64% 31% 6%    |
| 1   | CT    | 124    |  69% 31%            |
| 1   | CU    | 124    |  69% 31%            |
| 1   | CV    | 124    |  2%<br>66% 27% • 6% |
| 1   | CW    | 124    |  70% 30%            |
| 1   | CX    | 124    |  72% 28%            |
| 1   | CY    | 124    |  %<br>62% 32% 6%    |
| 1   | CZ    | 124    |  69% 31%            |
| 1   | DA    | 124    |  70% 30%            |
| 1   | DB    | 124    |  %<br>60% 34% 6%    |
| 1   | DC    | 124    |  %<br>69% 31%       |

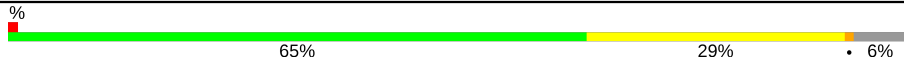








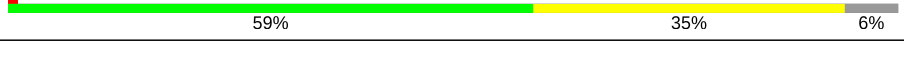









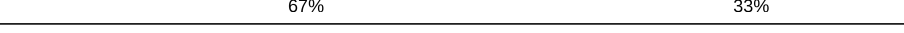


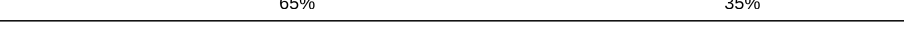


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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 1   | DD    | 124    | 69% 31%          |
| 1   | DE    | 124    | % 67% 27% 6%     |
| 1   | DF    | 124    | 71% 29%          |
| 1   | DG    | 124    | 72% 28%          |
| 1   | DH    | 124    | 67% 27% 6%       |
| 1   | DI    | 124    | 68% 32%          |
| 1   | DJ    | 124    | 65% 35%          |
| 1   | DK    | 124    | % 61% 33% 6%     |
| 1   | DL    | 124    | 73% 27%          |
| 1   | DM    | 124    | % 69% 31%        |
| 1   | DN    | 124    | % 61% 32% 6%     |
| 1   | DO    | 124    | 67% 33%          |
| 1   | DP    | 124    | 69% 31%          |
| 1   | DQ    | 124    | 2% 64% 31% 6%    |
| 1   | DR    | 124    | 69% 31%          |
| 1   | DS    | 124    | 71% 29%          |
| 1   | DT    | 124    | % 63% 31% 6%     |
| 1   | DU    | 124    | 68% 32%          |
| 1   | DV    | 124    | 61% 39%          |
| 1   | DW    | 124    | 56% 37% 6%       |
| 1   | DX    | 124    | 72% 28%          |
| 1   | DY    | 124    | 71% 29%          |
| 1   | DZ    | 124    | % 62% 32% 6%     |
| 1   | EA    | 124    | 73% 27%          |
| 1   | EB    | 124    | 65% 35%          |











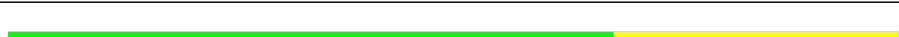


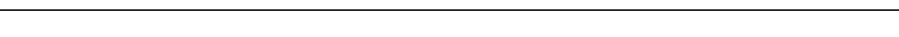











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| Mol | Chain | Length | Quality of chain   |
|-----|-------|--------|--|
| 1   | EC    | 124    |  %<br>65% 29% • 6%   |
| 1   | ED    | 124    |  63% 37%             |
| 1   | EE    | 124    |  71% 29%             |
| 1   | EF    | 124    |  %<br>65% 29% 6%     |
| 1   | EG    | 124    |  69% 31%             |
| 1   | EH    | 124    |  63% 37%             |
| 1   | EI    | 124    |  %<br>59% 35% • 6%   |
| 1   | EJ    | 124    |  68% 32%             |
| 1   | EK    | 124    |  71% 29%             |
| 1   | EL    | 124    |  %<br>59% 35% 6%     |
| 1   | EM    | 124    |  73% 27%             |
| 1   | EN    | 124    |  %<br>70% 30%       |
| 1   | EO    | 124    |  60% 34% • 6%      |
| 1   | EP    | 124    |  65% 35%           |
| 1   | EQ    | 124    |  69% 31%           |
| 1   | ER    | 124    |  2%<br>63% 31% 6%  |
| 1   | ES    | 124    |  70% 30%           |
| 1   | ET    | 124    |  64% 36%           |
| 1   | EU    | 124    |  %<br>66% 27% • 6% |
| 1   | EV    | 124    |  67% 33%           |
| 1   | EW    | 124    |  70% 30%           |
| 1   | EX    | 124    |  2%<br>63% 31% 6%  |
| 1   | EY    | 124    |  65% 35%           |
| 1   | EZ    | 124    |  72% 28%           |
| 1   | FA    | 124    |  %<br>63% 31% 6%   |

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| Mol | Chain | Length | Quality of chain   |
|-----|-------|--------|--|
| 1   | FB    | 124    |  73% 27%         |
| 1   | FC    | 124    |  69% 31%         |
| 1   | FD    | 124    |  63% 31% 6%      |
| 1   | FE    | 124    |  73% 27%         |
| 1   | FF    | 124    |  69% 31%         |
| 1   | FG    | 124    |  56% 38% 6%      |
| 1   | FH    | 124    |  70% 30%         |
| 1   | FI    | 124    |  69% 31%         |
| 1   | FJ    | 124    |  66% 27% 6%      |
| 1   | FK    | 124    |  69% 31%         |
| 1   | FL    | 124    |  68% 32%         |
| 1   | FM    | 124    |  64% 31% 6%      |
| 1   | FN    | 124    |  69% 31%       |
| 1   | FO    | 124    |  65% 35%       |
| 1   | FP    | 124    |  64% 30% 6%    |
| 1   | FQ    | 124    |  69% 31%       |
| 1   | FR    | 124    |  65% 35%       |
| 1   | FS    | 124    |  68% 26% 6%    |
| 1   | FT    | 124    |  67% 33%       |
| 1   | FU    | 124    |  71% 29%       |
| 1   | FV    | 124    |  4% 67% 27% 6% |
| 1   | FW    | 124    |  72% 28%       |
| 1   | FX    | 124    |  68% 32%       |
| 1   | FY    | 124    |  65% 30% 6%    |
| 1   | FZ    | 124    |  71% 29%       |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 1   | GA    | 124    | 62% 38%          |
| 1   | GB    | 124    | 64% 30% • 6%     |
| 1   | GC    | 124    | 70% 30%          |
| 1   | GD    | 124    | 69% 31%          |
| 1   | GE    | 124    | % 59% 35% • 6%   |
| 1   | GF    | 124    | 68% 32%          |
| 1   | GG    | 124    | 66% 34%          |
| 1   | GH    | 124    | 4% 65% 30% 6%    |
| 1   | GI    | 124    | 69% 31%          |
| 1   | GJ    | 124    | 68% 32%          |
| 1   | GK    | 124    | 57% 36% • 6%     |
| 1   | GL    | 124    | 68% 32%          |
| 1   | GM    | 124    | % 65% 35%        |
| 1   | GN    | 124    | 64% 30% • 6%     |
| 1   | GO    | 124    | 67% 33%          |
| 1   | GP    | 124    | 70% 30%          |
| 1   | GQ    | 124    | 2% 64% 31% 6%    |
| 1   | GR    | 124    | 71% 29%          |
| 1   | GS    | 124    | 71% 29%          |
| 1   | GT    | 124    | % 65% 29% • 6%   |
| 1   | GU    | 124    | 69% 31%          |
| 1   | GV    | 124    | 69% 31%          |
| 1   | GW    | 124    | 65% 29% 6%       |
| 1   | GX    | 124    | 72% 28%          |

## 2 Entry composition [i](#)

There are 2 unique types of molecules in this entry. The entry contains 169260 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, 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 coat protein.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |         |       |
| 1   | AA    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | AB    | 117      | 910   | 569 | 157 | 180 | 4 | 0       | 0       | 0     |
| 1   | AC    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | AD    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | AE    | 117      | 910   | 569 | 157 | 180 | 4 | 0       | 0       | 0     |
| 1   | AF    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | AG    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | AH    | 117      | 910   | 569 | 157 | 180 | 4 | 0       | 0       | 0     |
| 1   | AI    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | AJ    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | AK    | 117      | 910   | 569 | 157 | 180 | 4 | 0       | 0       | 0     |
| 1   | AL    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | AM    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | AN    | 117      | 910   | 569 | 157 | 180 | 4 | 0       | 0       | 0     |
| 1   | AO    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | AP    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |

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| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |         |       |
| 1   | AQ    | 117      | 910   | 569 | 157 | 180 | 4 | 0       | 0       | 0     |
| 1   | AR    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | AS    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | AT    | 117      | 910   | 569 | 157 | 180 | 4 | 0       | 0       | 0     |
| 1   | AU    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | AV    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | AW    | 117      | 910   | 569 | 157 | 180 | 4 | 0       | 0       | 0     |
| 1   | AX    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | AY    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | AZ    | 117      | 910   | 569 | 157 | 180 | 4 | 0       | 0       | 0     |
| 1   | BA    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | BB    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | BC    | 117      | 910   | 569 | 157 | 180 | 4 | 0       | 0       | 0     |
| 1   | BD    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | BE    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | BF    | 117      | 910   | 569 | 157 | 180 | 4 | 0       | 0       | 0     |
| 1   | BG    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | BH    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | BI    | 117      | 910   | 569 | 157 | 180 | 4 | 0       | 0       | 0     |
| 1   | BJ    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | BK    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |

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| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 1   | BL    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | BM    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | BN    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | BO    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | BP    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | BQ    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | BR    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | BS    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | BT    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | BU    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | BV    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | BW    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | BX    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | BY    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | BZ    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | CA    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | CB    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | CC    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | CD    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | CE    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | CF    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |

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| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |         |       |
| 1   | CG    | 117      | 910   | 569 | 157 | 180 | 4 | 0       | 0       | 0     |
| 1   | CH    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | CI    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | CJ    | 117      | 910   | 569 | 157 | 180 | 4 | 0       | 0       | 0     |
| 1   | CK    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | CL    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | CM    | 117      | 910   | 569 | 157 | 180 | 4 | 0       | 0       | 0     |
| 1   | CN    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | CO    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | CP    | 117      | 910   | 569 | 157 | 180 | 4 | 0       | 0       | 0     |
| 1   | CQ    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | CR    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | CS    | 117      | 910   | 569 | 157 | 180 | 4 | 0       | 0       | 0     |
| 1   | CT    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | CU    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | CV    | 117      | 910   | 569 | 157 | 180 | 4 | 0       | 0       | 0     |
| 1   | CW    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | CX    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | CY    | 117      | 910   | 569 | 157 | 180 | 4 | 0       | 0       | 0     |
| 1   | CZ    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |
| 1   | DA    | 124      | 955   | 594 | 165 | 192 | 4 | 0       | 0       | 0     |

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| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 1   | DB    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | DC    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | DD    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | DE    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | DF    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | DG    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | DH    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | DI    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | DJ    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | DK    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | DL    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | DM    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | DN    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | DO    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | DP    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | DQ    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | DR    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | DS    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | DT    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | DU    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | DV    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |

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| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 1   | DW    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | DX    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | DY    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | DZ    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | EA    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | EB    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | EC    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | ED    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | EE    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | EF    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | EG    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | EH    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | EI    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | EJ    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | EK    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | EL    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | EM    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | EN    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | EO    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | EP    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | EQ    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |

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| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 1   | ER    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | ES    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | ET    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | EU    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | EV    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | EW    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | EX    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | EY    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | EZ    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | FA    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | FB    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | FC    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | FD    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | FE    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | FF    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | FG    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | FH    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | FI    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | FJ    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | FK    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | FL    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |

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| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 1   | FM    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | FN    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | FO    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | FP    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | FQ    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | FR    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | FS    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | FT    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | FU    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | FV    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | FW    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | FX    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | FY    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | FZ    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | GA    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | GB    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | GC    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | GD    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | GE    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | GF    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | GG    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |

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| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 1   | GH    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | GI    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | GJ    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | GK    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | GL    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | GM    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | GN    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | GO    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | GP    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | GQ    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | GR    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | GS    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | GT    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | GU    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | GV    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |
| 1   | GW    | 117      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 910   | 569 | 157 | 180 | 4 |         |         |       |
| 1   | GX    | 124      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 955   | 594 | 165 | 192 | 4 |         |         |       |

- Molecule 2 is CALCIUM ION (three-letter code: CA) (formula: Ca).

| Mol | Chain | Residues | Atoms |    | ZeroOcc | AltConf |
|-----|-------|----------|-------|----|---------|---------|
| 2   | AP    | 1        | Total | Ca | 0       | 0       |
|     |       |          | 1     | 1  |         |         |
| 2   | FU    | 1        | Total | Ca | 0       | 0       |
|     |       |          | 1     | 1  |         |         |

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| <b>Mol</b> | <b>Chain</b> | <b>Residues</b> | <b>Atoms</b>    | <b>ZeroOcc</b> | <b>AltConf</b> |
|------------|--------------|-----------------|-----------------|----------------|----------------|
| 2          | DA           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | FO           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | EN           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | FX           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | GJ           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | BE           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | ET           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | EZ           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | EB           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | GA           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | CR           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | EH           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | AS           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | DD           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | BB           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | AJ           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | BT           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | CO           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | DG           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | CU           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | FR           | 1               | Total Ca<br>1 1 | 0              | 0              |

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*Continued from previous page...*

| Mol | Chain | Residues | Atoms           | ZeroOcc | AltConf |
|-----|-------|----------|-----------------|---------|---------|
| 2   | AV    | 1        | Total Ca<br>1 1 | 0       | 0       |
| 2   | FL    | 1        | Total Ca<br>1 1 | 0       | 0       |
| 2   | AA    | 1        | Total Ca<br>1 1 | 0       | 0       |
| 2   | BQ    | 1        | Total Ca<br>1 1 | 0       | 0       |
| 2   | EW    | 1        | Total Ca<br>1 1 | 0       | 0       |
| 2   | GD    | 1        | Total Ca<br>1 1 | 0       | 0       |
| 2   | CX    | 1        | Total Ca<br>1 1 | 0       | 0       |
| 2   | DV    | 1        | Total Ca<br>1 1 | 0       | 0       |
| 2   | AM    | 1        | Total Ca<br>1 1 | 0       | 0       |
| 2   | EE    | 1        | Total Ca<br>1 1 | 0       | 0       |
| 2   | AD    | 1        | Total Ca<br>1 1 | 0       | 0       |
| 2   | BN    | 1        | Total Ca<br>1 1 | 0       | 0       |
| 2   | EK    | 1        | Total Ca<br>1 1 | 0       | 0       |
| 2   | DM    | 1        | Total Ca<br>1 1 | 0       | 0       |
| 2   | CC    | 1        | Total Ca<br>1 1 | 0       | 0       |
| 2   | DS    | 1        | Total Ca<br>1 1 | 0       | 0       |
| 2   | GV    | 1        | Total Ca<br>1 1 | 0       | 0       |
| 2   | FF    | 1        | Total Ca<br>1 1 | 0       | 0       |
| 2   | GM    | 1        | Total Ca<br>1 1 | 0       | 0       |
| 2   | BK    | 1        | Total Ca<br>1 1 | 0       | 0       |
| 2   | FI    | 1        | Total Ca<br>1 1 | 0       | 0       |

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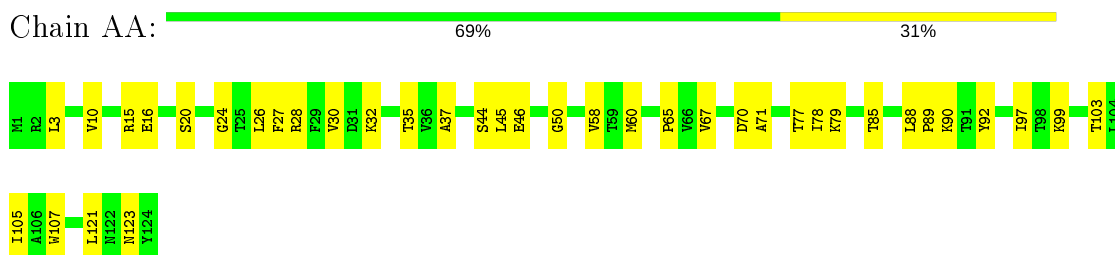
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| <b>Mol</b> | <b>Chain</b> | <b>Residues</b> | <b>Atoms</b>    | <b>ZeroOcc</b> | <b>AltConf</b> |
|------------|--------------|-----------------|-----------------|----------------|----------------|
| 2          | CF           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | FC           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | AG           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | GG           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | DJ           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | BZ           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | GS           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | CI           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | DY           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | EQ           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | GP           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | DP           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | BW           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | AY           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | CL           | 1               | Total Ca<br>1 1 | 0              | 0              |
| 2          | BH           | 1               | Total Ca<br>1 1 | 0              | 0              |

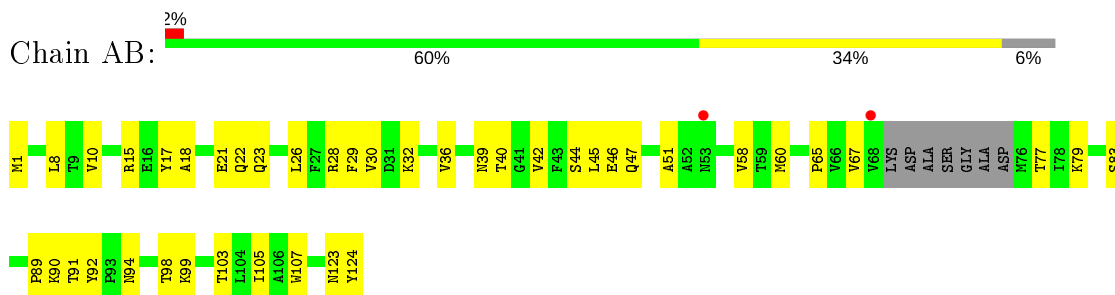
### 3 Residue-property plots [i](#)

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 electron 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 dot above a residue indicates a poor fit to the electron density ( $RSRZ > 2$ ). 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.

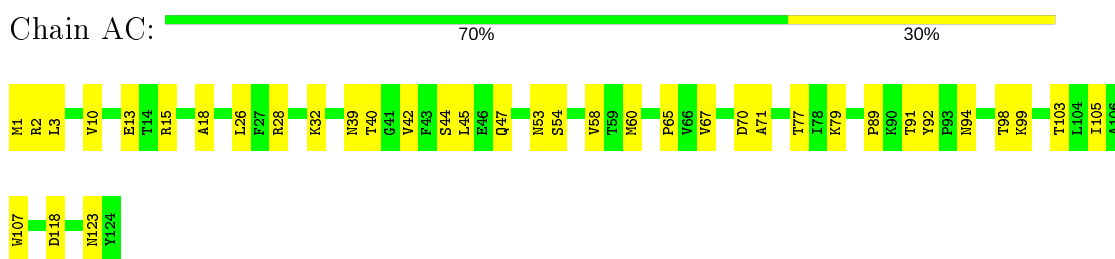
- Molecule 1: coat protein



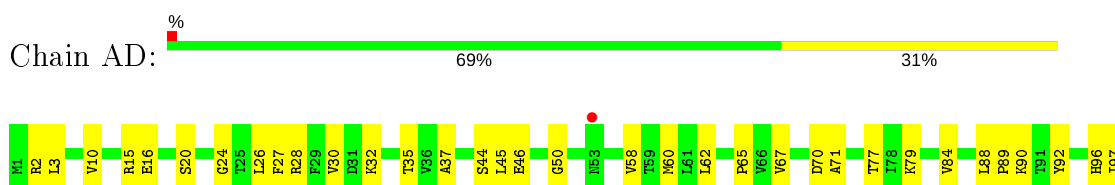
- Molecule 1: coat protein



- Molecule 1: coat protein

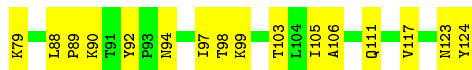


- Molecule 1: coat protein

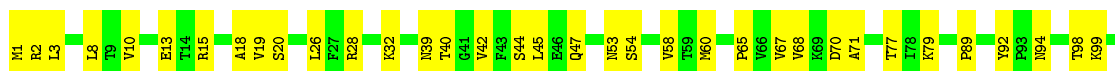




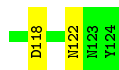
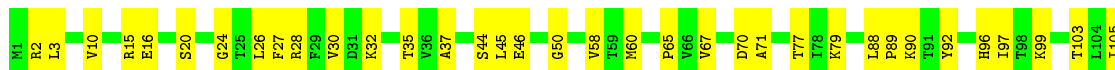
- Molecule 1: coat protein



- Molecule 1: coat protein



- Molecule 1: coat protein

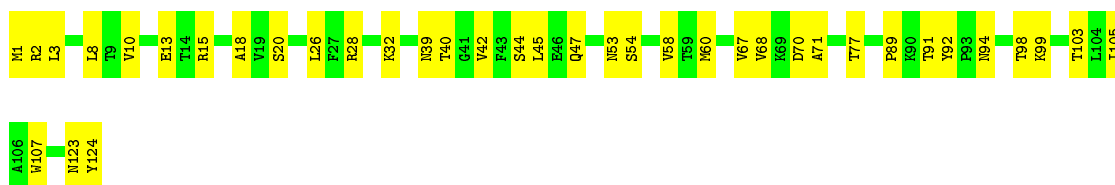


- Molecule 1: coat protein

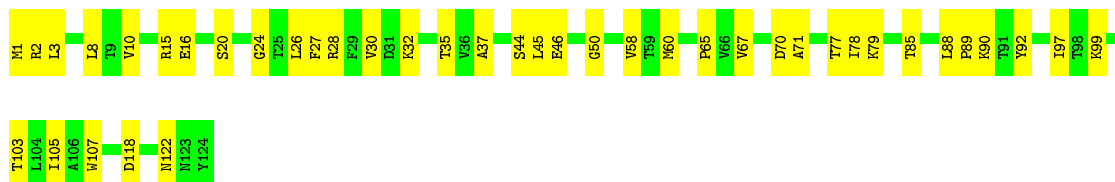


- Molecule 1: coat protein

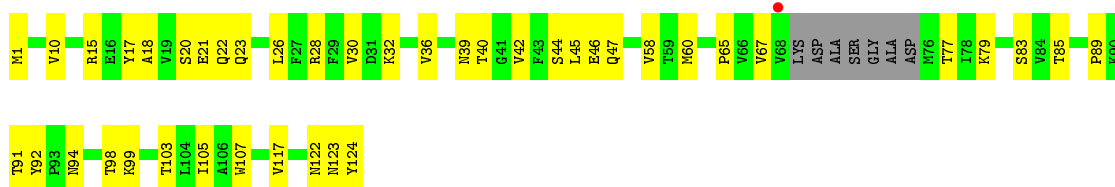




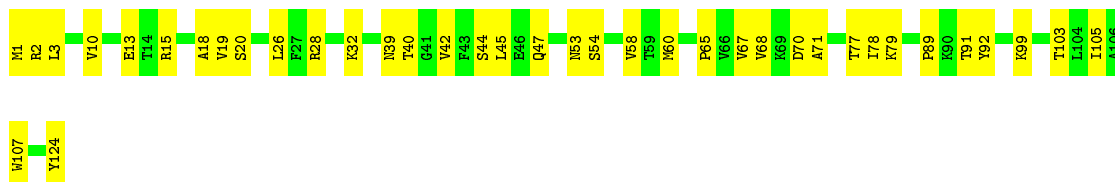
- Molecule 1: coat protein



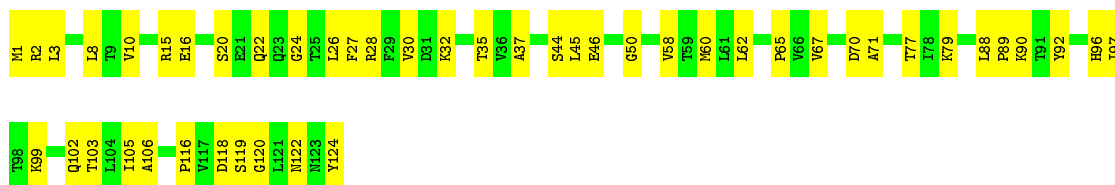
- Molecule 1: coat protein



- Molecule 1: coat protein



- Molecule 1: coat protein



- Molecule 1: coat protein

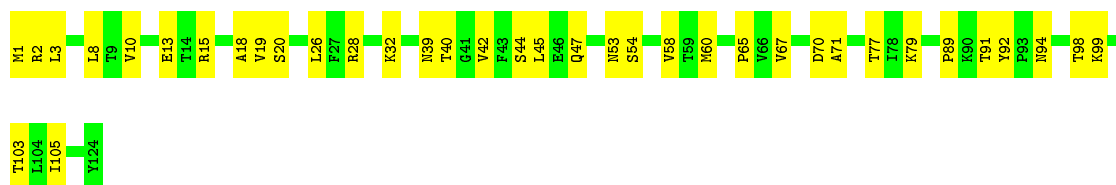


Chain AN:  60% 34% • 6%



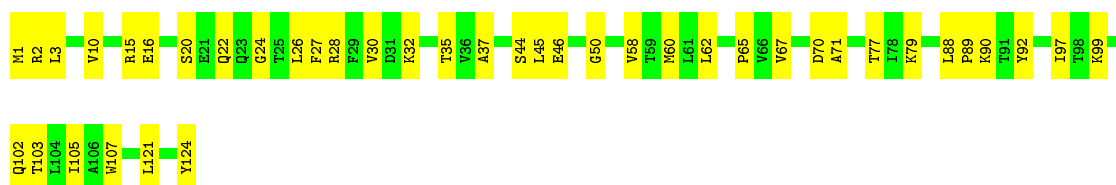
- Molecule 1: coat protein

Chain AO:  70% 30%



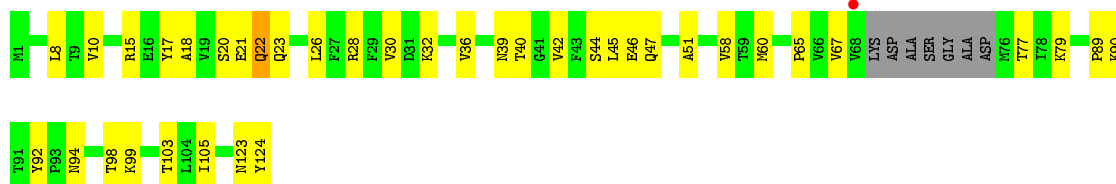
- Molecule 1: coat protein

Chain AP:  67% 33%



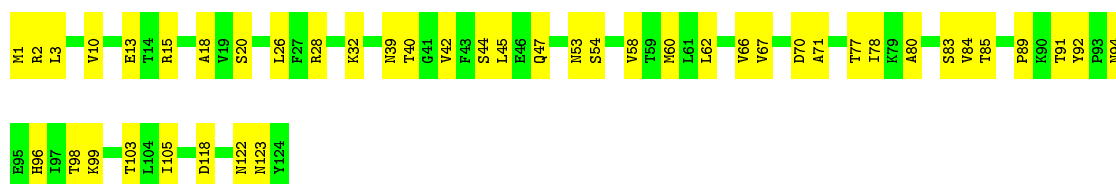
- Molecule 1: coat protein

Chain AQ:  64% 30% • 6%

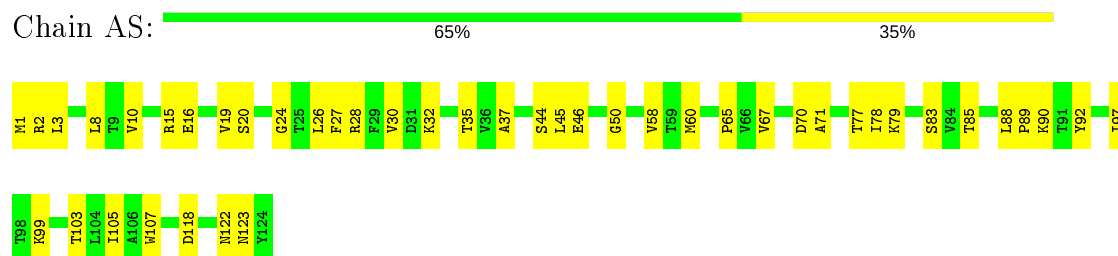


- Molecule 1: coat protein

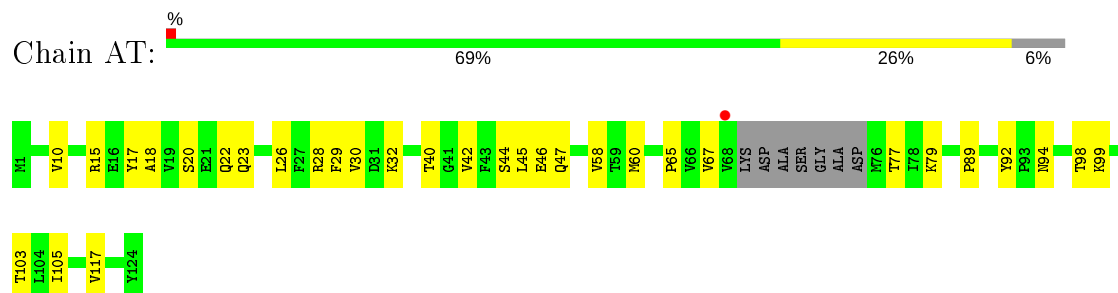
Chain AR:  65% 35%



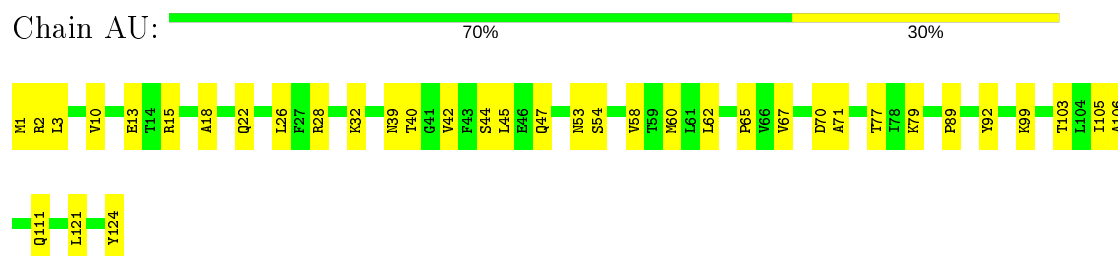
- Molecule 1: coat protein



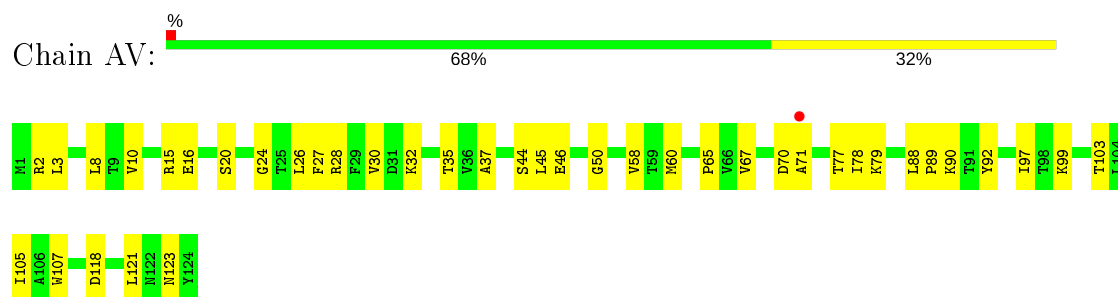
- Molecule 1: coat protein



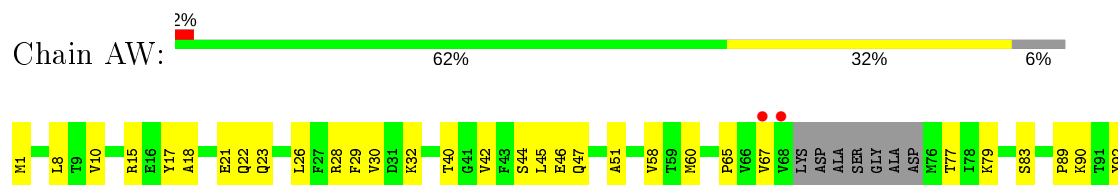
- Molecule 1: coat protein



- Molecule 1: coat protein



- Molecule 1: coat protein

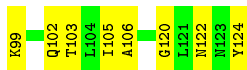
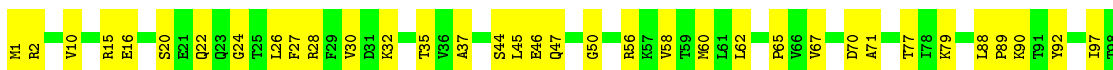




- Molecule 1: coat protein



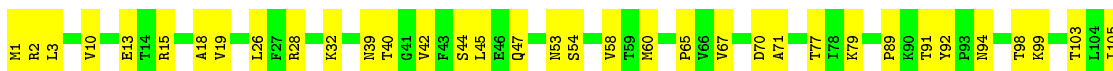
- Molecule 1: coat protein



- Molecule 1: coat protein

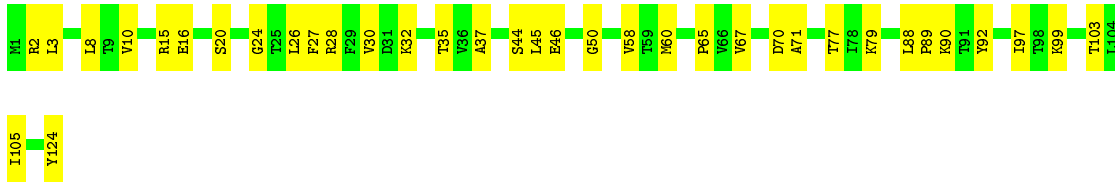


- Molecule 1: coat protein

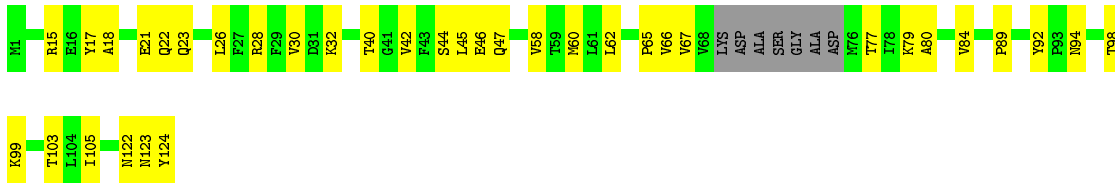


- Molecule 1: coat protein

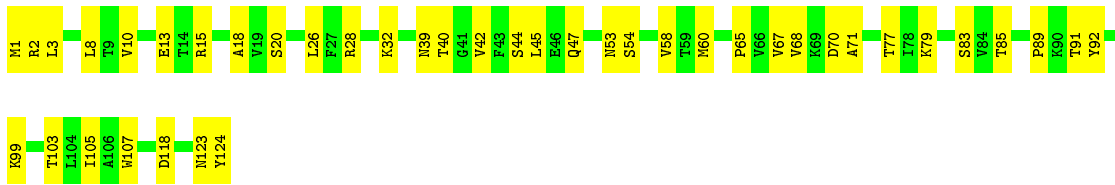




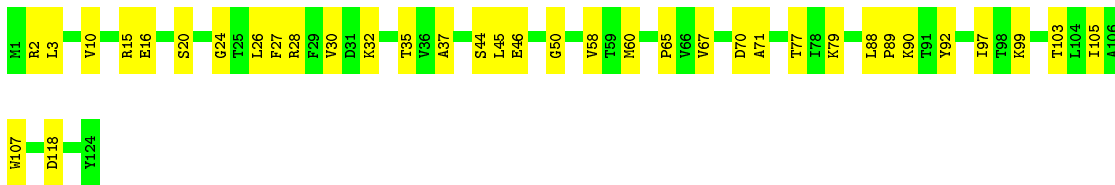
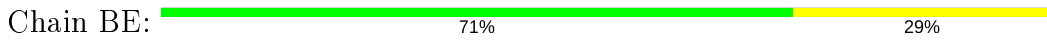
• Molecule 1: coat protein



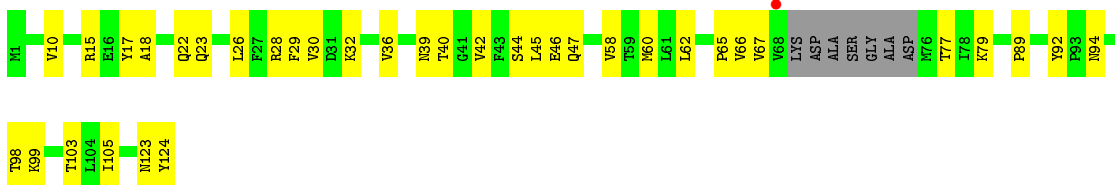
• Molecule 1: coat protein



• Molecule 1: coat protein

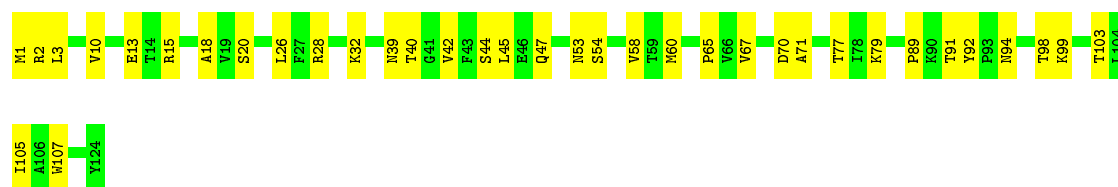


• Molecule 1: coat protein



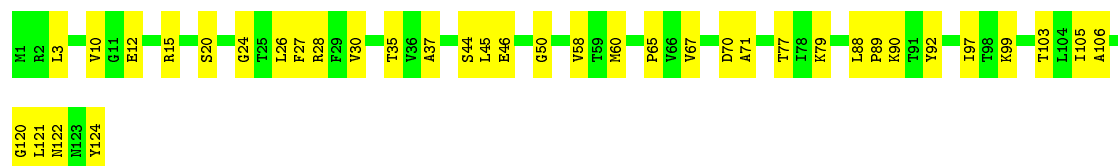
• Molecule 1: coat protein

Chain BG:  71% 29%



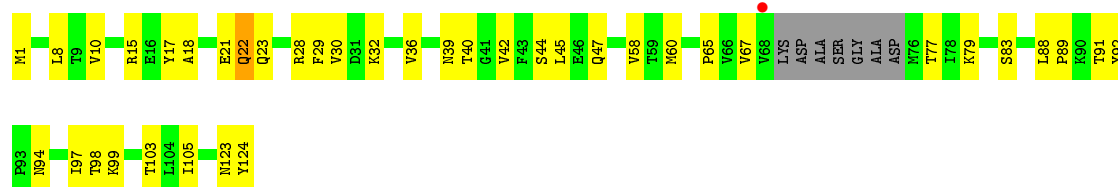
- Molecule 1: coat protein

Chain BH:  70% 30%



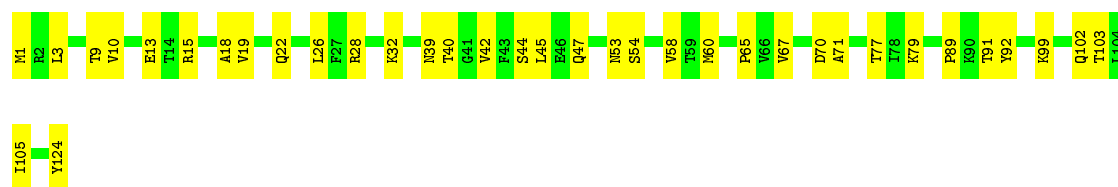
- Molecule 1: coat protein

Chain BI:  63% 31% 6%



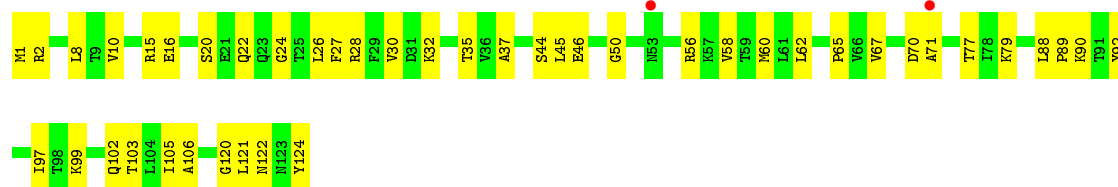
- Molecule 1: coat protein

Chain BJ:  71% 29%

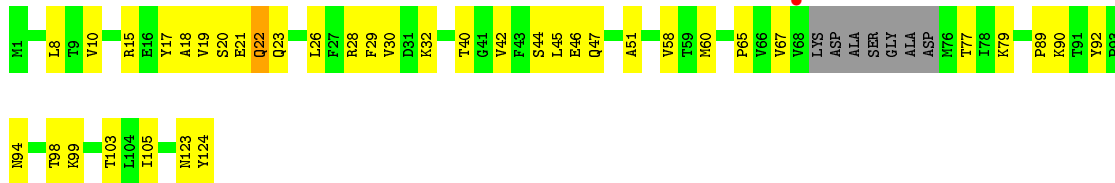


- Molecule 1: coat protein

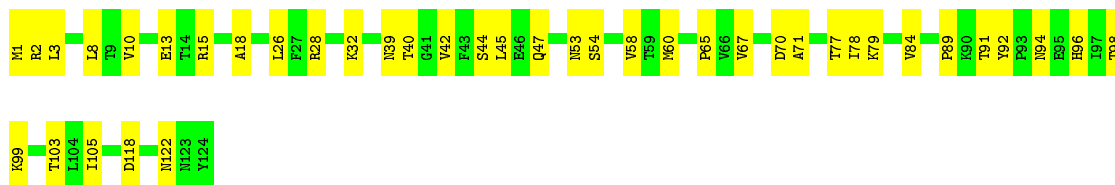
Chain BK:  65% 35% 2%



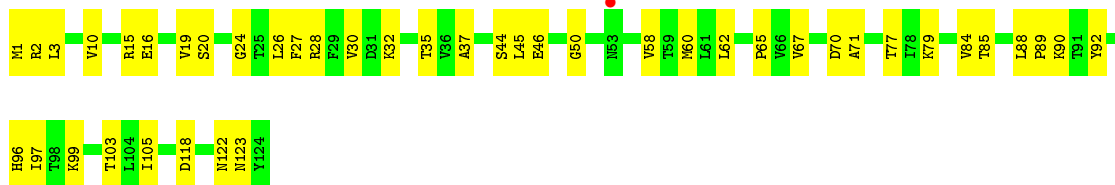
- Molecule 1: coat protein



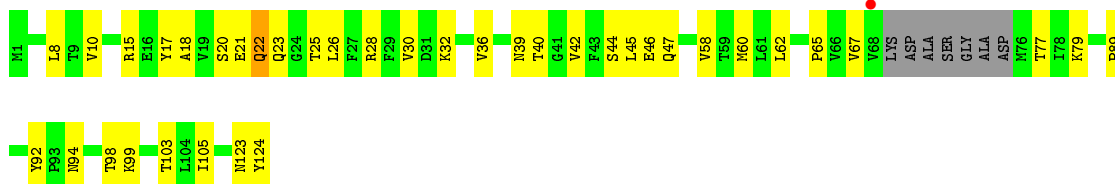
• Molecule 1: coat protein



• Molecule 1: coat protein



• Molecule 1: coat protein

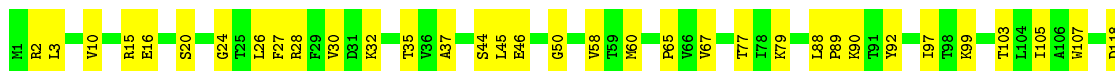


• Molecule 1: coat protein

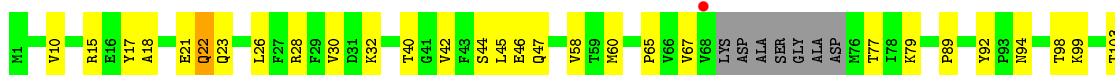


• Molecule 1: coat protein





• Molecule 1: coat protein



• Molecule 1: coat protein



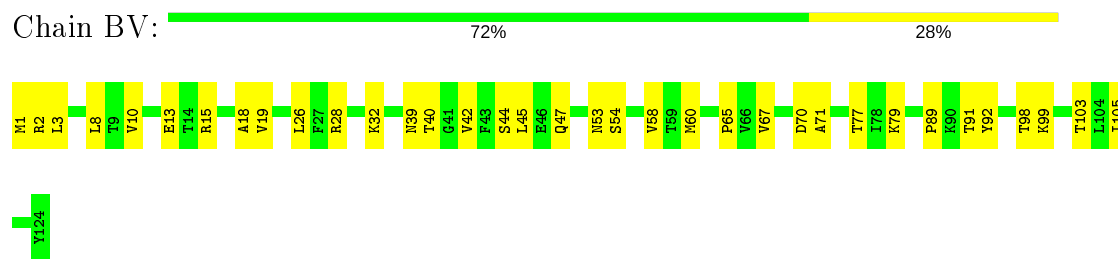
• Molecule 1: coat protein



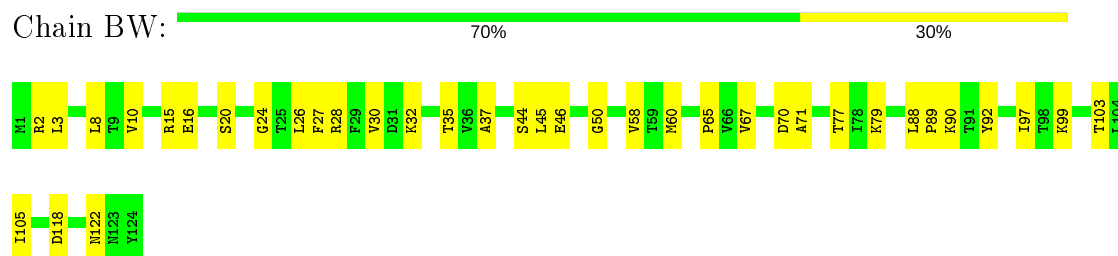
• Molecule 1: coat protein



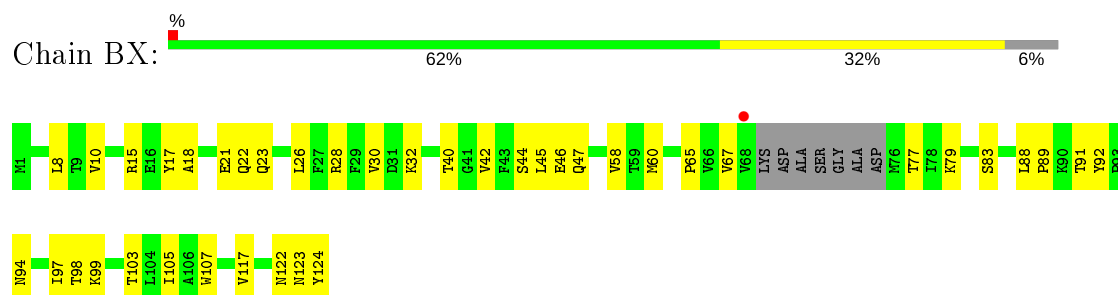
• Molecule 1: coat protein



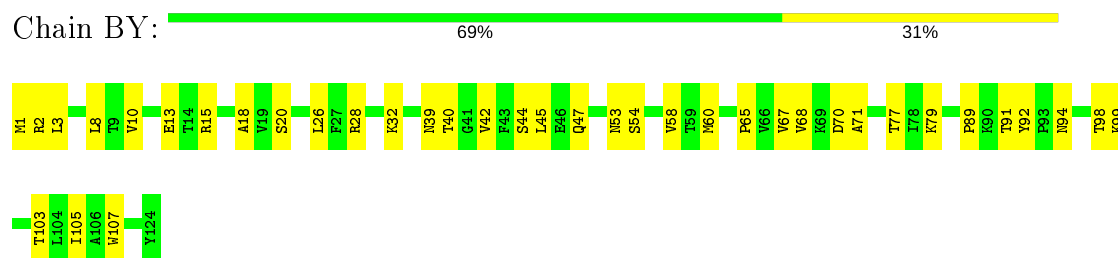
- Molecule 1: coat protein



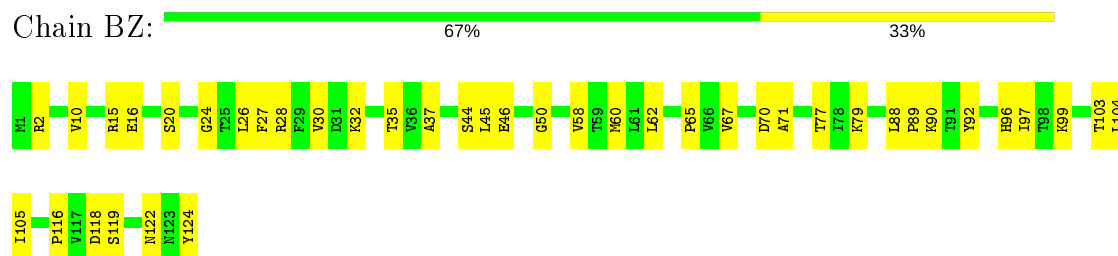
- Molecule 1: coat protein



- Molecule 1: coat protein

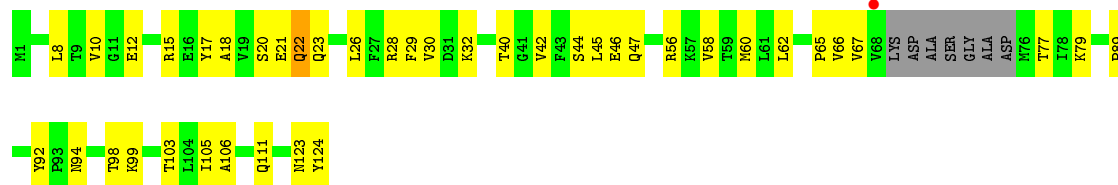


- Molecule 1: coat protein

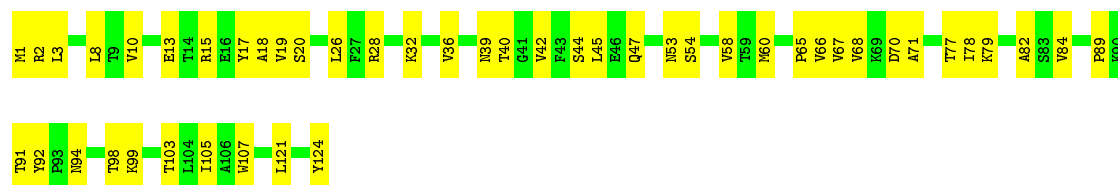


- Molecule 1: coat protein

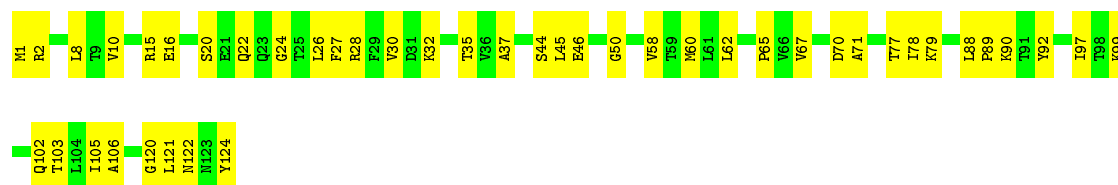




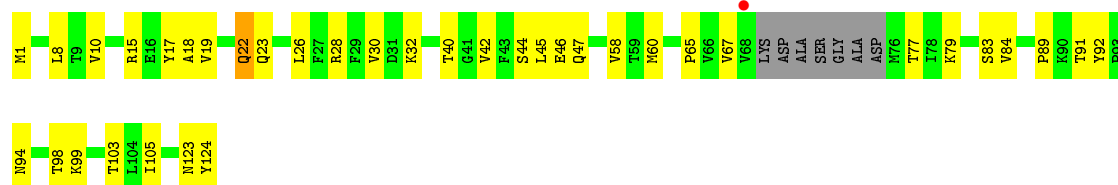
- Molecule 1: coat protein



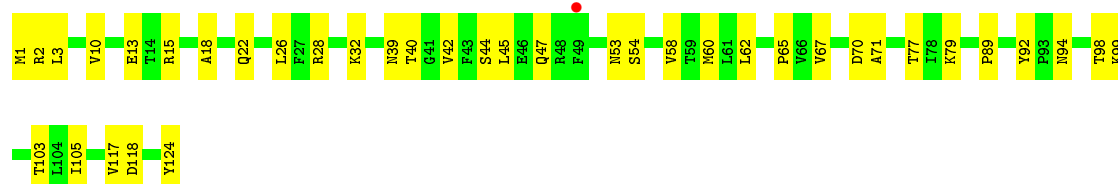
- Molecule 1: coat protein



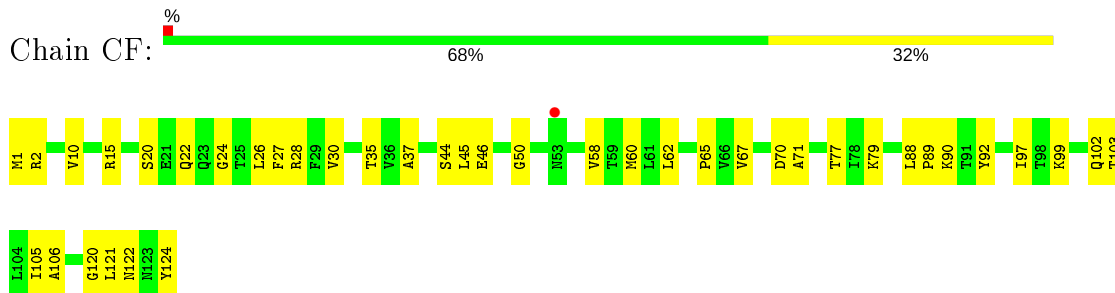
- Molecule 1: coat protein



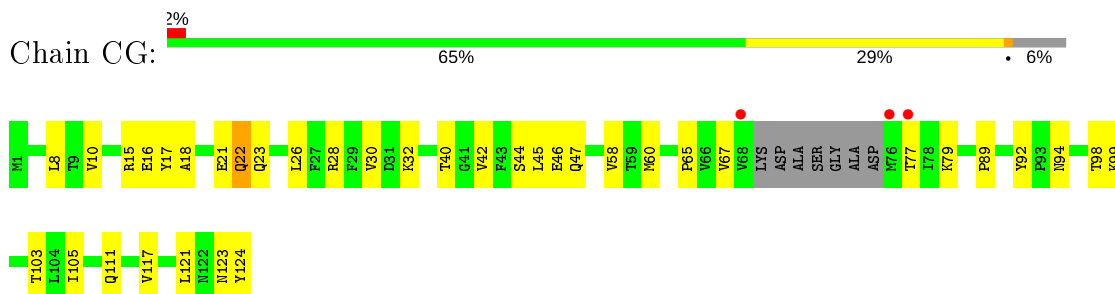
- Molecule 1: coat protein



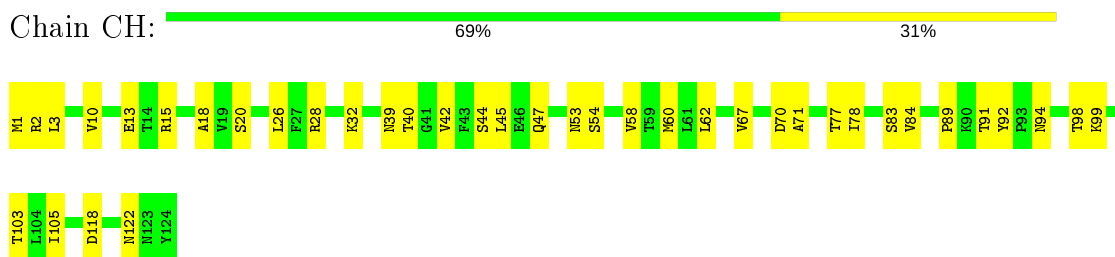
- Molecule 1: coat protein



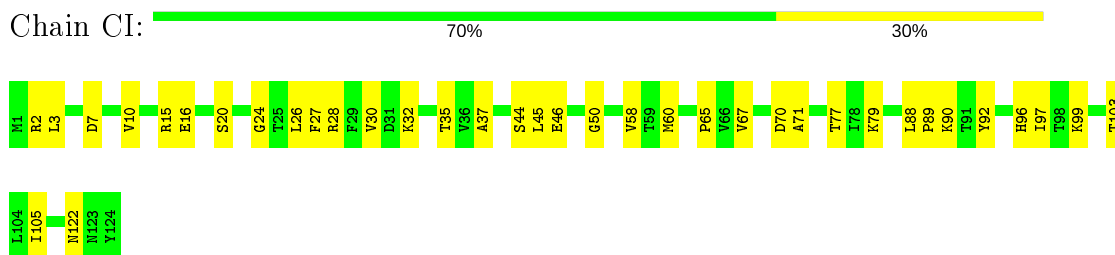
- Molecule 1: coat protein



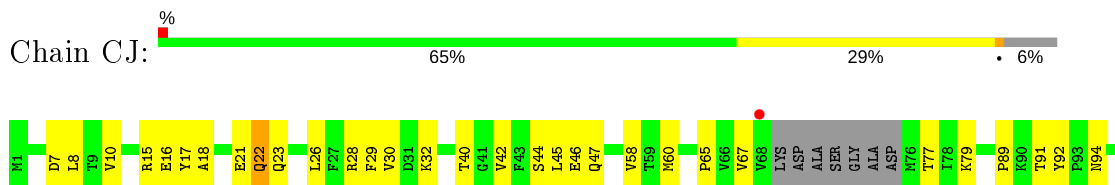
- Molecule 1: coat protein

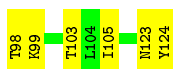


- Molecule 1: coat protein



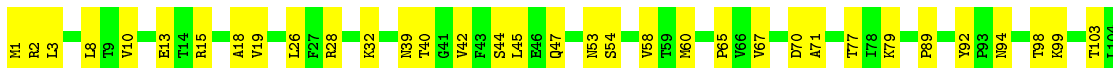
- Molecule 1: coat protein





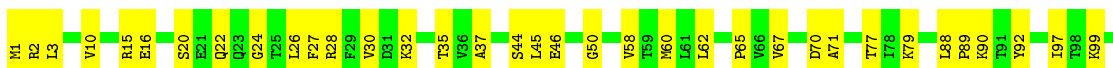
- Molecule 1: coat protein

Chain CK: 71% 29%



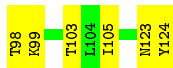
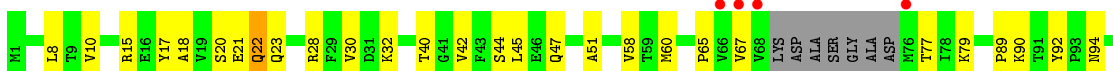
- Molecule 1: coat protein

Chain CL: 66% 34%



- Molecule 1: coat protein

Chain CM: 3% 67% 27% 6%



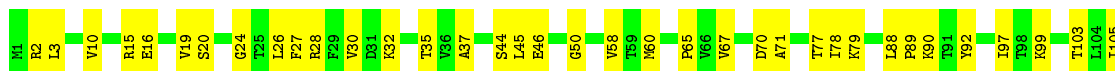
- Molecule 1: coat protein

Chain CN: 71% 29%

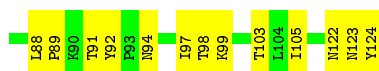
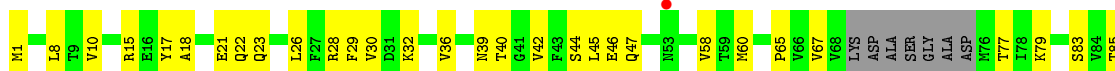


- Molecule 1: coat protein

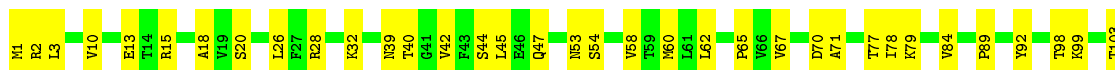
Chain CO: 69% 31%



• Molecule 1: coat protein



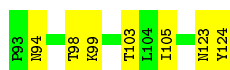
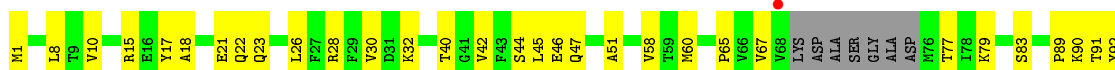
• Molecule 1: coat protein



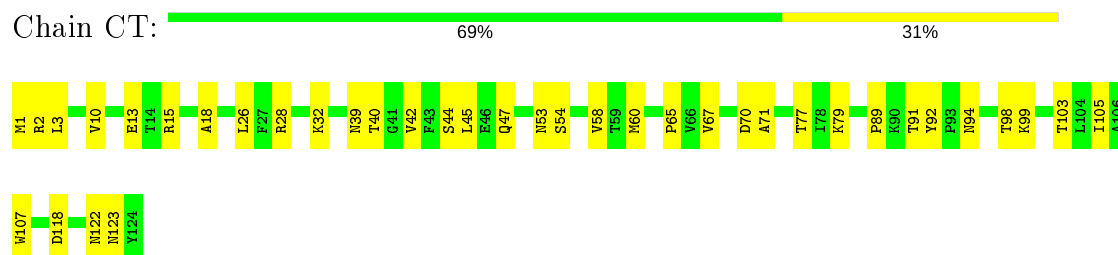
• Molecule 1: coat protein



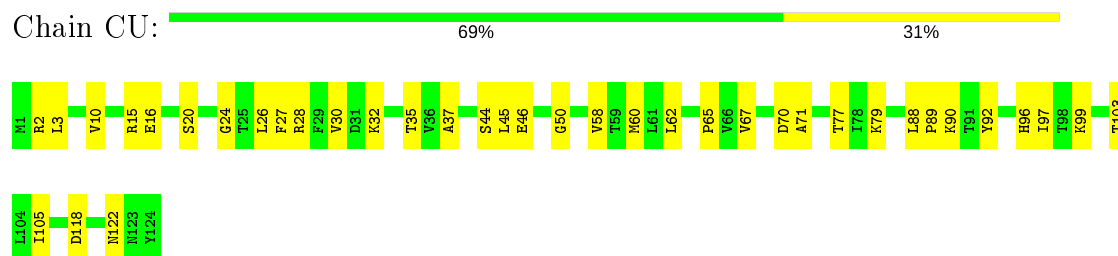
• Molecule 1: coat protein



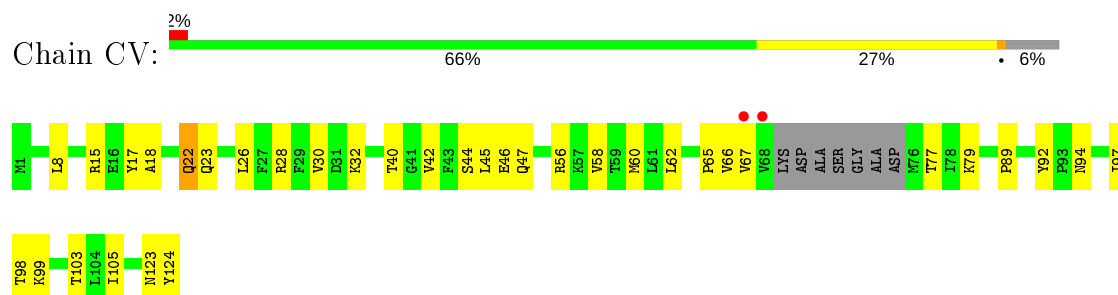
• Molecule 1: coat protein



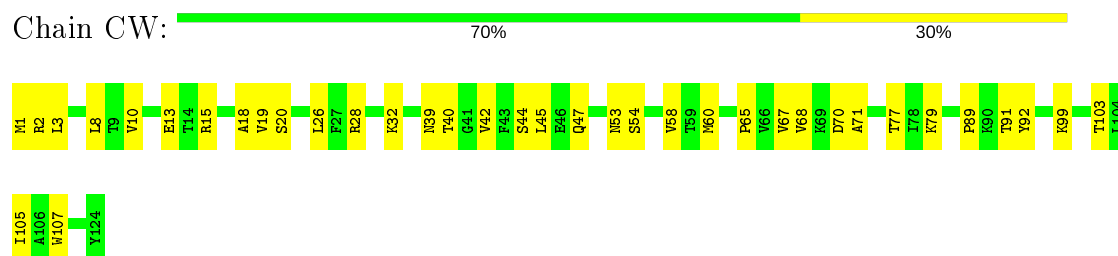
- Molecule 1: coat protein



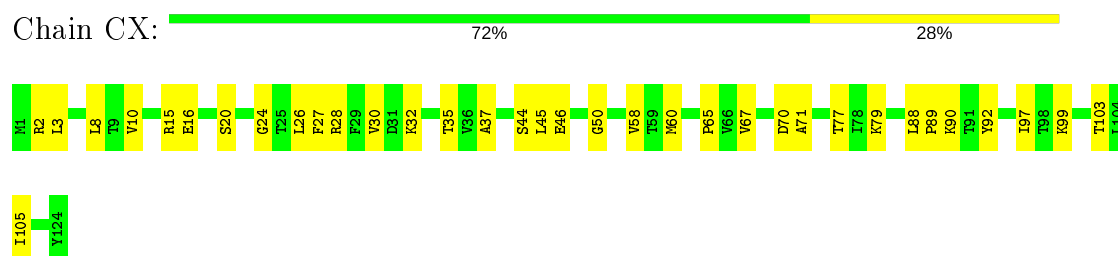
- Molecule 1: coat protein



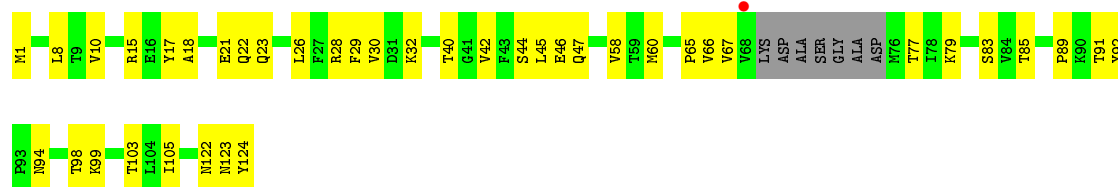
- Molecule 1: coat protein



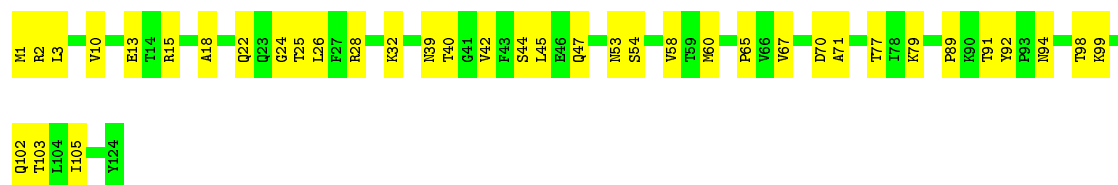
- Molecule 1: coat protein



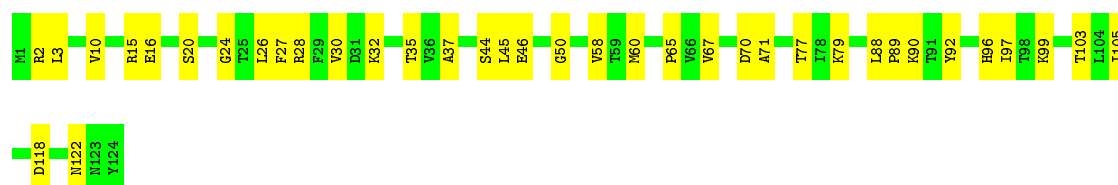
- Molecule 1: coat protein



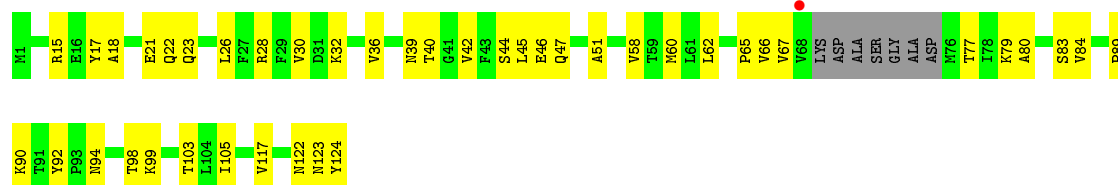
- Molecule 1: coat protein



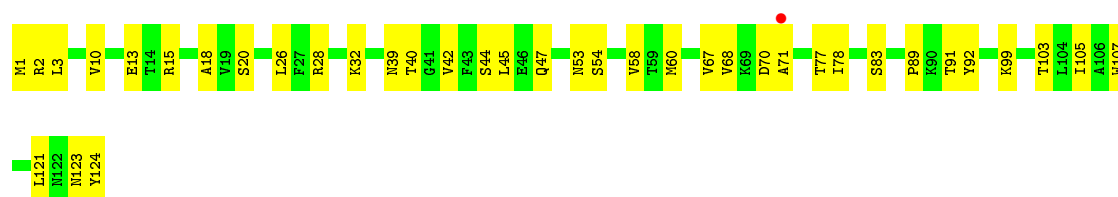
- Molecule 1: coat protein



- Molecule 1: coat protein

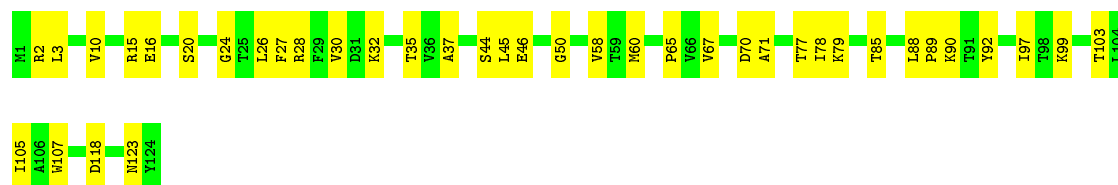


- Molecule 1: coat protein



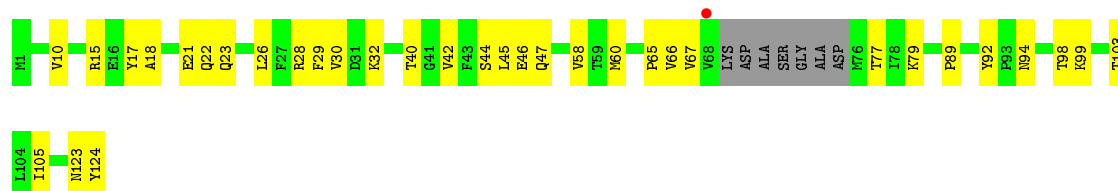
- Molecule 1: coat protein

Chain DD: 69% 31%



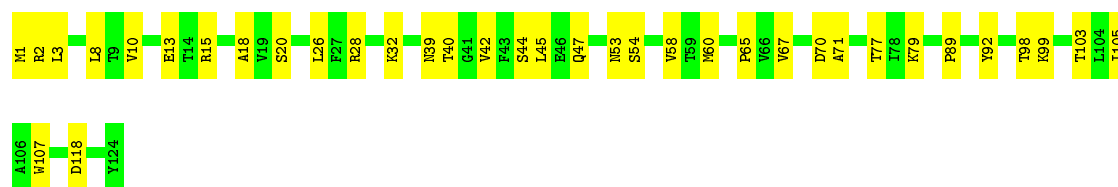
- Molecule 1: coat protein

Chain DE: 67% 27% 6%



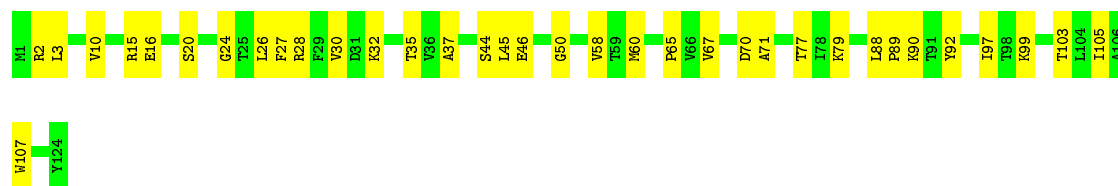
- Molecule 1: coat protein

Chain DF: 71% 29%



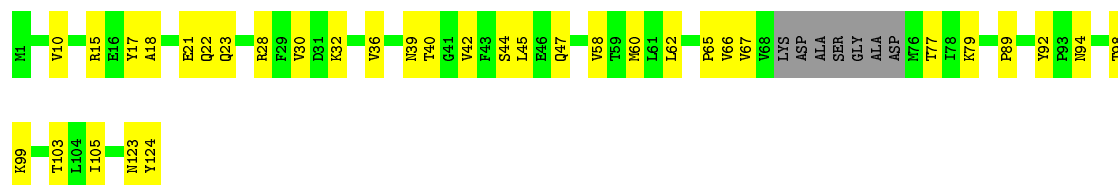
- Molecule 1: coat protein

Chain DG: 72% 28%

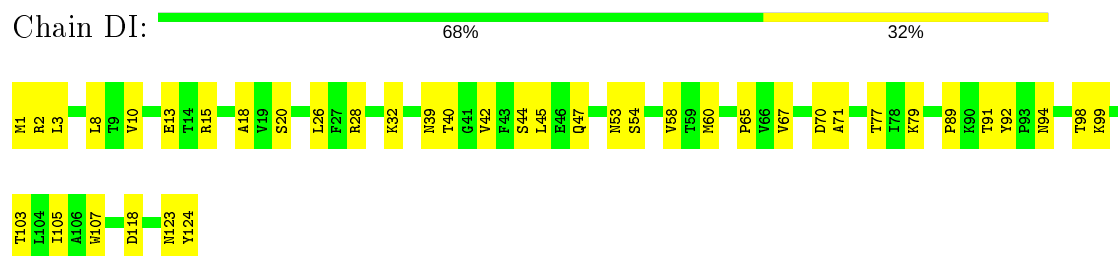


- Molecule 1: coat protein

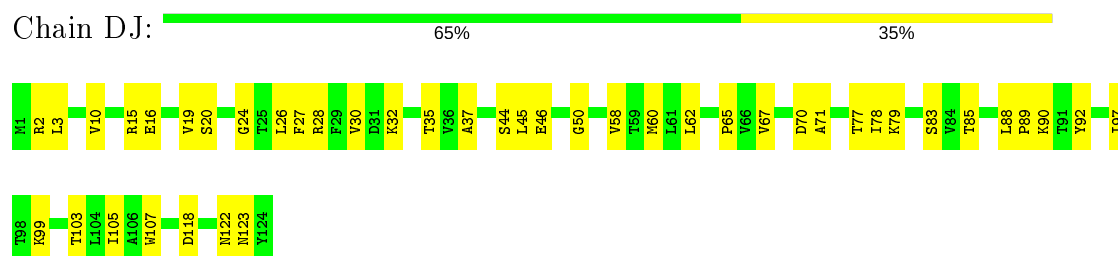
Chain DH: 67% 27% 6%



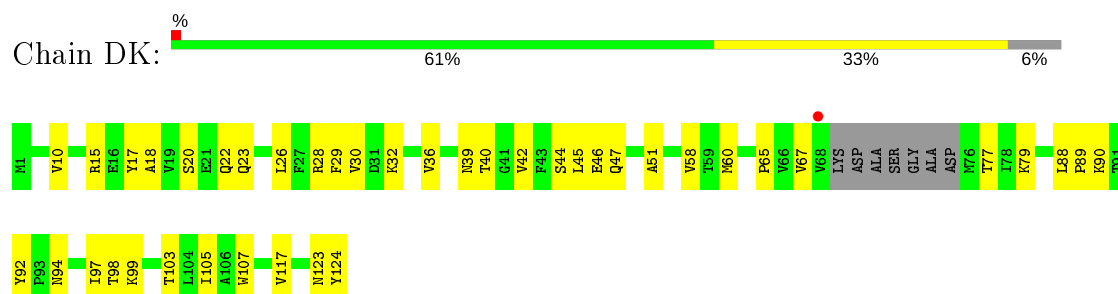
- Molecule 1: coat protein



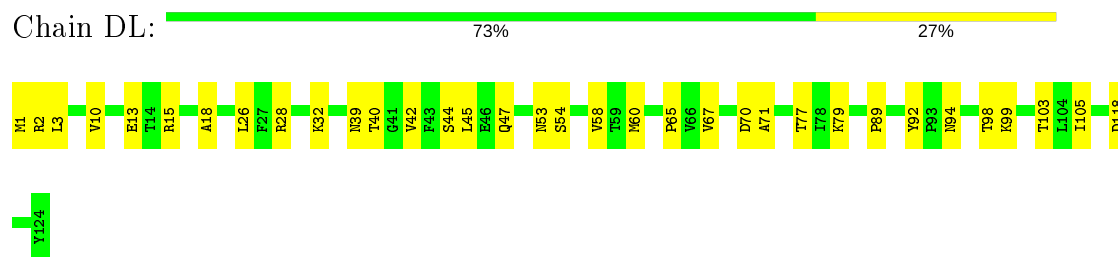
- Molecule 1: coat protein



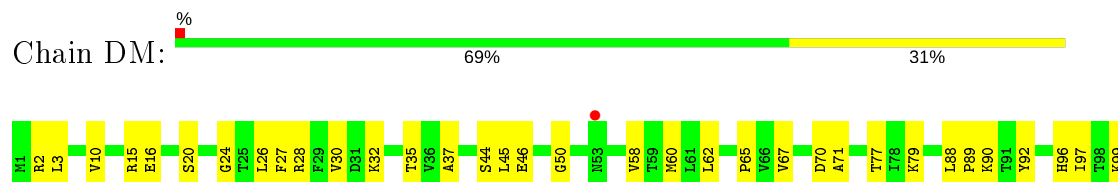
- Molecule 1: coat protein



- Molecule 1: coat protein



- Molecule 1: coat protein







• Molecule 1: coat protein



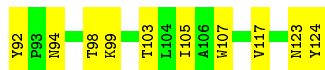
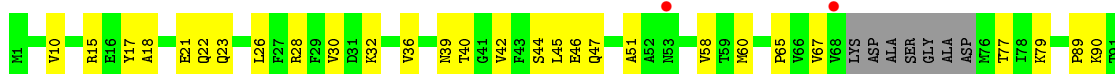
• Molecule 1: coat protein



• Molecule 1: coat protein

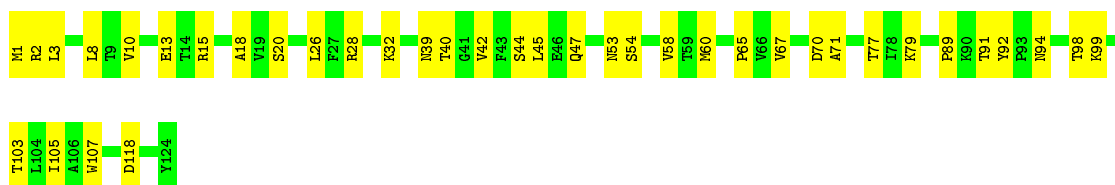


• Molecule 1: coat protein

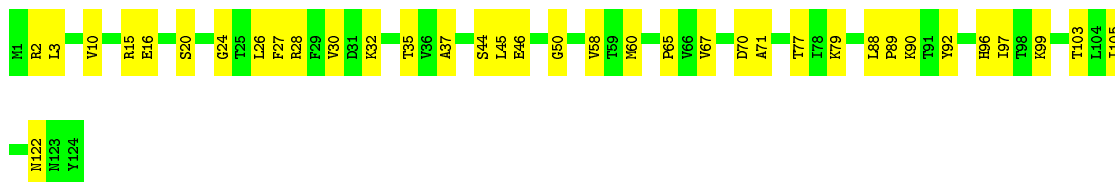


• Molecule 1: coat protein

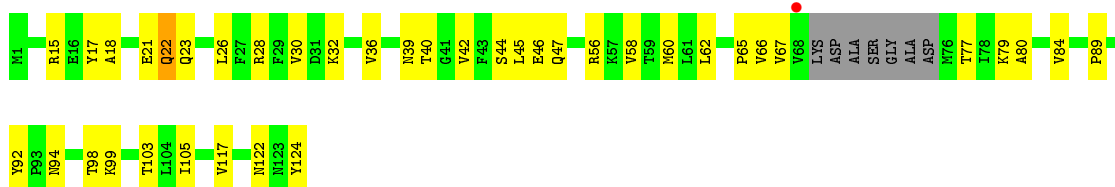




- Molecule 1: coat protein



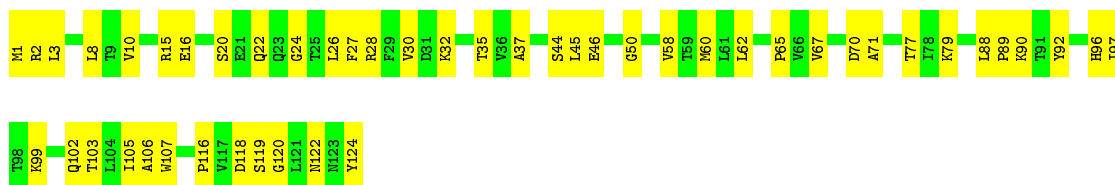
- Molecule 1: coat protein



- Molecule 1: coat protein

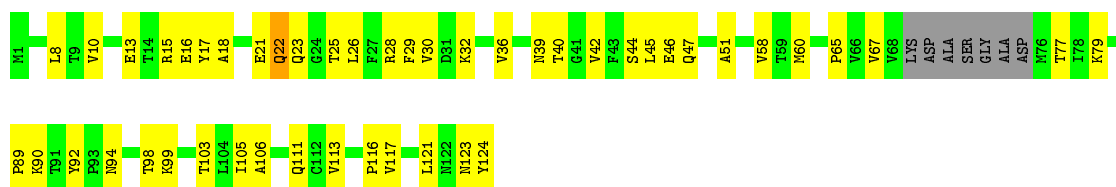


- Molecule 1: coat protein



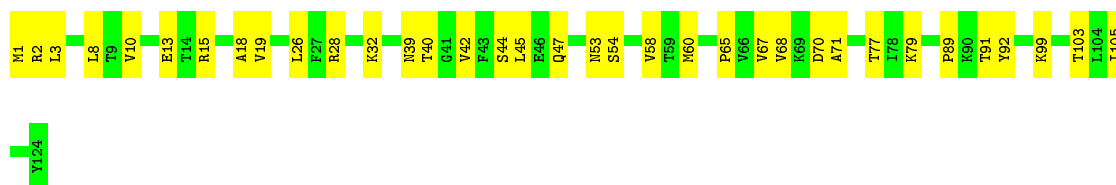
- Molecule 1: coat protein

Chain DW:  56% 37% 6%



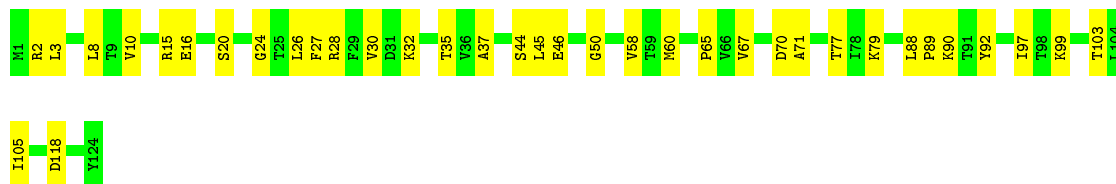
- Molecule 1: coat protein

Chain DX:  72% 28%



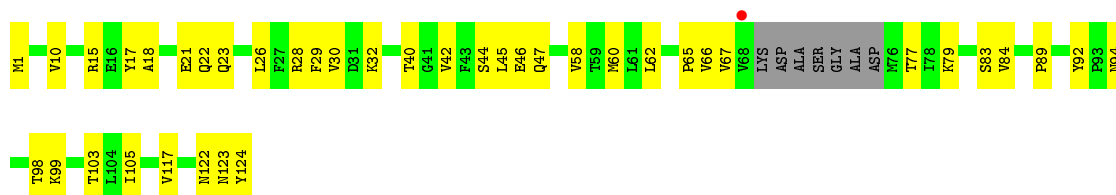
- Molecule 1: coat protein

Chain DY:  71% 29%




- Molecule 1: coat protein

Chain DZ:  62% 32% 6%



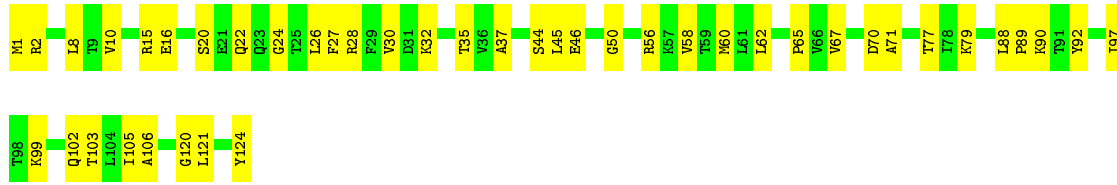
- Molecule 1: coat protein

Chain EA:  73% 27%



- Molecule 1: coat protein

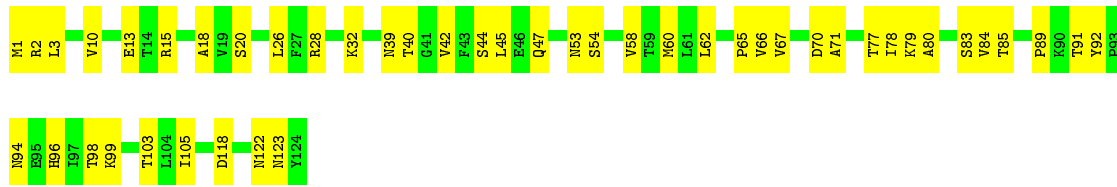
Chain EB:  65% 35%



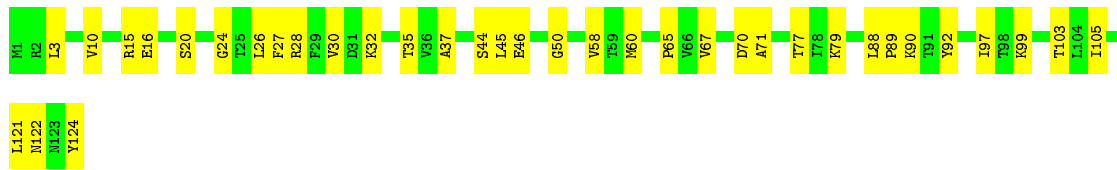
• Molecule 1: coat protein



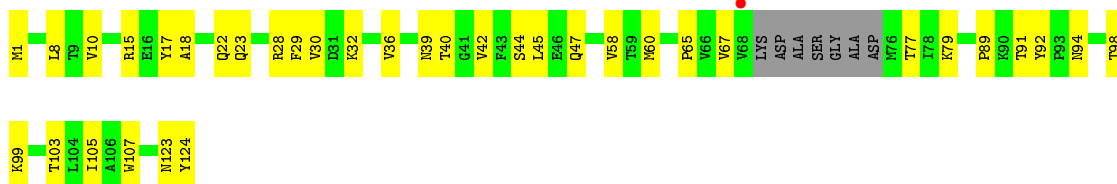
• Molecule 1: coat protein



• Molecule 1: coat protein

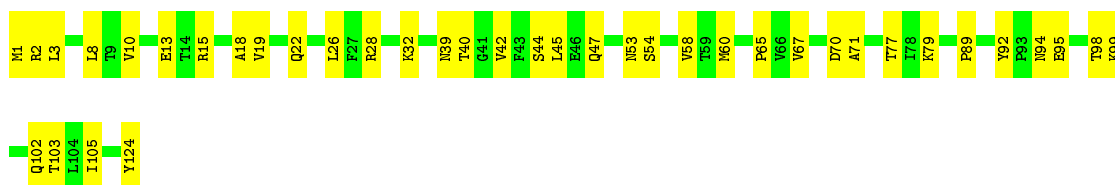


• Molecule 1: coat protein

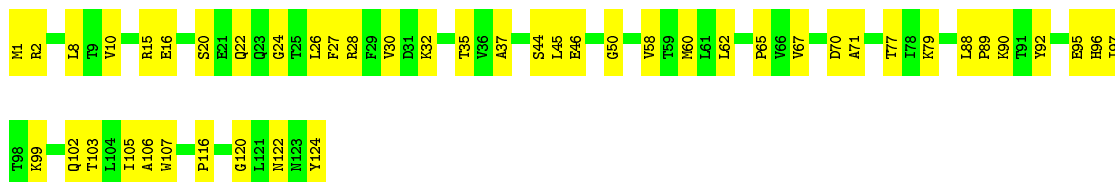


• Molecule 1: coat protein

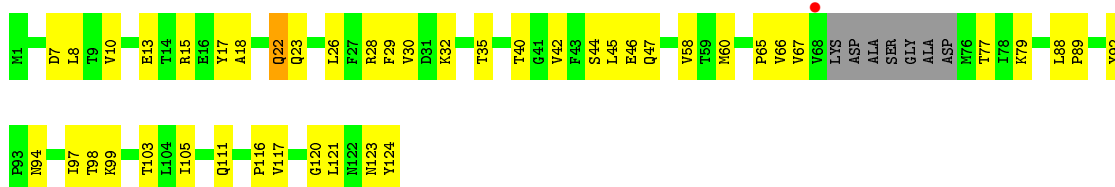




- Molecule 1: coat protein



- Molecule 1: coat protein



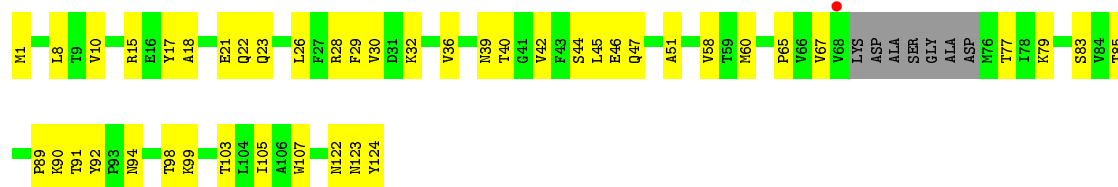
- Molecule 1: coat protein



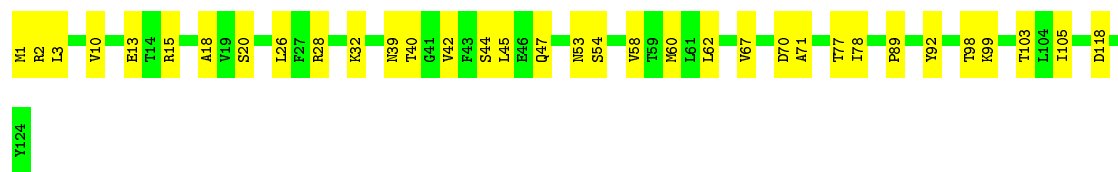
- Molecule 1: coat protein



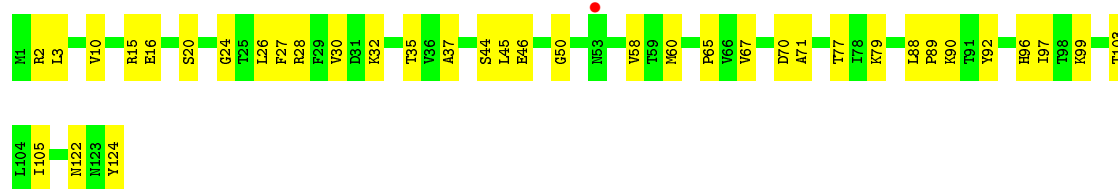
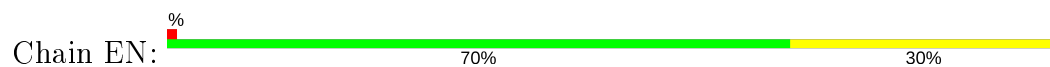
- Molecule 1: coat protein



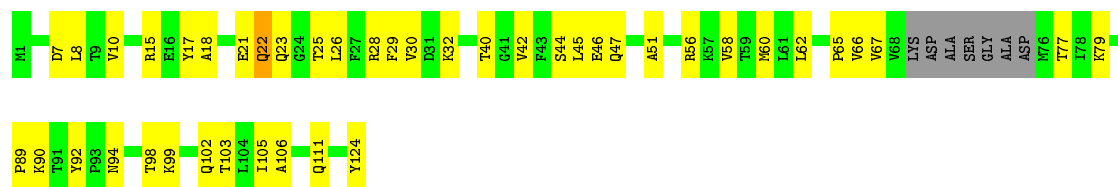
- Molecule 1: coat protein



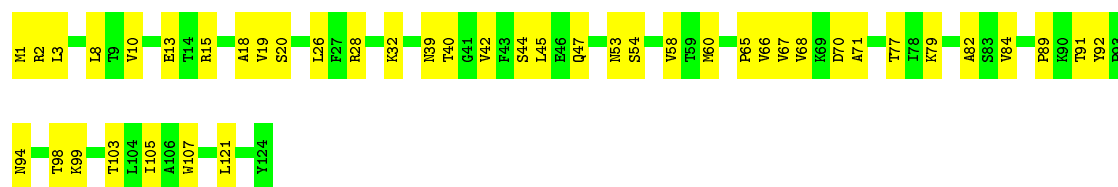
- Molecule 1: coat protein



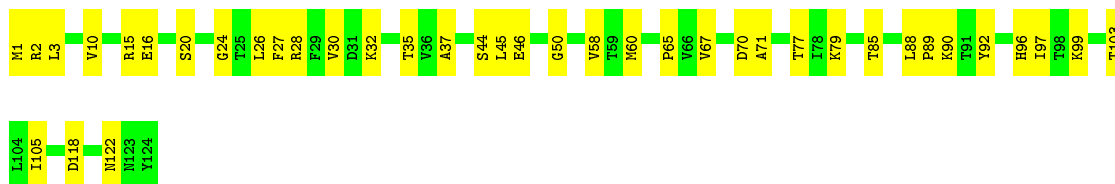
- Molecule 1: coat protein



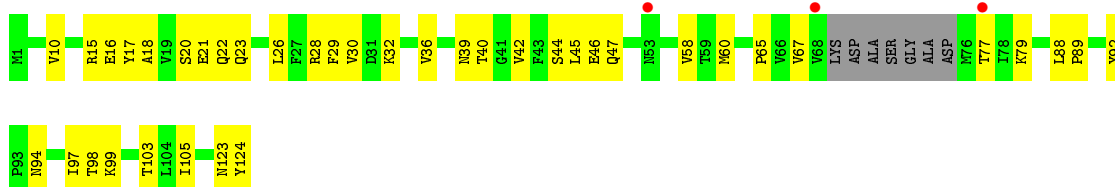
- Molecule 1: coat protein



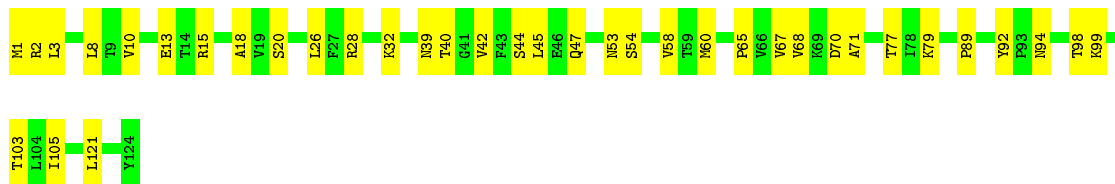
- Molecule 1: coat protein



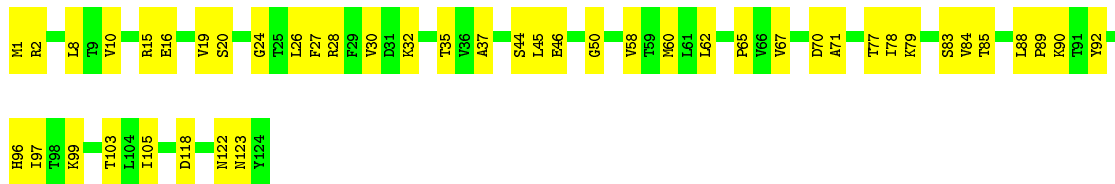
• Molecule 1: coat protein



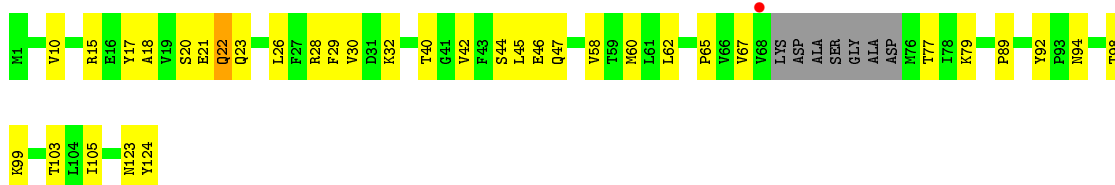
• Molecule 1: coat protein



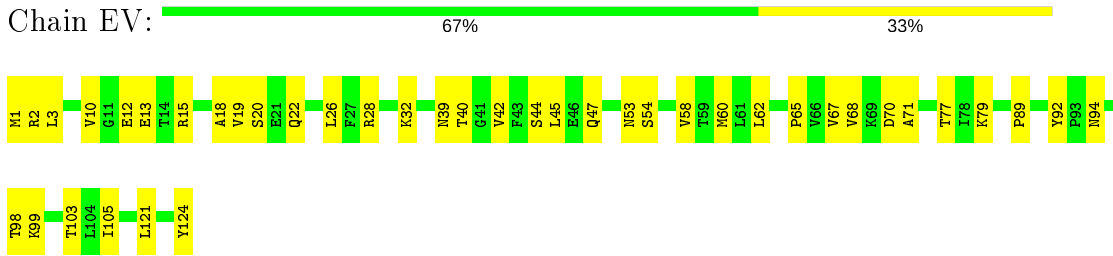
• Molecule 1: coat protein



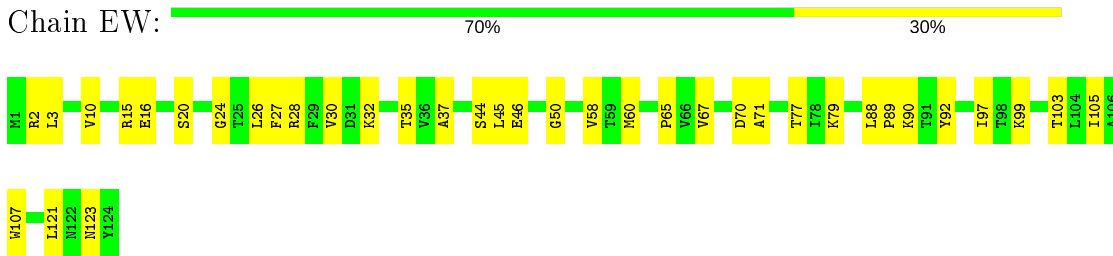
• Molecule 1: coat protein



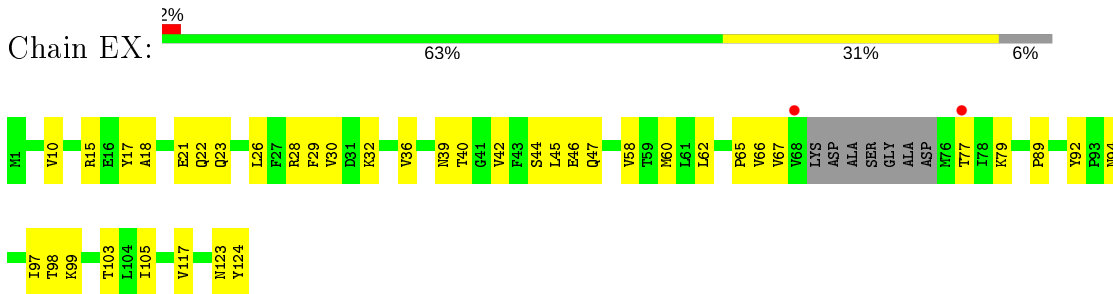
• Molecule 1: coat protein



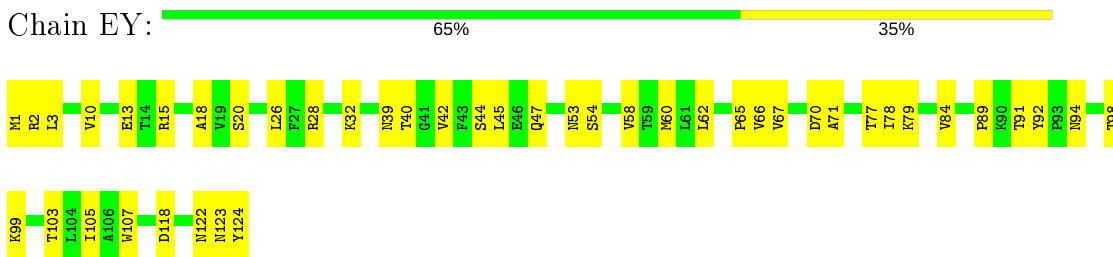
• Molecule 1: coat protein



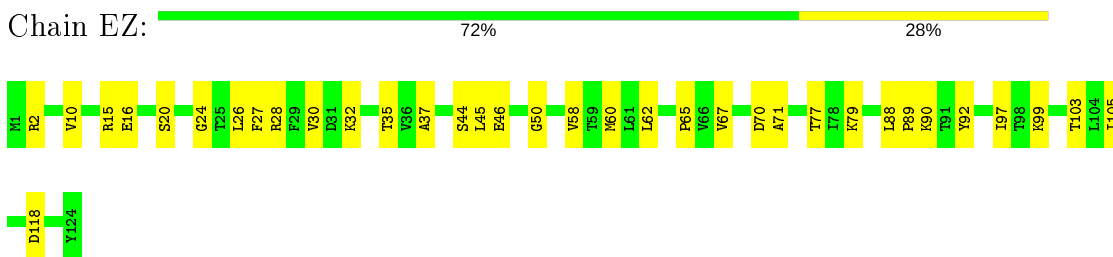
• Molecule 1: coat protein



• Molecule 1: coat protein

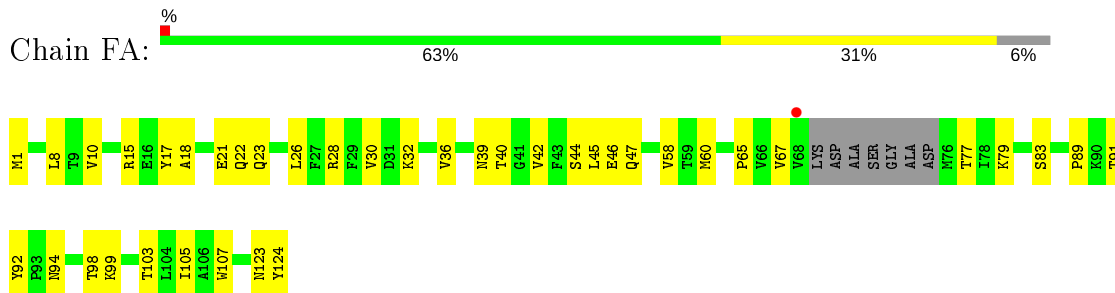


• Molecule 1: coat protein

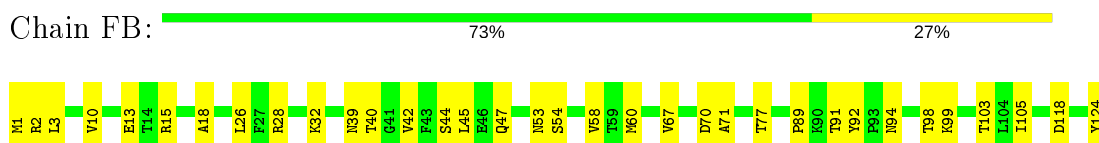




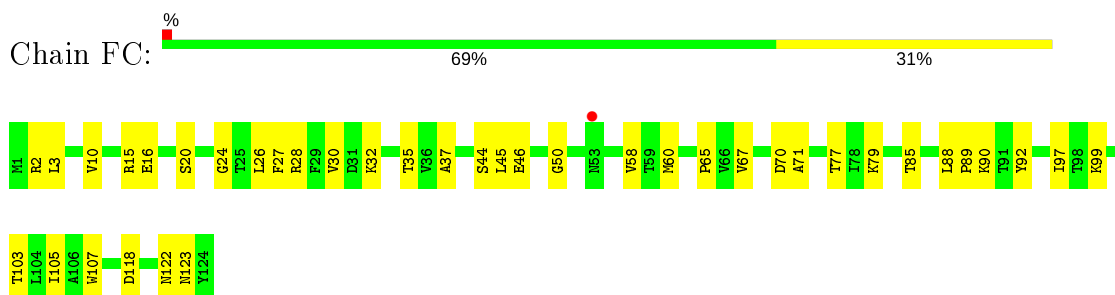
- Molecule 1: coat protein



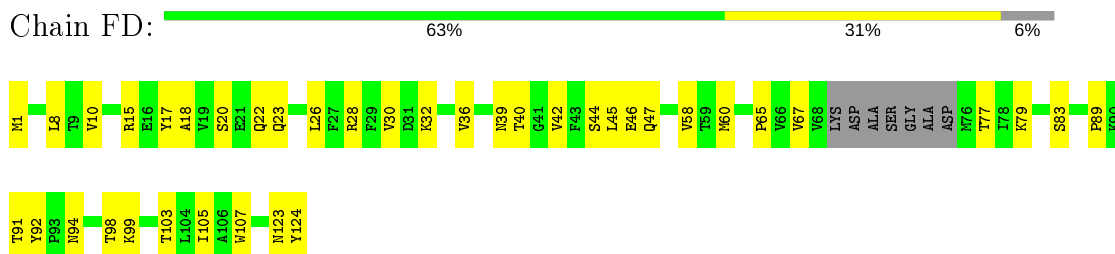
- Molecule 1: coat protein



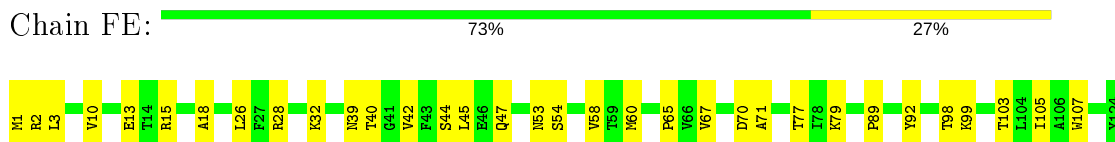
- Molecule 1: coat protein



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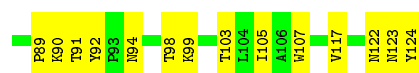
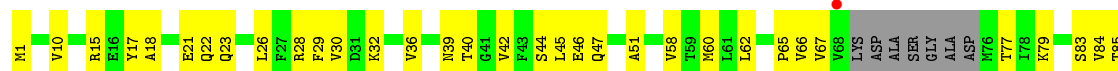


- Molecule 1: coat protein

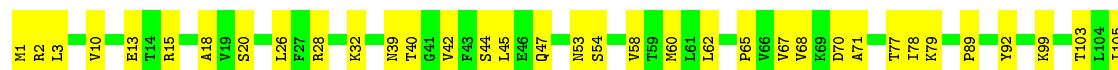




- Molecule 1: coat protein



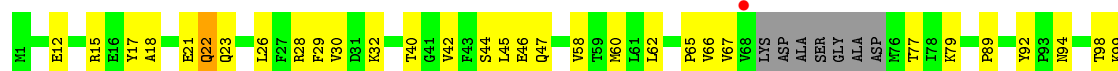
- Molecule 1: coat protein



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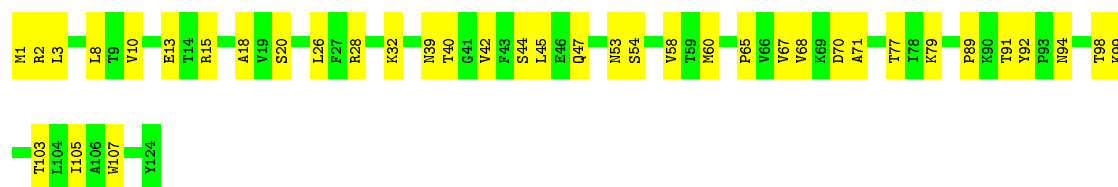


- Molecule 1: coat protein



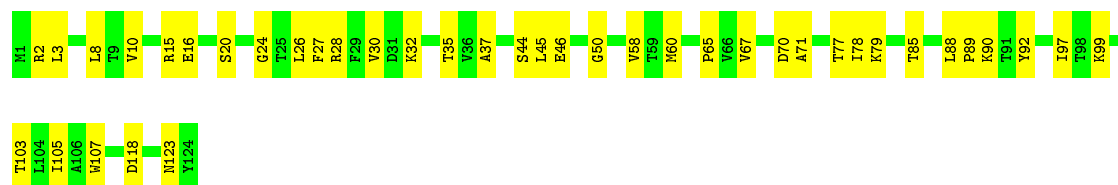
- Molecule 1: coat protein

Chain FK:  69% 31%



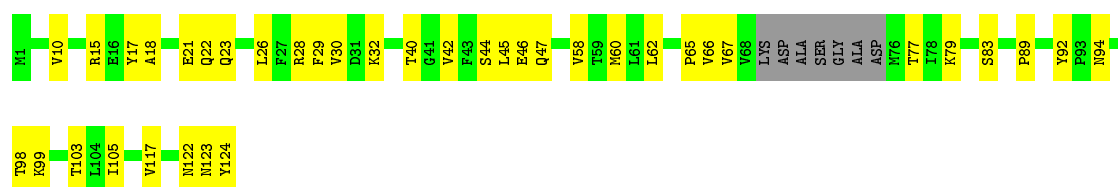
- Molecule 1: coat protein

Chain FL:  68% 32%



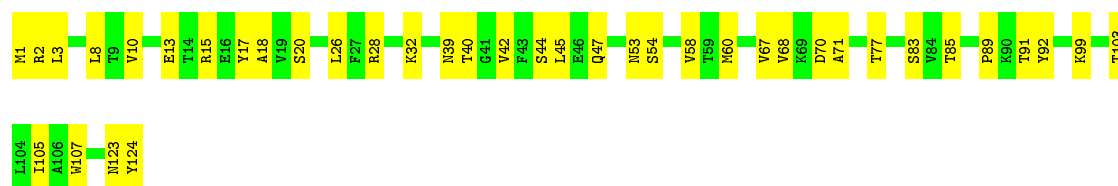
- Molecule 1: coat protein

Chain FM:  64% 31% 6%



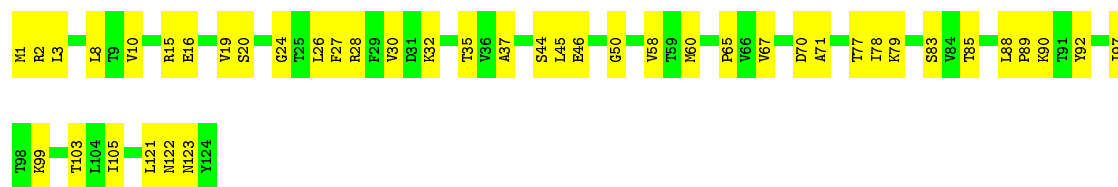
- Molecule 1: coat protein

Chain FN:  69% 31%



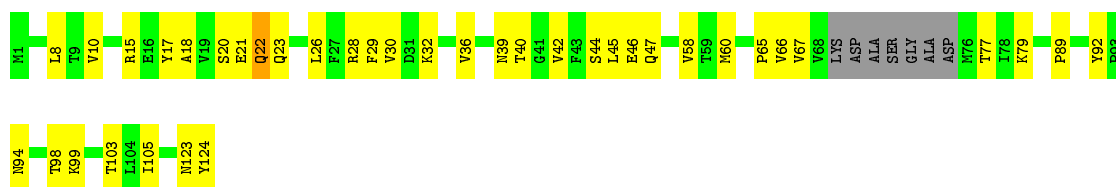
- Molecule 1: coat protein

Chain FO:  65% 35%



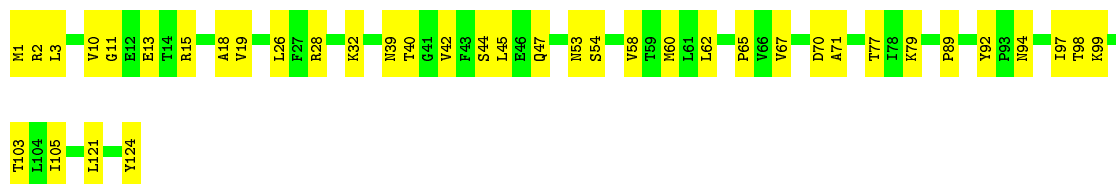
- Molecule 1: coat protein

Chain FP:  64% 30% 6%



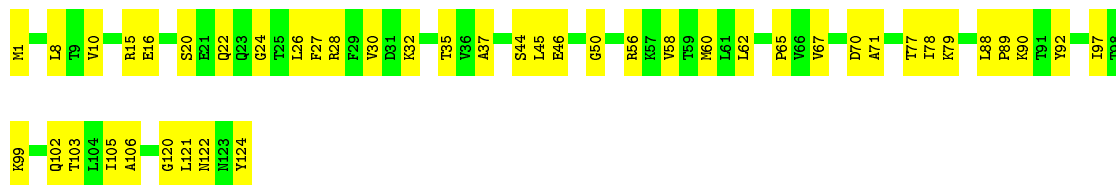
- Molecule 1: coat protein

Chain FQ:  69% 31%



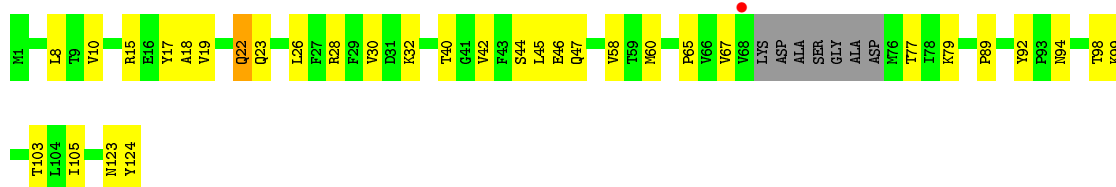
- Molecule 1: coat protein

Chain FR:  65% 35%



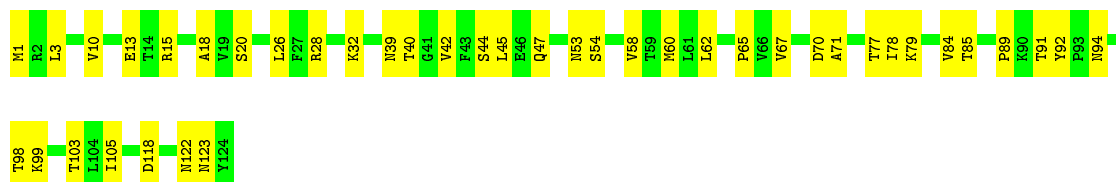
- Molecule 1: coat protein

Chain FS:  68% 26% 6%

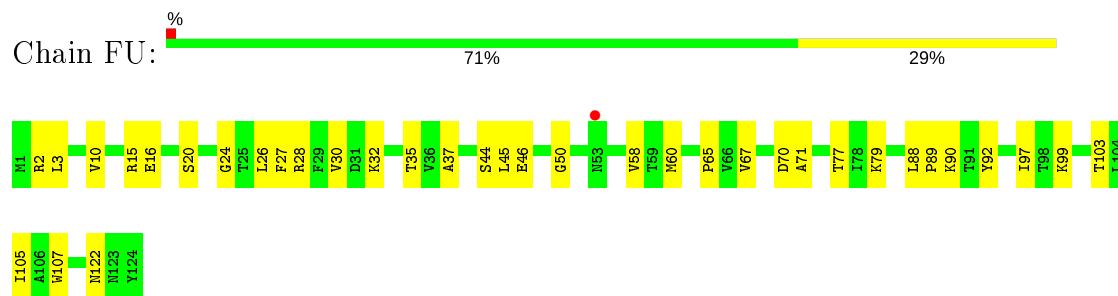


- Molecule 1: coat protein

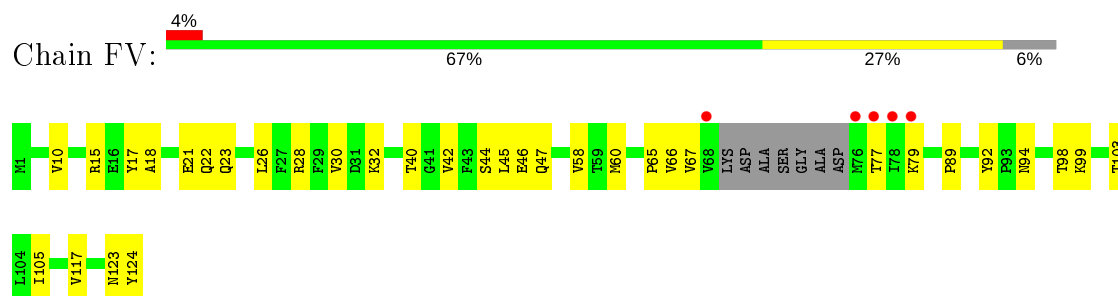
Chain FT:  67% 33%



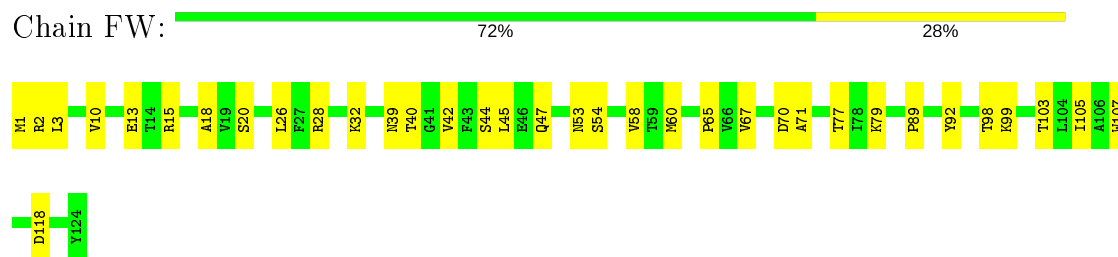
- Molecule 1: coat protein



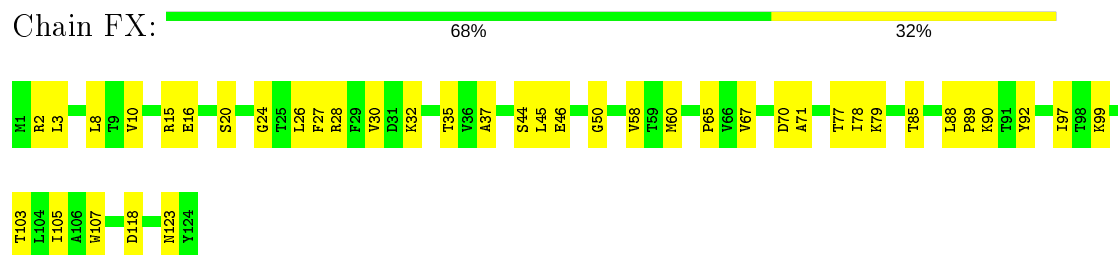
- Molecule 1: coat protein



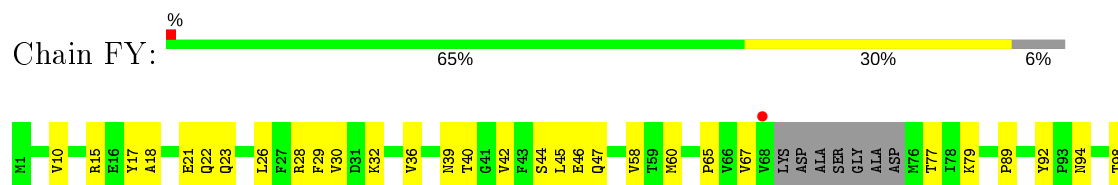
- Molecule 1: coat protein



- Molecule 1: coat protein

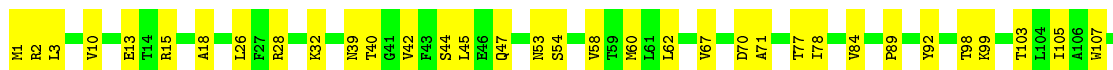


- Molecule 1: coat protein





• Molecule 1: coat protein



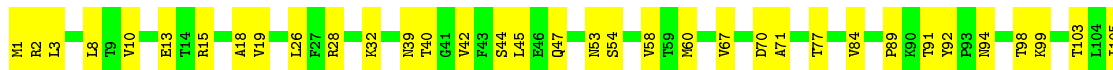
• Molecule 1: coat protein



• Molecule 1: coat protein

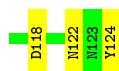


• Molecule 1: coat protein



• Molecule 1: coat protein

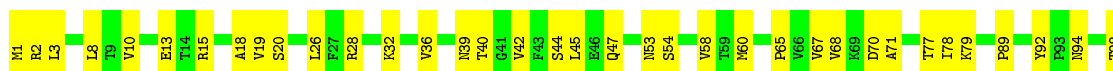




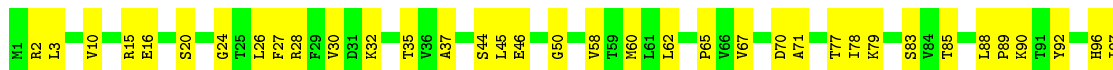
- Molecule 1: coat protein



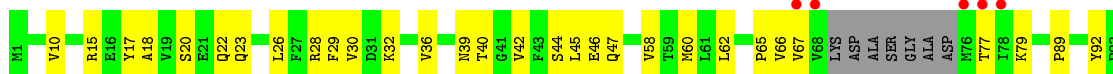
- Molecule 1: coat protein



- Molecule 1: coat protein



- Molecule 1: coat protein

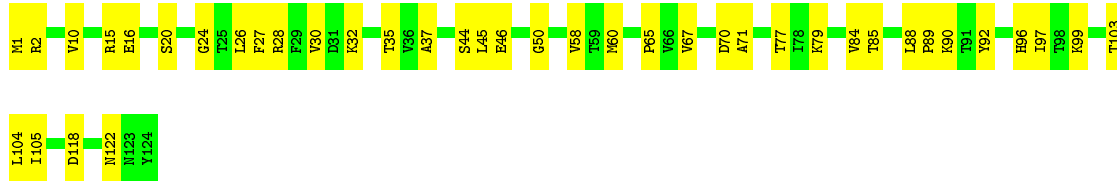


- Molecule 1: coat protein

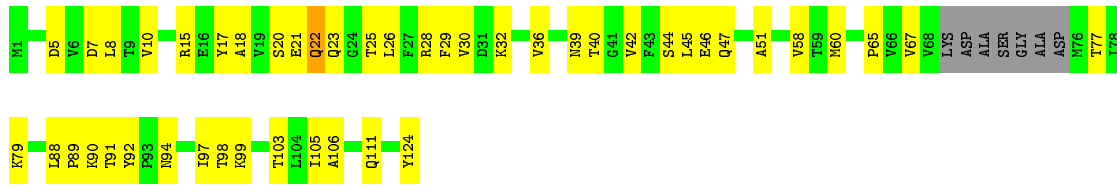




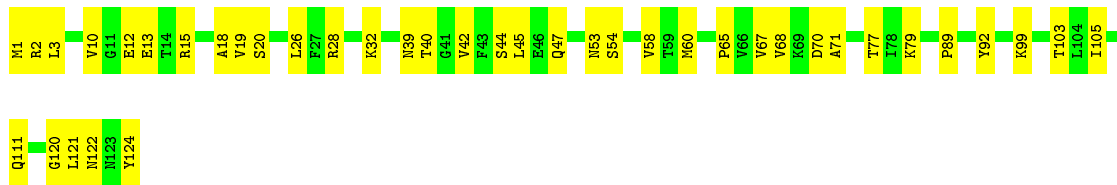
• Molecule 1: coat protein



• Molecule 1: coat protein



• Molecule 1: coat protein



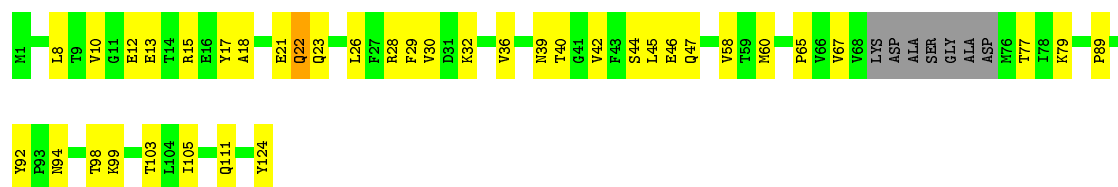
• Molecule 1: coat protein



• Molecule 1: coat protein

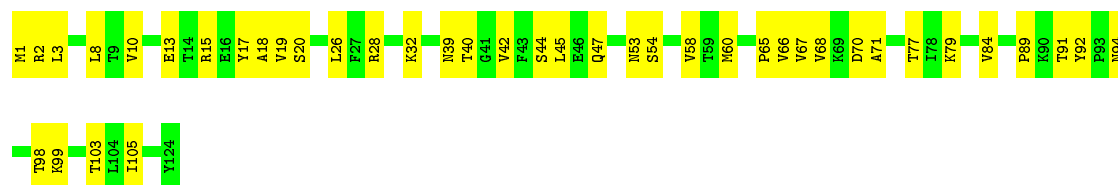


Chain GN:  64% 30% 6%



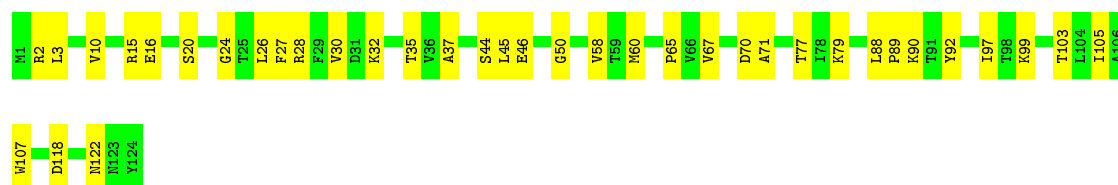
- Molecule 1: coat protein

Chain GO:  67% 33%



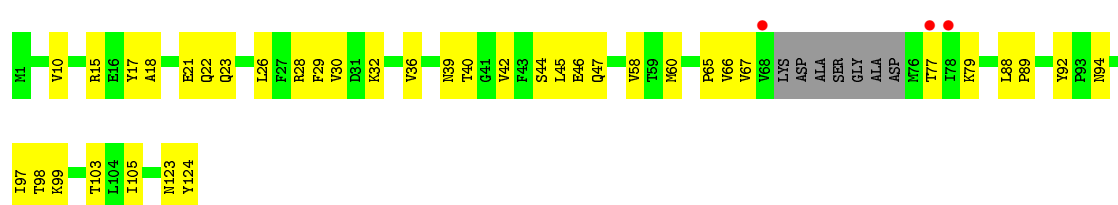
- Molecule 1: coat protein

Chain GP:  70% 30%



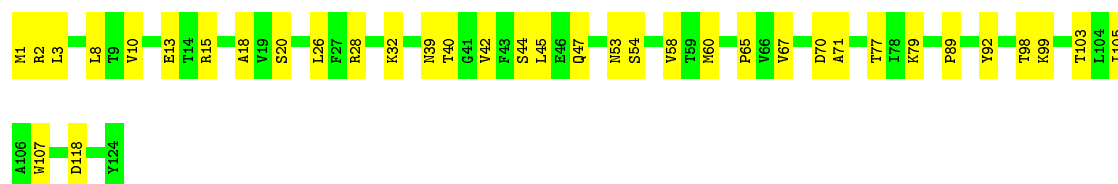
- Molecule 1: coat protein

Chain GQ:  2% 64% 31% 6%

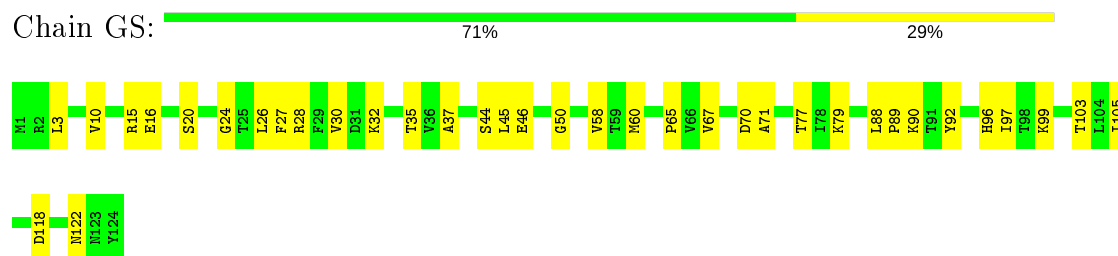


- Molecule 1: coat protein

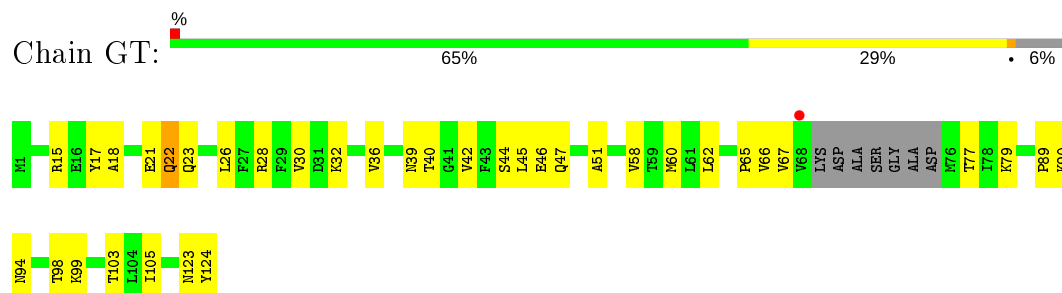
Chain GR:  71% 29%



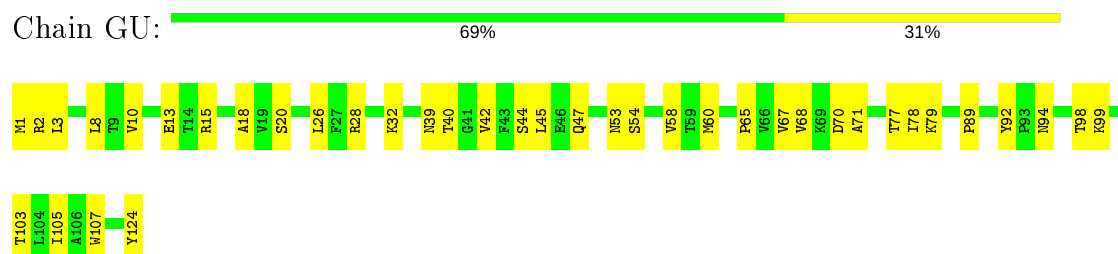
- Molecule 1: coat protein



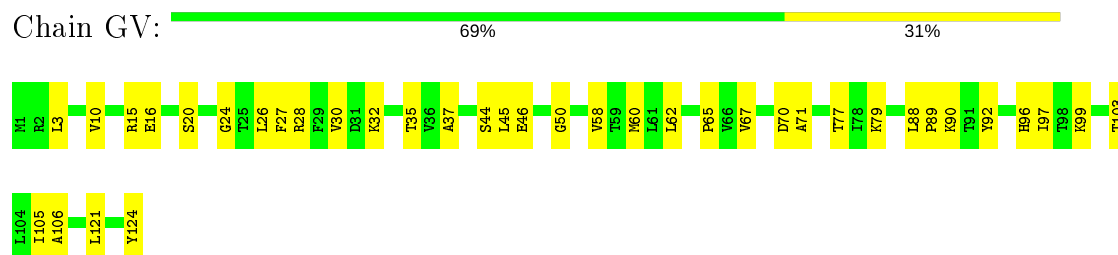
- Molecule 1: coat protein



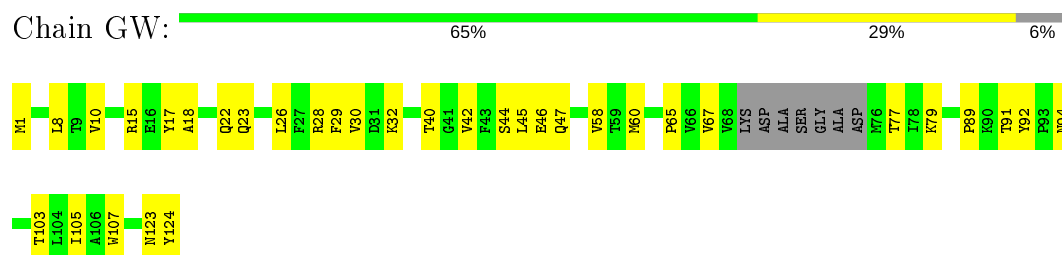
- Molecule 1: coat protein



- Molecule 1: coat protein

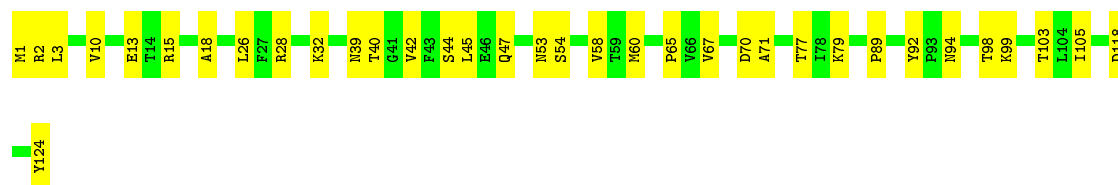


- Molecule 1: coat protein



- Molecule 1: coat protein

Chain GX:  72% 28%



## 4 Data and refinement statistics

| Property  | Value  | Source           |
|---|--|------------------|
| Space group   | P 1  | Depositor        |
| Cell constants<br>a, b, c, $\alpha$ , $\beta$ , $\gamma$                | 269.42Å 277.20Å 277.44Å<br>103.91° 117.39° 106.96°                   | Depositor        |
| Resolution (Å)  | 49.27 – 3.25<br>49.26 – 3.25   | Depositor<br>EDS |
| % Data completeness<br>(in resolution range)                            | 92.9 (49.27-3.25)<br>94.2 (49.26-3.25)                               | Depositor<br>EDS |
| $R_{merge}$   | 0.37   | Depositor        |
| $R_{sym}$   | (Not available)  | Depositor        |
| $\langle I/\sigma(I) \rangle$ <sup>1</sup>                              | 1.04 (at 3.25Å)  | Xtriage          |
| Refinement program  | PHENIX 1.14_3260   | Depositor        |
| R, $R_{free}$   | 0.241 , 0.239<br>0.243 , 0.242                                       | Depositor<br>DCC |
| $R_{free}$ test set   | 10021 reflections (1.10%)  | wwPDB-VP         |
| Wilson B-factor (Å <sup>2</sup> )                                       | 89.3   | Xtriage          |
| Anisotropy  | 0.214  | Xtriage          |
| Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> ) | 0.28 , 68.9  | EDS              |
| L-test for twinning <sup>2</sup>  | $\langle  L  \rangle = 0.43$ , $\langle L^2 \rangle = 0.26$          | Xtriage          |
| Estimated twinning fraction   | 0.026 for k,h,-h-k-l<br>0.026 for l,-h-k-l,h<br>0.026 for -h-k-l,l,k | Xtriage          |
| $F_o, F_c$ correlation  | 0.89   | EDS              |
| Total number of atoms   | 169260   | wwPDB-VP         |
| Average B, all atoms (Å <sup>2</sup> )                                  | 97.0   | wwPDB-VP         |

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.26% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

<sup>2</sup>Theoretical values of  $\langle |L| \rangle$ ,  $\langle L^2 \rangle$  for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

## 5 Model quality

### 5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section:  
CA

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   | AA    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | AB    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | AC    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | AD    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | AE    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | AF    | 0.33         | 0/969   | 0.55        | 0/1314  |
| 1   | AG    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | AH    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | AI    | 0.33         | 0/969   | 0.55        | 0/1314  |
| 1   | AJ    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | AK    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | AL    | 0.33         | 0/969   | 0.55        | 0/1314  |
| 1   | AM    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | AN    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | AO    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | AP    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | AQ    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | AR    | 0.33         | 0/969   | 0.55        | 0/1314  |
| 1   | AS    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | AT    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | AU    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | AV    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | AW    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | AX    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | AY    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | AZ    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | BA    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | BB    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | BC    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | BD    | 0.33         | 0/969   | 0.55        | 0/1314  |
| 1   | BE    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | BF    | 0.33         | 0/923   | 0.55        | 0/1251  |

| Mol | Chain | Bond lengths |         | Bond angles |         |
|-----|-------|--------------|---------|-------------|---------|
|     |       | RMSZ         | # Z  >5 | RMSZ        | # Z  >5 |
| 1   | BG    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | BH    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | BI    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | BJ    | 0.33         | 0/969   | 0.55        | 0/1314  |
| 1   | BK    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | BL    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | BM    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | BN    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | BO    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | BP    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | BQ    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | BR    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | BS    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | BT    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | BU    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | BV    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | BW    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | BX    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | BY    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | BZ    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | CA    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | CB    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | CC    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | CD    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | CE    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | CF    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | CG    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | CH    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | CI    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | CJ    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | CK    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | CL    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | CM    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | CN    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | CO    | 0.33         | 0/969   | 0.55        | 0/1314  |
| 1   | CP    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | CQ    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | CR    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | CS    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | CT    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | CU    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | CV    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | CW    | 0.33         | 0/969   | 0.55        | 0/1314  |

| Mol | Chain | Bond lengths |         | Bond angles |         |
|-----|-------|--------------|---------|-------------|---------|
|     |       | RMSZ         | # Z  >5 | RMSZ        | # Z  >5 |
| 1   | CX    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | CY    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | CZ    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | DA    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | DB    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | DC    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | DD    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | DE    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | DF    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | DG    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | DH    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | DI    | 0.33         | 0/969   | 0.55        | 0/1314  |
| 1   | DJ    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | DK    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | DL    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | DM    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | DN    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | DO    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | DP    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | DQ    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | DR    | 0.33         | 0/969   | 0.55        | 0/1314  |
| 1   | DS    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | DT    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | DU    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | DV    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | DW    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | DX    | 0.33         | 0/969   | 0.55        | 0/1314  |
| 1   | DY    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | DZ    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | EA    | 0.33         | 0/969   | 0.55        | 0/1314  |
| 1   | EB    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | EC    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | ED    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | EE    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | EF    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | EG    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | EH    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | EI    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | EJ    | 0.33         | 0/969   | 0.55        | 0/1314  |
| 1   | EK    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | EL    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | EM    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | EN    | 0.33         | 0/969   | 0.56        | 0/1314  |

| Mol | Chain | Bond lengths |         | Bond angles |         |
|-----|-------|--------------|---------|-------------|---------|
|     |       | RMSZ         | # Z  >5 | RMSZ        | # Z  >5 |
| 1   | EO    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | EP    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | EQ    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | ER    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | ES    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | ET    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | EU    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | EV    | 0.33         | 0/969   | 0.55        | 0/1314  |
| 1   | EW    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | EX    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | EY    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | EZ    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | FA    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | FB    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | FC    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | FD    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | FE    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | FF    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | FG    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | FH    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | FI    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | FJ    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | FK    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | FL    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | FM    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | FN    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | FO    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | FP    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | FQ    | 0.33         | 0/969   | 0.55        | 0/1314  |
| 1   | FR    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | FS    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | FT    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | FU    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | FV    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | FW    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | FX    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | FY    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | FZ    | 0.33         | 0/969   | 0.55        | 0/1314  |
| 1   | GA    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | GB    | 0.33         | 0/923   | 0.55        | 0/1251  |
| 1   | GC    | 0.32         | 0/969   | 0.55        | 0/1314  |
| 1   | GD    | 0.33         | 0/969   | 0.56        | 0/1314  |
| 1   | GE    | 0.33         | 0/923   | 0.55        | 0/1251  |



| Mol | Chain | Bond lengths |          | Bond angles |          |
|-----|-------|--------------|----------|-------------|----------|
|     |       | RMSZ         | # Z  >5  | RMSZ        | # Z  >5  |
| 1   | GF    | 0.32         | 0/969    | 0.55        | 0/1314   |
| 1   | GG    | 0.33         | 0/969    | 0.56        | 0/1314   |
| 1   | GH    | 0.33         | 0/923    | 0.55        | 0/1251   |
| 1   | GI    | 0.32         | 0/969    | 0.55        | 0/1314   |
| 1   | GJ    | 0.33         | 0/969    | 0.56        | 0/1314   |
| 1   | GK    | 0.33         | 0/923    | 0.55        | 0/1251   |
| 1   | GL    | 0.33         | 0/969    | 0.55        | 0/1314   |
| 1   | GM    | 0.33         | 0/969    | 0.56        | 0/1314   |
| 1   | GN    | 0.33         | 0/923    | 0.55        | 0/1251   |
| 1   | GO    | 0.33         | 0/969    | 0.55        | 0/1314   |
| 1   | GP    | 0.33         | 0/969    | 0.56        | 0/1314   |
| 1   | GQ    | 0.33         | 0/923    | 0.55        | 0/1251   |
| 1   | GR    | 0.32         | 0/969    | 0.55        | 0/1314   |
| 1   | GS    | 0.33         | 0/969    | 0.56        | 0/1314   |
| 1   | GT    | 0.33         | 0/923    | 0.55        | 0/1251   |
| 1   | GU    | 0.32         | 0/969    | 0.55        | 0/1314   |
| 1   | GV    | 0.33         | 0/969    | 0.56        | 0/1314   |
| 1   | GW    | 0.33         | 0/923    | 0.55        | 0/1251   |
| 1   | GX    | 0.32         | 0/969    | 0.55        | 0/1314   |
| All | All   | 0.33         | 0/171660 | 0.55        | 0/232740 |

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

## 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   | AA    | 955   | 0        | 947      | 31      | 0            |
| 1   | AB    | 910   | 0        | 907      | 37      | 0            |
| 1   | AC    | 955   | 0        | 947      | 36      | 0            |
| 1   | AD    | 955   | 0        | 947      | 33      | 0            |
| 1   | AE    | 910   | 0        | 907      | 48      | 0            |
| 1   | AF    | 955   | 0        | 947      | 35      | 0            |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 1   | AG    | 955   | 0        | 947      | 32      | 0            |
| 1   | AH    | 910   | 0        | 907      | 36      | 0            |
| 1   | AI    | 955   | 0        | 947      | 37      | 0            |
| 1   | AJ    | 955   | 0        | 947      | 35      | 0            |
| 1   | AK    | 910   | 0        | 907      | 37      | 0            |
| 1   | AL    | 955   | 0        | 947      | 32      | 0            |
| 1   | AM    | 955   | 0        | 947      | 46      | 0            |
| 1   | AN    | 910   | 0        | 907      | 51      | 2            |
| 1   | AO    | 955   | 0        | 947      | 30      | 0            |
| 1   | AP    | 955   | 0        | 947      | 40      | 0            |
| 1   | AQ    | 910   | 0        | 907      | 34      | 0            |
| 1   | AR    | 955   | 0        | 947      | 45      | 0            |
| 1   | AS    | 955   | 0        | 947      | 37      | 0            |
| 1   | AT    | 910   | 0        | 907      | 27      | 0            |
| 1   | AU    | 955   | 0        | 947      | 33      | 0            |
| 1   | AV    | 955   | 0        | 947      | 37      | 0            |
| 1   | AW    | 910   | 0        | 907      | 34      | 0            |
| 1   | AX    | 955   | 0        | 947      | 39      | 0            |
| 1   | AY    | 955   | 0        | 947      | 44      | 0            |
| 1   | AZ    | 910   | 0        | 907      | 31      | 0            |
| 1   | BA    | 955   | 0        | 947      | 33      | 0            |
| 1   | BB    | 955   | 0        | 947      | 29      | 0            |
| 1   | BC    | 910   | 0        | 907      | 33      | 0            |
| 1   | BD    | 955   | 0        | 947      | 40      | 0            |
| 1   | BE    | 955   | 0        | 947      | 30      | 0            |
| 1   | BF    | 910   | 0        | 907      | 32      | 0            |
| 1   | BG    | 955   | 0        | 947      | 29      | 0            |
| 1   | BH    | 955   | 0        | 947      | 37      | 2            |
| 1   | BI    | 910   | 0        | 907      | 33      | 0            |
| 1   | BJ    | 955   | 0        | 947      | 30      | 1            |
| 1   | BK    | 955   | 0        | 947      | 48      | 0            |
| 1   | BL    | 910   | 0        | 907      | 35      | 0            |
| 1   | BM    | 955   | 0        | 947      | 41      | 0            |
| 1   | BN    | 955   | 0        | 947      | 42      | 0            |
| 1   | BO    | 910   | 0        | 907      | 37      | 0            |
| 1   | BP    | 955   | 0        | 947      | 29      | 0            |
| 1   | BQ    | 955   | 0        | 947      | 30      | 0            |
| 1   | BR    | 910   | 0        | 907      | 28      | 0            |
| 1   | BS    | 955   | 0        | 947      | 29      | 0            |
| 1   | BT    | 955   | 0        | 947      | 47      | 1            |
| 1   | BU    | 910   | 0        | 907      | 41      | 1            |
| 1   | BV    | 955   | 0        | 947      | 29      | 0            |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 1   | BW    | 955   | 0        | 947      | 31      | 0            |
| 1   | BX    | 910   | 0        | 907      | 36      | 0            |
| 1   | BY    | 955   | 0        | 947      | 31      | 0            |
| 1   | BZ    | 955   | 0        | 947      | 39      | 0            |
| 1   | CA    | 910   | 0        | 907      | 45      | 1            |
| 1   | CB    | 955   | 0        | 947      | 44      | 0            |
| 1   | CC    | 955   | 0        | 947      | 44      | 0            |
| 1   | CD    | 910   | 0        | 907      | 37      | 0            |
| 1   | CE    | 955   | 0        | 947      | 30      | 0            |
| 1   | CF    | 955   | 0        | 947      | 39      | 0            |
| 1   | CG    | 910   | 0        | 907      | 42      | 1            |
| 1   | CH    | 955   | 0        | 947      | 37      | 0            |
| 1   | CI    | 955   | 0        | 947      | 30      | 1            |
| 1   | CJ    | 910   | 0        | 907      | 30      | 3            |
| 1   | CK    | 955   | 0        | 947      | 30      | 0            |
| 1   | CL    | 955   | 0        | 947      | 41      | 0            |
| 1   | CM    | 910   | 0        | 907      | 31      | 0            |
| 1   | CN    | 955   | 0        | 947      | 33      | 0            |
| 1   | CO    | 955   | 0        | 947      | 31      | 0            |
| 1   | CP    | 910   | 0        | 907      | 38      | 0            |
| 1   | CQ    | 955   | 0        | 947      | 35      | 0            |
| 1   | CR    | 955   | 0        | 947      | 36      | 0            |
| 1   | CS    | 910   | 0        | 907      | 32      | 0            |
| 1   | CT    | 955   | 0        | 947      | 36      | 0            |
| 1   | CU    | 955   | 0        | 947      | 33      | 0            |
| 1   | CV    | 910   | 0        | 907      | 35      | 0            |
| 1   | CW    | 955   | 0        | 947      | 32      | 0            |
| 1   | CX    | 955   | 0        | 947      | 30      | 0            |
| 1   | CY    | 910   | 0        | 907      | 36      | 0            |
| 1   | CZ    | 955   | 0        | 947      | 37      | 0            |
| 1   | DA    | 955   | 0        | 947      | 29      | 0            |
| 1   | DB    | 910   | 0        | 907      | 40      | 0            |
| 1   | DC    | 955   | 0        | 947      | 43      | 0            |
| 1   | DD    | 955   | 0        | 947      | 31      | 0            |
| 1   | DE    | 910   | 0        | 907      | 29      | 0            |
| 1   | DF    | 955   | 0        | 947      | 31      | 0            |
| 1   | DG    | 955   | 0        | 947      | 28      | 0            |
| 1   | DH    | 910   | 0        | 907      | 32      | 0            |
| 1   | DI    | 955   | 0        | 947      | 39      | 0            |
| 1   | DJ    | 955   | 0        | 947      | 35      | 0            |
| 1   | DK    | 910   | 0        | 907      | 33      | 0            |
| 1   | DL    | 955   | 0        | 947      | 29      | 0            |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 1   | DM    | 955   | 0        | 947      | 33      | 0            |
| 1   | DN    | 910   | 0        | 907      | 45      | 1            |
| 1   | DO    | 955   | 0        | 947      | 41      | 0            |
| 1   | DP    | 955   | 0        | 947      | 31      | 0            |
| 1   | DQ    | 910   | 0        | 907      | 32      | 0            |
| 1   | DR    | 955   | 0        | 947      | 34      | 0            |
| 1   | DS    | 955   | 0        | 947      | 29      | 0            |
| 1   | DT    | 910   | 0        | 907      | 39      | 0            |
| 1   | DU    | 955   | 0        | 947      | 38      | 0            |
| 1   | DV    | 955   | 0        | 947      | 50      | 1            |
| 1   | DW    | 910   | 0        | 907      | 53      | 1            |
| 1   | DX    | 955   | 0        | 947      | 29      | 0            |
| 1   | DY    | 955   | 0        | 947      | 29      | 0            |
| 1   | DZ    | 910   | 0        | 907      | 42      | 0            |
| 1   | EA    | 955   | 0        | 947      | 29      | 0            |
| 1   | EB    | 955   | 0        | 947      | 44      | 0            |
| 1   | EC    | 910   | 0        | 907      | 34      | 0            |
| 1   | ED    | 955   | 0        | 947      | 46      | 0            |
| 1   | EE    | 955   | 0        | 947      | 33      | 0            |
| 1   | EF    | 910   | 0        | 907      | 36      | 0            |
| 1   | EG    | 955   | 0        | 947      | 33      | 3            |
| 1   | EH    | 955   | 0        | 947      | 50      | 1            |
| 1   | EI    | 910   | 0        | 907      | 47      | 3            |
| 1   | EJ    | 955   | 0        | 947      | 36      | 0            |
| 1   | EK    | 955   | 0        | 947      | 28      | 3            |
| 1   | EL    | 910   | 0        | 907      | 39      | 0            |
| 1   | EM    | 955   | 0        | 947      | 31      | 0            |
| 1   | EN    | 955   | 0        | 947      | 32      | 0            |
| 1   | EO    | 910   | 0        | 907      | 48      | 1            |
| 1   | EP    | 955   | 0        | 947      | 43      | 0            |
| 1   | EQ    | 955   | 0        | 947      | 36      | 0            |
| 1   | ER    | 910   | 0        | 907      | 29      | 1            |
| 1   | ES    | 955   | 0        | 947      | 30      | 0            |
| 1   | ET    | 955   | 0        | 947      | 46      | 0            |
| 1   | EU    | 910   | 0        | 907      | 32      | 0            |
| 1   | EV    | 955   | 0        | 947      | 35      | 1            |
| 1   | EW    | 955   | 0        | 947      | 31      | 0            |
| 1   | EX    | 910   | 0        | 907      | 37      | 0            |
| 1   | EY    | 955   | 0        | 947      | 44      | 0            |
| 1   | EZ    | 955   | 0        | 947      | 29      | 0            |
| 1   | FA    | 910   | 0        | 907      | 34      | 0            |
| 1   | FB    | 955   | 0        | 947      | 26      | 0            |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 1   | FC    | 955   | 0        | 947      | 32      | 0            |
| 1   | FD    | 910   | 0        | 907      | 32      | 0            |
| 1   | FE    | 955   | 0        | 947      | 28      | 0            |
| 1   | FF    | 955   | 0        | 947      | 31      | 0            |
| 1   | FG    | 910   | 0        | 907      | 48      | 0            |
| 1   | FH    | 955   | 0        | 947      | 31      | 0            |
| 1   | FI    | 955   | 0        | 947      | 36      | 0            |
| 1   | FJ    | 910   | 0        | 907      | 32      | 2            |
| 1   | FK    | 955   | 0        | 947      | 31      | 0            |
| 1   | FL    | 955   | 0        | 947      | 34      | 0            |
| 1   | FM    | 910   | 0        | 907      | 37      | 0            |
| 1   | FN    | 955   | 0        | 947      | 40      | 0            |
| 1   | FO    | 955   | 0        | 947      | 37      | 0            |
| 1   | FP    | 910   | 0        | 907      | 32      | 0            |
| 1   | FQ    | 955   | 0        | 947      | 33      | 3            |
| 1   | FR    | 955   | 0        | 947      | 48      | 0            |
| 1   | FS    | 910   | 0        | 907      | 33      | 0            |
| 1   | FT    | 955   | 0        | 947      | 37      | 0            |
| 1   | FU    | 955   | 0        | 947      | 30      | 0            |
| 1   | FV    | 910   | 0        | 907      | 30      | 0            |
| 1   | FW    | 955   | 0        | 947      | 29      | 0            |
| 1   | FX    | 955   | 0        | 947      | 35      | 0            |
| 1   | FY    | 910   | 0        | 907      | 31      | 0            |
| 1   | FZ    | 955   | 0        | 947      | 33      | 0            |
| 1   | GA    | 955   | 0        | 947      | 47      | 1            |
| 1   | GB    | 910   | 0        | 907      | 44      | 2            |
| 1   | GC    | 955   | 0        | 947      | 34      | 0            |
| 1   | GD    | 955   | 0        | 947      | 38      | 0            |
| 1   | GE    | 910   | 0        | 907      | 50      | 1            |
| 1   | GF    | 955   | 0        | 947      | 40      | 0            |
| 1   | GG    | 955   | 0        | 947      | 34      | 0            |
| 1   | GH    | 910   | 0        | 907      | 31      | 0            |
| 1   | GI    | 955   | 0        | 947      | 32      | 0            |
| 1   | GJ    | 955   | 0        | 947      | 38      | 0            |
| 1   | GK    | 910   | 0        | 907      | 46      | 2            |
| 1   | GL    | 955   | 0        | 947      | 39      | 2            |
| 1   | GM    | 955   | 0        | 947      | 40      | 3            |
| 1   | GN    | 910   | 0        | 907      | 38      | 3            |
| 1   | GO    | 955   | 0        | 947      | 44      | 0            |
| 1   | GP    | 955   | 0        | 947      | 31      | 0            |
| 1   | GQ    | 910   | 0        | 907      | 31      | 0            |
| 1   | GR    | 955   | 0        | 947      | 31      | 0            |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 1   | GS    | 955   | 0        | 947      | 30      | 0            |
| 1   | GT    | 910   | 0        | 907      | 34      | 0            |
| 1   | GU    | 955   | 0        | 947      | 38      | 0            |
| 1   | GV    | 955   | 0        | 947      | 30      | 0            |
| 1   | GW    | 910   | 0        | 907      | 31      | 0            |
| 1   | GX    | 955   | 0        | 947      | 28      | 0            |
| 2   | AA    | 1     | 0        | 0        | 0       | 0            |
| 2   | AD    | 1     | 0        | 0        | 0       | 0            |
| 2   | AG    | 1     | 0        | 0        | 0       | 0            |
| 2   | AJ    | 1     | 0        | 0        | 0       | 0            |
| 2   | AM    | 1     | 0        | 0        | 0       | 0            |
| 2   | AP    | 1     | 0        | 0        | 0       | 0            |
| 2   | AS    | 1     | 0        | 0        | 0       | 0            |
| 2   | AV    | 1     | 0        | 0        | 0       | 0            |
| 2   | AY    | 1     | 0        | 0        | 0       | 0            |
| 2   | BB    | 1     | 0        | 0        | 0       | 0            |
| 2   | BE    | 1     | 0        | 0        | 0       | 0            |
| 2   | BH    | 1     | 0        | 0        | 0       | 0            |
| 2   | BK    | 1     | 0        | 0        | 0       | 0            |
| 2   | BN    | 1     | 0        | 0        | 0       | 0            |
| 2   | BQ    | 1     | 0        | 0        | 0       | 0            |
| 2   | BT    | 1     | 0        | 0        | 0       | 0            |
| 2   | BW    | 1     | 0        | 0        | 0       | 0            |
| 2   | BZ    | 1     | 0        | 0        | 0       | 0            |
| 2   | CC    | 1     | 0        | 0        | 0       | 0            |
| 2   | CF    | 1     | 0        | 0        | 0       | 0            |
| 2   | CI    | 1     | 0        | 0        | 0       | 0            |
| 2   | CL    | 1     | 0        | 0        | 0       | 0            |
| 2   | CO    | 1     | 0        | 0        | 0       | 0            |
| 2   | CR    | 1     | 0        | 0        | 0       | 0            |
| 2   | CU    | 1     | 0        | 0        | 0       | 0            |
| 2   | CX    | 1     | 0        | 0        | 0       | 0            |
| 2   | DA    | 1     | 0        | 0        | 0       | 0            |
| 2   | DD    | 1     | 0        | 0        | 0       | 0            |
| 2   | DG    | 1     | 0        | 0        | 0       | 0            |
| 2   | DJ    | 1     | 0        | 0        | 0       | 0            |
| 2   | DM    | 1     | 0        | 0        | 0       | 0            |
| 2   | DP    | 1     | 0        | 0        | 0       | 0            |
| 2   | DS    | 1     | 0        | 0        | 0       | 0            |
| 2   | DV    | 1     | 0        | 0        | 0       | 0            |
| 2   | DY    | 1     | 0        | 0        | 0       | 0            |
| 2   | EB    | 1     | 0        | 0        | 0       | 0            |

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| Mol | Chain | Non-H  | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|--------|----------|----------|---------|--------------|
| 2   | EE    | 1      | 0        | 0        | 0       | 0            |
| 2   | EH    | 1      | 0        | 0        | 0       | 0            |
| 2   | EK    | 1      | 0        | 0        | 0       | 0            |
| 2   | EN    | 1      | 0        | 0        | 0       | 0            |
| 2   | EQ    | 1      | 0        | 0        | 0       | 0            |
| 2   | ET    | 1      | 0        | 0        | 0       | 0            |
| 2   | EW    | 1      | 0        | 0        | 0       | 0            |
| 2   | EZ    | 1      | 0        | 0        | 0       | 0            |
| 2   | FC    | 1      | 0        | 0        | 0       | 0            |
| 2   | FF    | 1      | 0        | 0        | 0       | 0            |
| 2   | FI    | 1      | 0        | 0        | 0       | 0            |
| 2   | FL    | 1      | 0        | 0        | 0       | 0            |
| 2   | FO    | 1      | 0        | 0        | 0       | 0            |
| 2   | FR    | 1      | 0        | 0        | 0       | 0            |
| 2   | FU    | 1      | 0        | 0        | 0       | 0            |
| 2   | FX    | 1      | 0        | 0        | 0       | 0            |
| 2   | GA    | 1      | 0        | 0        | 0       | 0            |
| 2   | GD    | 1      | 0        | 0        | 0       | 0            |
| 2   | GG    | 1      | 0        | 0        | 0       | 0            |
| 2   | GJ    | 1      | 0        | 0        | 0       | 0            |
| 2   | GM    | 1      | 0        | 0        | 0       | 0            |
| 2   | GP    | 1      | 0        | 0        | 0       | 0            |
| 2   | GS    | 1      | 0        | 0        | 0       | 0            |
| 2   | GV    | 1      | 0        | 0        | 0       | 0            |
| All | All   | 169260 | 0        | 168060   | 4697    | 24           |

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 14.

All (4697) 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:BK:15:ARG:HH11  | 1:DW:103:THR:HG21 | 1.14                     | 1.12              |
| 1:EB:15:ARG:HH11  | 1:GB:103:THR:HG21 | 1.17                     | 1.08              |
| 1:FP:103:THR:HG21 | 1:GV:15:ARG:HH11  | 1.16                     | 1.07              |
| 1:CG:103:THR:HG21 | 1:CL:15:ARG:HH11  | 1.19                     | 1.05              |
| 1:AE:103:THR:HG21 | 1:GA:15:ARG:HH11  | 1.23                     | 1.03              |
| 1:EH:15:ARG:HH11  | 1:EO:103:THR:HG21 | 1.17                     | 1.03              |
| 1:AN:103:THR:HG21 | 1:FR:15:ARG:HH11  | 1.25                     | 1.02              |
| 1:AP:15:ARG:HH11  | 1:BU:103:THR:HG21 | 1.19                     | 1.02              |
| 1:AY:15:ARG:HH11  | 1:EI:103:THR:HG21 | 1.28                     | 0.98              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:BD:103:THR:HG22 | 1:EP:10:VAL:HG21  | 1.46                     | 0.98              |
| 1:AD:15:ARG:HH11  | 1:BC:103:THR:HG21 | 1.28                     | 0.97              |
| 1:CC:15:ARG:HH11  | 1:GK:103:THR:HG21 | 1.30                     | 0.95              |
| 1:CY:103:THR:HG21 | 1:GG:15:ARG:HH11  | 1.31                     | 0.94              |
| 1:CF:15:ARG:HH11  | 1:GN:103:THR:HG21 | 1.31                     | 0.93              |
| 1:AZ:103:THR:HG21 | 1:EW:15:ARG:HH11  | 1.33                     | 0.93              |
| 1:BT:15:ARG:HH11  | 1:DN:103:THR:HG21 | 1.33                     | 0.92              |
| 1:DV:15:ARG:HH11  | 1:GE:103:THR:HG21 | 1.33                     | 0.92              |
| 1:AN:10:VAL:HG21  | 1:FR:103:THR:HG22 | 1.51                     | 0.91              |
| 1:CJ:103:THR:HG21 | 1:CO:15:ARG:HH11  | 1.34                     | 0.91              |
| 1:AY:22:GLN:NE2   | 1:EI:124:TYR:HA   | 1.86                     | 0.91              |
| 1:AM:15:ARG:HH11  | 1:CA:103:THR:HG21 | 1.36                     | 0.90              |
| 1:AY:103:THR:HG22 | 1:EI:10:VAL:HG21  | 1.51                     | 0.90              |
| 1:AP:103:THR:HG22 | 1:BU:10:VAL:HG21  | 1.53                     | 0.89              |
| 1:EK:15:ARG:HH11  | 1:ER:103:THR:HG21 | 1.37                     | 0.89              |
| 1:BK:22:GLN:NE2   | 1:DW:124:TYR:HA   | 1.87                     | 0.89              |
| 1:BK:103:THR:HG22 | 1:DW:10:VAL:HG21  | 1.55                     | 0.89              |
| 1:EE:15:ARG:HH11  | 1:EU:103:THR:HG21 | 1.38                     | 0.89              |
| 1:EH:124:TYR:OXT  | 1:EO:22:GLN:NE2   | 2.06                     | 0.88              |
| 1:BJ:103:THR:HG21 | 1:EV:15:ARG:HH11  | 1.39                     | 0.88              |
| 1:CP:103:THR:HG21 | 1:DJ:15:ARG:HH11  | 1.38                     | 0.88              |
| 1:BT:124:TYR:OXT  | 1:DN:22:GLN:NE2   | 2.07                     | 0.88              |
| 1:CD:103:THR:HG21 | 1:CR:15:ARG:HH11  | 1.38                     | 0.88              |
| 1:DM:15:ARG:HH11  | 1:GT:103:THR:HG21 | 1.36                     | 0.88              |
| 1:AU:15:ARG:NH1   | 1:EG:103:THR:HG21 | 1.89                     | 0.87              |
| 1:DC:103:THR:HG22 | 1:GO:10:VAL:HG21  | 1.56                     | 0.87              |
| 1:CQ:105:ILE:HG23 | 1:GC:105:ILE:HG23 | 1.54                     | 0.87              |
| 1:CU:15:ARG:HH11  | 1:DH:103:THR:HG21 | 1.40                     | 0.87              |
| 1:BH:15:ARG:HH11  | 1:BO:103:THR:HG21 | 1.39                     | 0.87              |
| 1:CI:15:ARG:HH11  | 1:GH:103:THR:HG21 | 1.40                     | 0.86              |
| 1:AA:15:ARG:HH11  | 1:BI:103:THR:HG21 | 1.38                     | 0.86              |
| 1:CB:10:VAL:HG21  | 1:FN:103:THR:HG22 | 1.58                     | 0.86              |
| 1:BK:15:ARG:NH1   | 1:DW:103:THR:HG21 | 1.90                     | 0.86              |
| 1:EN:15:ARG:HH11  | 1:FJ:103:THR:HG21 | 1.39                     | 0.86              |
| 1:AH:103:THR:HG21 | 1:GD:15:ARG:HH11  | 1.41                     | 0.86              |
| 1:AV:103:THR:HG22 | 1:EF:10:VAL:HG21  | 1.58                     | 0.85              |
| 1:DL:105:ILE:HG23 | 1:GX:105:ILE:HG23 | 1.57                     | 0.85              |
| 1:BJ:103:THR:HG21 | 1:EV:15:ARG:NH1   | 1.90                     | 0.85              |
| 1:CV:103:THR:HG21 | 1:GM:15:ARG:HH11  | 1.42                     | 0.85              |
| 1:AU:15:ARG:HH11  | 1:EG:103:THR:HG21 | 1.40                     | 0.85              |
| 1:CG:124:TYR:HA   | 1:CL:22:GLN:NE2   | 1.91                     | 0.85              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:BL:22:GLN:HB3   | 1:DW:124:TYR:HB2  | 1.59                     | 0.84              |
| 1:FP:103:THR:HG21 | 1:GV:15:ARG:NH1   | 1.90                     | 0.84              |
| 1:BB:15:ARG:HH11  | 1:BR:103:THR:HG21 | 1.41                     | 0.84              |
| 1:AT:103:THR:HG21 | 1:EZ:15:ARG:HH11  | 1.42                     | 0.84              |
| 1:ET:105:ILE:HG23 | 1:FG:105:ILE:HG23 | 1.59                     | 0.84              |
| 1:BN:15:ARG:HH11  | 1:DZ:103:THR:HG21 | 1.42                     | 0.84              |
| 1:AG:15:ARG:HH11  | 1:BF:103:THR:HG21 | 1.43                     | 0.84              |
| 1:AA:103:THR:HG22 | 1:BI:10:VAL:HG21  | 1.60                     | 0.84              |
| 1:AV:15:ARG:HH11  | 1:EF:103:THR:HG21 | 1.43                     | 0.83              |
| 1:CH:105:ILE:HG23 | 1:FT:105:ILE:HG23 | 1.60                     | 0.83              |
| 1:FV:103:THR:HG21 | 1:GS:15:ARG:HH11  | 1.41                     | 0.83              |
| 1:CD:124:TYR:OXT  | 1:CT:2:ARG:NH1    | 2.11                     | 0.83              |
| 1:CG:103:THR:HG21 | 1:CL:15:ARG:NH1   | 1.93                     | 0.83              |
| 1:CD:10:VAL:HG21  | 1:CR:103:THR:HG22 | 1.58                     | 0.83              |
| 1:AW:103:THR:HG21 | 1:FC:15:ARG:HH11  | 1.43                     | 0.83              |
| 1:EB:15:ARG:NH1   | 1:GB:103:THR:HG21 | 1.94                     | 0.83              |
| 1:DV:124:TYR:OXT  | 1:GE:22:GLN:NE2   | 2.12                     | 0.83              |
| 1:CZ:103:THR:HG21 | 1:GL:15:ARG:HH11  | 1.43                     | 0.82              |
| 1:AS:105:ILE:HG23 | 1:EL:105:ILE:HG23 | 1.59                     | 0.82              |
| 1:CT:103:THR:HG22 | 1:GF:10:VAL:HG21  | 1.61                     | 0.82              |
| 1:CT:105:ILE:HG23 | 1:GF:105:ILE:HG23 | 1.60                     | 0.82              |
| 1:BD:105:ILE:HG23 | 1:EP:105:ILE:HG23 | 1.62                     | 0.82              |
| 1:CN:105:ILE:HG23 | 1:FZ:105:ILE:HG23 | 1.62                     | 0.82              |
| 1:DB:105:ILE:HG23 | 1:GJ:105:ILE:HG23 | 1.60                     | 0.82              |
| 1:DS:15:ARG:HH11  | 1:GQ:103:THR:HG21 | 1.42                     | 0.82              |
| 1:EH:124:TYR:C    | 1:EO:22:GLN:HE21  | 1.83                     | 0.82              |
| 1:BQ:105:ILE:HG23 | 1:EC:105:ILE:HG23 | 1.62                     | 0.82              |
| 1:BZ:105:ILE:HG23 | 1:DT:105:ILE:HG23 | 1.62                     | 0.82              |
| 1:EQ:105:ILE:HG23 | 1:FM:105:ILE:HG23 | 1.61                     | 0.82              |
| 1:EH:15:ARG:NH1   | 1:EO:103:THR:HG21 | 1.95                     | 0.81              |
| 1:AZ:10:VAL:HG21  | 1:EW:103:THR:HG22 | 1.60                     | 0.81              |
| 1:AX:105:ILE:HG23 | 1:EJ:105:ILE:HG23 | 1.62                     | 0.81              |
| 1:BE:103:THR:HG22 | 1:BL:10:VAL:HG21  | 1.61                     | 0.81              |
| 1:AM:105:ILE:HG23 | 1:CA:105:ILE:HG23 | 1.62                     | 0.81              |
| 1:AF:105:ILE:HG23 | 1:DR:105:ILE:HG23 | 1.61                     | 0.81              |
| 1:AQ:10:VAL:HG21  | 1:FU:103:THR:HG22 | 1.62                     | 0.81              |
| 1:AU:103:THR:HG21 | 1:EG:15:ARG:NH1   | 1.95                     | 0.81              |
| 1:DC:15:ARG:HH11  | 1:GO:103:THR:HG21 | 1.44                     | 0.81              |
| 1:DR:2:ARG:NH1    | 1:GW:124:TYR:OXT  | 2.14                     | 0.81              |
| 1:AJ:105:ILE:HG23 | 1:BX:105:ILE:HG23 | 1.60                     | 0.81              |
| 1:BP:105:ILE:HG23 | 1:FB:105:ILE:HG23 | 1.61                     | 0.81              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:FS:105:ILE:HG23 | 1:GP:105:ILE:HG23 | 1.63                     | 0.81              |
| 1:AB:124:TYR:OXT  | 1:FZ:2:ARG:NH1    | 2.14                     | 0.81              |
| 1:AP:15:ARG:NH1   | 1:BU:103:THR:HG21 | 1.95                     | 0.81              |
| 1:CS:103:THR:HG21 | 1:DD:15:ARG:HH11  | 1.45                     | 0.81              |
| 1:FS:103:THR:HG21 | 1:GP:15:ARG:HH11  | 1.45                     | 0.81              |
| 1:AL:15:ARG:HH11  | 1:DX:103:THR:HG21 | 1.46                     | 0.81              |
| 1:AO:103:THR:HG21 | 1:EA:15:ARG:HH11  | 1.45                     | 0.81              |
| 1:AX:15:ARG:NH1   | 1:EJ:103:THR:HG21 | 1.96                     | 0.81              |
| 1:BQ:103:THR:HG22 | 1:EC:10:VAL:HG21  | 1.61                     | 0.81              |
| 1:BW:105:ILE:HG23 | 1:DQ:105:ILE:HG23 | 1.63                     | 0.81              |
| 1:BZ:15:ARG:HH11  | 1:DT:103:THR:HG21 | 1.46                     | 0.81              |
| 1:CE:105:ILE:HG23 | 1:FQ:105:ILE:HG23 | 1.60                     | 0.80              |
| 1:BE:105:ILE:HG23 | 1:BL:105:ILE:HG23 | 1.63                     | 0.80              |
| 1:AQ:103:THR:HG21 | 1:FU:15:ARG:HH11  | 1.47                     | 0.80              |
| 1:CM:103:THR:HG21 | 1:DG:15:ARG:HH11  | 1.46                     | 0.80              |
| 1:AU:103:THR:HG21 | 1:EG:15:ARG:HH11  | 1.47                     | 0.80              |
| 1:CK:105:ILE:HG23 | 1:FW:105:ILE:HG23 | 1.64                     | 0.80              |
| 1:FD:124:TYR:OXT  | 1:FH:2:ARG:NH1    | 2.13                     | 0.80              |
| 1:AX:2:ARG:NH1    | 1:EF:124:TYR:OXT  | 2.14                     | 0.80              |
| 1:DB:103:THR:HG22 | 1:GJ:10:VAL:HG21  | 1.64                     | 0.80              |
| 1:BQ:15:ARG:HH11  | 1:EC:103:THR:HG21 | 1.46                     | 0.80              |
| 1:AC:103:THR:HG22 | 1:DO:10:VAL:HG21  | 1.64                     | 0.79              |
| 1:EB:22:GLN:NE2   | 1:GB:124:TYR:HA   | 1.97                     | 0.79              |
| 1:FA:124:TYR:OXT  | 1:FN:2:ARG:NH1    | 2.13                     | 0.79              |
| 1:FD:103:THR:HG21 | 1:FF:15:ARG:HH11  | 1.47                     | 0.79              |
| 1:EX:103:THR:HG21 | 1:FI:15:ARG:HH11  | 1.47                     | 0.79              |
| 1:AT:105:ILE:HG23 | 1:EZ:105:ILE:HG23 | 1.64                     | 0.79              |
| 1:CU:105:ILE:HG23 | 1:DH:105:ILE:HG23 | 1.64                     | 0.79              |
| 1:EB:103:THR:HG22 | 1:GB:10:VAL:HG21  | 1.62                     | 0.79              |
| 1:AL:15:ARG:NH1   | 1:DX:103:THR:HG21 | 1.97                     | 0.79              |
| 1:AO:103:THR:HG21 | 1:EA:15:ARG:NH1   | 1.96                     | 0.79              |
| 1:DP:15:ARG:HH11  | 1:GW:103:THR:HG21 | 1.48                     | 0.79              |
| 1:AK:103:THR:HG21 | 1:FO:15:ARG:HH11  | 1.45                     | 0.79              |
| 1:CZ:15:ARG:NH1   | 1:GL:103:THR:HG21 | 1.96                     | 0.79              |
| 1:DA:15:ARG:HH11  | 1:DE:103:THR:HG21 | 1.47                     | 0.79              |
| 1:DP:103:THR:HG22 | 1:GW:10:VAL:HG21  | 1.65                     | 0.79              |
| 1:EQ:15:ARG:HH11  | 1:FM:103:THR:HG21 | 1.48                     | 0.79              |
| 1:AK:124:TYR:OXT  | 1:FQ:2:ARG:NH1    | 2.15                     | 0.79              |
| 1:DI:105:ILE:HG23 | 1:GU:105:ILE:HG23 | 1.65                     | 0.79              |
| 1:BV:103:THR:HG21 | 1:FH:15:ARG:NH1   | 1.98                     | 0.78              |
| 1:CY:124:TYR:OXT  | 1:GI:2:ARG:NH1    | 2.16                     | 0.78              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:AU:2:ARG:NH1    | 1:EL:124:TYR:OXT  | 2.16                     | 0.78              |
| 1:FA:103:THR:HG21 | 1:FL:15:ARG:HH11  | 1.47                     | 0.78              |
| 1:CS:105:ILE:HG23 | 1:DD:105:ILE:HG23 | 1.66                     | 0.78              |
| 1:AW:105:ILE:HG23 | 1:FC:105:ILE:HG23 | 1.65                     | 0.78              |
| 1:BP:2:ARG:NH1    | 1:DZ:124:TYR:OXT  | 2.16                     | 0.78              |
| 1:EE:105:ILE:HG23 | 1:EU:105:ILE:HG23 | 1.66                     | 0.78              |
| 1:CB:15:ARG:HH11  | 1:FN:103:THR:HG21 | 1.47                     | 0.78              |
| 1:CB:103:THR:HG21 | 1:FN:15:ARG:HH11  | 1.48                     | 0.78              |
| 1:AS:15:ARG:HH11  | 1:EL:103:THR:HG21 | 1.48                     | 0.78              |
| 1:AN:105:ILE:HG23 | 1:FR:105:ILE:HG23 | 1.66                     | 0.78              |
| 1:ET:15:ARG:HH11  | 1:FG:103:THR:HG21 | 1.49                     | 0.78              |
| 1:DF:105:ILE:HG23 | 1:GR:105:ILE:HG23 | 1.65                     | 0.77              |
| 1:BV:103:THR:HG21 | 1:FH:15:ARG:HH11  | 1.49                     | 0.77              |
| 1:BA:103:THR:HG21 | 1:EM:15:ARG:NH1   | 1.99                     | 0.77              |
| 1:BT:22:GLN:NE2   | 1:DN:124:TYR:HA   | 2.00                     | 0.77              |
| 1:CZ:15:ARG:HH11  | 1:GL:103:THR:HG21 | 1.49                     | 0.77              |
| 1:DY:15:ARG:HH11  | 1:FY:103:THR:HG21 | 1.49                     | 0.77              |
| 1:AQ:105:ILE:HG23 | 1:FU:105:ILE:HG23 | 1.64                     | 0.77              |
| 1:AI:10:VAL:HG21  | 1:DU:103:THR:HG22 | 1.66                     | 0.77              |
| 1:AI:103:THR:HG22 | 1:DU:10:VAL:HG21  | 1.65                     | 0.77              |
| 1:BM:105:ILE:HG23 | 1:EY:105:ILE:HG23 | 1.66                     | 0.77              |
| 1:AF:10:VAL:HG21  | 1:DR:103:THR:HG22 | 1.67                     | 0.77              |
| 1:EI:22:GLN:HB3   | 1:EO:124:TYR:HB2  | 1.66                     | 0.77              |
| 1:DC:15:ARG:NH1   | 1:GO:103:THR:HG21 | 2.00                     | 0.77              |
| 1:DV:22:GLN:NE2   | 1:GE:124:TYR:HA   | 2.00                     | 0.77              |
| 1:AL:103:THR:HG22 | 1:DX:10:VAL:HG21  | 1.66                     | 0.77              |
| 1:AR:105:ILE:HG23 | 1:ED:105:ILE:HG23 | 1.66                     | 0.77              |
| 1:AB:103:THR:HG21 | 1:FX:15:ARG:HH11  | 1.48                     | 0.77              |
| 1:BN:105:ILE:HG23 | 1:DZ:105:ILE:HG23 | 1.67                     | 0.76              |
| 1:AK:105:ILE:HG23 | 1:FO:105:ILE:HG23 | 1.67                     | 0.76              |
| 1:CW:105:ILE:HG23 | 1:GI:105:ILE:HG23 | 1.66                     | 0.76              |
| 1:AE:103:THR:HG21 | 1:GA:15:ARG:NH1   | 2.00                     | 0.76              |
| 1:BW:15:ARG:HH11  | 1:DQ:103:THR:HG21 | 1.50                     | 0.76              |
| 1:CB:68:VAL:HG11  | 1:FN:91:THR:HG22  | 1.67                     | 0.76              |
| 1:BJ:15:ARG:HH11  | 1:EV:103:THR:HG21 | 1.50                     | 0.76              |
| 1:CP:105:ILE:HG23 | 1:DJ:105:ILE:HG23 | 1.67                     | 0.76              |
| 1:AO:10:VAL:HG21  | 1:EA:103:THR:HG22 | 1.67                     | 0.76              |
| 1:CF:105:ILE:HG23 | 1:GN:105:ILE:HG23 | 1.67                     | 0.76              |
| 1:AD:96:HIS:CG    | 1:BC:66:VAL:HG21  | 2.21                     | 0.76              |
| 1:AP:22:GLN:NE2   | 1:BU:124:TYR:HA   | 2.00                     | 0.76              |
| 1:CC:105:ILE:HG23 | 1:GK:105:ILE:HG23 | 1.66                     | 0.76              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:CE:103:THR:HG21 | 1:FQ:15:ARG:NH1   | 2.01                     | 0.76              |
| 1:AN:124:TYR:HB2  | 1:FS:22:GLN:HB3   | 1.66                     | 0.76              |
| 1:BH:105:ILE:HG23 | 1:BO:105:ILE:HG23 | 1.67                     | 0.76              |
| 1:AS:10:VAL:HG21  | 1:EL:103:THR:HG22 | 1.67                     | 0.76              |
| 1:CC:10:VAL:HG21  | 1:GK:103:THR:HG22 | 1.65                     | 0.75              |
| 1:BA:103:THR:HG21 | 1:EM:15:ARG:HH11  | 1.50                     | 0.75              |
| 1:BH:10:VAL:HG21  | 1:BO:103:THR:HG22 | 1.66                     | 0.75              |
| 1:DV:105:ILE:HG23 | 1:GE:105:ILE:HG23 | 1.68                     | 0.75              |
| 1:AB:105:ILE:HG23 | 1:FX:105:ILE:HG23 | 1.67                     | 0.75              |
| 1:AY:105:ILE:HG23 | 1:EI:105:ILE:HG23 | 1.66                     | 0.75              |
| 1:DB:103:THR:HG21 | 1:GJ:15:ARG:HH11  | 1.50                     | 0.75              |
| 1:AK:103:THR:HG22 | 1:FO:10:VAL:HG21  | 1.69                     | 0.75              |
| 1:AZ:22:GLN:HB3   | 1:EI:124:TYR:HB2  | 1.68                     | 0.75              |
| 1:DC:2:ARG:NH1    | 1:DE:124:TYR:OXT  | 2.19                     | 0.75              |
| 1:EX:105:ILE:HG23 | 1:FI:105:ILE:HG23 | 1.67                     | 0.75              |
| 1:AC:105:ILE:HG23 | 1:DO:105:ILE:HG23 | 1.67                     | 0.75              |
| 1:EE:10:VAL:HG21  | 1:EU:103:THR:HG22 | 1.69                     | 0.75              |
| 1:CP:124:TYR:OXT  | 1:DL:2:ARG:NH1    | 2.20                     | 0.75              |
| 1:AX:103:THR:HG22 | 1:EJ:10:VAL:HG21  | 1.68                     | 0.75              |
| 1:FP:15:ARG:NH1   | 1:GV:103:THR:HG21 | 2.02                     | 0.75              |
| 1:CV:105:ILE:HG23 | 1:GM:105:ILE:HG23 | 1.69                     | 0.75              |
| 1:AX:103:THR:HG21 | 1:EJ:15:ARG:HH11  | 1.51                     | 0.75              |
| 1:EK:105:ILE:HG23 | 1:ER:105:ILE:HG23 | 1.69                     | 0.75              |
| 1:BF:18:ALA:HB2   | 1:BF:32:LYS:HE3   | 1.69                     | 0.75              |
| 1:CD:18:ALA:HB2   | 1:CD:32:LYS:HE3   | 1.69                     | 0.75              |
| 1:AI:105:ILE:HG23 | 1:DU:105:ILE:HG23 | 1.68                     | 0.74              |
| 1:AX:15:ARG:HH11  | 1:EJ:103:THR:HG21 | 1.50                     | 0.74              |
| 1:CG:18:ALA:HB2   | 1:CG:32:LYS:HE3   | 1.69                     | 0.74              |
| 1:CQ:103:THR:HG22 | 1:GC:10:VAL:HG21  | 1.67                     | 0.74              |
| 1:DQ:18:ALA:HB2   | 1:DQ:32:LYS:HE3   | 1.69                     | 0.74              |
| 1:EU:18:ALA:HB2   | 1:EU:32:LYS:HE3   | 1.69                     | 0.74              |
| 1:AK:18:ALA:HB2   | 1:AK:32:LYS:HE3   | 1.69                     | 0.74              |
| 1:CA:18:ALA:HB2   | 1:CA:32:LYS:HE3   | 1.70                     | 0.74              |
| 1:CX:105:ILE:HG23 | 1:DK:105:ILE:HG23 | 1.68                     | 0.74              |
| 1:FV:18:ALA:HB2   | 1:FV:32:LYS:HE3   | 1.69                     | 0.74              |
| 1:CN:103:THR:HG21 | 1:FZ:15:ARG:NH1   | 2.02                     | 0.74              |
| 1:GN:18:ALA:HB2   | 1:GN:32:LYS:HE3   | 1.69                     | 0.74              |
| 1:DI:103:THR:HG22 | 1:GU:10:VAL:HG21  | 1.69                     | 0.74              |
| 1:AN:103:THR:HG22 | 1:FR:10:VAL:HG21  | 1.70                     | 0.74              |
| 1:BJ:15:ARG:NH1   | 1:EV:103:THR:HG21 | 2.02                     | 0.74              |
| 1:BO:18:ALA:HB2   | 1:BO:32:LYS:HE3   | 1.69                     | 0.74              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:GB:18:ALA:HB2   | 1:GB:32:LYS:HE3   | 1.69                     | 0.74              |
| 1:DZ:18:ALA:HB2   | 1:DZ:32:LYS:HE3   | 1.69                     | 0.74              |
| 1:DC:68:VAL:HG11  | 1:GO:91:THR:HG22  | 1.68                     | 0.74              |
| 1:AB:18:ALA:HB2   | 1:AB:32:LYS:HE3   | 1.70                     | 0.74              |
| 1:AG:105:ILE:HG23 | 1:BF:105:ILE:HG23 | 1.70                     | 0.74              |
| 1:DB:18:ALA:HB2   | 1:DB:32:LYS:HE3   | 1.69                     | 0.74              |
| 1:DN:18:ALA:HB2   | 1:DN:32:LYS:HE3   | 1.69                     | 0.74              |
| 1:GQ:18:ALA:HB2   | 1:GQ:32:LYS:HE3   | 1.69                     | 0.74              |
| 1:AJ:10:VAL:HG21  | 1:BX:103:THR:HG22 | 1.70                     | 0.74              |
| 1:DW:18:ALA:HB2   | 1:DW:32:LYS:HE3   | 1.69                     | 0.74              |
| 1:EI:18:ALA:HB2   | 1:EI:32:LYS:HE3   | 1.70                     | 0.74              |
| 1:DP:105:ILE:HG23 | 1:GW:105:ILE:HG23 | 1.69                     | 0.74              |
| 1:GW:18:ALA:HB2   | 1:GW:32:LYS:HE3   | 1.70                     | 0.74              |
| 1:AR:15:ARG:NH1   | 1:ED:103:THR:HG21 | 2.02                     | 0.74              |
| 1:CM:10:VAL:HG21  | 1:DG:103:THR:HG22 | 1.69                     | 0.74              |
| 1:CZ:103:THR:HG21 | 1:GL:15:ARG:NH1   | 2.01                     | 0.74              |
| 1:DH:18:ALA:HB2   | 1:DH:32:LYS:HE3   | 1.69                     | 0.74              |
| 1:EO:18:ALA:HB2   | 1:EO:32:LYS:HE3   | 1.69                     | 0.74              |
| 1:BM:103:THR:HG21 | 1:EY:15:ARG:NH1   | 2.03                     | 0.74              |
| 1:BV:10:VAL:HG21  | 1:FH:103:THR:HG22 | 1.70                     | 0.74              |
| 1:CH:15:ARG:HH11  | 1:FT:103:THR:HG21 | 1.53                     | 0.74              |
| 1:AW:18:ALA:HB2   | 1:AW:32:LYS:HE3   | 1.70                     | 0.74              |
| 1:BD:91:THR:HG22  | 1:EP:68:VAL:HG11  | 1.70                     | 0.74              |
| 1:FJ:18:ALA:HB2   | 1:FJ:32:LYS:HE3   | 1.69                     | 0.74              |
| 1:BR:18:ALA:HB2   | 1:BR:32:LYS:HE3   | 1.70                     | 0.74              |
| 1:CJ:105:ILE:HG23 | 1:CO:105:ILE:HG23 | 1.70                     | 0.73              |
| 1:FG:18:ALA:HB2   | 1:FG:32:LYS:HE3   | 1.69                     | 0.73              |
| 1:AL:2:ARG:NH1    | 1:BX:124:TYR:OXT  | 2.22                     | 0.73              |
| 1:BG:105:ILE:HG23 | 1:ES:105:ILE:HG23 | 1.70                     | 0.73              |
| 1:BI:18:ALA:HB2   | 1:BI:32:LYS:HE3   | 1.69                     | 0.73              |
| 1:CZ:103:THR:HG22 | 1:GL:10:VAL:HG21  | 1.70                     | 0.73              |
| 1:DA:105:ILE:HG23 | 1:DE:105:ILE:HG23 | 1.70                     | 0.73              |
| 1:DT:18:ALA:HB2   | 1:DT:32:LYS:HE3   | 1.69                     | 0.73              |
| 1:EC:18:ALA:HB2   | 1:EC:32:LYS:HE3   | 1.69                     | 0.73              |
| 1:FD:18:ALA:HB2   | 1:FD:32:LYS:HE3   | 1.70                     | 0.73              |
| 1:GT:18:ALA:HB2   | 1:GT:32:LYS:HE3   | 1.70                     | 0.73              |
| 1:AH:18:ALA:HB2   | 1:AH:32:LYS:HE3   | 1.69                     | 0.73              |
| 1:BC:18:ALA:HB2   | 1:BC:32:LYS:HE3   | 1.69                     | 0.73              |
| 1:BT:124:TYR:C    | 1:DN:22:GLN:HE21  | 1.90                     | 0.73              |
| 1:CM:18:ALA:HB2   | 1:CM:32:LYS:HE3   | 1.69                     | 0.73              |
| 1:CS:18:ALA:HB2   | 1:CS:32:LYS:HE3   | 1.69                     | 0.73              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:BL:18:ALA:HB2   | 1:BL:32:LYS:HE3   | 1.69                     | 0.73              |
| 1:BS:105:ILE:HG23 | 1:FE:105:ILE:HG23 | 1.69                     | 0.73              |
| 1:CN:103:THR:HG21 | 1:FZ:15:ARG:HH11  | 1.54                     | 0.73              |
| 1:CX:15:ARG:HH11  | 1:DK:103:THR:HG21 | 1.54                     | 0.73              |
| 1:AT:18:ALA:HB2   | 1:AT:32:LYS:HE3   | 1.69                     | 0.73              |
| 1:BG:103:THR:HG21 | 1:ES:15:ARG:HH11  | 1.51                     | 0.73              |
| 1:DE:18:ALA:HB2   | 1:DE:32:LYS:HE3   | 1.69                     | 0.73              |
| 1:DY:105:ILE:HG23 | 1:FY:105:ILE:HG23 | 1.69                     | 0.73              |
| 1:EX:18:ALA:HB2   | 1:EX:32:LYS:HE3   | 1.70                     | 0.73              |
| 1:AZ:18:ALA:HB2   | 1:AZ:32:LYS:HE3   | 1.69                     | 0.73              |
| 1:BJ:105:ILE:HG23 | 1:EV:105:ILE:HG23 | 1.71                     | 0.73              |
| 1:FD:105:ILE:HG23 | 1:FF:105:ILE:HG23 | 1.70                     | 0.73              |
| 1:FP:18:ALA:HB2   | 1:FP:32:LYS:HE3   | 1.69                     | 0.73              |
| 1:CE:103:THR:HG21 | 1:FQ:15:ARG:HH11  | 1.53                     | 0.73              |
| 1:CY:18:ALA:HB2   | 1:CY:32:LYS:HE3   | 1.69                     | 0.73              |
| 1:CM:123:ASN:HB3  | 1:DG:3:LEU:HG     | 1.70                     | 0.73              |
| 1:FS:18:ALA:HB2   | 1:FS:32:LYS:HE3   | 1.69                     | 0.73              |
| 1:AE:124:TYR:HA   | 1:GA:22:GLN:NE2   | 2.03                     | 0.73              |
| 1:AH:105:ILE:HG23 | 1:GD:105:ILE:HG23 | 1.71                     | 0.73              |
| 1:AQ:18:ALA:HB2   | 1:AQ:32:LYS:HE3   | 1.69                     | 0.73              |
| 1:CJ:10:VAL:HG21  | 1:CO:103:THR:HG22 | 1.68                     | 0.73              |
| 1:BT:105:ILE:HG23 | 1:DN:105:ILE:HG23 | 1.69                     | 0.73              |
| 1:FA:18:ALA:HB2   | 1:FA:32:LYS:HE3   | 1.69                     | 0.73              |
| 1:CB:103:THR:HG21 | 1:FN:15:ARG:NH1   | 2.02                     | 0.73              |
| 1:AA:105:ILE:HG23 | 1:BI:105:ILE:HG23 | 1.69                     | 0.73              |
| 1:CJ:18:ALA:HB2   | 1:CJ:32:LYS:HE3   | 1.70                     | 0.73              |
| 1:BP:15:ARG:HH11  | 1:FB:103:THR:HG21 | 1.52                     | 0.73              |
| 1:AC:103:THR:HG21 | 1:DO:15:ARG:HH11  | 1.54                     | 0.72              |
| 1:AE:18:ALA:HB2   | 1:AE:32:LYS:HE3   | 1.69                     | 0.72              |
| 1:AN:18:ALA:HB2   | 1:AN:32:LYS:HE3   | 1.70                     | 0.72              |
| 1:GH:18:ALA:HB2   | 1:GH:32:LYS:HE3   | 1.69                     | 0.72              |
| 1:AS:103:THR:HG22 | 1:EL:10:VAL:HG21  | 1.70                     | 0.72              |
| 1:BU:18:ALA:HB2   | 1:BU:32:LYS:HE3   | 1.69                     | 0.72              |
| 1:BV:105:ILE:HG23 | 1:FH:105:ILE:HG23 | 1.70                     | 0.72              |
| 1:BX:18:ALA:HB2   | 1:BX:32:LYS:HE3   | 1.69                     | 0.72              |
| 1:BY:105:ILE:HG23 | 1:FK:105:ILE:HG23 | 1.69                     | 0.72              |
| 1:AR:103:THR:HG21 | 1:ED:15:ARG:NH1   | 2.04                     | 0.72              |
| 1:EL:18:ALA:HB2   | 1:EL:32:LYS:HE3   | 1.69                     | 0.72              |
| 1:FM:15:ARG:NH2   | 1:FM:17:TYR:OH    | 2.23                     | 0.72              |
| 1:GE:18:ALA:HB2   | 1:GE:32:LYS:HE3   | 1.69                     | 0.72              |
| 1:AB:10:VAL:HG21  | 1:FX:103:THR:HG22 | 1.72                     | 0.72              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:AH:15:ARG:NH2   | 1:AH:17:TYR:OH    | 2.23                     | 0.72              |
| 1:AK:15:ARG:NH2   | 1:AK:17:TYR:OH    | 2.23                     | 0.72              |
| 1:AT:15:ARG:NH2   | 1:AT:17:TYR:OH    | 2.23                     | 0.72              |
| 1:BI:15:ARG:NH2   | 1:BI:17:TYR:OH    | 2.23                     | 0.72              |
| 1:GN:15:ARG:NH2   | 1:GN:17:TYR:OH    | 2.23                     | 0.72              |
| 1:GQ:15:ARG:NH2   | 1:GQ:17:TYR:OH    | 2.23                     | 0.72              |
| 1:BO:15:ARG:NH2   | 1:BO:17:TYR:OH    | 2.23                     | 0.72              |
| 1:CD:15:ARG:NH2   | 1:CD:17:TYR:OH    | 2.23                     | 0.72              |
| 1:CV:18:ALA:HB2   | 1:CV:32:LYS:HE3   | 1.70                     | 0.72              |
| 1:DK:15:ARG:NH2   | 1:DK:17:TYR:OH    | 2.23                     | 0.72              |
| 1:DZ:15:ARG:NH2   | 1:DZ:17:TYR:OH    | 2.23                     | 0.72              |
| 1:ER:18:ALA:HB2   | 1:ER:32:LYS:HE3   | 1.70                     | 0.72              |
| 1:FD:103:THR:HG22 | 1:FF:10:VAL:HG21  | 1.72                     | 0.72              |
| 1:FS:15:ARG:NH2   | 1:FS:17:TYR:OH    | 2.23                     | 0.72              |
| 1:AZ:15:ARG:NH2   | 1:AZ:17:TYR:OH    | 2.23                     | 0.72              |
| 1:BX:15:ARG:NH2   | 1:BX:17:TYR:OH    | 2.23                     | 0.72              |
| 1:DT:15:ARG:NH2   | 1:DT:17:TYR:OH    | 2.23                     | 0.72              |
| 1:BA:105:ILE:HG23 | 1:EM:105:ILE:HG23 | 1.70                     | 0.72              |
| 1:EL:15:ARG:NH2   | 1:EL:17:TYR:OH    | 2.23                     | 0.72              |
| 1:FM:18:ALA:HB2   | 1:FM:32:LYS:HE3   | 1.69                     | 0.72              |
| 1:FV:15:ARG:NH2   | 1:FV:17:TYR:OH    | 2.23                     | 0.72              |
| 1:FY:18:ALA:HB2   | 1:FY:32:LYS:HE3   | 1.69                     | 0.72              |
| 1:AQ:15:ARG:NH2   | 1:AQ:17:TYR:OH    | 2.23                     | 0.72              |
| 1:BC:15:ARG:NH2   | 1:BC:17:TYR:OH    | 2.23                     | 0.72              |
| 1:BR:15:ARG:NH2   | 1:BR:17:TYR:OH    | 2.23                     | 0.72              |
| 1:CG:15:ARG:NH2   | 1:CG:17:TYR:OH    | 2.23                     | 0.72              |
| 1:DW:15:ARG:NH2   | 1:DW:17:TYR:OH    | 2.23                     | 0.72              |
| 1:AH:66:VAL:HG21  | 1:GD:96:HIS:CG    | 2.25                     | 0.72              |
| 1:CA:15:ARG:NH2   | 1:CA:17:TYR:OH    | 2.23                     | 0.72              |
| 1:CY:15:ARG:NH2   | 1:CY:17:TYR:OH    | 2.23                     | 0.72              |
| 1:DH:15:ARG:NH2   | 1:DH:17:TYR:OH    | 2.23                     | 0.72              |
| 1:DQ:15:ARG:NH2   | 1:DQ:17:TYR:OH    | 2.23                     | 0.72              |
| 1:EF:18:ALA:HB2   | 1:EF:32:LYS:HE3   | 1.70                     | 0.72              |
| 1:GE:15:ARG:NH2   | 1:GE:17:TYR:OH    | 2.23                     | 0.72              |
| 1:GH:15:ARG:NH2   | 1:GH:17:TYR:OH    | 2.23                     | 0.72              |
| 1:GW:15:ARG:NH2   | 1:GW:17:TYR:OH    | 2.23                     | 0.72              |
| 1:AE:15:ARG:NH2   | 1:AE:17:TYR:OH    | 2.23                     | 0.72              |
| 1:AN:15:ARG:NH2   | 1:AN:17:TYR:OH    | 2.23                     | 0.72              |
| 1:BL:15:ARG:NH2   | 1:BL:17:TYR:OH    | 2.23                     | 0.72              |
| 1:CJ:15:ARG:NH2   | 1:CJ:17:TYR:OH    | 2.23                     | 0.72              |
| 1:CS:15:ARG:NH2   | 1:CS:17:TYR:OH    | 2.23                     | 0.72              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:EH:106:ALA:HB1  | 1:EO:8:LEU:HD22   | 1.72                     | 0.72              |
| 1:EI:15:ARG:NH2   | 1:EI:17:TYR:OH    | 2.23                     | 0.72              |
| 1:FP:15:ARG:NH2   | 1:FP:17:TYR:OH    | 2.23                     | 0.72              |
| 1:FS:10:VAL:HG21  | 1:GP:103:THR:HG22 | 1.70                     | 0.72              |
| 1:CP:15:ARG:NH2   | 1:CP:17:TYR:OH    | 2.23                     | 0.72              |
| 1:DK:18:ALA:HB2   | 1:DK:32:LYS:HE3   | 1.70                     | 0.72              |
| 1:EC:22:GLN:HB3   | 1:GB:124:TYR:HB2  | 1.69                     | 0.72              |
| 1:CW:10:VAL:HG21  | 1:GI:103:THR:HG22 | 1.70                     | 0.72              |
| 1:CM:15:ARG:NH2   | 1:CM:17:TYR:OH    | 2.23                     | 0.71              |
| 1:CP:18:ALA:HB2   | 1:CP:32:LYS:HE3   | 1.69                     | 0.71              |
| 1:CZ:105:ILE:HG23 | 1:GL:105:ILE:HG23 | 1.72                     | 0.71              |
| 1:EC:15:ARG:NH2   | 1:EC:17:TYR:OH    | 2.23                     | 0.71              |
| 1:EX:15:ARG:NH2   | 1:EX:17:TYR:OH    | 2.23                     | 0.71              |
| 1:FA:10:VAL:HG21  | 1:FL:103:THR:HG22 | 1.72                     | 0.71              |
| 1:FA:105:ILE:HG23 | 1:FL:105:ILE:HG23 | 1.71                     | 0.71              |
| 1:GB:15:ARG:NH2   | 1:GB:17:TYR:OH    | 2.23                     | 0.71              |
| 1:AB:15:ARG:NH2   | 1:AB:17:TYR:OH    | 2.23                     | 0.71              |
| 1:DB:15:ARG:NH2   | 1:DB:17:TYR:OH    | 2.23                     | 0.71              |
| 1:AU:105:ILE:HG23 | 1:EG:105:ILE:HG23 | 1.72                     | 0.71              |
| 1:FA:15:ARG:NH2   | 1:FA:17:TYR:OH    | 2.23                     | 0.71              |
| 1:AW:15:ARG:NH2   | 1:AW:17:TYR:OH    | 2.23                     | 0.71              |
| 1:BD:15:ARG:HH11  | 1:EP:103:THR:HG21 | 1.54                     | 0.71              |
| 1:AL:105:ILE:HG23 | 1:DX:105:ILE:HG23 | 1.72                     | 0.71              |
| 1:EF:15:ARG:NH2   | 1:EF:17:TYR:OH    | 2.23                     | 0.71              |
| 1:FJ:15:ARG:NH2   | 1:FJ:17:TYR:OH    | 2.23                     | 0.71              |
| 1:BY:103:THR:HG22 | 1:FK:10:VAL:HG21  | 1.70                     | 0.71              |
| 1:GK:15:ARG:NH2   | 1:GK:17:TYR:OH    | 2.23                     | 0.71              |
| 1:AD:15:ARG:NH1   | 1:BC:103:THR:HG21 | 2.04                     | 0.71              |
| 1:BF:15:ARG:NH2   | 1:BF:17:TYR:OH    | 2.23                     | 0.71              |
| 1:DE:15:ARG:NH2   | 1:DE:17:TYR:OH    | 2.23                     | 0.71              |
| 1:EU:15:ARG:NH2   | 1:EU:17:TYR:OH    | 2.23                     | 0.71              |
| 1:GK:18:ALA:HB2   | 1:GK:32:LYS:HE3   | 1.70                     | 0.71              |
| 1:DN:15:ARG:NH2   | 1:DN:17:TYR:OH    | 2.23                     | 0.71              |
| 1:EH:22:GLN:NE2   | 1:EO:124:TYR:HA   | 2.05                     | 0.71              |
| 1:FG:15:ARG:NH2   | 1:FG:17:TYR:OH    | 2.23                     | 0.71              |
| 1:AO:105:ILE:HG23 | 1:EA:105:ILE:HG23 | 1.73                     | 0.71              |
| 1:AY:15:ARG:NH1   | 1:EI:103:THR:HG21 | 2.03                     | 0.71              |
| 1:BU:15:ARG:NH2   | 1:BU:17:TYR:OH    | 2.23                     | 0.71              |
| 1:BW:10:VAL:HG21  | 1:DQ:103:THR:HG22 | 1.72                     | 0.71              |
| 1:CW:103:THR:HG22 | 1:GI:10:VAL:HG21  | 1.72                     | 0.71              |
| 1:CV:15:ARG:NH2   | 1:CV:17:TYR:OH    | 2.23                     | 0.71              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:FY:15:ARG:NH2   | 1:FY:17:TYR:OH    | 2.23                     | 0.71              |
| 1:BE:15:ARG:HH11  | 1:BL:103:THR:HG21 | 1.55                     | 0.71              |
| 1:DC:103:THR:HG21 | 1:GO:15:ARG:HH11  | 1.56                     | 0.71              |
| 1:GT:15:ARG:NH2   | 1:GT:17:TYR:OH    | 2.23                     | 0.71              |
| 1:BM:103:THR:HG21 | 1:EY:15:ARG:HH11  | 1.56                     | 0.71              |
| 1:ER:15:ARG:NH2   | 1:ER:17:TYR:OH    | 2.23                     | 0.71              |
| 1:EV:2:ARG:NH1    | 1:FG:124:TYR:OXT  | 2.23                     | 0.71              |
| 1:DM:105:ILE:HG23 | 1:GT:105:ILE:HG23 | 1.72                     | 0.70              |
| 1:FD:15:ARG:NH2   | 1:FD:17:TYR:OH    | 2.23                     | 0.70              |
| 1:DP:10:VAL:HG21  | 1:GW:103:THR:HG22 | 1.70                     | 0.70              |
| 1:AJ:15:ARG:HH11  | 1:BX:103:THR:HG21 | 1.55                     | 0.70              |
| 1:AD:105:ILE:HG23 | 1:BC:105:ILE:HG23 | 1.74                     | 0.70              |
| 1:CG:10:VAL:HG21  | 1:CL:103:THR:HG22 | 1.71                     | 0.70              |
| 1:EO:15:ARG:NH2   | 1:EO:17:TYR:OH    | 2.23                     | 0.70              |
| 1:FV:105:ILE:HG23 | 1:GS:105:ILE:HG23 | 1.73                     | 0.70              |
| 1:AR:15:ARG:HH11  | 1:ED:103:THR:HG21 | 1.55                     | 0.70              |
| 1:AR:103:THR:HG21 | 1:ED:15:ARG:HH11  | 1.55                     | 0.70              |
| 1:CH:103:THR:HG21 | 1:FT:15:ARG:NH1   | 2.05                     | 0.70              |
| 1:EA:2:ARG:NH1    | 1:FY:124:TYR:OXT  | 2.24                     | 0.70              |
| 1:CI:105:ILE:HG23 | 1:GH:105:ILE:HG23 | 1.72                     | 0.70              |
| 1:BB:103:THR:HG21 | 1:BR:15:ARG:NH1   | 2.06                     | 0.70              |
| 1:DV:124:TYR:C    | 1:GE:22:GLN:HE21  | 1.94                     | 0.70              |
| 1:BD:2:ARG:NH1    | 1:BR:124:TYR:OXT  | 2.23                     | 0.70              |
| 1:AW:124:TYR:OXT  | 1:FE:2:ARG:NH1    | 2.25                     | 0.70              |
| 1:CS:124:TYR:OXT  | 1:DF:2:ARG:NH1    | 2.25                     | 0.70              |
| 1:CE:15:ARG:NH1   | 1:FQ:103:THR:HG21 | 2.06                     | 0.70              |
| 1:BA:15:ARG:NH1   | 1:EM:103:THR:HG21 | 2.07                     | 0.70              |
| 1:DD:45:LEU:HD13  | 1:DD:60:MET:HG3   | 1.74                     | 0.70              |
| 1:AE:105:ILE:HG23 | 1:GA:105:ILE:HG23 | 1.73                     | 0.70              |
| 1:BG:15:ARG:HH11  | 1:ES:103:THR:HG21 | 1.56                     | 0.69              |
| 1:FR:45:LEU:HD13  | 1:FR:60:MET:HG3   | 1.74                     | 0.69              |
| 1:AM:124:TYR:OXT  | 1:CA:22:GLN:NE2   | 2.24                     | 0.69              |
| 1:AA:45:LEU:HD13  | 1:AA:60:MET:HG3   | 1.74                     | 0.69              |
| 1:BH:45:LEU:HD13  | 1:BH:60:MET:HG3   | 1.75                     | 0.69              |
| 1:CQ:15:ARG:NH1   | 1:GC:103:THR:HG21 | 2.07                     | 0.69              |
| 1:DS:45:LEU:HD13  | 1:DS:60:MET:HG3   | 1.74                     | 0.69              |
| 1:BP:10:VAL:HG21  | 1:FB:103:THR:HG22 | 1.74                     | 0.69              |
| 1:BV:15:ARG:HH11  | 1:FH:103:THR:HG21 | 1.57                     | 0.69              |
| 1:EQ:10:VAL:HG21  | 1:FM:103:THR:HG22 | 1.74                     | 0.69              |
| 1:FU:45:LEU:HD13  | 1:FU:60:MET:HG3   | 1.74                     | 0.69              |
| 1:AH:62:LEU:HD21  | 1:GD:103:THR:OG1  | 1.92                     | 0.69              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:GG:45:LEU:HD13  | 1:GG:60:MET:HG3   | 1.74                     | 0.69              |
| 1:BN:45:LEU:HD13  | 1:BN:60:MET:HG3   | 1.75                     | 0.69              |
| 1:BW:45:LEU:HD13  | 1:BW:60:MET:HG3   | 1.74                     | 0.69              |
| 1:CD:124:TYR:C    | 1:CT:2:ARG:HH12   | 1.96                     | 0.69              |
| 1:DP:45:LEU:HD13  | 1:DP:60:MET:HG3   | 1.74                     | 0.69              |
| 1:BY:2:ARG:NH1    | 1:DQ:124:TYR:OXT  | 2.25                     | 0.69              |
| 1:EB:45:LEU:HD13  | 1:EB:60:MET:HG3   | 1.74                     | 0.69              |
| 1:FO:45:LEU:HD13  | 1:FO:60:MET:HG3   | 1.74                     | 0.69              |
| 1:GD:45:LEU:HD13  | 1:GD:60:MET:HG3   | 1.74                     | 0.69              |
| 1:CY:105:ILE:HG23 | 1:GG:105:ILE:HG23 | 1.74                     | 0.69              |
| 1:GJ:45:LEU:HD13  | 1:GJ:60:MET:HG3   | 1.74                     | 0.69              |
| 1:AJ:45:LEU:HD13  | 1:AJ:60:MET:HG3   | 1.75                     | 0.69              |
| 1:BD:10:VAL:HG21  | 1:EP:103:THR:HG22 | 1.74                     | 0.69              |
| 1:DI:10:VAL:HG21  | 1:GU:103:THR:HG22 | 1.74                     | 0.69              |
| 1:AG:45:LEU:HD13  | 1:AG:60:MET:HG3   | 1.74                     | 0.69              |
| 1:AY:45:LEU:HD13  | 1:AY:60:MET:HG3   | 1.74                     | 0.69              |
| 1:CF:10:VAL:HG21  | 1:GN:103:THR:HG22 | 1.73                     | 0.69              |
| 1:CG:124:TYR:HB2  | 1:CM:22:GLN:HB3   | 1.73                     | 0.69              |
| 1:CQ:15:ARG:HH11  | 1:GC:103:THR:HG21 | 1.58                     | 0.69              |
| 1:AL:103:THR:HG21 | 1:DX:15:ARG:HH11  | 1.56                     | 0.69              |
| 1:DY:45:LEU:HD13  | 1:DY:60:MET:HG3   | 1.74                     | 0.69              |
| 1:FF:45:LEU:HD13  | 1:FF:60:MET:HG3   | 1.74                     | 0.69              |
| 1:EN:105:ILE:HG23 | 1:FJ:105:ILE:HG23 | 1.74                     | 0.69              |
| 1:CH:15:ARG:NH1   | 1:FT:103:THR:HG21 | 2.06                     | 0.69              |
| 1:GV:45:LEU:HD13  | 1:GV:60:MET:HG3   | 1.74                     | 0.69              |
| 1:AV:45:LEU:HD13  | 1:AV:60:MET:HG3   | 1.74                     | 0.69              |
| 1:BK:105:ILE:HG23 | 1:DW:105:ILE:HG23 | 1.75                     | 0.69              |
| 1:BU:22:GLN:HB3   | 1:DN:124:TYR:HB2  | 1.75                     | 0.69              |
| 1:GM:45:LEU:HD13  | 1:GM:60:MET:HG3   | 1.74                     | 0.69              |
| 1:AM:22:GLN:NE2   | 1:CA:124:TYR:HA   | 2.08                     | 0.69              |
| 1:AM:99:LYS:HE2   | 1:CA:15:ARG:HH11  | 1.57                     | 0.69              |
| 1:AW:89:PRO:HG2   | 1:AW:92:TYR:HB2   | 1.75                     | 0.69              |
| 1:BG:103:THR:HG21 | 1:ES:15:ARG:NH1   | 2.07                     | 0.69              |
| 1:BT:45:LEU:HD13  | 1:BT:60:MET:HG3   | 1.74                     | 0.69              |
| 1:DC:105:ILE:HG23 | 1:GO:105:ILE:HG23 | 1.75                     | 0.69              |
| 1:CI:10:VAL:HG21  | 1:GH:103:THR:HG22 | 1.74                     | 0.69              |
| 1:BQ:45:LEU:HD13  | 1:BQ:60:MET:HG3   | 1.74                     | 0.69              |
| 1:CG:89:PRO:HG2   | 1:CG:92:TYR:HB2   | 1.75                     | 0.69              |
| 1:AI:103:THR:HG21 | 1:DU:15:ARG:HH11  | 1.57                     | 0.69              |
| 1:AO:15:ARG:HH11  | 1:EA:103:THR:HG21 | 1.57                     | 0.69              |
| 1:EU:89:PRO:HG2   | 1:EU:92:TYR:HB2   | 1.75                     | 0.69              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:GE:89:PRO:HG2   | 1:GE:92:TYR:HB2   | 1.75                     | 0.69              |
| 1:CT:103:THR:HG21 | 1:GF:15:ARG:HH11  | 1.58                     | 0.69              |
| 1:GH:89:PRO:HG2   | 1:GH:92:TYR:HB2   | 1.75                     | 0.69              |
| 1:GS:45:LEU:HD13  | 1:GS:60:MET:HG3   | 1.75                     | 0.69              |
| 1:AE:22:GLN:NE2   | 1:GA:124:TYR:OXT  | 2.25                     | 0.69              |
| 1:AP:45:LEU:HD13  | 1:AP:60:MET:HG3   | 1.74                     | 0.69              |
| 1:CI:45:LEU:HD13  | 1:CI:60:MET:HG3   | 1.74                     | 0.69              |
| 1:CY:89:PRO:HG2   | 1:CY:92:TYR:HB2   | 1.75                     | 0.69              |
| 1:DK:89:PRO:HG2   | 1:DK:92:TYR:HB2   | 1.75                     | 0.69              |
| 1:EC:89:PRO:HG2   | 1:EC:92:TYR:HB2   | 1.75                     | 0.69              |
| 1:EW:45:LEU:HD13  | 1:EW:60:MET:HG3   | 1.74                     | 0.69              |
| 1:CZ:22:GLN:NE2   | 1:GL:124:TYR:HA   | 2.07                     | 0.69              |
| 1:AT:89:PRO:HG2   | 1:AT:92:TYR:HB2   | 1.75                     | 0.69              |
| 1:BC:89:PRO:HG2   | 1:BC:92:TYR:HB2   | 1.75                     | 0.69              |
| 1:BG:15:ARG:NH1   | 1:ES:103:THR:HG21 | 2.08                     | 0.69              |
| 1:BL:89:PRO:HG2   | 1:BL:92:TYR:HB2   | 1.75                     | 0.69              |
| 1:BZ:103:THR:OG1  | 1:DT:62:LEU:HD21  | 1.92                     | 0.69              |
| 1:EX:89:PRO:HG2   | 1:EX:92:TYR:HB2   | 1.75                     | 0.69              |
| 1:AM:45:LEU:HD13  | 1:AM:60:MET:HG3   | 1.74                     | 0.68              |
| 1:BB:45:LEU:HD13  | 1:BB:60:MET:HG3   | 1.74                     | 0.68              |
| 1:CA:89:PRO:HG2   | 1:CA:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:CS:89:PRO:HG2   | 1:CS:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:DG:45:LEU:HD13  | 1:DG:60:MET:HG3   | 1.74                     | 0.68              |
| 1:EE:45:LEU:HD13  | 1:EE:60:MET:HG3   | 1.74                     | 0.68              |
| 1:EH:1:MET:SD     | 1:EO:111:GLN:HB2  | 2.33                     | 0.68              |
| 1:EQ:45:LEU:HD13  | 1:EQ:60:MET:HG3   | 1.74                     | 0.68              |
| 1:ET:45:LEU:HD13  | 1:ET:60:MET:HG3   | 1.75                     | 0.68              |
| 1:DM:96:HIS:CG    | 1:GT:66:VAL:HG21  | 2.28                     | 0.68              |
| 1:DL:15:ARG:HH11  | 1:GX:103:THR:HG21 | 1.58                     | 0.68              |
| 1:AN:124:TYR:HA   | 1:FR:22:GLN:NE2   | 2.08                     | 0.68              |
| 1:AQ:22:GLN:HB3   | 1:BU:124:TYR:HB2  | 1.75                     | 0.68              |
| 1:BZ:45:LEU:HD13  | 1:BZ:60:MET:HG3   | 1.74                     | 0.68              |
| 1:CF:45:LEU:HD13  | 1:CF:60:MET:HG3   | 1.74                     | 0.68              |
| 1:CX:10:VAL:HG21  | 1:DK:103:THR:HG22 | 1.74                     | 0.68              |
| 1:DQ:89:PRO:HG2   | 1:DQ:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:DW:89:PRO:HG2   | 1:DW:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:FA:89:PRO:HG2   | 1:FA:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:FI:45:LEU:HD13  | 1:FI:60:MET:HG3   | 1.74                     | 0.68              |
| 1:FP:89:PRO:HG2   | 1:FP:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:CV:89:PRO:HG2   | 1:CV:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:DN:89:PRO:HG2   | 1:DN:92:TYR:HB2   | 1.75                     | 0.68              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:DV:45:LEU:HD13  | 1:DV:60:MET:HG3   | 1.74                     | 0.68              |
| 1:EF:89:PRO:HG2   | 1:EF:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:EN:45:LEU:HD13  | 1:EN:60:MET:HG3   | 1.74                     | 0.68              |
| 1:FJ:89:PRO:HG2   | 1:FJ:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:FY:89:PRO:HG2   | 1:FY:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:GW:89:PRO:HG2   | 1:GW:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:CJ:89:PRO:HG2   | 1:CJ:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:CX:45:LEU:HD13  | 1:CX:60:MET:HG3   | 1.74                     | 0.68              |
| 1:DH:89:PRO:HG2   | 1:DH:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:EI:89:PRO:HG2   | 1:EI:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:FM:89:PRO:HG2   | 1:FM:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:FS:89:PRO:HG2   | 1:FS:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:GA:45:LEU:HD13  | 1:GA:60:MET:HG3   | 1.74                     | 0.68              |
| 1:AE:89:PRO:HG2   | 1:AE:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:AS:45:LEU:HD13  | 1:AS:60:MET:HG3   | 1.75                     | 0.68              |
| 1:DJ:45:LEU:HD13  | 1:DJ:60:MET:HG3   | 1.74                     | 0.68              |
| 1:DT:89:PRO:HG2   | 1:DT:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:EH:45:LEU:HD13  | 1:EH:60:MET:HG3   | 1.74                     | 0.68              |
| 1:FX:45:LEU:HD13  | 1:FX:60:MET:HG3   | 1.74                     | 0.68              |
| 1:EB:103:THR:HG21 | 1:GB:15:ARG:NH1   | 2.09                     | 0.68              |
| 1:AD:45:LEU:HD13  | 1:AD:60:MET:HG3   | 1.74                     | 0.68              |
| 1:CP:10:VAL:HG21  | 1:DJ:103:THR:HG22 | 1.75                     | 0.68              |
| 1:CR:45:LEU:HD13  | 1:CR:60:MET:HG3   | 1.74                     | 0.68              |
| 1:ET:10:VAL:HG21  | 1:FG:103:THR:HG22 | 1.75                     | 0.68              |
| 1:BA:15:ARG:HH11  | 1:EM:103:THR:HG21 | 1.57                     | 0.68              |
| 1:CD:89:PRO:HG2   | 1:CD:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:CG:15:ARG:NH1   | 1:CL:103:THR:HG21 | 2.09                     | 0.68              |
| 1:CM:124:TYR:OXT  | 1:DI:2:ARG:NH1    | 2.27                     | 0.68              |
| 1:DV:99:LYS:HE2   | 1:GE:15:ARG:HH11  | 1.59                     | 0.68              |
| 1:AB:89:PRO:HG2   | 1:AB:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:AQ:103:THR:HG22 | 1:FU:10:VAL:HG21  | 1.75                     | 0.68              |
| 1:BI:89:PRO:HG2   | 1:BI:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:DM:45:LEU:HD13  | 1:DM:60:MET:HG3   | 1.74                     | 0.68              |
| 1:EZ:45:LEU:HD13  | 1:EZ:60:MET:HG3   | 1.74                     | 0.68              |
| 1:DS:105:ILE:HG23 | 1:GQ:105:ILE:HG23 | 1.75                     | 0.68              |
| 1:AN:89:PRO:HG2   | 1:AN:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:BU:89:PRO:HG2   | 1:BU:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:CW:15:ARG:HH11  | 1:GI:103:THR:HG21 | 1.57                     | 0.68              |
| 1:DA:45:LEU:HD13  | 1:DA:60:MET:HG3   | 1.74                     | 0.68              |
| 1:BG:103:THR:HG22 | 1:ES:10:VAL:HG21  | 1.75                     | 0.68              |
| 1:FD:89:PRO:HG2   | 1:FD:92:TYR:HB2   | 1.75                     | 0.68              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:GB:89:PRO:HG2   | 1:GB:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:AZ:105:ILE:HG23 | 1:EW:105:ILE:HG23 | 1.76                     | 0.68              |
| 1:CU:10:VAL:HG21  | 1:DH:103:THR:HG22 | 1.75                     | 0.68              |
| 1:EK:45:LEU:HD13  | 1:EK:60:MET:HG3   | 1.74                     | 0.68              |
| 1:ER:89:PRO:HG2   | 1:ER:92:TYR:HB2   | 1.75                     | 0.68              |
| 1:FL:45:LEU:HD13  | 1:FL:60:MET:HG3   | 1.74                     | 0.68              |
| 1:AB:103:THR:HG22 | 1:FX:10:VAL:HG21  | 1.74                     | 0.68              |
| 1:DR:2:ARG:HH12   | 1:GW:124:TYR:C    | 1.97                     | 0.68              |
| 1:BP:103:THR:HG21 | 1:FB:15:ARG:NH1   | 2.10                     | 0.67              |
| 1:BY:103:THR:HG21 | 1:FK:15:ARG:HH11  | 1.59                     | 0.67              |
| 1:CH:103:THR:HG21 | 1:FT:15:ARG:HH11  | 1.56                     | 0.67              |
| 1:CU:45:LEU:HD13  | 1:CU:60:MET:HG3   | 1.74                     | 0.67              |
| 1:FV:89:PRO:HG2   | 1:FV:92:TYR:HB2   | 1.75                     | 0.67              |
| 1:AK:89:PRO:HG2   | 1:AK:92:TYR:HB2   | 1.75                     | 0.67              |
| 1:AV:105:ILE:HG23 | 1:EF:105:ILE:HG23 | 1.74                     | 0.67              |
| 1:CD:123:ASN:HB3  | 1:CR:3:LEU:HG     | 1.74                     | 0.67              |
| 1:CO:45:LEU:HD13  | 1:CO:60:MET:HG3   | 1.75                     | 0.67              |
| 1:EB:105:ILE:HG23 | 1:GB:105:ILE:HG23 | 1.76                     | 0.67              |
| 1:GQ:89:PRO:HG2   | 1:GQ:92:TYR:HB2   | 1.75                     | 0.67              |
| 1:DF:15:ARG:HH11  | 1:GR:103:THR:HG21 | 1.58                     | 0.67              |
| 1:AP:105:ILE:HG23 | 1:BU:105:ILE:HG23 | 1.75                     | 0.67              |
| 1:BK:45:LEU:HD13  | 1:BK:60:MET:HG3   | 1.74                     | 0.67              |
| 1:CL:45:LEU:HD13  | 1:CL:60:MET:HG3   | 1.74                     | 0.67              |
| 1:CN:10:VAL:HG21  | 1:FZ:103:THR:HG22 | 1.76                     | 0.67              |
| 1:BT:15:ARG:NH1   | 1:DN:103:THR:HG21 | 2.09                     | 0.67              |
| 1:CB:15:ARG:NH1   | 1:FN:103:THR:HG21 | 2.09                     | 0.67              |
| 1:BE:45:LEU:HD13  | 1:BE:60:MET:HG3   | 1.74                     | 0.67              |
| 1:BR:89:PRO:HG2   | 1:BR:92:TYR:HB2   | 1.75                     | 0.67              |
| 1:CC:45:LEU:HD13  | 1:CC:60:MET:HG3   | 1.75                     | 0.67              |
| 1:FC:45:LEU:HD13  | 1:FC:60:MET:HG3   | 1.74                     | 0.67              |
| 1:FG:89:PRO:HG2   | 1:FG:92:TYR:HB2   | 1.75                     | 0.67              |
| 1:ES:2:ARG:NH1    | 1:FM:124:TYR:OXT  | 2.26                     | 0.67              |
| 1:DC:20:SER:O     | 1:GJ:122:ASN:HB2  | 1.95                     | 0.67              |
| 1:BD:103:THR:HG21 | 1:EP:15:ARG:HH11  | 1.60                     | 0.67              |
| 1:CM:89:PRO:HG2   | 1:CM:92:TYR:HB2   | 1.75                     | 0.67              |
| 1:DB:124:TYR:OXT  | 1:GL:2:ARG:NH1    | 2.28                     | 0.67              |
| 1:AH:89:PRO:HG2   | 1:AH:92:TYR:HB2   | 1.75                     | 0.67              |
| 1:BD:91:THR:CG2   | 1:EP:68:VAL:HG11  | 2.24                     | 0.67              |
| 1:BX:89:PRO:HG2   | 1:BX:92:TYR:HB2   | 1.75                     | 0.67              |
| 1:CS:10:VAL:HG21  | 1:DD:103:THR:HG22 | 1.76                     | 0.67              |
| 1:CX:20:SER:HA    | 1:GL:121:LEU:HD22 | 1.76                     | 0.67              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:AQ:89:PRO:HG2   | 1:AQ:92:TYR:HB2   | 1.75                     | 0.67              |
| 1:CK:103:THR:HG21 | 1:FW:15:ARG:HH11  | 1.60                     | 0.67              |
| 1:BY:15:ARG:HH11  | 1:FK:103:THR:HG21 | 1.60                     | 0.67              |
| 1:GP:45:LEU:HD13  | 1:GP:60:MET:HG3   | 1.74                     | 0.67              |
| 1:AU:2:ARG:HH12   | 1:EL:124:TYR:C    | 1.98                     | 0.67              |
| 1:BD:107:TRP:CE2  | 1:EP:8:LEU:HD11   | 2.30                     | 0.67              |
| 1:BE:10:VAL:HG21  | 1:BL:103:THR:HG22 | 1.77                     | 0.67              |
| 1:DB:89:PRO:HG2   | 1:DB:92:TYR:HB2   | 1.75                     | 0.67              |
| 1:FD:124:TYR:C    | 1:FH:2:ARG:HH12   | 1.98                     | 0.67              |
| 1:GK:89:PRO:HG2   | 1:GK:92:TYR:HB2   | 1.75                     | 0.67              |
| 1:BO:89:PRO:HG2   | 1:BO:92:TYR:HB2   | 1.75                     | 0.67              |
| 1:CM:15:ARG:NH1   | 1:DG:103:THR:HG21 | 2.10                     | 0.67              |
| 1:CP:89:PRO:HG2   | 1:CP:92:TYR:HB2   | 1.75                     | 0.67              |
| 1:AI:15:ARG:HH11  | 1:DU:103:THR:HG21 | 1.59                     | 0.67              |
| 1:BS:103:THR:HG21 | 1:FE:15:ARG:HH11  | 1.59                     | 0.67              |
| 1:AZ:89:PRO:HG2   | 1:AZ:92:TYR:HB2   | 1.75                     | 0.67              |
| 1:BF:89:PRO:HG2   | 1:BF:92:TYR:HB2   | 1.75                     | 0.67              |
| 1:CY:124:TYR:C    | 1:GI:2:ARG:HH12   | 1.98                     | 0.67              |
| 1:BS:103:THR:HG21 | 1:FE:15:ARG:NH1   | 2.10                     | 0.66              |
| 1:FA:124:TYR:C    | 1:FN:2:ARG:HH12   | 1.99                     | 0.66              |
| 1:GT:89:PRO:HG2   | 1:GT:92:TYR:HB2   | 1.75                     | 0.66              |
| 1:BI:65:PRO:HB3   | 1:BI:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:BP:15:ARG:NH1   | 1:FB:103:THR:HG21 | 2.09                     | 0.66              |
| 1:EX:65:PRO:HB3   | 1:EX:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:CG:65:PRO:HB3   | 1:CG:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:CG:105:ILE:HG23 | 1:CL:105:ILE:HG23 | 1.77                     | 0.66              |
| 1:CV:62:LEU:HD21  | 1:GM:103:THR:OG1  | 1.94                     | 0.66              |
| 1:EF:65:PRO:HB3   | 1:EF:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:CB:105:ILE:HG23 | 1:FN:105:ILE:HG23 | 1.77                     | 0.66              |
| 1:BB:3:LEU:HG     | 1:BR:123:ASN:HB3  | 1.77                     | 0.66              |
| 1:CJ:103:THR:HG22 | 1:CO:10:VAL:HG21  | 1.76                     | 0.66              |
| 1:FD:10:VAL:HG21  | 1:FF:103:THR:HG22 | 1.76                     | 0.66              |
| 1:GN:89:PRO:HG2   | 1:GN:92:TYR:HB2   | 1.75                     | 0.66              |
| 1:CM:65:PRO:HB3   | 1:CM:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:CV:65:PRO:HB3   | 1:CV:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:DZ:89:PRO:HG2   | 1:DZ:92:TYR:HB2   | 1.75                     | 0.66              |
| 1:EO:89:PRO:HG2   | 1:EO:92:TYR:HB2   | 1.75                     | 0.66              |
| 1:AH:103:THR:HG22 | 1:GD:10:VAL:HG21  | 1.76                     | 0.66              |
| 1:GW:65:PRO:HB3   | 1:GW:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:AA:10:VAL:HG21  | 1:BI:103:THR:HG22 | 1.76                     | 0.66              |
| 1:AB:65:PRO:HB3   | 1:AB:79:LYS:HG2   | 1.78                     | 0.66              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:AI:91:THR:HG22  | 1:DU:68:VAL:HG11  | 1.77                     | 0.66              |
| 1:AP:103:THR:HG21 | 1:BU:15:ARG:NH1   | 2.11                     | 0.66              |
| 1:DE:89:PRO:HG2   | 1:DE:92:TYR:HB2   | 1.75                     | 0.66              |
| 1:BP:103:THR:HG21 | 1:FB:15:ARG:HH11  | 1.59                     | 0.66              |
| 1:FM:65:PRO:HB3   | 1:FM:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:FP:65:PRO:HB3   | 1:FP:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:DI:103:THR:HG21 | 1:GU:15:ARG:HH11  | 1.58                     | 0.66              |
| 1:AQ:65:PRO:HB3   | 1:AQ:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:BO:65:PRO:HB3   | 1:BO:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:DU:2:ARG:NH1    | 1:GQ:124:TYR:OXT  | 2.29                     | 0.66              |
| 1:DW:22:GLN:HB3   | 1:GE:124:TYR:HB2  | 1.77                     | 0.66              |
| 1:EC:65:PRO:HB3   | 1:EC:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:EL:89:PRO:HG2   | 1:EL:92:TYR:HB2   | 1.75                     | 0.66              |
| 1:EH:105:ILE:HG23 | 1:EO:105:ILE:HG23 | 1.76                     | 0.66              |
| 1:EU:20:SER:O     | 1:FG:122:ASN:HB2  | 1.96                     | 0.66              |
| 1:FS:65:PRO:HB3   | 1:FS:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:GE:65:PRO:HB3   | 1:GE:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:GK:65:PRO:HB3   | 1:GK:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:AE:65:PRO:HB3   | 1:AE:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:AH:65:PRO:HB3   | 1:AH:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:CD:65:PRO:HB3   | 1:CD:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:DK:65:PRO:HB3   | 1:DK:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:EU:65:PRO:HB3   | 1:EU:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:GH:65:PRO:HB3   | 1:GH:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:AD:103:THR:OG1  | 1:BC:62:LEU:HD21  | 1.95                     | 0.66              |
| 1:AT:65:PRO:HB3   | 1:AT:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:BD:15:ARG:NH1   | 1:EP:103:THR:HG21 | 2.11                     | 0.66              |
| 1:BF:65:PRO:HB3   | 1:BF:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:CS:65:PRO:HB3   | 1:CS:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:CV:22:GLN:NE2   | 1:GM:124:TYR:OXT  | 2.29                     | 0.66              |
| 1:AV:107:TRP:CE2  | 1:EF:8:LEU:HD11   | 2.30                     | 0.66              |
| 1:EI:65:PRO:HB3   | 1:EI:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:FA:103:THR:HG22 | 1:FL:10:VAL:HG21  | 1.78                     | 0.66              |
| 1:FV:65:PRO:HB3   | 1:FV:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:AN:103:THR:HG21 | 1:FR:15:ARG:NH1   | 2.05                     | 0.66              |
| 1:AW:65:PRO:HB3   | 1:AW:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:BX:65:PRO:HB3   | 1:BX:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:DZ:65:PRO:HB3   | 1:DZ:79:LYS:HG2   | 1.78                     | 0.66              |
| 1:CK:103:THR:HG21 | 1:FW:15:ARG:NH1   | 2.11                     | 0.66              |
| 1:AE:8:LEU:HD22   | 1:GA:106:ALA:HB1  | 1.76                     | 0.66              |
| 1:DL:15:ARG:NH1   | 1:GX:103:THR:HG21 | 2.11                     | 0.66              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:AD:122:ASN:HB2  | 1:BD:20:SER:O     | 1.95                     | 0.65              |
| 1:AE:124:TYR:HB2  | 1:GB:22:GLN:HB3   | 1.77                     | 0.65              |
| 1:AK:65:PRO:HB3   | 1:AK:79:LYS:HG2   | 1.78                     | 0.65              |
| 1:AX:103:THR:HG21 | 1:EJ:15:ARG:NH1   | 2.10                     | 0.65              |
| 1:BD:103:THR:HG22 | 1:EP:10:VAL:CG2   | 2.26                     | 0.65              |
| 1:DN:65:PRO:HB3   | 1:DN:79:LYS:HG2   | 1.78                     | 0.65              |
| 1:DQ:65:PRO:HB3   | 1:DQ:79:LYS:HG2   | 1.78                     | 0.65              |
| 1:EO:65:PRO:HB3   | 1:EO:79:LYS:HG2   | 1.78                     | 0.65              |
| 1:CK:15:ARG:HH11  | 1:FW:103:THR:HG21 | 1.61                     | 0.65              |
| 1:AV:123:ASN:OD1  | 1:EF:1:MET:HG2    | 1.96                     | 0.65              |
| 1:BK:103:THR:HG21 | 1:DW:15:ARG:NH1   | 2.11                     | 0.65              |
| 1:DF:15:ARG:NH1   | 1:GR:103:THR:HG21 | 2.12                     | 0.65              |
| 1:AZ:15:ARG:NH1   | 1:EW:103:THR:HG21 | 2.11                     | 0.65              |
| 1:BU:65:PRO:HB3   | 1:BU:79:LYS:HG2   | 1.78                     | 0.65              |
| 1:FY:65:PRO:HB3   | 1:FY:79:LYS:HG2   | 1.78                     | 0.65              |
| 1:CA:65:PRO:HB3   | 1:CA:79:LYS:HG2   | 1.78                     | 0.65              |
| 1:CM:105:ILE:HG23 | 1:DG:105:ILE:HG23 | 1.79                     | 0.65              |
| 1:BM:15:ARG:HH11  | 1:EY:103:THR:HG21 | 1.61                     | 0.65              |
| 1:AB:124:TYR:C    | 1:FZ:2:ARG:HH12   | 1.99                     | 0.65              |
| 1:AJ:103:THR:HG22 | 1:BX:10:VAL:HG21  | 1.78                     | 0.65              |
| 1:BL:65:PRO:HB3   | 1:BL:79:LYS:HG2   | 1.78                     | 0.65              |
| 1:DV:15:ARG:NH1   | 1:GE:103:THR:HG21 | 2.09                     | 0.65              |
| 1:DB:62:LEU:HD21  | 1:GJ:103:THR:OG1  | 1.97                     | 0.65              |
| 1:CC:103:THR:HG22 | 1:GK:10:VAL:HG21  | 1.78                     | 0.65              |
| 1:GT:65:PRO:HB3   | 1:GT:79:LYS:HG2   | 1.78                     | 0.65              |
| 1:AM:10:VAL:HG21  | 1:CA:103:THR:HG22 | 1.78                     | 0.65              |
| 1:CY:103:THR:HG21 | 1:GG:15:ARG:NH1   | 2.08                     | 0.65              |
| 1:DC:10:VAL:HG21  | 1:GO:103:THR:HG22 | 1.77                     | 0.65              |
| 1:DT:65:PRO:HB3   | 1:DT:79:LYS:HG2   | 1.78                     | 0.65              |
| 1:BY:10:VAL:HG21  | 1:FK:103:THR:HG22 | 1.78                     | 0.65              |
| 1:CE:15:ARG:HH11  | 1:FQ:103:THR:HG21 | 1.61                     | 0.65              |
| 1:AZ:65:PRO:HB3   | 1:AZ:79:LYS:HG2   | 1.78                     | 0.65              |
| 1:CN:15:ARG:HH11  | 1:FZ:103:THR:HG21 | 1.61                     | 0.65              |
| 1:AF:15:ARG:HH11  | 1:DR:103:THR:HG21 | 1.62                     | 0.65              |
| 1:BZ:96:HIS:CG    | 1:DT:66:VAL:HG21  | 2.32                     | 0.65              |
| 1:FJ:65:PRO:HB3   | 1:FJ:79:LYS:HG2   | 1.78                     | 0.65              |
| 1:DC:107:TRP:CE2  | 1:GO:8:LEU:HD11   | 2.31                     | 0.65              |
| 1:BP:2:ARG:HH12   | 1:DZ:124:TYR:C    | 2.01                     | 0.65              |
| 1:EH:10:VAL:HG21  | 1:EO:103:THR:HG22 | 1.79                     | 0.65              |
| 1:CV:66:VAL:HG21  | 1:GM:96:HIS:CG    | 2.32                     | 0.65              |
| 1:BB:10:VAL:HG21  | 1:BR:103:THR:HG22 | 1.77                     | 0.65              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:BK:58:VAL:HG11  | 1:DW:117:VAL:HG22 | 1.79                     | 0.65              |
| 1:AC:15:ARG:NH1   | 1:DO:103:THR:HG21 | 2.12                     | 0.64              |
| 1:CP:65:PRO:HB3   | 1:CP:79:LYS:HG2   | 1.78                     | 0.64              |
| 1:EL:65:PRO:HB3   | 1:EL:79:LYS:HG2   | 1.78                     | 0.64              |
| 1:AN:65:PRO:HB3   | 1:AN:79:LYS:HG2   | 1.78                     | 0.64              |
| 1:AV:10:VAL:HG21  | 1:EF:103:THR:HG22 | 1.78                     | 0.64              |
| 1:AZ:103:THR:HG21 | 1:EW:15:ARG:NH1   | 2.09                     | 0.64              |
| 1:BZ:99:LYS:HE2   | 1:DT:15:ARG:HH11  | 1.61                     | 0.64              |
| 1:AN:22:GLN:HB3   | 1:CA:124:TYR:HB2  | 1.78                     | 0.64              |
| 1:DH:65:PRO:HB3   | 1:DH:79:LYS:HG2   | 1.78                     | 0.64              |
| 1:ER:65:PRO:HB3   | 1:ER:79:LYS:HG2   | 1.78                     | 0.64              |
| 1:AF:20:SER:O     | 1:GA:122:ASN:HB2  | 1.97                     | 0.64              |
| 1:AT:10:VAL:HG21  | 1:EZ:103:THR:HG22 | 1.78                     | 0.64              |
| 1:AC:2:ARG:NH1    | 1:BI:124:TYR:OXT  | 2.30                     | 0.64              |
| 1:DE:65:PRO:HB3   | 1:DE:79:LYS:HG2   | 1.78                     | 0.64              |
| 1:FG:65:PRO:HB3   | 1:FG:79:LYS:HG2   | 1.78                     | 0.64              |
| 1:BR:65:PRO:HB3   | 1:BR:79:LYS:HG2   | 1.78                     | 0.64              |
| 1:CS:103:THR:HG22 | 1:DD:10:VAL:HG21  | 1.79                     | 0.64              |
| 1:DW:65:PRO:HB3   | 1:DW:79:LYS:HG2   | 1.78                     | 0.64              |
| 1:CD:15:ARG:NH1   | 1:CR:103:THR:HG21 | 2.11                     | 0.64              |
| 1:AE:111:GLN:HB2  | 1:GA:1:MET:SD     | 2.36                     | 0.64              |
| 1:CV:15:ARG:HH11  | 1:GM:99:LYS:HE2   | 1.61                     | 0.64              |
| 1:AI:2:ARG:NH1    | 1:BF:124:TYR:OXT  | 2.31                     | 0.64              |
| 1:GQ:65:PRO:HB3   | 1:GQ:79:LYS:HG2   | 1.78                     | 0.64              |
| 1:CD:105:ILE:HG23 | 1:CR:105:ILE:HG23 | 1.79                     | 0.64              |
| 1:CJ:65:PRO:HB3   | 1:CJ:79:LYS:HG2   | 1.78                     | 0.64              |
| 1:CY:65:PRO:HB3   | 1:CY:79:LYS:HG2   | 1.78                     | 0.64              |
| 1:DB:65:PRO:HB3   | 1:DB:79:LYS:HG2   | 1.78                     | 0.64              |
| 1:FA:65:PRO:HB3   | 1:FA:79:LYS:HG2   | 1.78                     | 0.64              |
| 1:FD:65:PRO:HB3   | 1:FD:79:LYS:HG2   | 1.78                     | 0.64              |
| 1:CF:15:ARG:NH1   | 1:GN:103:THR:HG21 | 2.10                     | 0.64              |
| 1:AX:2:ARG:HH12   | 1:EF:124:TYR:C    | 2.00                     | 0.64              |
| 1:BC:65:PRO:HB3   | 1:BC:79:LYS:HG2   | 1.78                     | 0.64              |
| 1:AC:15:ARG:HH11  | 1:DO:103:THR:HG21 | 1.63                     | 0.64              |
| 1:GB:65:PRO:HB3   | 1:GB:79:LYS:HG2   | 1.78                     | 0.64              |
| 1:BZ:122:ASN:HB2  | 1:DU:20:SER:O     | 1.98                     | 0.64              |
| 1:CD:8:LEU:HD11   | 1:CR:107:TRP:CE2  | 2.33                     | 0.64              |
| 1:BS:15:ARG:HH11  | 1:FE:103:THR:HG21 | 1.61                     | 0.64              |
| 1:DV:106:ALA:HB1  | 1:GE:8:LEU:HD22   | 1.78                     | 0.64              |
| 1:CY:15:ARG:NH1   | 1:GG:103:THR:HG21 | 2.13                     | 0.63              |
| 1:AH:67:VAL:HG22  | 1:AH:77:THR:HG22  | 1.81                     | 0.63              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:BC:67:VAL:HG22  | 1:BC:77:THR:HG22  | 1.81                     | 0.63              |
| 1:DW:67:VAL:HG22  | 1:DW:77:THR:HG22  | 1.81                     | 0.63              |
| 1:CW:103:THR:HG21 | 1:GI:15:ARG:HH11  | 1.62                     | 0.63              |
| 1:AB:67:VAL:HG22  | 1:AB:77:THR:HG22  | 1.81                     | 0.63              |
| 1:AK:124:TYR:C    | 1:FQ:2:ARG:HH12   | 2.01                     | 0.63              |
| 1:BI:67:VAL:HG22  | 1:BI:77:THR:HG22  | 1.81                     | 0.63              |
| 1:BU:67:VAL:HG22  | 1:BU:77:THR:HG22  | 1.81                     | 0.63              |
| 1:CS:67:VAL:HG22  | 1:CS:77:THR:HG22  | 1.81                     | 0.63              |
| 1:FA:67:VAL:HG22  | 1:FA:77:THR:HG22  | 1.81                     | 0.63              |
| 1:GN:65:PRO:HB3   | 1:GN:79:LYS:HG2   | 1.78                     | 0.63              |
| 1:AN:67:VAL:HG22  | 1:AN:77:THR:HG22  | 1.81                     | 0.63              |
| 1:AZ:67:VAL:HG22  | 1:AZ:77:THR:HG22  | 1.81                     | 0.63              |
| 1:BH:20:SER:HA    | 1:EV:121:LEU:HD22 | 1.80                     | 0.63              |
| 1:CV:103:THR:HG22 | 1:GM:10:VAL:HG21  | 1.81                     | 0.63              |
| 1:DH:67:VAL:HG22  | 1:DH:77:THR:HG22  | 1.81                     | 0.63              |
| 1:FM:67:VAL:HG22  | 1:FM:77:THR:HG22  | 1.81                     | 0.63              |
| 1:DY:10:VAL:HG21  | 1:FY:103:THR:HG22 | 1.79                     | 0.63              |
| 1:DP:3:LEU:HG     | 1:GW:123:ASN:HB3  | 1.79                     | 0.63              |
| 1:BH:124:TYR:OXT  | 1:BO:22:GLN:NE2   | 2.30                     | 0.63              |
| 1:BS:15:ARG:NH1   | 1:FE:103:THR:HG21 | 2.13                     | 0.63              |
| 1:CD:1:MET:HG2    | 1:CR:123:ASN:OD1  | 1.99                     | 0.63              |
| 1:DQ:67:VAL:HG22  | 1:DQ:77:THR:HG22  | 1.81                     | 0.63              |
| 1:EK:15:ARG:NH1   | 1:ER:103:THR:HG21 | 2.13                     | 0.63              |
| 1:FD:67:VAL:HG22  | 1:FD:77:THR:HG22  | 1.81                     | 0.63              |
| 1:FY:67:VAL:HG22  | 1:FY:77:THR:HG22  | 1.81                     | 0.63              |
| 1:DV:10:VAL:HG21  | 1:GE:103:THR:HG22 | 1.79                     | 0.63              |
| 1:GQ:67:VAL:HG22  | 1:GQ:77:THR:HG22  | 1.81                     | 0.63              |
| 1:AS:89:PRO:HG2   | 1:AS:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:BK:89:PRO:HG2   | 1:BK:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:BZ:89:PRO:HG2   | 1:BZ:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:AM:106:ALA:HB1  | 1:CA:8:LEU:HD22   | 1.81                     | 0.63              |
| 1:DM:89:PRO:HG2   | 1:DM:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:DN:67:VAL:HG22  | 1:DN:77:THR:HG22  | 1.81                     | 0.63              |
| 1:FJ:67:VAL:HG22  | 1:FJ:77:THR:HG22  | 1.81                     | 0.63              |
| 1:AA:89:PRO:HG2   | 1:AA:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:AM:122:ASN:HB2  | 1:CB:20:SER:O     | 1.98                     | 0.63              |
| 1:BO:67:VAL:HG22  | 1:BO:77:THR:HG22  | 1.81                     | 0.63              |
| 1:BY:15:ARG:NH1   | 1:FK:103:THR:HG21 | 2.14                     | 0.63              |
| 1:CC:89:PRO:HG2   | 1:CC:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:CH:89:PRO:HG2   | 1:CH:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:CK:10:VAL:HG21  | 1:FW:103:THR:HG22 | 1.81                     | 0.63              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:CP:67:VAL:HG22  | 1:CP:77:THR:HG22  | 1.81                     | 0.63              |
| 1:CQ:89:PRO:HG2   | 1:CQ:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:DB:122:ASN:HB2  | 1:GK:20:SER:O     | 1.99                     | 0.63              |
| 1:DD:89:PRO:HG2   | 1:DD:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:EC:67:VAL:HG22  | 1:EC:77:THR:HG22  | 1.81                     | 0.63              |
| 1:EH:89:PRO:HG2   | 1:EH:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:EY:89:PRO:HG2   | 1:EY:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:GE:67:VAL:HG22  | 1:GE:77:THR:HG22  | 1.81                     | 0.63              |
| 1:AC:103:THR:HG21 | 1:DO:15:ARG:NH1   | 2.14                     | 0.63              |
| 1:AK:67:VAL:HG22  | 1:AK:77:THR:HG22  | 1.81                     | 0.63              |
| 1:AQ:124:TYR:OXT  | 1:FW:2:ARG:NH1    | 2.32                     | 0.63              |
| 1:AV:89:PRO:HG2   | 1:AV:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:AW:10:VAL:HG21  | 1:FC:103:THR:HG22 | 1.79                     | 0.63              |
| 1:BD:89:PRO:HG2   | 1:BD:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:BX:67:VAL:HG22  | 1:BX:77:THR:HG22  | 1.81                     | 0.63              |
| 1:CU:89:PRO:HG2   | 1:CU:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:FB:89:PRO:HG2   | 1:FB:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:FH:89:PRO:HG2   | 1:FH:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:FI:89:PRO:HG2   | 1:FI:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:FK:89:PRO:HG2   | 1:FK:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:FT:89:PRO:HG2   | 1:FT:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:GM:89:PRO:HG2   | 1:GM:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:DS:103:THR:HG21 | 1:GQ:15:ARG:NH1   | 2.14                     | 0.63              |
| 1:GR:89:PRO:HG2   | 1:GR:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:GS:89:PRO:HG2   | 1:GS:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:GT:67:VAL:HG22  | 1:GT:77:THR:HG22  | 1.81                     | 0.63              |
| 1:AD:89:PRO:HG2   | 1:AD:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:AF:89:PRO:HG2   | 1:AF:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:AO:89:PRO:HG2   | 1:AO:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:BH:89:PRO:HG2   | 1:BH:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:BS:89:PRO:HG2   | 1:BS:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:CF:89:PRO:HG2   | 1:CF:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:CI:89:PRO:HG2   | 1:CI:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:CJ:67:VAL:HG22  | 1:CJ:77:THR:HG22  | 1.81                     | 0.63              |
| 1:CP:124:TYR:C    | 1:DL:2:ARG:HH12   | 2.02                     | 0.63              |
| 1:EN:96:HIS:CG    | 1:FJ:66:VAL:HG21  | 2.33                     | 0.63              |
| 1:GA:89:PRO:HG2   | 1:GA:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:GG:89:PRO:HG2   | 1:GG:92:TYR:HB2   | 1.81                     | 0.63              |
| 1:GN:67:VAL:HG22  | 1:GN:77:THR:HG22  | 1.81                     | 0.63              |
| 1:DF:103:THR:HG21 | 1:GR:15:ARG:HH11  | 1.62                     | 0.63              |
| 1:AR:89:PRO:HG2   | 1:AR:92:TYR:HB2   | 1.81                     | 0.62              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:AX:89:PRO:HG2   | 1:AX:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:CG:67:VAL:HG22  | 1:CG:77:THR:HG22  | 1.81                     | 0.62              |
| 1:CY:67:VAL:HG22  | 1:CY:77:THR:HG22  | 1.81                     | 0.62              |
| 1:DF:89:PRO:HG2   | 1:DF:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:DK:67:VAL:HG22  | 1:DK:77:THR:HG22  | 1.81                     | 0.62              |
| 1:FF:89:PRO:HG2   | 1:FF:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:FS:67:VAL:HG22  | 1:FS:77:THR:HG22  | 1.81                     | 0.62              |
| 1:DV:103:THR:OG1  | 1:GE:62:LEU:HD21  | 1.99                     | 0.62              |
| 1:CT:91:THR:HG22  | 1:GF:68:VAL:HG11  | 1.81                     | 0.62              |
| 1:GI:89:PRO:HG2   | 1:GI:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:DS:3:LEU:HG     | 1:GQ:123:ASN:HB3  | 1.81                     | 0.62              |
| 1:DL:103:THR:HG21 | 1:GX:15:ARG:HH11  | 1.64                     | 0.62              |
| 1:AT:67:VAL:HG22  | 1:AT:77:THR:HG22  | 1.81                     | 0.62              |
| 1:BZ:10:VAL:HG21  | 1:DT:103:THR:HG22 | 1.81                     | 0.62              |
| 1:CA:67:VAL:HG22  | 1:CA:77:THR:HG22  | 1.81                     | 0.62              |
| 1:CD:67:VAL:HG22  | 1:CD:77:THR:HG22  | 1.81                     | 0.62              |
| 1:DC:89:PRO:HG2   | 1:DC:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:EG:89:PRO:HG2   | 1:EG:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:EO:67:VAL:HG22  | 1:EO:77:THR:HG22  | 1.81                     | 0.62              |
| 1:FU:89:PRO:HG2   | 1:FU:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:CQ:103:THR:HG21 | 1:GC:15:ARG:HH11  | 1.63                     | 0.62              |
| 1:AU:89:PRO:HG2   | 1:AU:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:CJ:103:THR:HG21 | 1:CO:15:ARG:NH1   | 2.12                     | 0.62              |
| 1:EB:89:PRO:HG2   | 1:EB:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:EH:103:THR:OG1  | 1:EO:62:LEU:HD21  | 1.99                     | 0.62              |
| 1:EX:67:VAL:HG22  | 1:EX:77:THR:HG22  | 1.81                     | 0.62              |
| 1:GH:67:VAL:HG22  | 1:GH:77:THR:HG22  | 1.81                     | 0.62              |
| 1:GL:89:PRO:HG2   | 1:GL:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:GW:67:VAL:HG22  | 1:GW:77:THR:HG22  | 1.81                     | 0.62              |
| 1:BF:67:VAL:HG22  | 1:BF:77:THR:HG22  | 1.81                     | 0.62              |
| 1:BR:67:VAL:HG22  | 1:BR:77:THR:HG22  | 1.81                     | 0.62              |
| 1:CE:89:PRO:HG2   | 1:CE:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:CK:89:PRO:HG2   | 1:CK:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:CX:89:PRO:HG2   | 1:CX:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:DL:89:PRO:HG2   | 1:DL:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:AC:91:THR:HG22  | 1:DO:68:VAL:HG11  | 1.81                     | 0.62              |
| 1:EE:89:PRO:HG2   | 1:EE:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:GX:89:PRO:HG2   | 1:GX:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:AE:67:VAL:HG22  | 1:AE:77:THR:HG22  | 1.81                     | 0.62              |
| 1:BB:105:ILE:HG23 | 1:BR:105:ILE:HG23 | 1.82                     | 0.62              |
| 1:DA:89:PRO:HG2   | 1:DA:92:TYR:HB2   | 1.81                     | 0.62              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:DM:103:THR:OG1  | 1:GT:62:LEU:HD21  | 1.99                     | 0.62              |
| 1:EI:67:VAL:HG22  | 1:EI:77:THR:HG22  | 1.81                     | 0.62              |
| 1:EM:89:PRO:HG2   | 1:EM:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:ET:89:PRO:HG2   | 1:ET:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:FG:67:VAL:HG22  | 1:FG:77:THR:HG22  | 1.81                     | 0.62              |
| 1:FN:89:PRO:HG2   | 1:FN:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:FX:89:PRO:HG2   | 1:FX:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:AE:103:THR:HG22 | 1:GA:10:VAL:HG21  | 1.80                     | 0.62              |
| 1:AJ:89:PRO:HG2   | 1:AJ:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:BA:89:PRO:HG2   | 1:BA:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:BG:2:ARG:NH1    | 1:BL:124:TYR:OXT  | 2.32                     | 0.62              |
| 1:BK:1:MET:SD     | 1:DW:111:GLN:HB2  | 2.39                     | 0.62              |
| 1:BN:89:PRO:HG2   | 1:BN:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:BT:99:LYS:HE2   | 1:DN:15:ARG:HH11  | 1.64                     | 0.62              |
| 1:CT:89:PRO:HG2   | 1:CT:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:CW:89:PRO:HG2   | 1:CW:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:DU:89:PRO:HG2   | 1:DU:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:EP:89:PRO:HG2   | 1:EP:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:EU:67:VAL:HG22  | 1:EU:77:THR:HG22  | 1.81                     | 0.62              |
| 1:FP:67:VAL:HG22  | 1:FP:77:THR:HG22  | 1.81                     | 0.62              |
| 1:AL:89:PRO:HG2   | 1:AL:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:AM:89:PRO:HG2   | 1:AM:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:AP:58:VAL:HG11  | 1:BU:117:VAL:HG22 | 1.81                     | 0.62              |
| 1:AY:89:PRO:HG2   | 1:AY:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:CK:15:ARG:NH1   | 1:FW:103:THR:HG21 | 2.14                     | 0.62              |
| 1:CX:103:THR:HG22 | 1:DK:10:VAL:HG21  | 1.82                     | 0.62              |
| 1:DS:89:PRO:HG2   | 1:DS:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:DY:89:PRO:HG2   | 1:DY:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:DV:1:MET:SD     | 1:GE:111:GLN:HB2  | 2.40                     | 0.62              |
| 1:AO:19:VAL:O     | 1:FR:121:LEU:HD11 | 1.99                     | 0.62              |
| 1:BK:102:GLN:HB2  | 1:DW:10:VAL:HG13  | 1.80                     | 0.62              |
| 1:CM:28:ARG:HG2   | 1:CM:44:SER:HB3   | 1.82                     | 0.62              |
| 1:DP:89:PRO:HG2   | 1:DP:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:DR:89:PRO:HG2   | 1:DR:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:EA:89:PRO:HG2   | 1:EA:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:EK:10:VAL:HG21  | 1:ER:103:THR:HG22 | 1.82                     | 0.62              |
| 1:EK:89:PRO:HG2   | 1:EK:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:EQ:89:PRO:HG2   | 1:EQ:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:EZ:89:PRO:HG2   | 1:EZ:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:FZ:89:PRO:HG2   | 1:FZ:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:GF:89:PRO:HG2   | 1:GF:92:TYR:HB2   | 1.81                     | 0.62              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:BM:10:VAL:HG21  | 1:EY:103:THR:HG22 | 1.80                     | 0.62              |
| 1:BM:89:PRO:HG2   | 1:BM:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:BV:89:PRO:HG2   | 1:BV:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:BY:89:PRO:HG2   | 1:BY:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:DH:28:ARG:HG2   | 1:DH:44:SER:HB3   | 1.82                     | 0.62              |
| 1:EF:67:VAL:HG22  | 1:EF:77:THR:HG22  | 1.81                     | 0.62              |
| 1:EL:28:ARG:HG2   | 1:EL:44:SER:HB3   | 1.82                     | 0.62              |
| 1:EH:103:THR:HG21 | 1:EO:15:ARG:NH1   | 2.14                     | 0.62              |
| 1:FC:89:PRO:HG2   | 1:FC:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:FR:89:PRO:HG2   | 1:FR:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:FS:28:ARG:HG2   | 1:FS:44:SER:HB3   | 1.82                     | 0.62              |
| 1:FV:28:ARG:HG2   | 1:FV:44:SER:HB3   | 1.82                     | 0.62              |
| 1:FV:67:VAL:HG22  | 1:FV:77:THR:HG22  | 1.81                     | 0.62              |
| 1:CK:2:ARG:NH1    | 1:GH:124:TYR:OXT  | 2.33                     | 0.62              |
| 1:DC:91:THR:HG22  | 1:GO:68:VAL:HG11  | 1.81                     | 0.62              |
| 1:DF:103:THR:HG22 | 1:GR:10:VAL:HG21  | 1.81                     | 0.62              |
| 1:AH:28:ARG:HG2   | 1:AH:44:SER:HB3   | 1.82                     | 0.62              |
| 1:AN:117:VAL:HG22 | 1:FR:58:VAL:HG11  | 1.82                     | 0.62              |
| 1:AZ:28:ARG:HG2   | 1:AZ:44:SER:HB3   | 1.82                     | 0.62              |
| 1:BR:28:ARG:HG2   | 1:BR:44:SER:HB3   | 1.82                     | 0.62              |
| 1:BU:28:ARG:HG2   | 1:BU:44:SER:HB3   | 1.82                     | 0.62              |
| 1:CD:28:ARG:HG2   | 1:CD:44:SER:HB3   | 1.82                     | 0.62              |
| 1:CY:28:ARG:HG2   | 1:CY:44:SER:HB3   | 1.82                     | 0.62              |
| 1:DN:28:ARG:HG2   | 1:DN:44:SER:HB3   | 1.82                     | 0.62              |
| 1:DT:28:ARG:HG2   | 1:DT:44:SER:HB3   | 1.82                     | 0.62              |
| 1:EO:28:ARG:HG2   | 1:EO:44:SER:HB3   | 1.82                     | 0.62              |
| 1:FG:28:ARG:HG2   | 1:FG:44:SER:HB3   | 1.82                     | 0.62              |
| 1:GV:89:PRO:HG2   | 1:GV:92:TYR:HB2   | 1.81                     | 0.62              |
| 1:DL:103:THR:HG21 | 1:GX:15:ARG:NH1   | 2.13                     | 0.62              |
| 1:AG:89:PRO:HG2   | 1:AG:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:AI:89:PRO:HG2   | 1:AI:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:CM:67:VAL:HG22  | 1:CM:77:THR:HG22  | 1.81                     | 0.61              |
| 1:DK:28:ARG:HG2   | 1:DK:44:SER:HB3   | 1.82                     | 0.61              |
| 1:EF:28:ARG:HG2   | 1:EF:44:SER:HB3   | 1.82                     | 0.61              |
| 1:EJ:89:PRO:HG2   | 1:EJ:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:EX:28:ARG:HG2   | 1:EX:44:SER:HB3   | 1.82                     | 0.61              |
| 1:GB:28:ARG:HG2   | 1:GB:44:SER:HB3   | 1.82                     | 0.61              |
| 1:GB:67:VAL:HG22  | 1:GB:77:THR:HG22  | 1.81                     | 0.61              |
| 1:GD:67:VAL:HG22  | 1:GD:77:THR:HG22  | 1.82                     | 0.61              |
| 1:AQ:67:VAL:HG22  | 1:AQ:77:THR:HG22  | 1.81                     | 0.61              |
| 1:AW:67:VAL:HG22  | 1:AW:77:THR:HG22  | 1.81                     | 0.61              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:BN:67:VAL:HG22  | 1:BN:77:THR:HG22  | 1.83                     | 0.61              |
| 1:BW:67:VAL:HG22  | 1:BW:77:THR:HG22  | 1.82                     | 0.61              |
| 1:CF:67:VAL:HG22  | 1:CF:77:THR:HG22  | 1.82                     | 0.61              |
| 1:CI:67:VAL:HG22  | 1:CI:77:THR:HG22  | 1.82                     | 0.61              |
| 1:DB:67:VAL:HG22  | 1:DB:77:THR:HG22  | 1.81                     | 0.61              |
| 1:DS:67:VAL:HG22  | 1:DS:77:THR:HG22  | 1.82                     | 0.61              |
| 1:DY:67:VAL:HG22  | 1:DY:77:THR:HG22  | 1.82                     | 0.61              |
| 1:DZ:67:VAL:HG22  | 1:DZ:77:THR:HG22  | 1.81                     | 0.61              |
| 1:AY:58:VAL:HG11  | 1:EI:117:VAL:HG22 | 1.81                     | 0.61              |
| 1:AN:22:GLN:HE21  | 1:FR:124:TYR:HA   | 1.63                     | 0.61              |
| 1:GG:67:VAL:HG22  | 1:GG:77:THR:HG22  | 1.83                     | 0.61              |
| 1:GN:28:ARG:HG2   | 1:GN:44:SER:HB3   | 1.82                     | 0.61              |
| 1:AG:20:SER:HB3   | 1:AG:30:VAL:HG23  | 1.82                     | 0.61              |
| 1:AV:67:VAL:HG22  | 1:AV:77:THR:HG22  | 1.83                     | 0.61              |
| 1:AY:20:SER:HB3   | 1:AY:30:VAL:HG23  | 1.82                     | 0.61              |
| 1:CC:67:VAL:HG22  | 1:CC:77:THR:HG22  | 1.82                     | 0.61              |
| 1:CL:20:SER:HB3   | 1:CL:30:VAL:HG23  | 1.83                     | 0.61              |
| 1:CV:67:VAL:HG22  | 1:CV:77:THR:HG22  | 1.81                     | 0.61              |
| 1:DB:15:ARG:HH11  | 1:GJ:99:LYS:HE2   | 1.65                     | 0.61              |
| 1:FO:89:PRO:HG2   | 1:FO:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:FU:67:VAL:HG22  | 1:FU:77:THR:HG22  | 1.82                     | 0.61              |
| 1:AE:22:GLN:HE21  | 1:GA:124:TYR:C    | 2.02                     | 0.61              |
| 1:GU:89:PRO:HG2   | 1:GU:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:AD:28:ARG:HG2   | 1:AD:44:SER:HB3   | 1.83                     | 0.61              |
| 1:AS:20:SER:HB3   | 1:AS:30:VAL:HG23  | 1.83                     | 0.61              |
| 1:BE:20:SER:HB3   | 1:BE:30:VAL:HG23  | 1.83                     | 0.61              |
| 1:BE:89:PRO:HG2   | 1:BE:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:BK:20:SER:HB3   | 1:BK:30:VAL:HG23  | 1.83                     | 0.61              |
| 1:BW:20:SER:HB3   | 1:BW:30:VAL:HG23  | 1.83                     | 0.61              |
| 1:CJ:15:ARG:NH1   | 1:CO:103:THR:HG21 | 2.15                     | 0.61              |
| 1:CP:103:THR:HG21 | 1:DJ:15:ARG:NH1   | 2.14                     | 0.61              |
| 1:EE:20:SER:HB3   | 1:EE:30:VAL:HG23  | 1.83                     | 0.61              |
| 1:ER:67:VAL:HG22  | 1:ER:77:THR:HG22  | 1.81                     | 0.61              |
| 1:EW:67:VAL:HG22  | 1:EW:77:THR:HG22  | 1.83                     | 0.61              |
| 1:FL:89:PRO:HG2   | 1:FL:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:GJ:20:SER:HB3   | 1:GJ:30:VAL:HG23  | 1.83                     | 0.61              |
| 1:AJ:28:ARG:HG2   | 1:AJ:44:SER:HB3   | 1.83                     | 0.61              |
| 1:BK:67:VAL:HG22  | 1:BK:77:THR:HG22  | 1.83                     | 0.61              |
| 1:BQ:89:PRO:HG2   | 1:BQ:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:CH:98:THR:HG22  | 1:FT:118:ASP:CG   | 2.20                     | 0.61              |
| 1:CI:20:SER:HB3   | 1:CI:30:VAL:HG23  | 1.83                     | 0.61              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:CR:67:VAL:HG22  | 1:CR:77:THR:HG22  | 1.83                     | 0.61              |
| 1:CZ:89:PRO:HG2   | 1:CZ:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:DO:89:PRO:HG2   | 1:DO:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:DV:89:PRO:HG2   | 1:DV:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:EK:67:VAL:HG22  | 1:EK:77:THR:HG22  | 1.83                     | 0.61              |
| 1:EL:67:VAL:HG22  | 1:EL:77:THR:HG22  | 1.81                     | 0.61              |
| 1:EN:89:PRO:HG2   | 1:EN:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:AW:103:THR:HG22 | 1:FC:10:VAL:HG21  | 1.83                     | 0.61              |
| 1:FC:20:SER:HB3   | 1:FC:30:VAL:HG23  | 1.82                     | 0.61              |
| 1:FE:89:PRO:HG2   | 1:FE:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:FF:67:VAL:HG22  | 1:FF:77:THR:HG22  | 1.82                     | 0.61              |
| 1:FQ:89:PRO:HG2   | 1:FQ:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:GK:67:VAL:HG22  | 1:GK:77:THR:HG22  | 1.81                     | 0.61              |
| 1:GP:89:PRO:HG2   | 1:GP:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:BG:89:PRO:HG2   | 1:BG:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:BL:67:VAL:HG22  | 1:BL:77:THR:HG22  | 1.81                     | 0.61              |
| 1:BT:89:PRO:HG2   | 1:BT:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:CL:89:PRO:HG2   | 1:CL:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:CN:89:PRO:HG2   | 1:CN:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:CX:20:SER:HB3   | 1:CX:30:VAL:HG23  | 1.83                     | 0.61              |
| 1:DA:28:ARG:HG2   | 1:DA:44:SER:HB3   | 1.83                     | 0.61              |
| 1:DG:20:SER:HB3   | 1:DG:30:VAL:HG23  | 1.83                     | 0.61              |
| 1:DJ:89:PRO:HG2   | 1:DJ:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:DV:116:PRO:O    | 1:GE:56:ARG:NH1   | 2.33                     | 0.61              |
| 1:DW:28:ARG:HG2   | 1:DW:44:SER:HB3   | 1.82                     | 0.61              |
| 1:EH:122:ASN:HB2  | 1:EP:20:SER:O     | 1.99                     | 0.61              |
| 1:EH:67:VAL:HG22  | 1:EH:77:THR:HG22  | 1.83                     | 0.61              |
| 1:BD:68:VAL:HG11  | 1:EP:91:THR:HG22  | 1.81                     | 0.61              |
| 1:EQ:28:ARG:HG2   | 1:EQ:44:SER:HB3   | 1.83                     | 0.61              |
| 1:EW:20:SER:HB3   | 1:EW:30:VAL:HG23  | 1.82                     | 0.61              |
| 1:FI:67:VAL:HG22  | 1:FI:77:THR:HG22  | 1.83                     | 0.61              |
| 1:EN:15:ARG:NH1   | 1:FJ:103:THR:HG21 | 2.14                     | 0.61              |
| 1:CB:68:VAL:HG11  | 1:FN:91:THR:CG2   | 2.30                     | 0.61              |
| 1:FW:89:PRO:HG2   | 1:FW:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:GG:20:SER:HB3   | 1:GG:30:VAL:HG23  | 1.83                     | 0.61              |
| 1:GK:28:ARG:HG2   | 1:GK:44:SER:HB3   | 1.82                     | 0.61              |
| 1:CF:103:THR:HG22 | 1:GN:10:VAL:HG21  | 1.82                     | 0.61              |
| 1:GO:89:PRO:HG2   | 1:GO:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:GP:20:SER:HB3   | 1:GP:30:VAL:HG23  | 1.82                     | 0.61              |
| 1:AR:118:ASP:CG   | 1:ED:98:THR:HG22  | 2.21                     | 0.61              |
| 1:AS:67:VAL:HG22  | 1:AS:77:THR:HG22  | 1.83                     | 0.61              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:AT:28:ARG:HG2   | 1:AT:44:SER:HB3   | 1.82                     | 0.61              |
| 1:AV:28:ARG:HG2   | 1:AV:44:SER:HB3   | 1.83                     | 0.61              |
| 1:AY:99:LYS:HE2   | 1:EI:15:ARG:HD3   | 1.82                     | 0.61              |
| 1:BB:28:ARG:HG2   | 1:BB:44:SER:HB3   | 1.83                     | 0.61              |
| 1:BW:89:PRO:HG2   | 1:BW:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:CA:28:ARG:HG2   | 1:CA:44:SER:HB3   | 1.82                     | 0.61              |
| 1:CF:20:SER:HB3   | 1:CF:30:VAL:HG23  | 1.82                     | 0.61              |
| 1:CN:1:MET:HE2    | 1:CN:3:LEU:HA     | 1.83                     | 0.61              |
| 1:DA:20:SER:HB3   | 1:DA:30:VAL:HG23  | 1.82                     | 0.61              |
| 1:DG:89:PRO:HG2   | 1:DG:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:DI:89:PRO:HG2   | 1:DI:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:DX:89:PRO:HG2   | 1:DX:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:EB:20:SER:HB3   | 1:EB:30:VAL:HG23  | 1.82                     | 0.61              |
| 1:ET:67:VAL:HG22  | 1:ET:77:THR:HG22  | 1.83                     | 0.61              |
| 1:EV:89:PRO:HG2   | 1:EV:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:FS:124:TYR:OXT  | 1:GR:2:ARG:NH1    | 2.34                     | 0.61              |
| 1:AE:15:ARG:HD3   | 1:GA:99:LYS:HE2   | 1.82                     | 0.61              |
| 1:GM:28:ARG:HG2   | 1:GM:44:SER:HB3   | 1.83                     | 0.61              |
| 1:GP:67:VAL:HG22  | 1:GP:77:THR:HG22  | 1.82                     | 0.61              |
| 1:AE:28:ARG:HG2   | 1:AE:44:SER:HB3   | 1.82                     | 0.61              |
| 1:AY:102:GLN:HB2  | 1:EI:10:VAL:HG13  | 1.83                     | 0.61              |
| 1:BB:20:SER:HB3   | 1:BB:30:VAL:HG23  | 1.83                     | 0.61              |
| 1:BB:89:PRO:HG2   | 1:BB:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:BE:67:VAL:HG22  | 1:BE:77:THR:HG22  | 1.83                     | 0.61              |
| 1:BJ:89:PRO:HG2   | 1:BJ:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:BN:28:ARG:HG2   | 1:BN:44:SER:HB3   | 1.83                     | 0.61              |
| 1:BQ:28:ARG:HG2   | 1:BQ:44:SER:HB3   | 1.83                     | 0.61              |
| 1:BQ:20:SER:HB3   | 1:BQ:30:VAL:HG23  | 1.83                     | 0.61              |
| 1:BV:15:ARG:NH1   | 1:FH:103:THR:HG21 | 2.15                     | 0.61              |
| 1:DI:91:THR:HG22  | 1:GU:68:VAL:HG11  | 1.82                     | 0.61              |
| 1:DM:20:SER:HB3   | 1:DM:30:VAL:HG23  | 1.83                     | 0.61              |
| 1:DV:67:VAL:HG22  | 1:DV:77:THR:HG22  | 1.83                     | 0.61              |
| 1:EW:89:PRO:HG2   | 1:EW:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:EN:10:VAL:HG21  | 1:FJ:103:THR:HG22 | 1.83                     | 0.61              |
| 1:GD:89:PRO:HG2   | 1:GD:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:CI:103:THR:HG21 | 1:GH:15:ARG:NH1   | 2.15                     | 0.61              |
| 1:GS:20:SER:HB3   | 1:GS:30:VAL:HG23  | 1.82                     | 0.61              |
| 1:AA:67:VAL:HG22  | 1:AA:77:THR:HG22  | 1.83                     | 0.61              |
| 1:AD:20:SER:HB3   | 1:AD:30:VAL:HG23  | 1.82                     | 0.61              |
| 1:AJ:20:SER:HB3   | 1:AJ:30:VAL:HG23  | 1.83                     | 0.61              |
| 1:AP:28:ARG:HG2   | 1:AP:44:SER:HB3   | 1.83                     | 0.61              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:BB:67:VAL:HG22  | 1:BB:77:THR:HG22  | 1.82                     | 0.61              |
| 1:BE:3:LEU:HG     | 1:BL:123:ASN:HB3  | 1.81                     | 0.61              |
| 1:BE:28:ARG:HG2   | 1:BE:44:SER:HB3   | 1.83                     | 0.61              |
| 1:BG:10:VAL:HG21  | 1:ES:103:THR:HG22 | 1.83                     | 0.61              |
| 1:CG:28:ARG:HG2   | 1:CG:44:SER:HB3   | 1.82                     | 0.61              |
| 1:CO:28:ARG:HG2   | 1:CO:44:SER:HB3   | 1.83                     | 0.61              |
| 1:CP:28:ARG:HG2   | 1:CP:44:SER:HB3   | 1.82                     | 0.61              |
| 1:CR:89:PRO:HG2   | 1:CR:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:CU:67:VAL:HG22  | 1:CU:77:THR:HG22  | 1.83                     | 0.61              |
| 1:DD:20:SER:HB3   | 1:DD:30:VAL:HG23  | 1.83                     | 0.61              |
| 1:DP:20:SER:HB3   | 1:DP:30:VAL:HG23  | 1.82                     | 0.61              |
| 1:DT:67:VAL:HG22  | 1:DT:77:THR:HG22  | 1.81                     | 0.61              |
| 1:DY:20:SER:HB3   | 1:DY:30:VAL:HG23  | 1.82                     | 0.61              |
| 1:ED:89:PRO:HG2   | 1:ED:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:EK:28:ARG:HG2   | 1:EK:44:SER:HB3   | 1.83                     | 0.61              |
| 1:ES:89:PRO:HG2   | 1:ES:92:TYR:HB2   | 1.81                     | 0.61              |
| 1:FL:28:ARG:HG2   | 1:FL:44:SER:HB3   | 1.83                     | 0.61              |
| 1:DI:103:THR:HG21 | 1:GU:15:ARG:NH1   | 2.16                     | 0.61              |
| 1:AM:124:TYR:C    | 1:CA:22:GLN:HE21  | 2.04                     | 0.61              |
| 1:AP:67:VAL:HG22  | 1:AP:77:THR:HG22  | 1.83                     | 0.61              |
| 1:BW:28:ARG:HG2   | 1:BW:44:SER:HB3   | 1.83                     | 0.61              |
| 1:CC:28:ARG:HG2   | 1:CC:44:SER:HB3   | 1.83                     | 0.61              |
| 1:CX:67:VAL:HG22  | 1:CX:77:THR:HG22  | 1.83                     | 0.61              |
| 1:DA:67:VAL:HG22  | 1:DA:77:THR:HG22  | 1.83                     | 0.61              |
| 1:DD:28:ARG:HG2   | 1:DD:44:SER:HB3   | 1.83                     | 0.61              |
| 1:CM:103:THR:HG22 | 1:DG:10:VAL:HG21  | 1.83                     | 0.61              |
| 1:DG:67:VAL:HG22  | 1:DG:77:THR:HG22  | 1.83                     | 0.61              |
| 1:DJ:28:ARG:HG2   | 1:DJ:44:SER:HB3   | 1.83                     | 0.61              |
| 1:DP:28:ARG:HG2   | 1:DP:44:SER:HB3   | 1.83                     | 0.61              |
| 1:DS:28:ARG:HG2   | 1:DS:44:SER:HB3   | 1.83                     | 0.61              |
| 1:AL:103:THR:HG21 | 1:DX:15:ARG:NH1   | 2.15                     | 0.61              |
| 1:EH:20:SER:HB3   | 1:EH:30:VAL:HG23  | 1.83                     | 0.61              |
| 1:FA:28:ARG:HG2   | 1:FA:44:SER:HB3   | 1.82                     | 0.61              |
| 1:FC:67:VAL:HG22  | 1:FC:77:THR:HG22  | 1.83                     | 0.61              |
| 1:FR:20:SER:HB3   | 1:FR:30:VAL:HG23  | 1.82                     | 0.61              |
| 1:FV:124:TYR:OXT  | 1:GU:2:ARG:NH1    | 2.33                     | 0.61              |
| 1:AA:20:SER:HB3   | 1:AA:30:VAL:HG23  | 1.82                     | 0.60              |
| 1:AM:20:SER:HB3   | 1:AM:30:VAL:HG23  | 1.82                     | 0.60              |
| 1:AN:28:ARG:HG2   | 1:AN:44:SER:HB3   | 1.82                     | 0.60              |
| 1:AP:89:PRO:HG2   | 1:AP:92:TYR:HB2   | 1.81                     | 0.60              |
| 1:AY:28:ARG:HG2   | 1:AY:44:SER:HB3   | 1.83                     | 0.60              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:AY:67:VAL:HG22  | 1:AY:77:THR:HG22  | 1.82                     | 0.60              |
| 1:BM:15:ARG:NH1   | 1:EY:103:THR:HG21 | 2.14                     | 0.60              |
| 1:BV:1:MET:HE2    | 1:BV:3:LEU:HA     | 1.83                     | 0.60              |
| 1:BZ:99:LYS:HE2   | 1:DT:15:ARG:NH1   | 2.15                     | 0.60              |
| 1:CO:89:PRO:HG2   | 1:CO:92:TYR:HB2   | 1.81                     | 0.60              |
| 1:CU:20:SER:HB3   | 1:CU:30:VAL:HG23  | 1.83                     | 0.60              |
| 1:CX:28:ARG:HG2   | 1:CX:44:SER:HB3   | 1.83                     | 0.60              |
| 1:DE:67:VAL:HG22  | 1:DE:77:THR:HG22  | 1.81                     | 0.60              |
| 1:DP:67:VAL:HG22  | 1:DP:77:THR:HG22  | 1.82                     | 0.60              |
| 1:AI:68:VAL:HG11  | 1:DU:91:THR:HG22  | 1.82                     | 0.60              |
| 1:DV:28:ARG:HG2   | 1:DV:44:SER:HB3   | 1.83                     | 0.60              |
| 1:FF:20:SER:HB3   | 1:FF:30:VAL:HG23  | 1.83                     | 0.60              |
| 1:FO:28:ARG:HG2   | 1:FO:44:SER:HB3   | 1.83                     | 0.60              |
| 1:FO:67:VAL:HG22  | 1:FO:77:THR:HG22  | 1.83                     | 0.60              |
| 1:FU:28:ARG:HG2   | 1:FU:44:SER:HB3   | 1.83                     | 0.60              |
| 1:FX:28:ARG:HG2   | 1:FX:44:SER:HB3   | 1.83                     | 0.60              |
| 1:FX:67:VAL:HG22  | 1:FX:77:THR:HG22  | 1.83                     | 0.60              |
| 1:GJ:89:PRO:HG2   | 1:GJ:92:TYR:HB2   | 1.81                     | 0.60              |
| 1:GP:28:ARG:HG2   | 1:GP:44:SER:HB3   | 1.83                     | 0.60              |
| 1:DI:15:ARG:HH11  | 1:GU:103:THR:HG21 | 1.65                     | 0.60              |
| 1:GV:67:VAL:HG22  | 1:GV:77:THR:HG22  | 1.83                     | 0.60              |
| 1:AG:28:ARG:HG2   | 1:AG:44:SER:HB3   | 1.83                     | 0.60              |
| 1:AW:28:ARG:HG2   | 1:AW:44:SER:HB3   | 1.82                     | 0.60              |
| 1:BC:28:ARG:HG2   | 1:BC:44:SER:HB3   | 1.82                     | 0.60              |
| 1:CI:28:ARG:HG2   | 1:CI:44:SER:HB3   | 1.83                     | 0.60              |
| 1:CU:28:ARG:HG2   | 1:CU:44:SER:HB3   | 1.83                     | 0.60              |
| 1:CV:15:ARG:NH1   | 1:GM:99:LYS:HE2   | 2.16                     | 0.60              |
| 1:DC:2:ARG:HH12   | 1:DE:124:TYR:C    | 2.03                     | 0.60              |
| 1:DF:10:VAL:HG21  | 1:GR:103:THR:HG22 | 1.82                     | 0.60              |
| 1:DV:20:SER:HB3   | 1:DV:30:VAL:HG23  | 1.82                     | 0.60              |
| 1:EH:99:LYS:HE2   | 1:EO:15:ARG:HH11  | 1.65                     | 0.60              |
| 1:EN:28:ARG:HG2   | 1:EN:44:SER:HB3   | 1.83                     | 0.60              |
| 1:BS:10:VAL:HG21  | 1:FE:103:THR:HG22 | 1.83                     | 0.60              |
| 1:FI:28:ARG:HG2   | 1:FI:44:SER:HB3   | 1.83                     | 0.60              |
| 1:FR:67:VAL:HG22  | 1:FR:77:THR:HG22  | 1.83                     | 0.60              |
| 1:DF:103:THR:HG21 | 1:GR:15:ARG:NH1   | 2.15                     | 0.60              |
| 1:DM:15:ARG:NH1   | 1:GT:103:THR:HG21 | 2.11                     | 0.60              |
| 1:AF:103:THR:HG22 | 1:DR:10:VAL:HG21  | 1.82                     | 0.60              |
| 1:AM:28:ARG:HG2   | 1:AM:44:SER:HB3   | 1.83                     | 0.60              |
| 1:AP:20:SER:HB3   | 1:AP:30:VAL:HG23  | 1.82                     | 0.60              |
| 1:BP:89:PRO:HG2   | 1:BP:92:TYR:HB2   | 1.81                     | 0.60              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:CL:67:VAL:HG22  | 1:CL:77:THR:HG22  | 1.82                     | 0.60              |
| 1:CR:20:SER:HB3   | 1:CR:30:VAL:HG23  | 1.82                     | 0.60              |
| 1:DJ:67:VAL:HG22  | 1:DJ:77:THR:HG22  | 1.83                     | 0.60              |
| 1:EK:20:SER:HB3   | 1:EK:30:VAL:HG23  | 1.83                     | 0.60              |
| 1:GA:28:ARG:HG2   | 1:GA:44:SER:HB3   | 1.83                     | 0.60              |
| 1:GD:28:ARG:HG2   | 1:GD:44:SER:HB3   | 1.83                     | 0.60              |
| 1:GV:28:ARG:HG2   | 1:GV:44:SER:HB3   | 1.83                     | 0.60              |
| 1:AB:28:ARG:HG2   | 1:AB:44:SER:HB3   | 1.82                     | 0.60              |
| 1:AJ:67:VAL:HG22  | 1:AJ:77:THR:HG22  | 1.83                     | 0.60              |
| 1:AO:1:MET:HE2    | 1:AO:3:LEU:HA     | 1.84                     | 0.60              |
| 1:AZ:123:ASN:HB3  | 1:EW:3:LEU:HG     | 1.82                     | 0.60              |
| 1:BI:28:ARG:HG2   | 1:BI:44:SER:HB3   | 1.82                     | 0.60              |
| 1:BK:28:ARG:HG2   | 1:BK:44:SER:HB3   | 1.83                     | 0.60              |
| 1:BO:28:ARG:HG2   | 1:BO:44:SER:HB3   | 1.82                     | 0.60              |
| 1:CT:15:ARG:HH11  | 1:GF:103:THR:HG21 | 1.65                     | 0.60              |
| 1:DL:10:VAL:HG21  | 1:GX:103:THR:HG22 | 1.84                     | 0.60              |
| 1:DS:20:SER:HB3   | 1:DS:30:VAL:HG23  | 1.83                     | 0.60              |
| 1:BL:22:GLN:HB3   | 1:DW:124:TYR:CB   | 2.32                     | 0.60              |
| 1:GD:20:SER:HB3   | 1:GD:30:VAL:HG23  | 1.83                     | 0.60              |
| 1:CY:1:MET:HG2    | 1:GG:123:ASN:OD1  | 2.01                     | 0.60              |
| 1:GW:28:ARG:HG2   | 1:GW:44:SER:HB3   | 1.82                     | 0.60              |
| 1:BD:2:ARG:HH12   | 1:BR:124:TYR:C    | 2.04                     | 0.60              |
| 1:CD:103:THR:HG22 | 1:CR:10:VAL:HG21  | 1.84                     | 0.60              |
| 1:CY:10:VAL:HG21  | 1:GG:103:THR:HG22 | 1.83                     | 0.60              |
| 1:DU:1:MET:HE2    | 1:DU:3:LEU:HA     | 1.83                     | 0.60              |
| 1:DY:28:ARG:HG2   | 1:DY:44:SER:HB3   | 1.83                     | 0.60              |
| 1:DZ:28:ARG:HG2   | 1:DZ:44:SER:HB3   | 1.82                     | 0.60              |
| 1:EN:67:VAL:HG22  | 1:EN:77:THR:HG22  | 1.82                     | 0.60              |
| 1:EU:28:ARG:HG2   | 1:EU:44:SER:HB3   | 1.82                     | 0.60              |
| 1:FI:20:SER:HB3   | 1:FI:30:VAL:HG23  | 1.83                     | 0.60              |
| 1:CB:103:THR:HG22 | 1:FN:10:VAL:HG21  | 1.82                     | 0.60              |
| 1:FX:20:SER:HB3   | 1:FX:30:VAL:HG23  | 1.82                     | 0.60              |
| 1:GA:67:VAL:HG22  | 1:GA:77:THR:HG22  | 1.83                     | 0.60              |
| 1:AE:15:ARG:HH11  | 1:GA:99:LYS:HE2   | 1.66                     | 0.60              |
| 1:GE:28:ARG:HG2   | 1:GE:44:SER:HB3   | 1.82                     | 0.60              |
| 1:GJ:28:ARG:HG2   | 1:GJ:44:SER:HB3   | 1.83                     | 0.60              |
| 1:GM:20:SER:HB3   | 1:GM:30:VAL:HG23  | 1.82                     | 0.60              |
| 1:BH:67:VAL:HG22  | 1:BH:77:THR:HG22  | 1.83                     | 0.60              |
| 1:CS:28:ARG:HG2   | 1:CS:44:SER:HB3   | 1.82                     | 0.60              |
| 1:BW:103:THR:HG22 | 1:DQ:10:VAL:HG21  | 1.83                     | 0.60              |
| 1:AI:103:THR:HG21 | 1:DU:15:ARG:NH1   | 2.17                     | 0.60              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:DV:50:GLY:O    | 1:DV:90:LYS:NZ    | 2.35                     | 0.60              |
| 1:FY:28:ARG:HG2  | 1:FY:44:SER:HB3   | 1.82                     | 0.60              |
| 1:CW:68:VAL:HG11 | 1:GI:91:THR:HG22  | 1.84                     | 0.60              |
| 1:GJ:67:VAL:HG22 | 1:GJ:77:THR:HG22  | 1.83                     | 0.60              |
| 1:GO:70:ASP:OD1  | 1:GO:71:ALA:N     | 2.35                     | 0.60              |
| 1:GS:67:VAL:HG22 | 1:GS:77:THR:HG22  | 1.83                     | 0.60              |
| 1:GV:20:SER:HB3  | 1:GV:30:VAL:HG23  | 1.82                     | 0.60              |
| 1:AC:89:PRO:HG2  | 1:AC:92:TYR:HB2   | 1.81                     | 0.60              |
| 1:AK:28:ARG:HG2  | 1:AK:44:SER:HB3   | 1.82                     | 0.60              |
| 1:AM:99:LYS:HE2  | 1:CA:15:ARG:HD3   | 1.82                     | 0.60              |
| 1:AV:50:GLY:O    | 1:AV:90:LYS:NZ    | 2.35                     | 0.60              |
| 1:BD:70:ASP:OD1  | 1:BD:71:ALA:N     | 2.35                     | 0.60              |
| 1:BH:28:ARG:HG2  | 1:BH:44:SER:HB3   | 1.83                     | 0.60              |
| 1:BT:28:ARG:HG2  | 1:BT:44:SER:HB3   | 1.83                     | 0.60              |
| 1:BT:20:SER:HB3  | 1:BT:30:VAL:HG23  | 1.82                     | 0.60              |
| 1:CI:50:GLY:O    | 1:CI:90:LYS:NZ    | 2.35                     | 0.60              |
| 1:CV:28:ARG:HG2  | 1:CV:44:SER:HB3   | 1.82                     | 0.60              |
| 1:CW:15:ARG:NH1  | 1:GI:103:THR:HG21 | 2.15                     | 0.60              |
| 1:DS:10:VAL:HG21 | 1:GQ:103:THR:HG22 | 1.82                     | 0.60              |
| 1:EJ:1:MET:HE2   | 1:EJ:3:LEU:HA     | 1.83                     | 0.60              |
| 1:EN:20:SER:HB3  | 1:EN:30:VAL:HG23  | 1.82                     | 0.60              |
| 1:EN:50:GLY:O    | 1:EN:90:LYS:NZ    | 2.35                     | 0.60              |
| 1:FL:50:GLY:O    | 1:FL:90:LYS:NZ    | 2.35                     | 0.60              |
| 1:GC:89:PRO:HG2  | 1:GC:92:TYR:HB2   | 1.81                     | 0.60              |
| 1:GQ:28:ARG:HG2  | 1:GQ:44:SER:HB3   | 1.82                     | 0.60              |
| 1:GR:70:ASP:OD1  | 1:GR:71:ALA:N     | 2.35                     | 0.60              |
| 1:AC:70:ASP:OD1  | 1:AC:71:ALA:N     | 2.35                     | 0.60              |
| 1:AO:15:ARG:NH1  | 1:EA:103:THR:HG21 | 2.16                     | 0.60              |
| 1:AO:70:ASP:OD1  | 1:AO:71:ALA:N     | 2.35                     | 0.60              |
| 1:AQ:28:ARG:HG2  | 1:AQ:44:SER:HB3   | 1.82                     | 0.60              |
| 1:BF:28:ARG:HG2  | 1:BF:44:SER:HB3   | 1.82                     | 0.60              |
| 1:BT:10:VAL:HG21 | 1:DN:103:THR:HG22 | 1.82                     | 0.60              |
| 1:CB:89:PRO:HG2  | 1:CB:92:TYR:HB2   | 1.81                     | 0.60              |
| 1:CJ:28:ARG:HG2  | 1:CJ:44:SER:HB3   | 1.82                     | 0.60              |
| 1:CL:28:ARG:HG2  | 1:CL:44:SER:HB3   | 1.83                     | 0.60              |
| 1:CT:70:ASP:OD1  | 1:CT:71:ALA:N     | 2.35                     | 0.60              |
| 1:DB:28:ARG:HG2  | 1:DB:44:SER:HB3   | 1.82                     | 0.60              |
| 1:DG:50:GLY:O    | 1:DG:90:LYS:NZ    | 2.35                     | 0.60              |
| 1:DJ:50:GLY:O    | 1:DJ:90:LYS:NZ    | 2.35                     | 0.60              |
| 1:DM:67:VAL:HG22 | 1:DM:77:THR:HG22  | 1.83                     | 0.60              |
| 1:DP:50:GLY:O    | 1:DP:90:LYS:NZ    | 2.35                     | 0.60              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:EA:70:ASP:OD1   | 1:EA:71:ALA:N     | 2.35                     | 0.60              |
| 1:EB:67:VAL:HG22  | 1:EB:77:THR:HG22  | 1.82                     | 0.60              |
| 1:EJ:70:ASP:OD1   | 1:EJ:71:ALA:N     | 2.35                     | 0.60              |
| 1:EK:103:THR:HG22 | 1:ER:10:VAL:HG21  | 1.84                     | 0.60              |
| 1:ET:20:SER:HB3   | 1:ET:30:VAL:HG23  | 1.82                     | 0.60              |
| 1:EZ:67:VAL:HG22  | 1:EZ:77:THR:HG22  | 1.83                     | 0.60              |
| 1:FF:50:GLY:O     | 1:FF:90:LYS:NZ    | 2.35                     | 0.60              |
| 1:FL:67:VAL:HG22  | 1:FL:77:THR:HG22  | 1.82                     | 0.60              |
| 1:GT:28:ARG:HG2   | 1:GT:44:SER:HB3   | 1.82                     | 0.60              |
| 1:GU:70:ASP:OD1   | 1:GU:71:ALA:N     | 2.35                     | 0.60              |
| 1:AA:50:GLY:O     | 1:AA:90:LYS:NZ    | 2.35                     | 0.60              |
| 1:AV:20:SER:HB3   | 1:AV:30:VAL:HG23  | 1.83                     | 0.60              |
| 1:BA:70:ASP:OD1   | 1:BA:71:ALA:N     | 2.35                     | 0.60              |
| 1:BH:20:SER:HB3   | 1:BH:30:VAL:HG23  | 1.83                     | 0.60              |
| 1:BJ:70:ASP:OD1   | 1:BJ:71:ALA:N     | 2.35                     | 0.60              |
| 1:BQ:67:VAL:HG22  | 1:BQ:77:THR:HG22  | 1.83                     | 0.60              |
| 1:CE:70:ASP:OD1   | 1:CE:71:ALA:N     | 2.35                     | 0.60              |
| 1:CK:70:ASP:OD1   | 1:CK:71:ALA:N     | 2.35                     | 0.60              |
| 1:CN:15:ARG:NH1   | 1:FZ:103:THR:HG21 | 2.16                     | 0.60              |
| 1:CO:67:VAL:HG22  | 1:CO:77:THR:HG22  | 1.83                     | 0.60              |
| 1:CR:50:GLY:O     | 1:CR:90:LYS:NZ    | 2.35                     | 0.60              |
| 1:DA:50:GLY:O     | 1:DA:90:LYS:NZ    | 2.35                     | 0.60              |
| 1:DC:70:ASP:OD1   | 1:DC:71:ALA:N     | 2.35                     | 0.60              |
| 1:DM:50:GLY:O     | 1:DM:90:LYS:NZ    | 2.35                     | 0.60              |
| 1:EC:28:ARG:HG2   | 1:EC:44:SER:HB3   | 1.82                     | 0.60              |
| 1:EW:28:ARG:HG2   | 1:EW:44:SER:HB3   | 1.83                     | 0.60              |
| 1:EZ:20:SER:HB3   | 1:EZ:30:VAL:HG23  | 1.83                     | 0.60              |
| 1:FD:28:ARG:HG2   | 1:FD:44:SER:HB3   | 1.82                     | 0.60              |
| 1:FF:28:ARG:HG2   | 1:FF:44:SER:HB3   | 1.83                     | 0.60              |
| 1:FJ:28:ARG:HG2   | 1:FJ:44:SER:HB3   | 1.82                     | 0.60              |
| 1:FL:20:SER:HB3   | 1:FL:30:VAL:HG23  | 1.82                     | 0.60              |
| 1:FR:50:GLY:O     | 1:FR:90:LYS:NZ    | 2.35                     | 0.60              |
| 1:FU:50:GLY:O     | 1:FU:90:LYS:NZ    | 2.35                     | 0.60              |
| 1:AG:50:GLY:O     | 1:AG:90:LYS:NZ    | 2.35                     | 0.60              |
| 1:AI:70:ASP:OD1   | 1:AI:71:ALA:N     | 2.35                     | 0.60              |
| 1:AR:70:ASP:OD1   | 1:AR:71:ALA:N     | 2.35                     | 0.60              |
| 1:AV:103:THR:HG21 | 1:EF:15:ARG:NH1   | 2.17                     | 0.60              |
| 1:BQ:50:GLY:O     | 1:BQ:90:LYS:NZ    | 2.35                     | 0.60              |
| 1:BT:67:VAL:HG22  | 1:BT:77:THR:HG22  | 1.82                     | 0.60              |
| 1:CC:20:SER:HB3   | 1:CC:30:VAL:HG23  | 1.82                     | 0.60              |
| 1:CO:20:SER:HB3   | 1:CO:30:VAL:HG23  | 1.83                     | 0.60              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:CU:50:GLY:O    | 1:CU:90:LYS:NZ    | 2.35                     | 0.60              |
| 1:DM:122:ASN:HB2 | 1:GU:20:SER:O     | 2.01                     | 0.60              |
| 1:DS:50:GLY:O    | 1:DS:90:LYS:NZ    | 2.35                     | 0.60              |
| 1:EE:67:VAL:HG22 | 1:EE:77:THR:HG22  | 1.82                     | 0.60              |
| 1:EQ:50:GLY:O    | 1:EQ:90:LYS:NZ    | 2.35                     | 0.60              |
| 1:ER:28:ARG:HG2  | 1:ER:44:SER:HB3   | 1.82                     | 0.60              |
| 1:ES:70:ASP:OD1  | 1:ES:71:ALA:N     | 2.35                     | 0.60              |
| 1:EZ:50:GLY:O    | 1:EZ:90:LYS:NZ    | 2.35                     | 0.60              |
| 1:FE:70:ASP:OD1  | 1:FE:71:ALA:N     | 2.35                     | 0.60              |
| 1:FM:28:ARG:HG2  | 1:FM:44:SER:HB3   | 1.82                     | 0.60              |
| 1:GC:70:ASP:OD1  | 1:GC:71:ALA:N     | 2.35                     | 0.60              |
| 1:CW:20:SER:O    | 1:GM:122:ASN:HB2  | 2.02                     | 0.60              |
| 1:GO:1:MET:HE2   | 1:GO:3:LEU:HA     | 1.84                     | 0.60              |
| 1:GP:50:GLY:O    | 1:GP:90:LYS:NZ    | 2.35                     | 0.60              |
| 1:AD:67:VAL:HG22 | 1:AD:77:THR:HG22  | 1.83                     | 0.59              |
| 1:AG:67:VAL:HG22 | 1:AG:77:THR:HG22  | 1.83                     | 0.59              |
| 1:AD:10:VAL:HG21 | 1:BC:103:THR:HG22 | 1.84                     | 0.59              |
| 1:BG:70:ASP:OD1  | 1:BG:71:ALA:N     | 2.35                     | 0.59              |
| 1:BK:50:GLY:O    | 1:BK:90:LYS:NZ    | 2.35                     | 0.59              |
| 1:BT:50:GLY:O    | 1:BT:90:LYS:NZ    | 2.35                     | 0.59              |
| 1:BY:1:MET:HE2   | 1:BY:3:LEU:HA     | 1.84                     | 0.59              |
| 1:CT:15:ARG:NH1  | 1:GF:103:THR:HG21 | 2.16                     | 0.59              |
| 1:DD:67:VAL:HG22 | 1:DD:77:THR:HG22  | 1.83                     | 0.59              |
| 1:DV:99:LYS:HE2  | 1:GE:15:ARG:NH1   | 2.16                     | 0.59              |
| 1:ED:1:MET:HE2   | 1:ED:3:LEU:HA     | 1.84                     | 0.59              |
| 1:EI:28:ARG:HG2  | 1:EI:44:SER:HB3   | 1.82                     | 0.59              |
| 1:EQ:67:VAL:HG22 | 1:EQ:77:THR:HG22  | 1.83                     | 0.59              |
| 1:FR:28:ARG:HG2  | 1:FR:44:SER:HB3   | 1.83                     | 0.59              |
| 1:FV:15:ARG:NH1  | 1:GS:103:THR:HG21 | 2.17                     | 0.59              |
| 1:GA:20:SER:HB3  | 1:GA:30:VAL:HG23  | 1.83                     | 0.59              |
| 1:GM:50:GLY:O    | 1:GM:90:LYS:NZ    | 2.35                     | 0.59              |
| 1:AA:28:ARG:HG2  | 1:AA:44:SER:HB3   | 1.83                     | 0.59              |
| 1:AD:50:GLY:O    | 1:AD:90:LYS:NZ    | 2.35                     | 0.59              |
| 1:AS:28:ARG:HG2  | 1:AS:44:SER:HB3   | 1.83                     | 0.59              |
| 1:AS:50:GLY:O    | 1:AS:90:LYS:NZ    | 2.35                     | 0.59              |
| 1:BL:28:ARG:HG2  | 1:BL:44:SER:HB3   | 1.82                     | 0.59              |
| 1:BM:1:MET:HB3   | 1:EY:123:ASN:OD1  | 2.02                     | 0.59              |
| 1:BN:20:SER:HB3  | 1:BN:30:VAL:HG23  | 1.83                     | 0.59              |
| 1:BP:70:ASP:OD1  | 1:BP:71:ALA:N     | 2.35                     | 0.59              |
| 1:BY:70:ASP:OD1  | 1:BY:71:ALA:N     | 2.35                     | 0.59              |
| 1:BZ:28:ARG:HG2  | 1:BZ:44:SER:HB3   | 1.83                     | 0.59              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:CN:70:ASP:OD1   | 1:CN:71:ALA:N     | 2.35                     | 0.59              |
| 1:DF:1:MET:HE2    | 1:DF:3:LEU:HA     | 1.84                     | 0.59              |
| 1:BQ:10:VAL:HG21  | 1:EC:103:THR:HG22 | 1.84                     | 0.59              |
| 1:EY:70:ASP:OD1   | 1:EY:71:ALA:N     | 2.35                     | 0.59              |
| 1:FO:20:SER:HB3   | 1:FO:30:VAL:HG23  | 1.83                     | 0.59              |
| 1:FP:28:ARG:HG2   | 1:FP:44:SER:HB3   | 1.82                     | 0.59              |
| 1:GM:67:VAL:HG22  | 1:GM:77:THR:HG22  | 1.82                     | 0.59              |
| 1:AU:70:ASP:OD1   | 1:AU:71:ALA:N     | 2.35                     | 0.59              |
| 1:AX:70:ASP:OD1   | 1:AX:71:ALA:N     | 2.35                     | 0.59              |
| 1:BH:50:GLY:O     | 1:BH:90:LYS:NZ    | 2.35                     | 0.59              |
| 1:BW:50:GLY:O     | 1:BW:90:LYS:NZ    | 2.35                     | 0.59              |
| 1:BX:28:ARG:HG2   | 1:BX:44:SER:HB3   | 1.82                     | 0.59              |
| 1:BZ:20:SER:HB3   | 1:BZ:30:VAL:HG23  | 1.82                     | 0.59              |
| 1:BZ:67:VAL:HG22  | 1:BZ:77:THR:HG22  | 1.83                     | 0.59              |
| 1:CC:103:THR:HG21 | 1:GK:15:ARG:NH1   | 2.17                     | 0.59              |
| 1:CX:50:GLY:O     | 1:CX:90:LYS:NZ    | 2.35                     | 0.59              |
| 1:CZ:67:VAL:HG12  | 1:CZ:77:THR:HG22  | 1.85                     | 0.59              |
| 1:DR:70:ASP:OD1   | 1:DR:71:ALA:N     | 2.35                     | 0.59              |
| 1:DY:50:GLY:O     | 1:DY:90:LYS:NZ    | 2.35                     | 0.59              |
| 1:EG:67:VAL:HG12  | 1:EG:77:THR:HG22  | 1.85                     | 0.59              |
| 1:EV:67:VAL:HG12  | 1:EV:77:THR:HG22  | 1.85                     | 0.59              |
| 1:FB:70:ASP:OD1   | 1:FB:71:ALA:N     | 2.35                     | 0.59              |
| 1:GG:28:ARG:HG2   | 1:GG:44:SER:HB3   | 1.83                     | 0.59              |
| 1:GH:28:ARG:HG2   | 1:GH:44:SER:HB3   | 1.82                     | 0.59              |
| 1:DP:103:THR:HG21 | 1:GW:15:ARG:NH1   | 2.17                     | 0.59              |
| 1:CF:50:GLY:O     | 1:CF:90:LYS:NZ    | 2.35                     | 0.59              |
| 1:CH:70:ASP:OD1   | 1:CH:71:ALA:N     | 2.35                     | 0.59              |
| 1:CR:28:ARG:HG2   | 1:CR:44:SER:HB3   | 1.83                     | 0.59              |
| 1:DJ:20:SER:HB3   | 1:DJ:30:VAL:HG23  | 1.83                     | 0.59              |
| 1:CZ:2:ARG:NH1    | 1:DK:124:TYR:OXT  | 2.35                     | 0.59              |
| 1:EH:28:ARG:HG2   | 1:EH:44:SER:HB3   | 1.83                     | 0.59              |
| 1:FQ:70:ASP:OD1   | 1:FQ:71:ALA:N     | 2.35                     | 0.59              |
| 1:FW:70:ASP:OD1   | 1:FW:71:ALA:N     | 2.35                     | 0.59              |
| 1:FZ:70:ASP:OD1   | 1:FZ:71:ALA:N     | 2.35                     | 0.59              |
| 1:GG:50:GLY:O     | 1:GG:90:LYS:NZ    | 2.35                     | 0.59              |
| 1:GI:67:VAL:HG12  | 1:GI:77:THR:HG22  | 1.85                     | 0.59              |
| 1:GL:70:ASP:OD1   | 1:GL:71:ALA:N     | 2.35                     | 0.59              |
| 1:AJ:50:GLY:O     | 1:AJ:90:LYS:NZ    | 2.35                     | 0.59              |
| 1:AO:67:VAL:HG12  | 1:AO:77:THR:HG22  | 1.85                     | 0.59              |
| 1:AR:67:VAL:HG12  | 1:AR:77:THR:HG22  | 1.85                     | 0.59              |
| 1:BD:67:VAL:HG12  | 1:BD:77:THR:HG22  | 1.85                     | 0.59              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:BZ:50:GLY:O     | 1:BZ:90:LYS:NZ    | 2.35                     | 0.59              |
| 1:CW:67:VAL:HG12  | 1:CW:77:THR:HG22  | 1.85                     | 0.59              |
| 1:CW:70:ASP:OD1   | 1:CW:71:ALA:N     | 2.35                     | 0.59              |
| 1:DU:70:ASP:OD1   | 1:DU:71:ALA:N     | 2.35                     | 0.59              |
| 1:DX:67:VAL:HG12  | 1:DX:77:THR:HG22  | 1.85                     | 0.59              |
| 1:EB:50:GLY:O     | 1:EB:90:LYS:NZ    | 2.35                     | 0.59              |
| 1:ED:67:VAL:HG12  | 1:ED:77:THR:HG22  | 1.85                     | 0.59              |
| 1:ES:1:MET:HE2    | 1:ES:3:LEU:HA     | 1.85                     | 0.59              |
| 1:BY:103:THR:HG21 | 1:FK:15:ARG:NH1   | 2.16                     | 0.59              |
| 1:FT:67:VAL:HG12  | 1:FT:77:THR:HG22  | 1.85                     | 0.59              |
| 1:GA:50:GLY:O     | 1:GA:90:LYS:NZ    | 2.35                     | 0.59              |
| 1:GD:50:GLY:O     | 1:GD:90:LYS:NZ    | 2.35                     | 0.59              |
| 1:GF:70:ASP:OD1   | 1:GF:71:ALA:N     | 2.35                     | 0.59              |
| 1:AA:103:THR:HG21 | 1:BI:15:ARG:NH1   | 2.17                     | 0.59              |
| 1:AY:50:GLY:O     | 1:AY:90:LYS:NZ    | 2.35                     | 0.59              |
| 1:BM:67:VAL:HG12  | 1:BM:77:THR:HG22  | 1.85                     | 0.59              |
| 1:BS:70:ASP:OD1   | 1:BS:71:ALA:N     | 2.35                     | 0.59              |
| 1:AM:99:LYS:HE2   | 1:CA:15:ARG:NH1   | 2.18                     | 0.59              |
| 1:CH:1:MET:HE2    | 1:CH:3:LEU:HA     | 1.84                     | 0.59              |
| 1:CG:111:GLN:HB2  | 1:CL:1:MET:SD     | 2.42                     | 0.59              |
| 1:CZ:70:ASP:OD1   | 1:CZ:71:ALA:N     | 2.35                     | 0.59              |
| 1:DI:70:ASP:OD1   | 1:DI:71:ALA:N     | 2.35                     | 0.59              |
| 1:CP:103:THR:HG22 | 1:DJ:10:VAL:HG21  | 1.84                     | 0.59              |
| 1:DO:1:MET:HE2    | 1:DO:3:LEU:HA     | 1.85                     | 0.59              |
| 1:EG:70:ASP:OD1   | 1:EG:71:ALA:N     | 2.35                     | 0.59              |
| 1:EH:50:GLY:O     | 1:EH:90:LYS:NZ    | 2.35                     | 0.59              |
| 1:EK:50:GLY:O     | 1:EK:90:LYS:NZ    | 2.35                     | 0.59              |
| 1:EK:103:THR:HG21 | 1:ER:15:ARG:NH1   | 2.17                     | 0.59              |
| 1:FB:67:VAL:HG12  | 1:FB:77:THR:HG22  | 1.85                     | 0.59              |
| 1:FC:28:ARG:HG2   | 1:FC:44:SER:HB3   | 1.83                     | 0.59              |
| 1:FD:15:ARG:NH1   | 1:FF:103:THR:HG21 | 2.18                     | 0.59              |
| 1:FN:1:MET:HE2    | 1:FN:3:LEU:HA     | 1.84                     | 0.59              |
| 1:CH:10:VAL:HG21  | 1:FT:103:THR:HG22 | 1.83                     | 0.59              |
| 1:FT:1:MET:HE2    | 1:FT:3:LEU:HA     | 1.85                     | 0.59              |
| 1:FT:70:ASP:OD1   | 1:FT:71:ALA:N     | 2.35                     | 0.59              |
| 1:AE:15:ARG:NH1   | 1:GA:103:THR:HG21 | 2.17                     | 0.59              |
| 1:GV:50:GLY:O     | 1:GV:90:LYS:NZ    | 2.35                     | 0.59              |
| 1:AC:1:MET:HE2    | 1:AC:3:LEU:HA     | 1.84                     | 0.59              |
| 1:AM:50:GLY:O     | 1:AM:90:LYS:NZ    | 2.35                     | 0.59              |
| 1:AM:67:VAL:HG22  | 1:AM:77:THR:HG22  | 1.83                     | 0.59              |
| 1:AR:98:THR:HG22  | 1:ED:118:ASP:CG   | 2.22                     | 0.59              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:BA:1:MET:HE2    | 1:BA:3:LEU:HA    | 1.85                     | 0.59              |
| 1:BG:1:MET:HE2    | 1:BG:3:LEU:HA    | 1.85                     | 0.59              |
| 1:CB:70:ASP:OD1   | 1:CB:71:ALA:N    | 2.35                     | 0.59              |
| 1:CT:67:VAL:HG12  | 1:CT:77:THR:HG22 | 1.85                     | 0.59              |
| 1:DI:1:MET:HE2    | 1:DI:3:LEU:HA    | 1.85                     | 0.59              |
| 1:DL:70:ASP:OD1   | 1:DL:71:ALA:N    | 2.35                     | 0.59              |
| 1:BT:106:ALA:HB1  | 1:DN:8:LEU:HD22  | 1.85                     | 0.59              |
| 1:EE:50:GLY:O     | 1:EE:90:LYS:NZ   | 2.35                     | 0.59              |
| 1:EP:1:MET:HE2    | 1:EP:3:LEU:HA    | 1.84                     | 0.59              |
| 1:EP:70:ASP:OD1   | 1:EP:71:ALA:N    | 2.35                     | 0.59              |
| 1:ET:28:ARG:HG2   | 1:ET:44:SER:HB3  | 1.83                     | 0.59              |
| 1:EZ:28:ARG:HG2   | 1:EZ:44:SER:HB3  | 1.83                     | 0.59              |
| 1:ET:2:ARG:HA     | 1:FG:124:TYR:O   | 2.02                     | 0.59              |
| 1:GF:1:MET:HE2    | 1:GF:3:LEU:HA    | 1.84                     | 0.59              |
| 1:GJ:50:GLY:O     | 1:GJ:90:LYS:NZ   | 2.35                     | 0.59              |
| 1:BD:1:MET:HE2    | 1:BD:3:LEU:HA    | 1.84                     | 0.59              |
| 1:BJ:67:VAL:HG12  | 1:BJ:77:THR:HG22 | 1.85                     | 0.59              |
| 1:BP:67:VAL:HG12  | 1:BP:77:THR:HG22 | 1.85                     | 0.59              |
| 1:BS:1:MET:HE2    | 1:BS:3:LEU:HA    | 1.85                     | 0.59              |
| 1:BY:67:VAL:HG12  | 1:BY:77:THR:HG22 | 1.85                     | 0.59              |
| 1:CE:1:MET:HE2    | 1:CE:3:LEU:HA    | 1.85                     | 0.59              |
| 1:CF:103:THR:HG21 | 1:GN:15:ARG:NH1  | 2.17                     | 0.59              |
| 1:DE:28:ARG:HG2   | 1:DE:44:SER:HB3  | 1.82                     | 0.59              |
| 1:DM:28:ARG:HG2   | 1:DM:44:SER:HB3  | 1.83                     | 0.59              |
| 1:EE:28:ARG:HG2   | 1:EE:44:SER:HB3  | 1.83                     | 0.59              |
| 1:EQ:20:SER:HB3   | 1:EQ:30:VAL:HG23 | 1.83                     | 0.59              |
| 1:ES:67:VAL:HG12  | 1:ES:77:THR:HG22 | 1.85                     | 0.59              |
| 1:EW:50:GLY:O     | 1:EW:90:LYS:NZ   | 2.35                     | 0.59              |
| 1:FX:50:GLY:O     | 1:FX:90:LYS:NZ   | 2.35                     | 0.59              |
| 1:AE:10:VAL:HG13  | 1:GA:102:GLN:HB2 | 1.84                     | 0.59              |
| 1:GF:67:VAL:HG12  | 1:GF:77:THR:HG22 | 1.85                     | 0.59              |
| 1:GS:50:GLY:O     | 1:GS:90:LYS:NZ   | 2.35                     | 0.59              |
| 1:AF:70:ASP:OD1   | 1:AF:71:ALA:N    | 2.35                     | 0.59              |
| 1:AP:50:GLY:O     | 1:AP:90:LYS:NZ   | 2.35                     | 0.59              |
| 1:CO:50:GLY:O     | 1:CO:90:LYS:NZ   | 2.35                     | 0.59              |
| 1:CQ:70:ASP:OD1   | 1:CQ:71:ALA:N    | 2.35                     | 0.59              |
| 1:CZ:1:MET:HE2    | 1:CZ:3:LEU:HA    | 1.85                     | 0.59              |
| 1:DO:70:ASP:OD1   | 1:DO:71:ALA:N    | 2.35                     | 0.59              |
| 1:DR:1:MET:HE2    | 1:DR:3:LEU:HA    | 1.85                     | 0.59              |
| 1:DV:122:ASN:HB2  | 1:GF:20:SER:O    | 2.02                     | 0.59              |
| 1:DX:70:ASP:OD1   | 1:DX:71:ALA:N    | 2.35                     | 0.59              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:ED:70:ASP:OD1   | 1:ED:71:ALA:N     | 2.35                     | 0.59              |
| 1:AZ:103:THR:HG22 | 1:EW:10:VAL:HG21  | 1.84                     | 0.59              |
| 1:GC:67:VAL:HG12  | 1:GC:77:THR:HG22  | 1.85                     | 0.59              |
| 1:GI:70:ASP:OD1   | 1:GI:71:ALA:N     | 2.35                     | 0.59              |
| 1:AF:67:VAL:HG12  | 1:AF:77:THR:HG22  | 1.85                     | 0.59              |
| 1:BB:50:GLY:O     | 1:BB:90:LYS:NZ    | 2.35                     | 0.59              |
| 1:CD:103:THR:HG21 | 1:CR:15:ARG:NH1   | 2.14                     | 0.59              |
| 1:CQ:118:ASP:CG   | 1:GC:98:THR:HG22  | 2.23                     | 0.59              |
| 1:DQ:28:ARG:HG2   | 1:DQ:44:SER:HB3   | 1.82                     | 0.59              |
| 1:DY:103:THR:HG22 | 1:FY:10:VAL:HG21  | 1.84                     | 0.59              |
| 1:EB:28:ARG:HG2   | 1:EB:44:SER:HB3   | 1.83                     | 0.59              |
| 1:FC:50:GLY:O     | 1:FC:90:LYS:NZ    | 2.35                     | 0.59              |
| 1:FI:50:GLY:O     | 1:FI:90:LYS:NZ    | 2.35                     | 0.59              |
| 1:FU:20:SER:HB3   | 1:FU:30:VAL:HG23  | 1.83                     | 0.59              |
| 1:GC:1:MET:HE2    | 1:GC:3:LEU:HA     | 1.85                     | 0.59              |
| 1:BE:50:GLY:O     | 1:BE:90:LYS:NZ    | 2.35                     | 0.58              |
| 1:BH:103:THR:HG21 | 1:BO:15:ARG:NH1   | 2.18                     | 0.58              |
| 1:BN:10:VAL:HG21  | 1:DZ:103:THR:HG22 | 1.85                     | 0.58              |
| 1:BV:70:ASP:OD1   | 1:BV:71:ALA:N     | 2.35                     | 0.58              |
| 1:CB:8:LEU:HD11   | 1:FN:107:TRP:CE2  | 2.38                     | 0.58              |
| 1:CF:28:ARG:HG2   | 1:CF:44:SER:HB3   | 1.83                     | 0.58              |
| 1:CW:103:THR:HG21 | 1:GI:15:ARG:NH1   | 2.18                     | 0.58              |
| 1:CW:1:MET:HE2    | 1:CW:3:LEU:HA     | 1.84                     | 0.58              |
| 1:DB:66:VAL:HG21  | 1:GJ:96:HIS:CG    | 2.38                     | 0.58              |
| 1:DD:50:GLY:O     | 1:DD:90:LYS:NZ    | 2.35                     | 0.58              |
| 1:DF:70:ASP:OD1   | 1:DF:71:ALA:N     | 2.35                     | 0.58              |
| 1:FN:70:ASP:OD1   | 1:FN:71:ALA:N     | 2.35                     | 0.58              |
| 1:GR:1:MET:HE2    | 1:GR:3:LEU:HA     | 1.85                     | 0.58              |
| 1:GS:28:ARG:HG2   | 1:GS:44:SER:HB3   | 1.83                     | 0.58              |
| 1:AL:70:ASP:OD1   | 1:AL:71:ALA:N     | 2.35                     | 0.58              |
| 1:AN:10:VAL:HG13  | 1:FR:102:GLN:HB2  | 1.84                     | 0.58              |
| 1:BA:67:VAL:HG12  | 1:BA:77:THR:HG22  | 1.85                     | 0.58              |
| 1:BG:67:VAL:HG12  | 1:BG:77:THR:HG22  | 1.85                     | 0.58              |
| 1:BN:50:GLY:O     | 1:BN:90:LYS:NZ    | 2.35                     | 0.58              |
| 1:AL:2:ARG:HH12   | 1:BX:124:TYR:C    | 2.06                     | 0.58              |
| 1:CC:50:GLY:O     | 1:CC:90:LYS:NZ    | 2.35                     | 0.58              |
| 1:CG:10:VAL:HG13  | 1:CL:102:GLN:HB2  | 1.85                     | 0.58              |
| 1:CT:118:ASP:CG   | 1:GF:98:THR:HG22  | 2.23                     | 0.58              |
| 1:EN:103:THR:OG1  | 1:FJ:62:LEU:HD21  | 2.03                     | 0.58              |
| 1:EV:70:ASP:OD1   | 1:EV:71:ALA:N     | 2.35                     | 0.58              |
| 1:ET:1:MET:HB3    | 1:FG:123:ASN:OD1  | 2.03                     | 0.58              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:FH:70:ASP:OD1   | 1:FH:71:ALA:N     | 2.35                     | 0.58              |
| 1:FK:67:VAL:HG12  | 1:FK:77:THR:HG22  | 1.85                     | 0.58              |
| 1:FN:67:VAL:HG12  | 1:FN:77:THR:HG22  | 1.85                     | 0.58              |
| 1:FQ:67:VAL:HG12  | 1:FQ:77:THR:HG22  | 1.85                     | 0.58              |
| 1:FZ:67:VAL:HG12  | 1:FZ:77:THR:HG22  | 1.85                     | 0.58              |
| 1:BM:1:MET:HE2    | 1:BM:3:LEU:HA     | 1.84                     | 0.58              |
| 1:CL:50:GLY:O     | 1:CL:90:LYS:NZ    | 2.35                     | 0.58              |
| 1:DG:28:ARG:HG2   | 1:DG:44:SER:HB3   | 1.83                     | 0.58              |
| 1:DI:67:VAL:HG12  | 1:DI:77:THR:HG22  | 1.85                     | 0.58              |
| 1:DL:1:MET:HE2    | 1:DL:3:LEU:HA     | 1.85                     | 0.58              |
| 1:DR:67:VAL:HG12  | 1:DR:77:THR:HG22  | 1.85                     | 0.58              |
| 1:EJ:67:VAL:HG12  | 1:EJ:77:THR:HG22  | 1.85                     | 0.58              |
| 1:EM:70:ASP:OD1   | 1:EM:71:ALA:N     | 2.35                     | 0.58              |
| 1:ET:50:GLY:O     | 1:ET:90:LYS:NZ    | 2.35                     | 0.58              |
| 1:FV:103:THR:HG21 | 1:GS:15:ARG:NH1   | 2.15                     | 0.58              |
| 1:GL:67:VAL:HG12  | 1:GL:77:THR:HG22  | 1.85                     | 0.58              |
| 1:GU:67:VAL:HG12  | 1:GU:77:THR:HG22  | 1.85                     | 0.58              |
| 1:GX:70:ASP:OD1   | 1:GX:71:ALA:N     | 2.35                     | 0.58              |
| 1:AG:10:VAL:HG21  | 1:BF:103:THR:HG22 | 1.83                     | 0.58              |
| 1:AI:1:MET:HE2    | 1:AI:3:LEU:HA     | 1.84                     | 0.58              |
| 1:AX:1:MET:HE2    | 1:AX:3:LEU:HA     | 1.85                     | 0.58              |
| 1:BK:45:LEU:HD11  | 1:BK:58:VAL:HG13  | 1.86                     | 0.58              |
| 1:BB:103:THR:HG22 | 1:BR:10:VAL:HG21  | 1.86                     | 0.58              |
| 1:CT:103:THR:HG21 | 1:GF:15:ARG:NH1   | 2.19                     | 0.58              |
| 1:CU:122:ASN:HB2  | 1:DI:20:SER:O     | 2.03                     | 0.58              |
| 1:AI:8:LEU:HD11   | 1:DU:107:TRP:CE2  | 2.38                     | 0.58              |
| 1:AP:102:GLN:HB2  | 1:BU:10:VAL:HG13  | 1.85                     | 0.58              |
| 1:BS:67:VAL:HG12  | 1:BS:77:THR:HG22  | 1.85                     | 0.58              |
| 1:CC:45:LEU:HD11  | 1:CC:58:VAL:HG13  | 1.86                     | 0.58              |
| 1:DP:45:LEU:HD11  | 1:DP:58:VAL:HG13  | 1.86                     | 0.58              |
| 1:EH:96:HIS:CG    | 1:EO:66:VAL:HG21  | 2.38                     | 0.58              |
| 1:FE:67:VAL:HG12  | 1:FE:77:THR:HG22  | 1.85                     | 0.58              |
| 1:FK:70:ASP:OD1   | 1:FK:71:ALA:N     | 2.35                     | 0.58              |
| 1:GR:67:VAL:HG12  | 1:GR:77:THR:HG22  | 1.85                     | 0.58              |
| 1:GU:1:MET:HE2    | 1:GU:3:LEU:HA     | 1.85                     | 0.58              |
| 1:AI:15:ARG:NH1   | 1:DU:103:THR:HG21 | 2.18                     | 0.58              |
| 1:AI:20:SER:O     | 1:GD:122:ASN:HB2  | 2.02                     | 0.58              |
| 1:AM:103:THR:OG1  | 1:CA:62:LEU:HD21  | 2.02                     | 0.58              |
| 1:CK:67:VAL:HG12  | 1:CK:77:THR:HG22  | 1.85                     | 0.58              |
| 1:CP:30:VAL:HG22  | 1:CP:42:VAL:HG12  | 1.86                     | 0.58              |
| 1:EM:67:VAL:HG12  | 1:EM:77:THR:HG22  | 1.85                     | 0.58              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:EV:1:MET:HE2    | 1:EV:3:LEU:HA     | 1.85                     | 0.58              |
| 1:FA:15:ARG:NH1   | 1:FL:103:THR:HG21 | 2.18                     | 0.58              |
| 1:FO:50:GLY:O     | 1:FO:90:LYS:NZ    | 2.35                     | 0.58              |
| 1:FS:30:VAL:HG22  | 1:FS:42:VAL:HG12  | 1.86                     | 0.58              |
| 1:FW:67:VAL:HG12  | 1:FW:77:THR:HG22  | 1.85                     | 0.58              |
| 1:AM:45:LEU:HD11  | 1:AM:58:VAL:HG13  | 1.86                     | 0.58              |
| 1:AN:15:ARG:NH1   | 1:FR:103:THR:HG21 | 2.18                     | 0.58              |
| 1:BN:96:HIS:CG    | 1:DZ:66:VAL:HG21  | 2.39                     | 0.58              |
| 1:DH:30:VAL:HG22  | 1:DH:42:VAL:HG12  | 1.86                     | 0.58              |
| 1:DL:67:VAL:HG12  | 1:DL:77:THR:HG22  | 1.85                     | 0.58              |
| 1:DV:45:LEU:HD11  | 1:DV:58:VAL:HG13  | 1.86                     | 0.58              |
| 1:EE:45:LEU:HD11  | 1:EE:58:VAL:HG13  | 1.86                     | 0.58              |
| 1:EF:30:VAL:HG22  | 1:EF:42:VAL:HG12  | 1.86                     | 0.58              |
| 1:EN:45:LEU:HD11  | 1:EN:58:VAL:HG13  | 1.86                     | 0.58              |
| 1:EU:30:VAL:HG22  | 1:EU:42:VAL:HG12  | 1.86                     | 0.58              |
| 1:EY:1:MET:HE2    | 1:EY:3:LEU:HA     | 1.85                     | 0.58              |
| 1:EZ:45:LEU:HD11  | 1:EZ:58:VAL:HG13  | 1.86                     | 0.58              |
| 1:FM:30:VAL:HG22  | 1:FM:42:VAL:HG12  | 1.86                     | 0.58              |
| 1:FO:45:LEU:HD11  | 1:FO:58:VAL:HG13  | 1.86                     | 0.58              |
| 1:CY:103:THR:HG22 | 1:GG:10:VAL:HG21  | 1.83                     | 0.58              |
| 1:CD:22:GLN:HB3   | 1:GK:124:TYR:HB2  | 1.84                     | 0.58              |
| 1:FP:105:ILE:HG23 | 1:GV:105:ILE:HG23 | 1.86                     | 0.58              |
| 1:AJ:45:LEU:HD11  | 1:AJ:58:VAL:HG13  | 1.86                     | 0.58              |
| 1:AK:30:VAL:HG22  | 1:AK:42:VAL:HG12  | 1.86                     | 0.58              |
| 1:AM:1:MET:SD     | 1:CA:111:GLN:HB2  | 2.44                     | 0.58              |
| 1:AX:118:ASP:CG   | 1:EJ:98:THR:HG22  | 2.24                     | 0.58              |
| 1:AX:67:VAL:HG12  | 1:AX:77:THR:HG22  | 1.85                     | 0.58              |
| 1:AY:1:MET:SD     | 1:EI:111:GLN:HB2  | 2.44                     | 0.58              |
| 1:AZ:30:VAL:HG22  | 1:AZ:42:VAL:HG12  | 1.86                     | 0.58              |
| 1:BL:30:VAL:HG22  | 1:BL:42:VAL:HG12  | 1.86                     | 0.58              |
| 1:BT:1:MET:SD     | 1:DN:111:GLN:HB2  | 2.44                     | 0.58              |
| 1:CB:67:VAL:HG12  | 1:CB:77:THR:HG22  | 1.85                     | 0.58              |
| 1:CE:67:VAL:HG12  | 1:CE:77:THR:HG22  | 1.85                     | 0.58              |
| 1:CI:45:LEU:HD11  | 1:CI:58:VAL:HG13  | 1.86                     | 0.58              |
| 1:CG:22:GLN:NE2   | 1:CL:124:TYR:OXT  | 2.37                     | 0.58              |
| 1:CX:45:LEU:HD11  | 1:CX:58:VAL:HG13  | 1.86                     | 0.58              |
| 1:DF:67:VAL:HG12  | 1:DF:77:THR:HG22  | 1.85                     | 0.58              |
| 1:DN:30:VAL:HG22  | 1:DN:42:VAL:HG12  | 1.86                     | 0.58              |
| 1:EI:30:VAL:HG22  | 1:EI:42:VAL:HG12  | 1.86                     | 0.58              |
| 1:ET:45:LEU:HD11  | 1:ET:58:VAL:HG13  | 1.86                     | 0.58              |
| 1:GL:1:MET:HE2    | 1:GL:3:LEU:HA     | 1.84                     | 0.58              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:GM:45:LEU:HD11  | 1:GM:58:VAL:HG13  | 1.86                     | 0.58              |
| 1:AM:116:PRO:O    | 1:CA:56:ARG:NH1   | 2.37                     | 0.58              |
| 1:AQ:30:VAL:HG22  | 1:AQ:42:VAL:HG12  | 1.86                     | 0.58              |
| 1:BC:30:VAL:HG22  | 1:BC:42:VAL:HG12  | 1.86                     | 0.58              |
| 1:BH:45:LEU:HD11  | 1:BH:58:VAL:HG13  | 1.86                     | 0.58              |
| 1:BM:70:ASP:OD1   | 1:BM:71:ALA:N     | 2.35                     | 0.58              |
| 1:BT:45:LEU:HD11  | 1:BT:58:VAL:HG13  | 1.86                     | 0.58              |
| 1:BW:45:LEU:HD11  | 1:BW:58:VAL:HG13  | 1.86                     | 0.58              |
| 1:CB:1:MET:HE2    | 1:CB:3:LEU:HA     | 1.85                     | 0.58              |
| 1:CQ:67:VAL:HG12  | 1:CQ:77:THR:HG22  | 1.85                     | 0.58              |
| 1:DD:45:LEU:HD11  | 1:DD:58:VAL:HG13  | 1.86                     | 0.58              |
| 1:AK:91:THR:OG1   | 1:FO:78:ILE:HD13  | 2.02                     | 0.58              |
| 1:FP:30:VAL:HG22  | 1:FP:42:VAL:HG12  | 1.86                     | 0.58              |
| 1:FX:45:LEU:HD11  | 1:FX:58:VAL:HG13  | 1.86                     | 0.58              |
| 1:GV:45:LEU:HD11  | 1:GV:58:VAL:HG13  | 1.86                     | 0.58              |
| 1:AC:67:VAL:HG12  | 1:AC:77:THR:HG22  | 1.85                     | 0.58              |
| 1:AG:45:LEU:HD11  | 1:AG:58:VAL:HG13  | 1.86                     | 0.58              |
| 1:AL:67:VAL:HG12  | 1:AL:77:THR:HG22  | 1.85                     | 0.58              |
| 1:AQ:123:ASN:HB3  | 1:FU:3:LEU:HG     | 1.84                     | 0.58              |
| 1:BH:124:TYR:C    | 1:BO:22:GLN:HE21  | 2.08                     | 0.58              |
| 1:CK:1:MET:HE2    | 1:CK:3:LEU:HA     | 1.85                     | 0.58              |
| 1:CO:45:LEU:HD11  | 1:CO:58:VAL:HG13  | 1.86                     | 0.58              |
| 1:DA:10:VAL:HG21  | 1:DE:103:THR:HG22 | 1.85                     | 0.58              |
| 1:DS:45:LEU:HD11  | 1:DS:58:VAL:HG13  | 1.86                     | 0.58              |
| 1:EC:30:VAL:HG22  | 1:EC:42:VAL:HG12  | 1.86                     | 0.58              |
| 1:EO:30:VAL:HG22  | 1:EO:42:VAL:HG12  | 1.86                     | 0.58              |
| 1:ER:30:VAL:HG22  | 1:ER:42:VAL:HG12  | 1.86                     | 0.58              |
| 1:AZ:124:TYR:OXT  | 1:EY:2:ARG:NH1    | 2.37                     | 0.58              |
| 1:FH:67:VAL:HG12  | 1:FH:77:THR:HG22  | 1.85                     | 0.58              |
| 1:EX:98:THR:HG22  | 1:FI:118:ASP:HB3  | 1.85                     | 0.58              |
| 1:FL:45:LEU:HD11  | 1:FL:58:VAL:HG13  | 1.86                     | 0.58              |
| 1:AD:45:LEU:HD11  | 1:AD:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:AI:67:VAL:HG12  | 1:AI:77:THR:HG22  | 1.85                     | 0.57              |
| 1:AT:103:THR:HG21 | 1:EZ:15:ARG:NH1   | 2.16                     | 0.57              |
| 1:AU:1:MET:HE2    | 1:AU:3:LEU:HA     | 1.85                     | 0.57              |
| 1:BV:67:VAL:HG12  | 1:BV:77:THR:HG22  | 1.85                     | 0.57              |
| 1:CH:67:VAL:HG12  | 1:CH:77:THR:HG22  | 1.85                     | 0.57              |
| 1:CJ:30:VAL:HG22  | 1:CJ:42:VAL:HG12  | 1.86                     | 0.57              |
| 1:DA:103:THR:HG22 | 1:DE:10:VAL:HG21  | 1.85                     | 0.57              |
| 1:EP:67:VAL:HG12  | 1:EP:77:THR:HG22  | 1.85                     | 0.57              |
| 1:FA:123:ASN:HB3  | 1:FL:3:LEU:HG     | 1.86                     | 0.57              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:FB:1:MET:HE2    | 1:FB:3:LEU:HA     | 1.85                     | 0.57              |
| 1:FJ:30:VAL:HG22  | 1:FJ:42:VAL:HG12  | 1.86                     | 0.57              |
| 1:GG:45:LEU:HD11  | 1:GG:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:AB:30:VAL:HG22  | 1:AB:42:VAL:HG12  | 1.86                     | 0.57              |
| 1:AS:45:LEU:HD11  | 1:AS:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:BB:45:LEU:HD11  | 1:BB:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:BJ:10:VAL:HG21  | 1:EV:103:THR:HG22 | 1.86                     | 0.57              |
| 1:BQ:45:LEU:HD11  | 1:BQ:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:BR:30:VAL:HG22  | 1:BR:42:VAL:HG12  | 1.86                     | 0.57              |
| 1:BS:103:THR:HG22 | 1:FE:10:VAL:HG21  | 1.86                     | 0.57              |
| 1:BT:120:GLY:HA2  | 1:DN:47:GLN:HE22  | 1.69                     | 0.57              |
| 1:CA:30:VAL:HG22  | 1:CA:42:VAL:HG12  | 1.86                     | 0.57              |
| 1:CN:67:VAL:HG12  | 1:CN:77:THR:HG22  | 1.85                     | 0.57              |
| 1:DC:67:VAL:HG12  | 1:DC:77:THR:HG22  | 1.85                     | 0.57              |
| 1:EA:67:VAL:HG12  | 1:EA:77:THR:HG22  | 1.85                     | 0.57              |
| 1:EM:1:MET:HE2    | 1:EM:3:LEU:HA     | 1.86                     | 0.57              |
| 1:EN:103:THR:HG21 | 1:FJ:15:ARG:NH1   | 2.18                     | 0.57              |
| 1:EY:67:VAL:HG12  | 1:EY:77:THR:HG22  | 1.85                     | 0.57              |
| 1:FI:45:LEU:HD11  | 1:FI:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:FU:45:LEU:HD11  | 1:FU:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:CC:15:ARG:NH1   | 1:GK:103:THR:HG21 | 2.10                     | 0.57              |
| 1:GQ:30:VAL:HG22  | 1:GQ:42:VAL:HG12  | 1.86                     | 0.57              |
| 1:GW:30:VAL:HG22  | 1:GW:42:VAL:HG12  | 1.86                     | 0.57              |
| 1:AF:1:MET:HE2    | 1:AF:3:LEU:HA     | 1.86                     | 0.57              |
| 1:AY:45:LEU:HD11  | 1:AY:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:BP:1:MET:HE2    | 1:BP:3:LEU:HA     | 1.86                     | 0.57              |
| 1:AM:15:ARG:NH1   | 1:CA:103:THR:HG21 | 2.12                     | 0.57              |
| 1:CL:45:LEU:HD11  | 1:CL:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:CR:45:LEU:HD11  | 1:CR:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:DA:45:LEU:HD11  | 1:DA:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:EK:45:LEU:HD11  | 1:EK:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:EL:30:VAL:HG22  | 1:EL:42:VAL:HG12  | 1.86                     | 0.57              |
| 1:EQ:45:LEU:HD11  | 1:EQ:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:EW:45:LEU:HD11  | 1:EW:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:GP:45:LEU:HD11  | 1:GP:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:AU:67:VAL:HG12  | 1:AU:77:THR:HG22  | 1.85                     | 0.57              |
| 1:CN:39:ASN:HD21  | 1:CN:42:VAL:HG23  | 1.70                     | 0.57              |
| 1:CT:1:MET:HE2    | 1:CT:3:LEU:HA     | 1.85                     | 0.57              |
| 1:DE:30:VAL:HG22  | 1:DE:42:VAL:HG12  | 1.86                     | 0.57              |
| 1:DJ:45:LEU:HD11  | 1:DJ:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:DL:47:GLN:HG3   | 1:DL:58:VAL:HG22  | 1.87                     | 0.57              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:AI:107:TRP:CE2  | 1:DU:8:LEU:HD11   | 2.39                     | 0.57              |
| 1:DX:1:MET:HE2    | 1:DX:3:LEU:HA     | 1.87                     | 0.57              |
| 1:DY:45:LEU:HD11  | 1:DY:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:FC:45:LEU:HD11  | 1:FC:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:FH:1:MET:HE2    | 1:FH:3:LEU:HA     | 1.86                     | 0.57              |
| 1:FY:30:VAL:HG22  | 1:FY:42:VAL:HG12  | 1.86                     | 0.57              |
| 1:GE:30:VAL:HG22  | 1:GE:42:VAL:HG12  | 1.86                     | 0.57              |
| 1:GH:30:VAL:HG22  | 1:GH:42:VAL:HG12  | 1.86                     | 0.57              |
| 1:GJ:45:LEU:HD11  | 1:GJ:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:GX:67:VAL:HG12  | 1:GX:77:THR:HG22  | 1.85                     | 0.57              |
| 1:AL:39:ASN:HD21  | 1:AL:42:VAL:HG23  | 1.70                     | 0.57              |
| 1:AR:1:MET:HE2    | 1:AR:3:LEU:HA     | 1.86                     | 0.57              |
| 1:AV:3:LEU:HG     | 1:EF:123:ASN:HB3  | 1.85                     | 0.57              |
| 1:AX:47:GLN:HG3   | 1:AX:58:VAL:HG22  | 1.87                     | 0.57              |
| 1:AD:103:THR:HG21 | 1:BC:15:ARG:NH1   | 2.19                     | 0.57              |
| 1:CK:47:GLN:HG3   | 1:CK:58:VAL:HG22  | 1.87                     | 0.57              |
| 1:CS:30:VAL:HG22  | 1:CS:42:VAL:HG12  | 1.86                     | 0.57              |
| 1:CZ:47:GLN:HG3   | 1:CZ:58:VAL:HG22  | 1.87                     | 0.57              |
| 1:DC:1:MET:HE2    | 1:DC:3:LEU:HA     | 1.85                     | 0.57              |
| 1:CS:124:TYR:C    | 1:DF:2:ARG:HH12   | 2.08                     | 0.57              |
| 1:DX:47:GLN:HG3   | 1:DX:58:VAL:HG22  | 1.87                     | 0.57              |
| 1:FK:47:GLN:HG3   | 1:FK:58:VAL:HG22  | 1.87                     | 0.57              |
| 1:GO:67:VAL:HG12  | 1:GO:77:THR:HG22  | 1.85                     | 0.57              |
| 1:AL:1:MET:HE2    | 1:AL:3:LEU:HA     | 1.87                     | 0.57              |
| 1:AL:47:GLN:HG3   | 1:AL:58:VAL:HG22  | 1.87                     | 0.57              |
| 1:BO:30:VAL:HG22  | 1:BO:42:VAL:HG12  | 1.86                     | 0.57              |
| 1:CE:39:ASN:HD21  | 1:CE:42:VAL:HG23  | 1.70                     | 0.57              |
| 1:CU:45:LEU:HD11  | 1:CU:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:DC:47:GLN:HG3   | 1:DC:58:VAL:HG22  | 1.87                     | 0.57              |
| 1:BT:103:THR:HG21 | 1:DN:15:ARG:NH1   | 2.20                     | 0.57              |
| 1:DO:67:VAL:HG12  | 1:DO:77:THR:HG22  | 1.85                     | 0.57              |
| 1:FK:1:MET:HE2    | 1:FK:3:LEU:HA     | 1.86                     | 0.57              |
| 1:FN:47:GLN:HG3   | 1:FN:58:VAL:HG22  | 1.87                     | 0.57              |
| 1:EB:102:GLN:HB2  | 1:GB:10:VAL:HG13  | 1.87                     | 0.57              |
| 1:GB:30:VAL:HG22  | 1:GB:42:VAL:HG12  | 1.86                     | 0.57              |
| 1:CT:10:VAL:HG21  | 1:GF:103:THR:HG22 | 1.86                     | 0.57              |
| 1:GS:45:LEU:HD11  | 1:GS:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:AP:10:VAL:HG21  | 1:BU:103:THR:HG22 | 1.86                     | 0.57              |
| 1:BD:47:GLN:HG3   | 1:BD:58:VAL:HG22  | 1.87                     | 0.57              |
| 1:BF:30:VAL:HG22  | 1:BF:42:VAL:HG12  | 1.86                     | 0.57              |
| 1:BY:39:ASN:HD21  | 1:BY:42:VAL:HG23  | 1.70                     | 0.57              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:CE:47:GLN:HG3  | 1:CE:58:VAL:HG22  | 1.87                     | 0.57              |
| 1:CQ:1:MET:HE2   | 1:CQ:3:LEU:HA     | 1.87                     | 0.57              |
| 1:AF:68:VAL:HG11 | 1:DR:91:THR:HG22  | 1.85                     | 0.57              |
| 1:DU:39:ASN:HD21 | 1:DU:42:VAL:HG23  | 1.70                     | 0.57              |
| 1:EG:47:GLN:HG3  | 1:EG:58:VAL:HG22  | 1.87                     | 0.57              |
| 1:ES:47:GLN:HG3  | 1:ES:58:VAL:HG22  | 1.87                     | 0.57              |
| 1:FF:45:LEU:HD11 | 1:FF:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:FG:30:VAL:HG22 | 1:FG:42:VAL:HG12  | 1.86                     | 0.57              |
| 1:GD:45:LEU:HD11 | 1:GD:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:GF:47:GLN:HG3  | 1:GF:58:VAL:HG22  | 1.87                     | 0.57              |
| 1:GI:39:ASN:HD21 | 1:GI:42:VAL:HG23  | 1.70                     | 0.57              |
| 1:GK:30:VAL:HG22 | 1:GK:42:VAL:HG12  | 1.86                     | 0.57              |
| 1:AC:47:GLN:HG3  | 1:AC:58:VAL:HG22  | 1.87                     | 0.57              |
| 1:AN:15:ARG:HD3  | 1:FR:99:LYS:HE2   | 1.87                     | 0.57              |
| 1:AR:123:ASN:OD1 | 1:ED:1:MET:HB3    | 2.05                     | 0.57              |
| 1:AS:85:THR:OG1  | 1:EL:83:SER:OG    | 2.22                     | 0.57              |
| 1:BD:39:ASN:HD21 | 1:BD:42:VAL:HG23  | 1.70                     | 0.57              |
| 1:BP:39:ASN:HD21 | 1:BP:42:VAL:HG23  | 1.70                     | 0.57              |
| 1:CQ:39:ASN:HD21 | 1:CQ:42:VAL:HG23  | 1.70                     | 0.57              |
| 1:CV:30:VAL:HG22 | 1:CV:42:VAL:HG12  | 1.86                     | 0.57              |
| 1:DI:39:ASN:HD21 | 1:DI:42:VAL:HG23  | 1.70                     | 0.57              |
| 1:EB:45:LEU:HD11 | 1:EB:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:EP:47:GLN:HG3  | 1:EP:58:VAL:HG22  | 1.87                     | 0.57              |
| 1:FB:47:GLN:HG3  | 1:FB:58:VAL:HG22  | 1.87                     | 0.57              |
| 1:AK:124:TYR:O   | 1:FO:2:ARG:HA     | 2.04                     | 0.57              |
| 1:FT:39:ASN:HD21 | 1:FT:42:VAL:HG23  | 1.70                     | 0.57              |
| 1:CH:78:ILE:HD13 | 1:FT:91:THR:HB    | 1.86                     | 0.57              |
| 1:FZ:1:MET:HE2   | 1:FZ:3:LEU:HA     | 1.86                     | 0.57              |
| 1:AU:39:ASN:HD21 | 1:AU:42:VAL:HG23  | 1.70                     | 0.57              |
| 1:BM:47:GLN:HG3  | 1:BM:58:VAL:HG22  | 1.87                     | 0.57              |
| 1:BQ:88:LEU:HD13 | 1:BQ:97:ILE:HD13  | 1.87                     | 0.57              |
| 1:BS:2:ARG:NH1   | 1:EC:124:TYR:OXT  | 2.37                     | 0.57              |
| 1:BZ:45:LEU:HD11 | 1:BZ:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:CE:124:TYR:CE2 | 1:FO:19:VAL:HB    | 2.39                     | 0.57              |
| 1:CW:39:ASN:HD21 | 1:CW:42:VAL:HG23  | 1.70                     | 0.57              |
| 1:CP:15:ARG:NH1  | 1:DJ:103:THR:HG21 | 2.20                     | 0.57              |
| 1:CP:1:MET:HG2   | 1:DJ:123:ASN:OD1  | 2.05                     | 0.57              |
| 1:DR:39:ASN:HD21 | 1:DR:42:VAL:HG23  | 1.70                     | 0.57              |
| 1:DR:47:GLN:HG3  | 1:DR:58:VAL:HG22  | 1.87                     | 0.57              |
| 1:BK:124:TYR:HA  | 1:DW:22:GLN:HE21  | 1.69                     | 0.57              |
| 1:ED:39:ASN:HD21 | 1:ED:42:VAL:HG23  | 1.70                     | 0.57              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:EH:99:LYS:HE2   | 1:EO:15:ARG:NH1   | 2.20                     | 0.57              |
| 1:EY:39:ASN:HD21  | 1:EY:42:VAL:HG23  | 1.70                     | 0.57              |
| 1:FQ:47:GLN:HG3   | 1:FQ:58:VAL:HG22  | 1.87                     | 0.57              |
| 1:EB:58:VAL:HG11  | 1:GB:117:VAL:HG22 | 1.86                     | 0.57              |
| 1:DM:103:THR:HG21 | 1:GT:15:ARG:NH1   | 2.20                     | 0.57              |
| 1:GV:88:LEU:HD13  | 1:GV:97:ILE:HD13  | 1.87                     | 0.57              |
| 1:AI:39:ASN:HD21  | 1:AI:42:VAL:HG23  | 1.70                     | 0.57              |
| 1:AJ:88:LEU:HD13  | 1:AJ:97:ILE:HD13  | 1.87                     | 0.57              |
| 1:AP:88:LEU:HD13  | 1:AP:97:ILE:HD13  | 1.87                     | 0.57              |
| 1:AV:88:LEU:HD13  | 1:AV:97:ILE:HD13  | 1.87                     | 0.57              |
| 1:AX:39:ASN:HD21  | 1:AX:42:VAL:HG23  | 1.70                     | 0.57              |
| 1:BB:88:LEU:HD13  | 1:BB:97:ILE:HD13  | 1.87                     | 0.57              |
| 1:BV:47:GLN:HG3   | 1:BV:58:VAL:HG22  | 1.87                     | 0.57              |
| 1:CF:45:LEU:HD11  | 1:CF:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:CG:30:VAL:HG22  | 1:CG:42:VAL:HG12  | 1.86                     | 0.57              |
| 1:CI:88:LEU:HD13  | 1:CI:97:ILE:HD13  | 1.87                     | 0.57              |
| 1:DA:88:LEU:HD13  | 1:DA:97:ILE:HD13  | 1.87                     | 0.57              |
| 1:DF:39:ASN:HD21  | 1:DF:42:VAL:HG23  | 1.70                     | 0.57              |
| 1:ED:47:GLN:HG3   | 1:ED:58:VAL:HG22  | 1.87                     | 0.57              |
| 1:FH:47:GLN:HG3   | 1:FH:58:VAL:HG22  | 1.87                     | 0.57              |
| 1:FN:39:ASN:HD21  | 1:FN:42:VAL:HG23  | 1.70                     | 0.57              |
| 1:FR:88:LEU:HD13  | 1:FR:97:ILE:HD13  | 1.87                     | 0.57              |
| 1:GA:45:LEU:HD11  | 1:GA:58:VAL:HG13  | 1.86                     | 0.57              |
| 1:EB:10:VAL:HG21  | 1:GB:103:THR:HG22 | 1.87                     | 0.57              |
| 1:GO:47:GLN:HG3   | 1:GO:58:VAL:HG22  | 1.87                     | 0.57              |
| 1:FV:103:THR:HG22 | 1:GS:10:VAL:HG21  | 1.87                     | 0.57              |
| 1:DM:10:VAL:HG21  | 1:GT:103:THR:HG22 | 1.85                     | 0.57              |
| 1:AG:88:LEU:HD13  | 1:AG:97:ILE:HD13  | 1.87                     | 0.56              |
| 1:AW:30:VAL:HG22  | 1:AW:42:VAL:HG12  | 1.86                     | 0.56              |
| 1:BK:58:VAL:HG11  | 1:DW:117:VAL:CG2  | 2.35                     | 0.56              |
| 1:BT:116:PRO:O    | 1:DN:56:ARG:NH1   | 2.35                     | 0.56              |
| 1:BW:88:LEU:HD13  | 1:BW:97:ILE:HD13  | 1.87                     | 0.56              |
| 1:CZ:39:ASN:HD21  | 1:CZ:42:VAL:HG23  | 1.70                     | 0.56              |
| 1:DA:103:THR:HG21 | 1:DE:15:ARG:NH1   | 2.20                     | 0.56              |
| 1:DG:45:LEU:HD11  | 1:DG:58:VAL:HG13  | 1.86                     | 0.56              |
| 1:DI:47:GLN:HG3   | 1:DI:58:VAL:HG22  | 1.87                     | 0.56              |
| 1:DU:47:GLN:HG3   | 1:DU:58:VAL:HG22  | 1.87                     | 0.56              |
| 1:DW:30:VAL:HG22  | 1:DW:42:VAL:HG12  | 1.86                     | 0.56              |
| 1:BO:20:SER:O     | 1:DZ:122:ASN:HB2  | 2.04                     | 0.56              |
| 1:BM:98:THR:HG22  | 1:EY:118:ASP:CG   | 2.25                     | 0.56              |
| 1:FQ:1:MET:HE2    | 1:FQ:3:LEU:HA     | 1.86                     | 0.56              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:DC:103:THR:HG21 | 1:GO:15:ARG:NH1   | 2.18                     | 0.56              |
| 1:AD:88:LEU:HD13  | 1:AD:97:ILE:HD13  | 1.87                     | 0.56              |
| 1:AK:10:VAL:HG21  | 1:FO:103:THR:HG22 | 1.87                     | 0.56              |
| 1:AP:45:LEU:HD11  | 1:AP:58:VAL:HG13  | 1.86                     | 0.56              |
| 1:AR:39:ASN:HD21  | 1:AR:42:VAL:HG23  | 1.70                     | 0.56              |
| 1:AD:99:LYS:HE2   | 1:BC:15:ARG:HH11  | 1.70                     | 0.56              |
| 1:BG:47:GLN:HG3   | 1:BG:58:VAL:HG22  | 1.87                     | 0.56              |
| 1:BN:45:LEU:HD11  | 1:BN:58:VAL:HG13  | 1.86                     | 0.56              |
| 1:BX:30:VAL:HG22  | 1:BX:42:VAL:HG12  | 1.86                     | 0.56              |
| 1:CB:39:ASN:HD21  | 1:CB:42:VAL:HG23  | 1.70                     | 0.56              |
| 1:CH:39:ASN:HD21  | 1:CH:42:VAL:HG23  | 1.70                     | 0.56              |
| 1:CU:88:LEU:HD13  | 1:CU:97:ILE:HD13  | 1.87                     | 0.56              |
| 1:CY:30:VAL:HG22  | 1:CY:42:VAL:HG12  | 1.86                     | 0.56              |
| 1:DO:39:ASN:HD21  | 1:DO:42:VAL:HG23  | 1.70                     | 0.56              |
| 1:AC:118:ASP:HB3  | 1:DO:98:THR:HG22  | 1.87                     | 0.56              |
| 1:DP:88:LEU:HD13  | 1:DP:97:ILE:HD13  | 1.87                     | 0.56              |
| 1:DU:67:VAL:HG12  | 1:DU:77:THR:HG22  | 1.85                     | 0.56              |
| 1:DY:103:THR:HG21 | 1:FY:15:ARG:NH1   | 2.21                     | 0.56              |
| 1:AX:62:LEU:HD21  | 1:EJ:103:THR:OG1  | 2.06                     | 0.56              |
| 1:EV:47:GLN:HG3   | 1:EV:58:VAL:HG22  | 1.87                     | 0.56              |
| 1:EY:47:GLN:HG3   | 1:EY:58:VAL:HG22  | 1.87                     | 0.56              |
| 1:FE:47:GLN:HG3   | 1:FE:58:VAL:HG22  | 1.87                     | 0.56              |
| 1:DV:99:LYS:HE2   | 1:GE:15:ARG:HD3   | 1.85                     | 0.56              |
| 1:GT:30:VAL:HG22  | 1:GT:42:VAL:HG12  | 1.86                     | 0.56              |
| 1:AA:3:LEU:HG     | 1:BI:123:ASN:HB3  | 1.88                     | 0.56              |
| 1:AE:30:VAL:HG22  | 1:AE:42:VAL:HG12  | 1.86                     | 0.56              |
| 1:AH:30:VAL:HG22  | 1:AH:42:VAL:HG12  | 1.86                     | 0.56              |
| 1:AN:30:VAL:HG22  | 1:AN:42:VAL:HG12  | 1.86                     | 0.56              |
| 1:AO:47:GLN:HG3   | 1:AO:58:VAL:HG22  | 1.87                     | 0.56              |
| 1:AT:30:VAL:HG22  | 1:AT:42:VAL:HG12  | 1.86                     | 0.56              |
| 1:AY:88:LEU:HD13  | 1:AY:97:ILE:HD13  | 1.87                     | 0.56              |
| 1:BE:45:LEU:HD11  | 1:BE:58:VAL:HG13  | 1.86                     | 0.56              |
| 1:BJ:39:ASN:HD21  | 1:BJ:42:VAL:HG23  | 1.70                     | 0.56              |
| 1:BS:47:GLN:HG3   | 1:BS:58:VAL:HG22  | 1.87                     | 0.56              |
| 1:CD:30:VAL:HG22  | 1:CD:42:VAL:HG12  | 1.86                     | 0.56              |
| 1:DB:30:VAL:HG22  | 1:DB:42:VAL:HG12  | 1.86                     | 0.56              |
| 1:DK:30:VAL:HG22  | 1:DK:42:VAL:HG12  | 1.86                     | 0.56              |
| 1:DL:39:ASN:HD21  | 1:DL:42:VAL:HG23  | 1.70                     | 0.56              |
| 1:BN:15:ARG:NH1   | 1:DZ:103:THR:HG21 | 2.17                     | 0.56              |
| 1:EE:103:THR:HG21 | 1:EU:15:ARG:NH1   | 2.20                     | 0.56              |
| 1:EW:88:LEU:HD13  | 1:EW:97:ILE:HD13  | 1.87                     | 0.56              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:FH:39:ASN:HD21  | 1:FH:42:VAL:HG23 | 1.70                     | 0.56              |
| 1:FX:88:LEU:HD13  | 1:FX:97:ILE:HD13 | 1.87                     | 0.56              |
| 1:FS:103:THR:HG22 | 1:GP:10:VAL:HG21 | 1.87                     | 0.56              |
| 1:GP:88:LEU:HD13  | 1:GP:97:ILE:HD13 | 1.87                     | 0.56              |
| 1:GX:39:ASN:HD21  | 1:GX:42:VAL:HG23 | 1.70                     | 0.56              |
| 1:AA:45:LEU:HD11  | 1:AA:58:VAL:HG13 | 1.86                     | 0.56              |
| 1:BA:39:ASN:HD21  | 1:BA:42:VAL:HG23 | 1.70                     | 0.56              |
| 1:BH:88:LEU:HD13  | 1:BH:97:ILE:HD13 | 1.87                     | 0.56              |
| 1:BU:30:VAL:HG22  | 1:BU:42:VAL:HG12 | 1.86                     | 0.56              |
| 1:BY:47:GLN:HG3   | 1:BY:58:VAL:HG22 | 1.87                     | 0.56              |
| 1:CX:103:THR:HG21 | 1:DK:15:ARG:NH1  | 2.20                     | 0.56              |
| 1:DS:88:LEU:HD13  | 1:DS:97:ILE:HD13 | 1.87                     | 0.56              |
| 1:EM:39:ASN:HD21  | 1:EM:42:VAL:HG23 | 1.70                     | 0.56              |
| 1:FS:103:THR:HG21 | 1:GP:15:ARG:NH1  | 2.19                     | 0.56              |
| 1:FT:47:GLN:HG3   | 1:FT:58:VAL:HG22 | 1.87                     | 0.56              |
| 1:FV:30:VAL:HG22  | 1:FV:42:VAL:HG12 | 1.86                     | 0.56              |
| 1:AH:15:ARG:NH1   | 1:GD:99:LYS:HE2  | 2.20                     | 0.56              |
| 1:GN:30:VAL:HG22  | 1:GN:42:VAL:HG12 | 1.86                     | 0.56              |
| 1:AG:103:THR:HG21 | 1:BF:15:ARG:NH1  | 2.19                     | 0.56              |
| 1:BV:39:ASN:HD21  | 1:BV:42:VAL:HG23 | 1.70                     | 0.56              |
| 1:CM:30:VAL:HG22  | 1:CM:42:VAL:HG12 | 1.86                     | 0.56              |
| 1:AC:118:ASP:CG   | 1:DO:98:THR:HG22 | 2.26                     | 0.56              |
| 1:DZ:30:VAL:HG22  | 1:DZ:42:VAL:HG12 | 1.86                     | 0.56              |
| 1:EK:88:LEU:HD13  | 1:EK:97:ILE:HD13 | 1.87                     | 0.56              |
| 1:EV:2:ARG:HH12   | 1:FG:124:TYR:C   | 2.08                     | 0.56              |
| 1:FA:30:VAL:HG22  | 1:FA:42:VAL:HG12 | 1.86                     | 0.56              |
| 1:FR:45:LEU:HD11  | 1:FR:58:VAL:HG13 | 1.86                     | 0.56              |
| 1:GJ:88:LEU:HD13  | 1:GJ:97:ILE:HD13 | 1.87                     | 0.56              |
| 1:GX:1:MET:HE2    | 1:GX:3:LEU:HA    | 1.87                     | 0.56              |
| 1:AO:39:ASN:HD21  | 1:AO:42:VAL:HG23 | 1.70                     | 0.56              |
| 1:AV:78:ILE:HD13  | 1:EF:91:THR:OG1  | 2.04                     | 0.56              |
| 1:AY:65:PRO:HB3   | 1:AY:79:LYS:HG2  | 1.88                     | 0.56              |
| 1:CE:22:GLN:NE2   | 1:FQ:124:TYR:HA  | 2.20                     | 0.56              |
| 1:DO:47:GLN:HG3   | 1:DO:58:VAL:HG22 | 1.87                     | 0.56              |
| 1:EA:39:ASN:HD21  | 1:EA:42:VAL:HG23 | 1.70                     | 0.56              |
| 1:EN:65:PRO:HB3   | 1:EN:79:LYS:HG2  | 1.88                     | 0.56              |
| 1:EH:120:GLY:HA2  | 1:EO:47:GLN:HE22 | 1.71                     | 0.56              |
| 1:FC:88:LEU:HD13  | 1:FC:97:ILE:HD13 | 1.87                     | 0.56              |
| 1:FD:30:VAL:HG22  | 1:FD:42:VAL:HG12 | 1.86                     | 0.56              |
| 1:FD:123:ASN:HB3  | 1:FF:3:LEU:HG    | 1.88                     | 0.56              |
| 1:FF:88:LEU:HD13  | 1:FF:97:ILE:HD13 | 1.87                     | 0.56              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:GC:39:ASN:HD21  | 1:GC:42:VAL:HG23  | 1.70                     | 0.56              |
| 1:GD:88:LEU:HD13  | 1:GD:97:ILE:HD13  | 1.87                     | 0.56              |
| 1:GL:39:ASN:HD21  | 1:GL:42:VAL:HG23  | 1.70                     | 0.56              |
| 1:AC:39:ASN:HD21  | 1:AC:42:VAL:HG23  | 1.70                     | 0.56              |
| 1:AV:45:LEU:HD11  | 1:AV:58:VAL:HG13  | 1.86                     | 0.56              |
| 1:BG:39:ASN:HD21  | 1:BG:42:VAL:HG23  | 1.70                     | 0.56              |
| 1:BJ:47:GLN:HG3   | 1:BJ:58:VAL:HG22  | 1.87                     | 0.56              |
| 1:BH:120:GLY:HA2  | 1:BO:47:GLN:HE22  | 1.70                     | 0.56              |
| 1:BS:39:ASN:HD21  | 1:BS:42:VAL:HG23  | 1.70                     | 0.56              |
| 1:CN:47:GLN:HG3   | 1:CN:58:VAL:HG22  | 1.87                     | 0.56              |
| 1:CO:65:PRO:HB3   | 1:CO:79:LYS:HG2   | 1.88                     | 0.56              |
| 1:CT:47:GLN:HG3   | 1:CT:58:VAL:HG22  | 1.87                     | 0.56              |
| 1:DC:39:ASN:HD21  | 1:DC:42:VAL:HG23  | 1.70                     | 0.56              |
| 1:DM:45:LEU:HD11  | 1:DM:58:VAL:HG13  | 1.86                     | 0.56              |
| 1:BT:103:THR:OG1  | 1:DN:62:LEU:HD21  | 2.05                     | 0.56              |
| 1:DQ:30:VAL:HG22  | 1:DQ:42:VAL:HG12  | 1.86                     | 0.56              |
| 1:BQ:3:LEU:HG     | 1:EC:123:ASN:HB3  | 1.86                     | 0.56              |
| 1:EE:88:LEU:HD13  | 1:EE:97:ILE:HD13  | 1.87                     | 0.56              |
| 1:AY:103:THR:HG21 | 1:EI:15:ARG:NH1   | 2.21                     | 0.56              |
| 1:EM:47:GLN:HG3   | 1:EM:58:VAL:HG22  | 1.87                     | 0.56              |
| 1:FB:39:ASN:HD21  | 1:FB:42:VAL:HG23  | 1.70                     | 0.56              |
| 1:FL:65:PRO:HB3   | 1:FL:79:LYS:HG2   | 1.88                     | 0.56              |
| 1:GI:47:GLN:HG3   | 1:GI:58:VAL:HG22  | 1.87                     | 0.56              |
| 1:GR:47:GLN:HG3   | 1:GR:58:VAL:HG22  | 1.87                     | 0.56              |
| 1:AF:15:ARG:NH1   | 1:DR:103:THR:HG21 | 2.21                     | 0.56              |
| 1:AU:121:LEU:HD22 | 1:EE:20:SER:HA    | 1.88                     | 0.56              |
| 1:AF:2:ARG:NH1    | 1:BC:124:TYR:OXT  | 2.39                     | 0.56              |
| 1:BE:65:PRO:HB3   | 1:BE:79:LYS:HG2   | 1.88                     | 0.56              |
| 1:BM:39:ASN:HD21  | 1:BM:42:VAL:HG23  | 1.70                     | 0.56              |
| 1:BY:2:ARG:HH12   | 1:DQ:124:TYR:C    | 2.08                     | 0.56              |
| 1:CT:39:ASN:HD21  | 1:CT:42:VAL:HG23  | 1.70                     | 0.56              |
| 1:DD:65:PRO:HB3   | 1:DD:79:LYS:HG2   | 1.88                     | 0.56              |
| 1:DA:3:LEU:HG     | 1:DE:123:ASN:HB3  | 1.87                     | 0.56              |
| 1:DF:47:GLN:HG3   | 1:DF:58:VAL:HG22  | 1.87                     | 0.56              |
| 1:EJ:39:ASN:HD21  | 1:EJ:42:VAL:HG23  | 1.70                     | 0.56              |
| 1:EL:99:LYS:O     | 1:EL:103:THR:HG23 | 2.06                     | 0.56              |
| 1:EW:65:PRO:HB3   | 1:EW:79:LYS:HG2   | 1.88                     | 0.56              |
| 1:FE:39:ASN:HD21  | 1:FE:42:VAL:HG23  | 1.70                     | 0.56              |
| 1:FR:65:PRO:HB3   | 1:FR:79:LYS:HG2   | 1.88                     | 0.56              |
| 1:FW:1:MET:HE2    | 1:FW:3:LEU:HA     | 1.86                     | 0.56              |
| 1:DB:124:TYR:C    | 1:GL:2:ARG:HH12   | 2.09                     | 0.56              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:GM:65:PRO:HB3   | 1:GM:79:LYS:HG2   | 1.88                     | 0.56              |
| 1:GO:39:ASN:HD21  | 1:GO:42:VAL:HG23  | 1.70                     | 0.56              |
| 1:GP:65:PRO:HB3   | 1:GP:79:LYS:HG2   | 1.88                     | 0.56              |
| 1:GU:39:ASN:HD21  | 1:GU:42:VAL:HG23  | 1.70                     | 0.56              |
| 1:AF:103:THR:HG21 | 1:DR:15:ARG:HH11  | 1.70                     | 0.56              |
| 1:AF:39:ASN:HD21  | 1:AF:42:VAL:HG23  | 1.70                     | 0.56              |
| 1:AJ:65:PRO:HB3   | 1:AJ:79:LYS:HG2   | 1.88                     | 0.56              |
| 1:AS:88:LEU:HD13  | 1:AS:97:ILE:HD13  | 1.87                     | 0.56              |
| 1:AV:65:PRO:HB3   | 1:AV:79:LYS:HG2   | 1.88                     | 0.56              |
| 1:BR:99:LYS:O     | 1:BR:103:THR:HG23 | 2.06                     | 0.56              |
| 1:BZ:88:LEU:HD13  | 1:BZ:97:ILE:HD13  | 1.87                     | 0.56              |
| 1:CD:99:LYS:O     | 1:CD:103:THR:HG23 | 2.06                     | 0.56              |
| 1:CI:65:PRO:HB3   | 1:CI:79:LYS:HG2   | 1.88                     | 0.56              |
| 1:CM:99:LYS:O     | 1:CM:103:THR:HG23 | 2.06                     | 0.56              |
| 1:CR:88:LEU:HD13  | 1:CR:97:ILE:HD13  | 1.87                     | 0.56              |
| 1:CV:103:THR:HG21 | 1:GM:15:ARG:NH1   | 2.17                     | 0.56              |
| 1:CM:124:TYR:C    | 1:DI:2:ARG:HH12   | 2.09                     | 0.56              |
| 1:DK:99:LYS:O     | 1:DK:103:THR:HG23 | 2.06                     | 0.56              |
| 1:DN:99:LYS:O     | 1:DN:103:THR:HG23 | 2.06                     | 0.56              |
| 1:EO:99:LYS:O     | 1:EO:103:THR:HG23 | 2.06                     | 0.56              |
| 1:EP:39:ASN:HD21  | 1:EP:42:VAL:HG23  | 1.70                     | 0.56              |
| 1:EU:99:LYS:O     | 1:EU:103:THR:HG23 | 2.06                     | 0.56              |
| 1:FI:65:PRO:HB3   | 1:FI:79:LYS:HG2   | 1.88                     | 0.56              |
| 1:AH:22:GLN:NE2   | 1:GD:124:TYR:OXT  | 2.38                     | 0.56              |
| 1:GM:88:LEU:HD13  | 1:GM:97:ILE:HD13  | 1.87                     | 0.56              |
| 1:GS:65:PRO:HB3   | 1:GS:79:LYS:HG2   | 1.88                     | 0.56              |
| 1:GV:65:PRO:HB3   | 1:GV:79:LYS:HG2   | 1.88                     | 0.56              |
| 1:GW:99:LYS:O     | 1:GW:103:THR:HG23 | 2.06                     | 0.56              |
| 1:AP:65:PRO:HB3   | 1:AP:79:LYS:HG2   | 1.88                     | 0.56              |
| 1:BI:30:VAL:HG22  | 1:BI:42:VAL:HG12  | 1.86                     | 0.56              |
| 1:CB:47:GLN:HG3   | 1:CB:58:VAL:HG22  | 1.87                     | 0.56              |
| 1:CC:124:TYR:OXT  | 1:GK:22:GLN:NE2   | 2.39                     | 0.56              |
| 1:CF:124:TYR:OXT  | 1:GN:22:GLN:NE2   | 2.39                     | 0.56              |
| 1:DW:99:LYS:O     | 1:DW:103:THR:HG23 | 2.06                     | 0.56              |
| 1:EA:1:MET:HE2    | 1:EA:3:LEU:HA     | 1.88                     | 0.56              |
| 1:EG:1:MET:HE2    | 1:EG:3:LEU:HA     | 1.86                     | 0.56              |
| 1:EH:45:LEU:HD11  | 1:EH:58:VAL:HG13  | 1.86                     | 0.56              |
| 1:FU:88:LEU:HD13  | 1:FU:97:ILE:HD13  | 1.87                     | 0.56              |
| 1:AB:15:ARG:NH1   | 1:FX:103:THR:HG21 | 2.21                     | 0.56              |
| 1:GD:65:PRO:HB3   | 1:GD:79:LYS:HG2   | 1.88                     | 0.56              |
| 1:AH:15:ARG:HH11  | 1:GD:99:LYS:HE2   | 1.69                     | 0.56              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:DC:124:TYR:CE1 | 1:GO:2:ARG:HD2    | 2.41                     | 0.56              |
| 1:AA:65:PRO:HB3  | 1:AA:79:LYS:HG2   | 1.88                     | 0.56              |
| 1:AF:47:GLN:HG3  | 1:AF:58:VAL:HG22  | 1.87                     | 0.56              |
| 1:AI:47:GLN:HG3  | 1:AI:58:VAL:HG22  | 1.87                     | 0.56              |
| 1:AG:15:ARG:NH1  | 1:BF:103:THR:HG21 | 2.18                     | 0.56              |
| 1:BP:47:GLN:HG3  | 1:BP:58:VAL:HG22  | 1.87                     | 0.56              |
| 1:CK:39:ASN:HD21 | 1:CK:42:VAL:HG23  | 1.70                     | 0.56              |
| 1:CW:47:GLN:HG3  | 1:CW:58:VAL:HG22  | 1.87                     | 0.56              |
| 1:DV:65:PRO:HB3  | 1:DV:79:LYS:HG2   | 1.88                     | 0.56              |
| 1:EF:99:LYS:O    | 1:EF:103:THR:HG23 | 2.06                     | 0.56              |
| 1:EJ:47:GLN:HG3  | 1:EJ:58:VAL:HG22  | 1.87                     | 0.56              |
| 1:FC:65:PRO:HB3  | 1:FC:79:LYS:HG2   | 1.88                     | 0.56              |
| 1:FO:65:PRO:HB3  | 1:FO:79:LYS:HG2   | 1.88                     | 0.56              |
| 1:FY:99:LYS:O    | 1:FY:103:THR:HG23 | 2.06                     | 0.56              |
| 1:GC:47:GLN:HG3  | 1:GC:58:VAL:HG22  | 1.87                     | 0.56              |
| 1:GL:47:GLN:HG3  | 1:GL:58:VAL:HG22  | 1.87                     | 0.56              |
| 1:GN:99:LYS:O    | 1:GN:103:THR:HG23 | 2.06                     | 0.56              |
| 1:AA:88:LEU:HD13 | 1:AA:97:ILE:HD13  | 1.87                     | 0.55              |
| 1:AK:122:ASN:HB2 | 1:FP:20:SER:O     | 2.06                     | 0.55              |
| 1:AK:15:ARG:NH1  | 1:FO:103:THR:HG21 | 2.21                     | 0.55              |
| 1:AK:99:LYS:O    | 1:AK:103:THR:HG23 | 2.06                     | 0.55              |
| 1:AQ:99:LYS:O    | 1:AQ:103:THR:HG23 | 2.06                     | 0.55              |
| 1:BF:99:LYS:O    | 1:BF:103:THR:HG23 | 2.06                     | 0.55              |
| 1:BU:99:LYS:O    | 1:BU:103:THR:HG23 | 2.06                     | 0.55              |
| 1:CH:47:GLN:HG3  | 1:CH:58:VAL:HG22  | 1.87                     | 0.55              |
| 1:CJ:124:TYR:OXT | 1:CQ:2:ARG:NH1    | 2.40                     | 0.55              |
| 1:CX:65:PRO:HB3  | 1:CX:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:CX:88:LEU:HD13 | 1:CX:97:ILE:HD13  | 1.87                     | 0.55              |
| 1:DB:99:LYS:O    | 1:DB:103:THR:HG23 | 2.06                     | 0.55              |
| 1:DG:88:LEU:HD13 | 1:DG:97:ILE:HD13  | 1.87                     | 0.55              |
| 1:DM:99:LYS:HE2  | 1:GT:15:ARG:HH11  | 1.71                     | 0.55              |
| 1:DP:65:PRO:HB3  | 1:DP:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:DX:39:ASN:HD21 | 1:DX:42:VAL:HG23  | 1.70                     | 0.55              |
| 1:DZ:99:LYS:O    | 1:DZ:103:THR:HG23 | 2.06                     | 0.55              |
| 1:EA:2:ARG:HH12  | 1:FY:124:TYR:C    | 2.09                     | 0.55              |
| 1:EA:47:GLN:HG3  | 1:EA:58:VAL:HG22  | 1.87                     | 0.55              |
| 1:EB:88:LEU:HD13 | 1:EB:97:ILE:HD13  | 1.87                     | 0.55              |
| 1:EI:99:LYS:O    | 1:EI:103:THR:HG23 | 2.06                     | 0.55              |
| 1:EV:39:ASN:HD21 | 1:EV:42:VAL:HG23  | 1.70                     | 0.55              |
| 1:FL:88:LEU:HD13 | 1:FL:97:ILE:HD13  | 1.87                     | 0.55              |
| 1:FM:99:LYS:O    | 1:FM:103:THR:HG23 | 2.06                     | 0.55              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:FW:39:ASN:HD21  | 1:FW:42:VAL:HG23  | 1.70                     | 0.55              |
| 1:DU:2:ARG:HH12   | 1:GQ:124:TYR:C    | 2.10                     | 0.55              |
| 1:DI:15:ARG:NH1   | 1:GU:103:THR:HG21 | 2.21                     | 0.55              |
| 1:GU:47:GLN:HG3   | 1:GU:58:VAL:HG22  | 1.87                     | 0.55              |
| 1:AD:65:PRO:HB3   | 1:AD:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:AN:99:LYS:O     | 1:AN:103:THR:HG23 | 2.06                     | 0.55              |
| 1:BA:47:GLN:HG3   | 1:BA:58:VAL:HG22  | 1.87                     | 0.55              |
| 1:BE:88:LEU:HD13  | 1:BE:97:ILE:HD13  | 1.87                     | 0.55              |
| 1:BI:99:LYS:O     | 1:BI:103:THR:HG23 | 2.06                     | 0.55              |
| 1:BJ:1:MET:HE2    | 1:BJ:3:LEU:HA     | 1.88                     | 0.55              |
| 1:CL:65:PRO:HB3   | 1:CL:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:CO:88:LEU:HD13  | 1:CO:97:ILE:HD13  | 1.87                     | 0.55              |
| 1:CQ:103:THR:HG21 | 1:GC:15:ARG:NH1   | 2.21                     | 0.55              |
| 1:DE:99:LYS:O     | 1:DE:103:THR:HG23 | 2.06                     | 0.55              |
| 1:DY:88:LEU:HD13  | 1:DY:97:ILE:HD13  | 1.87                     | 0.55              |
| 1:EB:1:MET:SD     | 1:GB:111:GLN:HB2  | 2.45                     | 0.55              |
| 1:ES:39:ASN:HD21  | 1:ES:42:VAL:HG23  | 1.70                     | 0.55              |
| 1:AW:124:TYR:C    | 1:FE:2:ARG:HH12   | 2.09                     | 0.55              |
| 1:FK:39:ASN:HD21  | 1:FK:42:VAL:HG23  | 1.70                     | 0.55              |
| 1:DV:120:GLY:HA2  | 1:GE:47:GLN:HE22  | 1.71                     | 0.55              |
| 1:CC:121:LEU:HD11 | 1:GL:19:VAL:O     | 2.05                     | 0.55              |
| 1:DS:103:THR:HG22 | 1:GQ:10:VAL:HG21  | 1.89                     | 0.55              |
| 1:GR:39:ASN:HD21  | 1:GR:42:VAL:HG23  | 1.70                     | 0.55              |
| 1:AH:99:LYS:O     | 1:AH:103:THR:HG23 | 2.06                     | 0.55              |
| 1:AO:8:LEU:HD11   | 1:EA:107:TRP:CE2  | 2.42                     | 0.55              |
| 1:AR:47:GLN:HG3   | 1:AR:58:VAL:HG22  | 1.87                     | 0.55              |
| 1:AU:47:GLN:HG3   | 1:AU:58:VAL:HG22  | 1.87                     | 0.55              |
| 1:BB:65:PRO:HB3   | 1:BB:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:BQ:65:PRO:HB3   | 1:BQ:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:CQ:47:GLN:HG3   | 1:CQ:58:VAL:HG22  | 1.87                     | 0.55              |
| 1:CR:65:PRO:HB3   | 1:CR:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:DT:30:VAL:HG22  | 1:DT:42:VAL:HG12  | 1.86                     | 0.55              |
| 1:DV:88:LEU:HD13  | 1:DV:97:ILE:HD13  | 1.87                     | 0.55              |
| 1:ET:88:LEU:HD13  | 1:ET:97:ILE:HD13  | 1.87                     | 0.55              |
| 1:FD:99:LYS:O     | 1:FD:103:THR:HG23 | 2.06                     | 0.55              |
| 1:FQ:39:ASN:HD21  | 1:FQ:42:VAL:HG23  | 1.70                     | 0.55              |
| 1:GE:99:LYS:O     | 1:GE:103:THR:HG23 | 2.06                     | 0.55              |
| 1:GG:65:PRO:HB3   | 1:GG:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:CI:15:ARG:NH1   | 1:GH:103:THR:HG21 | 2.17                     | 0.55              |
| 1:GT:99:LYS:O     | 1:GT:103:THR:HG23 | 2.06                     | 0.55              |
| 1:AM:88:LEU:HD13  | 1:AM:97:ILE:HD13  | 1.87                     | 0.55              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:AS:65:PRO:HB3  | 1:AS:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:BN:88:LEU:HD13 | 1:BN:97:ILE:HD13  | 1.87                     | 0.55              |
| 1:BO:99:LYS:O    | 1:BO:103:THR:HG23 | 2.06                     | 0.55              |
| 1:CF:65:PRO:HB3  | 1:CF:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:DA:65:PRO:HB3  | 1:DA:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:CU:99:LYS:HE2  | 1:DH:15:ARG:HH11  | 1.71                     | 0.55              |
| 1:EK:65:PRO:HB3  | 1:EK:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:EN:88:LEU:HD13 | 1:EN:97:ILE:HD13  | 1.87                     | 0.55              |
| 1:EH:102:GLN:HB2 | 1:EO:10:VAL:HG13  | 1.88                     | 0.55              |
| 1:FE:1:MET:HE2   | 1:FE:3:LEU:HA     | 1.87                     | 0.55              |
| 1:FJ:99:LYS:O    | 1:FJ:103:THR:HG23 | 2.06                     | 0.55              |
| 1:FW:47:GLN:HG3  | 1:FW:58:VAL:HG22  | 1.87                     | 0.55              |
| 1:GK:99:LYS:O    | 1:GK:103:THR:HG23 | 2.06                     | 0.55              |
| 1:BH:65:PRO:HB3  | 1:BH:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:BL:99:LYS:O    | 1:BL:103:THR:HG23 | 2.06                     | 0.55              |
| 1:BN:118:ASP:HB3 | 1:DZ:98:THR:HG22  | 1.88                     | 0.55              |
| 1:BT:88:LEU:HD13 | 1:BT:97:ILE:HD13  | 1.87                     | 0.55              |
| 1:BX:99:LYS:O    | 1:BX:103:THR:HG23 | 2.06                     | 0.55              |
| 1:CC:124:TYR:HA  | 1:GK:22:GLN:HE21  | 1.69                     | 0.55              |
| 1:CV:99:LYS:O    | 1:CV:103:THR:HG23 | 2.06                     | 0.55              |
| 1:DJ:65:PRO:HB3  | 1:DJ:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:DM:88:LEU:HD13 | 1:DM:97:ILE:HD13  | 1.87                     | 0.55              |
| 1:DQ:99:LYS:O    | 1:DQ:103:THR:HG23 | 2.06                     | 0.55              |
| 1:EX:30:VAL:HG22 | 1:EX:42:VAL:HG12  | 1.86                     | 0.55              |
| 1:FO:88:LEU:HD13 | 1:FO:97:ILE:HD13  | 1.87                     | 0.55              |
| 1:FS:99:LYS:O    | 1:FS:103:THR:HG23 | 2.06                     | 0.55              |
| 1:AE:10:VAL:HG13 | 1:GA:102:GLN:CB   | 2.37                     | 0.55              |
| 1:AT:99:LYS:O    | 1:AT:103:THR:HG23 | 2.06                     | 0.55              |
| 1:AZ:99:LYS:O    | 1:AZ:103:THR:HG23 | 2.06                     | 0.55              |
| 1:BC:99:LYS:O    | 1:BC:103:THR:HG23 | 2.06                     | 0.55              |
| 1:BT:65:PRO:HB3  | 1:BT:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:CP:99:LYS:O    | 1:CP:103:THR:HG23 | 2.06                     | 0.55              |
| 1:DG:65:PRO:HB3  | 1:DG:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:EC:99:LYS:O    | 1:EC:103:THR:HG23 | 2.06                     | 0.55              |
| 1:AR:78:ILE:HD13 | 1:ED:91:THR:HB    | 1.89                     | 0.55              |
| 1:EH:65:PRO:HB3  | 1:EH:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:EN:122:ASN:HB2 | 1:FK:20:SER:O     | 2.07                     | 0.55              |
| 1:ER:99:LYS:O    | 1:ER:103:THR:HG23 | 2.06                     | 0.55              |
| 1:AK:123:ASN:OD1 | 1:FO:1:MET:HB3    | 2.06                     | 0.55              |
| 1:FP:99:LYS:O    | 1:FP:103:THR:HG23 | 2.06                     | 0.55              |
| 1:FZ:39:ASN:HD21 | 1:FZ:42:VAL:HG23  | 1.70                     | 0.55              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:GA:65:PRO:HB3   | 1:GA:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:GI:1:MET:HE2    | 1:GI:3:LEU:HA     | 1.88                     | 0.55              |
| 1:DC:68:VAL:HG11  | 1:GO:91:THR:CG2   | 2.36                     | 0.55              |
| 1:AH:103:THR:HG21 | 1:GD:15:ARG:NH1   | 2.18                     | 0.55              |
| 1:BW:65:PRO:HB3   | 1:BW:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:DM:65:PRO:HB3   | 1:DM:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:ET:65:PRO:HB3   | 1:ET:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:FZ:47:GLN:HG3   | 1:FZ:58:VAL:HG22  | 1.87                     | 0.55              |
| 1:GF:39:ASN:HD21  | 1:GF:42:VAL:HG23  | 1.70                     | 0.55              |
| 1:AW:99:LYS:O     | 1:AW:103:THR:HG23 | 2.06                     | 0.55              |
| 1:CY:99:LYS:O     | 1:CY:103:THR:HG23 | 2.06                     | 0.55              |
| 1:DJ:88:LEU:HD13  | 1:DJ:97:ILE:HD13  | 1.87                     | 0.55              |
| 1:EE:122:ASN:HB2  | 1:EV:20:SER:O     | 2.07                     | 0.55              |
| 1:FG:99:LYS:O     | 1:FG:103:THR:HG23 | 2.06                     | 0.55              |
| 1:FI:88:LEU:HD13  | 1:FI:97:ILE:HD13  | 1.87                     | 0.55              |
| 1:ES:2:ARG:HH12   | 1:FM:124:TYR:C    | 2.09                     | 0.55              |
| 1:AC:2:ARG:HH12   | 1:BI:124:TYR:C    | 2.10                     | 0.55              |
| 1:CC:88:LEU:HD13  | 1:CC:97:ILE:HD13  | 1.87                     | 0.55              |
| 1:CF:88:LEU:HD13  | 1:CF:97:ILE:HD13  | 1.87                     | 0.55              |
| 1:CJ:99:LYS:O     | 1:CJ:103:THR:HG23 | 2.06                     | 0.55              |
| 1:DB:103:THR:HG22 | 1:GJ:10:VAL:CG2   | 2.34                     | 0.55              |
| 1:AL:107:TRP:CE2  | 1:DX:8:LEU:HD11   | 2.42                     | 0.55              |
| 1:EH:88:LEU:HD13  | 1:EH:97:ILE:HD13  | 1.87                     | 0.55              |
| 1:EQ:88:LEU:HD13  | 1:EQ:97:ILE:HD13  | 1.87                     | 0.55              |
| 1:EE:15:ARG:NH1   | 1:EU:103:THR:HG21 | 2.17                     | 0.55              |
| 1:EX:99:LYS:O     | 1:EX:103:THR:HG23 | 2.06                     | 0.55              |
| 1:EZ:65:PRO:HB3   | 1:EZ:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:BY:91:THR:HG22  | 1:FK:68:VAL:HG11  | 1.89                     | 0.55              |
| 1:FV:99:LYS:O     | 1:FV:103:THR:HG23 | 2.06                     | 0.55              |
| 1:GB:99:LYS:O     | 1:GB:103:THR:HG23 | 2.06                     | 0.55              |
| 1:GH:99:LYS:O     | 1:GH:103:THR:HG23 | 2.06                     | 0.55              |
| 1:GQ:99:LYS:O     | 1:GQ:103:THR:HG23 | 2.06                     | 0.55              |
| 1:AB:99:LYS:O     | 1:AB:103:THR:HG23 | 2.06                     | 0.55              |
| 1:AE:99:LYS:O     | 1:AE:103:THR:HG23 | 2.06                     | 0.55              |
| 1:AP:1:MET:SD     | 1:BU:111:GLN:HB2  | 2.47                     | 0.55              |
| 1:BK:65:PRO:HB3   | 1:BK:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:CG:117:VAL:HG22 | 1:CL:58:VAL:HG11  | 1.89                     | 0.55              |
| 1:CL:88:LEU:HD13  | 1:CL:97:ILE:HD13  | 1.87                     | 0.55              |
| 1:CZ:91:THR:HG22  | 1:GL:68:VAL:HG11  | 1.87                     | 0.55              |
| 1:CS:15:ARG:NH1   | 1:DD:103:THR:HG21 | 2.22                     | 0.55              |
| 1:DD:88:LEU:HD13  | 1:DD:97:ILE:HD13  | 1.87                     | 0.55              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:CU:15:ARG:NH1   | 1:DH:103:THR:HG21 | 2.17                     | 0.55              |
| 1:EB:65:PRO:HB3   | 1:EB:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:AU:124:TYR:HA   | 1:EG:22:GLN:NE2   | 2.21                     | 0.55              |
| 1:EZ:88:LEU:HD13  | 1:EZ:97:ILE:HD13  | 1.87                     | 0.55              |
| 1:FU:65:PRO:HB3   | 1:FU:79:LYS:HG2   | 1.88                     | 0.55              |
| 1:AG:65:PRO:HB3   | 1:AG:79:LYS:HG2   | 1.88                     | 0.54              |
| 1:AQ:15:ARG:NH1   | 1:FU:103:THR:HG21 | 2.22                     | 0.54              |
| 1:AA:15:ARG:NH1   | 1:BI:103:THR:HG21 | 2.15                     | 0.54              |
| 1:CU:65:PRO:HB3   | 1:CU:79:LYS:HG2   | 1.88                     | 0.54              |
| 1:DS:65:PRO:HB3   | 1:DS:79:LYS:HG2   | 1.88                     | 0.54              |
| 1:DY:65:PRO:HB3   | 1:DY:79:LYS:HG2   | 1.88                     | 0.54              |
| 1:GA:88:LEU:HD13  | 1:GA:97:ILE:HD13  | 1.87                     | 0.54              |
| 1:GG:88:LEU:HD13  | 1:GG:97:ILE:HD13  | 1.87                     | 0.54              |
| 1:CV:22:GLN:HE21  | 1:GM:124:TYR:C    | 2.10                     | 0.54              |
| 1:DI:8:LEU:HD11   | 1:GU:107:TRP:CE2  | 2.41                     | 0.54              |
| 1:BK:88:LEU:HD13  | 1:BK:97:ILE:HD13  | 1.87                     | 0.54              |
| 1:BM:98:THR:HG22  | 1:EY:118:ASP:HB3  | 1.89                     | 0.54              |
| 1:BZ:65:PRO:HB3   | 1:BZ:79:LYS:HG2   | 1.88                     | 0.54              |
| 1:CA:99:LYS:O     | 1:CA:103:THR:HG23 | 2.06                     | 0.54              |
| 1:CC:65:PRO:HB3   | 1:CC:79:LYS:HG2   | 1.88                     | 0.54              |
| 1:CG:99:LYS:O     | 1:CG:103:THR:HG23 | 2.06                     | 0.54              |
| 1:CY:83:SER:OG    | 1:GG:85:THR:OG1   | 2.25                     | 0.54              |
| 1:ET:103:THR:HG22 | 1:FG:10:VAL:HG21  | 1.89                     | 0.54              |
| 1:FP:10:VAL:HG21  | 1:GV:103:THR:HG22 | 1.88                     | 0.54              |
| 1:CF:20:SER:O     | 1:FT:122:ASN:HB2  | 2.07                     | 0.54              |
| 1:CK:103:THR:HG22 | 1:FW:10:VAL:HG21  | 1.88                     | 0.54              |
| 1:EB:124:TYR:HA   | 1:GB:22:GLN:HE21  | 1.71                     | 0.54              |
| 1:GJ:65:PRO:HB3   | 1:GJ:79:LYS:HG2   | 1.88                     | 0.54              |
| 1:CG:22:GLN:HB3   | 1:GN:124:TYR:HB2  | 1.89                     | 0.54              |
| 1:CS:99:LYS:O     | 1:CS:103:THR:HG23 | 2.06                     | 0.54              |
| 1:DO:2:ARG:NH1    | 1:GT:124:TYR:OXT  | 2.41                     | 0.54              |
| 1:DT:99:LYS:O     | 1:DT:103:THR:HG23 | 2.06                     | 0.54              |
| 1:DV:124:TYR:CD2  | 1:GF:19:VAL:HB    | 2.43                     | 0.54              |
| 1:FA:99:LYS:O     | 1:FA:103:THR:HG23 | 2.06                     | 0.54              |
| 1:FF:65:PRO:HB3   | 1:FF:79:LYS:HG2   | 1.88                     | 0.54              |
| 1:GX:47:GLN:HG3   | 1:GX:58:VAL:HG22  | 1.87                     | 0.54              |
| 1:AM:65:PRO:HB3   | 1:AM:79:LYS:HG2   | 1.88                     | 0.54              |
| 1:BK:10:VAL:HG21  | 1:DW:103:THR:HG22 | 1.90                     | 0.54              |
| 1:AF:103:THR:HG21 | 1:DR:15:ARG:NH1   | 2.23                     | 0.54              |
| 1:AW:15:ARG:NH1   | 1:FC:103:THR:HG21 | 2.23                     | 0.54              |
| 1:GS:88:LEU:HD13  | 1:GS:97:ILE:HD13  | 1.87                     | 0.54              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:AW:103:THR:HG21 | 1:FC:15:ARG:NH1   | 2.19                     | 0.54              |
| 1:DV:103:THR:HG21 | 1:GE:15:ARG:NH1   | 2.22                     | 0.54              |
| 1:EE:65:PRO:HB3   | 1:EE:79:LYS:HG2   | 1.88                     | 0.54              |
| 1:AR:91:THR:HB    | 1:ED:78:ILE:HD13  | 1.90                     | 0.54              |
| 1:AX:84:VAL:HG13  | 1:EJ:84:VAL:HG22  | 1.89                     | 0.54              |
| 1:BN:65:PRO:HB3   | 1:BN:79:LYS:HG2   | 1.88                     | 0.54              |
| 1:EG:39:ASN:HD21  | 1:EG:42:VAL:HG23  | 1.70                     | 0.54              |
| 1:BP:103:THR:HG22 | 1:FB:10:VAL:HG21  | 1.90                     | 0.54              |
| 1:CT:107:TRP:CE2  | 1:GF:8:LEU:HD11   | 2.43                     | 0.54              |
| 1:DH:99:LYS:O     | 1:DH:103:THR:HG23 | 2.06                     | 0.54              |
| 1:EX:103:THR:HG21 | 1:FI:15:ARG:NH1   | 2.19                     | 0.54              |
| 1:DB:15:ARG:NH1   | 1:GJ:99:LYS:HE2   | 2.23                     | 0.54              |
| 1:AN:111:GLN:HB2  | 1:FR:1:MET:SD     | 2.48                     | 0.54              |
| 1:AR:118:ASP:HB3  | 1:ED:98:THR:HG22  | 1.89                     | 0.54              |
| 1:AY:10:VAL:HG21  | 1:EI:103:THR:HG22 | 1.88                     | 0.54              |
| 1:AD:99:LYS:HE2   | 1:BC:15:ARG:NH1   | 2.23                     | 0.54              |
| 1:EN:99:LYS:HE2   | 1:FJ:15:ARG:HH11  | 1.73                     | 0.54              |
| 1:EX:10:VAL:HG21  | 1:FI:103:THR:HG22 | 1.90                     | 0.54              |
| 1:CB:121:LEU:HD22 | 1:FL:20:SER:HA    | 1.89                     | 0.54              |
| 1:AS:78:ILE:HD13  | 1:EL:91:THR:OG1   | 2.08                     | 0.54              |
| 1:AY:58:VAL:HG11  | 1:EI:117:VAL:CG2  | 2.37                     | 0.54              |
| 1:AP:124:TYR:HA   | 1:BU:22:GLN:HE21  | 1.73                     | 0.54              |
| 1:EH:8:LEU:HD22   | 1:EO:106:ALA:HB1  | 1.89                     | 0.54              |
| 1:BK:99:LYS:HE2   | 1:DW:15:ARG:HD3   | 1.90                     | 0.54              |
| 1:CB:91:THR:HG22  | 1:FN:68:VAL:HG11  | 1.90                     | 0.54              |
| 1:BK:121:LEU:HD11 | 1:DX:19:VAL:O     | 2.08                     | 0.53              |
| 1:DL:98:THR:HG22  | 1:GX:118:ASP:CG   | 2.29                     | 0.53              |
| 1:BK:102:GLN:CB   | 1:DW:10:VAL:HG13  | 2.38                     | 0.53              |
| 1:FX:65:PRO:HB3   | 1:FX:79:LYS:HG2   | 1.88                     | 0.53              |
| 1:BM:91:THR:HB    | 1:EY:78:ILE:HD13  | 1.89                     | 0.53              |
| 1:BN:122:ASN:HB2  | 1:EA:20:SER:O     | 2.09                     | 0.53              |
| 1:AP:20:SER:O     | 1:ED:122:ASN:HB2  | 2.08                     | 0.53              |
| 1:AE:62:LEU:HD21  | 1:GA:103:THR:OG1  | 2.07                     | 0.53              |
| 1:CU:103:THR:HG21 | 1:DH:15:ARG:NH1   | 2.23                     | 0.53              |
| 1:BM:118:ASP:CG   | 1:EY:98:THR:HG22  | 2.29                     | 0.53              |
| 1:AB:1:MET:HG2    | 1:FX:123:ASN:OD1  | 2.08                     | 0.53              |
| 1:CT:118:ASP:HB3  | 1:GF:98:THR:HG22  | 1.91                     | 0.53              |
| 1:DB:123:ASN:OD1  | 1:GJ:1:MET:HB3    | 2.08                     | 0.53              |
| 1:CH:84:VAL:HG22  | 1:FT:84:VAL:HG13  | 1.90                     | 0.53              |
| 1:EI:22:GLN:HB3   | 1:EO:124:TYR:CB   | 2.38                     | 0.53              |
| 1:EQ:65:PRO:HB3   | 1:EQ:79:LYS:HG2   | 1.88                     | 0.53              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:CI:3:LEU:HG     | 1:GH:123:ASN:HB3  | 1.90                     | 0.53              |
| 1:AG:103:THR:HG22 | 1:BF:10:VAL:HG21  | 1.91                     | 0.53              |
| 1:AQ:45:LEU:HD12  | 1:AQ:60:MET:HG2   | 1.91                     | 0.53              |
| 1:BT:99:LYS:HE2   | 1:DN:15:ARG:NH1   | 2.23                     | 0.53              |
| 1:BK:62:LEU:HD21  | 1:DW:103:THR:OG1  | 2.09                     | 0.53              |
| 1:EH:102:GLN:CB   | 1:EO:10:VAL:HG13  | 2.38                     | 0.53              |
| 1:FS:45:LEU:HD12  | 1:FS:60:MET:HG2   | 1.91                     | 0.53              |
| 1:AH:15:ARG:NH1   | 1:GD:103:THR:HG21 | 2.24                     | 0.53              |
| 1:AG:3:LEU:HG     | 1:BF:123:ASN:HB3  | 1.90                     | 0.53              |
| 1:CN:91:THR:HB    | 1:FZ:78:ILE:HD13  | 1.91                     | 0.53              |
| 1:CP:47:GLN:HG3   | 1:CP:58:VAL:HG22  | 1.91                     | 0.53              |
| 1:EU:45:LEU:HD12  | 1:EU:60:MET:HG2   | 1.91                     | 0.53              |
| 1:FD:47:GLN:HG3   | 1:FD:58:VAL:HG22  | 1.91                     | 0.53              |
| 1:GQ:47:GLN:HG3   | 1:GQ:58:VAL:HG22  | 1.91                     | 0.53              |
| 1:AZ:45:LEU:HD12  | 1:AZ:60:MET:HG2   | 1.91                     | 0.53              |
| 1:CV:123:ASN:HB3  | 1:GM:3:LEU:HG     | 1.90                     | 0.53              |
| 1:CV:45:LEU:HD12  | 1:CV:60:MET:HG2   | 1.91                     | 0.53              |
| 1:CY:45:LEU:HD12  | 1:CY:60:MET:HG2   | 1.91                     | 0.53              |
| 1:DH:45:LEU:HD12  | 1:DH:60:MET:HG2   | 1.91                     | 0.53              |
| 1:DN:45:LEU:HD12  | 1:DN:60:MET:HG2   | 1.91                     | 0.53              |
| 1:EC:47:GLN:HG3   | 1:EC:58:VAL:HG22  | 1.91                     | 0.53              |
| 1:FP:47:GLN:HG3   | 1:FP:58:VAL:HG22  | 1.91                     | 0.53              |
| 1:GB:45:LEU:HD12  | 1:GB:60:MET:HG2   | 1.91                     | 0.53              |
| 1:GJ:35:THR:HG22  | 1:GJ:37:ALA:H     | 1.74                     | 0.53              |
| 1:GW:47:GLN:HG3   | 1:GW:58:VAL:HG22  | 1.91                     | 0.53              |
| 1:AJ:35:THR:HG22  | 1:AJ:37:ALA:H     | 1.74                     | 0.53              |
| 1:BA:10:VAL:HG21  | 1:EM:103:THR:HG22 | 1.91                     | 0.53              |
| 1:BL:47:GLN:HG3   | 1:BL:58:VAL:HG22  | 1.91                     | 0.53              |
| 1:CD:45:LEU:HD12  | 1:CD:60:MET:HG2   | 1.91                     | 0.53              |
| 1:DI:107:TRP:CE2  | 1:GU:8:LEU:HD11   | 2.44                     | 0.53              |
| 1:DK:47:GLN:HG3   | 1:DK:58:VAL:HG22  | 1.91                     | 0.53              |
| 1:DW:47:GLN:HG3   | 1:DW:58:VAL:HG22  | 1.91                     | 0.53              |
| 1:AO:91:THR:HG22  | 1:EA:68:VAL:HG11  | 1.91                     | 0.53              |
| 1:BJ:22:GLN:NE2   | 1:EV:124:TYR:HA   | 2.23                     | 0.53              |
| 1:DV:96:HIS:CG    | 1:GE:66:VAL:HG21  | 2.44                     | 0.53              |
| 1:GK:47:GLN:HG3   | 1:GK:58:VAL:HG22  | 1.91                     | 0.53              |
| 1:AI:2:ARG:HH12   | 1:BF:124:TYR:C    | 2.12                     | 0.53              |
| 1:AK:83:SER:OG    | 1:FO:85:THR:OG1   | 2.27                     | 0.53              |
| 1:AN:47:GLN:HG3   | 1:AN:58:VAL:HG22  | 1.91                     | 0.53              |
| 1:AR:122:ASN:HB2  | 1:EB:20:SER:O     | 2.08                     | 0.53              |
| 1:BG:91:THR:HG22  | 1:ES:68:VAL:HG11  | 1.91                     | 0.53              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:BH:103:THR:HG22 | 1:BO:10:VAL:HG21  | 1.91                     | 0.53              |
| 1:BH:35:THR:HG22  | 1:BH:37:ALA:H     | 1.74                     | 0.53              |
| 1:BK:35:THR:HG22  | 1:BK:37:ALA:H     | 1.74                     | 0.53              |
| 1:BO:45:LEU:HD12  | 1:BO:60:MET:HG2   | 1.91                     | 0.53              |
| 1:CA:47:GLN:HG3   | 1:CA:58:VAL:HG22  | 1.91                     | 0.53              |
| 1:CP:45:LEU:HD12  | 1:CP:60:MET:HG2   | 1.91                     | 0.53              |
| 1:CV:15:ARG:NH1   | 1:GM:103:THR:HG21 | 2.24                     | 0.53              |
| 1:DW:45:LEU:HD12  | 1:DW:60:MET:HG2   | 1.91                     | 0.53              |
| 1:EI:47:GLN:HG3   | 1:EI:58:VAL:HG22  | 1.91                     | 0.53              |
| 1:EQ:122:ASN:HB2  | 1:FN:20:SER:O     | 2.08                     | 0.53              |
| 1:EX:45:LEU:HD12  | 1:EX:60:MET:HG2   | 1.91                     | 0.53              |
| 1:FI:35:THR:HG22  | 1:FI:37:ALA:H     | 1.74                     | 0.53              |
| 1:FX:35:THR:HG22  | 1:FX:37:ALA:H     | 1.74                     | 0.53              |
| 1:GP:35:THR:HG22  | 1:GP:37:ALA:H     | 1.74                     | 0.53              |
| 1:GV:35:THR:HG22  | 1:GV:37:ALA:H     | 1.74                     | 0.53              |
| 1:AT:103:THR:HG22 | 1:EZ:10:VAL:HG21  | 1.89                     | 0.53              |
| 1:BE:103:THR:HG21 | 1:BL:15:ARG:NH1   | 2.24                     | 0.53              |
| 1:BF:45:LEU:HD12  | 1:BF:60:MET:HG2   | 1.91                     | 0.53              |
| 1:BT:35:THR:HG22  | 1:BT:37:ALA:H     | 1.74                     | 0.53              |
| 1:BW:35:THR:HG22  | 1:BW:37:ALA:H     | 1.74                     | 0.53              |
| 1:AM:124:TYR:CD2  | 1:CB:19:VAL:HB    | 2.44                     | 0.53              |
| 1:CG:47:GLN:HG3   | 1:CG:58:VAL:HG22  | 1.91                     | 0.53              |
| 1:CO:35:THR:HG22  | 1:CO:37:ALA:H     | 1.74                     | 0.53              |
| 1:CJ:123:ASN:HB3  | 1:CO:3:LEU:HG     | 1.91                     | 0.53              |
| 1:CY:47:GLN:HG3   | 1:CY:58:VAL:HG22  | 1.91                     | 0.53              |
| 1:DB:47:GLN:HG3   | 1:DB:58:VAL:HG22  | 1.91                     | 0.53              |
| 1:DD:35:THR:HG22  | 1:DD:37:ALA:H     | 1.74                     | 0.53              |
| 1:DP:35:THR:HG22  | 1:DP:37:ALA:H     | 1.74                     | 0.53              |
| 1:DV:35:THR:HG22  | 1:DV:37:ALA:H     | 1.74                     | 0.53              |
| 1:EK:35:THR:HG22  | 1:EK:37:ALA:H     | 1.74                     | 0.53              |
| 1:ER:47:GLN:HG3   | 1:ER:58:VAL:HG22  | 1.91                     | 0.53              |
| 1:EX:124:TYR:OXT  | 1:FK:2:ARG:NH1    | 2.41                     | 0.53              |
| 1:FV:45:LEU:HD12  | 1:FV:60:MET:HG2   | 1.91                     | 0.53              |
| 1:GB:47:GLN:HG3   | 1:GB:58:VAL:HG22  | 1.91                     | 0.53              |
| 1:CV:56:ARG:NH1   | 1:GM:116:PRO:O    | 2.38                     | 0.53              |
| 1:GS:35:THR:HG22  | 1:GS:37:ALA:H     | 1.74                     | 0.53              |
| 1:GT:47:GLN:HG3   | 1:GT:58:VAL:HG22  | 1.91                     | 0.53              |
| 1:GW:45:LEU:HD12  | 1:GW:60:MET:HG2   | 1.91                     | 0.53              |
| 1:AB:47:GLN:HG3   | 1:AB:58:VAL:HG22  | 1.91                     | 0.52              |
| 1:AG:35:THR:HG22  | 1:AG:37:ALA:H     | 1.74                     | 0.52              |
| 1:AP:35:THR:HG22  | 1:AP:37:ALA:H     | 1.74                     | 0.52              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:AQ:124:TYR:C    | 1:FW:2:ARG:HH12  | 2.12                     | 0.52              |
| 1:BI:45:LEU:HD12  | 1:BI:60:MET:HG2  | 1.91                     | 0.52              |
| 1:BI:47:GLN:HG3   | 1:BI:58:VAL:HG22 | 1.91                     | 0.52              |
| 1:BK:124:TYR:OXT  | 1:DW:22:GLN:NE2  | 2.42                     | 0.52              |
| 1:CI:103:THR:HG22 | 1:GH:10:VAL:HG21 | 1.90                     | 0.52              |
| 1:DG:35:THR:HG22  | 1:DG:37:ALA:H    | 1.74                     | 0.52              |
| 1:DK:45:LEU:HD12  | 1:DK:60:MET:HG2  | 1.91                     | 0.52              |
| 1:DN:47:GLN:HG3   | 1:DN:58:VAL:HG22 | 1.91                     | 0.52              |
| 1:DZ:45:LEU:HD12  | 1:DZ:60:MET:HG2  | 1.91                     | 0.52              |
| 1:EL:45:LEU:HD12  | 1:EL:60:MET:HG2  | 1.91                     | 0.52              |
| 1:EO:45:LEU:HD12  | 1:EO:60:MET:HG2  | 1.91                     | 0.52              |
| 1:EQ:103:THR:HG22 | 1:FM:10:VAL:HG21 | 1.90                     | 0.52              |
| 1:EU:47:GLN:HG3   | 1:EU:58:VAL:HG22 | 1.91                     | 0.52              |
| 1:BM:3:LEU:N      | 1:EY:124:TYR:O   | 2.33                     | 0.52              |
| 1:FG:47:GLN:HG3   | 1:FG:58:VAL:HG22 | 1.91                     | 0.52              |
| 1:CN:98:THR:HG22  | 1:FZ:118:ASP:CG  | 2.29                     | 0.52              |
| 1:GH:45:LEU:HD12  | 1:GH:60:MET:HG2  | 1.91                     | 0.52              |
| 1:AK:47:GLN:HG3   | 1:AK:58:VAL:HG22 | 1.91                     | 0.52              |
| 1:AN:45:LEU:HD12  | 1:AN:60:MET:HG2  | 1.91                     | 0.52              |
| 1:BC:47:GLN:HG3   | 1:BC:58:VAL:HG22 | 1.91                     | 0.52              |
| 1:BU:45:LEU:HD12  | 1:BU:60:MET:HG2  | 1.91                     | 0.52              |
| 1:BU:47:GLN:HG3   | 1:BU:58:VAL:HG22 | 1.91                     | 0.52              |
| 1:BZ:35:THR:HG22  | 1:BZ:37:ALA:H    | 1.74                     | 0.52              |
| 1:CC:124:TYR:C    | 1:GK:22:GLN:HE21 | 2.13                     | 0.52              |
| 1:CC:35:THR:HG22  | 1:CC:37:ALA:H    | 1.74                     | 0.52              |
| 1:CG:10:VAL:HG13  | 1:CL:102:GLN:CB  | 2.39                     | 0.52              |
| 1:FC:35:THR:HG22  | 1:FC:37:ALA:H    | 1.74                     | 0.52              |
| 1:GQ:45:LEU:HD12  | 1:GQ:60:MET:HG2  | 1.91                     | 0.52              |
| 1:AE:45:LEU:HD12  | 1:AE:60:MET:HG2  | 1.91                     | 0.52              |
| 1:AT:47:GLN:HG3   | 1:AT:58:VAL:HG22 | 1.91                     | 0.52              |
| 1:AZ:47:GLN:HG3   | 1:AZ:58:VAL:HG22 | 1.91                     | 0.52              |
| 1:CA:45:LEU:HD12  | 1:CA:60:MET:HG2  | 1.91                     | 0.52              |
| 1:CM:45:LEU:HD12  | 1:CM:60:MET:HG2  | 1.91                     | 0.52              |
| 1:CM:47:GLN:HG3   | 1:CM:58:VAL:HG22 | 1.91                     | 0.52              |
| 1:CU:35:THR:HG22  | 1:CU:37:ALA:H    | 1.74                     | 0.52              |
| 1:DB:45:LEU:HD12  | 1:DB:60:MET:HG2  | 1.91                     | 0.52              |
| 1:DT:45:LEU:HD12  | 1:DT:60:MET:HG2  | 1.91                     | 0.52              |
| 1:EE:35:THR:HG22  | 1:EE:37:ALA:H    | 1.74                     | 0.52              |
| 1:FJ:45:LEU:HD12  | 1:FJ:60:MET:HG2  | 1.91                     | 0.52              |
| 1:FJ:47:GLN:HG3   | 1:FJ:58:VAL:HG22 | 1.91                     | 0.52              |
| 1:AB:91:THR:OG1   | 1:FX:78:ILE:HD13 | 2.10                     | 0.52              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:GD:35:THR:HG22  | 1:GD:37:ALA:H     | 1.74                     | 0.52              |
| 1:AD:35:THR:HG22  | 1:AD:37:ALA:H     | 1.74                     | 0.52              |
| 1:AW:47:GLN:HG3   | 1:AW:58:VAL:HG22  | 1.91                     | 0.52              |
| 1:BQ:103:THR:HG21 | 1:EC:15:ARG:NH1   | 2.25                     | 0.52              |
| 1:BW:103:THR:HG21 | 1:DQ:15:ARG:NH1   | 2.24                     | 0.52              |
| 1:DE:47:GLN:HG3   | 1:DE:58:VAL:HG22  | 1.91                     | 0.52              |
| 1:CU:103:THR:OG1  | 1:DH:62:LEU:HD21  | 2.09                     | 0.52              |
| 1:DS:35:THR:HG22  | 1:DS:37:ALA:H     | 1.74                     | 0.52              |
| 1:AR:1:MET:HB3    | 1:ED:123:ASN:OD1  | 2.09                     | 0.52              |
| 1:EN:35:THR:HG22  | 1:EN:37:ALA:H     | 1.74                     | 0.52              |
| 1:ER:45:LEU:HD12  | 1:ER:60:MET:HG2   | 1.91                     | 0.52              |
| 1:EE:103:THR:HG22 | 1:EU:10:VAL:HG21  | 1.91                     | 0.52              |
| 1:EW:35:THR:HG22  | 1:EW:37:ALA:H     | 1.74                     | 0.52              |
| 1:AT:15:ARG:NH1   | 1:EZ:103:THR:HG21 | 2.24                     | 0.52              |
| 1:FM:45:LEU:HD12  | 1:FM:60:MET:HG2   | 1.91                     | 0.52              |
| 1:FM:47:GLN:HG3   | 1:FM:58:VAL:HG22  | 1.91                     | 0.52              |
| 1:AB:45:LEU:HD12  | 1:AB:60:MET:HG2   | 1.91                     | 0.52              |
| 1:AM:118:ASP:OD2  | 1:CA:98:THR:HG22  | 2.08                     | 0.52              |
| 1:AT:45:LEU:HD12  | 1:AT:60:MET:HG2   | 1.91                     | 0.52              |
| 1:BC:45:LEU:HD12  | 1:BC:60:MET:HG2   | 1.91                     | 0.52              |
| 1:BF:47:GLN:HG3   | 1:BF:58:VAL:HG22  | 1.91                     | 0.52              |
| 1:BH:15:ARG:NH1   | 1:BO:103:THR:HG21 | 2.18                     | 0.52              |
| 1:CM:103:THR:HG21 | 1:DG:15:ARG:NH1   | 2.21                     | 0.52              |
| 1:CR:35:THR:HG22  | 1:CR:37:ALA:H     | 1.74                     | 0.52              |
| 1:DQ:45:LEU:HD12  | 1:DQ:60:MET:HG2   | 1.91                     | 0.52              |
| 1:AF:98:THR:HG22  | 1:DR:118:ASP:CG   | 2.30                     | 0.52              |
| 1:AR:98:THR:HG22  | 1:ED:118:ASP:HB3  | 1.91                     | 0.52              |
| 1:EI:45:LEU:HD12  | 1:EI:60:MET:HG2   | 1.91                     | 0.52              |
| 1:EO:47:GLN:HG3   | 1:EO:58:VAL:HG22  | 1.91                     | 0.52              |
| 1:FA:47:GLN:HG3   | 1:FA:58:VAL:HG22  | 1.91                     | 0.52              |
| 1:FP:45:LEU:HD12  | 1:FP:60:MET:HG2   | 1.91                     | 0.52              |
| 1:FU:35:THR:HG22  | 1:FU:37:ALA:H     | 1.74                     | 0.52              |
| 1:DV:102:GLN:HB2  | 1:GE:10:VAL:HG13  | 1.91                     | 0.52              |
| 1:CY:123:ASN:HB3  | 1:GG:3:LEU:HG     | 1.92                     | 0.52              |
| 1:CK:2:ARG:HH12   | 1:GH:124:TYR:C    | 2.12                     | 0.52              |
| 1:AP:121:LEU:HD11 | 1:BV:19:VAL:O     | 2.09                     | 0.52              |
| 1:CN:118:ASP:CG   | 1:FZ:98:THR:HG22  | 2.30                     | 0.52              |
| 1:DQ:47:GLN:HG3   | 1:DQ:58:VAL:HG22  | 1.91                     | 0.52              |
| 1:EB:124:TYR:OXT  | 1:GB:22:GLN:NE2   | 2.42                     | 0.52              |
| 1:AS:10:VAL:CG2   | 1:EL:103:THR:HG22 | 2.38                     | 0.52              |
| 1:FD:45:LEU:HD12  | 1:FD:60:MET:HG2   | 1.91                     | 0.52              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:FS:15:ARG:NH1   | 1:GP:103:THR:HG21 | 2.25                     | 0.52              |
| 1:GT:45:LEU:HD12  | 1:GT:60:MET:HG2   | 1.91                     | 0.52              |
| 1:AE:15:ARG:NH1   | 1:GA:99:LYS:HE2   | 2.25                     | 0.52              |
| 1:AH:47:GLN:HG3   | 1:AH:58:VAL:HG22  | 1.91                     | 0.52              |
| 1:AJ:10:VAL:CG2   | 1:BX:103:THR:HG22 | 2.38                     | 0.52              |
| 1:BB:15:ARG:NH1   | 1:BR:103:THR:HG21 | 2.17                     | 0.52              |
| 1:AM:102:GLN:HB2  | 1:CA:10:VAL:HG13  | 1.92                     | 0.52              |
| 1:CG:45:LEU:HD12  | 1:CG:60:MET:HG2   | 1.91                     | 0.52              |
| 1:AC:107:TRP:CE2  | 1:DO:8:LEU:HD11   | 2.44                     | 0.52              |
| 1:BZ:118:ASP:OD2  | 1:DT:98:THR:HG22  | 2.09                     | 0.52              |
| 1:EZ:35:THR:HG22  | 1:EZ:37:ALA:H     | 1.74                     | 0.52              |
| 1:FG:45:LEU:HD12  | 1:FG:60:MET:HG2   | 1.91                     | 0.52              |
| 1:FR:35:THR:HG22  | 1:FR:37:ALA:H     | 1.74                     | 0.52              |
| 1:FV:47:GLN:HG3   | 1:FV:58:VAL:HG22  | 1.91                     | 0.52              |
| 1:GE:45:LEU:HD12  | 1:GE:60:MET:HG2   | 1.91                     | 0.52              |
| 1:AR:84:VAL:HG13  | 1:ED:84:VAL:HG22  | 1.90                     | 0.52              |
| 1:AV:35:THR:HG22  | 1:AV:37:ALA:H     | 1.74                     | 0.52              |
| 1:BE:35:THR:HG22  | 1:BE:37:ALA:H     | 1.74                     | 0.52              |
| 1:DM:35:THR:HG22  | 1:DM:37:ALA:H     | 1.74                     | 0.52              |
| 1:EF:45:LEU:HD12  | 1:EF:60:MET:HG2   | 1.91                     | 0.52              |
| 1:EH:35:THR:HG22  | 1:EH:37:ALA:H     | 1.74                     | 0.52              |
| 1:EQ:35:THR:HG22  | 1:EQ:37:ALA:H     | 1.74                     | 0.52              |
| 1:AN:47:GLN:HE22  | 1:FR:120:GLY:HA2  | 1.75                     | 0.52              |
| 1:AB:123:ASN:HB3  | 1:FX:3:LEU:HG     | 1.92                     | 0.52              |
| 1:BG:2:ARG:HH12   | 1:BL:124:TYR:C    | 2.14                     | 0.52              |
| 1:CL:35:THR:HG22  | 1:CL:37:ALA:H     | 1.74                     | 0.52              |
| 1:CS:45:LEU:HD12  | 1:CS:60:MET:HG2   | 1.91                     | 0.52              |
| 1:CS:47:GLN:HG3   | 1:CS:58:VAL:HG22  | 1.91                     | 0.52              |
| 1:DA:118:ASP:HB3  | 1:DE:98:THR:HG22  | 1.91                     | 0.52              |
| 1:DA:15:ARG:NH1   | 1:DE:103:THR:HG21 | 2.22                     | 0.52              |
| 1:DH:47:GLN:HG3   | 1:DH:58:VAL:HG22  | 1.91                     | 0.52              |
| 1:BN:103:THR:HG21 | 1:DZ:15:ARG:NH1   | 2.24                     | 0.52              |
| 1:EH:107:TRP:HH2  | 1:EO:29:PHE:CG    | 2.27                     | 0.52              |
| 1:GK:45:LEU:HD12  | 1:GK:60:MET:HG2   | 1.91                     | 0.52              |
| 1:GN:47:GLN:HG3   | 1:GN:58:VAL:HG22  | 1.91                     | 0.52              |
| 1:DL:103:THR:HG22 | 1:GX:10:VAL:HG21  | 1.92                     | 0.52              |
| 1:AK:1:MET:HG2    | 1:FO:123:ASN:OD1  | 2.09                     | 0.52              |
| 1:AY:35:THR:HG22  | 1:AY:37:ALA:H     | 1.74                     | 0.52              |
| 1:BD:123:ASN:OD1  | 1:EP:1:MET:HB3    | 2.10                     | 0.52              |
| 1:BX:45:LEU:HD12  | 1:BX:60:MET:HG2   | 1.91                     | 0.52              |
| 1:EB:35:THR:HG22  | 1:EB:37:ALA:H     | 1.74                     | 0.52              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:EC:45:LEU:HD12  | 1:EC:60:MET:HG2   | 1.91                     | 0.52              |
| 1:EE:99:LYS:HE2   | 1:EU:15:ARG:HH11  | 1.75                     | 0.52              |
| 1:EX:15:ARG:NH1   | 1:FI:103:THR:HG21 | 2.24                     | 0.52              |
| 1:GN:45:LEU:HD12  | 1:GN:60:MET:HG2   | 1.91                     | 0.52              |
| 1:FP:123:ASN:HB3  | 1:GV:3:LEU:HG     | 1.92                     | 0.52              |
| 1:AW:45:LEU:HD12  | 1:AW:60:MET:HG2   | 1.91                     | 0.51              |
| 1:BX:47:GLN:HG3   | 1:BX:58:VAL:HG22  | 1.91                     | 0.51              |
| 1:BY:107:TRP:CE2  | 1:FK:8:LEU:HD11   | 2.45                     | 0.51              |
| 1:AZ:20:SER:HA    | 1:EI:121:LEU:HD22 | 1.93                     | 0.51              |
| 1:GH:47:GLN:HG3   | 1:GH:58:VAL:HG22  | 1.91                     | 0.51              |
| 1:AK:45:LEU:HD12  | 1:AK:60:MET:HG2   | 1.91                     | 0.51              |
| 1:AL:10:VAL:HG21  | 1:DX:103:THR:HG22 | 1.91                     | 0.51              |
| 1:AM:35:THR:HG22  | 1:AM:37:ALA:H     | 1.74                     | 0.51              |
| 1:AN:22:GLN:HE21  | 1:FR:124:TYR:CA   | 2.23                     | 0.51              |
| 1:BR:47:GLN:HG3   | 1:BR:58:VAL:HG22  | 1.91                     | 0.51              |
| 1:CD:47:GLN:HG3   | 1:CD:58:VAL:HG22  | 1.91                     | 0.51              |
| 1:CP:98:THR:HG22  | 1:DJ:118:ASP:HB3  | 1.92                     | 0.51              |
| 1:DE:45:LEU:HD12  | 1:DE:60:MET:HG2   | 1.91                     | 0.51              |
| 1:AO:103:THR:HG22 | 1:EA:10:VAL:HG21  | 1.92                     | 0.51              |
| 1:BD:92:TYR:CE2   | 1:EP:66:VAL:HG23  | 2.45                     | 0.51              |
| 1:FF:35:THR:HG22  | 1:FF:37:ALA:H     | 1.74                     | 0.51              |
| 1:AH:124:TYR:OXT  | 1:GF:2:ARG:NH1    | 2.44                     | 0.51              |
| 1:AH:45:LEU:HD12  | 1:AH:60:MET:HG2   | 1.91                     | 0.51              |
| 1:AQ:47:GLN:HG3   | 1:AQ:58:VAL:HG22  | 1.91                     | 0.51              |
| 1:AR:84:VAL:HG22  | 1:ED:84:VAL:HG13  | 1.91                     | 0.51              |
| 1:BQ:35:THR:HG22  | 1:BQ:37:ALA:H     | 1.74                     | 0.51              |
| 1:BR:45:LEU:HD12  | 1:BR:60:MET:HG2   | 1.91                     | 0.51              |
| 1:CC:120:GLY:HA2  | 1:GK:47:GLN:HE22  | 1.75                     | 0.51              |
| 1:CJ:45:LEU:HD12  | 1:CJ:60:MET:HG2   | 1.91                     | 0.51              |
| 1:CJ:47:GLN:HG3   | 1:CJ:58:VAL:HG22  | 1.91                     | 0.51              |
| 1:AF:8:LEU:HD11   | 1:DR:107:TRP:CE2  | 2.45                     | 0.51              |
| 1:BN:1:MET:HB3    | 1:DZ:123:ASN:OD1  | 2.10                     | 0.51              |
| 1:DM:99:LYS:HE2   | 1:GT:15:ARG:NH1   | 2.25                     | 0.51              |
| 1:AC:10:VAL:HG21  | 1:DO:103:THR:HG22 | 1.92                     | 0.51              |
| 1:BB:35:THR:HG22  | 1:BB:37:ALA:H     | 1.74                     | 0.51              |
| 1:BL:45:LEU:HD12  | 1:BL:60:MET:HG2   | 1.91                     | 0.51              |
| 1:CS:103:THR:HG21 | 1:DD:15:ARG:NH1   | 2.21                     | 0.51              |
| 1:EN:3:LEU:HG     | 1:FJ:123:ASN:HB3  | 1.92                     | 0.51              |
| 1:EN:124:TYR:OXT  | 1:FJ:22:GLN:NE2   | 2.44                     | 0.51              |
| 1:FO:35:THR:HG22  | 1:FO:37:ALA:H     | 1.74                     | 0.51              |
| 1:CH:103:THR:HG22 | 1:FT:10:VAL:HG21  | 1.93                     | 0.51              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:GA:35:THR:HG22  | 1:GA:37:ALA:H     | 1.74                     | 0.51              |
| 1:BZ:124:TYR:OXT  | 1:DT:22:GLN:NE2   | 2.44                     | 0.51              |
| 1:CG:15:ARG:HD3   | 1:CL:99:LYS:HE2   | 1.92                     | 0.51              |
| 1:AL:68:VAL:HG11  | 1:DX:91:THR:HG22  | 1.91                     | 0.51              |
| 1:EH:99:LYS:HE2   | 1:EO:15:ARG:HD3   | 1.92                     | 0.51              |
| 1:BP:121:LEU:HD22 | 1:EZ:20:SER:HA    | 1.93                     | 0.51              |
| 1:FS:47:GLN:HG3   | 1:FS:58:VAL:HG22  | 1.91                     | 0.51              |
| 1:FV:123:ASN:HB3  | 1:GS:3:LEU:HG     | 1.92                     | 0.51              |
| 1:FY:45:LEU:HD12  | 1:FY:60:MET:HG2   | 1.91                     | 0.51              |
| 1:FY:47:GLN:HG3   | 1:FY:58:VAL:HG22  | 1.91                     | 0.51              |
| 1:GM:35:THR:HG22  | 1:GM:37:ALA:H     | 1.74                     | 0.51              |
| 1:FS:98:THR:HG22  | 1:GP:118:ASP:HB3  | 1.93                     | 0.51              |
| 1:AA:35:THR:HG22  | 1:AA:37:ALA:H     | 1.74                     | 0.51              |
| 1:AS:35:THR:HG22  | 1:AS:37:ALA:H     | 1.74                     | 0.51              |
| 1:BO:47:GLN:HG3   | 1:BO:58:VAL:HG22  | 1.91                     | 0.51              |
| 1:CV:47:GLN:HG3   | 1:CV:58:VAL:HG22  | 1.91                     | 0.51              |
| 1:DA:35:THR:HG22  | 1:DA:37:ALA:H     | 1.74                     | 0.51              |
| 1:BQ:15:ARG:NH1   | 1:EC:103:THR:HG21 | 2.21                     | 0.51              |
| 1:EH:62:LEU:HD21  | 1:EO:103:THR:OG1  | 2.11                     | 0.51              |
| 1:EP:2:ARG:NH1    | 1:FJ:124:TYR:OXT  | 2.44                     | 0.51              |
| 1:GE:47:GLN:HG3   | 1:GE:58:VAL:HG22  | 1.91                     | 0.51              |
| 1:AA:107:TRP:CE2  | 1:BI:8:LEU:HD11   | 2.45                     | 0.51              |
| 1:BA:118:ASP:CG   | 1:EM:98:THR:HG22  | 2.30                     | 0.51              |
| 1:CX:3:LEU:HG     | 1:DK:123:ASN:HB3  | 1.93                     | 0.51              |
| 1:BT:99:LYS:HE2   | 1:DN:15:ARG:HD3   | 1.92                     | 0.51              |
| 1:DT:47:GLN:HG3   | 1:DT:58:VAL:HG22  | 1.91                     | 0.51              |
| 1:DZ:47:GLN:HG3   | 1:DZ:58:VAL:HG22  | 1.91                     | 0.51              |
| 1:AX:78:ILE:HD13  | 1:EJ:91:THR:HB    | 1.92                     | 0.51              |
| 1:EL:47:GLN:HG3   | 1:EL:58:VAL:HG22  | 1.91                     | 0.51              |
| 1:AS:122:ASN:HB2  | 1:EM:20:SER:O     | 2.11                     | 0.51              |
| 1:DI:3:LEU:N      | 1:GU:124:TYR:O    | 2.37                     | 0.51              |
| 1:BN:35:THR:HG22  | 1:BN:37:ALA:H     | 1.74                     | 0.51              |
| 1:CI:35:THR:HG22  | 1:CI:37:ALA:H     | 1.74                     | 0.51              |
| 1:DC:91:THR:CG2   | 1:GO:68:VAL:HG11  | 2.41                     | 0.51              |
| 1:DJ:35:THR:HG22  | 1:DJ:37:ALA:H     | 1.74                     | 0.51              |
| 1:DY:35:THR:HG22  | 1:DY:37:ALA:H     | 1.74                     | 0.51              |
| 1:EB:121:LEU:HD11 | 1:GC:19:VAL:O     | 2.10                     | 0.51              |
| 1:EF:47:GLN:HG3   | 1:EF:58:VAL:HG22  | 1.91                     | 0.51              |
| 1:FA:45:LEU:HD12  | 1:FA:60:MET:HG2   | 1.91                     | 0.51              |
| 1:GG:35:THR:HG22  | 1:GG:37:ALA:H     | 1.74                     | 0.51              |
| 1:DS:15:ARG:NH1   | 1:GQ:103:THR:HG21 | 2.18                     | 0.51              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:AP:58:VAL:HG11  | 1:BU:117:VAL:CG2  | 2.41                     | 0.51              |
| 1:BH:10:VAL:CG2   | 1:BO:103:THR:HG22 | 2.40                     | 0.51              |
| 1:CH:118:ASP:CG   | 1:FT:98:THR:HG22  | 2.31                     | 0.51              |
| 1:CH:84:VAL:HG13  | 1:FT:84:VAL:HG22  | 1.93                     | 0.51              |
| 1:CX:35:THR:HG22  | 1:CX:37:ALA:H     | 1.74                     | 0.51              |
| 1:AX:123:ASN:OD1  | 1:EJ:1:MET:HB3    | 2.10                     | 0.51              |
| 1:ET:35:THR:HG22  | 1:ET:37:ALA:H     | 1.74                     | 0.51              |
| 1:BJ:103:THR:HG22 | 1:EV:10:VAL:HG21  | 1.91                     | 0.51              |
| 1:AZ:22:GLN:HB3   | 1:EI:124:TYR:CB   | 2.39                     | 0.51              |
| 1:BA:91:THR:HB    | 1:EM:78:ILE:HD13  | 1.93                     | 0.51              |
| 1:CW:107:TRP:CE2  | 1:GI:8:LEU:HD11   | 2.45                     | 0.51              |
| 1:ET:123:ASN:OD1  | 1:FG:1:MET:HG2    | 2.11                     | 0.51              |
| 1:AE:20:SER:O     | 1:BC:122:ASN:HB2  | 2.11                     | 0.50              |
| 1:BT:122:ASN:HB2  | 1:DO:20:SER:O     | 2.11                     | 0.50              |
| 1:ET:85:THR:OG1   | 1:FG:83:SER:OG    | 2.28                     | 0.50              |
| 1:BM:8:LEU:HD11   | 1:EY:107:TRP:CE2  | 2.45                     | 0.50              |
| 1:AB:8:LEU:HD11   | 1:FX:107:TRP:CE2  | 2.45                     | 0.50              |
| 1:CZ:102:GLN:HB2  | 1:GL:10:VAL:HG13  | 1.94                     | 0.50              |
| 1:DM:3:LEU:HG     | 1:GT:123:ASN:HB3  | 1.94                     | 0.50              |
| 1:AS:103:THR:HG21 | 1:EL:15:ARG:NH1   | 2.26                     | 0.50              |
| 1:CF:35:THR:HG22  | 1:CF:37:ALA:H     | 1.74                     | 0.50              |
| 1:FL:35:THR:HG22  | 1:FL:37:ALA:H     | 1.74                     | 0.50              |
| 1:AE:47:GLN:HG3   | 1:AE:58:VAL:HG22  | 1.91                     | 0.50              |
| 1:AM:120:GLY:HA2  | 1:CA:47:GLN:HE22  | 1.77                     | 0.50              |
| 1:EX:123:ASN:HB3  | 1:FI:3:LEU:HG     | 1.93                     | 0.50              |
| 1:EX:47:GLN:HG3   | 1:EX:58:VAL:HG22  | 1.91                     | 0.50              |
| 1:ET:122:ASN:HB2  | 1:FH:20:SER:O     | 2.12                     | 0.50              |
| 1:CT:91:THR:HB    | 1:GF:78:ILE:HD13  | 1.93                     | 0.50              |
| 1:AN:124:TYR:CB   | 1:FS:22:GLN:HB3   | 2.38                     | 0.50              |
| 1:AK:103:THR:HG22 | 1:FO:10:VAL:CG2   | 2.40                     | 0.50              |
| 1:BV:8:LEU:HD11   | 1:FH:107:TRP:CE2  | 2.46                     | 0.50              |
| 1:AM:103:THR:HG21 | 1:CA:15:ARG:NH1   | 2.27                     | 0.50              |
| 1:CE:118:ASP:CG   | 1:FQ:98:THR:HG22  | 2.32                     | 0.50              |
| 1:CW:2:ARG:NH1    | 1:DH:124:TYR:OXT  | 2.44                     | 0.50              |
| 1:BZ:15:ARG:NH1   | 1:DT:103:THR:HG21 | 2.21                     | 0.50              |
| 1:EQ:99:LYS:HE2   | 1:FM:15:ARG:HH11  | 1.77                     | 0.50              |
| 1:FS:123:ASN:HB3  | 1:GP:3:LEU:HG     | 1.92                     | 0.50              |
| 1:AI:91:THR:CG2   | 1:DU:68:VAL:HG11  | 2.40                     | 0.50              |
| 1:AZ:8:LEU:HD11   | 1:EW:107:TRP:CE2  | 2.47                     | 0.50              |
| 1:BJ:124:TYR:CE2  | 1:ET:19:VAL:HB    | 2.45                     | 0.50              |
| 1:CC:122:ASN:HB2  | 1:GL:20:SER:O     | 2.12                     | 0.50              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:BD:107:TRP:NE1  | 1:EP:8:LEU:HD11   | 2.27                     | 0.50              |
| 1:AF:2:ARG:HH12   | 1:BC:124:TYR:C    | 2.15                     | 0.50              |
| 1:AM:103:THR:HG22 | 1:CA:10:VAL:HG21  | 1.94                     | 0.50              |
| 1:FA:1:MET:HG2    | 1:FL:123:ASN:OD1  | 2.12                     | 0.50              |
| 1:DV:118:ASP:OD2  | 1:GE:98:THR:HG22  | 2.12                     | 0.50              |
| 1:AM:24:GLY:HA3   | 1:AN:23:GLN:HG2   | 1.94                     | 0.50              |
| 1:CQ:62:LEU:HD21  | 1:GC:103:THR:OG1  | 2.12                     | 0.50              |
| 1:DY:24:GLY:HA3   | 1:DZ:23:GLN:HG2   | 1.94                     | 0.50              |
| 1:AV:15:ARG:NH1   | 1:EF:103:THR:HG21 | 2.20                     | 0.50              |
| 1:AC:91:THR:HB    | 1:DO:78:ILE:HD13  | 1.94                     | 0.50              |
| 1:BD:124:TYR:O    | 1:EP:3:LEU:N      | 2.40                     | 0.50              |
| 1:CR:24:GLY:HA3   | 1:CS:23:GLN:HG2   | 1.94                     | 0.50              |
| 1:CU:24:GLY:HA3   | 1:CV:23:GLN:HG2   | 1.94                     | 0.50              |
| 1:GD:24:GLY:HA3   | 1:GE:23:GLN:HG2   | 1.94                     | 0.50              |
| 1:FS:124:TYR:C    | 1:GR:2:ARG:HH12   | 2.15                     | 0.50              |
| 1:AP:24:GLY:HA3   | 1:AQ:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:AP:99:LYS:HE2   | 1:BU:15:ARG:HD3   | 1.93                     | 0.49              |
| 1:CF:24:GLY:HA3   | 1:CG:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:EB:24:GLY:HA3   | 1:EC:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:FL:24:GLY:HA3   | 1:FM:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:CF:124:TYR:C    | 1:GN:22:GLN:HE21  | 2.15                     | 0.49              |
| 1:AS:3:LEU:HG     | 1:EL:123:ASN:HB3  | 1.94                     | 0.49              |
| 1:BW:24:GLY:HA3   | 1:BX:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:BZ:24:GLY:HA3   | 1:CA:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:CF:122:ASN:HB2  | 1:GO:20:SER:O     | 2.12                     | 0.49              |
| 1:DG:24:GLY:HA3   | 1:DH:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:DV:24:GLY:HA3   | 1:DW:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:AR:103:THR:HG22 | 1:ED:10:VAL:HG21  | 1.93                     | 0.49              |
| 1:EQ:103:THR:HG21 | 1:FM:15:ARG:NH1   | 2.27                     | 0.49              |
| 1:BJ:91:THR:HG22  | 1:EV:68:VAL:HG11  | 1.94                     | 0.49              |
| 1:FI:24:GLY:HA3   | 1:FJ:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:FR:24:GLY:HA3   | 1:FS:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:FV:124:TYR:C    | 1:GU:2:ARG:HH12   | 2.14                     | 0.49              |
| 1:GG:24:GLY:HA3   | 1:GH:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:CC:124:TYR:CA   | 1:GK:22:GLN:HE21  | 2.25                     | 0.49              |
| 1:GS:24:GLY:HA3   | 1:GT:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:AN:117:VAL:CG2  | 1:FR:58:VAL:HG11  | 2.41                     | 0.49              |
| 1:CG:103:THR:HG22 | 1:CL:10:VAL:HG21  | 1.95                     | 0.49              |
| 1:CN:103:THR:OG1  | 1:FZ:62:LEU:HD21  | 2.12                     | 0.49              |
| 1:DY:3:LEU:HG     | 1:FY:123:ASN:HB3  | 1.94                     | 0.49              |
| 1:FA:8:LEU:HD11   | 1:FL:107:TRP:CE2  | 2.47                     | 0.49              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:FF:24:GLY:HA3   | 1:FG:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:AJ:24:GLY:HA3   | 1:AK:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:AZ:124:TYR:C    | 1:EY:2:ARG:HH12   | 2.15                     | 0.49              |
| 1:BT:24:GLY:HA3   | 1:BU:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:CO:24:GLY:HA3   | 1:CP:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:CP:83:SER:OG    | 1:DJ:85:THR:OG1   | 2.27                     | 0.49              |
| 1:DJ:24:GLY:HA3   | 1:DK:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:DV:119:SER:O    | 1:GF:36:VAL:HG13  | 2.13                     | 0.49              |
| 1:GJ:24:GLY:HA3   | 1:GK:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:AD:62:LEU:HD21  | 1:BC:103:THR:OG1  | 2.12                     | 0.49              |
| 1:AV:24:GLY:HA3   | 1:AW:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:AW:98:THR:HG22  | 1:FC:118:ASP:HB3  | 1.93                     | 0.49              |
| 1:BH:24:GLY:HA3   | 1:BI:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:CY:91:THR:OG1   | 1:GG:78:ILE:HD13  | 2.13                     | 0.49              |
| 1:AE:66:VAL:HG21  | 1:GA:96:HIS:CG    | 2.47                     | 0.49              |
| 1:AJ:103:THR:HG21 | 1:BX:15:ARG:NH1   | 2.28                     | 0.49              |
| 1:BV:103:THR:HG22 | 1:FH:10:VAL:HG21  | 1.94                     | 0.49              |
| 1:CG:103:THR:OG1  | 1:CL:62:LEU:HD21  | 2.13                     | 0.49              |
| 1:BN:85:THR:OG1   | 1:DZ:83:SER:OG    | 2.31                     | 0.49              |
| 1:AE:123:ASN:HB3  | 1:GA:3:LEU:HG     | 1.93                     | 0.49              |
| 1:GP:24:GLY:HA3   | 1:GQ:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:FV:10:VAL:HG21  | 1:GS:103:THR:HG22 | 1.94                     | 0.49              |
| 1:GV:24:GLY:HA3   | 1:GW:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:AE:10:VAL:HG21  | 1:GA:103:THR:HG22 | 1.94                     | 0.49              |
| 1:AS:24:GLY:HA3   | 1:AT:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:AP:102:GLN:CB   | 1:BU:10:VAL:HG13  | 2.42                     | 0.49              |
| 1:CX:24:GLY:HA3   | 1:CY:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:CQ:10:VAL:HG21  | 1:GC:103:THR:HG22 | 1.95                     | 0.49              |
| 1:CW:8:LEU:HD11   | 1:GI:107:TRP:CE2  | 2.48                     | 0.49              |
| 1:CG:22:GLN:HE21  | 1:CL:124:TYR:C    | 2.15                     | 0.49              |
| 1:AI:3:LEU:N      | 1:DU:124:TYR:O    | 2.38                     | 0.49              |
| 1:BN:103:THR:OG1  | 1:DZ:62:LEU:HD21  | 2.12                     | 0.49              |
| 1:AV:107:TRP:CD2  | 1:EF:8:LEU:HD11   | 2.47                     | 0.49              |
| 1:EH:24:GLY:HA3   | 1:EI:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:BA:103:THR:HG22 | 1:EM:10:VAL:HG21  | 1.94                     | 0.49              |
| 1:ET:24:GLY:HA3   | 1:EU:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:ET:78:ILE:HD13  | 1:FG:91:THR:OG1   | 2.13                     | 0.49              |
| 1:FA:103:THR:HG21 | 1:FL:15:ARG:NH1   | 2.24                     | 0.49              |
| 1:CC:106:ALA:HB1  | 1:GK:8:LEU:HD22   | 1.94                     | 0.49              |
| 1:CV:98:THR:HG22  | 1:GM:118:ASP:OD2  | 2.12                     | 0.49              |
| 1:DC:107:TRP:HZ2  | 1:GO:17:TYR:CG    | 2.30                     | 0.49              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:AF:98:THR:HG22  | 1:DR:118:ASP:HB3  | 1.93                     | 0.49              |
| 1:AQ:103:THR:HG21 | 1:FU:15:ARG:NH1   | 2.24                     | 0.49              |
| 1:DD:24:GLY:HA3   | 1:DE:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:BS:2:ARG:HH12   | 1:EC:124:TYR:C    | 2.16                     | 0.49              |
| 1:EE:24:GLY:HA3   | 1:EF:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:EQ:24:GLY:HA3   | 1:ER:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:EW:24:GLY:HA3   | 1:EX:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:ET:97:ILE:HG21  | 1:FG:117:VAL:O    | 2.12                     | 0.49              |
| 1:CT:91:THR:CG2   | 1:GF:68:VAL:HG11  | 2.43                     | 0.49              |
| 1:CP:123:ASN:HB3  | 1:DJ:3:LEU:HG     | 1.94                     | 0.49              |
| 1:FO:24:GLY:HA3   | 1:FP:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:GA:24:GLY:HA3   | 1:GB:23:GLN:HG2   | 1.94                     | 0.49              |
| 1:EB:102:GLN:CB   | 1:GB:10:VAL:HG13  | 2.42                     | 0.49              |
| 1:AE:47:GLN:HE22  | 1:GA:120:GLY:HA2  | 1.78                     | 0.48              |
| 1:AR:118:ASP:CB   | 1:ED:98:THR:HG22  | 2.43                     | 0.48              |
| 1:AN:106:ALA:HB1  | 1:FR:8:LEU:HD22   | 1.95                     | 0.48              |
| 1:CC:24:GLY:HA3   | 1:CD:23:GLN:HG2   | 1.94                     | 0.48              |
| 1:DP:24:GLY:HA3   | 1:DQ:23:GLN:HG2   | 1.94                     | 0.48              |
| 1:BK:124:TYR:C    | 1:DW:22:GLN:HE21  | 2.17                     | 0.48              |
| 1:BM:118:ASP:HB3  | 1:EY:98:THR:HG22  | 1.95                     | 0.48              |
| 1:EN:99:LYS:HE2   | 1:FJ:15:ARG:NH1   | 2.28                     | 0.48              |
| 1:AD:24:GLY:HA3   | 1:AE:23:GLN:HG2   | 1.94                     | 0.48              |
| 1:BB:24:GLY:HA3   | 1:BC:23:GLN:HG2   | 1.94                     | 0.48              |
| 1:BE:24:GLY:HA3   | 1:BF:23:GLN:HG2   | 1.94                     | 0.48              |
| 1:AA:78:ILE:HD13  | 1:BI:91:THR:OG1   | 2.13                     | 0.48              |
| 1:BK:24:GLY:HA3   | 1:BL:23:GLN:HG2   | 1.94                     | 0.48              |
| 1:BQ:24:GLY:HA3   | 1:BR:23:GLN:HG2   | 1.94                     | 0.48              |
| 1:EH:122:ASN:ND2  | 1:EO:25:THR:HG22  | 2.28                     | 0.48              |
| 1:AY:102:GLN:CB   | 1:EI:10:VAL:HG13  | 2.44                     | 0.48              |
| 1:EK:24:GLY:HA3   | 1:EL:23:GLN:HG2   | 1.94                     | 0.48              |
| 1:DB:98:THR:HG22  | 1:GJ:118:ASP:OD2  | 2.12                     | 0.48              |
| 1:GM:24:GLY:HA3   | 1:GN:23:GLN:HG2   | 1.94                     | 0.48              |
| 1:BT:102:GLN:HB2  | 1:DN:10:VAL:HG13  | 1.95                     | 0.48              |
| 1:BW:10:VAL:CG2   | 1:DQ:103:THR:HG22 | 2.41                     | 0.48              |
| 1:DS:24:GLY:HA3   | 1:DT:23:GLN:HG2   | 1.94                     | 0.48              |
| 1:BP:98:THR:HG22  | 1:FB:118:ASP:CG   | 2.34                     | 0.48              |
| 1:CT:123:ASN:OD1  | 1:GF:1:MET:HB3    | 2.14                     | 0.48              |
| 1:BK:8:LEU:HD22   | 1:DW:106:ALA:HB1  | 1.95                     | 0.48              |
| 1:AC:118:ASP:CB   | 1:DO:98:THR:HG22  | 2.44                     | 0.48              |
| 1:EN:24:GLY:HA3   | 1:EO:23:GLN:HG2   | 1.94                     | 0.48              |
| 1:FC:24:GLY:HA3   | 1:FD:23:GLN:HG2   | 1.94                     | 0.48              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:FU:24:GLY:HA3   | 1:FV:23:GLN:HG2   | 1.94                     | 0.48              |
| 1:AI:124:TYR:O    | 1:DU:3:LEU:N      | 2.38                     | 0.48              |
| 1:BH:99:LYS:HE2   | 1:BO:15:ARG:HH11  | 1.77                     | 0.48              |
| 1:CJ:124:TYR:C    | 1:CQ:2:ARG:HH12   | 2.17                     | 0.48              |
| 1:CV:8:LEU:HD22   | 1:GM:106:ALA:HB1  | 1.95                     | 0.48              |
| 1:CU:96:HIS:CG    | 1:DH:66:VAL:HG21  | 2.48                     | 0.48              |
| 1:AS:19:VAL:HB    | 1:EG:124:TYR:CE2  | 2.48                     | 0.48              |
| 1:AA:24:GLY:HA3   | 1:AB:23:GLN:HG2   | 1.94                     | 0.48              |
| 1:AG:24:GLY:HA3   | 1:AH:23:GLN:HG2   | 1.94                     | 0.48              |
| 1:AR:66:VAL:HG21  | 1:ED:96:HIS:CG    | 2.49                     | 0.48              |
| 1:AY:24:GLY:HA3   | 1:AZ:23:GLN:HG2   | 1.94                     | 0.48              |
| 1:BK:124:TYR:CA   | 1:DW:22:GLN:HE21  | 2.25                     | 0.48              |
| 1:CI:24:GLY:HA3   | 1:CJ:23:GLN:HG2   | 1.94                     | 0.48              |
| 1:DA:24:GLY:HA3   | 1:DB:23:GLN:HG2   | 1.94                     | 0.48              |
| 1:BK:56:ARG:NH1   | 1:DW:116:PRO:O    | 2.45                     | 0.48              |
| 1:BN:99:LYS:HE2   | 1:DZ:15:ARG:HH11  | 1.79                     | 0.48              |
| 1:AS:83:SER:OG    | 1:EL:85:THR:OG1   | 2.31                     | 0.48              |
| 1:FX:24:GLY:HA3   | 1:FY:23:GLN:HG2   | 1.94                     | 0.48              |
| 1:EB:62:LEU:HD21  | 1:GB:103:THR:OG1  | 2.14                     | 0.48              |
| 1:BN:24:GLY:HA3   | 1:BO:23:GLN:HG2   | 1.94                     | 0.48              |
| 1:CE:103:THR:OG1  | 1:FQ:62:LEU:HD21  | 2.13                     | 0.48              |
| 1:CT:103:THR:HG22 | 1:GF:10:VAL:CG2   | 2.40                     | 0.48              |
| 1:EB:58:VAL:HG11  | 1:GB:117:VAL:CG2  | 2.44                     | 0.48              |
| 1:AY:27:PHE:CE2   | 1:EI:123:ASN:ND2  | 2.82                     | 0.48              |
| 1:BA:118:ASP:HB3  | 1:EM:98:THR:HG22  | 1.95                     | 0.48              |
| 1:ET:118:ASP:HB3  | 1:FG:98:THR:HG22  | 1.95                     | 0.48              |
| 1:EZ:24:GLY:HA3   | 1:FA:23:GLN:HG2   | 1.94                     | 0.48              |
| 1:FP:103:THR:OG1  | 1:GV:62:LEU:HD21  | 2.14                     | 0.48              |
| 1:AY:124:TYR:OXT  | 1:EI:22:GLN:NE2   | 2.46                     | 0.48              |
| 1:BB:20:SER:HA    | 1:EP:121:LEU:HD22 | 1.95                     | 0.48              |
| 1:CD:8:LEU:HD11   | 1:CR:107:TRP:CD2  | 2.48                     | 0.48              |
| 1:AG:122:ASN:HB2  | 1:BG:20:SER:O     | 2.13                     | 0.48              |
| 1:AA:123:ASN:OD1  | 1:BI:1:MET:HG2    | 2.13                     | 0.48              |
| 1:CL:24:GLY:HA3   | 1:CM:23:GLN:HG2   | 1.94                     | 0.48              |
| 1:CQ:98:THR:HG22  | 1:GC:118:ASP:CG   | 2.34                     | 0.48              |
| 1:BN:2:ARG:HA     | 1:DZ:124:TYR:O    | 2.14                     | 0.48              |
| 1:AS:123:ASN:OD1  | 1:EL:1:MET:HG2    | 2.14                     | 0.48              |
| 1:BP:68:VAL:HG11  | 1:FB:91:THR:HG22  | 1.95                     | 0.48              |
| 1:AX:84:VAL:HG22  | 1:EJ:84:VAL:HG13  | 1.96                     | 0.47              |
| 1:BD:103:THR:HG21 | 1:EP:15:ARG:NH1   | 2.25                     | 0.47              |
| 1:CI:122:ASN:HB2  | 1:GI:20:SER:O     | 2.14                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:CG:124:TYR:CB   | 1:CM:22:GLN:HB3   | 2.43                     | 0.47              |
| 1:DC:83:SER:O     | 1:GO:84:VAL:HA    | 2.14                     | 0.47              |
| 1:CS:123:ASN:HB3  | 1:DD:3:LEU:HG     | 1.96                     | 0.47              |
| 1:DM:24:GLY:HA3   | 1:DN:23:GLN:HG2   | 1.94                     | 0.47              |
| 1:CF:22:GLN:NE2   | 1:GN:124:TYR:HA   | 2.29                     | 0.47              |
| 1:AU:10:VAL:HG21  | 1:EG:103:THR:HG22 | 1.95                     | 0.47              |
| 1:CC:99:LYS:HE2   | 1:GK:15:ARG:HD3   | 1.96                     | 0.47              |
| 1:CQ:107:TRP:CE2  | 1:GC:8:LEU:HD11   | 2.49                     | 0.47              |
| 1:AV:107:TRP:CZ2  | 1:EF:17:TYR:CD2   | 3.03                     | 0.47              |
| 1:FD:91:THR:OG1   | 1:FF:78:ILE:HD13  | 2.14                     | 0.47              |
| 1:FQ:19:VAL:O     | 1:GV:121:LEU:HD11 | 2.14                     | 0.47              |
| 1:DC:78:ILE:CD1   | 1:GO:91:THR:HB    | 2.44                     | 0.47              |
| 1:DP:10:VAL:CG2   | 1:GW:103:THR:HG22 | 2.41                     | 0.47              |
| 1:BL:19:VAL:HG11  | 1:DW:124:TYR:CE1  | 2.49                     | 0.47              |
| 1:CB:66:VAL:HG23  | 1:FN:92:TYR:CE2   | 2.49                     | 0.47              |
| 1:DV:102:GLN:CB   | 1:GE:10:VAL:HG13  | 2.44                     | 0.47              |
| 1:EY:20:SER:O     | 1:FI:122:ASN:HB2  | 2.14                     | 0.47              |
| 1:EX:15:ARG:HH11  | 1:FI:99:LYS:HE2   | 1.78                     | 0.47              |
| 1:ER:20:SER:O     | 1:FM:122:ASN:HB2  | 2.13                     | 0.47              |
| 1:AJ:78:ILE:HD13  | 1:BX:91:THR:OG1   | 2.15                     | 0.47              |
| 1:CE:103:THR:HG22 | 1:FQ:10:VAL:HG21  | 1.96                     | 0.47              |
| 1:AH:22:GLN:HE21  | 1:GD:124:TYR:C    | 2.17                     | 0.47              |
| 1:CY:98:THR:HG22  | 1:GG:118:ASP:HB3  | 1.97                     | 0.47              |
| 1:AE:103:THR:OG1  | 1:GA:62:LEU:HD21  | 2.14                     | 0.47              |
| 1:CD:17:TYR:CG    | 1:CR:107:TRP:HZ2  | 2.33                     | 0.47              |
| 1:EB:124:TYR:CA   | 1:GB:22:GLN:HE21  | 2.26                     | 0.47              |
| 1:EE:103:THR:OG1  | 1:EU:62:LEU:HD21  | 2.14                     | 0.47              |
| 1:AX:91:THR:HB    | 1:EJ:78:ILE:HD13  | 1.96                     | 0.47              |
| 1:EY:18:ALA:HB2   | 1:EY:32:LYS:HE3   | 1.97                     | 0.47              |
| 1:CT:91:THR:HB    | 1:GF:78:ILE:CD1   | 2.45                     | 0.47              |
| 1:BM:2:ARG:HD2    | 1:EY:124:TYR:CE1  | 2.49                     | 0.47              |
| 1:CU:103:THR:HG22 | 1:DH:10:VAL:HG21  | 1.95                     | 0.47              |
| 1:EB:99:LYS:HE2   | 1:GB:15:ARG:HD3   | 1.96                     | 0.47              |
| 1:EH:124:TYR:CA   | 1:EO:22:GLN:HE21  | 2.27                     | 0.47              |
| 1:EJ:18:ALA:HB2   | 1:EJ:32:LYS:HE3   | 1.97                     | 0.47              |
| 1:AN:124:TYR:CE1  | 1:FS:19:VAL:HG11  | 2.50                     | 0.47              |
| 1:GF:18:ALA:HB2   | 1:GF:32:LYS:HE3   | 1.97                     | 0.47              |
| 1:FV:98:THR:HG22  | 1:GS:118:ASP:HB3  | 1.96                     | 0.47              |
| 1:GW:28:ARG:HG2   | 1:GW:44:SER:CB    | 2.45                     | 0.47              |
| 1:AI:68:VAL:HG11  | 1:DU:91:THR:CG2   | 2.45                     | 0.47              |
| 1:AJ:8:LEU:HD11   | 1:BX:107:TRP:CE2  | 2.50                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:AY:62:LEU:HD21  | 1:EI:103:THR:OG1  | 2.15                     | 0.47              |
| 1:BJ:18:ALA:HB2   | 1:BJ:32:LYS:HE3   | 1.97                     | 0.47              |
| 1:BT:122:ASN:ND2  | 1:DN:25:THR:HG22  | 2.30                     | 0.47              |
| 1:BZ:104:LEU:HD11 | 1:DT:84:VAL:HG21  | 1.97                     | 0.47              |
| 1:CC:99:LYS:HE2   | 1:GK:15:ARG:HH11  | 1.80                     | 0.47              |
| 1:CD:91:THR:OG1   | 1:CR:78:ILE:HD13  | 2.15                     | 0.47              |
| 1:BZ:92:TYR:CZ    | 1:DT:80:ALA:HB3   | 2.50                     | 0.47              |
| 1:DW:28:ARG:HG2   | 1:DW:44:SER:CB    | 2.45                     | 0.47              |
| 1:DZ:28:ARG:HG2   | 1:DZ:44:SER:CB    | 2.45                     | 0.47              |
| 1:AR:62:LEU:HD21  | 1:ED:103:THR:OG1  | 2.15                     | 0.47              |
| 1:AU:103:THR:HG22 | 1:EG:10:VAL:HG21  | 1.97                     | 0.47              |
| 1:EO:28:ARG:HG2   | 1:EO:44:SER:CB    | 2.45                     | 0.47              |
| 1:FB:18:ALA:HB2   | 1:FB:32:LYS:HE3   | 1.97                     | 0.47              |
| 1:EQ:10:VAL:CG2   | 1:FM:103:THR:HG22 | 2.44                     | 0.47              |
| 1:FP:103:THR:HG22 | 1:GV:10:VAL:HG21  | 1.96                     | 0.47              |
| 1:CN:103:THR:HG22 | 1:FZ:10:VAL:HG21  | 1.97                     | 0.47              |
| 1:CN:1:MET:HB3    | 1:FZ:123:ASN:OD1  | 2.15                     | 0.47              |
| 1:AN:28:ARG:HG2   | 1:AN:44:SER:CB    | 2.45                     | 0.47              |
| 1:AV:107:TRP:HZ2  | 1:EF:17:TYR:CD2   | 2.32                     | 0.47              |
| 1:BL:28:ARG:HG2   | 1:BL:44:SER:CB    | 2.45                     | 0.47              |
| 1:BW:3:LEU:HG     | 1:DQ:123:ASN:HB3  | 1.97                     | 0.47              |
| 1:CG:8:LEU:HD22   | 1:CL:106:ALA:HB1  | 1.97                     | 0.47              |
| 1:CM:28:ARG:HG2   | 1:CM:44:SER:CB    | 2.45                     | 0.47              |
| 1:DN:28:ARG:HG2   | 1:DN:44:SER:CB    | 2.45                     | 0.47              |
| 1:DV:3:LEU:HG     | 1:GE:123:ASN:HB3  | 1.96                     | 0.47              |
| 1:EB:124:TYR:C    | 1:GB:22:GLN:HE21  | 2.18                     | 0.47              |
| 1:FG:28:ARG:HG2   | 1:FG:44:SER:CB    | 2.45                     | 0.47              |
| 1:FP:22:GLN:HE21  | 1:GV:124:TYR:HA   | 1.79                     | 0.47              |
| 1:AN:91:THR:OG1   | 1:FR:78:ILE:HD13  | 2.14                     | 0.47              |
| 1:FZ:18:ALA:HB2   | 1:FZ:32:LYS:HE3   | 1.97                     | 0.47              |
| 1:CT:118:ASP:CB   | 1:GF:98:THR:HG22  | 2.45                     | 0.47              |
| 1:CF:99:LYS:HE2   | 1:GN:15:ARG:HH11  | 1.79                     | 0.47              |
| 1:DP:107:TRP:CE2  | 1:GW:8:LEU:HD11   | 2.49                     | 0.47              |
| 1:AK:28:ARG:HG2   | 1:AK:44:SER:CB    | 2.45                     | 0.47              |
| 1:AL:18:ALA:HB2   | 1:AL:32:LYS:HE3   | 1.97                     | 0.47              |
| 1:BH:122:ASN:HB2  | 1:BP:20:SER:O     | 2.15                     | 0.47              |
| 1:BP:18:ALA:HB2   | 1:BP:32:LYS:HE3   | 1.97                     | 0.47              |
| 1:CN:8:LEU:HD11   | 1:FZ:107:TRP:CE2  | 2.49                     | 0.47              |
| 1:CW:18:ALA:HB2   | 1:CW:32:LYS:HE3   | 1.97                     | 0.47              |
| 1:DB:28:ARG:HG2   | 1:DB:44:SER:CB    | 2.45                     | 0.47              |
| 1:DC:103:THR:HG22 | 1:GO:10:VAL:CG2   | 2.37                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:DR:18:ALA:HB2   | 1:DR:32:LYS:HE3   | 1.97                     | 0.47              |
| 1:AR:10:VAL:HG21  | 1:ED:103:THR:HG22 | 1.97                     | 0.47              |
| 1:ES:45:LEU:HD12  | 1:ES:60:MET:HG2   | 1.97                     | 0.47              |
| 1:EU:28:ARG:HG2   | 1:EU:44:SER:CB    | 2.45                     | 0.47              |
| 1:FN:45:LEU:HD12  | 1:FN:60:MET:HG2   | 1.97                     | 0.47              |
| 1:AN:10:VAL:HG13  | 1:FR:102:GLN:CB   | 2.45                     | 0.47              |
| 1:AB:103:THR:HG22 | 1:FX:10:VAL:CG2   | 2.44                     | 0.47              |
| 1:AN:8:LEU:HD22   | 1:FR:106:ALA:HB1  | 1.97                     | 0.47              |
| 1:AQ:28:ARG:HG2   | 1:AQ:44:SER:CB    | 2.45                     | 0.47              |
| 1:BF:28:ARG:HG2   | 1:BF:44:SER:CB    | 2.45                     | 0.47              |
| 1:CE:18:ALA:HB2   | 1:CE:32:LYS:HE3   | 1.97                     | 0.47              |
| 1:CF:120:GLY:HA2  | 1:GN:47:GLN:HE22  | 1.79                     | 0.47              |
| 1:CK:45:LEU:HD12  | 1:CK:60:MET:HG2   | 1.97                     | 0.47              |
| 1:DI:18:ALA:HB2   | 1:DI:32:LYS:HE3   | 1.97                     | 0.47              |
| 1:EA:18:ALA:HB2   | 1:EA:32:LYS:HE3   | 1.97                     | 0.47              |
| 1:EC:28:ARG:HG2   | 1:EC:44:SER:CB    | 2.45                     | 0.47              |
| 1:EP:18:ALA:HB2   | 1:EP:32:LYS:HE3   | 1.97                     | 0.47              |
| 1:FK:18:ALA:HB2   | 1:FK:32:LYS:HE3   | 1.97                     | 0.47              |
| 1:FP:28:ARG:HG2   | 1:FP:44:SER:CB    | 2.45                     | 0.47              |
| 1:GK:28:ARG:HG2   | 1:GK:44:SER:CB    | 2.45                     | 0.47              |
| 1:GL:18:ALA:HB2   | 1:GL:32:LYS:HE3   | 1.97                     | 0.47              |
| 1:GR:45:LEU:HD12  | 1:GR:60:MET:HG2   | 1.97                     | 0.47              |
| 1:AB:28:ARG:HG2   | 1:AB:44:SER:CB    | 2.45                     | 0.47              |
| 1:AF:45:LEU:HD12  | 1:AF:60:MET:HG2   | 1.97                     | 0.47              |
| 1:AO:45:LEU:HD12  | 1:AO:60:MET:HG2   | 1.97                     | 0.47              |
| 1:AR:18:ALA:HB2   | 1:AR:32:LYS:HE3   | 1.97                     | 0.47              |
| 1:AX:122:ASN:HB2  | 1:EH:20:SER:O     | 2.15                     | 0.47              |
| 1:BC:28:ARG:HG2   | 1:BC:44:SER:CB    | 2.45                     | 0.47              |
| 1:BM:98:THR:HG22  | 1:EY:118:ASP:CB   | 2.44                     | 0.47              |
| 1:BP:45:LEU:HD12  | 1:BP:60:MET:HG2   | 1.97                     | 0.47              |
| 1:BV:18:ALA:HB2   | 1:BV:32:LYS:HE3   | 1.97                     | 0.47              |
| 1:BX:28:ARG:HG2   | 1:BX:44:SER:CB    | 2.45                     | 0.47              |
| 1:CC:102:GLN:HB2  | 1:GK:10:VAL:HG13  | 1.97                     | 0.47              |
| 1:CE:45:LEU:HD12  | 1:CE:60:MET:HG2   | 1.97                     | 0.47              |
| 1:CP:28:ARG:HG2   | 1:CP:44:SER:CB    | 2.45                     | 0.47              |
| 1:CW:45:LEU:HD12  | 1:CW:60:MET:HG2   | 1.97                     | 0.47              |
| 1:CZ:2:ARG:HH12   | 1:DK:124:TYR:C    | 2.18                     | 0.47              |
| 1:DF:18:ALA:HB2   | 1:DF:32:LYS:HE3   | 1.97                     | 0.47              |
| 1:DO:45:LEU:HD12  | 1:DO:60:MET:HG2   | 1.97                     | 0.47              |
| 1:ED:45:LEU:HD12  | 1:ED:60:MET:HG2   | 1.97                     | 0.47              |
| 1:EI:28:ARG:HG2   | 1:EI:44:SER:CB    | 2.45                     | 0.47              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:EJ:45:LEU:HD12  | 1:EJ:60:MET:HG2   | 1.97                     | 0.47              |
| 1:ES:18:ALA:HB2   | 1:ES:32:LYS:HE3   | 1.97                     | 0.47              |
| 1:EV:18:ALA:HB2   | 1:EV:32:LYS:HE3   | 1.97                     | 0.47              |
| 1:EV:45:LEU:HD12  | 1:EV:60:MET:HG2   | 1.97                     | 0.47              |
| 1:GC:18:ALA:HB2   | 1:GC:32:LYS:HE3   | 1.97                     | 0.47              |
| 1:GX:18:ALA:HB2   | 1:GX:32:LYS:HE3   | 1.97                     | 0.47              |
| 1:AH:28:ARG:HG2   | 1:AH:44:SER:CB    | 2.45                     | 0.46              |
| 1:BA:45:LEU:HD12  | 1:BA:60:MET:HG2   | 1.97                     | 0.46              |
| 1:BG:18:ALA:HB2   | 1:BG:32:LYS:HE3   | 1.97                     | 0.46              |
| 1:BI:28:ARG:HG2   | 1:BI:44:SER:CB    | 2.45                     | 0.46              |
| 1:CN:45:LEU:HD12  | 1:CN:60:MET:HG2   | 1.98                     | 0.46              |
| 1:DK:28:ARG:HG2   | 1:DK:44:SER:CB    | 2.45                     | 0.46              |
| 1:DX:18:ALA:HB2   | 1:DX:32:LYS:HE3   | 1.97                     | 0.46              |
| 1:EA:45:LEU:HD12  | 1:EA:60:MET:HG2   | 1.97                     | 0.46              |
| 1:EG:18:ALA:HB2   | 1:EG:32:LYS:HE3   | 1.97                     | 0.46              |
| 1:EE:10:VAL:CG2   | 1:EU:103:THR:HG22 | 2.43                     | 0.46              |
| 1:AT:117:VAL:O    | 1:EZ:97:ILE:HG21  | 2.14                     | 0.46              |
| 1:FD:107:TRP:CE2  | 1:FF:8:LEU:HD11   | 2.50                     | 0.46              |
| 1:AH:117:VAL:O    | 1:GD:97:ILE:HG21  | 2.16                     | 0.46              |
| 1:GU:45:LEU:HD12  | 1:GU:60:MET:HG2   | 1.97                     | 0.46              |
| 1:AC:18:ALA:HB2   | 1:AC:32:LYS:HE3   | 1.97                     | 0.46              |
| 1:AD:26:LEU:HD12  | 1:AD:45:LEU:O     | 2.16                     | 0.46              |
| 1:AE:28:ARG:HG2   | 1:AE:44:SER:CB    | 2.45                     | 0.46              |
| 1:AU:45:LEU:HD12  | 1:AU:60:MET:HG2   | 1.97                     | 0.46              |
| 1:AW:1:MET:HG2    | 1:FC:123:ASN:OD1  | 2.15                     | 0.46              |
| 1:AX:18:ALA:HB2   | 1:AX:32:LYS:HE3   | 1.97                     | 0.46              |
| 1:BZ:97:ILE:HG21  | 1:DT:117:VAL:O    | 2.15                     | 0.46              |
| 1:CD:28:ARG:HG2   | 1:CD:44:SER:CB    | 2.45                     | 0.46              |
| 1:CH:18:ALA:HB2   | 1:CH:32:LYS:HE3   | 1.97                     | 0.46              |
| 1:CK:19:VAL:O     | 1:CO:121:LEU:HD11 | 2.14                     | 0.46              |
| 1:BN:103:THR:HG22 | 1:DZ:10:VAL:HG21  | 1.97                     | 0.46              |
| 1:BN:118:ASP:CG   | 1:DZ:98:THR:HG22  | 2.35                     | 0.46              |
| 1:EG:45:LEU:HD12  | 1:EG:60:MET:HG2   | 1.97                     | 0.46              |
| 1:AI:18:ALA:HB2   | 1:AI:32:LYS:HE3   | 1.97                     | 0.46              |
| 1:AK:107:TRP:CE2  | 1:FO:8:LEU:HD11   | 2.50                     | 0.46              |
| 1:BD:45:LEU:HD12  | 1:BD:60:MET:HG2   | 1.97                     | 0.46              |
| 1:BV:45:LEU:HD12  | 1:BV:60:MET:HG2   | 1.97                     | 0.46              |
| 1:BW:122:ASN:HB2  | 1:DR:20:SER:O     | 2.15                     | 0.46              |
| 1:BZ:26:LEU:HD12  | 1:BZ:45:LEU:O     | 2.16                     | 0.46              |
| 1:CD:98:THR:HG22  | 1:CR:118:ASP:HB3  | 1.97                     | 0.46              |
| 1:CX:10:VAL:CG2   | 1:DK:103:THR:HG22 | 2.43                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:CZ:102:GLN:CB   | 1:GL:10:VAL:HG13  | 2.46                     | 0.46              |
| 1:BT:96:HIS:CG    | 1:DN:66:VAL:HG21  | 2.50                     | 0.46              |
| 1:FB:45:LEU:HD12  | 1:FB:60:MET:HG2   | 1.97                     | 0.46              |
| 1:FA:98:THR:HG22  | 1:FL:118:ASP:HB3  | 1.96                     | 0.46              |
| 1:FV:66:VAL:HG21  | 1:GS:96:HIS:CG    | 2.50                     | 0.46              |
| 1:GT:28:ARG:HG2   | 1:GT:44:SER:CB    | 2.45                     | 0.46              |
| 1:AC:45:LEU:HD12  | 1:AC:60:MET:HG2   | 1.97                     | 0.46              |
| 1:AJ:26:LEU:HD12  | 1:AJ:45:LEU:O     | 2.16                     | 0.46              |
| 1:BU:28:ARG:HG2   | 1:BU:44:SER:CB    | 2.45                     | 0.46              |
| 1:BY:18:ALA:HB2   | 1:BY:32:LYS:HE3   | 1.97                     | 0.46              |
| 1:BY:8:LEU:HD11   | 1:FK:107:TRP:CE2  | 2.51                     | 0.46              |
| 1:AM:119:SER:O    | 1:CB:36:VAL:HG13  | 2.15                     | 0.46              |
| 1:CO:26:LEU:HD12  | 1:CO:45:LEU:O     | 2.16                     | 0.46              |
| 1:CQ:84:VAL:HG13  | 1:GC:84:VAL:HG22  | 1.97                     | 0.46              |
| 1:CS:98:THR:HG22  | 1:DD:118:ASP:HB3  | 1.98                     | 0.46              |
| 1:CT:18:ALA:HB2   | 1:CT:32:LYS:HE3   | 1.97                     | 0.46              |
| 1:CZ:18:ALA:HB2   | 1:CZ:32:LYS:HE3   | 1.97                     | 0.46              |
| 1:DB:15:ARG:NH1   | 1:GJ:103:THR:HG21 | 2.31                     | 0.46              |
| 1:DC:45:LEU:HD12  | 1:DC:60:MET:HG2   | 1.97                     | 0.46              |
| 1:DL:45:LEU:HD12  | 1:DL:60:MET:HG2   | 1.97                     | 0.46              |
| 1:DU:18:ALA:HB2   | 1:DU:32:LYS:HE3   | 1.97                     | 0.46              |
| 1:EW:26:LEU:HD12  | 1:EW:45:LEU:O     | 2.16                     | 0.46              |
| 1:FD:103:THR:HG22 | 1:FF:10:VAL:CG2   | 2.42                     | 0.46              |
| 1:FF:26:LEU:HD12  | 1:FF:45:LEU:O     | 2.16                     | 0.46              |
| 1:FU:26:LEU:HD12  | 1:FU:45:LEU:O     | 2.16                     | 0.46              |
| 1:GG:26:LEU:HD12  | 1:GG:45:LEU:O     | 2.16                     | 0.46              |
| 1:GN:28:ARG:HG2   | 1:GN:44:SER:CB    | 2.45                     | 0.46              |
| 1:GR:18:ALA:HB2   | 1:GR:32:LYS:HE3   | 1.97                     | 0.46              |
| 1:AL:28:ARG:HG2   | 1:AL:44:SER:HB3   | 1.98                     | 0.46              |
| 1:AO:18:ALA:HB2   | 1:AO:32:LYS:HE3   | 1.97                     | 0.46              |
| 1:AO:28:ARG:HG2   | 1:AO:44:SER:HB3   | 1.98                     | 0.46              |
| 1:BA:28:ARG:HG2   | 1:BA:44:SER:HB3   | 1.98                     | 0.46              |
| 1:BH:122:ASN:ND2  | 1:BO:25:THR:HG22  | 2.30                     | 0.46              |
| 1:BJ:45:LEU:HD12  | 1:BJ:60:MET:HG2   | 1.97                     | 0.46              |
| 1:BK:26:LEU:HD12  | 1:BK:45:LEU:O     | 2.16                     | 0.46              |
| 1:BT:26:LEU:HD12  | 1:BT:45:LEU:O     | 2.16                     | 0.46              |
| 1:AP:62:LEU:HD21  | 1:BU:103:THR:OG1  | 2.15                     | 0.46              |
| 1:BV:28:ARG:HG2   | 1:BV:44:SER:HB3   | 1.98                     | 0.46              |
| 1:CA:28:ARG:HG2   | 1:CA:44:SER:CB    | 2.45                     | 0.46              |
| 1:CB:18:ALA:HB2   | 1:CB:32:LYS:HE3   | 1.97                     | 0.46              |
| 1:CE:28:ARG:HG2   | 1:CE:44:SER:HB3   | 1.98                     | 0.46              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:CF:26:LEU:HD12 | 1:CF:45:LEU:O    | 2.16                     | 0.46              |
| 1:DL:18:ALA:HB2  | 1:DL:32:LYS:HE3  | 1.97                     | 0.46              |
| 1:DY:118:ASP:HB3 | 1:FY:98:THR:HG22 | 1.98                     | 0.46              |
| 1:EH:116:PRO:O   | 1:EO:56:ARG:NH1  | 2.48                     | 0.46              |
| 1:FK:45:LEU:HD12 | 1:FK:60:MET:HG2  | 1.97                     | 0.46              |
| 1:FX:26:LEU:HD12 | 1:FX:45:LEU:O    | 2.16                     | 0.46              |
| 1:FZ:28:ARG:HG2  | 1:FZ:44:SER:HB3  | 1.98                     | 0.46              |
| 1:CY:85:THR:OG1  | 1:GG:83:SER:OG   | 2.33                     | 0.46              |
| 1:GI:18:ALA:HB2  | 1:GI:32:LYS:HE3  | 1.97                     | 0.46              |
| 1:GL:45:LEU:HD12 | 1:GL:60:MET:HG2  | 1.97                     | 0.46              |
| 1:AG:26:LEU:HD12 | 1:AG:45:LEU:O    | 2.16                     | 0.46              |
| 1:AI:45:LEU:HD12 | 1:AI:60:MET:HG2  | 1.97                     | 0.46              |
| 1:BM:45:LEU:HD12 | 1:BM:60:MET:HG2  | 1.97                     | 0.46              |
| 1:BS:28:ARG:HG2  | 1:BS:44:SER:HB3  | 1.98                     | 0.46              |
| 1:CT:28:ARG:HG2  | 1:CT:44:SER:HB3  | 1.98                     | 0.46              |
| 1:CX:26:LEU:HD12 | 1:CX:45:LEU:O    | 2.16                     | 0.46              |
| 1:DB:84:VAL:HG13 | 1:GJ:84:VAL:HG22 | 1.97                     | 0.46              |
| 1:AF:107:TRP:CE2 | 1:DR:8:LEU:HD11  | 2.50                     | 0.46              |
| 1:DS:26:LEU:HD12 | 1:DS:45:LEU:O    | 2.16                     | 0.46              |
| 1:AR:98:THR:HG22 | 1:ED:118:ASP:CB  | 2.45                     | 0.46              |
| 1:EE:26:LEU:HD12 | 1:EE:45:LEU:O    | 2.16                     | 0.46              |
| 1:ES:28:ARG:HG2  | 1:ES:44:SER:HB3  | 1.98                     | 0.46              |
| 1:ET:26:LEU:HD12 | 1:ET:45:LEU:O    | 2.16                     | 0.46              |
| 1:EZ:26:LEU:HD12 | 1:EZ:45:LEU:O    | 2.16                     | 0.46              |
| 1:FN:18:ALA:HB2  | 1:FN:32:LYS:HE3  | 1.97                     | 0.46              |
| 1:FN:28:ARG:HG2  | 1:FN:44:SER:HB3  | 1.98                     | 0.46              |
| 1:FQ:18:ALA:HB2  | 1:FQ:32:LYS:HE3  | 1.97                     | 0.46              |
| 1:GC:28:ARG:HG2  | 1:GC:44:SER:HB3  | 1.98                     | 0.46              |
| 1:GH:28:ARG:HG2  | 1:GH:44:SER:CB   | 2.45                     | 0.46              |
| 1:GQ:28:ARG:HG2  | 1:GQ:44:SER:CB   | 2.45                     | 0.46              |
| 1:AC:28:ARG:HG2  | 1:AC:44:SER:HB3  | 1.98                     | 0.46              |
| 1:AH:94:ASN:O    | 1:AH:98:THR:HG23 | 2.16                     | 0.46              |
| 1:AN:25:THR:HG22 | 1:FR:122:ASN:ND2 | 2.31                     | 0.46              |
| 1:AR:45:LEU:HD12 | 1:AR:60:MET:HG2  | 1.97                     | 0.46              |
| 1:BC:94:ASN:O    | 1:BC:98:THR:HG23 | 2.16                     | 0.46              |
| 1:BE:26:LEU:HD12 | 1:BE:45:LEU:O    | 2.16                     | 0.46              |
| 1:BN:26:LEU:HD12 | 1:BN:45:LEU:O    | 2.16                     | 0.46              |
| 1:BY:68:VAL:HG11 | 1:FK:91:THR:HG22 | 1.98                     | 0.46              |
| 1:CB:1:MET:HB3   | 1:FN:123:ASN:OD1 | 2.16                     | 0.46              |
| 1:CG:28:ARG:HG2  | 1:CG:44:SER:CB   | 2.45                     | 0.46              |
| 1:CN:28:ARG:HG2  | 1:CN:44:SER:HB3  | 1.98                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:CQ:45:LEU:HD12  | 1:CQ:60:MET:HG2   | 1.97                     | 0.46              |
| 1:CY:28:ARG:HG2   | 1:CY:44:SER:CB    | 2.45                     | 0.46              |
| 1:DA:26:LEU:HD12  | 1:DA:45:LEU:O     | 2.16                     | 0.46              |
| 1:DC:18:ALA:HB2   | 1:DC:32:LYS:HE3   | 1.97                     | 0.46              |
| 1:DG:26:LEU:HD12  | 1:DG:45:LEU:O     | 2.16                     | 0.46              |
| 1:DR:28:ARG:HG2   | 1:DR:44:SER:HB3   | 1.98                     | 0.46              |
| 1:EY:45:LEU:HD12  | 1:EY:60:MET:HG2   | 1.97                     | 0.46              |
| 1:FD:28:ARG:HG2   | 1:FD:44:SER:CB    | 2.45                     | 0.46              |
| 1:FY:28:ARG:HG2   | 1:FY:44:SER:CB    | 2.45                     | 0.46              |
| 1:AE:117:VAL:HG22 | 1:GA:58:VAL:HG11  | 1.97                     | 0.46              |
| 1:GB:94:ASN:O     | 1:GB:98:THR:HG23  | 2.16                     | 0.46              |
| 1:GH:94:ASN:O     | 1:GH:98:THR:HG23  | 2.16                     | 0.46              |
| 1:CW:91:THR:HG22  | 1:GI:68:VAL:HG11  | 1.97                     | 0.46              |
| 1:GM:26:LEU:HD12  | 1:GM:45:LEU:O     | 2.16                     | 0.46              |
| 1:AA:20:SER:HA    | 1:DO:121:LEU:HD22 | 1.97                     | 0.46              |
| 1:AE:94:ASN:O     | 1:AE:98:THR:HG23  | 2.16                     | 0.46              |
| 1:AM:26:LEU:HD12  | 1:AM:45:LEU:O     | 2.16                     | 0.46              |
| 1:BA:18:ALA:HB2   | 1:BA:32:LYS:HE3   | 1.97                     | 0.46              |
| 1:BH:26:LEU:HD12  | 1:BH:45:LEU:O     | 2.16                     | 0.46              |
| 1:BK:106:ALA:HB1  | 1:DW:8:LEU:HD22   | 1.98                     | 0.46              |
| 1:BM:18:ALA:HB2   | 1:BM:32:LYS:HE3   | 1.97                     | 0.46              |
| 1:BS:45:LEU:HD12  | 1:BS:60:MET:HG2   | 1.97                     | 0.46              |
| 1:BT:118:ASP:OD2  | 1:DN:98:THR:HG22  | 2.16                     | 0.46              |
| 1:BY:28:ARG:HG2   | 1:BY:44:SER:HB3   | 1.98                     | 0.46              |
| 1:CI:26:LEU:HD12  | 1:CI:45:LEU:O     | 2.16                     | 0.46              |
| 1:CM:94:ASN:O     | 1:CM:98:THR:HG23  | 2.16                     | 0.46              |
| 1:CP:8:LEU:HD11   | 1:DJ:107:TRP:CE2  | 2.51                     | 0.46              |
| 1:CQ:18:ALA:HB2   | 1:CQ:32:LYS:HE3   | 1.97                     | 0.46              |
| 1:CQ:78:ILE:HD13  | 1:GC:91:THR:HB    | 1.98                     | 0.46              |
| 1:CS:1:MET:HG2    | 1:DD:123:ASN:OD1  | 2.15                     | 0.46              |
| 1:DK:94:ASN:O     | 1:DK:98:THR:HG23  | 2.16                     | 0.46              |
| 1:DO:18:ALA:HB2   | 1:DO:32:LYS:HE3   | 1.97                     | 0.46              |
| 1:EJ:10:VAL:O     | 1:EJ:13:GLU:HG2   | 2.16                     | 0.46              |
| 1:EM:10:VAL:O     | 1:EM:13:GLU:HG2   | 2.16                     | 0.46              |
| 1:EO:94:ASN:O     | 1:EO:98:THR:HG23  | 2.16                     | 0.46              |
| 1:EQ:118:ASP:OD2  | 1:FM:98:THR:HG22  | 2.16                     | 0.46              |
| 1:EQ:26:LEU:HD12  | 1:EQ:45:LEU:O     | 2.16                     | 0.46              |
| 1:EX:103:THR:HG22 | 1:FI:10:VAL:HG21  | 1.97                     | 0.46              |
| 1:BM:84:VAL:HG22  | 1:EY:84:VAL:HG13  | 1.98                     | 0.46              |
| 1:FG:94:ASN:O     | 1:FG:98:THR:HG23  | 2.16                     | 0.46              |
| 1:FJ:94:ASN:O     | 1:FJ:98:THR:HG23  | 2.16                     | 0.46              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:FQ:28:ARG:HG2   | 1:FQ:44:SER:HB3  | 1.98                     | 0.46              |
| 1:FT:28:ARG:HG2   | 1:FT:44:SER:HB3  | 1.98                     | 0.46              |
| 1:FW:45:LEU:HD12  | 1:FW:60:MET:HG2  | 1.97                     | 0.46              |
| 1:AA:26:LEU:HD12  | 1:AA:45:LEU:O    | 2.16                     | 0.46              |
| 1:AB:107:TRP:CE2  | 1:FX:8:LEU:HD11  | 2.50                     | 0.46              |
| 1:AC:10:VAL:O     | 1:AC:13:GLU:HG2  | 2.16                     | 0.46              |
| 1:AC:123:ASN:OD1  | 1:DO:1:MET:HB3   | 2.16                     | 0.46              |
| 1:AC:91:THR:CG2   | 1:DO:68:VAL:HG11 | 2.46                     | 0.46              |
| 1:AI:10:VAL:O     | 1:AI:13:GLU:HG2  | 2.16                     | 0.46              |
| 1:AK:85:THR:OG1   | 1:FO:83:SER:OG   | 2.31                     | 0.46              |
| 1:AL:10:VAL:O     | 1:AL:13:GLU:HG2  | 2.16                     | 0.46              |
| 1:AM:96:HIS:CG    | 1:CA:66:VAL:HG21 | 2.51                     | 0.46              |
| 1:AP:26:LEU:HD12  | 1:AP:45:LEU:O    | 2.16                     | 0.46              |
| 1:BB:26:LEU:HD12  | 1:BB:45:LEU:O    | 2.16                     | 0.46              |
| 1:BM:103:THR:HG22 | 1:EY:10:VAL:HG21 | 1.98                     | 0.46              |
| 1:BI:22:GLN:HB3   | 1:BO:124:TYR:HB2 | 1.98                     | 0.46              |
| 1:BP:28:ARG:HG2   | 1:BP:44:SER:HB3  | 1.98                     | 0.46              |
| 1:BQ:118:ASP:OD2  | 1:EC:98:THR:HG22 | 2.16                     | 0.46              |
| 1:BW:26:LEU:HD12  | 1:BW:45:LEU:O    | 2.16                     | 0.46              |
| 1:CB:10:VAL:O     | 1:CB:13:GLU:HG2  | 2.16                     | 0.46              |
| 1:CH:45:LEU:HD12  | 1:CH:60:MET:HG2  | 1.97                     | 0.46              |
| 1:CH:98:THR:HG22  | 1:FT:118:ASP:HB3 | 1.97                     | 0.46              |
| 1:CK:18:ALA:HB2   | 1:CK:32:LYS:HE3  | 1.97                     | 0.46              |
| 1:CN:18:ALA:HB2   | 1:CN:32:LYS:HE3  | 1.97                     | 0.46              |
| 1:CD:17:TYR:CD2   | 1:CR:107:TRP:CZ2 | 3.03                     | 0.46              |
| 1:CR:26:LEU:HD12  | 1:CR:45:LEU:O    | 2.16                     | 0.46              |
| 1:DI:118:ASP:CG   | 1:GU:98:THR:HG22 | 2.36                     | 0.46              |
| 1:DJ:26:LEU:HD12  | 1:DJ:45:LEU:O    | 2.16                     | 0.46              |
| 1:DP:26:LEU:HD12  | 1:DP:45:LEU:O    | 2.16                     | 0.46              |
| 1:DP:8:LEU:HD11   | 1:GW:107:TRP:CE2 | 2.51                     | 0.46              |
| 1:DX:10:VAL:O     | 1:DX:13:GLU:HG2  | 2.16                     | 0.46              |
| 1:EF:28:ARG:HG2   | 1:EF:44:SER:CB   | 2.45                     | 0.46              |
| 1:EF:94:ASN:O     | 1:EF:98:THR:HG23 | 2.16                     | 0.46              |
| 1:EL:28:ARG:HG2   | 1:EL:44:SER:CB   | 2.45                     | 0.46              |
| 1:ET:118:ASP:CG   | 1:FG:98:THR:HG22 | 2.37                     | 0.46              |
| 1:EG:2:ARG:NH1    | 1:EU:124:TYR:OXT | 2.49                     | 0.46              |
| 1:FC:26:LEU:HD12  | 1:FC:45:LEU:O    | 2.16                     | 0.46              |
| 1:FH:45:LEU:HD12  | 1:FH:60:MET:HG2  | 1.97                     | 0.46              |
| 1:FI:26:LEU:HD12  | 1:FI:45:LEU:O    | 2.16                     | 0.46              |
| 1:FL:26:LEU:HD12  | 1:FL:45:LEU:O    | 2.16                     | 0.46              |
| 1:FM:94:ASN:O     | 1:FM:98:THR:HG23 | 2.16                     | 0.46              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:FT:18:ALA:HB2   | 1:FT:32:LYS:HE3   | 1.97                     | 0.46              |
| 1:FW:18:ALA:HB2   | 1:FW:32:LYS:HE3   | 1.97                     | 0.46              |
| 1:GE:28:ARG:HG2   | 1:GE:44:SER:CB    | 2.45                     | 0.46              |
| 1:GJ:26:LEU:HD12  | 1:GJ:45:LEU:O     | 2.16                     | 0.46              |
| 1:AF:18:ALA:HB2   | 1:AF:32:LYS:HE3   | 1.97                     | 0.46              |
| 1:AR:28:ARG:HG2   | 1:AR:44:SER:HB3   | 1.98                     | 0.46              |
| 1:AX:45:LEU:HD12  | 1:AX:60:MET:HG2   | 1.97                     | 0.46              |
| 1:AZ:94:ASN:O     | 1:AZ:98:THR:HG23  | 2.16                     | 0.46              |
| 1:BD:18:ALA:HB2   | 1:BD:32:LYS:HE3   | 1.97                     | 0.46              |
| 1:BH:124:TYR:HA   | 1:BO:22:GLN:HE21  | 1.80                     | 0.46              |
| 1:CC:26:LEU:HD12  | 1:CC:45:LEU:O     | 2.16                     | 0.46              |
| 1:CD:94:ASN:O     | 1:CD:98:THR:HG23  | 2.16                     | 0.46              |
| 1:CJ:28:ARG:HG2   | 1:CJ:44:SER:CB    | 2.45                     | 0.46              |
| 1:CJ:94:ASN:O     | 1:CJ:98:THR:HG23  | 2.16                     | 0.46              |
| 1:CK:28:ARG:HG2   | 1:CK:44:SER:HB3   | 1.98                     | 0.46              |
| 1:CV:28:ARG:HG2   | 1:CV:44:SER:CB    | 2.45                     | 0.46              |
| 1:CZ:26:LEU:HD12  | 1:CZ:45:LEU:O     | 2.16                     | 0.46              |
| 1:DB:94:ASN:O     | 1:DB:98:THR:HG23  | 2.16                     | 0.46              |
| 1:DL:10:VAL:O     | 1:DL:13:GLU:HG2   | 2.16                     | 0.46              |
| 1:DO:2:ARG:HH12   | 1:GT:124:TYR:C    | 2.18                     | 0.46              |
| 1:DR:45:LEU:HD12  | 1:DR:60:MET:HG2   | 1.97                     | 0.46              |
| 1:AU:62:LEU:HD21  | 1:EG:103:THR:OG1  | 2.16                     | 0.46              |
| 1:EP:28:ARG:HG2   | 1:EP:44:SER:HB3   | 1.98                     | 0.46              |
| 1:ER:28:ARG:HG2   | 1:ER:44:SER:CB    | 2.45                     | 0.46              |
| 1:EU:94:ASN:O     | 1:EU:98:THR:HG23  | 2.16                     | 0.46              |
| 1:FA:94:ASN:O     | 1:FA:98:THR:HG23  | 2.16                     | 0.46              |
| 1:ET:103:THR:HG21 | 1:FG:15:ARG:NH1   | 2.30                     | 0.46              |
| 1:EQ:15:ARG:NH1   | 1:FM:103:THR:HG21 | 2.26                     | 0.46              |
| 1:GA:26:LEU:HD12  | 1:GA:45:LEU:O     | 2.16                     | 0.46              |
| 1:GI:10:VAL:O     | 1:GI:13:GLU:HG2   | 2.16                     | 0.46              |
| 1:GI:28:ARG:HG2   | 1:GI:44:SER:HB3   | 1.98                     | 0.46              |
| 1:GK:94:ASN:O     | 1:GK:98:THR:HG23  | 2.16                     | 0.46              |
| 1:CZ:10:VAL:HG21  | 1:GL:103:THR:HG22 | 1.98                     | 0.46              |
| 1:GL:10:VAL:O     | 1:GL:13:GLU:HG2   | 2.16                     | 0.46              |
| 1:GQ:94:ASN:O     | 1:GQ:98:THR:HG23  | 2.16                     | 0.46              |
| 1:GR:10:VAL:O     | 1:GR:13:GLU:HG2   | 2.16                     | 0.46              |
| 1:DI:2:ARG:HD2    | 1:GU:124:TYR:CE1  | 2.51                     | 0.46              |
| 1:GV:26:LEU:HD12  | 1:GV:45:LEU:O     | 2.16                     | 0.46              |
| 1:AF:26:LEU:HD12  | 1:AF:45:LEU:O     | 2.17                     | 0.45              |
| 1:AT:94:ASN:O     | 1:AT:98:THR:HG23  | 2.16                     | 0.45              |
| 1:AV:26:LEU:HD12  | 1:AV:45:LEU:O     | 2.16                     | 0.45              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:BI:94:ASN:O     | 1:BI:98:THR:HG23 | 2.16                     | 0.45              |
| 1:AA:121:LEU:HD11 | 1:BJ:19:VAL:O    | 2.17                     | 0.45              |
| 1:BM:103:THR:OG1  | 1:EY:62:LEU:HD21 | 2.16                     | 0.45              |
| 1:CB:26:LEU:HD12  | 1:CB:45:LEU:O    | 2.16                     | 0.45              |
| 1:CE:10:VAL:O     | 1:CE:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:CE:26:LEU:HD12  | 1:CE:45:LEU:O    | 2.17                     | 0.45              |
| 1:CH:10:VAL:O     | 1:CH:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:CG:123:ASN:ND2  | 1:CL:27:PHE:CE2  | 2.84                     | 0.45              |
| 1:CP:94:ASN:O     | 1:CP:98:THR:HG23 | 2.16                     | 0.45              |
| 1:CS:28:ARG:HG2   | 1:CS:44:SER:CB   | 2.45                     | 0.45              |
| 1:DC:10:VAL:O     | 1:DC:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:DD:26:LEU:HD12  | 1:DD:45:LEU:O    | 2.16                     | 0.45              |
| 1:DF:28:ARG:HG2   | 1:DF:44:SER:HB3  | 1.98                     | 0.45              |
| 1:DI:10:VAL:O     | 1:DI:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:DR:26:LEU:HD12  | 1:DR:45:LEU:O    | 2.16                     | 0.45              |
| 1:DU:28:ARG:HG2   | 1:DU:44:SER:HB3  | 1.98                     | 0.45              |
| 1:AR:80:ALA:HB3   | 1:ED:92:TYR:CZ   | 2.51                     | 0.45              |
| 1:EG:10:VAL:O     | 1:EG:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:EK:26:LEU:HD12  | 1:EK:45:LEU:O    | 2.16                     | 0.45              |
| 1:EM:18:ALA:HB2   | 1:EM:32:LYS:HE3  | 1.97                     | 0.45              |
| 1:BD:83:SER:O     | 1:EP:84:VAL:HA   | 2.16                     | 0.45              |
| 1:EV:26:LEU:HD12  | 1:EV:45:LEU:O    | 2.17                     | 0.45              |
| 1:EX:94:ASN:O     | 1:EX:98:THR:HG23 | 2.16                     | 0.45              |
| 1:FA:107:TRP:CE2  | 1:FL:8:LEU:HD11  | 2.51                     | 0.45              |
| 1:FK:28:ARG:HG2   | 1:FK:44:SER:HB3  | 1.98                     | 0.45              |
| 1:FQ:10:VAL:O     | 1:FQ:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:FT:20:SER:O     | 1:GP:122:ASN:HB2 | 2.17                     | 0.45              |
| 1:FV:94:ASN:O     | 1:FV:98:THR:HG23 | 2.16                     | 0.45              |
| 1:FW:26:LEU:HD12  | 1:FW:45:LEU:O    | 2.17                     | 0.45              |
| 1:GU:26:LEU:HD12  | 1:GU:45:LEU:O    | 2.17                     | 0.45              |
| 1:GX:28:ARG:HG2   | 1:GX:44:SER:HB3  | 1.98                     | 0.45              |
| 1:AF:10:VAL:O     | 1:AF:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:AT:28:ARG:HG2   | 1:AT:44:SER:CB   | 2.45                     | 0.45              |
| 1:AW:28:ARG:HG2   | 1:AW:44:SER:CB   | 2.45                     | 0.45              |
| 1:AX:28:ARG:HG2   | 1:AX:44:SER:HB3  | 1.98                     | 0.45              |
| 1:BM:10:VAL:O     | 1:BM:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:BQ:118:ASP:HB3  | 1:EC:98:THR:HG22 | 1.97                     | 0.45              |
| 1:BS:18:ALA:HB2   | 1:BS:32:LYS:HE3  | 1.97                     | 0.45              |
| 1:BT:119:SER:O    | 1:DO:36:VAL:HG13 | 2.17                     | 0.45              |
| 1:CB:84:VAL:HA    | 1:FN:83:SER:O    | 2.16                     | 0.45              |
| 1:CL:26:LEU:HD12  | 1:CL:45:LEU:O    | 2.16                     | 0.45              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:CQ:10:VAL:O    | 1:CQ:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:CQ:26:LEU:HD12 | 1:CQ:45:LEU:O    | 2.17                     | 0.45              |
| 1:DE:94:ASN:O    | 1:DE:98:THR:HG23 | 2.16                     | 0.45              |
| 1:DU:45:LEU:HD12 | 1:DU:60:MET:HG2  | 1.97                     | 0.45              |
| 1:ED:18:ALA:HB2  | 1:ED:32:LYS:HE3  | 1.97                     | 0.45              |
| 1:ER:94:ASN:O    | 1:ER:98:THR:HG23 | 2.16                     | 0.45              |
| 1:ES:10:VAL:O    | 1:ES:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:FB:10:VAL:O    | 1:FB:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:FN:10:VAL:O    | 1:FN:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:FQ:45:LEU:HD12 | 1:FQ:60:MET:HG2  | 1.97                     | 0.45              |
| 1:FT:10:VAL:O    | 1:FT:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:AF:19:VAL:HB   | 1:GA:124:TYR:CD2 | 2.52                     | 0.45              |
| 1:GF:26:LEU:HD12 | 1:GF:45:LEU:O    | 2.17                     | 0.45              |
| 1:GO:45:LEU:HD12 | 1:GO:60:MET:HG2  | 1.97                     | 0.45              |
| 1:DF:98:THR:HG22 | 1:GR:118:ASP:CG  | 2.36                     | 0.45              |
| 1:GX:10:VAL:O    | 1:GX:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:AI:26:LEU:HD12 | 1:AI:45:LEU:O    | 2.16                     | 0.45              |
| 1:AR:10:VAL:O    | 1:AR:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:BJ:10:VAL:O    | 1:BJ:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:BS:10:VAL:O    | 1:BS:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:BV:10:VAL:O    | 1:BV:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:BY:10:VAL:O    | 1:BY:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:CA:94:ASN:O    | 1:CA:98:THR:HG23 | 2.16                     | 0.45              |
| 1:CH:1:MET:HB3   | 1:FT:123:ASN:OD1 | 2.17                     | 0.45              |
| 1:CT:10:VAL:O    | 1:CT:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:CT:26:LEU:HD12 | 1:CT:45:LEU:O    | 2.17                     | 0.45              |
| 1:DI:45:LEU:HD12 | 1:DI:60:MET:HG2  | 1.97                     | 0.45              |
| 1:DM:26:LEU:HD12 | 1:DM:45:LEU:O    | 2.16                     | 0.45              |
| 1:DR:10:VAL:O    | 1:DR:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:DT:28:ARG:HG2  | 1:DT:44:SER:CB   | 2.45                     | 0.45              |
| 1:DY:26:LEU:HD12 | 1:DY:45:LEU:O    | 2.16                     | 0.45              |
| 1:EC:94:ASN:O    | 1:EC:98:THR:HG23 | 2.16                     | 0.45              |
| 1:ED:10:VAL:O    | 1:ED:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:ED:26:LEU:HD12 | 1:ED:45:LEU:O    | 2.16                     | 0.45              |
| 1:AY:120:GLY:HA2 | 1:EI:47:GLN:HE22 | 1.81                     | 0.45              |
| 1:EV:28:ARG:HG2  | 1:EV:44:SER:HB3  | 1.98                     | 0.45              |
| 1:FE:45:LEU:HD12 | 1:FE:60:MET:HG2  | 1.97                     | 0.45              |
| 1:FE:26:LEU:HD12 | 1:FE:45:LEU:O    | 2.17                     | 0.45              |
| 1:EX:98:THR:HG22 | 1:FI:118:ASP:OD2 | 2.16                     | 0.45              |
| 1:FY:94:ASN:O    | 1:FY:98:THR:HG23 | 2.16                     | 0.45              |
| 1:FZ:10:VAL:O    | 1:FZ:13:GLU:HG2  | 2.16                     | 0.45              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:GD:26:LEU:HD12 | 1:GD:45:LEU:O    | 2.16                     | 0.45              |
| 1:CF:106:ALA:HB1 | 1:GN:8:LEU:HD22  | 1.98                     | 0.45              |
| 1:GO:18:ALA:HB2  | 1:GO:32:LYS:HE3  | 1.97                     | 0.45              |
| 1:AK:94:ASN:O    | 1:AK:98:THR:HG23 | 2.16                     | 0.45              |
| 1:AQ:94:ASN:O    | 1:AQ:98:THR:HG23 | 2.16                     | 0.45              |
| 1:AS:26:LEU:HD12 | 1:AS:45:LEU:O    | 2.16                     | 0.45              |
| 1:AT:98:THR:HG22 | 1:EZ:118:ASP:HB3 | 1.98                     | 0.45              |
| 1:CH:26:LEU:HD12 | 1:CH:45:LEU:O    | 2.16                     | 0.45              |
| 1:CN:26:LEU:HD12 | 1:CN:45:LEU:O    | 2.17                     | 0.45              |
| 1:CU:26:LEU:HD12 | 1:CU:45:LEU:O    | 2.16                     | 0.45              |
| 1:DH:28:ARG:HG2  | 1:DH:44:SER:CB   | 2.45                     | 0.45              |
| 1:DO:26:LEU:HD12 | 1:DO:45:LEU:O    | 2.17                     | 0.45              |
| 1:DQ:28:ARG:HG2  | 1:DQ:44:SER:CB   | 2.45                     | 0.45              |
| 1:DV:26:LEU:HD12 | 1:DV:45:LEU:O    | 2.16                     | 0.45              |
| 1:DX:28:ARG:HG2  | 1:DX:44:SER:HB3  | 1.98                     | 0.45              |
| 1:DX:26:LEU:HD12 | 1:DX:45:LEU:O    | 2.17                     | 0.45              |
| 1:EB:26:LEU:HD12 | 1:EB:45:LEU:O    | 2.16                     | 0.45              |
| 1:AV:118:ASP:HB3 | 1:EF:98:THR:HG22 | 1.99                     | 0.45              |
| 1:EJ:26:LEU:HD12 | 1:EJ:45:LEU:O    | 2.16                     | 0.45              |
| 1:EM:26:LEU:HD12 | 1:EM:45:LEU:O    | 2.17                     | 0.45              |
| 1:EN:26:LEU:HD12 | 1:EN:45:LEU:O    | 2.16                     | 0.45              |
| 1:EX:28:ARG:HG2  | 1:EX:44:SER:CB   | 2.45                     | 0.45              |
| 1:FB:26:LEU:HD12 | 1:FB:45:LEU:O    | 2.17                     | 0.45              |
| 1:ET:99:LYS:HE2  | 1:FG:15:ARG:HH11 | 1.81                     | 0.45              |
| 1:FJ:28:ARG:HG2  | 1:FJ:44:SER:CB   | 2.45                     | 0.45              |
| 1:FK:26:LEU:HD12 | 1:FK:45:LEU:O    | 2.17                     | 0.45              |
| 1:FO:26:LEU:HD12 | 1:FO:45:LEU:O    | 2.16                     | 0.45              |
| 1:GC:26:LEU:HD12 | 1:GC:45:LEU:O    | 2.17                     | 0.45              |
| 1:AH:80:ALA:HB3  | 1:GD:92:TYR:CZ   | 2.52                     | 0.45              |
| 1:GU:18:ALA:HB2  | 1:GU:32:LYS:HE3  | 1.97                     | 0.45              |
| 1:AB:94:ASN:O    | 1:AB:98:THR:HG23 | 2.16                     | 0.45              |
| 1:AI:28:ARG:HG2  | 1:AI:44:SER:HB3  | 1.98                     | 0.45              |
| 1:AL:26:LEU:HD12 | 1:AL:45:LEU:O    | 2.17                     | 0.45              |
| 1:AN:116:PRO:O   | 1:FR:56:ARG:NH1  | 2.47                     | 0.45              |
| 1:BA:10:VAL:O    | 1:BA:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:AG:99:LYS:HE2  | 1:BF:15:ARG:HH11 | 1.81                     | 0.45              |
| 1:BF:94:ASN:O    | 1:BF:98:THR:HG23 | 2.16                     | 0.45              |
| 1:BG:10:VAL:O    | 1:BG:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:BM:122:ASN:HB2 | 1:EW:20:SER:O    | 2.16                     | 0.45              |
| 1:BT:124:TYR:CD2 | 1:DO:19:VAL:HB   | 2.52                     | 0.45              |
| 1:BX:94:ASN:O    | 1:BX:98:THR:HG23 | 2.16                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:CB:45:LEU:HD12  | 1:CB:60:MET:HG2   | 1.97                     | 0.45              |
| 1:CZ:28:ARG:HG2   | 1:CZ:44:SER:HB3   | 1.98                     | 0.45              |
| 1:DF:45:LEU:HD12  | 1:DF:60:MET:HG2   | 1.97                     | 0.45              |
| 1:DT:94:ASN:O     | 1:DT:98:THR:HG23  | 2.16                     | 0.45              |
| 1:BN:123:ASN:OD1  | 1:DZ:1:MET:HG2    | 2.16                     | 0.45              |
| 1:EC:22:GLN:HB3   | 1:GB:124:TYR:CB   | 2.42                     | 0.45              |
| 1:EP:45:LEU:HD12  | 1:EP:60:MET:HG2   | 1.97                     | 0.45              |
| 1:FE:10:VAL:O     | 1:FE:13:GLU:HG2   | 2.16                     | 0.45              |
| 1:FH:18:ALA:HB2   | 1:FH:32:LYS:HE3   | 1.97                     | 0.45              |
| 1:FP:94:ASN:O     | 1:FP:98:THR:HG23  | 2.16                     | 0.45              |
| 1:FT:45:LEU:HD12  | 1:FT:60:MET:HG2   | 1.97                     | 0.45              |
| 1:FW:10:VAL:O     | 1:FW:13:GLU:HG2   | 2.16                     | 0.45              |
| 1:AE:56:ARG:NH1   | 1:GA:116:PRO:O    | 2.49                     | 0.45              |
| 1:GF:45:LEU:HD12  | 1:GF:60:MET:HG2   | 1.97                     | 0.45              |
| 1:GI:45:LEU:HD12  | 1:GI:60:MET:HG2   | 1.97                     | 0.45              |
| 1:GN:94:ASN:O     | 1:GN:98:THR:HG23  | 2.16                     | 0.45              |
| 1:GP:26:LEU:HD12  | 1:GP:45:LEU:O     | 2.16                     | 0.45              |
| 1:GS:26:LEU:HD12  | 1:GS:45:LEU:O     | 2.16                     | 0.45              |
| 1:AC:26:LEU:HD12  | 1:AC:45:LEU:O     | 2.17                     | 0.45              |
| 1:AN:22:GLN:NE2   | 1:FR:124:TYR:OXT  | 2.49                     | 0.45              |
| 1:AU:18:ALA:HB2   | 1:AU:32:LYS:HE3   | 1.97                     | 0.45              |
| 1:AW:94:ASN:O     | 1:AW:98:THR:HG23  | 2.16                     | 0.45              |
| 1:BP:26:LEU:HD12  | 1:BP:45:LEU:O     | 2.17                     | 0.45              |
| 1:BQ:26:LEU:HD12  | 1:BQ:45:LEU:O     | 2.16                     | 0.45              |
| 1:BY:26:LEU:HD12  | 1:BY:45:LEU:O     | 2.17                     | 0.45              |
| 1:BZ:103:THR:HG21 | 1:DT:15:ARG:NH1   | 2.31                     | 0.45              |
| 1:CF:124:TYR:HA   | 1:GN:22:GLN:HE21  | 1.80                     | 0.45              |
| 1:CS:94:ASN:O     | 1:CS:98:THR:HG23  | 2.16                     | 0.45              |
| 1:CW:26:LEU:HD12  | 1:CW:45:LEU:O     | 2.17                     | 0.45              |
| 1:CZ:45:LEU:HD12  | 1:CZ:60:MET:HG2   | 1.97                     | 0.45              |
| 1:DI:26:LEU:HD12  | 1:DI:45:LEU:O     | 2.16                     | 0.45              |
| 1:BL:20:SER:HA    | 1:DW:121:LEU:HD22 | 1.98                     | 0.45              |
| 1:DX:45:LEU:HD12  | 1:DX:60:MET:HG2   | 1.97                     | 0.45              |
| 1:DZ:94:ASN:O     | 1:DZ:98:THR:HG23  | 2.16                     | 0.45              |
| 1:BQ:99:LYS:HE2   | 1:EC:15:ARG:HD3   | 1.99                     | 0.45              |
| 1:EH:10:VAL:HG13  | 1:EO:102:GLN:CB   | 2.47                     | 0.45              |
| 1:EH:26:LEU:HD12  | 1:EH:45:LEU:O     | 2.16                     | 0.45              |
| 1:EM:28:ARG:HG2   | 1:EM:44:SER:HB3   | 1.98                     | 0.45              |
| 1:EY:10:VAL:O     | 1:EY:13:GLU:HG2   | 2.16                     | 0.45              |
| 1:FA:28:ARG:HG2   | 1:FA:44:SER:CB    | 2.45                     | 0.45              |
| 1:FD:1:MET:HG2    | 1:FF:123:ASN:OD1  | 2.17                     | 0.45              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:FS:94:ASN:O     | 1:FS:98:THR:HG23  | 2.16                     | 0.45              |
| 1:FV:28:ARG:HG2   | 1:FV:44:SER:CB    | 2.45                     | 0.45              |
| 1:CZ:47:GLN:OE1   | 1:GL:120:GLY:HA2  | 2.16                     | 0.45              |
| 1:CZ:91:THR:CG2   | 1:GL:68:VAL:HG11  | 2.47                     | 0.45              |
| 1:GO:10:VAL:O     | 1:GO:13:GLU:HG2   | 2.16                     | 0.45              |
| 1:GX:45:LEU:HD12  | 1:GX:60:MET:HG2   | 1.97                     | 0.45              |
| 1:AB:103:THR:HG21 | 1:FX:15:ARG:NH1   | 2.25                     | 0.45              |
| 1:AE:30:VAL:HG13  | 1:AE:40:THR:HG21  | 1.99                     | 0.45              |
| 1:AO:2:ARG:HD2    | 1:EA:124:TYR:CE1  | 2.52                     | 0.45              |
| 1:AO:26:LEU:HD12  | 1:AO:45:LEU:O     | 2.17                     | 0.45              |
| 1:AV:107:TRP:HZ2  | 1:EF:17:TYR:CG    | 2.34                     | 0.45              |
| 1:BD:68:VAL:HG11  | 1:EP:91:THR:CG2   | 2.45                     | 0.45              |
| 1:AG:118:ASP:HB3  | 1:BF:98:THR:HG22  | 1.98                     | 0.45              |
| 1:BY:45:LEU:HD12  | 1:BY:60:MET:HG2   | 1.97                     | 0.45              |
| 1:CC:20:SER:HA    | 1:FQ:121:LEU:HD22 | 1.99                     | 0.45              |
| 1:CG:30:VAL:HG13  | 1:CG:40:THR:HG21  | 1.99                     | 0.45              |
| 1:CK:10:VAL:O     | 1:CK:13:GLU:HG2   | 2.16                     | 0.45              |
| 1:CY:94:ASN:O     | 1:CY:98:THR:HG23  | 2.16                     | 0.45              |
| 1:DC:123:ASN:OD1  | 1:GO:1:MET:HB3    | 2.16                     | 0.45              |
| 1:DK:30:VAL:HG13  | 1:DK:40:THR:HG21  | 1.99                     | 0.45              |
| 1:BT:103:THR:HG22 | 1:DN:10:VAL:HG21  | 1.98                     | 0.45              |
| 1:DQ:94:ASN:O     | 1:DQ:98:THR:HG23  | 2.16                     | 0.45              |
| 1:DZ:30:VAL:HG13  | 1:DZ:40:THR:HG21  | 1.99                     | 0.45              |
| 1:EI:30:VAL:HG13  | 1:EI:40:THR:HG21  | 1.99                     | 0.45              |
| 1:EM:45:LEU:HD12  | 1:EM:60:MET:HG2   | 1.97                     | 0.45              |
| 1:EQ:103:THR:OG1  | 1:FM:62:LEU:HD21  | 2.16                     | 0.45              |
| 1:EU:30:VAL:HG13  | 1:EU:40:THR:HG21  | 1.99                     | 0.45              |
| 1:EV:10:VAL:O     | 1:EV:13:GLU:HG2   | 2.16                     | 0.45              |
| 1:FE:18:ALA:HB2   | 1:FE:32:LYS:HE3   | 1.97                     | 0.45              |
| 1:FQ:26:LEU:HD12  | 1:FQ:45:LEU:O     | 2.17                     | 0.45              |
| 1:AN:103:THR:OG1  | 1:FR:62:LEU:HD21  | 2.17                     | 0.45              |
| 1:FT:26:LEU:HD12  | 1:FT:45:LEU:O     | 2.16                     | 0.45              |
| 1:AB:83:SER:OG    | 1:FX:85:THR:OG1   | 2.31                     | 0.45              |
| 1:FZ:45:LEU:HD12  | 1:FZ:60:MET:HG2   | 1.97                     | 0.45              |
| 1:GT:30:VAL:HG13  | 1:GT:40:THR:HG21  | 1.99                     | 0.45              |
| 1:AB:30:VAL:HG13  | 1:AB:40:THR:HG21  | 1.99                     | 0.45              |
| 1:AB:98:THR:HG22  | 1:FX:118:ASP:HB3  | 1.98                     | 0.45              |
| 1:AT:30:VAL:HG13  | 1:AT:40:THR:HG21  | 1.99                     | 0.45              |
| 1:AZ:28:ARG:HG2   | 1:AZ:44:SER:CB    | 2.45                     | 0.45              |
| 1:BG:28:ARG:HG2   | 1:BG:44:SER:HB3   | 1.98                     | 0.45              |
| 1:BG:45:LEU:HD12  | 1:BG:60:MET:HG2   | 1.97                     | 0.45              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:BO:94:ASN:O    | 1:BO:98:THR:HG23 | 2.16                     | 0.45              |
| 1:BV:26:LEU:HD12 | 1:BV:45:LEU:O    | 2.17                     | 0.45              |
| 1:CH:103:THR:OG1 | 1:FT:62:LEU:HD21 | 2.16                     | 0.45              |
| 1:CT:45:LEU:HD12 | 1:CT:60:MET:HG2  | 1.97                     | 0.45              |
| 1:CV:94:ASN:O    | 1:CV:98:THR:HG23 | 2.16                     | 0.45              |
| 1:CZ:10:VAL:O    | 1:CZ:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:DF:10:VAL:O    | 1:DF:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:DH:94:ASN:O    | 1:DH:98:THR:HG23 | 2.16                     | 0.45              |
| 1:DL:26:LEU:HD12 | 1:DL:45:LEU:O    | 2.17                     | 0.45              |
| 1:DN:30:VAL:HG13 | 1:DN:40:THR:HG21 | 1.99                     | 0.45              |
| 1:DU:10:VAL:O    | 1:DU:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:DU:26:LEU:HD12 | 1:DU:45:LEU:O    | 2.16                     | 0.45              |
| 1:FH:10:VAL:O    | 1:FH:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:FH:26:LEU:HD12 | 1:FH:45:LEU:O    | 2.17                     | 0.45              |
| 1:CQ:123:ASN:OD1 | 1:GC:1:MET:HB3   | 2.17                     | 0.45              |
| 1:DS:122:ASN:HB2 | 1:GR:20:SER:O    | 2.17                     | 0.45              |
| 1:GR:26:LEU:HD12 | 1:GR:45:LEU:O    | 2.17                     | 0.45              |
| 1:GT:94:ASN:O    | 1:GT:98:THR:HG23 | 2.16                     | 0.45              |
| 1:GU:10:VAL:O    | 1:GU:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:GW:94:ASN:O    | 1:GW:98:THR:HG23 | 2.16                     | 0.45              |
| 1:AD:92:TYR:CZ   | 1:BC:80:ALA:HB3  | 2.51                     | 0.45              |
| 1:AE:106:ALA:HB1 | 1:GA:8:LEU:HD22  | 1.97                     | 0.45              |
| 1:AL:45:LEU:HD12 | 1:AL:60:MET:HG2  | 1.97                     | 0.45              |
| 1:AN:124:TYR:CZ  | 1:FS:19:VAL:HB   | 2.52                     | 0.45              |
| 1:AR:85:THR:OG1  | 1:ED:83:SER:OG   | 2.35                     | 0.45              |
| 1:AY:26:LEU:HD12 | 1:AY:45:LEU:O    | 2.16                     | 0.45              |
| 1:BM:28:ARG:HG2  | 1:BM:44:SER:HB3  | 1.98                     | 0.45              |
| 1:BO:30:VAL:HG13 | 1:BO:40:THR:HG21 | 1.99                     | 0.45              |
| 1:BR:28:ARG:HG2  | 1:BR:44:SER:CB   | 2.45                     | 0.45              |
| 1:BX:30:VAL:HG13 | 1:BX:40:THR:HG21 | 1.99                     | 0.45              |
| 1:CB:28:ARG:HG2  | 1:CB:44:SER:HB3  | 1.98                     | 0.45              |
| 1:CD:30:VAL:HG13 | 1:CD:40:THR:HG21 | 1.99                     | 0.45              |
| 1:CQ:28:ARG:HG2  | 1:CQ:44:SER:HB3  | 1.98                     | 0.45              |
| 1:DB:124:TYR:O   | 1:GJ:2:ARG:HA    | 2.17                     | 0.45              |
| 1:DI:118:ASP:HB3 | 1:GU:98:THR:HG22 | 1.98                     | 0.45              |
| 1:DI:28:ARG:HG2  | 1:DI:44:SER:HB3  | 1.98                     | 0.45              |
| 1:DL:28:ARG:HG2  | 1:DL:44:SER:HB3  | 1.98                     | 0.45              |
| 1:AC:91:THR:HB   | 1:DO:78:ILE:CD1  | 2.46                     | 0.45              |
| 1:DP:78:ILE:HD13 | 1:GW:91:THR:OG1  | 2.17                     | 0.45              |
| 1:DW:94:ASN:O    | 1:DW:98:THR:HG23 | 2.16                     | 0.45              |
| 1:EA:28:ARG:HG2  | 1:EA:44:SER:HB3  | 1.98                     | 0.45              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:EH:106:ALA:HB3 | 1:EO:8:LEU:HD13  | 1.99                     | 0.45              |
| 1:EJ:28:ARG:HG2  | 1:EJ:44:SER:HB3  | 1.98                     | 0.45              |
| 1:ER:30:VAL:HG13 | 1:ER:40:THR:HG21 | 1.99                     | 0.45              |
| 1:ET:83:SER:OG   | 1:FG:85:THR:OG1  | 2.33                     | 0.45              |
| 1:FH:28:ARG:HG2  | 1:FH:44:SER:HB3  | 1.98                     | 0.45              |
| 1:GB:28:ARG:HG2  | 1:GB:44:SER:CB   | 2.45                     | 0.45              |
| 1:GE:30:VAL:HG13 | 1:GE:40:THR:HG21 | 1.99                     | 0.45              |
| 1:GK:30:VAL:HG13 | 1:GK:40:THR:HG21 | 1.99                     | 0.45              |
| 1:GO:28:ARG:HG2  | 1:GO:44:SER:HB3  | 1.98                     | 0.45              |
| 1:AU:28:ARG:HG2  | 1:AU:44:SER:HB3  | 1.98                     | 0.45              |
| 1:AX:26:LEU:HD12 | 1:AX:45:LEU:O    | 2.16                     | 0.45              |
| 1:BD:28:ARG:HG2  | 1:BD:44:SER:HB3  | 1.98                     | 0.45              |
| 1:BG:26:LEU:HD12 | 1:BG:45:LEU:O    | 2.16                     | 0.45              |
| 1:BJ:26:LEU:HD12 | 1:BJ:45:LEU:O    | 2.16                     | 0.45              |
| 1:BL:94:ASN:O    | 1:BL:98:THR:HG23 | 2.16                     | 0.45              |
| 1:BS:26:LEU:HD12 | 1:BS:45:LEU:O    | 2.17                     | 0.45              |
| 1:BZ:116:PRO:O   | 1:DT:56:ARG:NH1  | 2.47                     | 0.45              |
| 1:CG:94:ASN:O    | 1:CG:98:THR:HG23 | 2.16                     | 0.45              |
| 1:DC:28:ARG:HG2  | 1:DC:44:SER:HB3  | 1.98                     | 0.45              |
| 1:CU:99:LYS:HE2  | 1:DH:15:ARG:NH1  | 2.32                     | 0.45              |
| 1:DO:10:VAL:O    | 1:DO:13:GLU:HG2  | 2.16                     | 0.45              |
| 1:EL:30:VAL:HG13 | 1:EL:40:THR:HG21 | 1.99                     | 0.45              |
| 1:EM:2:ARG:NH1   | 1:ER:124:TYR:OXT | 2.50                     | 0.45              |
| 1:ES:26:LEU:HD12 | 1:ES:45:LEU:O    | 2.17                     | 0.45              |
| 1:AW:123:ASN:HB3 | 1:FC:3:LEU:HG    | 1.98                     | 0.45              |
| 1:FD:30:VAL:HG13 | 1:FD:40:THR:HG21 | 1.99                     | 0.45              |
| 1:ET:118:ASP:OD2 | 1:FG:98:THR:HG22 | 2.17                     | 0.45              |
| 1:FN:26:LEU:HD12 | 1:FN:45:LEU:O    | 2.17                     | 0.45              |
| 1:FP:30:VAL:HG13 | 1:FP:40:THR:HG21 | 1.99                     | 0.45              |
| 1:FR:26:LEU:HD12 | 1:FR:45:LEU:O    | 2.16                     | 0.45              |
| 1:FW:28:ARG:HG2  | 1:FW:44:SER:HB3  | 1.98                     | 0.45              |
| 1:FY:30:VAL:HG13 | 1:FY:40:THR:HG21 | 1.99                     | 0.45              |
| 1:GF:28:ARG:HG2  | 1:GF:44:SER:HB3  | 1.98                     | 0.45              |
| 1:AN:30:VAL:HG13 | 1:AN:40:THR:HG21 | 1.99                     | 0.44              |
| 1:AP:3:LEU:HG    | 1:BU:123:ASN:HB3 | 1.99                     | 0.44              |
| 1:BF:30:VAL:HG13 | 1:BF:40:THR:HG21 | 1.99                     | 0.44              |
| 1:BI:30:VAL:HG13 | 1:BI:40:THR:HG21 | 1.99                     | 0.44              |
| 1:BQ:107:TRP:CE2 | 1:EC:8:LEU:HD11  | 2.52                     | 0.44              |
| 1:BR:30:VAL:HG13 | 1:BR:40:THR:HG21 | 1.99                     | 0.44              |
| 1:BR:94:ASN:O    | 1:BR:98:THR:HG23 | 2.16                     | 0.44              |
| 1:CD:17:TYR:CD2  | 1:CR:107:TRP:HZ2 | 2.34                     | 0.44              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:CJ:30:VAL:HG13 | 1:CJ:40:THR:HG21 | 1.99                     | 0.44              |
| 1:CJ:91:THR:OG1  | 1:CO:78:ILE:HD13 | 2.17                     | 0.44              |
| 1:DC:26:LEU:HD12 | 1:DC:45:LEU:O    | 2.17                     | 0.44              |
| 1:DN:94:ASN:O    | 1:DN:98:THR:HG23 | 2.16                     | 0.44              |
| 1:AR:96:HIS:CG   | 1:ED:66:VAL:HG21 | 2.53                     | 0.44              |
| 1:EY:28:ARG:HG2  | 1:EY:44:SER:HB3  | 1.98                     | 0.44              |
| 1:CE:62:LEU:HD21 | 1:FQ:103:THR:OG1 | 2.17                     | 0.44              |
| 1:FS:28:ARG:HG2  | 1:FS:44:SER:CB   | 2.45                     | 0.44              |
| 1:FZ:26:LEU:HD12 | 1:FZ:45:LEU:O    | 2.16                     | 0.44              |
| 1:AE:124:TYR:CB  | 1:GB:22:GLN:HB3  | 2.44                     | 0.44              |
| 1:EB:120:GLY:HA2 | 1:GB:47:GLN:HE22 | 1.82                     | 0.44              |
| 1:GE:94:ASN:O    | 1:GE:98:THR:HG23 | 2.16                     | 0.44              |
| 1:GI:26:LEU:HD12 | 1:GI:45:LEU:O    | 2.16                     | 0.44              |
| 1:GL:28:ARG:HG2  | 1:GL:44:SER:HB3  | 1.98                     | 0.44              |
| 1:AM:62:LEU:HD21 | 1:CA:103:THR:OG1 | 2.17                     | 0.44              |
| 1:AQ:30:VAL:HG13 | 1:AQ:40:THR:HG21 | 1.99                     | 0.44              |
| 1:BD:26:LEU:HD12 | 1:BD:45:LEU:O    | 2.16                     | 0.44              |
| 1:BH:103:THR:OG1 | 1:BO:62:LEU:HD21 | 2.16                     | 0.44              |
| 1:BJ:28:ARG:HG2  | 1:BJ:44:SER:HB3  | 1.98                     | 0.44              |
| 1:BE:107:TRP:CE2 | 1:BL:8:LEU:HD11  | 2.52                     | 0.44              |
| 1:BM:26:LEU:HD12 | 1:BM:45:LEU:O    | 2.17                     | 0.44              |
| 1:CP:30:VAL:HG13 | 1:CP:40:THR:HG21 | 1.99                     | 0.44              |
| 1:CW:2:ARG:HH12  | 1:DH:124:TYR:C   | 2.21                     | 0.44              |
| 1:CZ:24:GLY:O    | 1:GL:122:ASN:HB3 | 2.17                     | 0.44              |
| 1:DC:124:TYR:O   | 1:GO:3:LEU:N     | 2.39                     | 0.44              |
| 1:DW:22:GLN:HB3  | 1:GE:124:TYR:CB  | 2.46                     | 0.44              |
| 1:BQ:122:ASN:HB2 | 1:ED:20:SER:O    | 2.17                     | 0.44              |
| 1:ED:28:ARG:HG2  | 1:ED:44:SER:HB3  | 1.98                     | 0.44              |
| 1:EI:94:ASN:O    | 1:EI:98:THR:HG23 | 2.16                     | 0.44              |
| 1:EP:26:LEU:HD12 | 1:EP:45:LEU:O    | 2.16                     | 0.44              |
| 1:EY:26:LEU:HD12 | 1:EY:45:LEU:O    | 2.17                     | 0.44              |
| 1:FB:28:ARG:HG2  | 1:FB:44:SER:HB3  | 1.98                     | 0.44              |
| 1:AW:83:SER:OG   | 1:FC:85:THR:OG1  | 2.35                     | 0.44              |
| 1:EX:97:ILE:HG21 | 1:FI:117:VAL:O   | 2.17                     | 0.44              |
| 1:GC:10:VAL:O    | 1:GC:13:GLU:HG2  | 2.16                     | 0.44              |
| 1:GF:10:VAL:O    | 1:GF:13:GLU:HG2  | 2.16                     | 0.44              |
| 1:CZ:22:GLN:CD   | 1:GL:124:TYR:HA  | 2.37                     | 0.44              |
| 1:GL:26:LEU:HD12 | 1:GL:45:LEU:O    | 2.16                     | 0.44              |
| 1:GQ:30:VAL:HG13 | 1:GQ:40:THR:HG21 | 1.99                     | 0.44              |
| 1:GR:28:ARG:HG2  | 1:GR:44:SER:HB3  | 1.98                     | 0.44              |
| 1:AG:96:HIS:CG   | 1:BF:66:VAL:HG21 | 2.52                     | 0.44              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:AU:10:VAL:O     | 1:AU:13:GLU:HG2   | 2.16                     | 0.44              |
| 1:AZ:117:VAL:HG22 | 1:EW:58:VAL:HG11  | 1.99                     | 0.44              |
| 1:BA:26:LEU:HD12  | 1:BA:45:LEU:O     | 2.16                     | 0.44              |
| 1:BD:10:VAL:O     | 1:BD:13:GLU:HG2   | 2.16                     | 0.44              |
| 1:BM:96:HIS:CG    | 1:EY:66:VAL:HG21  | 2.53                     | 0.44              |
| 1:BU:22:GLN:HB3   | 1:DN:124:TYR:CB   | 2.47                     | 0.44              |
| 1:BU:94:ASN:O     | 1:BU:98:THR:HG23  | 2.16                     | 0.44              |
| 1:CM:30:VAL:HG13  | 1:CM:40:THR:HG21  | 1.99                     | 0.44              |
| 1:CW:10:VAL:O     | 1:CW:13:GLU:HG2   | 2.16                     | 0.44              |
| 1:CU:118:ASP:OD2  | 1:DH:98:THR:HG22  | 2.17                     | 0.44              |
| 1:EC:30:VAL:HG13  | 1:EC:40:THR:HG21  | 1.99                     | 0.44              |
| 1:AV:8:LEU:HD11   | 1:EF:107:TRP:CE2  | 2.53                     | 0.44              |
| 1:EG:28:ARG:HG2   | 1:EG:44:SER:HB3   | 1.98                     | 0.44              |
| 1:AZ:1:MET:HG2    | 1:EW:123:ASN:OD1  | 2.18                     | 0.44              |
| 1:FD:94:ASN:O     | 1:FD:98:THR:HG23  | 2.16                     | 0.44              |
| 1:FM:30:VAL:HG13  | 1:FM:40:THR:HG21  | 1.99                     | 0.44              |
| 1:AN:13:GLU:OE2   | 1:FR:99:LYS:HE3   | 2.18                     | 0.44              |
| 1:GC:45:LEU:HD12  | 1:GC:60:MET:HG2   | 1.97                     | 0.44              |
| 1:CC:10:VAL:CG2   | 1:GK:103:THR:HG22 | 2.43                     | 0.44              |
| 1:CC:122:ASN:ND2  | 1:GK:25:THR:HG22  | 2.32                     | 0.44              |
| 1:CC:78:ILE:HD13  | 1:GK:91:THR:OG1   | 2.17                     | 0.44              |
| 1:CV:124:TYR:HA   | 1:GM:22:GLN:NE2   | 2.32                     | 0.44              |
| 1:GO:26:LEU:HD12  | 1:GO:45:LEU:O     | 2.17                     | 0.44              |
| 1:GU:28:ARG:HG2   | 1:GU:44:SER:HB3   | 1.98                     | 0.44              |
| 1:GX:26:LEU:HD12  | 1:GX:45:LEU:O     | 2.16                     | 0.44              |
| 1:AF:28:ARG:HG2   | 1:AF:44:SER:HB3   | 1.98                     | 0.44              |
| 1:AO:10:VAL:O     | 1:AO:13:GLU:HG2   | 2.16                     | 0.44              |
| 1:AR:26:LEU:HD12  | 1:AR:45:LEU:O     | 2.17                     | 0.44              |
| 1:AW:30:VAL:HG13  | 1:AW:40:THR:HG21  | 1.99                     | 0.44              |
| 1:AX:107:TRP:CE2  | 1:EJ:8:LEU:HD11   | 2.52                     | 0.44              |
| 1:AD:3:LEU:HG     | 1:BC:123:ASN:HB3  | 1.98                     | 0.44              |
| 1:BH:124:TYR:CA   | 1:BO:22:GLN:HE21  | 2.30                     | 0.44              |
| 1:BP:10:VAL:O     | 1:BP:13:GLU:HG2   | 2.16                     | 0.44              |
| 1:CK:98:THR:HG22  | 1:FW:118:ASP:CG   | 2.37                     | 0.44              |
| 1:CV:30:VAL:HG13  | 1:CV:40:THR:HG21  | 1.99                     | 0.44              |
| 1:CY:30:VAL:HG13  | 1:CY:40:THR:HG21  | 1.99                     | 0.44              |
| 1:DE:30:VAL:HG13  | 1:DE:40:THR:HG21  | 1.99                     | 0.44              |
| 1:DF:26:LEU:HD12  | 1:DF:45:LEU:O     | 2.17                     | 0.44              |
| 1:DI:124:TYR:O    | 1:GU:3:LEU:N      | 2.41                     | 0.44              |
| 1:EA:10:VAL:O     | 1:EA:13:GLU:HG2   | 2.16                     | 0.44              |
| 1:EG:26:LEU:HD12  | 1:EG:45:LEU:O     | 2.17                     | 0.44              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:EL:94:ASN:O     | 1:EL:98:THR:HG23 | 2.16                     | 0.44              |
| 1:BA:98:THR:HG22  | 1:EM:118:ASP:CG  | 2.37                     | 0.44              |
| 1:EP:10:VAL:O     | 1:EP:13:GLU:HG2  | 2.16                     | 0.44              |
| 1:FE:28:ARG:HG2   | 1:FE:44:SER:HB3  | 1.98                     | 0.44              |
| 1:FG:30:VAL:HG13  | 1:FG:40:THR:HG21 | 1.99                     | 0.44              |
| 1:FK:10:VAL:O     | 1:FK:13:GLU:HG2  | 2.16                     | 0.44              |
| 1:DY:97:ILE:HG21  | 1:FY:117:VAL:O   | 2.17                     | 0.44              |
| 1:DC:121:LEU:HD22 | 1:GM:20:SER:HA   | 2.00                     | 0.44              |
| 1:AS:45:LEU:HD11  | 1:AS:58:VAL:CG1  | 2.48                     | 0.44              |
| 1:AX:10:VAL:O     | 1:AX:13:GLU:HG2  | 2.16                     | 0.44              |
| 1:CH:28:ARG:HG2   | 1:CH:44:SER:HB3  | 1.98                     | 0.44              |
| 1:CK:26:LEU:HD12  | 1:CK:45:LEU:O    | 2.17                     | 0.44              |
| 1:CN:84:VAL:HG22  | 1:FZ:84:VAL:HG13 | 1.99                     | 0.44              |
| 1:AR:83:SER:OG    | 1:ED:85:THR:OG1  | 2.35                     | 0.44              |
| 1:FB:39:ASN:OD1   | 1:FB:40:THR:N    | 2.51                     | 0.44              |
| 1:FJ:30:VAL:HG13  | 1:FJ:40:THR:HG21 | 1.99                     | 0.44              |
| 1:FS:30:VAL:HG13  | 1:FS:40:THR:HG21 | 1.99                     | 0.44              |
| 1:CY:122:ASN:HB2  | 1:GH:20:SER:O    | 2.17                     | 0.44              |
| 1:DC:78:ILE:HD13  | 1:GO:91:THR:HB   | 2.00                     | 0.44              |
| 1:FS:98:THR:HG22  | 1:GP:118:ASP:OD2 | 2.18                     | 0.44              |
| 1:AP:45:LEU:HD11  | 1:AP:58:VAL:CG1  | 2.48                     | 0.44              |
| 1:AZ:30:VAL:HG13  | 1:AZ:40:THR:HG21 | 1.99                     | 0.44              |
| 1:BB:45:LEU:HD11  | 1:BB:58:VAL:CG1  | 2.48                     | 0.44              |
| 1:BZ:45:LEU:HD11  | 1:BZ:58:VAL:CG1  | 2.48                     | 0.44              |
| 1:CN:10:VAL:O     | 1:CN:13:GLU:HG2  | 2.16                     | 0.44              |
| 1:CS:30:VAL:HG13  | 1:CS:40:THR:HG21 | 1.99                     | 0.44              |
| 1:CX:45:LEU:HD11  | 1:CX:58:VAL:CG1  | 2.48                     | 0.44              |
| 1:BT:102:GLN:CB   | 1:DN:10:VAL:HG13 | 2.47                     | 0.44              |
| 1:DO:28:ARG:HG2   | 1:DO:44:SER:HB3  | 1.98                     | 0.44              |
| 1:EG:39:ASN:OD1   | 1:EG:40:THR:N    | 2.51                     | 0.44              |
| 1:AS:118:ASP:OD2  | 1:EL:98:THR:HG22 | 2.17                     | 0.44              |
| 1:EP:39:ASN:OD1   | 1:EP:40:THR:N    | 2.51                     | 0.44              |
| 1:EX:66:VAL:HG21  | 1:FI:96:HIS:CG   | 2.52                     | 0.44              |
| 1:FA:30:VAL:HG13  | 1:FA:40:THR:HG21 | 1.99                     | 0.44              |
| 1:GH:30:VAL:HG13  | 1:GH:40:THR:HG21 | 1.99                     | 0.44              |
| 1:DI:91:THR:CG2   | 1:GU:68:VAL:HG11 | 2.47                     | 0.44              |
| 1:FP:124:TYR:OXT  | 1:GX:2:ARG:NH1   | 2.51                     | 0.44              |
| 1:AE:29:PHE:CG    | 1:GA:107:TRP:HH2 | 2.36                     | 0.44              |
| 1:BG:39:ASN:OD1   | 1:BG:40:THR:N    | 2.51                     | 0.44              |
| 1:CA:30:VAL:HG13  | 1:CA:40:THR:HG21 | 1.99                     | 0.44              |
| 1:CC:22:GLN:NE2   | 1:GK:124:TYR:HA  | 2.33                     | 0.44              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:CC:45:LEU:HD12 | 1:CC:46:GLU:N    | 2.33                     | 0.44              |
| 1:CN:122:ASN:HB2 | 1:FX:20:SER:O    | 2.18                     | 0.44              |
| 1:CU:45:LEU:HD11 | 1:CU:58:VAL:CG1  | 2.48                     | 0.44              |
| 1:CW:28:ARG:HG2  | 1:CW:44:SER:HB3  | 1.98                     | 0.44              |
| 1:DE:28:ARG:HG2  | 1:DE:44:SER:CB   | 2.45                     | 0.44              |
| 1:CX:8:LEU:HD11  | 1:DK:107:TRP:CE2 | 2.53                     | 0.44              |
| 1:DQ:30:VAL:HG13 | 1:DQ:40:THR:HG21 | 1.99                     | 0.44              |
| 1:CB:2:ARG:NH1   | 1:DT:124:TYR:OXT | 2.51                     | 0.44              |
| 1:EF:30:VAL:HG13 | 1:EF:40:THR:HG21 | 1.99                     | 0.44              |
| 1:EH:45:LEU:HD12 | 1:EH:46:GLU:N    | 2.33                     | 0.44              |
| 1:EK:3:LEU:HG    | 1:ER:123:ASN:HB3 | 2.00                     | 0.44              |
| 1:BN:19:VAL:HB   | 1:FB:124:TYR:CE2 | 2.53                     | 0.44              |
| 1:FW:39:ASN:OD1  | 1:FW:40:THR:N    | 2.51                     | 0.44              |
| 1:GI:39:ASN:OD1  | 1:GI:40:THR:N    | 2.51                     | 0.44              |
| 1:AJ:3:LEU:HG    | 1:BX:123:ASN:HB3 | 2.00                     | 0.44              |
| 1:AX:39:ASN:OD1  | 1:AX:40:THR:N    | 2.51                     | 0.44              |
| 1:BS:39:ASN:OD1  | 1:BS:40:THR:N    | 2.51                     | 0.44              |
| 1:BU:30:VAL:HG13 | 1:BU:40:THR:HG21 | 1.99                     | 0.44              |
| 1:BZ:45:LEU:HD12 | 1:BZ:46:GLU:N    | 2.33                     | 0.44              |
| 1:CF:99:LYS:HE2  | 1:GN:15:ARG:HD3  | 2.00                     | 0.44              |
| 1:CH:39:ASN:OD1  | 1:CH:40:THR:N    | 2.51                     | 0.44              |
| 1:DD:45:LEU:HD11 | 1:DD:58:VAL:CG1  | 2.48                     | 0.44              |
| 1:DD:45:LEU:HD12 | 1:DD:46:GLU:N    | 2.33                     | 0.44              |
| 1:DP:45:LEU:HD12 | 1:DP:46:GLU:N    | 2.33                     | 0.44              |
| 1:DT:30:VAL:HG13 | 1:DT:40:THR:HG21 | 1.99                     | 0.44              |
| 1:BZ:119:SER:HA  | 1:DT:94:ASN:ND2  | 2.33                     | 0.44              |
| 1:EA:26:LEU:HD12 | 1:EA:45:LEU:O    | 2.17                     | 0.44              |
| 1:ET:45:LEU:HD12 | 1:ET:46:GLU:N    | 2.33                     | 0.44              |
| 1:FC:45:LEU:HD12 | 1:FC:46:GLU:N    | 2.33                     | 0.44              |
| 1:FA:83:SER:OG   | 1:FL:85:THR:OG1  | 2.36                     | 0.44              |
| 1:FV:30:VAL:HG13 | 1:FV:40:THR:HG21 | 1.99                     | 0.44              |
| 1:AE:98:THR:HG22 | 1:GA:118:ASP:OD2 | 2.18                     | 0.44              |
| 1:GD:45:LEU:HD11 | 1:GD:58:VAL:CG1  | 2.48                     | 0.44              |
| 1:GD:45:LEU:HD12 | 1:GD:46:GLU:N    | 2.33                     | 0.44              |
| 1:GJ:45:LEU:HD11 | 1:GJ:58:VAL:CG1  | 2.48                     | 0.44              |
| 1:GS:45:LEU:HD11 | 1:GS:58:VAL:CG1  | 2.48                     | 0.44              |
| 1:AG:45:LEU:HD12 | 1:AG:46:GLU:N    | 2.33                     | 0.44              |
| 1:AI:39:ASN:OD1  | 1:AI:40:THR:N    | 2.51                     | 0.44              |
| 1:AP:45:LEU:HD12 | 1:AP:46:GLU:N    | 2.33                     | 0.44              |
| 1:AV:45:LEU:HD11 | 1:AV:58:VAL:CG1  | 2.48                     | 0.44              |
| 1:AY:45:LEU:HD12 | 1:AY:46:GLU:N    | 2.33                     | 0.44              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:BW:45:LEU:HD11 | 1:BW:58:VAL:CG1  | 2.48                     | 0.44              |
| 1:CI:45:LEU:HD11 | 1:CI:58:VAL:CG1  | 2.48                     | 0.44              |
| 1:CG:117:VAL:CG2 | 1:CL:58:VAL:HG11 | 2.47                     | 0.44              |
| 1:CO:45:LEU:HD12 | 1:CO:46:GLU:N    | 2.33                     | 0.44              |
| 1:DH:30:VAL:HG13 | 1:DH:40:THR:HG21 | 1.99                     | 0.44              |
| 1:DJ:45:LEU:HD12 | 1:DJ:46:GLU:N    | 2.33                     | 0.44              |
| 1:DL:39:ASN:OD1  | 1:DL:40:THR:N    | 2.51                     | 0.44              |
| 1:DV:45:LEU:HD12 | 1:DV:46:GLU:N    | 2.33                     | 0.44              |
| 1:BN:97:ILE:HG21 | 1:DZ:117:VAL:O   | 2.18                     | 0.44              |
| 1:BN:3:LEU:HG    | 1:DZ:123:ASN:HB3 | 2.00                     | 0.44              |
| 1:EB:45:LEU:HD12 | 1:EB:46:GLU:N    | 2.33                     | 0.44              |
| 1:EV:39:ASN:OD1  | 1:EV:40:THR:N    | 2.51                     | 0.44              |
| 1:EY:39:ASN:OD1  | 1:EY:40:THR:N    | 2.51                     | 0.44              |
| 1:EZ:45:LEU:HD12 | 1:EZ:46:GLU:N    | 2.33                     | 0.44              |
| 1:FI:45:LEU:HD12 | 1:FI:46:GLU:N    | 2.33                     | 0.44              |
| 1:EP:2:ARG:HH12  | 1:FJ:124:TYR:C   | 2.21                     | 0.44              |
| 1:FM:28:ARG:HG2  | 1:FM:44:SER:CB   | 2.45                     | 0.44              |
| 1:AK:117:VAL:O   | 1:FO:97:ILE:HG21 | 2.18                     | 0.44              |
| 1:GM:45:LEU:HD11 | 1:GM:58:VAL:CG1  | 2.48                     | 0.44              |
| 1:GP:45:LEU:HD11 | 1:GP:58:VAL:CG1  | 2.48                     | 0.44              |
| 1:GW:30:VAL:HG13 | 1:GW:40:THR:HG21 | 1.99                     | 0.44              |
| 1:AD:45:LEU:HD12 | 1:AD:46:GLU:N    | 2.33                     | 0.43              |
| 1:AJ:45:LEU:HD11 | 1:AJ:58:VAL:CG1  | 2.48                     | 0.43              |
| 1:AL:39:ASN:OD1  | 1:AL:40:THR:N    | 2.51                     | 0.43              |
| 1:AN:94:ASN:O    | 1:AN:98:THR:HG23 | 2.16                     | 0.43              |
| 1:AR:39:ASN:OD1  | 1:AR:40:THR:N    | 2.51                     | 0.43              |
| 1:AU:26:LEU:HD12 | 1:AU:45:LEU:O    | 2.17                     | 0.43              |
| 1:BC:30:VAL:HG13 | 1:BC:40:THR:HG21 | 1.99                     | 0.43              |
| 1:BJ:103:THR:OG1 | 1:EV:62:LEU:HD21 | 2.18                     | 0.43              |
| 1:BK:120:GLY:HA2 | 1:DW:47:GLN:HE22 | 1.83                     | 0.43              |
| 1:CB:39:ASN:OD1  | 1:CB:40:THR:N    | 2.51                     | 0.43              |
| 1:CO:45:LEU:HD11 | 1:CO:58:VAL:CG1  | 2.48                     | 0.43              |
| 1:CX:45:LEU:HD12 | 1:CX:46:GLU:N    | 2.33                     | 0.43              |
| 1:CS:83:SER:OG   | 1:DD:85:THR:OG1  | 2.36                     | 0.43              |
| 1:DK:51:ALA:O    | 1:DK:90:LYS:NZ   | 2.50                     | 0.43              |
| 1:DM:45:LEU:HD12 | 1:DM:46:GLU:N    | 2.33                     | 0.43              |
| 1:DX:39:ASN:OD1  | 1:DX:40:THR:N    | 2.51                     | 0.43              |
| 1:EB:45:LEU:HD11 | 1:EB:58:VAL:CG1  | 2.48                     | 0.43              |
| 1:AU:10:VAL:HG13 | 1:EG:102:GLN:CB  | 2.48                     | 0.43              |
| 1:EN:45:LEU:HD12 | 1:EN:46:GLU:N    | 2.33                     | 0.43              |
| 1:EW:45:LEU:HD12 | 1:EW:46:GLU:N    | 2.33                     | 0.43              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:ET:84:VAL:HG22 | 1:FG:84:VAL:HG13 | 2.00                     | 0.43              |
| 1:CB:3:LEU:N     | 1:FN:124:TYR:O   | 2.43                     | 0.43              |
| 1:GB:30:VAL:HG13 | 1:GB:40:THR:HG21 | 1.99                     | 0.43              |
| 1:GF:39:ASN:OD1  | 1:GF:40:THR:N    | 2.51                     | 0.43              |
| 1:GV:45:LEU:HD12 | 1:GV:46:GLU:N    | 2.33                     | 0.43              |
| 1:GV:45:LEU:HD11 | 1:GV:58:VAL:CG1  | 2.48                     | 0.43              |
| 1:AJ:45:LEU:HD12 | 1:AJ:46:GLU:N    | 2.33                     | 0.43              |
| 1:AO:39:ASN:OD1  | 1:AO:40:THR:N    | 2.51                     | 0.43              |
| 1:AS:45:LEU:HD12 | 1:AS:46:GLU:N    | 2.33                     | 0.43              |
| 1:BE:45:LEU:HD12 | 1:BE:46:GLU:N    | 2.33                     | 0.43              |
| 1:BL:30:VAL:HG13 | 1:BL:40:THR:HG21 | 1.99                     | 0.43              |
| 1:BO:28:ARG:HG2  | 1:BO:44:SER:CB   | 2.45                     | 0.43              |
| 1:BW:45:LEU:HD12 | 1:BW:46:GLU:N    | 2.33                     | 0.43              |
| 1:AM:102:GLN:CB  | 1:CA:10:VAL:HG13 | 2.47                     | 0.43              |
| 1:AM:3:LEU:HG    | 1:CA:123:ASN:HB3 | 1.99                     | 0.43              |
| 1:CI:45:LEU:HD12 | 1:CI:46:GLU:N    | 2.33                     | 0.43              |
| 1:CN:39:ASN:OD1  | 1:CN:40:THR:N    | 2.51                     | 0.43              |
| 1:CR:45:LEU:HD12 | 1:CR:46:GLU:N    | 2.33                     | 0.43              |
| 1:DA:45:LEU:HD12 | 1:DA:46:GLU:N    | 2.33                     | 0.43              |
| 1:DI:91:THR:HB   | 1:GU:78:ILE:HD13 | 2.00                     | 0.43              |
| 1:DM:45:LEU:HD11 | 1:DM:58:VAL:CG1  | 2.48                     | 0.43              |
| 1:BN:118:ASP:CB  | 1:DZ:98:THR:HG22 | 2.48                     | 0.43              |
| 1:EE:124:TYR:OXT | 1:EU:22:GLN:NE2  | 2.51                     | 0.43              |
| 1:EE:45:LEU:HD12 | 1:EE:46:GLU:N    | 2.33                     | 0.43              |
| 1:FP:8:LEU:HB3   | 1:GV:106:ALA:HB1 | 2.00                     | 0.43              |
| 1:FT:39:ASN:OD1  | 1:FT:40:THR:N    | 2.51                     | 0.43              |
| 1:FU:45:LEU:HD12 | 1:FU:46:GLU:N    | 2.33                     | 0.43              |
| 1:DF:107:TRP:CE2 | 1:GR:8:LEU:HD11  | 2.52                     | 0.43              |
| 1:DJ:19:VAL:HB   | 1:GX:124:TYR:CE2 | 2.52                     | 0.43              |
| 1:AF:39:ASN:OD1  | 1:AF:40:THR:N    | 2.51                     | 0.43              |
| 1:AR:103:THR:OG1 | 1:ED:62:LEU:HD21 | 2.18                     | 0.43              |
| 1:BK:45:LEU:HD11 | 1:BK:58:VAL:CG1  | 2.48                     | 0.43              |
| 1:BV:39:ASN:OD1  | 1:BV:40:THR:N    | 2.51                     | 0.43              |
| 1:BY:39:ASN:OD1  | 1:BY:40:THR:N    | 2.51                     | 0.43              |
| 1:CK:39:ASN:OD1  | 1:CK:40:THR:N    | 2.51                     | 0.43              |
| 1:CL:45:LEU:HD11 | 1:CL:58:VAL:CG1  | 2.48                     | 0.43              |
| 1:DB:30:VAL:HG13 | 1:DB:40:THR:HG21 | 1.99                     | 0.43              |
| 1:CS:8:LEU:HD11  | 1:DD:107:TRP:CE2 | 2.53                     | 0.43              |
| 1:DA:122:ASN:HB2 | 1:DF:20:SER:O    | 2.18                     | 0.43              |
| 1:EM:39:ASN:OD1  | 1:EM:40:THR:N    | 2.51                     | 0.43              |
| 1:EO:30:VAL:HG13 | 1:EO:40:THR:HG21 | 1.99                     | 0.43              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:EQ:45:LEU:HD12  | 1:EQ:46:GLU:N     | 2.33                     | 0.43              |
| 1:EX:30:VAL:HG13  | 1:EX:40:THR:HG21  | 1.99                     | 0.43              |
| 1:ET:10:VAL:CG2   | 1:FG:103:THR:HG22 | 2.45                     | 0.43              |
| 1:FA:91:THR:OG1   | 1:FL:78:ILE:HD13  | 2.18                     | 0.43              |
| 1:FQ:39:ASN:OD1   | 1:FQ:40:THR:N     | 2.51                     | 0.43              |
| 1:FW:20:SER:O     | 1:GS:122:ASN:HB2  | 2.17                     | 0.43              |
| 1:AH:122:ASN:HB2  | 1:GE:20:SER:O     | 2.18                     | 0.43              |
| 1:GG:45:LEU:HD11  | 1:GG:58:VAL:CG1   | 2.48                     | 0.43              |
| 1:CF:121:LEU:HD11 | 1:GO:19:VAL:O     | 2.18                     | 0.43              |
| 1:GR:39:ASN:OD1   | 1:GR:40:THR:N     | 2.51                     | 0.43              |
| 1:AN:22:GLN:HE21  | 1:FR:124:TYR:C    | 2.22                     | 0.43              |
| 1:BD:39:ASN:OD1   | 1:BD:40:THR:N     | 2.51                     | 0.43              |
| 1:BP:39:ASN:OD1   | 1:BP:40:THR:N     | 2.51                     | 0.43              |
| 1:CH:98:THR:HG22  | 1:FT:118:ASP:CB   | 2.48                     | 0.43              |
| 1:DC:107:TRP:CZ2  | 1:GO:17:TYR:CD2   | 3.06                     | 0.43              |
| 1:EA:39:ASN:OD1   | 1:EA:40:THR:N     | 2.51                     | 0.43              |
| 1:EH:124:TYR:CD2  | 1:EP:19:VAL:HB    | 2.54                     | 0.43              |
| 1:ES:39:ASN:OD1   | 1:ES:40:THR:N     | 2.51                     | 0.43              |
| 1:FD:8:LEU:HD11   | 1:FF:107:TRP:CE2  | 2.54                     | 0.43              |
| 1:EX:98:THR:HG22  | 1:FI:118:ASP:CG   | 2.38                     | 0.43              |
| 1:FO:45:LEU:HD12  | 1:FO:46:GLU:N     | 2.33                     | 0.43              |
| 1:GC:39:ASN:OD1   | 1:GC:40:THR:N     | 2.51                     | 0.43              |
| 1:GJ:45:LEU:HD12  | 1:GJ:46:GLU:N     | 2.33                     | 0.43              |
| 1:GL:39:ASN:OD1   | 1:GL:40:THR:N     | 2.51                     | 0.43              |
| 1:GP:45:LEU:HD12  | 1:GP:46:GLU:N     | 2.33                     | 0.43              |
| 1:AA:85:THR:OG1   | 1:BI:83:SER:OG    | 2.35                     | 0.43              |
| 1:AG:45:LEU:HD11  | 1:AG:58:VAL:CG1   | 2.48                     | 0.43              |
| 1:AK:30:VAL:HG13  | 1:AK:40:THR:HG21  | 1.99                     | 0.43              |
| 1:AO:91:THR:HB    | 1:EA:78:ILE:HD13  | 2.00                     | 0.43              |
| 1:AR:92:TYR:CZ    | 1:ED:80:ALA:HB3   | 2.53                     | 0.43              |
| 1:AU:39:ASN:OD1   | 1:AU:40:THR:N     | 2.51                     | 0.43              |
| 1:BE:20:SER:HA    | 1:ES:121:LEU:HD22 | 2.01                     | 0.43              |
| 1:BQ:45:LEU:HD12  | 1:BQ:46:GLU:N     | 2.33                     | 0.43              |
| 1:CE:39:ASN:OD1   | 1:CE:40:THR:N     | 2.51                     | 0.43              |
| 1:CZ:39:ASN:OD1   | 1:CZ:40:THR:N     | 2.51                     | 0.43              |
| 1:DB:83:SER:OG    | 1:GJ:85:THR:OG1   | 2.36                     | 0.43              |
| 1:DC:39:ASN:OD1   | 1:DC:40:THR:N     | 2.51                     | 0.43              |
| 1:CP:91:THR:OG1   | 1:DJ:78:ILE:HD13  | 2.18                     | 0.43              |
| 1:DU:39:ASN:OD1   | 1:DU:40:THR:N     | 2.51                     | 0.43              |
| 1:EE:45:LEU:HD11  | 1:EE:58:VAL:CG1   | 2.48                     | 0.43              |
| 1:AT:103:THR:OG1  | 1:EZ:62:LEU:HD21  | 2.19                     | 0.43              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:FE:39:ASN:OD1   | 1:FE:40:THR:N    | 2.51                     | 0.43              |
| 1:FL:45:LEU:HD12  | 1:FL:46:GLU:N    | 2.33                     | 0.43              |
| 1:FN:39:ASN:OD1   | 1:FN:40:THR:N    | 2.51                     | 0.43              |
| 1:GA:45:LEU:HD11  | 1:GA:58:VAL:CG1  | 2.48                     | 0.43              |
| 1:GG:45:LEU:HD12  | 1:GG:46:GLU:N    | 2.33                     | 0.43              |
| 1:GX:39:ASN:OD1   | 1:GX:40:THR:N    | 2.51                     | 0.43              |
| 1:AC:39:ASN:OD1   | 1:AC:40:THR:N    | 2.51                     | 0.43              |
| 1:AH:30:VAL:HG13  | 1:AH:40:THR:HG21 | 1.99                     | 0.43              |
| 1:AM:45:LEU:HD12  | 1:AM:46:GLU:N    | 2.33                     | 0.43              |
| 1:AQ:103:THR:HG22 | 1:FU:10:VAL:CG2  | 2.46                     | 0.43              |
| 1:BH:45:LEU:HD12  | 1:BH:46:GLU:N    | 2.33                     | 0.43              |
| 1:BJ:102:GLN:HB2  | 1:EV:10:VAL:HG13 | 2.00                     | 0.43              |
| 1:BK:45:LEU:HD12  | 1:BK:46:GLU:N    | 2.33                     | 0.43              |
| 1:AJ:97:ILE:HG21  | 1:BX:117:VAL:O   | 2.18                     | 0.43              |
| 1:CH:91:THR:HB    | 1:FT:78:ILE:HD13 | 2.00                     | 0.43              |
| 1:CL:45:LEU:HD12  | 1:CL:46:GLU:N    | 2.33                     | 0.43              |
| 1:CQ:39:ASN:OD1   | 1:CQ:40:THR:N    | 2.51                     | 0.43              |
| 1:CU:45:LEU:HD12  | 1:CU:46:GLU:N    | 2.33                     | 0.43              |
| 1:DB:80:ALA:HB3   | 1:GJ:92:TYR:CZ   | 2.53                     | 0.43              |
| 1:DG:45:LEU:HD12  | 1:DG:46:GLU:N    | 2.33                     | 0.43              |
| 1:DS:45:LEU:HD12  | 1:DS:46:GLU:N    | 2.33                     | 0.43              |
| 1:EI:30:VAL:HG13  | 1:EI:40:THR:CG2  | 2.49                     | 0.43              |
| 1:ER:30:VAL:HG13  | 1:ER:40:THR:CG2  | 2.49                     | 0.43              |
| 1:FJ:30:VAL:HG13  | 1:FJ:40:THR:CG2  | 2.49                     | 0.43              |
| 1:FV:30:VAL:HG13  | 1:FV:40:THR:CG2  | 2.49                     | 0.43              |
| 1:CN:98:THR:HG22  | 1:FZ:118:ASP:HB3 | 2.00                     | 0.43              |
| 1:AM:45:LEU:HD11  | 1:AM:58:VAL:CG1  | 2.48                     | 0.43              |
| 1:AN:22:GLN:HB3   | 1:CA:124:TYR:CB  | 2.48                     | 0.43              |
| 1:AX:66:VAL:HG21  | 1:EJ:96:HIS:CG   | 2.54                     | 0.43              |
| 1:BF:30:VAL:HG13  | 1:BF:40:THR:CG2  | 2.49                     | 0.43              |
| 1:BJ:39:ASN:OD1   | 1:BJ:40:THR:N    | 2.51                     | 0.43              |
| 1:BQ:45:LEU:HD11  | 1:BQ:58:VAL:CG1  | 2.48                     | 0.43              |
| 1:BU:30:VAL:HG13  | 1:BU:40:THR:CG2  | 2.49                     | 0.43              |
| 1:CF:102:GLN:HB2  | 1:GN:10:VAL:HG13 | 2.01                     | 0.43              |
| 1:CF:45:LEU:HD12  | 1:CF:46:GLU:N    | 2.33                     | 0.43              |
| 1:CJ:30:VAL:HG13  | 1:CJ:40:THR:CG2  | 2.49                     | 0.43              |
| 1:CM:103:THR:HG22 | 1:DG:10:VAL:HG11 | 2.00                     | 0.43              |
| 1:CD:83:SER:OG    | 1:CR:85:THR:OG1  | 2.34                     | 0.43              |
| 1:DF:98:THR:HG22  | 1:GR:118:ASP:HB3 | 2.01                     | 0.43              |
| 1:AF:68:VAL:HG11  | 1:DR:91:THR:CG2  | 2.48                     | 0.43              |
| 1:EH:107:TRP:CH2  | 1:EO:29:PHE:CD2  | 3.06                     | 0.43              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:EH:45:LEU:HD11 | 1:EH:58:VAL:CG1  | 2.48                     | 0.43              |
| 1:FP:66:VAL:HG21 | 1:GV:96:HIS:CG   | 2.54                     | 0.43              |
| 1:GM:45:LEU:HD12 | 1:GM:46:GLU:N    | 2.33                     | 0.43              |
| 1:AA:45:LEU:HD12 | 1:AA:46:GLU:N    | 2.33                     | 0.43              |
| 1:AY:106:ALA:HB1 | 1:EI:8:LEU:HD22  | 2.01                     | 0.43              |
| 1:BA:39:ASN:OD1  | 1:BA:40:THR:N    | 2.51                     | 0.43              |
| 1:BB:45:LEU:HD12 | 1:BB:46:GLU:N    | 2.33                     | 0.43              |
| 1:BJ:102:GLN:CB  | 1:EV:10:VAL:HG13 | 2.49                     | 0.43              |
| 1:BT:45:LEU:HD12 | 1:BT:46:GLU:N    | 2.33                     | 0.43              |
| 1:CP:30:VAL:HG13 | 1:CP:40:THR:CG2  | 2.49                     | 0.43              |
| 1:CW:68:VAL:HG11 | 1:GI:91:THR:CG2  | 2.47                     | 0.43              |
| 1:DB:51:ALA:O    | 1:DB:90:LYS:NZ   | 2.50                     | 0.43              |
| 1:DF:39:ASN:OD1  | 1:DF:40:THR:N    | 2.51                     | 0.43              |
| 1:DN:30:VAL:HG13 | 1:DN:40:THR:CG2  | 2.49                     | 0.43              |
| 1:DY:8:LEU:HD11  | 1:FY:107:TRP:CE2 | 2.53                     | 0.43              |
| 1:ED:39:ASN:OD1  | 1:ED:40:THR:N    | 2.51                     | 0.43              |
| 1:AY:99:LYS:HE3  | 1:EI:13:GLU:OE2  | 2.18                     | 0.43              |
| 1:EL:51:ALA:O    | 1:EL:90:LYS:NZ   | 2.50                     | 0.43              |
| 1:EZ:45:LEU:HD11 | 1:EZ:58:VAL:CG1  | 2.48                     | 0.43              |
| 1:EX:98:THR:HG22 | 1:FI:118:ASP:CB  | 2.47                     | 0.43              |
| 1:FM:30:VAL:HG13 | 1:FM:40:THR:CG2  | 2.49                     | 0.43              |
| 1:CH:83:SER:OG   | 1:FT:85:THR:OG1  | 2.37                     | 0.43              |
| 1:FX:27:PHE:CE2  | 1:FX:45:LEU:HD23 | 2.54                     | 0.43              |
| 1:FX:45:LEU:HD11 | 1:FX:58:VAL:CG1  | 2.48                     | 0.43              |
| 1:GA:45:LEU:HD12 | 1:GA:46:GLU:N    | 2.33                     | 0.43              |
| 1:AH:124:TYR:C   | 1:GF:2:ARG:HH12  | 2.21                     | 0.43              |
| 1:DB:117:VAL:O   | 1:GJ:97:ILE:HG21 | 2.18                     | 0.43              |
| 1:GN:30:VAL:HG13 | 1:GN:40:THR:HG21 | 1.99                     | 0.43              |
| 1:AA:45:LEU:HD11 | 1:AA:58:VAL:CG1  | 2.48                     | 0.43              |
| 1:AE:30:VAL:HG13 | 1:AE:40:THR:CG2  | 2.49                     | 0.43              |
| 1:BD:85:THR:O    | 1:EP:82:ALA:HA   | 2.18                     | 0.43              |
| 1:BE:27:PHE:CE2  | 1:BE:45:LEU:HD23 | 2.54                     | 0.43              |
| 1:CA:30:VAL:HG13 | 1:CA:40:THR:CG2  | 2.49                     | 0.43              |
| 1:CG:123:ASN:HB3 | 1:CL:3:LEU:HG    | 2.00                     | 0.43              |
| 1:CW:39:ASN:OD1  | 1:CW:40:THR:N    | 2.51                     | 0.43              |
| 1:DB:30:VAL:HG13 | 1:DB:40:THR:CG2  | 2.49                     | 0.43              |
| 1:DM:124:TYR:OXT | 1:GT:22:GLN:NE2  | 2.52                     | 0.43              |
| 1:DR:39:ASN:OD1  | 1:DR:40:THR:N    | 2.51                     | 0.43              |
| 1:DY:27:PHE:CE2  | 1:DY:45:LEU:HD23 | 2.54                     | 0.43              |
| 1:BN:62:LEU:HD21 | 1:DZ:103:THR:OG1 | 2.19                     | 0.43              |
| 1:EK:27:PHE:CE2  | 1:EK:45:LEU:HD23 | 2.54                     | 0.43              |

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| Atom-1            | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:AS:99:LYS:HE2   | 1:EL:15:ARG:HH11 | 1.84                     | 0.43              |
| 1:EH:107:TRP:HH2  | 1:EO:29:PHE:CD2  | 2.36                     | 0.43              |
| 1:EQ:27:PHE:CE2   | 1:EQ:45:LEU:HD23 | 2.54                     | 0.43              |
| 1:EQ:45:LEU:HD11  | 1:EQ:58:VAL:CG1  | 2.48                     | 0.43              |
| 1:EQ:96:HIS:CG    | 1:FM:66:VAL:HG21 | 2.54                     | 0.43              |
| 1:FI:45:LEU:HD11  | 1:FI:58:VAL:CG1  | 2.48                     | 0.43              |
| 1:EX:124:TYR:C    | 1:FK:2:ARG:HH12  | 2.22                     | 0.43              |
| 1:EQ:97:ILE:HG21  | 1:FM:117:VAL:O   | 2.18                     | 0.43              |
| 1:FU:45:LEU:HD11  | 1:FU:58:VAL:CG1  | 2.48                     | 0.43              |
| 1:FZ:39:ASN:OD1   | 1:FZ:40:THR:N    | 2.51                     | 0.43              |
| 1:GB:30:VAL:HG13  | 1:GB:40:THR:CG2  | 2.49                     | 0.43              |
| 1:GD:27:PHE:CE2   | 1:GD:45:LEU:HD23 | 2.54                     | 0.43              |
| 1:CI:99:LYS:HE2   | 1:GH:15:ARG:HH11 | 1.84                     | 0.43              |
| 1:GH:30:VAL:HG13  | 1:GH:40:THR:CG2  | 2.49                     | 0.43              |
| 1:CD:19:VAL:HB    | 1:GK:124:TYR:CZ  | 2.53                     | 0.43              |
| 1:DC:107:TRP:HZ2  | 1:GO:17:TYR:CD2  | 2.37                     | 0.43              |
| 1:AG:27:PHE:CE2   | 1:AG:45:LEU:HD23 | 2.54                     | 0.43              |
| 1:AM:27:PHE:CE2   | 1:AM:45:LEU:HD23 | 2.54                     | 0.43              |
| 1:AT:30:VAL:HG13  | 1:AT:40:THR:CG2  | 2.49                     | 0.43              |
| 1:AY:45:LEU:HD11  | 1:AY:58:VAL:CG1  | 2.48                     | 0.43              |
| 1:AZ:30:VAL:HG13  | 1:AZ:40:THR:CG2  | 2.49                     | 0.43              |
| 1:BH:106:ALA:HB1  | 1:BO:8:LEU:HD22  | 2.01                     | 0.43              |
| 1:BH:45:LEU:HD11  | 1:BH:58:VAL:CG1  | 2.48                     | 0.43              |
| 1:BM:39:ASN:OD1   | 1:BM:40:THR:N    | 2.51                     | 0.43              |
| 1:BT:27:PHE:CE2   | 1:BT:45:LEU:HD23 | 2.54                     | 0.43              |
| 1:CG:30:VAL:HG13  | 1:CG:40:THR:CG2  | 2.49                     | 0.43              |
| 1:CS:30:VAL:HG13  | 1:CS:40:THR:CG2  | 2.49                     | 0.43              |
| 1:DA:27:PHE:CE2   | 1:DA:45:LEU:HD23 | 2.54                     | 0.43              |
| 1:DB:105:ILE:HG23 | 1:GJ:105:ILE:CG2 | 2.42                     | 0.43              |
| 1:DK:30:VAL:HG13  | 1:DK:40:THR:CG2  | 2.49                     | 0.43              |
| 1:DW:30:VAL:HG13  | 1:DW:40:THR:HG21 | 1.99                     | 0.43              |
| 1:EE:121:LEU:HD11 | 1:EV:19:VAL:O    | 2.19                     | 0.43              |
| 1:EH:27:PHE:CE2   | 1:EH:45:LEU:HD23 | 2.54                     | 0.43              |
| 1:AX:118:ASP:HB3  | 1:EJ:98:THR:HG22 | 2.01                     | 0.43              |
| 1:ET:27:PHE:CE2   | 1:ET:45:LEU:HD23 | 2.54                     | 0.43              |
| 1:FA:103:THR:HG22 | 1:FL:10:VAL:CG2  | 2.48                     | 0.43              |
| 1:FD:30:VAL:HG13  | 1:FD:40:THR:CG2  | 2.49                     | 0.43              |
| 1:FH:39:ASN:OD1   | 1:FH:40:THR:N    | 2.51                     | 0.43              |
| 1:FR:45:LEU:HD12  | 1:FR:46:GLU:N    | 2.33                     | 0.43              |
| 1:AH:123:ASN:HB3  | 1:GD:3:LEU:HG    | 2.01                     | 0.43              |
| 1:DV:103:THR:HG22 | 1:GE:10:VAL:HG21 | 2.01                     | 0.43              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:GG:27:PHE:CE2  | 1:GG:45:LEU:HD23 | 2.54                     | 0.43              |
| 1:GW:30:VAL:HG13 | 1:GW:40:THR:CG2  | 2.49                     | 0.43              |
| 1:AD:27:PHE:CE2  | 1:AD:45:LEU:HD23 | 2.54                     | 0.42              |
| 1:AL:20:SER:O    | 1:FO:122:ASN:HB2 | 2.19                     | 0.42              |
| 1:BN:45:LEU:HD12 | 1:BN:46:GLU:N    | 2.33                     | 0.42              |
| 1:BO:30:VAL:HG13 | 1:BO:40:THR:CG2  | 2.49                     | 0.42              |
| 1:CB:78:ILE:CD1  | 1:FN:91:THR:HB   | 2.49                     | 0.42              |
| 1:CD:30:VAL:HG13 | 1:CD:40:THR:CG2  | 2.49                     | 0.42              |
| 1:CF:27:PHE:CE2  | 1:CF:45:LEU:HD23 | 2.54                     | 0.42              |
| 1:CX:27:PHE:CE2  | 1:CX:45:LEU:HD23 | 2.54                     | 0.42              |
| 1:DD:27:PHE:CE2  | 1:DD:45:LEU:HD23 | 2.54                     | 0.42              |
| 1:DE:30:VAL:HG13 | 1:DE:40:THR:CG2  | 2.49                     | 0.42              |
| 1:DF:118:ASP:CG  | 1:GR:98:THR:HG22 | 2.40                     | 0.42              |
| 1:DS:27:PHE:CE2  | 1:DS:45:LEU:HD23 | 2.54                     | 0.42              |
| 1:EK:45:LEU:HD12 | 1:EK:46:GLU:N    | 2.33                     | 0.42              |
| 1:EO:30:VAL:HG13 | 1:EO:40:THR:CG2  | 2.49                     | 0.42              |
| 1:ET:103:THR:OG1 | 1:FG:62:LEU:HD21 | 2.18                     | 0.42              |
| 1:FF:27:PHE:CE2  | 1:FF:45:LEU:HD23 | 2.54                     | 0.42              |
| 1:FX:45:LEU:HD12 | 1:FX:46:GLU:N    | 2.33                     | 0.42              |
| 1:EB:8:LEU:HD22  | 1:GB:106:ALA:HB1 | 2.01                     | 0.42              |
| 1:GE:30:VAL:HG13 | 1:GE:40:THR:CG2  | 2.49                     | 0.42              |
| 1:GM:27:PHE:CE2  | 1:GM:45:LEU:HD23 | 2.54                     | 0.42              |
| 1:GT:30:VAL:HG13 | 1:GT:40:THR:CG2  | 2.49                     | 0.42              |
| 1:BC:30:VAL:HG13 | 1:BC:40:THR:CG2  | 2.49                     | 0.42              |
| 1:BW:8:LEU:HD11  | 1:DQ:107:TRP:CE2 | 2.54                     | 0.42              |
| 1:CC:1:MET:SD    | 1:GK:111:GLN:HB2 | 2.58                     | 0.42              |
| 1:CE:117:VAL:O   | 1:FQ:97:ILE:HG21 | 2.20                     | 0.42              |
| 1:CV:30:VAL:HG13 | 1:CV:40:THR:CG2  | 2.49                     | 0.42              |
| 1:CY:30:VAL:HG13 | 1:CY:40:THR:CG2  | 2.49                     | 0.42              |
| 1:DO:39:ASN:OD1  | 1:DO:40:THR:N    | 2.51                     | 0.42              |
| 1:DP:123:ASN:OD1 | 1:GW:1:MET:HG2   | 2.19                     | 0.42              |
| 1:DS:96:HIS:CG   | 1:GQ:66:VAL:HG21 | 2.54                     | 0.42              |
| 1:CA:20:SER:O    | 1:DT:122:ASN:HB2 | 2.19                     | 0.42              |
| 1:DV:27:PHE:CE2  | 1:DV:45:LEU:HD23 | 2.54                     | 0.42              |
| 1:EE:124:TYR:HA  | 1:EU:22:GLN:HE21 | 1.84                     | 0.42              |
| 1:EF:30:VAL:HG13 | 1:EF:40:THR:CG2  | 2.49                     | 0.42              |
| 1:EN:27:PHE:CE2  | 1:EN:45:LEU:HD23 | 2.54                     | 0.42              |
| 1:FF:45:LEU:HD12 | 1:FF:46:GLU:N    | 2.33                     | 0.42              |
| 1:AN:66:VAL:HG23 | 1:FR:92:TYR:CE2  | 2.54                     | 0.42              |
| 1:GJ:27:PHE:CE2  | 1:GJ:45:LEU:HD23 | 2.54                     | 0.42              |
| 1:GN:30:VAL:HG13 | 1:GN:40:THR:CG2  | 2.49                     | 0.42              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:GS:45:LEU:HD12 | 1:GS:46:GLU:N     | 2.33                     | 0.42              |
| 1:AN:30:VAL:HG13 | 1:AN:40:THR:CG2   | 2.49                     | 0.42              |
| 1:AY:92:TYR:CE2  | 1:EI:66:VAL:HG23  | 2.54                     | 0.42              |
| 1:BH:27:PHE:CE2  | 1:BH:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:CL:27:PHE:CE2  | 1:CL:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:CO:27:PHE:CE2  | 1:CO:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:CR:45:LEU:HD11 | 1:CR:58:VAL:CG1   | 2.48                     | 0.42              |
| 1:CT:39:ASN:OD1  | 1:CT:40:THR:N     | 2.51                     | 0.42              |
| 1:DJ:27:PHE:CE2  | 1:DJ:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:BT:118:ASP:HA  | 1:DN:97:ILE:CG2   | 2.49                     | 0.42              |
| 1:BZ:62:LEU:HD21 | 1:DT:103:THR:OG1  | 2.19                     | 0.42              |
| 1:DY:45:LEU:HD12 | 1:DY:46:GLU:N     | 2.33                     | 0.42              |
| 1:EX:117:VAL:O   | 1:FI:97:ILE:HG21  | 2.19                     | 0.42              |
| 1:EZ:27:PHE:CE2  | 1:EZ:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:BV:91:THR:HG22 | 1:FH:68:VAL:HG11  | 2.01                     | 0.42              |
| 1:CE:118:ASP:HA  | 1:FQ:97:ILE:CG2   | 2.50                     | 0.42              |
| 1:FR:45:LEU:HD11 | 1:FR:58:VAL:CG1   | 2.48                     | 0.42              |
| 1:GA:27:PHE:CE2  | 1:GA:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:GK:30:VAL:HG13 | 1:GK:40:THR:CG2   | 2.49                     | 0.42              |
| 1:GO:39:ASN:OD1  | 1:GO:40:THR:N     | 2.51                     | 0.42              |
| 1:GU:39:ASN:OD1  | 1:GU:40:THR:N     | 2.51                     | 0.42              |
| 1:AA:99:LYS:O    | 1:AA:103:THR:HG23 | 2.20                     | 0.42              |
| 1:AQ:30:VAL:HG13 | 1:AQ:40:THR:CG2   | 2.49                     | 0.42              |
| 1:AV:78:ILE:HG22 | 1:EF:89:PRO:HG3   | 2.01                     | 0.42              |
| 1:BH:3:LEU:HG    | 1:BO:123:ASN:HB3  | 2.01                     | 0.42              |
| 1:BL:30:VAL:HG13 | 1:BL:40:THR:CG2   | 2.49                     | 0.42              |
| 1:BZ:27:PHE:CE2  | 1:BZ:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:CF:45:LEU:HD11 | 1:CF:58:VAL:CG1   | 2.48                     | 0.42              |
| 1:CR:27:PHE:CE2  | 1:CR:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:DI:39:ASN:OD1  | 1:DI:40:THR:N     | 2.51                     | 0.42              |
| 1:CQ:20:SER:O    | 1:DJ:122:ASN:HB2  | 2.20                     | 0.42              |
| 1:DP:99:LYS:O    | 1:DP:103:THR:HG23 | 2.20                     | 0.42              |
| 1:BK:22:GLN:HE21 | 1:DW:124:TYR:HA   | 1.78                     | 0.42              |
| 1:EE:3:LEU:HG    | 1:EU:123:ASN:HB3  | 2.01                     | 0.42              |
| 1:EK:99:LYS:O    | 1:EK:103:THR:HG23 | 2.20                     | 0.42              |
| 1:FD:83:SER:OG   | 1:FF:85:THR:OG1   | 2.34                     | 0.42              |
| 1:FG:30:VAL:HG13 | 1:FG:40:THR:CG2   | 2.49                     | 0.42              |
| 1:FK:39:ASN:OD1  | 1:FK:40:THR:N     | 2.51                     | 0.42              |
| 1:GP:27:PHE:CE2  | 1:GP:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:GS:27:PHE:CE2  | 1:GS:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:AJ:99:LYS:O    | 1:AJ:103:THR:HG23 | 2.20                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:AL:19:VAL:O     | 1:FO:121:LEU:HD11 | 2.19                     | 0.42              |
| 1:AV:99:LYS:O     | 1:AV:103:THR:HG23 | 2.20                     | 0.42              |
| 1:AX:82:ALA:HB2   | 1:EJ:86:PHE:CE1   | 2.55                     | 0.42              |
| 1:AY:27:PHE:CE2   | 1:AY:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:BI:30:VAL:HG13  | 1:BI:40:THR:CG2   | 2.49                     | 0.42              |
| 1:BN:99:LYS:O     | 1:BN:103:THR:HG23 | 2.20                     | 0.42              |
| 1:BU:51:ALA:O     | 1:BU:90:LYS:NZ    | 2.50                     | 0.42              |
| 1:AJ:122:ASN:HB2  | 1:BY:20:SER:O     | 2.19                     | 0.42              |
| 1:CC:45:LEU:HD11  | 1:CC:58:VAL:CG1   | 2.48                     | 0.42              |
| 1:CC:27:PHE:CE2   | 1:CC:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:CJ:22:GLN:HE21  | 1:CO:124:TYR:HA   | 1.83                     | 0.42              |
| 1:CG:121:LEU:HD22 | 1:CM:20:SER:HA    | 2.01                     | 0.42              |
| 1:CT:122:ASN:HB2  | 1:GD:20:SER:O     | 2.19                     | 0.42              |
| 1:CZ:1:MET:SD     | 1:GL:111:GLN:HB3  | 2.59                     | 0.42              |
| 1:DG:27:PHE:CE2   | 1:DG:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:EB:27:PHE:CE2   | 1:EB:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:EE:27:PHE:CE2   | 1:EE:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:EN:124:TYR:C    | 1:FJ:22:GLN:HE21  | 2.23                     | 0.42              |
| 1:EN:99:LYS:O     | 1:EN:103:THR:HG23 | 2.20                     | 0.42              |
| 1:FA:30:VAL:HG13  | 1:FA:40:THR:CG2   | 2.49                     | 0.42              |
| 1:FC:27:PHE:CE2   | 1:FC:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:FF:45:LEU:HD11  | 1:FF:58:VAL:CG1   | 2.48                     | 0.42              |
| 1:FI:27:PHE:CE2   | 1:FI:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:GQ:30:VAL:HG13  | 1:GQ:40:THR:CG2   | 2.49                     | 0.42              |
| 1:AB:30:VAL:HG13  | 1:AB:40:THR:CG2   | 2.49                     | 0.42              |
| 1:AD:45:LEU:HD11  | 1:AD:58:VAL:CG1   | 2.48                     | 0.42              |
| 1:AE:51:ALA:O     | 1:AE:90:LYS:NZ    | 2.50                     | 0.42              |
| 1:AG:103:THR:OG1  | 1:BF:62:LEU:HD21  | 2.19                     | 0.42              |
| 1:AS:107:TRP:CE2  | 1:EL:8:LEU:HD11   | 2.54                     | 0.42              |
| 1:AV:45:LEU:HD12  | 1:AV:46:GLU:N     | 2.33                     | 0.42              |
| 1:BB:27:PHE:CE2   | 1:BB:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:BE:45:LEU:HD11  | 1:BE:58:VAL:CG1   | 2.48                     | 0.42              |
| 1:BJ:99:LYS:O     | 1:BJ:103:THR:HG23 | 2.20                     | 0.42              |
| 1:BN:16:GLU:HB3   | 1:BN:32:LYS:HD2   | 2.02                     | 0.42              |
| 1:CC:8:LEU:HD22   | 1:GK:106:ALA:HB1  | 2.01                     | 0.42              |
| 1:CH:62:LEU:HD21  | 1:FT:103:THR:OG1  | 2.20                     | 0.42              |
| 1:CY:103:THR:OG1  | 1:GG:62:LEU:HD21  | 2.20                     | 0.42              |
| 1:DU:99:LYS:O     | 1:DU:103:THR:HG23 | 2.20                     | 0.42              |
| 1:DV:62:LEU:HD21  | 1:GE:103:THR:OG1  | 2.19                     | 0.42              |
| 1:EB:99:LYS:O     | 1:EB:103:THR:HG23 | 2.20                     | 0.42              |
| 1:EN:45:LEU:HD11  | 1:EN:58:VAL:CG1   | 2.48                     | 0.42              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:EU:30:VAL:HG13 | 1:EU:40:THR:CG2   | 2.49                     | 0.42              |
| 1:EW:27:PHE:CE2  | 1:EW:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:EX:30:VAL:HG13 | 1:EX:40:THR:CG2   | 2.49                     | 0.42              |
| 1:EZ:99:LYS:O    | 1:EZ:103:THR:HG23 | 2.20                     | 0.42              |
| 1:AW:8:LEU:HD11  | 1:FC:107:TRP:CE2  | 2.54                     | 0.42              |
| 1:FC:45:LEU:HD11 | 1:FC:58:VAL:CG1   | 2.48                     | 0.42              |
| 1:FL:45:LEU:HD11 | 1:FL:58:VAL:CG1   | 2.48                     | 0.42              |
| 1:FN:99:LYS:O    | 1:FN:103:THR:HG23 | 2.20                     | 0.42              |
| 1:FR:27:PHE:CE2  | 1:FR:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:AQ:8:LEU:HD11  | 1:FU:107:TRP:CE2  | 2.53                     | 0.42              |
| 1:GC:99:LYS:O    | 1:GC:103:THR:HG23 | 2.20                     | 0.42              |
| 1:GG:16:GLU:HB3  | 1:GG:32:LYS:HD2   | 2.02                     | 0.42              |
| 1:AI:2:ARG:HD2   | 1:DU:124:TYR:CE1  | 2.55                     | 0.42              |
| 1:AK:30:VAL:HG13 | 1:AK:40:THR:CG2   | 2.49                     | 0.42              |
| 1:AL:99:LYS:O    | 1:AL:103:THR:HG23 | 2.20                     | 0.42              |
| 1:AO:99:LYS:O    | 1:AO:103:THR:HG23 | 2.20                     | 0.42              |
| 1:AX:99:LYS:O    | 1:AX:103:THR:HG23 | 2.20                     | 0.42              |
| 1:BD:99:LYS:O    | 1:BD:103:THR:HG23 | 2.20                     | 0.42              |
| 1:BL:26:LEU:HD12 | 1:BL:46:GLU:HB2   | 2.02                     | 0.42              |
| 1:BN:118:ASP:OD2 | 1:DZ:98:THR:HG22  | 2.20                     | 0.42              |
| 1:BN:45:LEU:HD11 | 1:BN:58:VAL:CG1   | 2.48                     | 0.42              |
| 1:BP:99:LYS:O    | 1:BP:103:THR:HG23 | 2.20                     | 0.42              |
| 1:BQ:27:PHE:CE2  | 1:BQ:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:BQ:99:LYS:O    | 1:BQ:103:THR:HG23 | 2.20                     | 0.42              |
| 1:CF:99:LYS:O    | 1:CF:103:THR:HG23 | 2.20                     | 0.42              |
| 1:CI:27:PHE:CE2  | 1:CI:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:CS:91:THR:OG1  | 1:DD:78:ILE:HD13  | 2.19                     | 0.42              |
| 1:CU:27:PHE:CE2  | 1:CU:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:CV:97:ILE:CG2  | 1:GM:118:ASP:HA   | 2.50                     | 0.42              |
| 1:DD:16:GLU:HB3  | 1:DD:32:LYS:HD2   | 2.02                     | 0.42              |
| 1:DH:30:VAL:HG13 | 1:DH:40:THR:CG2   | 2.49                     | 0.42              |
| 1:DM:118:ASP:OD2 | 1:GT:98:THR:HG22  | 2.19                     | 0.42              |
| 1:DO:99:LYS:O    | 1:DO:103:THR:HG23 | 2.20                     | 0.42              |
| 1:DP:27:PHE:CE2  | 1:DP:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:DR:99:LYS:O    | 1:DR:103:THR:HG23 | 2.20                     | 0.42              |
| 1:BK:122:ASN:ND2 | 1:DW:25:THR:HG22  | 2.35                     | 0.42              |
| 1:DZ:30:VAL:HG13 | 1:DZ:40:THR:CG2   | 2.49                     | 0.42              |
| 1:EC:30:VAL:HG13 | 1:EC:40:THR:CG2   | 2.49                     | 0.42              |
| 1:AX:10:VAL:HG21 | 1:EJ:103:THR:HG22 | 2.02                     | 0.42              |
| 1:EJ:39:ASN:OD1  | 1:EJ:40:THR:N     | 2.51                     | 0.42              |
| 1:EN:16:GLU:HB3  | 1:EN:32:LYS:HD2   | 2.02                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:BA:19:VAL:O     | 1:EW:121:LEU:HD11 | 2.19                     | 0.42              |
| 1:FS:30:VAL:HG13  | 1:FS:40:THR:CG2   | 2.49                     | 0.42              |
| 1:GA:99:LYS:O     | 1:GA:103:THR:HG23 | 2.20                     | 0.42              |
| 1:GK:51:ALA:O     | 1:GK:90:LYS:NZ    | 2.50                     | 0.42              |
| 1:GV:16:GLU:HB3   | 1:GV:32:LYS:HD2   | 2.02                     | 0.42              |
| 1:DP:15:ARG:NH1   | 1:GW:103:THR:HG21 | 2.26                     | 0.42              |
| 1:AB:26:LEU:HD12  | 1:AB:46:GLU:HB2   | 2.02                     | 0.42              |
| 1:AH:30:VAL:HG13  | 1:AH:40:THR:CG2   | 2.49                     | 0.42              |
| 1:AJ:27:PHE:CE2   | 1:AJ:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:AK:26:LEU:HD12  | 1:AK:46:GLU:HB2   | 2.02                     | 0.42              |
| 1:AM:99:LYS:O     | 1:AM:103:THR:HG23 | 2.20                     | 0.42              |
| 1:AP:16:GLU:HB3   | 1:AP:32:LYS:HD2   | 2.02                     | 0.42              |
| 1:AP:27:PHE:CE2   | 1:AP:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:AR:99:LYS:O     | 1:AR:103:THR:HG23 | 2.20                     | 0.42              |
| 1:AT:20:SER:O     | 1:EL:122:ASN:HB2  | 2.20                     | 0.42              |
| 1:AT:26:LEU:HD12  | 1:AT:46:GLU:HB2   | 2.02                     | 0.42              |
| 1:AW:30:VAL:HG13  | 1:AW:40:THR:CG2   | 2.49                     | 0.42              |
| 1:BD:118:ASP:CG   | 1:EP:98:THR:HG22  | 2.39                     | 0.42              |
| 1:BE:16:GLU:HB3   | 1:BE:32:LYS:HD2   | 2.02                     | 0.42              |
| 1:BH:121:LEU:HD11 | 1:BP:19:VAL:O     | 2.20                     | 0.42              |
| 1:BK:27:PHE:CE2   | 1:BK:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:BM:53:ASN:OD1   | 1:BM:54:SER:N     | 2.53                     | 0.42              |
| 1:BW:118:ASP:OD2  | 1:DQ:98:THR:HG22  | 2.20                     | 0.42              |
| 1:BW:16:GLU:HB3   | 1:BW:32:LYS:HD2   | 2.02                     | 0.42              |
| 1:BW:99:LYS:HE2   | 1:DQ:15:ARG:HH11  | 1.84                     | 0.42              |
| 1:AJ:107:TRP:CE2  | 1:BX:8:LEU:HD11   | 2.55                     | 0.42              |
| 1:BY:99:LYS:O     | 1:BY:103:THR:HG23 | 2.20                     | 0.42              |
| 1:CB:17:TYR:CG    | 1:FN:107:TRP:HZ2  | 2.38                     | 0.42              |
| 1:CD:26:LEU:HD12  | 1:CD:46:GLU:HB2   | 2.02                     | 0.42              |
| 1:CI:99:LYS:O     | 1:CI:103:THR:HG23 | 2.20                     | 0.42              |
| 1:CK:118:ASP:CG   | 1:FW:98:THR:HG22  | 2.40                     | 0.42              |
| 1:CL:99:LYS:O     | 1:CL:103:THR:HG23 | 2.20                     | 0.42              |
| 1:CU:99:LYS:O     | 1:CU:103:THR:HG23 | 2.20                     | 0.42              |
| 1:CX:99:LYS:O     | 1:CX:103:THR:HG23 | 2.20                     | 0.42              |
| 1:CY:66:VAL:HG21  | 1:GG:96:HIS:CG    | 2.54                     | 0.42              |
| 1:CZ:99:LYS:O     | 1:CZ:103:THR:HG23 | 2.20                     | 0.42              |
| 1:DF:99:LYS:O     | 1:DF:103:THR:HG23 | 2.20                     | 0.42              |
| 1:DL:118:ASP:CG   | 1:GX:98:THR:HG22  | 2.40                     | 0.42              |
| 1:DM:99:LYS:O     | 1:DM:103:THR:HG23 | 2.20                     | 0.42              |
| 1:DP:45:LEU:HD11  | 1:DP:58:VAL:CG1   | 2.48                     | 0.42              |
| 1:DQ:26:LEU:HD12  | 1:DQ:46:GLU:HB2   | 2.02                     | 0.42              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:DR:53:ASN:OD1  | 1:DR:54:SER:N     | 2.53                     | 0.42              |
| 1:DV:122:ASN:ND2 | 1:GE:25:THR:HG22  | 2.35                     | 0.42              |
| 1:DY:16:GLU:HB3  | 1:DY:32:LYS:HD2   | 2.02                     | 0.42              |
| 1:EE:99:LYS:O    | 1:EE:103:THR:HG23 | 2.20                     | 0.42              |
| 1:AY:47:GLN:OE1  | 1:EI:120:GLY:HA2  | 2.20                     | 0.42              |
| 1:ER:26:LEU:HD12 | 1:ER:46:GLU:HB2   | 2.02                     | 0.42              |
| 1:ET:96:HIS:CG   | 1:FG:66:VAL:HG21  | 2.55                     | 0.42              |
| 1:FL:99:LYS:O    | 1:FL:103:THR:HG23 | 2.20                     | 0.42              |
| 1:FP:30:VAL:HG13 | 1:FP:40:THR:CG2   | 2.49                     | 0.42              |
| 1:FQ:99:LYS:O    | 1:FQ:103:THR:HG23 | 2.20                     | 0.42              |
| 1:CH:122:ASN:HB2 | 1:FR:20:SER:O     | 2.19                     | 0.42              |
| 1:FR:99:LYS:O    | 1:FR:103:THR:HG23 | 2.20                     | 0.42              |
| 1:FU:27:PHE:CE2  | 1:FU:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:FY:30:VAL:HG13 | 1:FY:40:THR:CG2   | 2.49                     | 0.42              |
| 1:FZ:99:LYS:O    | 1:FZ:103:THR:HG23 | 2.20                     | 0.42              |
| 1:GH:26:LEU:HD12 | 1:GH:46:GLU:HB2   | 2.02                     | 0.42              |
| 1:GP:16:GLU:HB3  | 1:GP:32:LYS:HD2   | 2.02                     | 0.42              |
| 1:GR:99:LYS:O    | 1:GR:103:THR:HG23 | 2.20                     | 0.42              |
| 1:FV:117:VAL:O   | 1:GS:97:ILE:HG21  | 2.19                     | 0.42              |
| 1:GU:99:LYS:O    | 1:GU:103:THR:HG23 | 2.20                     | 0.42              |
| 1:AJ:2:ARG:HA    | 1:BX:124:TYR:O    | 2.19                     | 0.42              |
| 1:AL:53:ASN:OD1  | 1:AL:54:SER:N     | 2.53                     | 0.42              |
| 1:AR:53:ASN:OD1  | 1:AR:54:SER:N     | 2.53                     | 0.42              |
| 1:AU:53:ASN:OD1  | 1:AU:54:SER:N     | 2.53                     | 0.42              |
| 1:AV:27:PHE:CE2  | 1:AV:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:AW:26:LEU:HD12 | 1:AW:46:GLU:HB2   | 2.02                     | 0.42              |
| 1:BB:124:TYR:HA  | 1:BR:22:GLN:HE21  | 1.85                     | 0.42              |
| 1:BB:99:LYS:O    | 1:BB:103:THR:HG23 | 2.20                     | 0.42              |
| 1:BD:53:ASN:OD1  | 1:BD:54:SER:N     | 2.53                     | 0.42              |
| 1:BD:8:LEU:HD11  | 1:EP:107:TRP:CE2  | 2.55                     | 0.42              |
| 1:BG:53:ASN:OD1  | 1:BG:54:SER:N     | 2.53                     | 0.42              |
| 1:BH:99:LYS:O    | 1:BH:103:THR:HG23 | 2.20                     | 0.42              |
| 1:BK:27:PHE:CE2  | 1:DW:123:ASN:ND2  | 2.88                     | 0.42              |
| 1:BR:30:VAL:HG13 | 1:BR:40:THR:CG2   | 2.49                     | 0.42              |
| 1:BX:30:VAL:HG13 | 1:BX:40:THR:CG2   | 2.49                     | 0.42              |
| 1:BZ:16:GLU:HB3  | 1:BZ:32:LYS:HD2   | 2.02                     | 0.42              |
| 1:CB:99:LYS:O    | 1:CB:103:THR:HG23 | 2.20                     | 0.42              |
| 1:CC:16:GLU:HB3  | 1:CC:32:LYS:HD2   | 2.02                     | 0.42              |
| 1:CM:30:VAL:HG13 | 1:CM:40:THR:CG2   | 2.49                     | 0.42              |
| 1:CP:85:THR:OG1  | 1:DJ:83:SER:OG    | 2.37                     | 0.42              |
| 1:CS:26:LEU:HD12 | 1:CS:46:GLU:HB2   | 2.02                     | 0.42              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:CW:99:LYS:O    | 1:CW:103:THR:HG23 | 2.20                     | 0.42              |
| 1:DG:16:GLU:HB3  | 1:DG:32:LYS:HD2   | 2.02                     | 0.42              |
| 1:DM:27:PHE:CE2  | 1:DM:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:DS:99:LYS:O    | 1:DS:103:THR:HG23 | 2.20                     | 0.42              |
| 1:DX:99:LYS:O    | 1:DX:103:THR:HG23 | 2.20                     | 0.42              |
| 1:EG:53:ASN:OD1  | 1:EG:54:SER:N     | 2.53                     | 0.42              |
| 1:EP:53:ASN:OD1  | 1:EP:54:SER:N     | 2.53                     | 0.42              |
| 1:ET:16:GLU:HB3  | 1:ET:32:LYS:HD2   | 2.02                     | 0.42              |
| 1:FB:53:ASN:OD1  | 1:FB:54:SER:N     | 2.53                     | 0.42              |
| 1:FH:53:ASN:OD1  | 1:FH:54:SER:N     | 2.53                     | 0.42              |
| 1:FK:99:LYS:O    | 1:FK:103:THR:HG23 | 2.20                     | 0.42              |
| 1:FO:27:PHE:CE2  | 1:FO:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:FT:53:ASN:OD1  | 1:FT:54:SER:N     | 2.53                     | 0.42              |
| 1:FU:16:GLU:HB3  | 1:FU:32:LYS:HD2   | 2.02                     | 0.42              |
| 1:GC:53:ASN:OD1  | 1:GC:54:SER:N     | 2.53                     | 0.42              |
| 1:GO:99:LYS:O    | 1:GO:103:THR:HG23 | 2.20                     | 0.42              |
| 1:GX:53:ASN:OD1  | 1:GX:54:SER:N     | 2.53                     | 0.42              |
| 1:AP:70:ASP:OD1  | 1:AP:71:ALA:N     | 2.53                     | 0.42              |
| 1:AS:27:PHE:CE2  | 1:AS:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:AV:70:ASP:OD1  | 1:AV:71:ALA:N     | 2.53                     | 0.42              |
| 1:AY:99:LYS:O    | 1:AY:103:THR:HG23 | 2.20                     | 0.42              |
| 1:BB:16:GLU:HB3  | 1:BB:32:LYS:HD2   | 2.02                     | 0.42              |
| 1:BE:70:ASP:OD1  | 1:BE:71:ALA:N     | 2.53                     | 0.42              |
| 1:BO:26:LEU:HD12 | 1:BO:46:GLU:HB2   | 2.02                     | 0.42              |
| 1:BZ:99:LYS:O    | 1:BZ:103:THR:HG23 | 2.20                     | 0.42              |
| 1:CA:26:LEU:HD12 | 1:CA:46:GLU:HB2   | 2.02                     | 0.42              |
| 1:CH:53:ASN:OD1  | 1:CH:54:SER:N     | 2.53                     | 0.42              |
| 1:CH:99:LYS:O    | 1:CH:103:THR:HG23 | 2.20                     | 0.42              |
| 1:CK:99:LYS:O    | 1:CK:103:THR:HG23 | 2.20                     | 0.42              |
| 1:CN:53:ASN:OD1  | 1:CN:54:SER:N     | 2.53                     | 0.42              |
| 1:CO:19:VAL:HB   | 1:GC:124:TYR:CE2  | 2.55                     | 0.42              |
| 1:CP:103:THR:OG1 | 1:DJ:62:LEU:HD21  | 2.20                     | 0.42              |
| 1:CT:53:ASN:OD1  | 1:CT:54:SER:N     | 2.53                     | 0.42              |
| 1:CW:53:ASN:OD1  | 1:CW:54:SER:N     | 2.53                     | 0.42              |
| 1:DD:99:LYS:O    | 1:DD:103:THR:HG23 | 2.20                     | 0.42              |
| 1:CX:97:ILE:HG21 | 1:DK:117:VAL:O    | 2.20                     | 0.42              |
| 1:DL:99:LYS:O    | 1:DL:103:THR:HG23 | 2.20                     | 0.42              |
| 1:DN:26:LEU:HD12 | 1:DN:46:GLU:HB2   | 2.02                     | 0.42              |
| 1:DP:16:GLU:HB3  | 1:DP:32:LYS:HD2   | 2.02                     | 0.42              |
| 1:DV:99:LYS:O    | 1:DV:103:THR:HG23 | 2.20                     | 0.42              |
| 1:ED:99:LYS:O    | 1:ED:103:THR:HG23 | 2.20                     | 0.42              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:EK:45:LEU:HD11  | 1:EK:58:VAL:CG1   | 2.48                     | 0.42              |
| 1:EL:30:VAL:HG13  | 1:EL:40:THR:CG2   | 2.49                     | 0.42              |
| 1:EN:70:ASP:OD1   | 1:EN:71:ALA:N     | 2.53                     | 0.42              |
| 1:EP:99:LYS:O     | 1:EP:103:THR:HG23 | 2.20                     | 0.42              |
| 1:ES:99:LYS:O     | 1:ES:103:THR:HG23 | 2.20                     | 0.42              |
| 1:EY:99:LYS:O     | 1:EY:103:THR:HG23 | 2.20                     | 0.42              |
| 1:FC:99:LYS:O     | 1:FC:103:THR:HG23 | 2.20                     | 0.42              |
| 1:FE:53:ASN:OD1   | 1:FE:54:SER:N     | 2.53                     | 0.42              |
| 1:FF:70:ASP:OD1   | 1:FF:71:ALA:N     | 2.53                     | 0.42              |
| 1:FH:99:LYS:O     | 1:FH:103:THR:HG23 | 2.20                     | 0.42              |
| 1:EX:62:LEU:HD21  | 1:FI:103:THR:OG1  | 2.20                     | 0.42              |
| 1:FI:99:LYS:O     | 1:FI:103:THR:HG23 | 2.20                     | 0.42              |
| 1:FL:27:PHE:CE2   | 1:FL:45:LEU:HD23  | 2.54                     | 0.42              |
| 1:FW:53:ASN:OD1   | 1:FW:54:SER:N     | 2.53                     | 0.42              |
| 1:FX:16:GLU:HB3   | 1:FX:32:LYS:HD2   | 2.02                     | 0.42              |
| 1:GB:26:LEU:HD12  | 1:GB:46:GLU:HB2   | 2.02                     | 0.42              |
| 1:AH:98:THR:HG22  | 1:GD:118:ASP:OD2  | 2.19                     | 0.42              |
| 1:GD:99:LYS:O     | 1:GD:103:THR:HG23 | 2.20                     | 0.42              |
| 1:GO:53:ASN:OD1   | 1:GO:54:SER:N     | 2.53                     | 0.42              |
| 1:GS:70:ASP:OD1   | 1:GS:71:ALA:N     | 2.53                     | 0.42              |
| 1:DI:123:ASN:OD1  | 1:GU:1:MET:HB3    | 2.20                     | 0.42              |
| 1:GW:26:LEU:HD12  | 1:GW:46:GLU:HB2   | 2.02                     | 0.42              |
| 1:AA:27:PHE:CE2   | 1:AA:45:LEU:HD23  | 2.54                     | 0.41              |
| 1:AC:103:THR:HG22 | 1:DO:10:VAL:CG2   | 2.45                     | 0.41              |
| 1:AG:16:GLU:HB3   | 1:AG:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:AP:99:LYS:O     | 1:AP:103:THR:HG23 | 2.20                     | 0.41              |
| 1:AW:117:VAL:O    | 1:FC:97:ILE:HG21  | 2.20                     | 0.41              |
| 1:BB:8:LEU:HD11   | 1:BR:107:TRP:CE2  | 2.55                     | 0.41              |
| 1:BK:99:LYS:O     | 1:BK:103:THR:HG23 | 2.20                     | 0.41              |
| 1:BR:26:LEU:HD12  | 1:BR:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:BS:118:ASP:HB3  | 1:FE:98:THR:HG22  | 2.02                     | 0.41              |
| 1:CI:96:HIS:CG    | 1:GH:66:VAL:HG21  | 2.55                     | 0.41              |
| 1:CY:26:LEU:HD12  | 1:CY:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:DC:53:ASN:OD1   | 1:DC:54:SER:N     | 2.53                     | 0.41              |
| 1:DC:99:LYS:O     | 1:DC:103:THR:HG23 | 2.20                     | 0.41              |
| 1:DJ:99:LYS:O     | 1:DJ:103:THR:HG23 | 2.20                     | 0.41              |
| 1:CP:122:ASN:HB2  | 1:DK:20:SER:O     | 2.19                     | 0.41              |
| 1:DM:62:LEU:HD21  | 1:GT:103:THR:OG1  | 2.20                     | 0.41              |
| 1:DO:53:ASN:OD1   | 1:DO:54:SER:N     | 2.53                     | 0.41              |
| 1:DP:70:ASP:OD1   | 1:DP:71:ALA:N     | 2.53                     | 0.41              |
| 1:DV:107:TRP:HH2  | 1:GE:29:PHE:CG    | 2.38                     | 0.41              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:DW:30:VAL:HG13 | 1:DW:40:THR:CG2   | 2.49                     | 0.41              |
| 1:DY:70:ASP:OD1  | 1:DY:71:ALA:N     | 2.53                     | 0.41              |
| 1:EE:16:GLU:HB3  | 1:EE:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:EE:70:ASP:OD1  | 1:EE:71:ALA:N     | 2.53                     | 0.41              |
| 1:ET:99:LYS:O    | 1:ET:103:THR:HG23 | 2.20                     | 0.41              |
| 1:EW:99:LYS:O    | 1:EW:103:THR:HG23 | 2.20                     | 0.41              |
| 1:BM:118:ASP:CB  | 1:EY:98:THR:HG22  | 2.50                     | 0.41              |
| 1:BS:8:LEU:HD11  | 1:FE:107:TRP:CE2  | 2.55                     | 0.41              |
| 1:FN:53:ASN:OD1  | 1:FN:54:SER:N     | 2.53                     | 0.41              |
| 1:FT:99:LYS:O    | 1:FT:103:THR:HG23 | 2.20                     | 0.41              |
| 1:FX:99:LYS:O    | 1:FX:103:THR:HG23 | 2.20                     | 0.41              |
| 1:CR:20:SER:HA   | 1:GF:121:LEU:HD22 | 2.01                     | 0.41              |
| 1:AE:26:LEU:HD12 | 1:AE:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:AH:84:VAL:HG21 | 1:GD:104:LEU:HD11 | 2.01                     | 0.41              |
| 1:AJ:16:GLU:HB3  | 1:AJ:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:AO:53:ASN:OD1  | 1:AO:54:SER:N     | 2.53                     | 0.41              |
| 1:AP:99:LYS:HE3  | 1:BU:13:GLU:OE2   | 2.20                     | 0.41              |
| 1:AR:20:SER:O    | 1:FU:122:ASN:HB2  | 2.20                     | 0.41              |
| 1:BB:2:ARG:HH11  | 1:BD:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:BE:118:ASP:OD2 | 1:BL:98:THR:HG22  | 2.19                     | 0.41              |
| 1:BM:99:LYS:O    | 1:BM:103:THR:HG23 | 2.20                     | 0.41              |
| 1:BW:27:PHE:CE2  | 1:BW:45:LEU:HD23  | 2.54                     | 0.41              |
| 1:CC:99:LYS:O    | 1:CC:103:THR:HG23 | 2.20                     | 0.41              |
| 1:CM:51:ALA:O    | 1:CM:90:LYS:NZ    | 2.50                     | 0.41              |
| 1:CO:16:GLU:HB3  | 1:CO:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:CQ:53:ASN:OD1  | 1:CQ:54:SER:N     | 2.53                     | 0.41              |
| 1:CT:99:LYS:O    | 1:CT:103:THR:HG23 | 2.20                     | 0.41              |
| 1:CV:26:LEU:HD12 | 1:CV:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:CX:16:GLU:HB3  | 1:CX:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:DJ:16:GLU:HB3  | 1:DJ:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:EC:26:LEU:HD12 | 1:EC:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:EH:99:LYS:O    | 1:EH:103:THR:HG23 | 2.20                     | 0.41              |
| 1:EM:53:ASN:OD1  | 1:EM:54:SER:N     | 2.53                     | 0.41              |
| 1:EO:26:LEU:HD12 | 1:EO:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:EQ:70:ASP:OD1  | 1:EQ:71:ALA:N     | 2.53                     | 0.41              |
| 1:ET:45:LEU:HD11 | 1:ET:58:VAL:CG1   | 2.48                     | 0.41              |
| 1:ET:70:ASP:OD1  | 1:ET:71:ALA:N     | 2.53                     | 0.41              |
| 1:EY:53:ASN:OD1  | 1:EY:54:SER:N     | 2.53                     | 0.41              |
| 1:FO:99:LYS:O    | 1:FO:103:THR:HG23 | 2.20                     | 0.41              |
| 1:FO:70:ASP:OD1  | 1:FO:71:ALA:N     | 2.53                     | 0.41              |
| 1:FP:26:LEU:HD12 | 1:FP:46:GLU:HB2   | 2.02                     | 0.41              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:FV:26:LEU:HD12 | 1:FV:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:FW:65:PRO:HB3  | 1:FW:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:GA:16:GLU:HB3  | 1:GA:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:GD:70:ASP:OD1  | 1:GD:71:ALA:N     | 2.53                     | 0.41              |
| 1:GI:99:LYS:O    | 1:GI:103:THR:HG23 | 2.20                     | 0.41              |
| 1:GR:53:ASN:OD1  | 1:GR:54:SER:N     | 2.53                     | 0.41              |
| 1:GS:99:LYS:O    | 1:GS:103:THR:HG23 | 2.20                     | 0.41              |
| 1:AA:70:ASP:OD1  | 1:AA:71:ALA:N     | 2.53                     | 0.41              |
| 1:AD:70:ASP:OD1  | 1:AD:71:ALA:N     | 2.53                     | 0.41              |
| 1:AD:99:LYS:O    | 1:AD:103:THR:HG23 | 2.20                     | 0.41              |
| 1:AF:65:PRO:HB3  | 1:AF:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:AH:26:LEU:HD12 | 1:AH:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:AK:123:ASN:HB3 | 1:FO:3:LEU:HG     | 2.02                     | 0.41              |
| 1:AU:99:LYS:O    | 1:AU:103:THR:HG23 | 2.20                     | 0.41              |
| 1:BA:122:ASN:HB2 | 1:EK:20:SER:O     | 2.20                     | 0.41              |
| 1:BA:53:ASN:OD1  | 1:BA:54:SER:N     | 2.53                     | 0.41              |
| 1:BA:65:PRO:HB3  | 1:BA:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:BB:70:ASP:OD1  | 1:BB:71:ALA:N     | 2.53                     | 0.41              |
| 1:BE:99:LYS:O    | 1:BE:103:THR:HG23 | 2.20                     | 0.41              |
| 1:BH:70:ASP:OD1  | 1:BH:71:ALA:N     | 2.53                     | 0.41              |
| 1:BK:16:GLU:HB3  | 1:BK:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:BN:27:PHE:CE2  | 1:BN:45:LEU:HD23  | 2.54                     | 0.41              |
| 1:BQ:16:GLU:HB3  | 1:BQ:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:BS:53:ASN:OD1  | 1:BS:54:SER:N     | 2.53                     | 0.41              |
| 1:AP:92:TYR:CE2  | 1:BU:66:VAL:HG23  | 2.55                     | 0.41              |
| 1:BV:53:ASN:OD1  | 1:BV:54:SER:N     | 2.53                     | 0.41              |
| 1:CE:99:LYS:O    | 1:CE:103:THR:HG23 | 2.20                     | 0.41              |
| 1:CO:70:ASP:OD1  | 1:CO:71:ALA:N     | 2.53                     | 0.41              |
| 1:CO:2:ARG:HH11  | 1:CQ:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:CR:99:LYS:O    | 1:CR:103:THR:HG23 | 2.20                     | 0.41              |
| 1:CY:8:LEU:HD11  | 1:GG:107:TRP:CE2  | 2.56                     | 0.41              |
| 1:DA:16:GLU:HB3  | 1:DA:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:DG:45:LEU:HD11 | 1:DG:58:VAL:CG1   | 2.48                     | 0.41              |
| 1:DQ:30:VAL:HG13 | 1:DQ:40:THR:CG2   | 2.49                     | 0.41              |
| 1:DT:30:VAL:HG13 | 1:DT:40:THR:CG2   | 2.49                     | 0.41              |
| 1:DU:65:PRO:HB3  | 1:DU:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:DX:53:ASN:OD1  | 1:DX:54:SER:N     | 2.53                     | 0.41              |
| 1:EA:53:ASN:OD1  | 1:EA:54:SER:N     | 2.53                     | 0.41              |
| 1:ED:65:PRO:HB3  | 1:ED:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:AU:22:GLN:NE2  | 1:EG:124:TYR:HA   | 2.36                     | 0.41              |
| 1:EH:70:ASP:OD1  | 1:EH:71:ALA:N     | 2.53                     | 0.41              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:EK:70:ASP:OD1   | 1:EK:71:ALA:N     | 2.53                     | 0.41              |
| 1:EM:99:LYS:O     | 1:EM:103:THR:HG23 | 2.20                     | 0.41              |
| 1:EQ:118:ASP:HB3  | 1:FM:98:THR:HG22  | 2.01                     | 0.41              |
| 1:EQ:3:LEU:HG     | 1:FM:123:ASN:HB3  | 2.01                     | 0.41              |
| 1:FC:2:ARG:HH11   | 1:FE:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:FI:16:GLU:HB3   | 1:FI:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:FK:53:ASN:OD1   | 1:FK:54:SER:N     | 2.53                     | 0.41              |
| 1:CB:82:ALA:HA    | 1:FN:85:THR:O     | 2.21                     | 0.41              |
| 1:FO:2:ARG:HH11   | 1:FQ:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:FQ:53:ASN:OD1   | 1:FQ:54:SER:N     | 2.53                     | 0.41              |
| 1:GJ:99:LYS:O     | 1:GJ:103:THR:HG23 | 2.20                     | 0.41              |
| 1:CC:62:LEU:HD21  | 1:GK:103:THR:OG1  | 2.20                     | 0.41              |
| 1:GL:53:ASN:OD1   | 1:GL:54:SER:N     | 2.53                     | 0.41              |
| 1:CF:124:TYR:CA   | 1:GN:22:GLN:HE21  | 2.33                     | 0.41              |
| 1:AD:84:VAL:HG22  | 1:BC:84:VAL:HG13  | 2.01                     | 0.41              |
| 1:AG:2:ARG:HH11   | 1:AI:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:AL:91:THR:HG22  | 1:DX:68:VAL:HG11  | 2.02                     | 0.41              |
| 1:AQ:51:ALA:O     | 1:AQ:90:LYS:NZ    | 2.50                     | 0.41              |
| 1:AV:121:LEU:HD11 | 1:EG:19:VAL:O     | 2.19                     | 0.41              |
| 1:AV:2:ARG:HH11   | 1:AX:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:AX:98:THR:HG22  | 1:EJ:118:ASP:CG   | 2.40                     | 0.41              |
| 1:BF:26:LEU:HD12  | 1:BF:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:BT:45:LEU:HD11  | 1:BT:58:VAL:CG1   | 2.48                     | 0.41              |
| 1:BW:97:ILE:HG21  | 1:DQ:117:VAL:O    | 2.21                     | 0.41              |
| 1:BZ:124:TYR:C    | 1:DT:22:GLN:HE21  | 2.24                     | 0.41              |
| 1:BZ:2:ARG:HH11   | 1:CB:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:CC:70:ASP:OD1   | 1:CC:71:ALA:N     | 2.53                     | 0.41              |
| 1:CG:22:GLN:HE21  | 1:CL:124:TYR:HA   | 1.86                     | 0.41              |
| 1:CL:70:ASP:OD1   | 1:CL:71:ALA:N     | 2.53                     | 0.41              |
| 1:CQ:99:LYS:O     | 1:CQ:103:THR:HG23 | 2.20                     | 0.41              |
| 1:CR:16:GLU:HB3   | 1:CR:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:CU:62:LEU:HD21  | 1:DH:103:THR:OG1  | 2.21                     | 0.41              |
| 1:CZ:65:PRO:HB3   | 1:CZ:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:DA:45:LEU:HD11  | 1:DA:58:VAL:CG1   | 2.48                     | 0.41              |
| 1:DA:70:ASP:OD1   | 1:DA:71:ALA:N     | 2.53                     | 0.41              |
| 1:DB:26:LEU:HD12  | 1:DB:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:BZ:104:LEU:HD11 | 1:DT:84:VAL:CG2   | 2.51                     | 0.41              |
| 1:DU:53:ASN:OD1   | 1:DU:54:SER:N     | 2.53                     | 0.41              |
| 1:DV:16:GLU:HB3   | 1:DV:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:EQ:16:GLU:HB3   | 1:EQ:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:EW:70:ASP:OD1   | 1:EW:71:ALA:N     | 2.53                     | 0.41              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:FC:16:GLU:HB3  | 1:FC:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:FD:26:LEU:HD12 | 1:FD:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:FF:16:GLU:HB3  | 1:FF:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:FJ:26:LEU:HD12 | 1:FJ:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:CB:107:TRP:HZ2 | 1:FN:17:TYR:CG    | 2.39                     | 0.41              |
| 1:FS:8:LEU:HD11  | 1:GP:107:TRP:CE2  | 2.55                     | 0.41              |
| 1:FS:98:THR:HG22 | 1:GP:118:ASP:CG   | 2.41                     | 0.41              |
| 1:FZ:53:ASN:OD1  | 1:FZ:54:SER:N     | 2.53                     | 0.41              |
| 1:CQ:118:ASP:HB3 | 1:GC:98:THR:HG22  | 2.01                     | 0.41              |
| 1:GD:16:GLU:HB3  | 1:GD:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:GG:2:ARG:HH11  | 1:GI:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:GI:65:PRO:HB3  | 1:GI:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:GN:26:LEU:HD12 | 1:GN:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:GT:51:ALA:O    | 1:GT:90:LYS:NZ    | 2.50                     | 0.41              |
| 1:AC:53:ASN:OD1  | 1:AC:54:SER:N     | 2.53                     | 0.41              |
| 1:AJ:1:MET:HB3   | 1:BX:123:ASN:OD1  | 2.20                     | 0.41              |
| 1:AO:65:PRO:HB3  | 1:AO:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:AS:2:ARG:HH11  | 1:AU:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:AX:65:PRO:HB3  | 1:AX:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:AY:2:ARG:HH11  | 1:BA:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:BA:103:THR:OG1 | 1:EM:62:LEU:HD21  | 2.20                     | 0.41              |
| 1:BP:53:ASN:OD1  | 1:BP:54:SER:N     | 2.53                     | 0.41              |
| 1:BS:99:LYS:O    | 1:BS:103:THR:HG23 | 2.20                     | 0.41              |
| 1:BV:99:LYS:O    | 1:BV:103:THR:HG23 | 2.20                     | 0.41              |
| 1:BW:99:LYS:O    | 1:BW:103:THR:HG23 | 2.20                     | 0.41              |
| 1:AJ:118:ASP:OD2 | 1:BX:98:THR:HG22  | 2.19                     | 0.41              |
| 1:BW:2:ARG:HH11  | 1:BY:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:BZ:70:ASP:OD1  | 1:BZ:71:ALA:N     | 2.53                     | 0.41              |
| 1:CB:107:TRP:CE2 | 1:FN:8:LEU:HD11   | 2.56                     | 0.41              |
| 1:CB:53:ASN:OD1  | 1:CB:54:SER:N     | 2.53                     | 0.41              |
| 1:CI:103:THR:OG1 | 1:GH:62:LEU:HD21  | 2.21                     | 0.41              |
| 1:CI:70:ASP:OD1  | 1:CI:71:ALA:N     | 2.53                     | 0.41              |
| 1:CH:20:SER:O    | 1:CL:122:ASN:HB2  | 2.19                     | 0.41              |
| 1:CQ:84:VAL:HG22 | 1:GC:84:VAL:HG13  | 2.02                     | 0.41              |
| 1:CU:16:GLU:HB3  | 1:CU:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:CU:3:LEU:HG    | 1:DH:123:ASN:HB3  | 2.01                     | 0.41              |
| 1:CU:2:ARG:HH11  | 1:CW:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:CW:65:PRO:HB3  | 1:CW:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:CZ:53:ASN:OD1  | 1:CZ:54:SER:N     | 2.53                     | 0.41              |
| 1:DF:53:ASN:OD1  | 1:DF:54:SER:N     | 2.53                     | 0.41              |
| 1:DV:45:LEU:HD11 | 1:DV:58:VAL:CG1   | 2.48                     | 0.41              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:DV:70:ASP:OD1  | 1:DV:71:ALA:N     | 2.53                     | 0.41              |
| 1:EA:99:LYS:O    | 1:EA:103:THR:HG23 | 2.20                     | 0.41              |
| 1:EB:16:GLU:HB3  | 1:EB:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:EB:70:ASP:OD1  | 1:EB:71:ALA:N     | 2.53                     | 0.41              |
| 1:EB:2:ARG:HH11  | 1:ED:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:EG:99:LYS:O    | 1:EG:103:THR:HG23 | 2.20                     | 0.41              |
| 1:EK:16:GLU:HB3  | 1:EK:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:BA:118:ASP:CB  | 1:EM:98:THR:HG22  | 2.51                     | 0.41              |
| 1:EO:51:ALA:O    | 1:EO:90:LYS:NZ    | 2.50                     | 0.41              |
| 1:ES:53:ASN:OD1  | 1:ES:54:SER:N     | 2.53                     | 0.41              |
| 1:ET:79:LYS:O    | 1:FG:89:PRO:HG3   | 2.20                     | 0.41              |
| 1:EW:16:GLU:HB3  | 1:EW:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:EZ:2:ARG:HH11  | 1:FB:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:EZ:70:ASP:OD1  | 1:EZ:71:ALA:N     | 2.53                     | 0.41              |
| 1:FE:65:PRO:HB3  | 1:FE:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:FK:65:PRO:HB3  | 1:FK:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:EQ:1:MET:HB3   | 1:FM:123:ASN:OD1  | 2.21                     | 0.41              |
| 1:FU:99:LYS:O    | 1:FU:103:THR:HG23 | 2.20                     | 0.41              |
| 1:FU:2:ARG:HH11  | 1:FW:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:FW:99:LYS:O    | 1:FW:103:THR:HG23 | 2.20                     | 0.41              |
| 1:GK:26:LEU:HD12 | 1:GK:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:GM:99:LYS:O    | 1:GM:103:THR:HG23 | 2.20                     | 0.41              |
| 1:GV:99:LYS:O    | 1:GV:103:THR:HG23 | 2.20                     | 0.41              |
| 1:AF:98:THR:HG22 | 1:DR:118:ASP:CB   | 2.50                     | 0.41              |
| 1:AS:16:GLU:HB3  | 1:AS:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:AY:16:GLU:HB3  | 1:AY:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:BC:26:LEU:HD12 | 1:BC:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:BK:70:ASP:OD1  | 1:BK:71:ALA:N     | 2.53                     | 0.41              |
| 1:BL:51:ALA:O    | 1:BL:90:LYS:NZ    | 2.50                     | 0.41              |
| 1:BW:70:ASP:OD1  | 1:BW:71:ALA:N     | 2.53                     | 0.41              |
| 1:BY:65:PRO:HB3  | 1:BY:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:CE:65:PRO:HB3  | 1:CE:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:CF:1:MET:SD    | 1:GN:111:GLN:HB2  | 2.60                     | 0.41              |
| 1:CI:2:ARG:HH11  | 1:CK:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:CS:51:ALA:O    | 1:CS:90:LYS:NZ    | 2.50                     | 0.41              |
| 1:DD:2:ARG:HH11  | 1:DF:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:DG:70:ASP:OD1  | 1:DG:71:ALA:N     | 2.53                     | 0.41              |
| 1:DI:53:ASN:OD1  | 1:DI:54:SER:N     | 2.53                     | 0.41              |
| 1:AU:10:VAL:HG13 | 1:EG:102:GLN:HB2  | 2.01                     | 0.41              |
| 1:EG:65:PRO:HB3  | 1:EG:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:EK:122:ASN:HB2 | 1:ES:20:SER:O     | 2.20                     | 0.41              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:EL:26:LEU:HD12 | 1:EL:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:EP:65:PRO:HB3  | 1:EP:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:EV:99:LYS:O    | 1:EV:103:THR:HG23 | 2.20                     | 0.41              |
| 1:EW:45:LEU:HD11 | 1:EW:58:VAL:CG1   | 2.48                     | 0.41              |
| 1:FB:99:LYS:O    | 1:FB:103:THR:HG23 | 2.20                     | 0.41              |
| 1:AX:20:SER:O    | 1:FC:122:ASN:HB2  | 2.20                     | 0.41              |
| 1:FE:99:LYS:O    | 1:FE:103:THR:HG23 | 2.20                     | 0.41              |
| 1:ET:62:LEU:HD21 | 1:FG:103:THR:OG1  | 2.21                     | 0.41              |
| 1:BV:91:THR:HB   | 1:FH:78:ILE:HD13  | 2.03                     | 0.41              |
| 1:FR:70:ASP:OD1  | 1:FR:71:ALA:N     | 2.53                     | 0.41              |
| 1:FU:70:ASP:OD1  | 1:FU:71:ALA:N     | 2.53                     | 0.41              |
| 1:GF:65:PRO:HB3  | 1:GF:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:GJ:2:ARG:HH11  | 1:GL:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:GJ:70:ASP:OD1  | 1:GJ:71:ALA:N     | 2.53                     | 0.41              |
| 1:GL:65:PRO:HB3  | 1:GL:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:DC:92:TYR:CE2  | 1:GO:66:VAL:HG23  | 2.55                     | 0.41              |
| 1:GP:99:LYS:O    | 1:GP:103:THR:HG23 | 2.20                     | 0.41              |
| 1:GR:65:PRO:HB3  | 1:GR:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:GV:27:PHE:CE2  | 1:GV:45:LEU:HD23  | 2.54                     | 0.41              |
| 1:AD:16:GLU:HB3  | 1:AD:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:AF:99:LYS:O    | 1:AF:103:THR:HG23 | 2.20                     | 0.41              |
| 1:AG:70:ASP:OD1  | 1:AG:71:ALA:N     | 2.53                     | 0.41              |
| 1:AI:53:ASN:OD1  | 1:AI:54:SER:N     | 2.53                     | 0.41              |
| 1:AM:70:ASP:OD1  | 1:AM:71:ALA:N     | 2.53                     | 0.41              |
| 1:AS:99:LYS:O    | 1:AS:103:THR:HG23 | 2.20                     | 0.41              |
| 1:BK:99:LYS:HE3  | 1:DW:13:GLU:OE2   | 2.21                     | 0.41              |
| 1:BM:84:VAL:HG13 | 1:EY:84:VAL:HG22  | 2.01                     | 0.41              |
| 1:BQ:2:ARG:HH11  | 1:BS:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:CL:16:GLU:HB3  | 1:CL:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:CR:70:ASP:OD1  | 1:CR:71:ALA:N     | 2.53                     | 0.41              |
| 1:BT:3:LEU:HG    | 1:DN:123:ASN:HB3  | 2.02                     | 0.41              |
| 1:DR:65:PRO:HB3  | 1:DR:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:DS:2:ARG:HH11  | 1:DU:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:DY:45:LEU:HD11 | 1:DY:58:VAL:CG1   | 2.48                     | 0.41              |
| 1:DZ:26:LEU:HD12 | 1:DZ:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:AU:106:ALA:HB1 | 1:EG:8:LEU:HB3    | 2.02                     | 0.41              |
| 1:EH:16:GLU:HB3  | 1:EH:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:AY:56:ARG:NH1  | 1:EI:116:PRO:O    | 2.47                     | 0.41              |
| 1:EQ:99:LYS:O    | 1:EQ:103:THR:HG23 | 2.20                     | 0.41              |
| 1:FG:26:LEU:HD12 | 1:FG:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:FG:51:ALA:O    | 1:FG:90:LYS:NZ    | 2.50                     | 0.41              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:FI:70:ASP:OD1  | 1:FI:71:ALA:N     | 2.53                     | 0.41              |
| 1:FL:2:ARG:HH11  | 1:FN:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:FR:16:GLU:HB3  | 1:FR:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:EB:56:ARG:NH1  | 1:GB:116:PRO:O    | 2.51                     | 0.41              |
| 1:GG:99:LYS:O    | 1:GG:103:THR:HG23 | 2.20                     | 0.41              |
| 1:CV:47:GLN:HE22 | 1:GM:120:GLY:HA2  | 1.85                     | 0.41              |
| 1:GO:65:PRO:HB3  | 1:GO:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:DC:107:TRP:NE1 | 1:GO:8:LEU:HD11   | 2.36                     | 0.41              |
| 1:DS:99:LYS:HE2  | 1:GQ:15:ARG:HH11  | 1.86                     | 0.41              |
| 1:GV:70:ASP:OD1  | 1:GV:71:ALA:N     | 2.53                     | 0.41              |
| 1:GX:99:LYS:O    | 1:GX:103:THR:HG23 | 2.20                     | 0.41              |
| 1:AF:53:ASN:OD1  | 1:AF:54:SER:N     | 2.53                     | 0.41              |
| 1:AI:1:MET:HB3   | 1:DU:123:ASN:OD1  | 2.20                     | 0.41              |
| 1:AT:17:TYR:HB3  | 1:AT:29:PHE:HB3   | 2.03                     | 0.41              |
| 1:AU:111:GLN:HB3 | 1:EG:1:MET:SD     | 2.60                     | 0.41              |
| 1:BD:65:PRO:HB3  | 1:BD:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:BG:107:TRP:CE2 | 1:ES:8:LEU:HD11   | 2.56                     | 0.41              |
| 1:BE:10:VAL:HG11 | 1:BL:103:THR:HG22 | 2.03                     | 0.41              |
| 1:BT:99:LYS:O    | 1:BT:103:THR:HG23 | 2.20                     | 0.41              |
| 1:BX:26:LEU:HD12 | 1:BX:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:BY:53:ASN:OD1  | 1:BY:54:SER:N     | 2.53                     | 0.41              |
| 1:CF:2:ARG:HH11  | 1:CH:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:CK:53:ASN:OD1  | 1:CK:54:SER:N     | 2.53                     | 0.41              |
| 1:CO:99:LYS:O    | 1:CO:103:THR:HG23 | 2.20                     | 0.41              |
| 1:CT:65:PRO:HB3  | 1:CT:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:CX:70:ASP:OD1  | 1:CX:71:ALA:N     | 2.53                     | 0.41              |
| 1:DG:99:LYS:O    | 1:DG:103:THR:HG23 | 2.20                     | 0.41              |
| 1:DI:99:LYS:O    | 1:DI:103:THR:HG23 | 2.20                     | 0.41              |
| 1:CX:10:VAL:HG11 | 1:DK:103:THR:HG22 | 2.03                     | 0.41              |
| 1:BT:62:LEU:HD21 | 1:DN:103:THR:OG1  | 2.20                     | 0.41              |
| 1:DS:45:LEU:HD11 | 1:DS:58:VAL:CG1   | 2.48                     | 0.41              |
| 1:DT:26:LEU:HD12 | 1:DT:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:DX:65:PRO:HB3  | 1:DX:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:EB:106:ALA:HB1 | 1:GB:8:LEU:HD22   | 2.01                     | 0.41              |
| 1:EC:51:ALA:O    | 1:EC:90:LYS:NZ    | 2.50                     | 0.41              |
| 1:EI:17:TYR:HB3  | 1:EI:29:PHE:HB3   | 2.03                     | 0.41              |
| 1:EI:26:LEU:HD12 | 1:EI:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:EU:21:GLU:OE1  | 1:EU:28:ARG:HD2   | 2.21                     | 0.41              |
| 1:EX:26:LEU:HD12 | 1:EX:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:EW:2:ARG:HH11  | 1:EY:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:FA:26:LEU:HD12 | 1:FA:46:GLU:HB2   | 2.02                     | 0.41              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:FC:70:ASP:OD1  | 1:FC:71:ALA:N     | 2.53                     | 0.41              |
| 1:FI:2:ARG:HH11  | 1:FK:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:CB:124:TYR:CE1 | 1:FN:2:ARG:HD2    | 2.56                     | 0.41              |
| 1:AB:124:TYR:O   | 1:FX:2:ARG:HA     | 2.20                     | 0.41              |
| 1:GF:99:LYS:O    | 1:GF:103:THR:HG23 | 2.20                     | 0.41              |
| 1:GM:70:ASP:OD1  | 1:GM:71:ALA:N     | 2.53                     | 0.41              |
| 1:CV:124:TYR:OXT | 1:GO:2:ARG:NH1    | 2.54                     | 0.41              |
| 1:DF:8:LEU:HD11  | 1:GR:107:TRP:CE2  | 2.56                     | 0.41              |
| 1:GT:26:LEU:HD12 | 1:GT:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:GU:65:PRO:HB3  | 1:GU:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:AJ:85:THR:OG1  | 1:BX:83:SER:OG    | 2.36                     | 0.41              |
| 1:AS:70:ASP:OD1  | 1:AS:71:ALA:N     | 2.53                     | 0.41              |
| 1:AW:122:ASN:HB2 | 1:FD:20:SER:O     | 2.21                     | 0.41              |
| 1:AW:51:ALA:O    | 1:AW:90:LYS:NZ    | 2.50                     | 0.41              |
| 1:BE:2:ARG:HH11  | 1:BG:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:BF:17:TYR:HB3  | 1:BF:29:PHE:HB3   | 2.03                     | 0.41              |
| 1:BG:99:LYS:O    | 1:BG:103:THR:HG23 | 2.20                     | 0.41              |
| 1:BM:65:PRO:HB3  | 1:BM:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:BO:21:GLU:OE1  | 1:BO:28:ARG:HD2   | 2.21                     | 0.41              |
| 1:CW:19:VAL:HB   | 1:GM:124:TYR:CD2  | 2.56                     | 0.41              |
| 1:CX:2:ARG:HH11  | 1:CZ:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:DI:65:PRO:HB3  | 1:DI:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:DS:16:GLU:HB3  | 1:DS:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:DV:118:ASP:HA  | 1:GE:97:ILE:CG2   | 2.51                     | 0.41              |
| 1:DV:8:LEU:HD22  | 1:GE:106:ALA:HB1  | 2.03                     | 0.41              |
| 1:BK:45:LEU:CD2  | 1:DW:113:VAL:HA   | 2.50                     | 0.41              |
| 1:DW:51:ALA:O    | 1:DW:90:LYS:NZ    | 2.50                     | 0.41              |
| 1:DY:99:LYS:O    | 1:DY:103:THR:HG23 | 2.20                     | 0.41              |
| 1:DY:2:ARG:HH11  | 1:EA:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:EL:17:TYR:HB3  | 1:EL:29:PHE:HB3   | 2.03                     | 0.41              |
| 1:ET:2:ARG:HH11  | 1:EV:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:FF:99:LYS:O    | 1:FF:103:THR:HG23 | 2.20                     | 0.41              |
| 1:FJ:21:GLU:OE1  | 1:FJ:28:ARG:HD2   | 2.21                     | 0.41              |
| 1:CB:10:VAL:CG2  | 1:FN:103:THR:HG22 | 2.41                     | 0.41              |
| 1:FT:65:PRO:HB3  | 1:FT:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:FY:26:LEU:HD12 | 1:FY:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:GM:16:GLU:HB3  | 1:GM:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:GU:53:ASN:OD1  | 1:GU:54:SER:N     | 2.53                     | 0.41              |
| 1:GX:65:PRO:HB3  | 1:GX:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:AG:99:LYS:O    | 1:AG:103:THR:HG23 | 2.20                     | 0.41              |
| 1:AJ:70:ASP:OD1  | 1:AJ:71:ALA:N     | 2.53                     | 0.41              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:AQ:26:LEU:HD12 | 1:AQ:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:AR:94:ASN:O    | 1:AR:98:THR:HG23  | 2.21                     | 0.41              |
| 1:AW:21:GLU:OE1  | 1:AW:28:ARG:HD2   | 2.21                     | 0.41              |
| 1:BA:99:LYS:O    | 1:BA:103:THR:HG23 | 2.20                     | 0.41              |
| 1:BI:36:VAL:H    | 1:BI:39:ASN:HB3   | 1.86                     | 0.41              |
| 1:CA:17:TYR:HB3  | 1:CA:29:PHE:HB3   | 2.03                     | 0.41              |
| 1:CG:26:LEU:HD12 | 1:CG:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:CJ:17:TYR:HB3  | 1:CJ:29:PHE:HB3   | 2.03                     | 0.41              |
| 1:CJ:8:LEU:HD11  | 1:CO:107:TRP:CE2  | 2.56                     | 0.41              |
| 1:CN:99:LYS:O    | 1:CN:103:THR:HG23 | 2.20                     | 0.41              |
| 1:DJ:2:ARG:HH11  | 1:DL:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:DJ:70:ASP:OD1  | 1:DJ:71:ALA:N     | 2.53                     | 0.41              |
| 1:DK:17:TYR:HB3  | 1:DK:29:PHE:HB3   | 2.03                     | 0.41              |
| 1:DL:98:THR:HG22 | 1:GX:118:ASP:HB3  | 2.03                     | 0.41              |
| 1:DM:16:GLU:HB3  | 1:DM:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:DM:70:ASP:OD1  | 1:DM:71:ALA:N     | 2.53                     | 0.41              |
| 1:AI:123:ASN:OD1 | 1:DU:1:MET:HB3    | 2.20                     | 0.41              |
| 1:AY:124:TYR:C   | 1:EI:22:GLN:HE21  | 2.24                     | 0.41              |
| 1:EJ:53:ASN:OD1  | 1:EJ:54:SER:N     | 2.53                     | 0.41              |
| 1:EJ:99:LYS:O    | 1:EJ:103:THR:HG23 | 2.20                     | 0.41              |
| 1:BA:98:THR:HG22 | 1:EM:118:ASP:HB3  | 2.02                     | 0.41              |
| 1:EK:2:ARG:HH11  | 1:EM:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:EN:2:ARG:HH11  | 1:EP:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:EP:94:ASN:O    | 1:EP:98:THR:HG23  | 2.21                     | 0.41              |
| 1:ER:17:TYR:HB3  | 1:ER:29:PHE:HB3   | 2.03                     | 0.41              |
| 1:ER:36:VAL:H    | 1:ER:39:ASN:HB3   | 1.86                     | 0.41              |
| 1:FA:21:GLU:OE1  | 1:FA:28:ARG:HD2   | 2.21                     | 0.41              |
| 1:FA:36:VAL:H    | 1:FA:39:ASN:HB3   | 1.86                     | 0.41              |
| 1:FF:2:ARG:HH11  | 1:FH:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:FG:36:VAL:H    | 1:FG:39:ASN:HB3   | 1.86                     | 0.41              |
| 1:FL:70:ASP:OD1  | 1:FL:71:ALA:N     | 2.53                     | 0.41              |
| 1:FV:21:GLU:OE1  | 1:FV:28:ARG:HD2   | 2.21                     | 0.41              |
| 1:FX:70:ASP:OD1  | 1:FX:71:ALA:N     | 2.53                     | 0.41              |
| 1:DY:15:ARG:NH1  | 1:FY:103:THR:HG21 | 2.25                     | 0.41              |
| 1:GA:70:ASP:OD1  | 1:GA:71:ALA:N     | 2.53                     | 0.41              |
| 1:GE:26:LEU:HD12 | 1:GE:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:GF:53:ASN:OD1  | 1:GF:54:SER:N     | 2.53                     | 0.41              |
| 1:GI:53:ASN:OD1  | 1:GI:54:SER:N     | 2.53                     | 0.41              |
| 1:CZ:25:THR:HG22 | 1:GL:122:ASN:ND2  | 2.35                     | 0.41              |
| 1:CF:62:LEU:HD21 | 1:GN:103:THR:OG1  | 2.20                     | 0.41              |
| 1:GW:17:TYR:HB3  | 1:GW:29:PHE:HB3   | 2.03                     | 0.41              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:AB:21:GLU:OE1  | 1:AB:28:ARG:HD2   | 2.21                     | 0.41              |
| 1:AC:99:LYS:O    | 1:AC:103:THR:HG23 | 2.20                     | 0.41              |
| 1:AD:2:ARG:HH11  | 1:AF:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:AL:65:PRO:HB3  | 1:AL:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:AP:2:ARG:HH11  | 1:AR:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:AU:65:PRO:HB3  | 1:AU:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:AY:70:ASP:OD1  | 1:AY:71:ALA:N     | 2.53                     | 0.41              |
| 1:BG:65:PRO:HB3  | 1:BG:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:BI:17:TYR:HB3  | 1:BI:29:PHE:HB3   | 2.03                     | 0.41              |
| 1:BN:70:ASP:OD1  | 1:BN:71:ALA:N     | 2.53                     | 0.41              |
| 1:BR:21:GLU:OE1  | 1:BR:28:ARG:HD2   | 2.21                     | 0.41              |
| 1:BT:16:GLU:HB3  | 1:BT:32:LYS:HD2   | 2.02                     | 0.41              |
| 1:AM:8:LEU:HD22  | 1:CA:106:ALA:HB1  | 2.03                     | 0.41              |
| 1:CB:94:ASN:O    | 1:CB:98:THR:HG23  | 2.21                     | 0.41              |
| 1:CE:53:ASN:OD1  | 1:CE:54:SER:N     | 2.53                     | 0.41              |
| 1:CP:17:TYR:HB3  | 1:CP:29:PHE:HB3   | 2.03                     | 0.41              |
| 1:DA:2:ARG:HH11  | 1:DC:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:DF:65:PRO:HB3  | 1:DF:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:DH:36:VAL:H    | 1:DH:39:ASN:HB3   | 1.86                     | 0.41              |
| 1:DI:91:THR:HB   | 1:GU:78:ILE:CD1   | 2.50                     | 0.41              |
| 1:DK:26:LEU:HD12 | 1:DK:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:DL:53:ASN:OD1  | 1:DL:54:SER:N     | 2.53                     | 0.41              |
| 1:DP:2:ARG:HH11  | 1:DR:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:DW:26:LEU:HD12 | 1:DW:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:AL:124:TYR:CE1 | 1:DX:2:ARG:HD2    | 2.55                     | 0.41              |
| 1:DZ:17:TYR:HB3  | 1:DZ:29:PHE:HB3   | 2.03                     | 0.41              |
| 1:DZ:21:GLU:OE1  | 1:DZ:28:ARG:HD2   | 2.21                     | 0.41              |
| 1:AS:8:LEU:HD11  | 1:EL:107:TRP:CE2  | 2.55                     | 0.41              |
| 1:EL:36:VAL:H    | 1:EL:39:ASN:HB3   | 1.86                     | 0.41              |
| 1:EV:65:PRO:HB3  | 1:EV:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:FD:36:VAL:H    | 1:FD:39:ASN:HB3   | 1.86                     | 0.41              |
| 1:FG:21:GLU:OE1  | 1:FG:28:ARG:HD2   | 2.21                     | 0.41              |
| 1:FM:26:LEU:HD12 | 1:FM:46:GLU:HB2   | 2.02                     | 0.41              |
| 1:FP:17:TYR:HB3  | 1:FP:29:PHE:HB3   | 2.03                     | 0.41              |
| 1:FP:21:GLU:OE1  | 1:FP:28:ARG:HD2   | 2.21                     | 0.41              |
| 1:FQ:65:PRO:HB3  | 1:FQ:79:LYS:HG2   | 2.03                     | 0.41              |
| 1:FY:17:TYR:HB3  | 1:FY:29:PHE:HB3   | 2.03                     | 0.41              |
| 1:GD:2:ARG:HH11  | 1:GF:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:GK:21:GLU:OE1  | 1:GK:28:ARG:HD2   | 2.21                     | 0.41              |
| 1:GM:2:ARG:HH11  | 1:GO:2:ARG:NH1    | 2.19                     | 0.41              |
| 1:AA:16:GLU:HB3  | 1:AA:32:LYS:HD2   | 2.02                     | 0.40              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:AB:51:ALA:O    | 1:AB:90:LYS:NZ    | 2.50                     | 0.40              |
| 1:AF:94:ASN:O    | 1:AF:98:THR:HG23  | 2.21                     | 0.40              |
| 1:AI:99:LYS:O    | 1:AI:103:THR:HG23 | 2.20                     | 0.40              |
| 1:AJ:2:ARG:HH11  | 1:AL:2:ARG:NH1    | 2.19                     | 0.40              |
| 1:AN:17:TYR:HB3  | 1:AN:29:PHE:HB3   | 2.03                     | 0.40              |
| 1:AM:2:ARG:HH11  | 1:AO:2:ARG:NH1    | 2.19                     | 0.40              |
| 1:AO:94:ASN:O    | 1:AO:98:THR:HG23  | 2.21                     | 0.40              |
| 1:BO:36:VAL:H    | 1:BO:39:ASN:HB3   | 1.86                     | 0.40              |
| 1:BN:2:ARG:HH11  | 1:BP:2:ARG:NH1    | 2.19                     | 0.40              |
| 1:CA:21:GLU:OE1  | 1:CA:28:ARG:HD2   | 2.21                     | 0.40              |
| 1:CI:16:GLU:HB3  | 1:CI:32:LYS:HD2   | 2.02                     | 0.40              |
| 1:CS:21:GLU:OE1  | 1:CS:28:ARG:HD2   | 2.21                     | 0.40              |
| 1:CU:70:ASP:OD1  | 1:CU:71:ALA:N     | 2.53                     | 0.40              |
| 1:CY:17:TYR:HB3  | 1:CY:29:PHE:HB3   | 2.03                     | 0.40              |
| 1:DB:21:GLU:OE1  | 1:DB:28:ARG:HD2   | 2.21                     | 0.40              |
| 1:DD:70:ASP:OD1  | 1:DD:71:ALA:N     | 2.53                     | 0.40              |
| 1:DG:2:ARG:HH11  | 1:DI:2:ARG:NH1    | 2.19                     | 0.40              |
| 1:DN:17:TYR:HB3  | 1:DN:29:PHE:HB3   | 2.03                     | 0.40              |
| 1:DM:2:ARG:HH11  | 1:DO:2:ARG:NH1    | 2.19                     | 0.40              |
| 1:DO:65:PRO:HB3  | 1:DO:79:LYS:HG2   | 2.03                     | 0.40              |
| 1:DO:94:ASN:O    | 1:DO:98:THR:HG23  | 2.22                     | 0.40              |
| 1:DV:2:ARG:HH11  | 1:DX:2:ARG:NH1    | 2.19                     | 0.40              |
| 1:BN:84:VAL:HG22 | 1:DZ:84:VAL:HG13  | 2.03                     | 0.40              |
| 1:ED:53:ASN:OD1  | 1:ED:54:SER:N     | 2.53                     | 0.40              |
| 1:EJ:65:PRO:HB3  | 1:EJ:79:LYS:HG2   | 2.03                     | 0.40              |
| 1:EL:21:GLU:OE1  | 1:EL:28:ARG:HD2   | 2.21                     | 0.40              |
| 1:EQ:2:ARG:HH11  | 1:ES:2:ARG:NH1    | 2.19                     | 0.40              |
| 1:EV:53:ASN:OD1  | 1:EV:54:SER:N     | 2.53                     | 0.40              |
| 1:EV:94:ASN:O    | 1:EV:98:THR:HG23  | 2.22                     | 0.40              |
| 1:EY:94:ASN:O    | 1:EY:98:THR:HG23  | 2.21                     | 0.40              |
| 1:BS:118:ASP:CG  | 1:FE:98:THR:HG22  | 2.41                     | 0.40              |
| 1:ET:8:LEU:HD11  | 1:FG:107:TRP:CE2  | 2.56                     | 0.40              |
| 1:ET:84:VAL:HG13 | 1:FG:84:VAL:HG22  | 2.03                     | 0.40              |
| 1:FK:94:ASN:O    | 1:FK:98:THR:HG23  | 2.21                     | 0.40              |
| 1:FL:16:GLU:HB3  | 1:FL:32:LYS:HD2   | 2.02                     | 0.40              |
| 1:FQ:94:ASN:O    | 1:FQ:98:THR:HG23  | 2.21                     | 0.40              |
| 1:FY:36:VAL:H    | 1:FY:39:ASN:HB3   | 1.86                     | 0.40              |
| 1:GB:17:TYR:HB3  | 1:GB:29:PHE:HB3   | 2.03                     | 0.40              |
| 1:DV:107:TRP:HH2 | 1:GE:29:PHE:CD2   | 2.39                     | 0.40              |
| 1:CZ:25:THR:HA   | 1:GL:122:ASN:OD1  | 2.21                     | 0.40              |
| 1:GN:21:GLU:OE1  | 1:GN:28:ARG:HD2   | 2.21                     | 0.40              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:GP:70:ASP:OD1  | 1:GP:71:ALA:N     | 2.53                     | 0.40              |
| 1:GS:16:GLU:HB3  | 1:GS:32:LYS:HD2   | 2.02                     | 0.40              |
| 1:AC:2:ARG:HD2   | 1:DO:124:TYR:CE1  | 2.56                     | 0.40              |
| 1:AC:65:PRO:HB3  | 1:AC:79:LYS:HG2   | 2.03                     | 0.40              |
| 1:AE:36:VAL:H    | 1:AE:39:ASN:HB3   | 1.86                     | 0.40              |
| 1:AI:94:ASN:O    | 1:AI:98:THR:HG23  | 2.21                     | 0.40              |
| 1:AK:36:VAL:H    | 1:AK:39:ASN:HB3   | 1.86                     | 0.40              |
| 1:AN:36:VAL:H    | 1:AN:39:ASN:HB3   | 1.87                     | 0.40              |
| 1:AQ:15:ARG:HD3  | 1:FU:99:LYS:HE2   | 2.03                     | 0.40              |
| 1:AQ:22:GLN:HB3  | 1:BU:124:TYR:CB   | 2.45                     | 0.40              |
| 1:BJ:124:TYR:HA  | 1:EV:22:GLN:NE2   | 2.37                     | 0.40              |
| 1:BM:94:ASN:O    | 1:BM:98:THR:HG23  | 2.21                     | 0.40              |
| 1:BS:94:ASN:O    | 1:BS:98:THR:HG23  | 2.21                     | 0.40              |
| 1:BT:70:ASP:OD1  | 1:BT:71:ALA:N     | 2.53                     | 0.40              |
| 1:AQ:20:SER:HA   | 1:BU:121:LEU:HD22 | 2.03                     | 0.40              |
| 1:BV:65:PRO:HB3  | 1:BV:79:LYS:HG2   | 2.03                     | 0.40              |
| 1:CB:65:PRO:HB3  | 1:CB:79:LYS:HG2   | 2.03                     | 0.40              |
| 1:CF:70:ASP:OD1  | 1:CF:71:ALA:N     | 2.53                     | 0.40              |
| 1:CK:8:LEU:HD11  | 1:FW:107:TRP:CE2  | 2.57                     | 0.40              |
| 1:CM:21:GLU:OE1  | 1:CM:28:ARG:HD2   | 2.21                     | 0.40              |
| 1:CP:26:LEU:HD12 | 1:CP:46:GLU:HB2   | 2.02                     | 0.40              |
| 1:CZ:94:ASN:O    | 1:CZ:98:THR:HG23  | 2.21                     | 0.40              |
| 1:DA:96:HIS:CG   | 1:DE:66:VAL:HG21  | 2.56                     | 0.40              |
| 1:DA:99:LYS:O    | 1:DA:103:THR:HG23 | 2.20                     | 0.40              |
| 1:DN:21:GLU:OE1  | 1:DN:28:ARG:HD2   | 2.21                     | 0.40              |
| 1:DQ:21:GLU:OE1  | 1:DQ:28:ARG:HD2   | 2.21                     | 0.40              |
| 1:DT:21:GLU:OE1  | 1:DT:28:ARG:HD2   | 2.21                     | 0.40              |
| 1:DT:36:VAL:H    | 1:DT:39:ASN:HB3   | 1.86                     | 0.40              |
| 1:DW:36:VAL:H    | 1:DW:39:ASN:HB3   | 1.86                     | 0.40              |
| 1:EH:2:ARG:HH11  | 1:EJ:2:ARG:NH1    | 2.19                     | 0.40              |
| 1:ES:65:PRO:HB3  | 1:ES:79:LYS:HG2   | 2.03                     | 0.40              |
| 1:ES:94:ASN:O    | 1:ES:98:THR:HG23  | 2.21                     | 0.40              |
| 1:EX:17:TYR:HB3  | 1:EX:29:PHE:HB3   | 2.03                     | 0.40              |
| 1:EX:36:VAL:H    | 1:EX:39:ASN:HB3   | 1.86                     | 0.40              |
| 1:BM:78:ILE:HD13 | 1:EY:91:THR:HB    | 2.03                     | 0.40              |
| 1:FO:16:GLU:HB3  | 1:FO:32:LYS:HD2   | 2.02                     | 0.40              |
| 1:FO:45:LEU:HD11 | 1:FO:58:VAL:CG1   | 2.48                     | 0.40              |
| 1:FP:36:VAL:H    | 1:FP:39:ASN:HB3   | 1.86                     | 0.40              |
| 1:AO:20:SER:HA   | 1:FR:121:LEU:CD1  | 2.51                     | 0.40              |
| 1:FT:94:ASN:O    | 1:FT:98:THR:HG23  | 2.21                     | 0.40              |
| 1:GA:2:ARG:HH11  | 1:GC:2:ARG:NH1    | 2.19                     | 0.40              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:GG:70:ASP:OD1  | 1:GG:71:ALA:N     | 2.53                     | 0.40              |
| 1:GH:36:VAL:H    | 1:GH:39:ASN:HB3   | 1.86                     | 0.40              |
| 1:GJ:16:GLU:HB3  | 1:GJ:32:LYS:HD2   | 2.02                     | 0.40              |
| 1:GN:17:TYR:HB3  | 1:GN:29:PHE:HB3   | 2.03                     | 0.40              |
| 1:GQ:17:TYR:HB3  | 1:GQ:29:PHE:HB3   | 2.03                     | 0.40              |
| 1:GT:21:GLU:OE1  | 1:GT:28:ARG:HD2   | 2.21                     | 0.40              |
| 1:GT:36:VAL:H    | 1:GT:39:ASN:HB3   | 1.86                     | 0.40              |
| 1:AH:84:VAL:CG2  | 1:GD:104:LEU:HD11 | 2.52                     | 0.40              |
| 1:AK:20:SER:O    | 1:BX:122:ASN:HB2  | 2.20                     | 0.40              |
| 1:AK:21:GLU:OE1  | 1:AK:28:ARG:HD2   | 2.21                     | 0.40              |
| 1:AM:16:GLU:HB3  | 1:AM:32:LYS:HD2   | 2.02                     | 0.40              |
| 1:AN:26:LEU:HD12 | 1:AN:46:GLU:HB2   | 2.02                     | 0.40              |
| 1:AQ:36:VAL:H    | 1:AQ:39:ASN:HB3   | 1.86                     | 0.40              |
| 1:AV:16:GLU:HB3  | 1:AV:32:LYS:HD2   | 2.02                     | 0.40              |
| 1:AX:53:ASN:OD1  | 1:AX:54:SER:N     | 2.53                     | 0.40              |
| 1:BC:21:GLU:OE1  | 1:BC:28:ARG:HD2   | 2.21                     | 0.40              |
| 1:AG:118:ASP:OD2 | 1:BF:98:THR:HG22  | 2.21                     | 0.40              |
| 1:BG:94:ASN:O    | 1:BG:98:THR:HG23  | 2.21                     | 0.40              |
| 1:BI:21:GLU:OE1  | 1:BI:28:ARG:HD2   | 2.21                     | 0.40              |
| 1:BJ:53:ASN:OD1  | 1:BJ:54:SER:N     | 2.53                     | 0.40              |
| 1:BS:65:PRO:HB3  | 1:BS:79:LYS:HG2   | 2.03                     | 0.40              |
| 1:AP:107:TRP:CE2 | 1:BU:8:LEU:HD11   | 2.56                     | 0.40              |
| 1:BT:2:ARG:HH11  | 1:BV:2:ARG:NH1    | 2.19                     | 0.40              |
| 1:BX:21:GLU:OE1  | 1:BX:28:ARG:HD2   | 2.21                     | 0.40              |
| 1:BY:94:ASN:O    | 1:BY:98:THR:HG23  | 2.21                     | 0.40              |
| 1:CD:84:VAL:HA   | 1:CR:83:SER:O     | 2.21                     | 0.40              |
| 1:CC:2:ARG:HH11  | 1:CE:2:ARG:NH1    | 2.19                     | 0.40              |
| 1:CJ:21:GLU:OE1  | 1:CJ:28:ARG:HD2   | 2.21                     | 0.40              |
| 1:CK:94:ASN:O    | 1:CK:98:THR:HG23  | 2.21                     | 0.40              |
| 1:CN:84:VAL:HG13 | 1:FZ:84:VAL:HG22  | 2.03                     | 0.40              |
| 1:CQ:65:PRO:HB3  | 1:CQ:79:LYS:HG2   | 2.03                     | 0.40              |
| 1:CT:94:ASN:O    | 1:CT:98:THR:HG23  | 2.21                     | 0.40              |
| 1:CY:21:GLU:OE1  | 1:CY:28:ARG:HD2   | 2.21                     | 0.40              |
| 1:DI:94:ASN:O    | 1:DI:98:THR:HG23  | 2.21                     | 0.40              |
| 1:DL:94:ASN:O    | 1:DL:98:THR:HG23  | 2.21                     | 0.40              |
| 1:DR:94:ASN:O    | 1:DR:98:THR:HG23  | 2.21                     | 0.40              |
| 1:DU:94:ASN:O    | 1:DU:98:THR:HG23  | 2.21                     | 0.40              |
| 1:DW:17:TYR:HB3  | 1:DW:29:PHE:HB3   | 2.03                     | 0.40              |
| 1:EB:27:PHE:CE2  | 1:GB:123:ASN:ND2  | 2.89                     | 0.40              |
| 1:EC:36:VAL:H    | 1:EC:39:ASN:HB3   | 1.86                     | 0.40              |
| 1:AS:1:MET:HB3   | 1:EL:123:ASN:OD1  | 2.21                     | 0.40              |

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| Atom-1            | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:EU:17:TYR:HB3   | 1:EU:29:PHE:HB3   | 2.03                     | 0.40              |
| 1:EX:21:GLU:OE1   | 1:EX:28:ARG:HD2   | 2.21                     | 0.40              |
| 1:FB:94:ASN:O     | 1:FB:98:THR:HG23  | 2.21                     | 0.40              |
| 1:FG:17:TYR:HB3   | 1:FG:29:PHE:HB3   | 2.03                     | 0.40              |
| 1:BV:98:THR:HG22  | 1:FH:118:ASP:CG   | 2.41                     | 0.40              |
| 1:FX:2:ARG:HH11   | 1:FZ:2:ARG:NH1    | 2.19                     | 0.40              |
| 1:FY:21:GLU:OE1   | 1:FY:28:ARG:HD2   | 2.21                     | 0.40              |
| 1:GL:99:LYS:O     | 1:GL:103:THR:HG23 | 2.20                     | 0.40              |
| 1:GQ:21:GLU:OE1   | 1:GQ:28:ARG:HD2   | 2.21                     | 0.40              |
| 1:GQ:88:LEU:HD13  | 1:GQ:97:ILE:HD13  | 2.04                     | 0.40              |
| 1:GP:2:ARG:HH11   | 1:GR:2:ARG:NH1    | 2.19                     | 0.40              |
| 1:FV:15:ARG:HH11  | 1:GS:99:LYS:HE2   | 1.86                     | 0.40              |
| 1:GX:94:ASN:O     | 1:GX:98:THR:HG23  | 2.21                     | 0.40              |
| 1:AC:94:ASN:O     | 1:AC:98:THR:HG23  | 2.21                     | 0.40              |
| 1:AN:103:THR:HG22 | 1:FR:10:VAL:CG2   | 2.48                     | 0.40              |
| 1:AW:17:TYR:HB3   | 1:AW:29:PHE:HB3   | 2.03                     | 0.40              |
| 1:AZ:26:LEU:HD12  | 1:AZ:46:GLU:HB2   | 2.02                     | 0.40              |
| 1:BF:36:VAL:H     | 1:BF:39:ASN:HB3   | 1.86                     | 0.40              |
| 1:BI:88:LEU:HD13  | 1:BI:97:ILE:HD13  | 2.04                     | 0.40              |
| 1:BE:10:VAL:CG2   | 1:BL:103:THR:HG22 | 2.45                     | 0.40              |
| 1:BL:17:TYR:HB3   | 1:BL:29:PHE:HB3   | 2.03                     | 0.40              |
| 1:BK:2:ARG:HH11   | 1:BM:2:ARG:NH1    | 2.19                     | 0.40              |
| 1:BU:36:VAL:H     | 1:BU:39:ASN:HB3   | 1.86                     | 0.40              |
| 1:BV:103:THR:OG1  | 1:FH:62:LEU:HD21  | 2.21                     | 0.40              |
| 1:CG:21:GLU:OE1   | 1:CG:28:ARG:HD2   | 2.21                     | 0.40              |
| 1:CH:94:ASN:O     | 1:CH:98:THR:HG23  | 2.21                     | 0.40              |
| 1:CL:2:ARG:HH11   | 1:CN:2:ARG:NH1    | 2.19                     | 0.40              |
| 1:CP:36:VAL:H     | 1:CP:39:ASN:HB3   | 1.86                     | 0.40              |
| 1:CP:88:LEU:HD13  | 1:CP:97:ILE:HD13  | 2.04                     | 0.40              |
| 1:DB:84:VAL:HG21  | 1:GJ:104:LEU:HD11 | 2.03                     | 0.40              |
| 1:DE:21:GLU:OE1   | 1:DE:28:ARG:HD2   | 2.21                     | 0.40              |
| 1:DE:26:LEU:HD12  | 1:DE:46:GLU:HB2   | 2.02                     | 0.40              |
| 1:DK:36:VAL:H     | 1:DK:39:ASN:HB3   | 1.86                     | 0.40              |
| 1:DK:88:LEU:HD13  | 1:DK:97:ILE:HD13  | 2.04                     | 0.40              |
| 1:DQ:51:ALA:O     | 1:DQ:90:LYS:NZ    | 2.50                     | 0.40              |
| 1:DW:21:GLU:OE1   | 1:DW:28:ARG:HD2   | 2.21                     | 0.40              |
| 1:AL:78:ILE:HD13  | 1:DX:91:THR:HB    | 2.04                     | 0.40              |
| 1:EC:17:TYR:HB3   | 1:EC:29:PHE:HB3   | 2.03                     | 0.40              |
| 1:EF:17:TYR:HB3   | 1:EF:29:PHE:HB3   | 2.03                     | 0.40              |
| 1:EF:36:VAL:H     | 1:EF:39:ASN:HB3   | 1.86                     | 0.40              |
| 1:EG:94:ASN:O     | 1:EG:98:THR:HG23  | 2.21                     | 0.40              |

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| Atom-1           | Atom-2           | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:EI:88:LEU:HD13 | 1:EI:97:ILE:HD13 | 2.04                     | 0.40              |
| 1:AY:122:ASN:HB2 | 1:EJ:20:SER:O    | 2.21                     | 0.40              |
| 1:EQ:85:THR:OG1  | 1:FM:83:SER:OG   | 2.36                     | 0.40              |
| 1:BK:20:SER:O    | 1:EY:122:ASN:HB2 | 2.22                     | 0.40              |
| 1:EZ:16:GLU:HB3  | 1:EZ:32:LYS:HD2  | 2.02                     | 0.40              |
| 1:FH:65:PRO:HB3  | 1:FH:79:LYS:HG2  | 2.03                     | 0.40              |
| 1:GC:94:ASN:O    | 1:GC:98:THR:HG23 | 2.21                     | 0.40              |
| 1:GE:21:GLU:OE1  | 1:GE:28:ARG:HD2  | 2.21                     | 0.40              |
| 1:GE:17:TYR:HB3  | 1:GE:29:PHE:HB3  | 2.03                     | 0.40              |
| 1:GE:88:LEU:HD13 | 1:GE:97:ILE:HD13 | 2.04                     | 0.40              |
| 1:GF:94:ASN:O    | 1:GF:98:THR:HG23 | 2.21                     | 0.40              |
| 1:GK:17:TYR:HB3  | 1:GK:29:PHE:HB3  | 2.03                     | 0.40              |
| 1:GK:36:VAL:H    | 1:GK:39:ASN:HB3  | 1.86                     | 0.40              |
| 1:GO:94:ASN:O    | 1:GO:98:THR:HG23 | 2.21                     | 0.40              |
| 1:GQ:26:LEU:HD12 | 1:GQ:46:GLU:HB2  | 2.02                     | 0.40              |
| 1:AB:17:TYR:HB3  | 1:AB:29:PHE:HB3  | 2.03                     | 0.40              |
| 1:AB:36:VAL:H    | 1:AB:39:ASN:HB3  | 1.86                     | 0.40              |
| 1:AE:88:LEU:HD13 | 1:AE:97:ILE:HD13 | 2.04                     | 0.40              |
| 1:AQ:21:GLU:OE1  | 1:AQ:28:ARG:HD2  | 2.21                     | 0.40              |
| 1:BA:94:ASN:O    | 1:BA:98:THR:HG23 | 2.21                     | 0.40              |
| 1:BJ:65:PRO:HB3  | 1:BJ:79:LYS:HG2  | 2.03                     | 0.40              |
| 1:BL:21:GLU:OE1  | 1:BL:28:ARG:HD2  | 2.21                     | 0.40              |
| 1:BX:88:LEU:HD13 | 1:BX:97:ILE:HD13 | 2.04                     | 0.40              |
| 1:CE:94:ASN:O    | 1:CE:98:THR:HG23 | 2.21                     | 0.40              |
| 1:CG:47:GLN:HE22 | 1:CL:120:GLY:HA2 | 1.86                     | 0.40              |
| 1:CJ:26:LEU:HD12 | 1:CJ:46:GLU:HB2  | 2.02                     | 0.40              |
| 1:CK:65:PRO:HB3  | 1:CK:79:LYS:HG2  | 2.03                     | 0.40              |
| 1:CN:94:ASN:O    | 1:CN:98:THR:HG23 | 2.21                     | 0.40              |
| 1:CP:21:GLU:OE1  | 1:CP:28:ARG:HD2  | 2.21                     | 0.40              |
| 1:CP:98:THR:HG22 | 1:DJ:118:ASP:CG  | 2.42                     | 0.40              |
| 1:DB:36:VAL:H    | 1:DB:39:ASN:HB3  | 1.86                     | 0.40              |
| 1:DE:17:TYR:HB3  | 1:DE:29:PHE:HB3  | 2.03                     | 0.40              |
| 1:CM:8:LEU:HD11  | 1:DG:107:TRP:CE2 | 2.56                     | 0.40              |
| 1:DH:21:GLU:OE1  | 1:DH:28:ARG:HD2  | 2.21                     | 0.40              |
| 1:DL:65:PRO:HB3  | 1:DL:79:LYS:HG2  | 2.03                     | 0.40              |
| 1:DQ:36:VAL:H    | 1:DQ:39:ASN:HB3  | 1.86                     | 0.40              |
| 1:DS:70:ASP:OD1  | 1:DS:71:ALA:N    | 2.53                     | 0.40              |
| 1:ED:94:ASN:O    | 1:ED:98:THR:HG23 | 2.21                     | 0.40              |
| 1:AY:22:GLN:HE21 | 1:EI:124:TYR:HA  | 1.77                     | 0.40              |
| 1:EO:21:GLU:OE1  | 1:EO:28:ARG:HD2  | 2.21                     | 0.40              |
| 1:ER:21:GLU:OE1  | 1:ER:28:ARG:HD2  | 2.21                     | 0.40              |

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| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:ER:88:LEU:HD13 | 1:ER:97:ILE:HD13  | 2.04                     | 0.40              |
| 1:EU:26:LEU:HD12 | 1:EU:46:GLU:HB2   | 2.02                     | 0.40              |
| 1:EY:65:PRO:HB3  | 1:EY:79:LYS:HG2   | 2.03                     | 0.40              |
| 1:ET:15:ARG:NH1  | 1:FG:103:THR:HG21 | 2.26                     | 0.40              |
| 1:FJ:17:TYR:HB3  | 1:FJ:29:PHE:HB3   | 2.03                     | 0.40              |
| 1:FM:21:GLU:OE1  | 1:FM:28:ARG:HD2   | 2.21                     | 0.40              |
| 1:FM:17:TYR:HB3  | 1:FM:29:PHE:HB3   | 2.03                     | 0.40              |
| 1:FS:26:LEU:HD12 | 1:FS:46:GLU:HB2   | 2.02                     | 0.40              |
| 1:GH:17:TYR:HB3  | 1:GH:29:PHE:HB3   | 2.03                     | 0.40              |
| 1:GI:94:ASN:O    | 1:GI:98:THR:HG23  | 2.21                     | 0.40              |
| 1:GK:88:LEU:HD13 | 1:GK:97:ILE:HD13  | 2.04                     | 0.40              |
| 1:GN:36:VAL:H    | 1:GN:39:ASN:HB3   | 1.86                     | 0.40              |
| 1:GQ:36:VAL:H    | 1:GQ:39:ASN:HB3   | 1.86                     | 0.40              |
| 1:GU:94:ASN:O    | 1:GU:98:THR:HG23  | 2.21                     | 0.40              |

All (24) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

| Atom-1          | Atom-2                 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------------|--------------------------|-------------------|
| 1:AN:32:LYS:NZ  | 1:GB:16:GLU:OE2[1_666] | 1.39                     | 0.81              |
| 1:BU:32:LYS:NZ  | 1:DW:16:GLU:OE2[1_554] | 1.50                     | 0.70              |
| 1:BH:12:GLU:O   | 1:GK:5:ASP:O[1_655]    | 1.55                     | 0.65              |
| 1:EI:35:THR:CG2 | 1:GN:12:GLU:OE1[1_545] | 1.55                     | 0.65              |
| 1:BH:12:GLU:OE1 | 1:GK:7:ASP:OD1[1_655]  | 1.57                     | 0.63              |
| 1:EG:95:GLU:OE2 | 1:FQ:13:GLU:O[1_655]   | 1.63                     | 0.57              |
| 1:EI:35:THR:CB  | 1:GN:12:GLU:OE1[1_545] | 1.82                     | 0.38              |
| 1:CJ:16:GLU:OE2 | 1:EK:12:GLU:OE1[1_454] | 1.84                     | 0.36              |
| 1:CJ:7:ASP:OD2  | 1:EK:12:GLU:CB[1_454]  | 1.84                     | 0.36              |
| 1:CJ:16:GLU:CD  | 1:EK:12:GLU:OE1[1_454] | 1.89                     | 0.31              |
| 1:DN:12:GLU:O   | 1:DV:96:HIS:NE2[1_554] | 1.95                     | 0.25              |
| 1:EH:95:GLU:OE1 | 1:GN:13:GLU:OE1[1_545] | 1.96                     | 0.24              |
| 1:FJ:12:GLU:OE2 | 1:GM:4:THR:OG1[1_545]  | 1.97                     | 0.23              |
| 1:CI:7:ASP:CB   | 1:ER:16:GLU:OE2[1_454] | 1.99                     | 0.21              |
| 1:BT:96:HIS:CD2 | 1:GE:12:GLU:OE1[1_554] | 2.00                     | 0.20              |
| 1:BJ:9:THR:OG1  | 1:GL:12:GLU:OE2[1_655] | 2.00                     | 0.20              |
| 1:EG:95:GLU:OE1 | 1:FQ:11:GLY:O[1_655]   | 2.01                     | 0.19              |
| 1:EO:7:ASP:OD2  | 1:GM:95:GLU:OE2[1_545] | 2.08                     | 0.12              |
| 1:EG:95:GLU:OE2 | 1:FQ:10:VAL:N[1_655]   | 2.12                     | 0.08              |
| 1:AN:16:GLU:OE2 | 1:GB:32:LYS:NZ[1_666]  | 2.12                     | 0.08              |
| 1:CG:16:GLU:OE1 | 1:EI:7:ASP:CG[1_565]   | 2.13                     | 0.07              |

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| Atom-1          | Atom-2                 | Interatomic distance (Å) | Clash overlap (Å) |
|-----------------|------------------------|--------------------------|-------------------|
| 1:EV:12:GLU:OE1 | 1:GL:40:THR:CG2[1_655] | 2.16                     | 0.04              |
| 1:FJ:12:GLU:OE1 | 1:GM:4:THR:CG2[1_545]  | 2.16                     | 0.04              |
| 1:CA:12:GLU:O   | 1:GA:96:HIS:NE2[1_666] | 2.18                     | 0.02              |

## 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 X-ray entries followed by that with respect to entries of similar resolution.

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   | AA    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | AB    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | AC    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | AD    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | AE    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | AF    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | AG    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | AH    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | AI    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | AJ    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | AK    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | AL    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | AM    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | AN    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | AO    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | AP    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | AQ    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | AR    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | AS    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |

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| Mol | Chain | Analysed      | Favoured   | Allowed | Outliers | Percentiles |     |
|-----|-------|---------------|------------|---------|----------|-------------|-----|
| 1   | AT    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | AU    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | AV    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | AW    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | AX    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | AY    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | AZ    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | BA    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | BB    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | BC    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | BD    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | BE    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | BF    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | BG    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | BH    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | BI    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | BJ    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | BK    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | BL    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | BM    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | BN    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | BO    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | BP    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | BQ    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | BR    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | BS    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | BT    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | BU    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | BV    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | BW    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | BX    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |

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| Mol | Chain | Analysed      | Favoured   | Allowed | Outliers | Percentiles |     |
|-----|-------|---------------|------------|---------|----------|-------------|-----|
| 1   | BY    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | BZ    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | CA    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | CB    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | CC    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | CD    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | CE    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | CF    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | CG    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | CH    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | CI    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | CJ    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | CK    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | CL    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | CM    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | CN    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | CO    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | CP    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | CQ    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | CR    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | CS    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | CT    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | CU    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | CV    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | CW    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | CX    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | CY    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | CZ    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | DA    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | DB    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | DC    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |

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| Mol | Chain | Analysed      | Favoured   | Allowed | Outliers | Percentiles |     |
|-----|-------|---------------|------------|---------|----------|-------------|-----|
| 1   | DD    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | DE    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | DF    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | DG    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | DH    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | DI    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | DJ    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | DK    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | DL    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | DM    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | DN    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | DO    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | DP    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | DQ    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | DR    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | DS    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | DT    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | DU    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | DV    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | DW    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | DX    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | DY    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | DZ    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | EA    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | EB    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | EC    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | ED    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | EE    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | EF    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | EG    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | EH    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |

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| Mol | Chain | Analysed      | Favoured   | Allowed | Outliers | Percentiles |     |
|-----|-------|---------------|------------|---------|----------|-------------|-----|
| 1   | EI    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | EJ    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | EK    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | EL    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | EM    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | EN    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | EO    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | EP    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | EQ    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | ER    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | ES    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | ET    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | EU    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | EV    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | EW    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | EX    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | EY    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | EZ    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | FA    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | FB    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | FC    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | FD    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | FE    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | FF    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | FG    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | FH    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | FI    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | FJ    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | FK    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | FL    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | FM    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |

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| Mol | Chain | Analysed      | Favoured   | Allowed | Outliers | Percentiles |     |
|-----|-------|---------------|------------|---------|----------|-------------|-----|
| 1   | FN    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | FO    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | FP    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | FQ    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | FR    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | FS    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | FT    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | FU    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | FV    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | FW    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | FX    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | FY    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | FZ    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | GA    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | GB    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | GC    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | GD    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | GE    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | GF    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | GG    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | GH    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | GI    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | GJ    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | GK    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | GL    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | GM    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | GN    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | GO    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |
| 1   | GP    | 122/124 (98%) | 121 (99%)  | 1 (1%)  | 0        | 100         | 100 |
| 1   | GQ    | 113/124 (91%) | 110 (97%)  | 3 (3%)  | 0        | 100         | 100 |
| 1   | GR    | 122/124 (98%) | 122 (100%) | 0       | 0        | 100         | 100 |

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| Mol | Chain | Analysed          | Favoured    | Allowed  | Outliers | Percentiles |     |
|-----|-------|-------------------|-------------|----------|----------|-------------|-----|
| 1   | GS    | 122/124 (98%)     | 121 (99%)   | 1 (1%)   | 0        | 100         | 100 |
| 1   | GT    | 113/124 (91%)     | 110 (97%)   | 3 (3%)   | 0        | 100         | 100 |
| 1   | GU    | 122/124 (98%)     | 122 (100%)  | 0        | 0        | 100         | 100 |
| 1   | GV    | 122/124 (98%)     | 121 (99%)   | 1 (1%)   | 0        | 100         | 100 |
| 1   | GW    | 113/124 (91%)     | 110 (97%)   | 3 (3%)   | 0        | 100         | 100 |
| 1   | GX    | 122/124 (98%)     | 122 (100%)  | 0        | 0        | 100         | 100 |
| All | All   | 21420/22320 (96%) | 21180 (99%) | 240 (1%) | 0        | 100         | 100 |

There are no Ramachandran outliers to report.

### 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 X-ray entries followed by that with respect to entries of similar resolution.

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   | AA    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | AB    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | AC    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | AD    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | AE    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | AF    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | AG    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | AH    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | AI    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | AJ    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | AK    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | AL    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | AM    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | AN    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | AO    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |

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| Mol | Chain | Analysed       | Rotameric  | Outliers | Percentiles |     |
|-----|-------|----------------|------------|----------|-------------|-----|
| 1   | AP    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | AQ    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | AR    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | AS    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | AT    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | AU    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | AV    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | AW    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | AX    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | AY    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | AZ    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | BA    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | BB    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | BC    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | BD    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | BE    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | BF    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | BG    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | BH    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | BI    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | BJ    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | BK    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | BL    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | BM    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | BN    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | BO    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | BP    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | BQ    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | BR    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | BS    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | BT    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |

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| Mol | Chain | Analysed       | Rotameric  | Outliers | Percentiles |     |
|-----|-------|----------------|------------|----------|-------------|-----|
| 1   | BU    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | BV    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | BW    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | BX    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | BY    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | BZ    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | CA    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | CB    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | CC    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | CD    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | CE    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | CF    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | CG    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | CH    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | CI    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | CJ    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | CK    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | CL    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | CM    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | CN    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | CO    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | CP    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | CQ    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | CR    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | CS    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | CT    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | CU    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | CV    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | CW    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | CX    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | CY    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |

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| Mol | Chain | Analysed       | Rotameric  | Outliers | Percentiles |     |
|-----|-------|----------------|------------|----------|-------------|-----|
| 1   | CZ    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | DA    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | DB    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | DC    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | DD    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | DE    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | DF    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | DG    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | DH    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | DI    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | DJ    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | DK    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | DL    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | DM    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | DN    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | DO    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | DP    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | DQ    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | DR    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | DS    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | DT    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | DU    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | DV    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | DW    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | DX    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | DY    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | DZ    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | EA    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | EB    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | EC    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | ED    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |

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| Mol | Chain | Analysed       | Rotameric  | Outliers | Percentiles |     |
|-----|-------|----------------|------------|----------|-------------|-----|
| 1   | EE    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | EF    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | EG    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | EH    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | EI    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | EJ    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | EK    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | EL    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | EM    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | EN    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | EO    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | EP    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | EQ    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | ER    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | ES    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | ET    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | EU    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | EV    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | EW    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | EX    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | EY    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | EZ    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | FA    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | FB    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | FC    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | FD    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | FE    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | FF    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | FG    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | FH    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | FI    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |

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| Mol | Chain | Analysed       | Rotameric  | Outliers | Percentiles |     |
|-----|-------|----------------|------------|----------|-------------|-----|
| 1   | FJ    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | FK    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | FL    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | FM    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | FN    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | FO    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | FP    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | FQ    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | FR    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | FS    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | FT    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | FU    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | FV    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | FW    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | FX    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | FY    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | FZ    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | GA    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | GB    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | GC    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | GD    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | GE    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | GF    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | GG    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | GH    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | GI    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | GJ    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | GK    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |
| 1   | GL    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | GM    | 107/107 (100%) | 107 (100%) | 0        | 100         | 100 |
| 1   | GN    | 103/107 (96%)  | 102 (99%)  | 1 (1%)   | 76          | 88  |

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| Mol | Chain | Analysed          | Rotameric    | Outliers | Percentiles |     |
|-----|-------|-------------------|--------------|----------|-------------|-----|
| 1   | GO    | 107/107 (100%)    | 107 (100%)   | 0        | 100         | 100 |
| 1   | GP    | 107/107 (100%)    | 107 (100%)   | 0        | 100         | 100 |
| 1   | GQ    | 103/107 (96%)     | 102 (99%)    | 1 (1%)   | 76          | 88  |
| 1   | GR    | 107/107 (100%)    | 107 (100%)   | 0        | 100         | 100 |
| 1   | GS    | 107/107 (100%)    | 107 (100%)   | 0        | 100         | 100 |
| 1   | GT    | 103/107 (96%)     | 102 (99%)    | 1 (1%)   | 76          | 88  |
| 1   | GU    | 107/107 (100%)    | 107 (100%)   | 0        | 100         | 100 |
| 1   | GV    | 107/107 (100%)    | 107 (100%)   | 0        | 100         | 100 |
| 1   | GW    | 103/107 (96%)     | 102 (99%)    | 1 (1%)   | 76          | 88  |
| 1   | GX    | 107/107 (100%)    | 107 (100%)   | 0        | 100         | 100 |
| All | All   | 19020/19260 (99%) | 18960 (100%) | 60 (0%)  | 92          | 96  |

All (60) residues with a non-rotameric sidechain are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | AB    | 22  | GLN  |
| 1   | AE    | 22  | GLN  |
| 1   | AH    | 22  | GLN  |
| 1   | AK    | 22  | GLN  |
| 1   | AN    | 22  | GLN  |
| 1   | AQ    | 22  | GLN  |
| 1   | AT    | 22  | GLN  |
| 1   | AW    | 22  | GLN  |
| 1   | AZ    | 22  | GLN  |
| 1   | BC    | 22  | GLN  |
| 1   | BF    | 22  | GLN  |
| 1   | BI    | 22  | GLN  |
| 1   | BL    | 22  | GLN  |
| 1   | BO    | 22  | GLN  |
| 1   | BR    | 22  | GLN  |
| 1   | BU    | 22  | GLN  |
| 1   | BX    | 22  | GLN  |
| 1   | CA    | 22  | GLN  |
| 1   | CD    | 22  | GLN  |
| 1   | CG    | 22  | GLN  |
| 1   | CJ    | 22  | GLN  |
| 1   | CM    | 22  | GLN  |
| 1   | CP    | 22  | GLN  |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | CS           | 22         | GLN         |
| 1          | CV           | 22         | GLN         |
| 1          | CY           | 22         | GLN         |
| 1          | DB           | 22         | GLN         |
| 1          | DE           | 22         | GLN         |
| 1          | DH           | 22         | GLN         |
| 1          | DK           | 22         | GLN         |
| 1          | DN           | 22         | GLN         |
| 1          | DQ           | 22         | GLN         |
| 1          | DT           | 22         | GLN         |
| 1          | DW           | 22         | GLN         |
| 1          | DZ           | 22         | GLN         |
| 1          | EC           | 22         | GLN         |
| 1          | EF           | 22         | GLN         |
| 1          | EI           | 22         | GLN         |
| 1          | EL           | 22         | GLN         |
| 1          | EO           | 22         | GLN         |
| 1          | ER           | 22         | GLN         |
| 1          | EU           | 22         | GLN         |
| 1          | EX           | 22         | GLN         |
| 1          | FA           | 22         | GLN         |
| 1          | FD           | 22         | GLN         |
| 1          | FG           | 22         | GLN         |
| 1          | FJ           | 22         | GLN         |
| 1          | FM           | 22         | GLN         |
| 1          | FP           | 22         | GLN         |
| 1          | FS           | 22         | GLN         |
| 1          | FV           | 22         | GLN         |
| 1          | FY           | 22         | GLN         |
| 1          | GB           | 22         | GLN         |
| 1          | GE           | 22         | GLN         |
| 1          | GH           | 22         | GLN         |
| 1          | GK           | 22         | GLN         |
| 1          | GN           | 22         | GLN         |
| 1          | GQ           | 22         | GLN         |
| 1          | GT           | 22         | GLN         |
| 1          | GW           | 22         | GLN         |

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (72) such sidechains are listed below:

| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | AE           | 22         | GLN         |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> |
|------------|--------------|------------|-------------|
| 1          | AE           | 47         | GLN         |
| 1          | AH           | 22         | GLN         |
| 1          | AH           | 47         | GLN         |
| 1          | AN           | 22         | GLN         |
| 1          | AN           | 47         | GLN         |
| 1          | AQ           | 47         | GLN         |
| 1          | AT           | 47         | GLN         |
| 1          | AZ           | 47         | GLN         |
| 1          | BC           | 22         | GLN         |
| 1          | BC           | 47         | GLN         |
| 1          | BF           | 47         | GLN         |
| 1          | BI           | 47         | GLN         |
| 1          | BL           | 47         | GLN         |
| 1          | BO           | 22         | GLN         |
| 1          | BO           | 47         | GLN         |
| 1          | BR           | 22         | GLN         |
| 1          | BR           | 47         | GLN         |
| 1          | BU           | 22         | GLN         |
| 1          | BU           | 47         | GLN         |
| 1          | CA           | 22         | GLN         |
| 1          | CA           | 47         | GLN         |
| 1          | CG           | 22         | GLN         |
| 1          | CG           | 47         | GLN         |
| 1          | CJ           | 47         | GLN         |
| 1          | CM           | 47         | GLN         |
| 1          | CV           | 22         | GLN         |
| 1          | CV           | 47         | GLN         |
| 1          | DB           | 47         | GLN         |
| 1          | DH           | 22         | GLN         |
| 1          | DH           | 47         | GLN         |
| 1          | DK           | 47         | GLN         |
| 1          | DN           | 22         | GLN         |
| 1          | DN           | 47         | GLN         |
| 1          | DQ           | 47         | GLN         |
| 1          | DT           | 47         | GLN         |
| 1          | DW           | 22         | GLN         |
| 1          | DW           | 47         | GLN         |
| 1          | EC           | 47         | GLN         |
| 1          | EI           | 22         | GLN         |
| 1          | EI           | 47         | GLN         |
| 1          | EO           | 22         | GLN         |
| 1          | EO           | 47         | GLN         |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | ER    | 22  | GLN  |
| 1   | ER    | 47  | GLN  |
| 1   | EU    | 22  | GLN  |
| 1   | EU    | 47  | GLN  |
| 1   | EX    | 47  | GLN  |
| 1   | FD    | 47  | GLN  |
| 1   | FJ    | 22  | GLN  |
| 1   | FJ    | 47  | GLN  |
| 1   | FM    | 47  | GLN  |
| 1   | FP    | 22  | GLN  |
| 1   | FP    | 47  | GLN  |
| 1   | FR    | 122 | ASN  |
| 1   | FS    | 47  | GLN  |
| 1   | FV    | 47  | GLN  |
| 1   | FY    | 47  | GLN  |
| 1   | GB    | 22  | GLN  |
| 1   | GB    | 47  | GLN  |
| 1   | GE    | 22  | GLN  |
| 1   | GE    | 47  | GLN  |
| 1   | GF    | 47  | GLN  |
| 1   | GH    | 22  | GLN  |
| 1   | GH    | 47  | GLN  |
| 1   | GK    | 22  | GLN  |
| 1   | GK    | 47  | GLN  |
| 1   | GN    | 22  | GLN  |
| 1   | GN    | 47  | GLN  |
| 1   | GQ    | 47  | GLN  |
| 1   | GT    | 47  | GLN  |
| 1   | GW    | 47  | 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 monosaccharides in this entry.

## 5.6 Ligand geometry

Of 60 ligands modelled in this entry, 60 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

## 5.7 Other polymers

There are no such residues in this entry.

## 5.8 Polymer linkage issues

There are no chain breaks in this entry.

## 6 Fit of model and data i

### 6.1 Protein, DNA and RNA chains i

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95<sup>th</sup> percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

| Mol | Chain | Analysed       | <RSRZ> | #RSRZ>2  | OWAB(Å <sup>2</sup> ) | Q<0.9 |
|-----|-------|----------------|--------|--|-----------------------|-------|
| 1   | AA    | 124/124 (100%) | -0.42  | 0 <span style="border: 1px solid blue; padding: 2px;">100</span> <span style="border: 1px solid blue; padding: 2px;">100</span>    | 66, 92, 154, 183      | 0     |
| 1   | AB    | 117/124 (94%)  | -0.41  | 2 (1%) <span style="border: 1px solid blue; padding: 2px;">70</span> <span style="border: 1px solid blue; padding: 2px;">60</span> | 67, 92, 140, 186      | 0     |
| 1   | AC    | 124/124 (100%) | -0.49  | 0 <span style="border: 1px solid blue; padding: 2px;">100</span> <span style="border: 1px solid blue; padding: 2px;">100</span>    | 63, 92, 150, 173      | 0     |
| 1   | AD    | 124/124 (100%) | -0.45  | 1 (0%) <span style="border: 1px solid blue; padding: 2px;">86</span> <span style="border: 1px solid blue; padding: 2px;">80</span> | 66, 92, 154, 183      | 0     |
| 1   | AE    | 117/124 (94%)  | -0.31  | 2 (1%) <span style="border: 1px solid blue; padding: 2px;">70</span> <span style="border: 1px solid blue; padding: 2px;">60</span> | 67, 92, 140, 186      | 0     |
| 1   | AF    | 124/124 (100%) | -0.43  | 0 <span style="border: 1px solid blue; padding: 2px;">100</span> <span style="border: 1px solid blue; padding: 2px;">100</span>    | 63, 92, 150, 173      | 0     |
| 1   | AG    | 124/124 (100%) | -0.41  | 0 <span style="border: 1px solid blue; padding: 2px;">100</span> <span style="border: 1px solid blue; padding: 2px;">100</span>    | 66, 92, 154, 183      | 0     |
| 1   | AH    | 117/124 (94%)  | -0.30  | 1 (0%) <span style="border: 1px solid blue; padding: 2px;">84</span> <span style="border: 1px solid blue; padding: 2px;">78</span> | 67, 92, 140, 186      | 0     |
| 1   | AI    | 124/124 (100%) | -0.56  | 0 <span style="border: 1px solid blue; padding: 2px;">100</span> <span style="border: 1px solid blue; padding: 2px;">100</span>    | 63, 92, 150, 173      | 0     |
| 1   | AJ    | 124/124 (100%) | -0.61  | 0 <span style="border: 1px solid blue; padding: 2px;">100</span> <span style="border: 1px solid blue; padding: 2px;">100</span>    | 66, 92, 154, 183      | 0     |
| 1   | AK    | 117/124 (94%)  | -0.43  | 1 (0%) <span style="border: 1px solid blue; padding: 2px;">84</span> <span style="border: 1px solid blue; padding: 2px;">78</span> | 67, 92, 140, 186      | 0     |
| 1   | AL    | 124/124 (100%) | -0.53  | 0 <span style="border: 1px solid blue; padding: 2px;">100</span> <span style="border: 1px solid blue; padding: 2px;">100</span>    | 63, 92, 150, 173      | 0     |
| 1   | AM    | 124/124 (100%) | -0.37  | 0 <span style="border: 1px solid blue; padding: 2px;">100</span> <span style="border: 1px solid blue; padding: 2px;">100</span>    | 66, 92, 154, 183      | 0     |
| 1   | AN    | 117/124 (94%)  | -0.27  | 0 <span style="border: 1px solid blue; padding: 2px;">100</span> <span style="border: 1px solid blue; padding: 2px;">100</span>    | 67, 92, 140, 186      | 0     |
| 1   | AO    | 124/124 (100%) | -0.40  | 0 <span style="border: 1px solid blue; padding: 2px;">100</span> <span style="border: 1px solid blue; padding: 2px;">100</span>    | 63, 92, 150, 173      | 0     |
| 1   | AP    | 124/124 (100%) | -0.41  | 0 <span style="border: 1px solid blue; padding: 2px;">100</span> <span style="border: 1px solid blue; padding: 2px;">100</span>    | 66, 92, 154, 183      | 0     |
| 1   | AQ    | 117/124 (94%)  | -0.39  | 1 (0%) <span style="border: 1px solid blue; padding: 2px;">84</span> <span style="border: 1px solid blue; padding: 2px;">78</span> | 67, 92, 140, 186      | 0     |
| 1   | AR    | 124/124 (100%) | -0.47  | 0 <span style="border: 1px solid blue; padding: 2px;">100</span> <span style="border: 1px solid blue; padding: 2px;">100</span>    | 63, 92, 150, 173      | 0     |
| 1   | AS    | 124/124 (100%) | -0.40  | 0 <span style="border: 1px solid blue; padding: 2px;">100</span> <span style="border: 1px solid blue; padding: 2px;">100</span>    | 66, 92, 154, 183      | 0     |
| 1   | AT    | 117/124 (94%)  | -0.41  | 1 (0%) <span style="border: 1px solid blue; padding: 2px;">84</span> <span style="border: 1px solid blue; padding: 2px;">78</span> | 67, 92, 140, 186      | 0     |
| 1   | AU    | 124/124 (100%) | -0.40  | 0 <span style="border: 1px solid blue; padding: 2px;">100</span> <span style="border: 1px solid blue; padding: 2px;">100</span>    | 63, 92, 150, 173      | 0     |
| 1   | AV    | 124/124 (100%) | -0.34  | 1 (0%) <span style="border: 1px solid blue; padding: 2px;">86</span> <span style="border: 1px solid blue; padding: 2px;">80</span> | 66, 92, 154, 183      | 0     |
| 1   | AW    | 117/124 (94%)  | -0.34  | 2 (1%) <span style="border: 1px solid blue; padding: 2px;">70</span> <span style="border: 1px solid blue; padding: 2px;">60</span> | 67, 92, 140, 186      | 0     |
| 1   | AX    | 124/124 (100%) | -0.36  | 0 <span style="border: 1px solid blue; padding: 2px;">100</span> <span style="border: 1px solid blue; padding: 2px;">100</span>    | 63, 92, 150, 173      | 0     |

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| Mol | Chain | Analysed       | <RSRZ> | #RSRZ>2      | OWAB(Å <sup>2</sup> ) | Q<0.9 |
|-----|-------|----------------|--------|--------------|-----------------------|-------|
| 1   | AY    | 124/124 (100%) | -0.33  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | AZ    | 117/124 (94%)  | -0.24  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | BA    | 124/124 (100%) | -0.45  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | BB    | 124/124 (100%) | -0.54  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | BC    | 117/124 (94%)  | -0.36  | 0 100 100    | 67, 92, 140, 186      | 0     |
| 1   | BD    | 124/124 (100%) | -0.52  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | BE    | 124/124 (100%) | -0.50  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | BF    | 117/124 (94%)  | -0.32  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | BG    | 124/124 (100%) | -0.44  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | BH    | 124/124 (100%) | -0.36  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | BI    | 117/124 (94%)  | -0.35  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | BJ    | 124/124 (100%) | -0.40  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | BK    | 124/124 (100%) | -0.34  | 2 (1%) 72 63 | 66, 92, 154, 183      | 0     |
| 1   | BL    | 117/124 (94%)  | -0.29  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | BM    | 124/124 (100%) | -0.49  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | BN    | 124/124 (100%) | -0.56  | 1 (0%) 86 80 | 66, 92, 154, 183      | 0     |
| 1   | BO    | 117/124 (94%)  | -0.33  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | BP    | 124/124 (100%) | -0.44  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | BQ    | 124/124 (100%) | -0.58  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | BR    | 117/124 (94%)  | -0.40  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | BS    | 124/124 (100%) | -0.52  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | BT    | 124/124 (100%) | -0.28  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | BU    | 117/124 (94%)  | -0.23  | 0 100 100    | 67, 92, 140, 186      | 0     |
| 1   | BV    | 124/124 (100%) | -0.36  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | BW    | 124/124 (100%) | -0.54  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | BX    | 117/124 (94%)  | -0.29  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | BY    | 124/124 (100%) | -0.61  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | BZ    | 124/124 (100%) | -0.38  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | CA    | 117/124 (94%)  | -0.28  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | CB    | 124/124 (100%) | -0.37  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | CC    | 124/124 (100%) | -0.42  | 0 100 100    | 66, 92, 154, 183      | 0     |

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| Mol | Chain | Analysed       | <RSRZ> | #RSRZ>2      | OWAB(Å <sup>2</sup> ) | Q<0.9 |
|-----|-------|----------------|--------|--------------|-----------------------|-------|
| 1   | CD    | 117/124 (94%)  | -0.36  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | CE    | 124/124 (100%) | -0.39  | 1 (0%) 86 80 | 63, 92, 150, 173      | 0     |
| 1   | CF    | 124/124 (100%) | -0.39  | 1 (0%) 86 80 | 66, 92, 154, 183      | 0     |
| 1   | CG    | 117/124 (94%)  | -0.28  | 3 (2%) 56 44 | 67, 92, 140, 186      | 0     |
| 1   | CH    | 124/124 (100%) | -0.48  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | CI    | 124/124 (100%) | -0.31  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | CJ    | 117/124 (94%)  | -0.27  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | CK    | 124/124 (100%) | -0.37  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | CL    | 124/124 (100%) | -0.45  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | CM    | 117/124 (94%)  | -0.41  | 4 (3%) 45 33 | 67, 92, 140, 186      | 0     |
| 1   | CN    | 124/124 (100%) | -0.53  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | CO    | 124/124 (100%) | -0.50  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | CP    | 117/124 (94%)  | -0.43  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | CQ    | 124/124 (100%) | -0.54  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | CR    | 124/124 (100%) | -0.37  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | CS    | 117/124 (94%)  | -0.42  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | CT    | 124/124 (100%) | -0.44  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | CU    | 124/124 (100%) | -0.41  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | CV    | 117/124 (94%)  | -0.28  | 2 (1%) 70 60 | 67, 92, 140, 186      | 0     |
| 1   | CW    | 124/124 (100%) | -0.54  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | CX    | 124/124 (100%) | -0.47  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | CY    | 117/124 (94%)  | -0.38  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | CZ    | 124/124 (100%) | -0.36  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | DA    | 124/124 (100%) | -0.45  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | DB    | 117/124 (94%)  | -0.32  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | DC    | 124/124 (100%) | -0.40  | 1 (0%) 86 80 | 63, 92, 150, 173      | 0     |
| 1   | DD    | 124/124 (100%) | -0.48  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | DE    | 117/124 (94%)  | -0.38  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | DF    | 124/124 (100%) | -0.52  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | DG    | 124/124 (100%) | -0.49  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | DH    | 117/124 (94%)  | -0.36  | 0 100 100    | 67, 92, 140, 186      | 0     |

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| Mol | Chain | Analysed       | <RSRZ> | #RSRZ>2      | OWAB(Å <sup>2</sup> ) | Q<0.9 |
|-----|-------|----------------|--------|--------------|-----------------------|-------|
| 1   | DI    | 124/124 (100%) | -0.50  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | DJ    | 124/124 (100%) | -0.52  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | DK    | 117/124 (94%)  | -0.42  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | DL    | 124/124 (100%) | -0.57  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | DM    | 124/124 (100%) | -0.38  | 1 (0%) 86 80 | 66, 92, 154, 183      | 0     |
| 1   | DN    | 117/124 (94%)  | -0.25  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | DO    | 124/124 (100%) | -0.49  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | DP    | 124/124 (100%) | -0.44  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | DQ    | 117/124 (94%)  | -0.52  | 2 (1%) 70 60 | 67, 92, 140, 186      | 0     |
| 1   | DR    | 124/124 (100%) | -0.48  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | DS    | 124/124 (100%) | -0.48  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | DT    | 117/124 (94%)  | -0.26  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | DU    | 124/124 (100%) | -0.56  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | DV    | 124/124 (100%) | -0.32  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | DW    | 117/124 (94%)  | -0.17  | 0 100 100    | 67, 92, 140, 186      | 0     |
| 1   | DX    | 124/124 (100%) | -0.34  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | DY    | 124/124 (100%) | -0.60  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | DZ    | 117/124 (94%)  | -0.37  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | EA    | 124/124 (100%) | -0.46  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | EB    | 124/124 (100%) | -0.41  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | EC    | 117/124 (94%)  | -0.38  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | ED    | 124/124 (100%) | -0.53  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | EE    | 124/124 (100%) | -0.33  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | EF    | 117/124 (94%)  | -0.35  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | EG    | 124/124 (100%) | -0.28  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | EH    | 124/124 (100%) | -0.41  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | EI    | 117/124 (94%)  | -0.15  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | EJ    | 124/124 (100%) | -0.46  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | EK    | 124/124 (100%) | -0.38  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | EL    | 117/124 (94%)  | -0.35  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | EM    | 124/124 (100%) | -0.50  | 0 100 100    | 63, 92, 150, 173      | 0     |

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| Mol | Chain | Analysed       | <RSRZ> | #RSRZ>2      | OWAB(Å <sup>2</sup> ) | Q<0.9 |
|-----|-------|----------------|--------|--------------|-----------------------|-------|
| 1   | EN    | 124/124 (100%) | -0.32  | 1 (0%) 86 80 | 66, 92, 154, 183      | 0     |
| 1   | EO    | 117/124 (94%)  | -0.34  | 0 100 100    | 67, 92, 140, 186      | 0     |
| 1   | EP    | 124/124 (100%) | -0.54  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | EQ    | 124/124 (100%) | -0.46  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | ER    | 117/124 (94%)  | -0.11  | 3 (2%) 56 44 | 67, 92, 140, 186      | 0     |
| 1   | ES    | 124/124 (100%) | -0.32  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | ET    | 124/124 (100%) | -0.38  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | EU    | 117/124 (94%)  | -0.30  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | EV    | 124/124 (100%) | -0.37  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | EW    | 124/124 (100%) | -0.44  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | EX    | 117/124 (94%)  | -0.44  | 2 (1%) 70 60 | 67, 92, 140, 186      | 0     |
| 1   | EY    | 124/124 (100%) | -0.48  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | EZ    | 124/124 (100%) | -0.48  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | FA    | 117/124 (94%)  | -0.37  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | FB    | 124/124 (100%) | -0.47  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | FC    | 124/124 (100%) | -0.49  | 1 (0%) 86 80 | 66, 92, 154, 183      | 0     |
| 1   | FD    | 117/124 (94%)  | -0.34  | 0 100 100    | 67, 92, 140, 186      | 0     |
| 1   | FE    | 124/124 (100%) | -0.53  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | FF    | 124/124 (100%) | -0.51  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | FG    | 117/124 (94%)  | -0.32  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | FH    | 124/124 (100%) | -0.46  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | FI    | 124/124 (100%) | -0.51  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | FJ    | 117/124 (94%)  | -0.36  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | FK    | 124/124 (100%) | -0.56  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | FL    | 124/124 (100%) | -0.50  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | FM    | 117/124 (94%)  | -0.40  | 0 100 100    | 67, 92, 140, 186      | 0     |
| 1   | FN    | 124/124 (100%) | -0.51  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | FO    | 124/124 (100%) | -0.48  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | FP    | 117/124 (94%)  | -0.39  | 0 100 100    | 67, 92, 140, 186      | 0     |
| 1   | FQ    | 124/124 (100%) | -0.29  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | FR    | 124/124 (100%) | -0.38  | 0 100 100    | 66, 92, 154, 183      | 0     |

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| Mol | Chain | Analysed       | <RSRZ> | #RSRZ>2      | OWAB(Å <sup>2</sup> ) | Q<0.9 |
|-----|-------|----------------|--------|--------------|-----------------------|-------|
| 1   | FS    | 117/124 (94%)  | -0.49  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | FT    | 124/124 (100%) | -0.52  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | FU    | 124/124 (100%) | -0.47  | 1 (0%) 86 80 | 66, 92, 154, 183      | 0     |
| 1   | FV    | 117/124 (94%)  | -0.34  | 5 (4%) 35 25 | 67, 92, 140, 186      | 0     |
| 1   | FW    | 124/124 (100%) | -0.50  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | FX    | 124/124 (100%) | -0.52  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | FY    | 117/124 (94%)  | -0.45  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | FZ    | 124/124 (100%) | -0.55  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | GA    | 124/124 (100%) | -0.31  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | GB    | 117/124 (94%)  | -0.29  | 0 100 100    | 67, 92, 140, 186      | 0     |
| 1   | GC    | 124/124 (100%) | -0.40  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | GD    | 124/124 (100%) | -0.39  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | GE    | 117/124 (94%)  | -0.22  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | GF    | 124/124 (100%) | -0.38  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | GG    | 124/124 (100%) | -0.49  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | GH    | 117/124 (94%)  | -0.14  | 5 (4%) 35 25 | 67, 92, 140, 186      | 0     |
| 1   | GI    | 124/124 (100%) | -0.51  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | GJ    | 124/124 (100%) | -0.40  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | GK    | 117/124 (94%)  | -0.40  | 0 100 100    | 67, 92, 140, 186      | 0     |
| 1   | GL    | 124/124 (100%) | -0.26  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | GM    | 124/124 (100%) | -0.30  | 1 (0%) 86 80 | 66, 92, 154, 183      | 0     |
| 1   | GN    | 117/124 (94%)  | -0.29  | 0 100 100    | 67, 92, 140, 186      | 0     |
| 1   | GO    | 124/124 (100%) | -0.46  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | GP    | 124/124 (100%) | -0.52  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | GQ    | 117/124 (94%)  | -0.34  | 3 (2%) 56 44 | 67, 92, 140, 186      | 0     |
| 1   | GR    | 124/124 (100%) | -0.50  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | GS    | 124/124 (100%) | -0.41  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | GT    | 117/124 (94%)  | -0.23  | 1 (0%) 84 78 | 67, 92, 140, 186      | 0     |
| 1   | GU    | 124/124 (100%) | -0.38  | 0 100 100    | 63, 92, 150, 173      | 0     |
| 1   | GV    | 124/124 (100%) | -0.45  | 0 100 100    | 66, 92, 154, 183      | 0     |
| 1   | GW    | 117/124 (94%)  | -0.46  | 0 100 100    | 67, 92, 140, 186      | 0     |

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| Mol | Chain | Analysed          | <RSRZ> | #RSRZ>2       | OWAB(Å <sup>2</sup> ) | Q<0.9 |
|-----|-------|-------------------|--------|---------------|-----------------------|-------|
| 1   | GX    | 124/124 (100%)    | -0.50  | 0 100 100     | 63, 92, 150, 173      | 0     |
| All | All   | 21900/22320 (98%) | -0.41  | 83 (0%) 92 90 | 63, 92, 152, 186      | 0     |

All (83) RSRZ outliers are listed below:

| Mol | Chain | Res | Type | RSRZ |
|-----|-------|-----|------|------|
| 1   | FG    | 68  | VAL  | 6.2  |
| 1   | AE    | 68  | VAL  | 5.3  |
| 1   | GQ    | 68  | VAL  | 5.3  |
| 1   | GH    | 68  | VAL  | 5.2  |
| 1   | EF    | 68  | VAL  | 5.1  |
| 1   | EX    | 68  | VAL  | 5.0  |
| 1   | AW    | 68  | VAL  | 5.0  |
| 1   | CA    | 68  | VAL  | 4.8  |
| 1   | BF    | 68  | VAL  | 4.5  |
| 1   | DE    | 68  | VAL  | 4.1  |
| 1   | FV    | 68  | VAL  | 4.1  |
| 1   | BR    | 68  | VAL  | 4.0  |
| 1   | CY    | 68  | VAL  | 3.9  |
| 1   | EC    | 68  | VAL  | 3.9  |
| 1   | BL    | 68  | VAL  | 3.7  |
| 1   | DZ    | 68  | VAL  | 3.6  |
| 1   | DC    | 71  | ALA  | 3.6  |
| 1   | CV    | 68  | VAL  | 3.6  |
| 1   | BI    | 68  | VAL  | 3.5  |
| 1   | FJ    | 68  | VAL  | 3.4  |
| 1   | ER    | 68  | VAL  | 3.4  |
| 1   | GH    | 78  | ILE  | 3.4  |
| 1   | GH    | 76  | MET  | 3.3  |
| 1   | FY    | 68  | VAL  | 3.2  |
| 1   | FV    | 77  | THR  | 3.2  |
| 1   | GE    | 68  | VAL  | 3.2  |
| 1   | CG    | 68  | VAL  | 3.1  |
| 1   | CV    | 67  | VAL  | 3.1  |
| 1   | FS    | 68  | VAL  | 3.0  |
| 1   | GH    | 67  | VAL  | 3.0  |
| 1   | CM    | 68  | VAL  | 3.0  |
| 1   | GT    | 68  | VAL  | 2.9  |
| 1   | AK    | 68  | VAL  | 2.9  |
| 1   | DT    | 68  | VAL  | 2.9  |
| 1   | AE    | 67  | VAL  | 2.8  |
| 1   | AZ    | 68  | VAL  | 2.8  |

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| <b>Mol</b> | <b>Chain</b> | <b>Res</b> | <b>Type</b> | <b>RSRZ</b> |
|------------|--------------|------------|-------------|-------------|
| 1          | AB           | 68         | VAL         | 2.7         |
| 1          | CD           | 68         | VAL         | 2.7         |
| 1          | EU           | 68         | VAL         | 2.7         |
| 1          | DQ           | 53         | ASN         | 2.7         |
| 1          | ER           | 77         | THR         | 2.7         |
| 1          | BN           | 53         | ASN         | 2.7         |
| 1          | AV           | 71         | ALA         | 2.7         |
| 1          | DQ           | 68         | VAL         | 2.6         |
| 1          | FV           | 78         | ILE         | 2.6         |
| 1          | CS           | 68         | VAL         | 2.6         |
| 1          | EI           | 68         | VAL         | 2.6         |
| 1          | GQ           | 77         | THR         | 2.5         |
| 1          | BO           | 68         | VAL         | 2.5         |
| 1          | DB           | 68         | VAL         | 2.5         |
| 1          | EN           | 53         | ASN         | 2.5         |
| 1          | BX           | 68         | VAL         | 2.5         |
| 1          | AH           | 68         | VAL         | 2.4         |
| 1          | ER           | 53         | ASN         | 2.4         |
| 1          | FV           | 79         | LYS         | 2.4         |
| 1          | GM           | 52         | ALA         | 2.4         |
| 1          | BK           | 71         | ALA         | 2.4         |
| 1          | CM           | 66         | VAL         | 2.3         |
| 1          | FA           | 68         | VAL         | 2.3         |
| 1          | CM           | 67         | VAL         | 2.3         |
| 1          | AB           | 53         | ASN         | 2.3         |
| 1          | CF           | 53         | ASN         | 2.3         |
| 1          | CG           | 77         | THR         | 2.3         |
| 1          | FU           | 53         | ASN         | 2.3         |
| 1          | GH           | 77         | THR         | 2.3         |
| 1          | AT           | 68         | VAL         | 2.3         |
| 1          | CM           | 76         | MET         | 2.3         |
| 1          | CG           | 76         | MET         | 2.2         |
| 1          | AQ           | 68         | VAL         | 2.2         |
| 1          | DN           | 68         | VAL         | 2.2         |
| 1          | CE           | 49         | PHE         | 2.1         |
| 1          | CJ           | 68         | VAL         | 2.1         |
| 1          | CP           | 53         | ASN         | 2.1         |
| 1          | DM           | 53         | ASN         | 2.1         |
| 1          | AW           | 67         | VAL         | 2.1         |
| 1          | EX           | 77         | THR         | 2.1         |
| 1          | BK           | 53         | ASN         | 2.1         |
| 1          | FV           | 76         | MET         | 2.1         |

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| Mol | Chain | Res | Type | RSRZ |
|-----|-------|-----|------|------|
| 1   | GQ    | 78  | ILE  | 2.0  |
| 1   | AD    | 53  | ASN  | 2.0  |
| 1   | FC    | 53  | ASN  | 2.0  |
| 1   | DK    | 68  | VAL  | 2.0  |
| 1   | EL    | 68  | VAL  | 2.0  |

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

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

## 6.3 Carbohydrates [i](#)

There are no monosaccharides in this entry.

## 6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95<sup>th</sup> percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

| Mol | Type | Chain | Res | Atoms | RSCC | RSR  | B-factors(Å <sup>2</sup> ) | Q<0.9 |
|-----|------|-------|-----|-------|------|------|----------------------------|-------|
| 2   | CA   | GA    | 201 | 1/1   | 0.71 | 0.14 | 64,64,64,64                | 0     |
| 2   | CA   | BT    | 201 | 1/1   | 0.81 | 0.13 | 64,64,64,64                | 0     |
| 2   | CA   | BE    | 201 | 1/1   | 0.86 | 0.14 | 64,64,64,64                | 0     |
| 2   | CA   | EH    | 201 | 1/1   | 0.87 | 0.10 | 64,64,64,64                | 0     |
| 2   | CA   | DG    | 201 | 1/1   | 0.88 | 0.17 | 64,64,64,64                | 0     |
| 2   | CA   | EN    | 201 | 1/1   | 0.88 | 0.09 | 64,64,64,64                | 0     |
| 2   | CA   | BK    | 201 | 1/1   | 0.90 | 0.07 | 64,64,64,64                | 0     |
| 2   | CA   | AG    | 201 | 1/1   | 0.90 | 0.18 | 64,64,64,64                | 0     |
| 2   | CA   | FO    | 201 | 1/1   | 0.91 | 0.14 | 64,64,64,64                | 0     |
| 2   | CA   | DM    | 201 | 1/1   | 0.91 | 0.15 | 64,64,64,64                | 0     |
| 2   | CA   | GM    | 201 | 1/1   | 0.92 | 0.06 | 64,64,64,64                | 0     |
| 2   | CA   | EQ    | 201 | 1/1   | 0.92 | 0.14 | 64,64,64,64                | 0     |
| 2   | CA   | AV    | 201 | 1/1   | 0.92 | 0.20 | 64,64,64,64                | 0     |
| 2   | CA   | AD    | 201 | 1/1   | 0.92 | 0.11 | 64,64,64,64                | 0     |
| 2   | CA   | GD    | 201 | 1/1   | 0.93 | 0.18 | 64,64,64,64                | 0     |
| 2   | CA   | FX    | 201 | 1/1   | 0.93 | 0.18 | 64,64,64,64                | 0     |
| 2   | CA   | EE    | 201 | 1/1   | 0.93 | 0.09 | 64,64,64,64                | 0     |
| 2   | CA   | DJ    | 201 | 1/1   | 0.93 | 0.12 | 64,64,64,64                | 0     |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR  | B-factors( $\text{\AA}^2$ ) | Q<0.9 |
|-----|------|-------|-----|-------|------|------|-----------------------------|-------|
| 2   | CA   | DD    | 201 | 1/1   | 0.94 | 0.16 | 64,64,64,64                 | 0     |
| 2   | CA   | CI    | 201 | 1/1   | 0.94 | 0.15 | 64,64,64,64                 | 0     |
| 2   | CA   | FI    | 201 | 1/1   | 0.94 | 0.10 | 64,64,64,64                 | 0     |
| 2   | CA   | AY    | 201 | 1/1   | 0.94 | 0.12 | 64,64,64,64                 | 0     |
| 2   | CA   | FC    | 201 | 1/1   | 0.94 | 0.18 | 64,64,64,64                 | 0     |
| 2   | CA   | AP    | 201 | 1/1   | 0.95 | 0.09 | 64,64,64,64                 | 0     |
| 2   | CA   | BZ    | 201 | 1/1   | 0.95 | 0.14 | 64,64,64,64                 | 0     |
| 2   | CA   | BH    | 201 | 1/1   | 0.95 | 0.10 | 64,64,64,64                 | 0     |
| 2   | CA   | GG    | 201 | 1/1   | 0.95 | 0.13 | 64,64,64,64                 | 0     |
| 2   | CA   | BN    | 201 | 1/1   | 0.95 | 0.14 | 64,64,64,64                 | 0     |
| 2   | CA   | GS    | 201 | 1/1   | 0.95 | 0.15 | 64,64,64,64                 | 0     |
| 2   | CA   | EK    | 201 | 1/1   | 0.95 | 0.11 | 64,64,64,64                 | 0     |
| 2   | CA   | ET    | 201 | 1/1   | 0.95 | 0.12 | 64,64,64,64                 | 0     |
| 2   | CA   | AS    | 201 | 1/1   | 0.95 | 0.15 | 64,64,64,64                 | 0     |
| 2   | CA   | CL    | 201 | 1/1   | 0.95 | 0.14 | 64,64,64,64                 | 0     |
| 2   | CA   | CX    | 201 | 1/1   | 0.96 | 0.13 | 64,64,64,64                 | 0     |
| 2   | CA   | DY    | 201 | 1/1   | 0.96 | 0.15 | 64,64,64,64                 | 0     |
| 2   | CA   | CO    | 201 | 1/1   | 0.96 | 0.12 | 64,64,64,64                 | 0     |
| 2   | CA   | DS    | 201 | 1/1   | 0.96 | 0.15 | 64,64,64,64                 | 0     |
| 2   | CA   | GV    | 201 | 1/1   | 0.97 | 0.13 | 64,64,64,64                 | 0     |
| 2   | CA   | GJ    | 201 | 1/1   | 0.97 | 0.11 | 64,64,64,64                 | 0     |
| 2   | CA   | BW    | 201 | 1/1   | 0.97 | 0.08 | 64,64,64,64                 | 0     |
| 2   | CA   | EZ    | 201 | 1/1   | 0.97 | 0.12 | 64,64,64,64                 | 0     |
| 2   | CA   | AM    | 201 | 1/1   | 0.97 | 0.07 | 64,64,64,64                 | 0     |
| 2   | CA   | EW    | 201 | 1/1   | 0.97 | 0.10 | 64,64,64,64                 | 0     |
| 2   | CA   | CR    | 201 | 1/1   | 0.97 | 0.20 | 64,64,64,64                 | 0     |
| 2   | CA   | AJ    | 201 | 1/1   | 0.97 | 0.17 | 64,64,64,64                 | 0     |
| 2   | CA   | FR    | 201 | 1/1   | 0.97 | 0.11 | 64,64,64,64                 | 0     |
| 2   | CA   | BQ    | 201 | 1/1   | 0.98 | 0.12 | 64,64,64,64                 | 0     |
| 2   | CA   | FF    | 201 | 1/1   | 0.98 | 0.21 | 64,64,64,64                 | 0     |
| 2   | CA   | GP    | 201 | 1/1   | 0.98 | 0.14 | 64,64,64,64                 | 0     |
| 2   | CA   | CC    | 201 | 1/1   | 0.98 | 0.11 | 64,64,64,64                 | 0     |
| 2   | CA   | DP    | 201 | 1/1   | 0.98 | 0.14 | 64,64,64,64                 | 0     |
| 2   | CA   | FU    | 201 | 1/1   | 0.98 | 0.14 | 64,64,64,64                 | 0     |
| 2   | CA   | DV    | 201 | 1/1   | 0.98 | 0.11 | 64,64,64,64                 | 0     |
| 2   | CA   | FL    | 201 | 1/1   | 0.98 | 0.18 | 64,64,64,64                 | 0     |
| 2   | CA   | BB    | 201 | 1/1   | 0.98 | 0.12 | 64,64,64,64                 | 0     |
| 2   | CA   | DA    | 201 | 1/1   | 0.98 | 0.20 | 64,64,64,64                 | 0     |
| 2   | CA   | CF    | 201 | 1/1   | 0.99 | 0.05 | 64,64,64,64                 | 0     |
| 2   | CA   | EB    | 201 | 1/1   | 0.99 | 0.10 | 64,64,64,64                 | 0     |
| 2   | CA   | AA    | 201 | 1/1   | 0.99 | 0.11 | 64,64,64,64                 | 0     |
| 2   | CA   | CU    | 201 | 1/1   | 0.99 | 0.14 | 64,64,64,64                 | 0     |

## 6.5 Other polymers

There are no such residues in this entry.