



Full wwPDB NMR Structure Validation Report ⓘ

Jun 3, 2023 – 04:12 PM EDT

PDB ID : 7JGI
BMRB ID : 30774
Title : NMR structure of the cNTnC-cTnI chimera bound to A7
Authors : Cai, F.; Robertson, I.M.; Kampourakis, T.; Klein, B.A.; Sykes, B.D.
Deposited on : 2020-07-19

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
wwPDB-RCI : v_1n_11_5_13_A (Berjanski et al., 2005)
PANAV : Wang et al. (2010)
wwPDB-ShiftChecker : v1.2
BMRB Restraints Analysis : v1.2
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.33

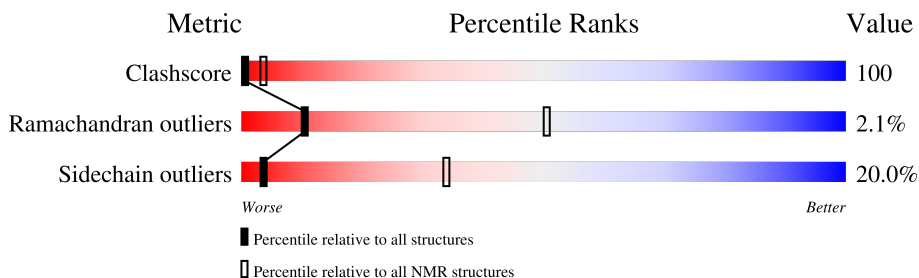
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

SOLUTION NMR

The overall completeness of chemical shifts assignment is 92%.

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



| Metric | Whole archive (#Entries) | NMR archive (#Entries) |
|-----------------------|--------------------------|------------------------|
| Clashscore | 158937 | 12864 |
| Ramachandran outliers | 154571 | 11451 |
| Sidechain outliers | 154315 | 11428 |

The table below summarises the geometric issues observed across the polymeric chains and their fit to the experimental data. The red, orange, yellow and green segments indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. A cyan segment indicates the fraction of residues that are not part of the well-defined cores, and 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 $\leq 5\%$

| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 1 | A | 125 | |

2 Ensemble composition and analysis

This entry contains 10 models. Model 3 is the overall representative, medoid model (most similar to other models). The authors have identified model 1 as representative, based on the following criterion: *lowest energy*.

The following residues are included in the computation of the global validation metrics.

| Well-defined (core) protein residues | | | |
|--------------------------------------|----------------------------|-------------------|--------------|
| Well-defined core | Residue range (total) | Backbone RMSD (Å) | Medoid model |
| 1 | A:4-A:82, A:148-A:158 (90) | 0.45 | 3 |

Ill-defined regions of proteins are excluded from the global statistics.

Ligands and non-protein polymers are included in the analysis.

The models can be grouped into 2 clusters and 3 single-model clusters were found.

| Cluster number | Models |
|-----------------------|----------------|
| 1 | 2, 3, 5, 6, 10 |
| 2 | 4, 7 |
| Single-model clusters | 1; 8; 9 |

3 Entry composition

There are 3 unique types of molecules in this entry. The entry contains 2003 atoms, of which 989 are hydrogens and 0 are deuteriums.

- Molecule 1 is a protein called Troponin C, slow skeletal and cardiac muscles, Troponin I, cardiac muscle chimera.

| Mol | Chain | Residues | Atoms | | | | | Trace | |
|-----|-------|----------|-------|-----|-----|-----|-----|-------|---|
| | | | Total | C | H | N | O | | S |
| 1 | A | 125 | 1959 | 612 | 970 | 175 | 193 | 9 | 0 |

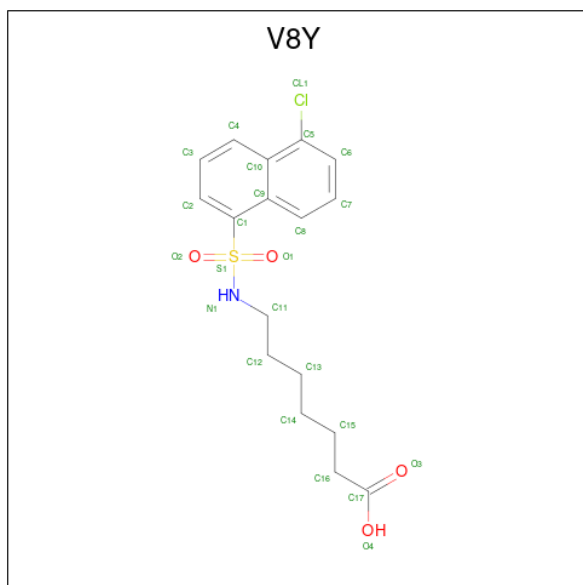
There are 9 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|---------------------|------------|
| A | 35 | SER | CYS | engineered mutation | UNP P63316 |
| A | 84 | SER | CYS | engineered mutation | UNP P63316 |
| A | 164 | GLY | - | expression tag | UNP P19429 |
| A | 165 | HIS | - | expression tag | UNP P19429 |
| A | 166 | HIS | - | expression tag | UNP P19429 |
| A | 167 | HIS | - | expression tag | UNP P19429 |
| A | 168 | HIS | - | expression tag | UNP P19429 |
| A | 169 | HIS | - | expression tag | UNP P19429 |
| A | 170 | HIS | - | expression tag | UNP P19429 |

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

| Mol | Chain | Residues | Atoms | |
|-----|-------|----------|-------|----|
| | | | Total | Ca |
| 2 | A | 1 | 1 | 1 |

- Molecule 3 is 7-[[5-chloronaphthalen-1-yl)sulfonyl]amino}heptanoic acid (three-letter code: V8Y) (formula: C₁₇H₂₀ClNO₄S) (labeled as "Ligand of Interest" by depositor).



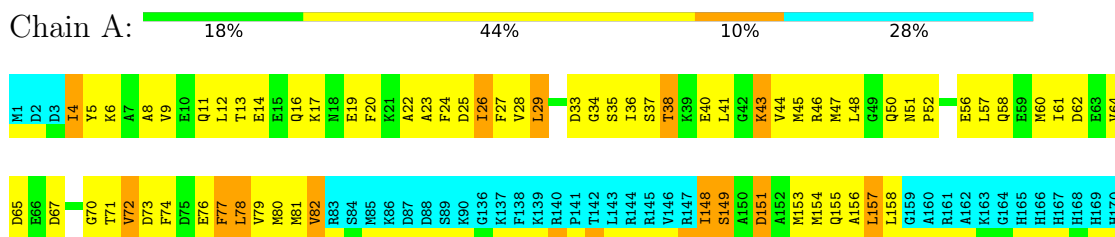
| Mol | Chain | Residues | Atoms | | | | | | |
|-----|-------|----------|-------|----|----|----|---|---|---|
| | | | Total | C | Cl | H | N | O | S |
| 3 | A | 1 | 43 | 17 | 1 | 19 | 1 | 4 | 1 |

4 Residue-property plots

4.1 Average score per residue in the NMR ensemble

These plots are provided for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic is the same as shown in the summary in section 1 of this report. The second graphic shows the sequence where residues are colour-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. Stretches of 2 or more consecutive residues without any outliers are shown as green connectors. Residues which are classified as ill-defined in the NMR ensemble, are shown in cyan with an underline colour-coded according to the previous scheme. Residues which were present in the experimental sample, but not modelled in the final structure are shown in grey.

- Molecule 1: Troponin C, slow skeletal and cardiac muscles, Troponin I, cardiac muscle chimera

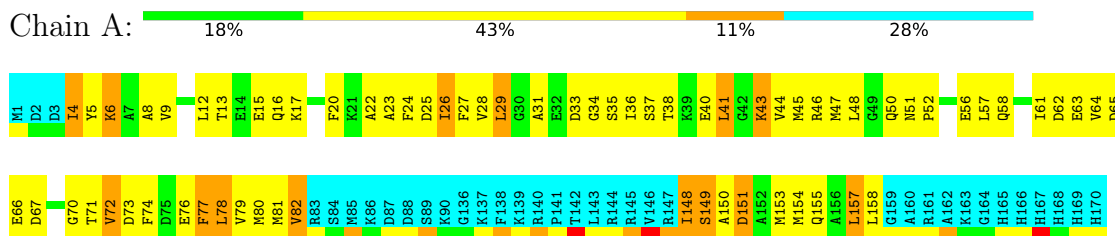


4.2 Scores per residue for each member of the ensemble

Colouring as in section 4.1 above.

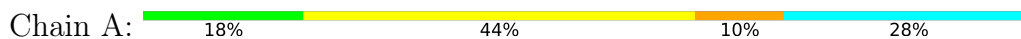
4.2.1 Score per residue for model 1

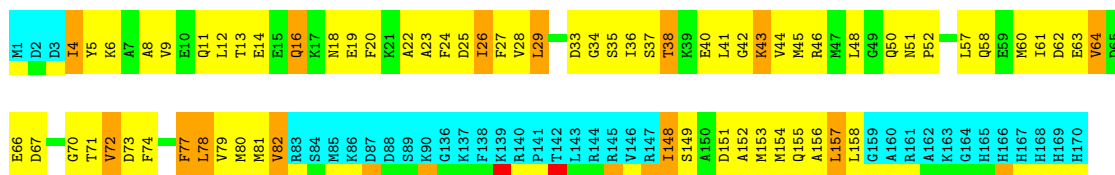
- Molecule 1: Troponin C, slow skeletal and cardiac muscles, Troponin I, cardiac muscle chimera



4.2.2 Score per residue for model 2

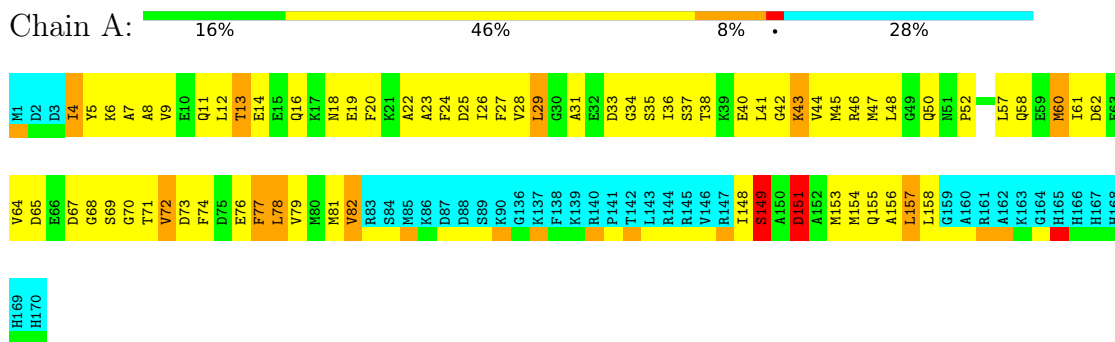
- Molecule 1: Troponin C, slow skeletal and cardiac muscles, Troponin I, cardiac muscle chimera





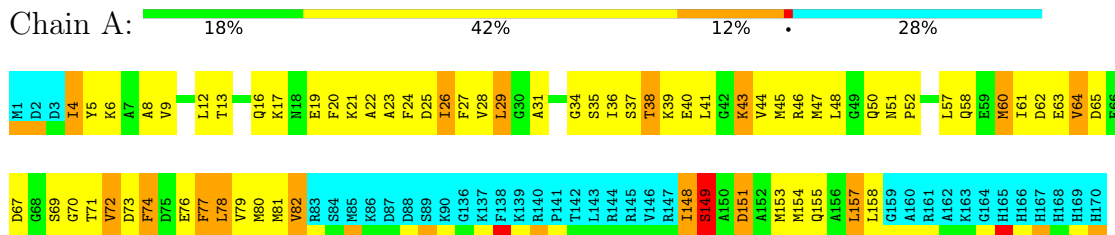
4.2.3 Score per residue for model 3 (medoid)

- Molecule 1: Troponin C, slow skeletal and cardiac muscles, Troponin I, cardiac muscle chimera



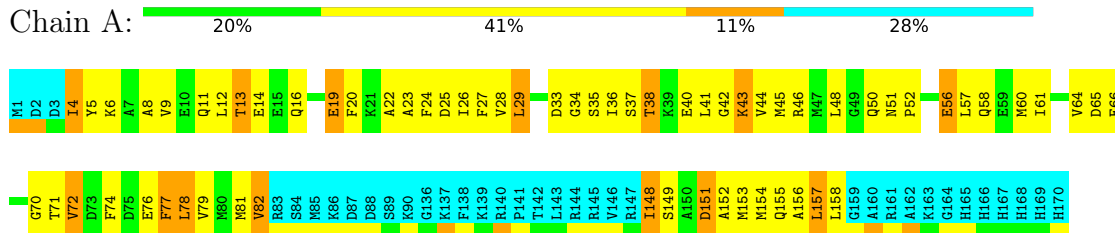
4.2.4 Score per residue for model 4

- Molecule 1: Troponin C, slow skeletal and cardiac muscles, Troponin I, cardiac muscle chimera



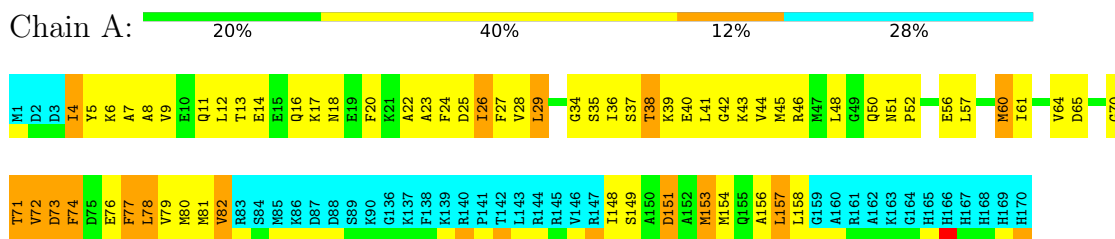
4.2.5 Score per residue for model 5

- Molecule 1: Troponin C, slow skeletal and cardiac muscles, Troponin I, cardiac muscle chimera



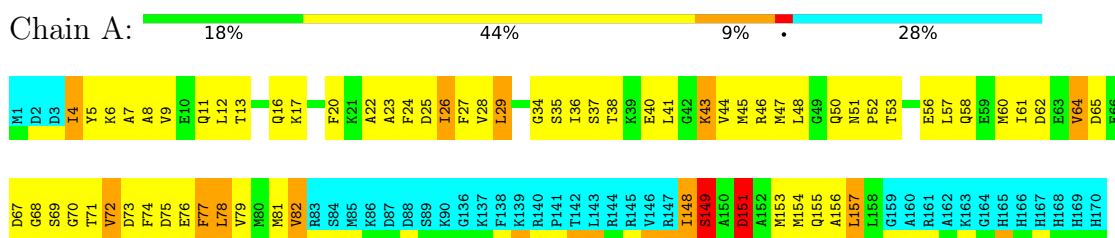
4.2.6 Score per residue for model 6

- Molecule 1: Troponin C, slow skeletal and cardiac muscles, Troponin I, cardiac muscle chimera



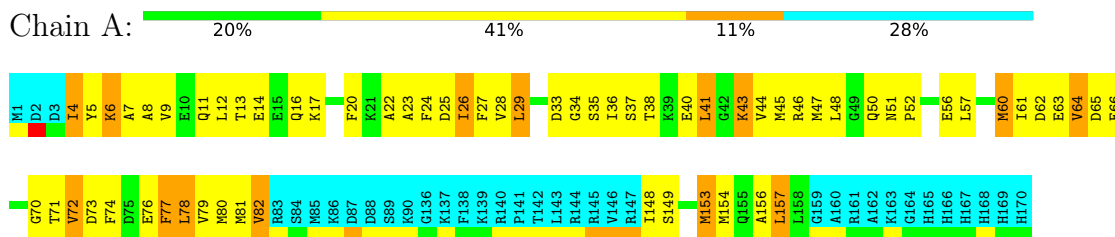
4.2.7 Score per residue for model 7

- Molecule 1: Troponin C, slow skeletal and cardiac muscles, Troponin I, cardiac muscle chimera



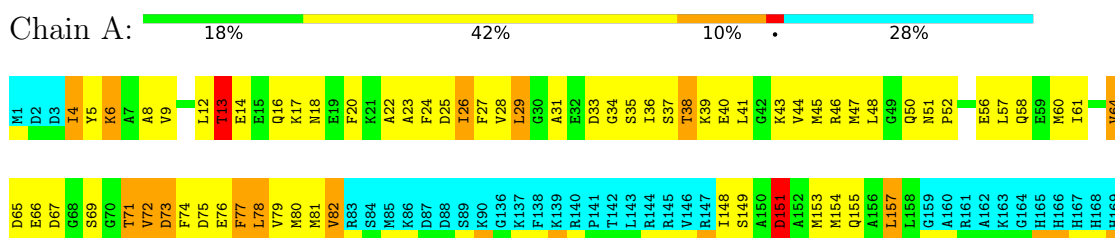
4.2.8 Score per residue for model 8

- Molecule 1: Troponin C, slow skeletal and cardiac muscles, Troponin I, cardiac muscle chimera



4.2.9 Score per residue for model 9

- Molecule 1: Troponin C, slow skeletal and cardiac muscles, Troponin I, cardiac muscle chimera



5 Refinement protocol and experimental data overview

The models were refined using the following method: *simulated annealing*.

Of the 300 calculated structures, 10 were deposited, based on the following criterion: *structures with the lowest energy*.

The following table shows the software used for structure solution, optimisation and refinement.

| Software name | Classification | Version |
|---------------|-----------------------|---------|
| VnmrJ | refinement | |
| X-PLOR NIH | structure calculation | |
| X-PLOR NIH | refinement | |

The following table shows chemical shift validation statistics as aggregates over all chemical shift files. Detailed validation can be found in section 7 of this report.

| Chemical shift file(s) | working_cs.cif |
|--|----------------|
| Number of chemical shift lists | 1 |
| Total number of shifts | 1418 |
| Number of shifts mapped to atoms | 1418 |
| Number of unparsed shifts | 0 |
| Number of shifts with mapping errors | 0 |
| Number of shifts with mapping warnings | 0 |
| Assignment completeness (well-defined parts) | 92% |

6 Model quality [i](#)

6.1 Standard geometry [i](#)

Bond lengths and bond angles in the following residue types are not validated in this section: V8Y, CA

There are no covalent bond-length or bond-angle outliers.

There are no bond-length outliers.

There are no bond-angle outliers.

There are no chirality outliers.

There are no planarity outliers.

6.2 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 each 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 averaged over the ensemble.

| Mol | Chain | Non-H | H(model) | H(added) | Clashes |
|-----|-------|-------|----------|----------|---------|
| 1 | A | 695 | 677 | 677 | 139±10 |
| 3 | A | 24 | 19 | 0 | 1±1 |
| All | All | 7200 | 6960 | 6764 | 1390 |

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 100.

All unique clashes are listed below, sorted by their clash magnitude.

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|-----------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:27:PHE:CE1 | 1:A:157:LEU:HD11 | 0.99 | 1.92 | 2 | 1 |
| 1:A:22:ALA:O | 1:A:26:ILE:HD12 | 0.96 | 1.59 | 5 | 10 |
| 1:A:44:VAL:HG22 | 1:A:47:MET:SD | 0.96 | 2.01 | 7 | 2 |
| 1:A:45:MET:SD | 1:A:148:ILE:HD12 | 0.91 | 2.03 | 3 | 6 |
| 1:A:27:PHE:CZ | 1:A:44:VAL:HG11 | 0.89 | 2.02 | 4 | 10 |
| 1:A:74:PHE:CE1 | 1:A:78:LEU:HD23 | 0.88 | 2.03 | 3 | 10 |
| 1:A:26:ILE:HD13 | 1:A:157:LEU:CB | 0.88 | 1.98 | 8 | 6 |
| 1:A:23:ALA:HB2 | 1:A:154:MET:CE | 0.88 | 1.99 | 3 | 9 |
| 1:A:9:VAL:HG22 | 1:A:78:LEU:HD12 | 0.86 | 1.46 | 1 | 10 |
| 1:A:74:PHE:HE1 | 1:A:78:LEU:HD23 | 0.86 | 1.29 | 5 | 10 |
| 1:A:41:LEU:HD22 | 1:A:57:LEU:HD22 | 0.81 | 1.51 | 6 | 5 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|------------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:148:ILE:HG23 | 1:A:148:ILE:O | 0.81 | 1.75 | 3 | 7 |
| 1:A:27:PHE:CZ | 1:A:153:MET:HE3 | 0.79 | 2.12 | 5 | 7 |
| 1:A:38:THR:N | 1:A:61:ILE:HD11 | 0.79 | 1.93 | 9 | 8 |
| 1:A:41:LEU:CD2 | 1:A:57:LEU:HD22 | 0.78 | 2.09 | 9 | 6 |
| 1:A:28:VAL:HG11 | 1:A:34:GLY:O | 0.77 | 1.80 | 5 | 7 |
| 1:A:64:VAL:HG21 | 1:A:80:MET:SD | 0.76 | 2.20 | 2 | 1 |
| 1:A:13:THR:HG23 | 1:A:16:GLN:H | 0.76 | 1.40 | 1 | 8 |
| 1:A:24:PHE:O | 1:A:28:VAL:HG22 | 0.75 | 1.81 | 5 | 10 |
| 1:A:52:PRO:HG2 | 1:A:57:LEU:HD21 | 0.75 | 1.56 | 10 | 5 |
| 1:A:52:PRO:CG | 1:A:57:LEU:HD21 | 0.74 | 2.12 | 10 | 5 |
| 1:A:26:ILE:HG22 | 1:A:44:VAL:CG2 | 0.74 | 2.12 | 10 | 10 |
| 1:A:48:LEU:HD22 | 1:A:48:LEU:N | 0.74 | 1.96 | 9 | 2 |
| 1:A:64:VAL:HG13 | 3:A:201:V8Y:CL1 | 0.73 | 2.21 | 3 | 5 |
| 1:A:72:VAL:HG23 | 1:A:77:PHE:N | 0.73 | 1.98 | 6 | 10 |
| 1:A:38:THR:HG23 | 1:A:61:ILE:HD12 | 0.73 | 1.56 | 7 | 4 |
| 1:A:26:ILE:HD13 | 1:A:157:LEU:HB2 | 0.73 | 1.61 | 8 | 2 |
| 1:A:12:LEU:HD13 | 1:A:20:PHE:CD1 | 0.73 | 2.18 | 9 | 9 |
| 1:A:28:VAL:HG13 | 1:A:36:ILE:CG1 | 0.72 | 2.13 | 5 | 10 |
| 1:A:37:SER:HB3 | 1:A:71:THR:HG22 | 0.72 | 1.60 | 1 | 6 |
| 1:A:48:LEU:CD2 | 1:A:156:ALA:HB3 | 0.72 | 2.14 | 2 | 3 |
| 1:A:41:LEU:HD21 | 1:A:60:MET:CE | 0.72 | 2.15 | 7 | 1 |
| 1:A:27:PHE:CD1 | 1:A:157:LEU:HD11 | 0.72 | 2.19 | 2 | 1 |
| 1:A:41:LEU:HD23 | 1:A:57:LEU:HD22 | 0.71 | 1.61 | 8 | 2 |
| 1:A:23:ALA:HB2 | 1:A:154:MET:HE3 | 0.70 | 1.63 | 3 | 8 |
| 1:A:44:VAL:HG22 | 1:A:47:MET:HE2 | 0.70 | 1.61 | 8 | 3 |
| 1:A:157:LEU:N | 1:A:157:LEU:HD23 | 0.70 | 2.02 | 9 | 9 |
| 1:A:26:ILE:HG22 | 1:A:44:VAL:HG21 | 0.70 | 1.64 | 10 | 9 |
| 1:A:57:LEU:HD23 | 1:A:60:MET:SD | 0.70 | 2.27 | 10 | 1 |
| 1:A:27:PHE:CE1 | 1:A:44:VAL:HG11 | 0.69 | 2.21 | 6 | 10 |
| 1:A:12:LEU:HD12 | 1:A:78:LEU:HD11 | 0.69 | 1.63 | 3 | 10 |
| 1:A:46:ARG:HA | 1:A:50:GLN:O | 0.69 | 1.88 | 5 | 10 |
| 1:A:79:VAL:O | 1:A:82:VAL:HG13 | 0.69 | 1.86 | 7 | 10 |
| 1:A:36:ILE:HB | 1:A:72:VAL:HG13 | 0.69 | 1.65 | 10 | 10 |
| 1:A:64:VAL:HG21 | 1:A:80:MET:CG | 0.69 | 2.19 | 2 | 1 |
| 1:A:20:PHE:O | 1:A:77:PHE:CZ | 0.68 | 2.47 | 7 | 10 |
| 1:A:40:GLU:O | 1:A:43:LYS:CG | 0.68 | 2.42 | 10 | 5 |
| 1:A:72:VAL:HG22 | 1:A:72:VAL:O | 0.68 | 1.89 | 3 | 8 |
| 1:A:26:ILE:HG21 | 1:A:157:LEU:HD22 | 0.67 | 1.64 | 9 | 6 |
| 1:A:12:LEU:HD13 | 1:A:20:PHE:CE1 | 0.67 | 2.24 | 5 | 1 |
| 1:A:44:VAL:HG13 | 1:A:47:MET:SD | 0.67 | 2.29 | 4 | 2 |
| 1:A:38:THR:N | 1:A:61:ILE:CD1 | 0.67 | 2.57 | 6 | 7 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|------------------|-----------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:5:TYR:CD2 | 1:A:82:VAL:CG2 | 0.67 | 2.77 | 10 | 10 |
| 1:A:20:PHE:CD2 | 1:A:154:MET:SD | 0.67 | 2.88 | 2 | 4 |
| 1:A:61:ILE:HG21 | 1:A:70:GLY:O | 0.67 | 1.90 | 8 | 5 |
| 1:A:26:ILE:HD13 | 1:A:157:LEU:HB3 | 0.67 | 1.66 | 8 | 6 |
| 1:A:48:LEU:HD21 | 1:A:156:ALA:HB3 | 0.66 | 1.66 | 2 | 4 |
| 1:A:45:MET:HE3 | 1:A:52:PRO:CG | 0.66 | 2.20 | 6 | 1 |
| 1:A:64:VAL:HG11 | 1:A:80:MET:CG | 0.66 | 2.21 | 2 | 1 |
| 1:A:60:MET:SD | 1:A:60:MET:N | 0.66 | 2.69 | 5 | 5 |
| 1:A:44:VAL:O | 1:A:48:LEU:CD2 | 0.66 | 2.43 | 9 | 2 |
| 1:A:9:VAL:HG13 | 1:A:78:LEU:HG | 0.66 | 1.67 | 5 | 9 |
| 1:A:38:THR:HG22 | 1:A:57:LEU:HB3 | 0.66 | 1.68 | 4 | 4 |
| 1:A:80:MET:HG2 | 1:A:81:MET:N | 0.65 | 2.04 | 9 | 2 |
| 1:A:4:ILE:C | 1:A:4:ILE:HD13 | 0.65 | 2.12 | 9 | 9 |
| 1:A:149:SER:O | 1:A:153:MET:CB | 0.65 | 2.44 | 10 | 10 |
| 1:A:28:VAL:HG13 | 1:A:36:ILE:HG12 | 0.65 | 1.69 | 10 | 9 |
| 1:A:12:LEU:CD1 | 1:A:78:LEU:HD11 | 0.64 | 2.22 | 10 | 9 |
| 1:A:27:PHE:CZ | 1:A:153:MET:CE | 0.64 | 2.81 | 1 | 8 |
| 1:A:41:LEU:HD21 | 1:A:60:MET:HE1 | 0.63 | 1.70 | 7 | 1 |
| 1:A:44:VAL:CG2 | 1:A:47:MET:SD | 0.63 | 2.85 | 4 | 2 |
| 1:A:27:PHE:CZ | 1:A:153:MET:HE2 | 0.63 | 2.27 | 8 | 4 |
| 1:A:57:LEU:HA | 1:A:60:MET:SD | 0.63 | 2.33 | 10 | 1 |
| 1:A:24:PHE:CZ | 1:A:34:GLY:O | 0.63 | 2.51 | 3 | 5 |
| 1:A:38:THR:HG22 | 1:A:57:LEU:C | 0.62 | 2.14 | 1 | 6 |
| 1:A:53:THR:OG1 | 1:A:56:GLU:OE1 | 0.62 | 2.16 | 10 | 1 |
| 1:A:27:PHE:HZ | 1:A:153:MET:HE3 | 0.62 | 1.55 | 10 | 2 |
| 1:A:37:SER:OG | 1:A:40:GLU:OE1 | 0.62 | 2.17 | 2 | 6 |
| 1:A:65:ASP:OD2 | 1:A:69:SER:N | 0.61 | 2.33 | 3 | 4 |
| 1:A:9:VAL:HG22 | 1:A:78:LEU:HB3 | 0.61 | 1.72 | 3 | 9 |
| 1:A:78:LEU:O | 1:A:82:VAL:HG12 | 0.61 | 1.95 | 6 | 10 |
| 1:A:38:THR:CA | 1:A:61:ILE:HD11 | 0.61 | 2.25 | 4 | 7 |
| 1:A:25:ASP:O | 1:A:29:LEU:N | 0.61 | 2.34 | 10 | 10 |
| 1:A:64:VAL:HG11 | 1:A:80:MET:HG2 | 0.61 | 1.73 | 2 | 1 |
| 1:A:148:ILE:HD11 | 1:A:153:MET:HG3 | 0.60 | 1.72 | 6 | 1 |
| 1:A:78:LEU:O | 1:A:78:LEU:HD13 | 0.60 | 1.96 | 1 | 8 |
| 1:A:45:MET:O | 1:A:50:GLN:N | 0.60 | 2.35 | 3 | 5 |
| 1:A:74:PHE:C | 1:A:74:PHE:CD1 | 0.60 | 2.71 | 10 | 8 |
| 1:A:148:ILE:O | 1:A:148:ILE:CG2 | 0.60 | 2.49 | 3 | 7 |
| 1:A:41:LEU:HD23 | 1:A:57:LEU:CD2 | 0.60 | 2.27 | 8 | 2 |
| 1:A:41:LEU:O | 1:A:45:MET:HG2 | 0.60 | 1.97 | 8 | 10 |
| 1:A:28:VAL:HG21 | 1:A:34:GLY:O | 0.59 | 1.96 | 6 | 4 |
| 1:A:37:SER:CB | 1:A:71:THR:HG22 | 0.59 | 2.27 | 8 | 5 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|-----------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:56:GLU:O | 1:A:60:MET:SD | 0.59 | 2.60 | 6 | 2 |
| 1:A:35:SER:CB | 1:A:73:ASP:OD1 | 0.59 | 2.50 | 3 | 2 |
| 1:A:27:PHE:CZ | 1:A:44:VAL:CG1 | 0.59 | 2.85 | 6 | 5 |
| 1:A:41:LEU:HD22 | 1:A:60:MET:HE1 | 0.59 | 1.75 | 4 | 1 |
| 1:A:56:GLU:O | 1:A:60:MET:CE | 0.59 | 2.51 | 10 | 2 |
| 1:A:38:THR:HG22 | 1:A:57:LEU:CB | 0.59 | 2.28 | 4 | 3 |
| 1:A:19:GLU:O | 1:A:154:MET:CE | 0.58 | 2.52 | 4 | 4 |
| 1:A:23:ALA:HB2 | 1:A:154:MET:HE2 | 0.58 | 1.72 | 7 | 7 |
| 1:A:44:VAL:CG1 | 1:A:157:LEU:HD21 | 0.58 | 2.29 | 2 | 1 |
| 1:A:65:ASP:OD1 | 1:A:67:ASP:OD1 | 0.58 | 2.21 | 4 | 4 |
| 1:A:40:GLU:OE1 | 1:A:40:GLU:N | 0.58 | 2.36 | 9 | 3 |
| 1:A:27:PHE:CE1 | 1:A:153:MET:CE | 0.58 | 2.86 | 10 | 6 |
| 1:A:27:PHE:HE1 | 1:A:157:LEU:HD11 | 0.58 | 1.56 | 2 | 1 |
| 1:A:61:ILE:HG21 | 1:A:70:GLY:C | 0.58 | 2.19 | 4 | 5 |
| 1:A:41:LEU:CD2 | 1:A:60:MET:CE | 0.57 | 2.82 | 7 | 1 |
| 1:A:77:PHE:CA | 1:A:80:MET:HE3 | 0.57 | 2.29 | 6 | 2 |
| 1:A:22:ALA:HB3 | 1:A:158:LEU:HD21 | 0.57 | 1.77 | 3 | 4 |
| 1:A:29:LEU:HB3 | 1:A:43:LYS:HZ1 | 0.57 | 1.58 | 8 | 2 |
| 1:A:23:ALA:HB2 | 1:A:154:MET:HE1 | 0.57 | 1.76 | 1 | 2 |
| 1:A:26:ILE:HA | 1:A:29:LEU:HD12 | 0.57 | 1.75 | 4 | 5 |
| 1:A:148:ILE:O | 1:A:148:ILE:HG22 | 0.57 | 1.99 | 5 | 1 |
| 1:A:57:LEU:O | 1:A:61:ILE:HG13 | 0.56 | 2.00 | 7 | 6 |
| 1:A:5:TYR:CD2 | 1:A:82:VAL:HG22 | 0.56 | 2.36 | 1 | 9 |
| 1:A:28:VAL:O | 1:A:31:ALA:N | 0.56 | 2.37 | 1 | 1 |
| 1:A:148:ILE:O | 1:A:149:SER:C | 0.56 | 2.44 | 7 | 5 |
| 1:A:65:ASP:OD2 | 1:A:70:GLY:N | 0.56 | 2.38 | 7 | 6 |
| 1:A:4:ILE:HG23 | 1:A:5:TYR:N | 0.56 | 2.16 | 6 | 10 |
| 1:A:27:PHE:CE1 | 1:A:153:MET:HE2 | 0.56 | 2.36 | 6 | 5 |
| 1:A:77:PHE:HA | 1:A:80:MET:HE2 | 0.56 | 1.77 | 2 | 1 |
| 1:A:33:ASP:OD1 | 1:A:34:GLY:N | 0.56 | 2.38 | 3 | 4 |
| 1:A:77:PHE:HA | 1:A:80:MET:HE3 | 0.56 | 1.75 | 6 | 2 |
| 1:A:77:PHE:O | 1:A:80:MET:SD | 0.56 | 2.63 | 9 | 2 |
| 1:A:74:PHE:CD1 | 1:A:74:PHE:O | 0.56 | 2.58 | 1 | 9 |
| 1:A:51:ASN:O | 1:A:51:ASN:OD1 | 0.56 | 2.23 | 10 | 4 |
| 1:A:62:ASP:OD1 | 1:A:62:ASP:O | 0.56 | 2.23 | 2 | 2 |
| 1:A:28:VAL:HG11 | 1:A:35:SER:C | 0.56 | 2.21 | 6 | 8 |
| 1:A:74:PHE:CD1 | 1:A:77:PHE:CE2 | 0.56 | 2.94 | 2 | 8 |
| 1:A:153:MET:O | 1:A:157:LEU:HD23 | 0.55 | 2.00 | 2 | 1 |
| 1:A:9:VAL:HG22 | 1:A:78:LEU:CD1 | 0.55 | 2.26 | 1 | 5 |
| 1:A:48:LEU:HD13 | 1:A:153:MET:HA | 0.55 | 1.78 | 3 | 2 |
| 1:A:13:THR:HG22 | 1:A:16:GLN:HG3 | 0.55 | 1.78 | 4 | 1 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|-----------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:38:THR:HA | 1:A:61:ILE:HD11 | 0.55 | 1.77 | 4 | 3 |
| 1:A:12:LEU:HD22 | 1:A:16:GLN:OE1 | 0.55 | 2.02 | 6 | 1 |
| 1:A:67:ASP:OD1 | 1:A:69:SER:OG | 0.55 | 2.23 | 4 | 3 |
| 1:A:26:ILE:HG21 | 1:A:157:LEU:HB3 | 0.55 | 1.77 | 7 | 6 |
| 1:A:52:PRO:HG2 | 1:A:57:LEU:HD11 | 0.55 | 1.78 | 4 | 3 |
| 1:A:47:MET:SD | 1:A:157:LEU:CD2 | 0.55 | 2.95 | 7 | 2 |
| 1:A:77:PHE:O | 1:A:80:MET:CG | 0.55 | 2.55 | 9 | 2 |
| 1:A:24:PHE:HB2 | 1:A:77:PHE:CE2 | 0.55 | 2.37 | 6 | 9 |
| 1:A:44:VAL:HA | 1:A:47:MET:SD | 0.55 | 2.41 | 4 | 2 |
| 1:A:33:ASP:OD1 | 1:A:33:ASP:O | 0.54 | 2.25 | 8 | 2 |
| 1:A:24:PHE:HB2 | 1:A:77:PHE:CD2 | 0.54 | 2.37 | 7 | 10 |
| 1:A:48:LEU:HD22 | 1:A:48:LEU:H | 0.54 | 1.61 | 9 | 2 |
| 1:A:6:LYS:CE | 1:A:6:LYS:HA | 0.54 | 2.32 | 2 | 5 |
| 1:A:23:ALA:HB1 | 1:A:157:LEU:HD12 | 0.54 | 1.78 | 2 | 1 |
| 1:A:65:ASP:OD1 | 1:A:68:GLY:N | 0.54 | 2.41 | 7 | 2 |
| 1:A:57:LEU:O | 1:A:60:MET:HG2 | 0.54 | 2.02 | 6 | 3 |
| 1:A:153:MET:O | 1:A:157:LEU:HG | 0.54 | 2.02 | 6 | 7 |
| 1:A:51:ASN:N | 1:A:52:PRO:HD3 | 0.54 | 2.17 | 6 | 5 |
| 1:A:37:SER:C | 1:A:61:ILE:HD11 | 0.54 | 2.23 | 10 | 2 |
| 1:A:36:ILE:O | 1:A:72:VAL:N | 0.54 | 2.40 | 10 | 3 |
| 1:A:64:VAL:CG1 | 1:A:80:MET:HG2 | 0.54 | 2.33 | 2 | 1 |
| 1:A:65:ASP:OD1 | 1:A:71:THR:O | 0.54 | 2.25 | 10 | 2 |
| 1:A:48:LEU:N | 1:A:48:LEU:CD2 | 0.54 | 2.69 | 9 | 2 |
| 1:A:13:THR:OG1 | 1:A:14:GLU:N | 0.54 | 2.41 | 9 | 4 |
| 1:A:27:PHE:CE1 | 1:A:153:MET:HE3 | 0.54 | 2.38 | 7 | 4 |
| 1:A:44:VAL:O | 1:A:48:LEU:HD22 | 0.54 | 2.02 | 8 | 2 |
| 1:A:57:LEU:O | 1:A:60:MET:SD | 0.53 | 2.66 | 7 | 1 |
| 1:A:12:LEU:HD22 | 1:A:16:GLN:CD | 0.53 | 2.24 | 7 | 1 |
| 1:A:29:LEU:HB3 | 1:A:43:LYS:NZ | 0.53 | 2.17 | 8 | 1 |
| 1:A:28:VAL:CG1 | 1:A:35:SER:C | 0.53 | 2.77 | 6 | 6 |
| 1:A:28:VAL:CG1 | 1:A:36:ILE:N | 0.53 | 2.71 | 6 | 3 |
| 1:A:149:SER:O | 1:A:153:MET:HB2 | 0.53 | 2.03 | 2 | 7 |
| 1:A:79:VAL:O | 1:A:82:VAL:CG1 | 0.53 | 2.57 | 7 | 1 |
| 1:A:77:PHE:HA | 1:A:80:MET:SD | 0.53 | 2.44 | 9 | 2 |
| 1:A:60:MET:SD | 3:A:201:V8Y:O2 | 0.53 | 2.66 | 10 | 1 |
| 1:A:65:ASP:OD2 | 1:A:71:THR:N | 0.53 | 2.41 | 8 | 1 |
| 1:A:37:SER:O | 1:A:41:LEU:N | 0.53 | 2.42 | 2 | 5 |
| 1:A:157:LEU:N | 1:A:157:LEU:CD2 | 0.53 | 2.68 | 9 | 5 |
| 1:A:28:VAL:HG13 | 1:A:36:ILE:HG13 | 0.53 | 1.80 | 5 | 2 |
| 1:A:36:ILE:HB | 1:A:72:VAL:O | 0.53 | 2.04 | 6 | 10 |
| 1:A:72:VAL:HG23 | 1:A:76:GLU:C | 0.53 | 2.24 | 9 | 2 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|-----------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:79:VAL:HA | 1:A:82:VAL:CG1 | 0.53 | 2.34 | 7 | 7 |
| 1:A:48:LEU:CD2 | 1:A:156:ALA:CB | 0.53 | 2.87 | 5 | 4 |
| 1:A:26:ILE:O | 1:A:43:LYS:NZ | 0.53 | 2.36 | 3 | 2 |
| 1:A:72:VAL:CG2 | 1:A:77:PHE:N | 0.53 | 2.70 | 9 | 4 |
| 1:A:4:ILE:HD12 | 1:A:5:TYR:CE2 | 0.53 | 2.39 | 2 | 8 |
| 1:A:74:PHE:CD1 | 1:A:74:PHE:C | 0.52 | 2.82 | 2 | 2 |
| 1:A:4:ILE:HG23 | 1:A:5:TYR:CD2 | 0.52 | 2.39 | 7 | 6 |
| 1:A:72:VAL:O | 1:A:72:VAL:CG2 | 0.52 | 2.58 | 3 | 4 |
| 1:A:19:GLU:O | 1:A:154:MET:HE3 | 0.52 | 2.05 | 10 | 4 |
| 1:A:60:MET:CE | 1:A:61:ILE:HG12 | 0.52 | 2.35 | 4 | 1 |
| 1:A:37:SER:HB3 | 1:A:71:THR:CG2 | 0.52 | 2.34 | 9 | 3 |
| 1:A:13:THR:HG22 | 1:A:16:GLN:CG | 0.52 | 2.35 | 4 | 1 |
| 1:A:77:PHE:O | 1:A:80:MET:HG2 | 0.52 | 2.04 | 9 | 4 |
| 1:A:72:VAL:HA | 1:A:76:GLU:OE1 | 0.52 | 2.05 | 4 | 6 |
| 1:A:20:PHE:HB3 | 1:A:77:PHE:CZ | 0.52 | 2.39 | 2 | 6 |
| 1:A:46:ARG:CA | 1:A:50:GLN:O | 0.52 | 2.58 | 10 | 5 |
| 1:A:27:PHE:O | 1:A:40:GLU:O | 0.52 | 2.27 | 10 | 4 |
| 1:A:22:ALA:O | 1:A:26:ILE:CD1 | 0.51 | 2.49 | 3 | 2 |
| 1:A:37:SER:CB | 1:A:71:THR:CG2 | 0.51 | 2.88 | 6 | 3 |
| 1:A:29:LEU:CB | 1:A:43:LYS:NZ | 0.51 | 2.73 | 8 | 1 |
| 1:A:56:GLU:O | 1:A:60:MET:HG2 | 0.51 | 2.05 | 9 | 1 |
| 1:A:27:PHE:O | 1:A:40:GLU:HB3 | 0.51 | 2.06 | 1 | 9 |
| 1:A:41:LEU:HD13 | 1:A:60:MET:CE | 0.51 | 2.35 | 4 | 1 |
| 1:A:12:LEU:HD22 | 1:A:16:GLN:NE2 | 0.51 | 2.20 | 7 | 1 |
| 1:A:57:LEU:O | 1:A:60:MET:HG3 | 0.51 | 2.05 | 7 | 1 |
| 1:A:37:SER:O | 1:A:40:GLU:N | 0.51 | 2.44 | 5 | 3 |
| 1:A:37:SER:CA | 1:A:71:THR:HG22 | 0.51 | 2.36 | 9 | 2 |
| 1:A:27:PHE:CD1 | 1:A:157:LEU:CD1 | 0.51 | 2.91 | 2 | 1 |
| 1:A:26:ILE:CG2 | 1:A:44:VAL:CG2 | 0.51 | 2.88 | 10 | 4 |
| 1:A:16:GLN:O | 1:A:20:PHE:CD1 | 0.51 | 2.63 | 4 | 2 |
| 1:A:48:LEU:CD1 | 1:A:153:MET:HG3 | 0.51 | 2.36 | 6 | 3 |
| 1:A:38:THR:CG2 | 1:A:58:GLN:HA | 0.51 | 2.36 | 1 | 4 |
| 1:A:74:PHE:O | 1:A:77:PHE:CD2 | 0.51 | 2.64 | 6 | 8 |
| 1:A:41:LEU:CD2 | 1:A:57:LEU:CD2 | 0.51 | 2.89 | 1 | 1 |
| 1:A:48:LEU:CD1 | 1:A:153:MET:HA | 0.51 | 2.35 | 3 | 4 |
| 1:A:52:PRO:HB2 | 1:A:56:GLU:OE2 | 0.50 | 2.06 | 7 | 1 |
| 1:A:38:THR:CG2 | 1:A:58:GLN:N | 0.50 | 2.74 | 4 | 2 |
| 1:A:26:ILE:CD1 | 1:A:157:LEU:HB3 | 0.50 | 2.34 | 8 | 3 |
| 1:A:23:ALA:CB | 1:A:157:LEU:HD12 | 0.50 | 2.36 | 8 | 5 |
| 1:A:62:ASP:HA | 1:A:65:ASP:HB3 | 0.50 | 1.83 | 4 | 4 |
| 1:A:45:MET:HE3 | 1:A:52:PRO:HG2 | 0.50 | 1.81 | 6 | 1 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|-----------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:72:VAL:HG23 | 1:A:76:GLU:CB | 0.50 | 2.37 | 9 | 2 |
| 1:A:38:THR:O | 1:A:57:LEU:HD13 | 0.50 | 2.07 | 8 | 1 |
| 1:A:44:VAL:HG13 | 1:A:157:LEU:HD21 | 0.50 | 1.83 | 2 | 1 |
| 1:A:48:LEU:HD12 | 1:A:148:ILE:HD11 | 0.50 | 1.82 | 4 | 1 |
| 1:A:41:LEU:HD13 | 1:A:61:ILE:HG12 | 0.50 | 1.83 | 10 | 2 |
| 1:A:43:LYS:HD2 | 1:A:44:VAL:HG23 | 0.50 | 1.84 | 2 | 1 |
| 1:A:149:SER:O | 1:A:153:MET:N | 0.50 | 2.41 | 8 | 2 |
| 1:A:20:PHE:CD2 | 1:A:81:MET:HG3 | 0.50 | 2.41 | 10 | 1 |
| 1:A:28:VAL:CG1 | 1:A:36:ILE:HA | 0.50 | 2.36 | 6 | 6 |
| 1:A:40:GLU:O | 1:A:43:LYS:HG3 | 0.50 | 2.05 | 1 | 5 |
| 1:A:148:ILE:O | 1:A:150:ALA:N | 0.50 | 2.45 | 1 | 1 |
| 1:A:48:LEU:CD1 | 1:A:156:ALA:HB2 | 0.50 | 2.36 | 8 | 1 |
| 1:A:5:TYR:O | 1:A:8:ALA:HB3 | 0.49 | 2.07 | 10 | 10 |
| 1:A:36:ILE:CB | 1:A:72:VAL:HG13 | 0.49 | 2.36 | 10 | 5 |
| 1:A:44:VAL:O | 1:A:47:MET:HG2 | 0.49 | 2.07 | 7 | 2 |
| 1:A:12:LEU:HD13 | 1:A:20:PHE:HD1 | 0.49 | 1.66 | 6 | 2 |
| 1:A:40:GLU:HA | 1:A:43:LYS:HG2 | 0.49 | 1.83 | 3 | 5 |
| 1:A:151:ASP:O | 1:A:155:GLN:HG3 | 0.49 | 2.06 | 9 | 8 |
| 1:A:7:ALA:O | 1:A:11:GLN:HG2 | 0.49 | 2.07 | 8 | 3 |
| 1:A:9:VAL:CG2 | 1:A:78:LEU:HB3 | 0.49 | 2.37 | 5 | 5 |
| 1:A:44:VAL:HG22 | 1:A:47:MET:CE | 0.49 | 2.36 | 4 | 4 |
| 1:A:45:MET:SD | 1:A:148:ILE:CD1 | 0.49 | 2.92 | 3 | 1 |
| 1:A:36:ILE:O | 1:A:71:THR:HA | 0.49 | 2.08 | 6 | 9 |
| 1:A:77:PHE:HA | 1:A:80:MET:CE | 0.49 | 2.38 | 6 | 3 |
| 1:A:8:ALA:O | 1:A:12:LEU:HG | 0.49 | 2.07 | 10 | 5 |
| 1:A:73:ASP:OD1 | 1:A:76:GLU:CG | 0.49 | 2.60 | 10 | 3 |
| 1:A:45:MET:SD | 3:A:201:V8Y:O1 | 0.49 | 2.70 | 1 | 1 |
| 1:A:149:SER:O | 1:A:153:MET:HB3 | 0.49 | 2.07 | 6 | 4 |
| 1:A:13:THR:HG22 | 1:A:16:GLN:HB2 | 0.49 | 1.83 | 10 | 3 |
| 1:A:47:MET:HG2 | 1:A:48:LEU:N | 0.49 | 2.22 | 4 | 2 |
| 1:A:41:LEU:HD13 | 1:A:60:MET:SD | 0.49 | 2.47 | 7 | 1 |
| 1:A:43:LYS:CD | 1:A:44:VAL:HG23 | 0.49 | 2.38 | 5 | 3 |
| 1:A:64:VAL:HB | 1:A:76:GLU:O | 0.49 | 2.08 | 6 | 3 |
| 1:A:77:PHE:CG | 1:A:78:LEU:N | 0.49 | 2.81 | 6 | 5 |
| 1:A:33:ASP:OD2 | 1:A:35:SER:OG | 0.49 | 2.27 | 5 | 3 |
| 1:A:74:PHE:CD1 | 1:A:77:PHE:HE2 | 0.49 | 2.23 | 2 | 6 |
| 1:A:26:ILE:CG2 | 1:A:157:LEU:HD13 | 0.49 | 2.38 | 2 | 1 |
| 1:A:9:VAL:O | 1:A:17:LYS:HE2 | 0.49 | 2.08 | 9 | 5 |
| 1:A:45:MET:O | 1:A:50:GLN:HB2 | 0.49 | 2.07 | 6 | 10 |
| 1:A:38:THR:CG2 | 1:A:61:ILE:HD12 | 0.49 | 2.35 | 7 | 1 |
| 1:A:4:ILE:HD12 | 1:A:5:TYR:CD2 | 0.48 | 2.43 | 9 | 1 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|-----------------|-----------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:65:ASP:HA | 1:A:76:GLU:OE1 | 0.48 | 2.07 | 3 | 6 |
| 1:A:44:VAL:CA | 1:A:47:MET:SD | 0.48 | 3.01 | 4 | 2 |
| 1:A:37:SER:HB2 | 1:A:71:THR:HG22 | 0.48 | 1.85 | 5 | 1 |
| 1:A:45:MET:HE3 | 1:A:52:PRO:HG3 | 0.48 | 1.86 | 3 | 1 |
| 1:A:57:LEU:HA | 1:A:60:MET:CG | 0.48 | 2.39 | 7 | 3 |
| 1:A:6:LYS:HA | 1:A:6:LYS:NZ | 0.48 | 2.24 | 10 | 1 |
| 1:A:28:VAL:HB | 1:A:31:ALA:HB3 | 0.48 | 1.85 | 1 | 3 |
| 1:A:74:PHE:HD1 | 1:A:77:PHE:CE2 | 0.48 | 2.27 | 3 | 9 |
| 1:A:13:THR:HG22 | 1:A:16:GLN:CB | 0.48 | 2.39 | 6 | 1 |
| 1:A:37:SER:C | 1:A:61:ILE:CD1 | 0.48 | 2.81 | 10 | 1 |
| 1:A:42:GLY:O | 1:A:45:MET:HB2 | 0.48 | 2.09 | 6 | 5 |
| 1:A:45:MET:HB3 | 1:A:50:GLN:HB2 | 0.48 | 1.85 | 8 | 9 |
| 1:A:28:VAL:CG1 | 1:A:36:ILE:CA | 0.48 | 2.92 | 6 | 2 |
| 1:A:7:ALA:O | 1:A:11:GLN:N | 0.48 | 2.47 | 8 | 3 |
| 1:A:80:MET:CG | 1:A:81:MET:N | 0.47 | 2.76 | 6 | 4 |
| 1:A:77:PHE:CA | 1:A:80:MET:SD | 0.47 | 3.02 | 9 | 1 |
| 1:A:35:SER:HB2 | 1:A:71:THR:HB | 0.47 | 1.86 | 7 | 9 |
| 1:A:48:LEU:HD11 | 1:A:153:MET:HG3 | 0.47 | 1.86 | 10 | 6 |
| 1:A:23:ALA:CB | 1:A:154:MET:HE3 | 0.47 | 2.40 | 5 | 2 |
| 1:A:27:PHE:O | 1:A:43:LYS:HD2 | 0.47 | 2.10 | 3 | 1 |
| 1:A:50:GLN:C | 1:A:52:PRO:HD3 | 0.47 | 2.29 | 6 | 2 |
| 1:A:26:ILE:CD1 | 1:A:157:LEU:O | 0.47 | 2.62 | 2 | 1 |
| 1:A:6:LYS:HA | 1:A:6:LYS:HE2 | 0.47 | 1.87 | 7 | 1 |
| 1:A:56:GLU:HG3 | 1:A:57:LEU:N | 0.47 | 2.25 | 7 | 1 |
| 1:A:40:GLU:O | 1:A:43:LYS:HD2 | 0.47 | 2.10 | 3 | 2 |
| 1:A:26:ILE:CG1 | 1:A:157:LEU:HB3 | 0.47 | 2.39 | 7 | 5 |
| 1:A:23:ALA:O | 1:A:27:PHE:HD1 | 0.47 | 1.92 | 8 | 1 |
| 1:A:52:PRO:HG2 | 1:A:57:LEU:CD2 | 0.47 | 2.36 | 10 | 1 |
| 1:A:14:GLU:O | 1:A:18:ASN:HB2 | 0.47 | 2.10 | 9 | 5 |
| 1:A:29:LEU:CB | 1:A:43:LYS:HZ1 | 0.47 | 2.23 | 8 | 1 |
| 1:A:73:ASP:OD1 | 1:A:76:GLU:HG3 | 0.47 | 2.10 | 10 | 1 |
| 1:A:44:VAL:O | 1:A:47:MET:HB2 | 0.47 | 2.09 | 9 | 3 |
| 1:A:65:ASP:OD2 | 1:A:67:ASP:OD1 | 0.47 | 2.33 | 9 | 1 |
| 1:A:35:SER:HA | 1:A:73:ASP:OD1 | 0.47 | 2.10 | 1 | 1 |
| 1:A:20:PHE:O | 1:A:77:PHE:HZ | 0.47 | 1.92 | 10 | 3 |
| 1:A:28:VAL:HG12 | 1:A:36:ILE:HA | 0.46 | 1.87 | 4 | 2 |
| 1:A:57:LEU:O | 1:A:60:MET:CG | 0.46 | 2.64 | 10 | 2 |
| 1:A:4:ILE:CG2 | 1:A:5:TYR:N | 0.46 | 2.78 | 6 | 9 |
| 1:A:41:LEU:HD22 | 1:A:60:MET:SD | 0.46 | 2.50 | 4 | 1 |
| 1:A:35:SER:CB | 1:A:71:THR:HB | 0.46 | 2.40 | 1 | 4 |
| 1:A:41:LEU:HD22 | 1:A:60:MET:CE | 0.46 | 2.39 | 4 | 1 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|-----------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:27:PHE:HA | 1:A:44:VAL:CG2 | 0.46 | 2.39 | 9 | 2 |
| 1:A:72:VAL:O | 1:A:72:VAL:HG22 | 0.46 | 2.10 | 10 | 2 |
| 1:A:152:ALA:HA | 1:A:155:GLN:OE1 | 0.46 | 2.09 | 5 | 1 |
| 1:A:56:GLU:O | 1:A:60:MET:HE2 | 0.46 | 2.11 | 10 | 1 |
| 1:A:26:ILE:CD1 | 1:A:157:LEU:CB | 0.46 | 2.83 | 8 | 1 |
| 1:A:4:ILE:CD1 | 1:A:5:TYR:CD2 | 0.46 | 2.99 | 2 | 2 |
| 1:A:17:LYS:O | 1:A:21:LYS:N | 0.46 | 2.46 | 4 | 1 |
| 1:A:74:PHE:HD1 | 1:A:77:PHE:CD2 | 0.46 | 2.28 | 2 | 3 |
| 1:A:60:MET:HE2 | 1:A:61:ILE:N | 0.45 | 2.27 | 4 | 1 |
| 1:A:47:MET:CG | 1:A:48:LEU:CD2 | 0.45 | 2.94 | 7 | 1 |
| 1:A:73:ASP:CG | 1:A:76:GLU:OE1 | 0.45 | 2.54 | 7 | 1 |
| 1:A:45:MET:C | 1:A:50:GLN:HB2 | 0.45 | 2.32 | 7 | 3 |
| 1:A:53:THR:O | 1:A:56:GLU:HG3 | 0.45 | 2.11 | 7 | 1 |
| 1:A:6:LYS:HA | 1:A:6:LYS:CE | 0.45 | 2.41 | 7 | 1 |
| 1:A:28:VAL:HB | 1:A:31:ALA:CB | 0.45 | 2.41 | 3 | 3 |
| 1:A:13:THR:CG2 | 1:A:16:GLN:HB2 | 0.45 | 2.41 | 6 | 2 |
| 1:A:41:LEU:CD2 | 1:A:60:MET:SD | 0.45 | 3.05 | 4 | 1 |
| 1:A:20:PHE:HB3 | 1:A:77:PHE:HZ | 0.45 | 1.72 | 2 | 6 |
| 1:A:40:GLU:N | 1:A:40:GLU:CD | 0.45 | 2.70 | 4 | 1 |
| 1:A:43:LYS:HD3 | 1:A:44:VAL:HG23 | 0.45 | 1.87 | 5 | 1 |
| 1:A:41:LEU:CD1 | 1:A:60:MET:SD | 0.44 | 3.05 | 7 | 1 |
| 1:A:74:PHE:CE1 | 1:A:77:PHE:HE2 | 0.44 | 2.30 | 2 | 1 |
| 1:A:9:VAL:HG22 | 1:A:78:LEU:CB | 0.44 | 2.40 | 3 | 2 |
| 1:A:65:ASP:HA | 1:A:76:GLU:OE2 | 0.44 | 2.11 | 7 | 1 |
| 1:A:46:ARG:HG2 | 1:A:50:GLN:O | 0.44 | 2.13 | 8 | 1 |
| 1:A:26:ILE:O | 1:A:43:LYS:HE3 | 0.44 | 2.13 | 4 | 2 |
| 1:A:22:ALA:CB | 1:A:158:LEU:HD21 | 0.44 | 2.42 | 6 | 2 |
| 1:A:48:LEU:HD13 | 1:A:156:ALA:HB2 | 0.44 | 1.88 | 8 | 1 |
| 1:A:152:ALA:O | 1:A:155:GLN:HB2 | 0.44 | 2.12 | 5 | 2 |
| 1:A:60:MET:HG2 | 3:A:201:V8Y:S1 | 0.44 | 2.52 | 2 | 1 |
| 1:A:60:MET:CE | 1:A:61:ILE:CG1 | 0.44 | 2.96 | 4 | 1 |
| 1:A:13:THR:CG2 | 1:A:16:GLN:H | 0.44 | 2.21 | 6 | 2 |
| 1:A:41:LEU:HD13 | 1:A:61:ILE:CG1 | 0.44 | 2.43 | 7 | 1 |
| 1:A:75:ASP:O | 1:A:79:VAL:HG23 | 0.44 | 2.12 | 7 | 1 |
| 1:A:9:VAL:HG22 | 1:A:78:LEU:CG | 0.44 | 2.43 | 2 | 2 |
| 1:A:20:PHE:C | 1:A:77:PHE:HZ | 0.44 | 2.16 | 3 | 5 |
| 1:A:45:MET:CE | 1:A:52:PRO:CG | 0.44 | 2.94 | 6 | 1 |
| 1:A:73:ASP:N | 1:A:76:GLU:HB2 | 0.44 | 2.28 | 6 | 2 |
| 1:A:27:PHE:O | 1:A:43:LYS:HE3 | 0.44 | 2.12 | 2 | 1 |
| 1:A:80:MET:HG3 | 1:A:81:MET:HE2 | 0.43 | 1.90 | 6 | 1 |
| 1:A:27:PHE:CE1 | 1:A:157:LEU:CD1 | 0.43 | 2.83 | 2 | 1 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|-----------------|-----------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:73:ASP:O | 1:A:77:PHE:HB3 | 0.43 | 2.12 | 3 | 3 |
| 1:A:26:ILE:HG21 | 1:A:157:LEU:CD2 | 0.43 | 2.43 | 7 | 2 |
| 1:A:5:TYR:HA | 1:A:82:VAL:HG21 | 0.43 | 1.90 | 1 | 4 |
| 1:A:45:MET:CE | 1:A:52:PRO:HG3 | 0.43 | 2.43 | 3 | 1 |
| 1:A:44:VAL:O | 1:A:47:MET:CG | 0.43 | 2.66 | 4 | 2 |
| 1:A:37:SER:O | 1:A:38:THR:C | 0.43 | 2.57 | 6 | 2 |
| 1:A:38:THR:CG2 | 1:A:58:GLN:CA | 0.43 | 2.96 | 1 | 2 |
| 1:A:40:GLU:O | 1:A:43:LYS:CD | 0.43 | 2.66 | 3 | 2 |
| 1:A:154:MET:O | 1:A:158:LEU:HG | 0.43 | 2.13 | 5 | 1 |
| 1:A:45:MET:CE | 1:A:52:PRO:HG2 | 0.43 | 2.43 | 6 | 1 |
| 1:A:27:PHE:HB3 | 1:A:36:ILE:HG12 | 0.43 | 1.90 | 7 | 1 |
| 1:A:37:SER:O | 1:A:41:LEU:HB2 | 0.43 | 2.14 | 7 | 1 |
| 1:A:60:MET:O | 1:A:63:GLU:HB2 | 0.43 | 2.14 | 2 | 1 |
| 1:A:40:GLU:CA | 1:A:43:LYS:HG2 | 0.43 | 2.44 | 3 | 1 |
| 1:A:44:VAL:CG1 | 1:A:47:MET:SD | 0.43 | 3.05 | 4 | 1 |
| 1:A:28:VAL:HG11 | 1:A:36:ILE:N | 0.43 | 2.28 | 6 | 1 |
| 1:A:38:THR:HG21 | 1:A:58:GLN:N | 0.43 | 2.29 | 4 | 2 |
| 1:A:151:ASP:OD1 | 1:A:151:ASP:N | 0.43 | 2.51 | 3 | 1 |
| 1:A:26:ILE:CB | 1:A:157:LEU:HB3 | 0.43 | 2.44 | 4 | 2 |
| 1:A:41:LEU:HD22 | 1:A:57:LEU:CD2 | 0.43 | 2.36 | 6 | 1 |
| 1:A:28:VAL:CG1 | 1:A:34:GLY:O | 0.43 | 2.64 | 7 | 1 |
| 1:A:64:VAL:O | 1:A:76:GLU:HG2 | 0.43 | 2.13 | 7 | 2 |
| 1:A:46:ARG:HH12 | 1:A:51:ASN:ND2 | 0.43 | 2.12 | 4 | 1 |
| 1:A:12:LEU:CD1 | 1:A:20:PHE:CD1 | 0.42 | 3.02 | 6 | 1 |
| 1:A:72:VAL:CG2 | 1:A:77:PHE:CA | 0.42 | 2.97 | 6 | 2 |
| 1:A:77:PHE:CD1 | 1:A:77:PHE:C | 0.42 | 2.91 | 10 | 1 |
| 1:A:36:ILE:HD12 | 1:A:72:VAL:HG22 | 0.42 | 1.89 | 3 | 1 |
| 1:A:64:VAL:CG1 | 3:A:201:V8Y:CL1 | 0.42 | 3.04 | 6 | 1 |
| 1:A:80:MET:CG | 1:A:81:MET:CE | 0.42 | 2.97 | 6 | 1 |
| 1:A:79:VAL:HA | 1:A:82:VAL:HG13 | 0.42 | 1.91 | 5 | 5 |
| 1:A:46:ARG:N | 1:A:50:GLN:O | 0.42 | 2.52 | 3 | 1 |
| 1:A:61:ILE:O | 1:A:65:ASP:N | 0.42 | 2.52 | 9 | 1 |
| 1:A:26:ILE:HA | 1:A:29:LEU:CD1 | 0.42 | 2.45 | 6 | 1 |
| 1:A:37:SER:O | 1:A:41:LEU:CB | 0.42 | 2.67 | 7 | 1 |
| 1:A:80:MET:SD | 3:A:201:V8Y:C6 | 0.42 | 3.08 | 2 | 1 |
| 1:A:47:MET:HG2 | 1:A:48:LEU:HG | 0.42 | 1.92 | 4 | 1 |
| 1:A:80:MET:CG | 1:A:81:MET:HE3 | 0.42 | 2.44 | 6 | 1 |
| 1:A:37:SER:N | 1:A:71:THR:HG22 | 0.42 | 2.30 | 9 | 1 |
| 1:A:26:ILE:CG2 | 1:A:44:VAL:HG22 | 0.42 | 2.45 | 1 | 1 |
| 1:A:72:VAL:HA | 1:A:76:GLU:CD | 0.41 | 2.35 | 1 | 1 |
| 1:A:45:MET:C | 1:A:50:GLN:O | 0.41 | 2.58 | 3 | 1 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|------------------|-----------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:7:ALA:O | 1:A:11:GLN:HG3 | 0.41 | 2.15 | 7 | 1 |
| 1:A:28:VAL:HG11 | 1:A:34:GLY:C | 0.41 | 2.35 | 7 | 1 |
| 1:A:41:LEU:C | 1:A:41:LEU:HD23 | 0.41 | 2.36 | 7 | 2 |
| 1:A:47:MET:CG | 1:A:48:LEU:HD23 | 0.41 | 2.45 | 7 | 1 |
| 1:A:45:MET:O | 1:A:50:GLN:CB | 0.41 | 2.68 | 4 | 3 |
| 1:A:47:MET:HG2 | 1:A:48:LEU:CD2 | 0.41 | 2.45 | 7 | 1 |
| 1:A:57:LEU:O | 1:A:61:ILE:HG12 | 0.41 | 2.15 | 8 | 1 |
| 1:A:153:MET:O | 1:A:157:LEU:CG | 0.41 | 2.67 | 9 | 1 |
| 1:A:56:GLU:O | 1:A:60:MET:HE1 | 0.41 | 2.15 | 5 | 1 |
| 1:A:41:LEU:HD13 | 1:A:61:ILE:CD1 | 0.41 | 2.46 | 1 | 1 |
| 1:A:36:ILE:CG2 | 1:A:72:VAL:HG13 | 0.41 | 2.46 | 5 | 2 |
| 1:A:20:PHE:CE2 | 1:A:81:MET:HB3 | 0.41 | 2.51 | 10 | 1 |
| 1:A:19:GLU:O | 1:A:154:MET:HE1 | 0.41 | 2.15 | 4 | 1 |
| 1:A:20:PHE:HB3 | 1:A:78:LEU:CD2 | 0.41 | 2.45 | 10 | 1 |
| 1:A:22:ALA:HB3 | 1:A:158:LEU:CD2 | 0.41 | 2.46 | 2 | 1 |
| 1:A:148:ILE:HD13 | 1:A:153:MET:SD | 0.41 | 2.55 | 7 | 1 |
| 1:A:65:ASP:CG | 1:A:68:GLY:CA | 0.41 | 2.88 | 3 | 1 |
| 1:A:27:PHE:HZ | 1:A:153:MET:CE | 0.41 | 2.27 | 7 | 1 |
| 1:A:4:ILE:C | 1:A:4:ILE:CD1 | 0.41 | 2.85 | 9 | 1 |
| 1:A:48:LEU:HD23 | 1:A:156:ALA:CB | 0.41 | 2.46 | 2 | 1 |
| 1:A:60:MET:O | 1:A:63:GLU:HB3 | 0.41 | 2.15 | 4 | 1 |
| 1:A:41:LEU:O | 1:A:45:MET:CG | 0.41 | 2.68 | 8 | 1 |
| 1:A:44:VAL:HA | 1:A:47:MET:HE2 | 0.40 | 1.92 | 3 | 1 |
| 1:A:57:LEU:HA | 1:A:60:MET:HG2 | 0.40 | 1.93 | 3 | 1 |
| 1:A:17:LYS:O | 1:A:21:LYS:HB2 | 0.40 | 2.16 | 4 | 1 |
| 1:A:74:PHE:O | 1:A:78:LEU:HB2 | 0.40 | 2.15 | 9 | 1 |
| 1:A:64:VAL:HG11 | 1:A:80:MET:HG3 | 0.40 | 1.91 | 2 | 1 |
| 1:A:51:ASN:N | 1:A:52:PRO:CD | 0.40 | 2.84 | 9 | 1 |
| 1:A:80:MET:SD | 3:A:201:V8Y:C7 | 0.40 | 3.10 | 4 | 1 |
| 1:A:27:PHE:CB | 1:A:36:ILE:HG12 | 0.40 | 2.47 | 6 | 1 |
| 1:A:73:ASP:OD1 | 1:A:76:GLU:CB | 0.40 | 2.69 | 10 | 1 |

6.3 Torsion angles [i](#)

6.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all NMR entries. The Analysed column shows the number of residues for which the backbone conformation was analysed and the total number of residues.

| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles | |
|-----|-------|----------------|--------------|------------|------------|-------------|----|
| 1 | A | 90/125 (72%) | 83±1 (92±1%) | 5±2 (5±2%) | 2±1 (2±1%) | 10 | 50 |
| All | All | 900/1250 (72%) | 832 (92%) | 49 (5%) | 19 (2%) | 10 | 50 |

All 4 unique Ramachandran outliers are listed below. They are sorted by the frequency of occurrence in the ensemble.

| Mol | Chain | Res | Type | Models (Total) |
|-----|-------|-----|------|----------------|
| 1 | A | 151 | ASP | 8 |
| 1 | A | 148 | ILE | 4 |
| 1 | A | 149 | SER | 4 |
| 1 | A | 13 | THR | 3 |

6.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all NMR entries. The Analysed column shows the number of residues for which the sidechain conformation was analysed and the total number of residues.

| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles | |
|-----|-------|----------------|--------------|--------------|-------------|----|
| 1 | A | 76/106 (72%) | 61±2 (80±3%) | 15±2 (20±3%) | 4 | 34 |
| All | All | 760/1060 (72%) | 608 (80%) | 152 (20%) | 4 | 34 |

All 35 unique residues with a non-rotameric sidechain are listed below. They are sorted by the frequency of occurrence in the ensemble.

| Mol | Chain | Res | Type | Models (Total) |
|-----|-------|-----|------|----------------|
| 1 | A | 4 | ILE | 10 |
| 1 | A | 29 | LEU | 10 |
| 1 | A | 43 | LYS | 10 |
| 1 | A | 72 | VAL | 10 |
| 1 | A | 77 | PHE | 10 |
| 1 | A | 78 | LEU | 10 |
| 1 | A | 82 | VAL | 10 |
| 1 | A | 157 | LEU | 10 |
| 1 | A | 6 | LYS | 8 |
| 1 | A | 26 | ILE | 8 |
| 1 | A | 64 | VAL | 6 |
| 1 | A | 38 | THR | 5 |
| 1 | A | 151 | ASP | 5 |
| 1 | A | 60 | MET | 4 |

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| Mol | Chain | Res | Type | Models (Total) |
|-----|-------|-----|------|----------------|
| 1 | A | 149 | SER | 3 |
| 1 | A | 39 | LYS | 3 |
| 1 | A | 74 | PHE | 3 |
| 1 | A | 71 | THR | 3 |
| 1 | A | 41 | LEU | 2 |
| 1 | A | 56 | GLU | 2 |
| 1 | A | 11 | GLN | 2 |
| 1 | A | 58 | GLN | 2 |
| 1 | A | 13 | THR | 2 |
| 1 | A | 73 | ASP | 2 |
| 1 | A | 153 | MET | 2 |
| 1 | A | 15 | GLU | 1 |
| 1 | A | 33 | ASP | 1 |
| 1 | A | 63 | GLU | 1 |
| 1 | A | 80 | MET | 1 |
| 1 | A | 16 | GLN | 1 |
| 1 | A | 67 | ASP | 1 |
| 1 | A | 19 | GLU | 1 |
| 1 | A | 148 | ILE | 1 |
| 1 | A | 75 | ASP | 1 |
| 1 | A | 37 | SER | 1 |

6.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

6.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

6.6 Ligand geometry [i](#)

Of 2 ligands modelled in this entry, 1 is monoatomic - leaving 1 for Mogul analysis.

In the following table, the Counts columns list the number of bonds for which Mogul statistics could be retrieved, the number of bonds that are observed in the model and the number of bonds that are defined in the chemical component dictionary. The Link column lists molecule types,

if any, to which the group is linked. The Z score for a bond length is the number of standard deviations the observed value is removed from the expected value. A bond length with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the average root-mean-square of all Z scores of the bond lengths.

| Mol | Type | Chain | Res | Link | Counts | Bond lengths | |
|-----|------|-------|-----|------|----------|--------------|-------------|
| | | | | | | RMSZ | #Z>2 |
| 3 | V8Y | A | 201 | - | 25,25,25 | 2.83±0.06 | 4±0 (16±0%) |

In the following table, the Counts columns list the number of angles for which Mogul statistics could be retrieved, the number of angles that are observed in the model and the number of angles that are defined in the chemical component dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond angle is the number of standard deviations the observed value is removed from the expected value. A bond angle with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the average root-mean-square of all Z scores of the bond angles.

| Mol | Type | Chain | Res | Link | Counts | Bond angles | |
|-----|------|-------|-----|------|----------|-------------|-------------|
| | | | | | | RMSZ | #Z>2 |
| 3 | V8Y | A | 201 | - | 34,34,34 | 2.04±0.03 | 4±1 (10±1%) |

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the chemical component dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|-----|------|---------|--------------|-----------|
| 3 | V8Y | A | 201 | - | - | 0±0,17,17,17 | 0±0,2,2,2 |

All unique bond outliers are listed below. They are sorted according to the Z-score of the worst occurrence in the ensemble.

| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) | Models | |
|-----|-------|-----|------|-------|-------|-------------|----------|--------|-------|
| | | | | | | | | Worst | Total |
| 3 | A | 201 | V8Y | O1-S1 | 10.21 | 1.55 | 1.43 | 9 | 10 |
| 3 | A | 201 | V8Y | O2-S1 | 8.85 | 1.53 | 1.43 | 4 | 10 |
| 3 | A | 201 | V8Y | S1-N1 | 3.07 | 1.66 | 1.61 | 9 | 10 |
| 3 | A | 201 | V8Y | C2-C1 | 3.01 | 1.41 | 1.37 | 9 | 10 |

All unique angle outliers are listed below. They are sorted according to the Z-score of the worst occurrence in the ensemble.

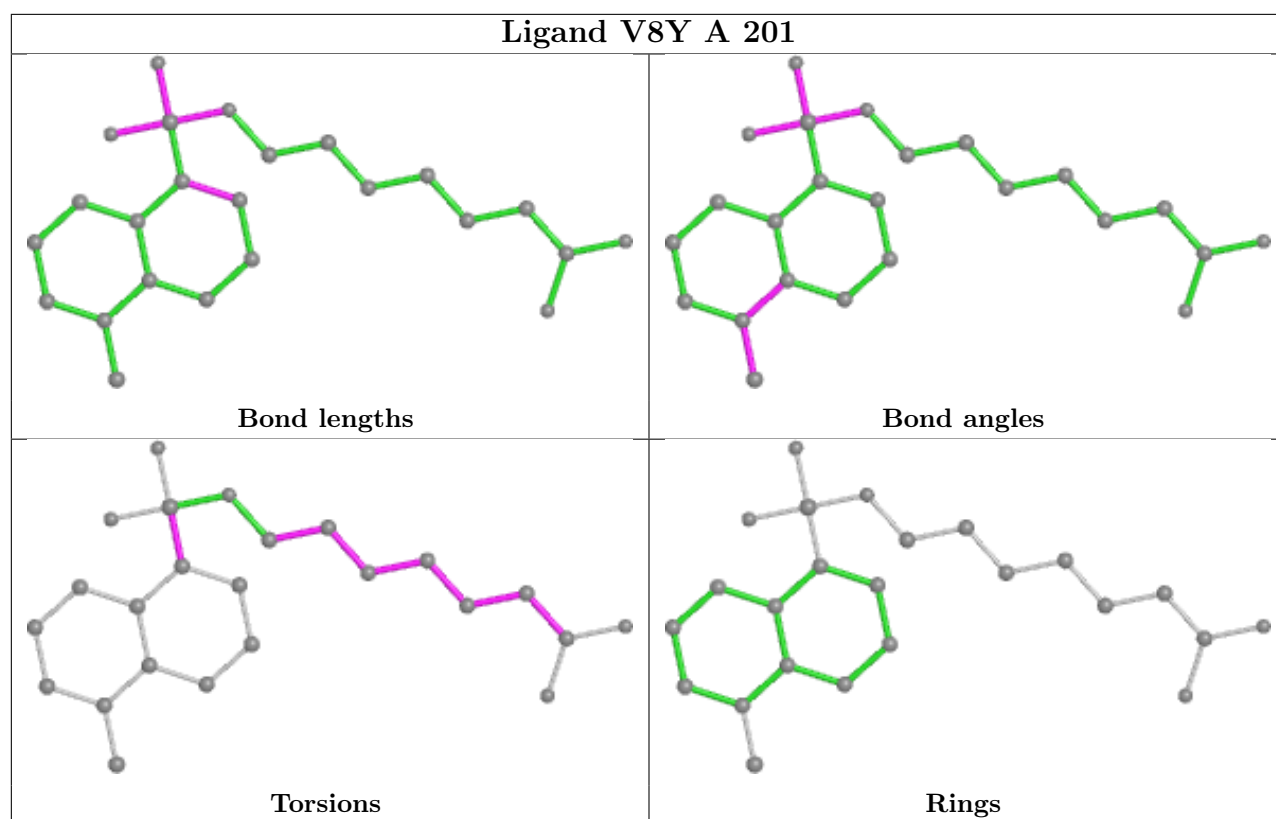
| Mol | Chain | Res | Type | Atoms | Z | Observed($^{\circ}$) | Ideal($^{\circ}$) | Models | |
|-----|-------|-----|------|------------|------|------------------------|---------------------|--------|-------|
| | | | | | | | | Worst | Total |
| 3 | A | 201 | V8Y | O2-S1-O1 | 9.39 | 108.01 | 119.55 | 9 | 10 |
| 3 | A | 201 | V8Y | O2-S1-N1 | 3.69 | 112.81 | 107.04 | 10 | 10 |
| 3 | A | 201 | V8Y | C10-C5-CL1 | 3.31 | 125.28 | 119.21 | 3 | 10 |
| 3 | A | 201 | V8Y | C5-C10-C9 | 2.22 | 119.38 | 117.66 | 10 | 2 |
| 3 | A | 201 | V8Y | C9-C1-S1 | 2.14 | 124.13 | 121.58 | 9 | 1 |
| 3 | A | 201 | V8Y | O3-C17-C16 | 2.02 | 116.61 | 123.08 | 10 | 3 |

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.



6.7 Other polymers [i](#)

There are no such molecules in this entry.

6.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

7 Chemical shift validation [i](#)

The completeness of assignment taking into account all chemical shift lists is 92% for the well-defined parts and 84% for the entire structure.

7.1 Chemical shift list 1

File name: working_cs.cif

Chemical shift list name: *assigned_chem_shift_list_0*

7.1.1 Bookkeeping [i](#)

The following table shows the results of parsing the chemical shift list and reports the number of nuclei with statistically unusual chemical shifts.

| | |
|---|------|
| Total number of shifts | 1418 |
| Number of shifts mapped to atoms | 1418 |
| Number of unparsed shifts | 0 |
| Number of shifts with mapping errors | 0 |
| Number of shifts with mapping warnings | 0 |
| Number of shift outliers (ShiftChecker) | 5 |

7.1.2 Chemical shift referencing [i](#)

The following table shows the suggested chemical shift referencing corrections.

| Nucleus | # values | Correction \pm precision, ppm | Suggested action |
|------------------------|----------|---------------------------------|-------------------------|
| $^{13}\text{C}_\alpha$ | 120 | -0.18 ± 0.08 | None needed (< 0.5 ppm) |
| $^{13}\text{C}_\beta$ | 111 | 0.10 ± 0.05 | None needed (< 0.5 ppm) |
| $^{13}\text{C}'$ | 112 | -0.45 ± 0.08 | None needed (< 0.5 ppm) |
| ^{15}N | 114 | 0.01 ± 0.20 | None needed (< 0.5 ppm) |

7.1.3 Completeness of resonance assignments [i](#)

The following table shows the completeness of the chemical shift assignments for the well-defined regions of the structure. The overall completeness is 92%, i.e. 1091 atoms were assigned a chemical shift out of a possible 1187. 0 out of 15 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

| | Total | ^1H | ^{13}C | ^{15}N |
|-----------|---------------|----------------|-----------------|-----------------|
| Backbone | 449/452 (99%) | 184/184 (100%) | 177/180 (98%) | 88/88 (100%) |
| Sidechain | 612/676 (91%) | 419/440 (95%) | 193/221 (87%) | 0/15 (0%) |

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| | Total | ¹ H | ¹³ C | ¹⁵ N |
|----------|-----------------|----------------|-----------------|-----------------|
| Aromatic | 30/59 (51%) | 15/29 (52%) | 15/30 (50%) | 0/0 (—%) |
| Overall | 1091/1187 (92%) | 618/653 (95%) | 385/431 (89%) | 88/103 (85%) |

The following table shows the completeness of the chemical shift assignments for the full structure. The overall completeness is 84%, i.e. 1418 atoms were assigned a chemical shift out of a possible 1697. 0 out of 17 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

| | Total | ¹ H | ¹³ C | ¹⁵ N |
|-----------|-----------------|----------------|-----------------|-----------------|
| Backbone | 589/628 (94%) | 243/256 (95%) | 232/250 (93%) | 114/122 (93%) |
| Sidechain | 795/958 (83%) | 539/618 (87%) | 256/302 (85%) | 0/38 (0%) |
| Aromatic | 34/111 (31%) | 17/58 (29%) | 17/47 (36%) | 0/6 (0%) |
| Overall | 1418/1697 (84%) | 799/932 (86%) | 505/599 (84%) | 114/166 (69%) |

7.1.4 Statistically unusual chemical shifts [i](#)

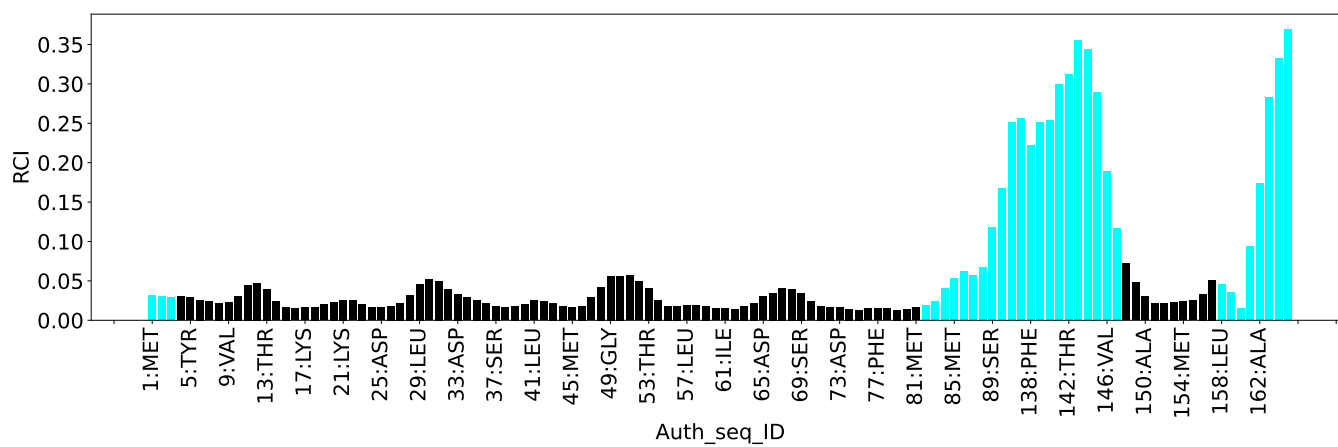
The following table lists the statistically unusual chemical shifts. These are statistical measures, and large deviations from the mean do not necessarily imply incorrect assignments. Molecules containing paramagnetic centres or hemes are expected to give rise to anomalous chemical shifts.

| List Id | Chain | Res | Type | Atom | Shift, ppm | Expected range, ppm | Z-score |
|---------|-------|-----|------|------|------------|---------------------|---------|
| 1 | A | 159 | GLY | HA3 | 43.99 | 2.08 – 5.71 | 110.5 |
| 1 | A | 160 | ALA | H | 23.13 | 5.31 – 11.08 | 25.9 |
| 1 | A | 160 | ALA | N | 85.33 | 106.13 – 140.55 | -11.0 |
| 1 | A | 17 | LYS | CD | 37.68 | 23.50 – 34.42 | 8.0 |
| 1 | A | 21 | LYS | HD3 | 0.41 | 0.54 – 2.65 | -5.6 |

7.1.5 Random Coil Index (RCI) plots [i](#)

The image below reports *random coil index* values for the protein chains in the structure. The height of each bar gives a probability of a given residue to be disordered, as predicted from the available chemical shifts and the amino acid sequence. A value above 0.2 is an indication of significant predicted disorder. The colour of the bar shows whether the residue is in the well-defined core (black) or in the ill-defined residue ranges (cyan), as described in section 2 on ensemble composition. If well-defined core and ill-defined regions are not identified then it is shown as gray bars.

Random coil index (RCI) for chain A:



8 NMR restraints analysis

8.1 Conformationally restricting restraints

The following table provides the summary of experimentally observed NMR restraints in different categories. Restraints are classified into different categories based on the sequence separation of the atoms involved.

| Description | Value |
|--|-------|
| Total distance restraints | 1447 |
| Intra-residue ($ i-j =0$) | 623 |
| Sequential ($ i-j =1$) | 147 |
| Medium range ($ i-j >1$ and $ i-j <5$) | 281 |
| Long range ($ i-j \geq 5$) | 396 |
| Inter-chain | 0 |
| Hydrogen bond restraints | 0 |
| Disulfide bond restraints | 0 |
| Total dihedral-angle restraints | 0 |
| Number of unmapped restraints | 0 |
| Number of restraints per residue | 11.6 |
| Number of long range restraints per residue ¹ | 3.2 |

¹Long range hydrogen bonds and disulfide bonds are counted as long range restraints while calculating the number of long range restraints per residue

8.2 Residual restraint violations

This section provides the overview of the restraint violations analysis. The violations are binned as small, medium and large violations based on its absolute value. Average number of violations per model is calculated by dividing the total number of violations in each bin by the size of the ensemble.

8.2.1 Average number of distance violations per model

Distance violations less than 0.1 Å are not included in the calculation.

| Bins (Å) | Average number of violations per model | Max (Å) |
|------------------|--|---------|
| 0.1-0.2 (Small) | 77.5 | 0.2 |
| 0.2-0.5 (Medium) | 57.3 | 0.5 |
| >0.5 (Large) | 1.1 | 0.83 |

8.2.2 Average number of dihedral-angle violations per model

Dihedral-angle violations less than 1° are not included in the calculation. There are no dihedral-angle violations

9 Distance violation analysis i

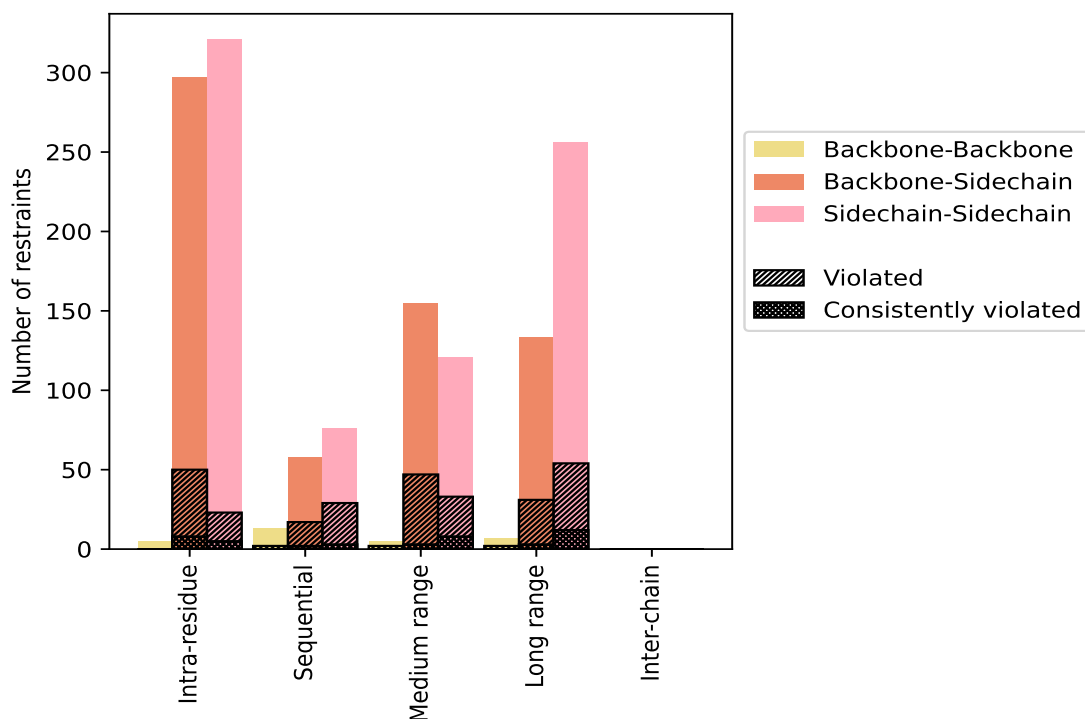
9.1 Summary of distance violations i

The following table shows the summary of distance violations in different restraint categories based on the sequence separation of the atoms involved. Each category is further sub-divided into three sub-categories based on the atoms involved. Violations less than 0.1 Å are not included in the statistics.

| Restrains type | Count | % ¹ | Violated ³ | | | Consistently Violated ⁴ | | |
|---|-------------|----------------|-----------------------|----------------|----------------|------------------------------------|----------------|----------------|
| | | | Count | % ² | % ¹ | Count | % ² | % ¹ |
| Intra-residue ($i-j =0$) | 623 | 43.1 | 73 | 11.7 | 5.0 | 13 | 2.1 | 0.9 |
| Backbone-Backbone | 5 | 0.3 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 297 | 20.5 | 50 | 16.8 | 3.5 | 8 | 2.7 | 0.6 |
| Sidechain-Sidechain | 321 | 22.2 | 23 | 7.2 | 1.6 | 5 | 1.6 | 0.3 |
| Sequential ($i-j =1$) | 147 | 10.2 | 48 | 32.7 | 3.3 | 5 | 3.4 | 0.3 |
| Backbone-Backbone | 13 | 0.9 | 2 | 15.4 | 0.1 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 58 | 4.0 | 17 | 29.3 | 1.2 | 2 | 3.4 | 0.1 |
| Sidechain-Sidechain | 76 | 5.3 | 29 | 38.2 | 2.0 | 3 | 3.9 | 0.2 |
| Medium range ($i-j >1$ & $i-j <5$) | 281 | 19.4 | 82 | 29.2 | 5.7 | 11 | 3.9 | 0.8 |
| Backbone-Backbone | 5 | 0.3 | 2 | 40.0 | 0.1 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 155 | 10.7 | 47 | 30.3 | 3.2 | 3 | 1.9 | 0.2 |
| Sidechain-Sidechain | 121 | 8.4 | 33 | 27.3 | 2.3 | 8 | 6.6 | 0.6 |
| Long range ($i-j \geq 5$) | 396 | 27.4 | 87 | 22.0 | 6.0 | 15 | 3.8 | 1.0 |
| Backbone-Backbone | 7 | 0.5 | 2 | 28.6 | 0.1 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 133 | 9.2 | 31 | 23.3 | 2.1 | 3 | 2.3 | 0.2 |
| Sidechain-Sidechain | 256 | 17.7 | 54 | 21.1 | 3.7 | 12 | 4.7 | 0.8 |
| Inter-chain | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Backbone-Backbone | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Sidechain-Sidechain | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Hydrogen bond | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Disulfide bond | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Total | 1447 | 100.0 | 290 | 20.0 | 20.0 | 44 | 3.0 | 3.0 |
| Backbone-Backbone | 30 | 2.1 | 6 | 20.0 | 0.4 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 643 | 44.4 | 145 | 22.6 | 10.0 | 16 | 2.5 | 1.1 |
| Sidechain-Sidechain | 774 | 53.5 | 139 | 18.0 | 9.6 | 28 | 3.6 | 1.9 |

¹ percentage calculated with respect to the total number of distance restraints, ² percentage calculated with respect to the number of restraints in a particular restraint category, ³ violated in at least one model, ⁴ violated in all the models

9.1.1 Bar chart : Distribution of distance restraints and violations [i](#)



Violated and consistently violated restraints are shown using different hatch patterns in their respective categories. The hydrogen bonds and disulfid bonds are counted in their appropriate category on the x-axis

9.2 Distance violation statistics for each model [i](#)

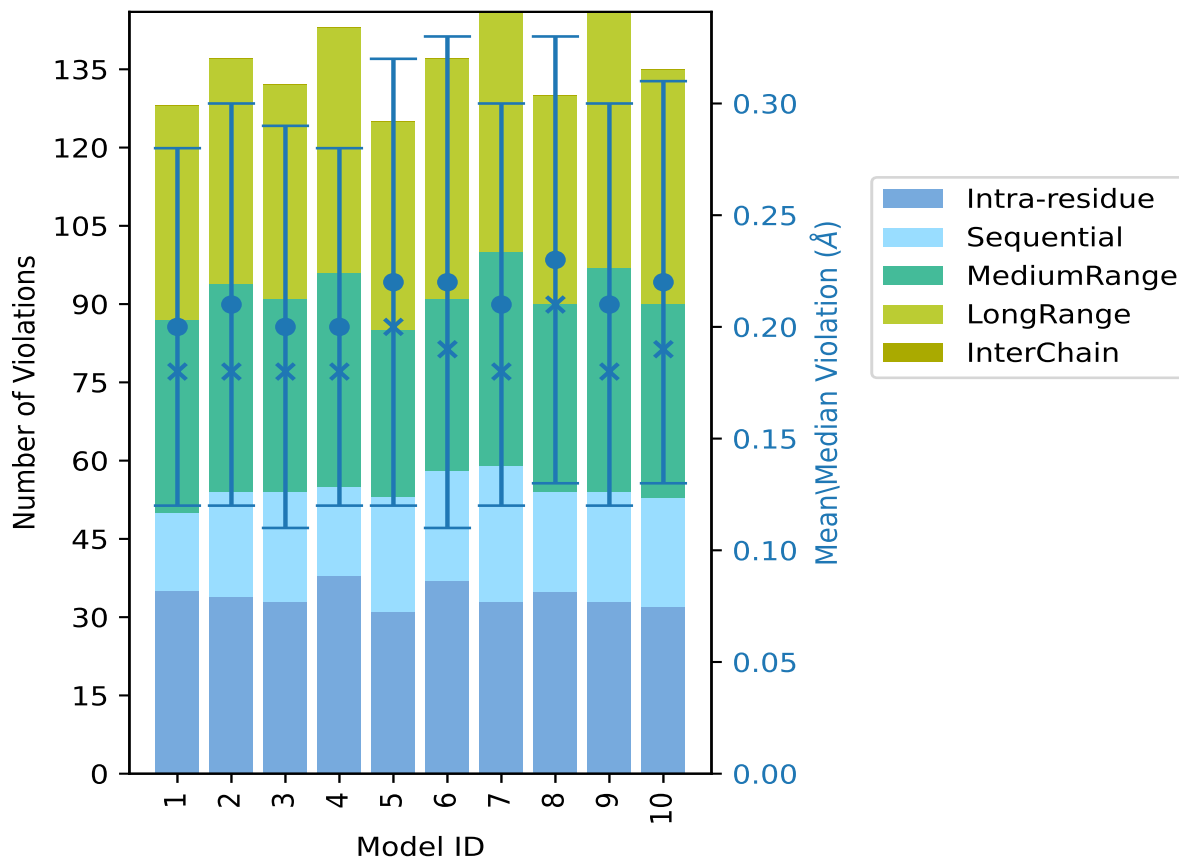
The following table provides the distance violation statistics for each model in the ensemble. Violations less than 0.1 Å are not included in the statistics.

| Model ID | Number of violations | | | | | | Mean (Å) | Max (Å) | SD ⁶ (Å) | Median (Å) |
|----------|----------------------|-----------------|-----------------|-----------------|-----------------|-------|----------|---------|---------------------|------------|
| | IR ¹ | SQ ² | MR ³ | LR ⁴ | IC ⁵ | Total | | | | |
| 1 | 35 | 15 | 37 | 41 | 0 | 128 | 0.2 | 0.42 | 0.08 | 0.18 |
| 2 | 34 | 20 | 40 | 43 | 0 | 137 | 0.21 | 0.61 | 0.09 | 0.18 |
| 3 | 33 | 21 | 37 | 41 | 0 | 132 | 0.2 | 0.54 | 0.09 | 0.18 |
| 4 | 38 | 17 | 41 | 47 | 0 | 143 | 0.2 | 0.48 | 0.08 | 0.18 |
| 5 | 31 | 22 | 32 | 40 | 0 | 125 | 0.22 | 0.52 | 0.1 | 0.2 |
| 6 | 37 | 21 | 33 | 46 | 0 | 137 | 0.22 | 0.83 | 0.11 | 0.19 |
| 7 | 33 | 26 | 41 | 46 | 0 | 146 | 0.21 | 0.81 | 0.09 | 0.18 |
| 8 | 35 | 19 | 36 | 40 | 0 | 130 | 0.23 | 0.6 | 0.1 | 0.21 |
| 9 | 33 | 21 | 43 | 49 | 0 | 146 | 0.21 | 0.52 | 0.09 | 0.18 |
| 10 | 32 | 21 | 37 | 45 | 0 | 135 | 0.22 | 0.54 | 0.09 | 0.19 |

¹Intra-residue restraints, ²Sequential restraints, ³Medium range restraints, ⁴Long range restraints,

⁵Inter-chain restraints, ⁶Standard deviation

9.2.1 Bar graph : Distance Violation statistics for each model [i](#)



The mean(dot),median(x) and the standard deviation are shown in blue with respect to the y axis on the right

9.3 Distance violation statistics for the ensemble [i](#)

Violation analysis may find that some restraints are violated in few models and some are violated in most of models. The following table provides this information as number of violated restraints for a given fraction of the ensemble. In total, 1157(IR:550, SQ:99, MR:199, LR:309, IC:0) restraints are not violated in the ensemble.

| Number of violated restraints | | | | | | Fraction of the ensemble | |
|-------------------------------|-----------------|-----------------|-----------------|-----------------|-------|--------------------------|------|
| IR ¹ | SQ ² | MR ³ | LR ⁴ | IC ⁵ | Total | Count ⁶ | % |
| 17 | 15 | 21 | 23 | 0 | 76 | 1 | 10.0 |
| 10 | 7 | 13 | 12 | 0 | 42 | 2 | 20.0 |
| 5 | 6 | 7 | 6 | 0 | 24 | 3 | 30.0 |
| 9 | 1 | 6 | 3 | 0 | 19 | 4 | 40.0 |

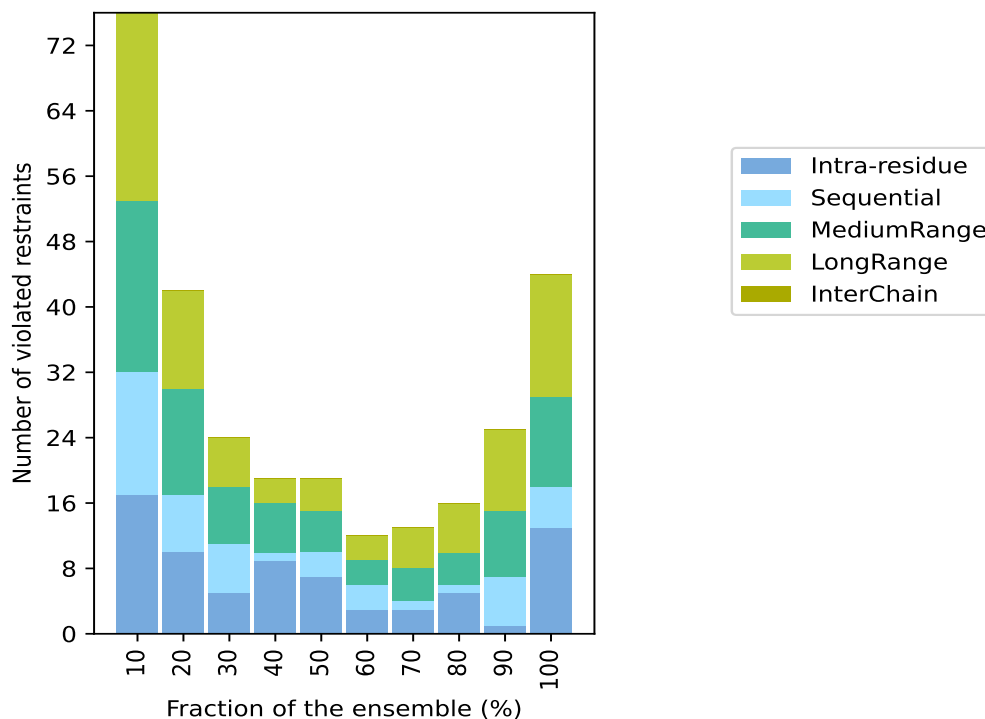
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| Number of violated restraints | | | | | | Fraction of the ensemble | |
|-------------------------------|-----------------|-----------------|-----------------|-----------------|-------|--------------------------|-------|
| IR ¹ | SQ ² | MR ³ | LR ⁴ | IC ⁵ | Total | Count ⁶ | % |
| 7 | 3 | 5 | 4 | 0 | 19 | 5 | 50.0 |
| 3 | 3 | 3 | 3 | 0 | 12 | 6 | 60.0 |
| 3 | 1 | 4 | 5 | 0 | 13 | 7 | 70.0 |
| 5 | 1 | 4 | 6 | 0 | 16 | 8 | 80.0 |
| 1 | 6 | 8 | 10 | 0 | 25 | 9 | 90.0 |
| 13 | 5 | 11 | 15 | 0 | 44 | 10 | 100.0 |

¹Intra-residue restraints, ²Sequential restraints, ³Medium range restraints, ⁴Long range restraints, ⁵Inter-chain restraints, ⁶ Number of models with violations

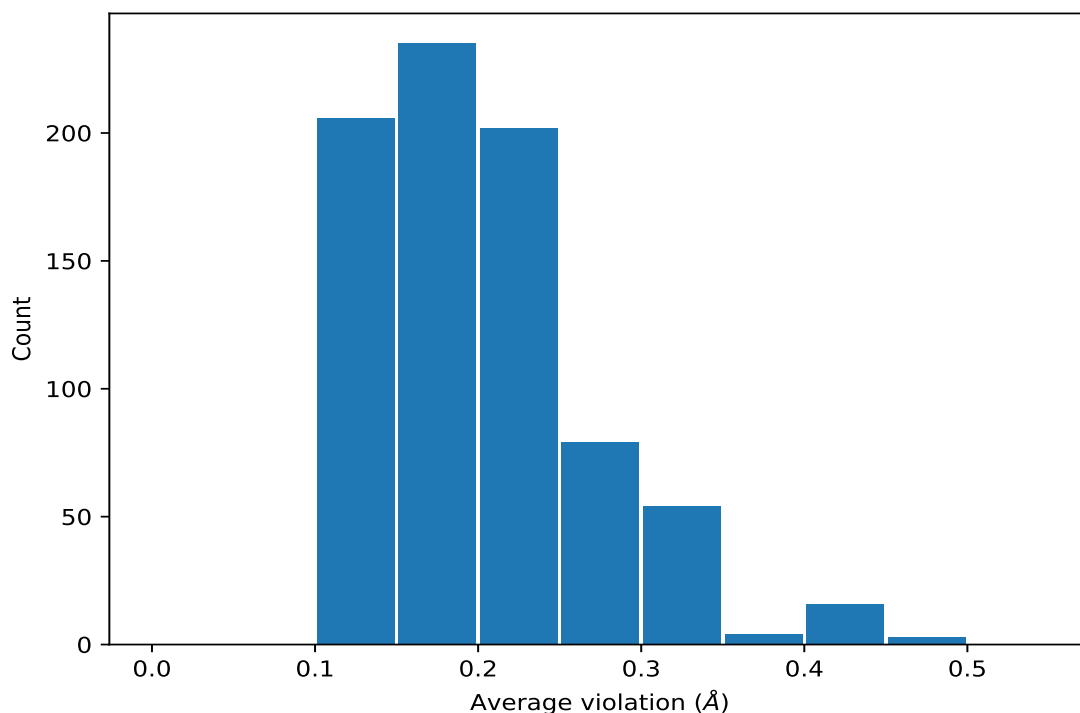
9.3.1 Bar graph : Distance violation statistics for the ensemble [i](#)



9.4 Most violated distance restraints in the ensemble [i](#)

9.4.1 Histogram : Distribution of mean distance violations [i](#)

The following histogram shows the distribution of the average value of the violation. The average is calculated for each restraint that is violated in more than one model over all the violated models in the ensemble



9.4.2 Table: Most violated distance restraints [i](#)

The following table provides the mean and the standard deviation of the violation for each restraint sorted by number of violated models and the mean value. The Key (restraint list ID, restraint ID) is the unique identifier for a given restraint. Rows with same key represent combinatorial or ambiguous restraints and are counted as a single restraint.

| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|-----------------|---------------------|----------|---------------------|------------|
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD12 | 10 | 0.48 | 0.03 | 0.48 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD11 | 10 | 0.48 | 0.03 | 0.48 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD13 | 10 | 0.48 | 0.03 | 0.48 |
| (2,907) | 1:A:78:LEU:HD12 | 1:A:74:PHE:HE1 | 10 | 0.43 | 0.1 | 0.41 |
| (2,907) | 1:A:78:LEU:HD11 | 1:A:74:PHE:HE1 | 10 | 0.43 | 0.1 | 0.41 |
| (2,907) | 1:A:78:LEU:HD13 | 1:A:74:PHE:HE1 | 10 | 0.43 | 0.1 | 0.41 |
| (2,670) | 1:A:8:ALA:HB2 | 1:A:5:TYR:HB2 | 10 | 0.42 | 0.04 | 0.4 |
| (2,670) | 1:A:8:ALA:HB1 | 1:A:5:TYR:HB2 | 10 | 0.42 | 0.04 | 0.4 |
| (2,670) | 1:A:8:ALA:HB3 | 1:A:5:TYR:HB2 | 10 | 0.42 | 0.04 | 0.4 |
| (2,392) | 1:A:3:ASP:HB2 | 1:A:6:LYS:HB2 | 10 | 0.4 | 0.06 | 0.38 |
| (2,392) | 1:A:3:ASP:HB2 | 1:A:6:LYS:HB3 | 10 | 0.4 | 0.06 | 0.38 |
| (2,1040) | 1:A:157:LEU:HD22 | 1:A:154:MET:HB2 | 10 | 0.35 | 0.06 | 0.38 |
| (2,1040) | 1:A:157:LEU:HD22 | 1:A:154:MET:HB3 | 10 | 0.35 | 0.06 | 0.38 |
| (2,1040) | 1:A:157:LEU:HD21 | 1:A:154:MET:HB2 | 10 | 0.35 | 0.06 | 0.38 |
| (2,1040) | 1:A:157:LEU:HD21 | 1:A:154:MET:HB3 | 10 | 0.35 | 0.06 | 0.38 |
| (2,1040) | 1:A:157:LEU:HD23 | 1:A:154:MET:HB2 | 10 | 0.35 | 0.06 | 0.38 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|-----------------|---------------------|----------|---------------------|------------|
| (2,1040) | 1:A:157:LEU:HD23 | 1:A:154:MET:HB3 | 10 | 0.35 | 0.06 | 0.38 |
| (2,1016) | 1:A:78:LEU:HD22 | 1:A:12:LEU:HG | 10 | 0.34 | 0.06 | 0.34 |
| (2,1016) | 1:A:78:LEU:HD21 | 1:A:12:LEU:HG | 10 | 0.34 | 0.06 | 0.34 |
| (2,1016) | 1:A:78:LEU:HD23 | 1:A:12:LEU:HG | 10 | 0.34 | 0.06 | 0.34 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD12 | 10 | 0.34 | 0.06 | 0.32 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD11 | 10 | 0.34 | 0.06 | 0.32 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD13 | 10 | 0.34 | 0.06 | 0.32 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD12 | 10 | 0.34 | 0.06 | 0.32 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD11 | 10 | 0.34 | 0.06 | 0.32 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD13 | 10 | 0.34 | 0.06 | 0.32 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD12 | 10 | 0.34 | 0.06 | 0.32 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD11 | 10 | 0.34 | 0.06 | 0.32 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD13 | 10 | 0.34 | 0.06 | 0.32 |
| (2,979) | 1:A:44:VAL:HG12 | 1:A:27:PHE:HB3 | 10 | 0.33 | 0.09 | 0.36 |
| (2,979) | 1:A:44:VAL:HG11 | 1:A:27:PHE:HB3 | 10 | 0.33 | 0.09 | 0.36 |
| (2,979) | 1:A:44:VAL:HG13 | 1:A:27:PHE:HB3 | 10 | 0.33 | 0.09 | 0.36 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG22 | 10 | 0.33 | 0.07 | 0.32 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG21 | 10 | 0.33 | 0.07 | 0.32 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG23 | 10 | 0.33 | 0.07 | 0.32 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD12 | 10 | 0.33 | 0.07 | 0.32 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD11 | 10 | 0.33 | 0.07 | 0.32 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD13 | 10 | 0.33 | 0.07 | 0.32 |
| (2,129) | 1:A:54:PRO:HA | 1:A:54:PRO:HG2 | 10 | 0.32 | 0.01 | 0.32 |
| (2,736) | 1:A:82:VAL:HG22 | 1:A:5:TYR:HE1 | 10 | 0.31 | 0.03 | 0.31 |
| (2,736) | 1:A:82:VAL:HG21 | 1:A:5:TYR:HE1 | 10 | 0.31 | 0.03 | 0.31 |
| (2,736) | 1:A:82:VAL:HG23 | 1:A:5:TYR:HE1 | 10 | 0.31 | 0.03 | 0.31 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD22 | 10 | 0.3 | 0.05 | 0.32 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD21 | 10 | 0.3 | 0.05 | 0.32 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD23 | 10 | 0.3 | 0.05 | 0.32 |
| (2,1197) | 1:A:24:PHE:HA | 1:A:27:PHE:HE1 | 10 | 0.3 | 0.05 | 0.3 |
| (2,1197) | 1:A:24:PHE:HA | 1:A:77:PHE:HE1 | 10 | 0.3 | 0.05 | 0.3 |
| (2,8) | 1:A:51:ASN:HA | 1:A:50:GLN:HB3 | 10 | 0.3 | 0.03 | 0.31 |
| (2,923) | 1:A:44:VAL:HG12 | 1:A:45:MET:HB2 | 10 | 0.3 | 0.09 | 0.32 |
| (2,923) | 1:A:44:VAL:HG12 | 1:A:45:MET:HB3 | 10 | 0.3 | 0.09 | 0.32 |
| (2,923) | 1:A:44:VAL:HG11 | 1:A:45:MET:HB2 | 10 | 0.3 | 0.09 | 0.32 |
| (2,923) | 1:A:44:VAL:HG11 | 1:A:45:MET:HB3 | 10 | 0.3 | 0.09 | 0.32 |
| (2,923) | 1:A:44:VAL:HG13 | 1:A:45:MET:HB2 | 10 | 0.3 | 0.09 | 0.32 |
| (2,923) | 1:A:44:VAL:HG13 | 1:A:45:MET:HB3 | 10 | 0.3 | 0.09 | 0.32 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB2 | 10 | 0.28 | 0.06 | 0.29 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB1 | 10 | 0.28 | 0.06 | 0.29 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB3 | 10 | 0.28 | 0.06 | 0.29 |
| (2,705) | 1:A:81:MET:HB3 | 1:A:81:MET:HG2 | 10 | 0.28 | 0.01 | 0.28 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|-----------------|------------------|---------------------|----------|---------------------|------------|
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB2 | 10 | 0.27 | 0.05 | 0.26 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB1 | 10 | 0.27 | 0.05 | 0.26 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB3 | 10 | 0.27 | 0.05 | 0.26 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB2 | 10 | 0.27 | 0.05 | 0.26 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB1 | 10 | 0.27 | 0.05 | 0.26 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB3 | 10 | 0.27 | 0.05 | 0.26 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG12 | 10 | 0.26 | 0.05 | 0.26 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG11 | 10 | 0.26 | 0.05 | 0.26 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG13 | 10 | 0.26 | 0.05 | 0.26 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG12 | 10 | 0.26 | 0.03 | 0.25 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG11 | 10 | 0.26 | 0.03 | 0.25 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG13 | 10 | 0.26 | 0.03 | 0.25 |
| (2,193) | 1:A:81:MET:HA | 1:A:81:MET:HB2 | 10 | 0.25 | 0.0 | 0.25 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD22 | 10 | 0.25 | 0.02 | 0.26 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD21 | 10 | 0.25 | 0.02 | 0.26 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD23 | 10 | 0.25 | 0.02 | 0.26 |
| (2,389) | 1:A:3:ASP:HA | 1:A:3:ASP:HB2 | 10 | 0.24 | 0.01 | 0.24 |
| (2,463) | 1:A:64:VAL:HB | 1:A:72:VAL:HB | 10 | 0.23 | 0.05 | 0.24 |
| (2,697) | 1:A:7:ALA:HB2 | 1:A:4:ILE:HG12 | 10 | 0.23 | 0.03 | 0.22 |
| (2,697) | 1:A:7:ALA:HB2 | 1:A:4:ILE:HG13 | 10 | 0.23 | 0.03 | 0.22 |
| (2,697) | 1:A:7:ALA:HB1 | 1:A:4:ILE:HG12 | 10 | 0.23 | 0.03 | 0.22 |
| (2,697) | 1:A:7:ALA:HB1 | 1:A:4:ILE:HG13 | 10 | 0.23 | 0.03 | 0.22 |
| (2,697) | 1:A:7:ALA:HB3 | 1:A:4:ILE:HG12 | 10 | 0.23 | 0.03 | 0.22 |
| (2,697) | 1:A:7:ALA:HB3 | 1:A:4:ILE:HG13 | 10 | 0.23 | 0.03 | 0.22 |
| (2,1159) | 1:A:69:SER:HB2 | 1:A:68:GLY:HA2 | 10 | 0.23 | 0.06 | 0.22 |
| (2,1159) | 1:A:69:SER:HB2 | 1:A:71:THR:HB | 10 | 0.23 | 0.06 | 0.22 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG12 | 10 | 0.22 | 0.04 | 0.22 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG11 | 10 | 0.22 | 0.04 | 0.22 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG13 | 10 | 0.22 | 0.04 | 0.22 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB2 | 10 | 0.22 | 0.05 | 0.22 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB1 | 10 | 0.22 | 0.05 | 0.22 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB3 | 10 | 0.22 | 0.05 | 0.22 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD22 | 10 | 0.22 | 0.05 | 0.2 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD21 | 10 | 0.22 | 0.05 | 0.2 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD23 | 10 | 0.22 | 0.05 | 0.2 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD22 | 10 | 0.22 | 0.05 | 0.2 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD21 | 10 | 0.22 | 0.05 | 0.2 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD23 | 10 | 0.22 | 0.05 | 0.2 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD22 | 10 | 0.22 | 0.05 | 0.2 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD21 | 10 | 0.22 | 0.05 | 0.2 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD23 | 10 | 0.22 | 0.05 | 0.2 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD22 | 10 | 0.21 | 0.05 | 0.22 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|-----------------|------------------|---------------------|----------|---------------------|------------|
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD21 | 10 | 0.21 | 0.05 | 0.22 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD23 | 10 | 0.21 | 0.05 | 0.22 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD22 | 10 | 0.21 | 0.05 | 0.22 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD21 | 10 | 0.21 | 0.05 | 0.22 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD23 | 10 | 0.21 | 0.05 | 0.22 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD22 | 10 | 0.21 | 0.05 | 0.22 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD21 | 10 | 0.21 | 0.05 | 0.22 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD23 | 10 | 0.21 | 0.05 | 0.22 |
| (2,914) | 1:A:78:LEU:HD12 | 1:A:17:LYS:HG3 | 10 | 0.21 | 0.04 | 0.2 |
| (2,914) | 1:A:78:LEU:HD11 | 1:A:17:LYS:HG3 | 10 | 0.21 | 0.04 | 0.2 |
| (2,914) | 1:A:78:LEU:HD13 | 1:A:17:LYS:HG3 | 10 | 0.21 | 0.04 | 0.2 |
| (2,1301) | 1:A:150:ALA:HB2 | 1:A:85:MET:HG2 | 10 | 0.21 | 0.03 | 0.2 |
| (2,1301) | 1:A:150:ALA:HB1 | 1:A:85:MET:HG2 | 10 | 0.21 | 0.03 | 0.2 |
| (2,1301) | 1:A:150:ALA:HB3 | 1:A:85:MET:HG2 | 10 | 0.21 | 0.03 | 0.2 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB2 | 10 | 0.21 | 0.03 | 0.2 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB1 | 10 | 0.21 | 0.03 | 0.2 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB3 | 10 | 0.21 | 0.03 | 0.2 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB2 | 10 | 0.21 | 0.03 | 0.2 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB1 | 10 | 0.21 | 0.03 | 0.2 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB3 | 10 | 0.21 | 0.03 | 0.2 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD22 | 10 | 0.2 | 0.04 | 0.2 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD21 | 10 | 0.2 | 0.04 | 0.2 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD23 | 10 | 0.2 | 0.04 | 0.2 |
| (2,1204) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HG2 | 10 | 0.2 | 0.03 | 0.2 |
| (2,1204) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HG3 | 10 | 0.2 | 0.03 | 0.2 |
| (2,1204) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HG2 | 10 | 0.2 | 0.03 | 0.2 |
| (2,1204) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HG3 | 10 | 0.2 | 0.03 | 0.2 |
| (2,1204) | 1:A:161:ARG:HD2 | 1:A:161:ARG:HG2 | 10 | 0.2 | 0.03 | 0.2 |
| (2,1204) | 1:A:161:ARG:HD3 | 1:A:161:ARG:HG2 | 10 | 0.2 | 0.03 | 0.2 |
| (2,304) | 1:A:20:PHE:HB2 | 1:A:74:PHE:HE1 | 10 | 0.19 | 0.05 | 0.2 |
| (2,304) | 1:A:20:PHE:HB3 | 1:A:74:PHE:HE1 | 10 | 0.19 | 0.05 | 0.2 |
| (2,415) | 1:A:155:GLN:HG2 | 1:A:155:GLN:HB2 | 10 | 0.19 | 0.01 | 0.19 |
| (2,415) | 1:A:155:GLN:HG2 | 1:A:155:GLN:HB3 | 10 | 0.19 | 0.01 | 0.19 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG22 | 10 | 0.18 | 0.0 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG21 | 10 | 0.18 | 0.0 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG23 | 10 | 0.18 | 0.0 | 0.18 |
| (2,497) | 1:A:79:VAL:HA | 1:A:79:VAL:HB | 10 | 0.18 | 0.01 | 0.18 |
| (2,1005) | 1:A:8:ALA:HB2 | 1:A:79:VAL:HA | 10 | 0.18 | 0.05 | 0.17 |
| (2,1005) | 1:A:8:ALA:HB1 | 1:A:79:VAL:HA | 10 | 0.18 | 0.05 | 0.17 |
| (2,1005) | 1:A:8:ALA:HB3 | 1:A:79:VAL:HA | 10 | 0.18 | 0.05 | 0.17 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB2 | 10 | 0.18 | 0.04 | 0.18 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB1 | 10 | 0.18 | 0.04 | 0.18 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB3 | 10 | 0.18 | 0.04 | 0.18 |
| (2,1296) | 1:A:157:LEU:HB2 | 1:A:26:ILE:HG13 | 10 | 0.17 | 0.01 | 0.17 |
| (2,1296) | 1:A:158:LEU:HG | 1:A:158:LEU:HB3 | 10 | 0.17 | 0.01 | 0.17 |
| (2,278) | 1:A:71:THR:HB | 1:A:35:SER:HB3 | 10 | 0.17 | 0.05 | 0.16 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG22 | 10 | 0.16 | 0.01 | 0.16 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG21 | 10 | 0.16 | 0.01 | 0.16 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG23 | 10 | 0.16 | 0.01 | 0.16 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD12 | 10 | 0.16 | 0.01 | 0.16 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD11 | 10 | 0.16 | 0.01 | 0.16 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD13 | 10 | 0.16 | 0.01 | 0.16 |
| (2,1200) | 1:A:52:PRO:HD2 | 1:A:50:GLN:HB2 | 9 | 0.43 | 0.05 | 0.42 |
| (2,1200) | 1:A:52:PRO:HD2 | 1:A:52:PRO:HB2 | 9 | 0.43 | 0.05 | 0.42 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:15:GLU:HB2 | 9 | 0.3 | 0.07 | 0.33 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:15:GLU:HB3 | 9 | 0.3 | 0.07 | 0.33 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:19:GLU:HB3 | 9 | 0.3 | 0.07 | 0.33 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG22 | 9 | 0.29 | 0.09 | 0.32 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG21 | 9 | 0.29 | 0.09 | 0.32 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG23 | 9 | 0.29 | 0.09 | 0.32 |
| (2,1114) | 1:A:54:PRO:HA | 1:A:57:LEU:HB3 | 9 | 0.29 | 0.03 | 0.28 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD12 | 9 | 0.28 | 0.07 | 0.23 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD11 | 9 | 0.28 | 0.07 | 0.23 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD13 | 9 | 0.28 | 0.07 | 0.23 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD12 | 9 | 0.28 | 0.07 | 0.23 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD11 | 9 | 0.28 | 0.07 | 0.23 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD13 | 9 | 0.28 | 0.07 | 0.23 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD12 | 9 | 0.28 | 0.07 | 0.23 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD11 | 9 | 0.28 | 0.07 | 0.23 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD13 | 9 | 0.28 | 0.07 | 0.23 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD12 | 9 | 0.28 | 0.07 | 0.23 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD11 | 9 | 0.28 | 0.07 | 0.23 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD13 | 9 | 0.28 | 0.07 | 0.23 |
| (2,1109) | 1:A:52:PRO:HD3 | 1:A:42:GLY:HA3 | 9 | 0.26 | 0.04 | 0.25 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD12 | 9 | 0.25 | 0.04 | 0.24 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD11 | 9 | 0.25 | 0.04 | 0.24 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD13 | 9 | 0.25 | 0.04 | 0.24 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD12 | 9 | 0.25 | 0.04 | 0.24 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD11 | 9 | 0.25 | 0.04 | 0.24 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD13 | 9 | 0.25 | 0.04 | 0.24 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB2 | 9 | 0.22 | 0.08 | 0.18 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB1 | 9 | 0.22 | 0.08 | 0.18 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB3 | 9 | 0.22 | 0.08 | 0.18 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB2 | 9 | 0.22 | 0.08 | 0.18 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB1 | 9 | 0.22 | 0.08 | 0.18 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB3 | 9 | 0.22 | 0.08 | 0.18 |
| (2,1375) | 1:A:78:LEU:HD12 | 1:A:77:PHE:HE1 | 9 | 0.2 | 0.05 | 0.23 |
| (2,1375) | 1:A:78:LEU:HD11 | 1:A:77:PHE:HE1 | 9 | 0.2 | 0.05 | 0.23 |
| (2,1375) | 1:A:78:LEU:HD13 | 1:A:77:PHE:HE1 | 9 | 0.2 | 0.05 | 0.23 |
| (2,1053) | 1:A:18:ASN:HA | 1:A:21:LYS:HD3 | 9 | 0.2 | 0.03 | 0.2 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG22 | 9 | 0.19 | 0.03 | 0.18 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG21 | 9 | 0.19 | 0.03 | 0.18 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG23 | 9 | 0.19 | 0.03 | 0.18 |
| (2,1389) | 1:A:61:ILE:HG22 | 1:A:60:MET:HA | 9 | 0.19 | 0.03 | 0.18 |
| (2,1389) | 1:A:61:ILE:HG21 | 1:A:60:MET:HA | 9 | 0.19 | 0.03 | 0.18 |
| (2,1389) | 1:A:61:ILE:HG23 | 1:A:60:MET:HA | 9 | 0.19 | 0.03 | 0.18 |
| (2,1389) | 1:A:61:ILE:HG22 | 1:A:69:SER:HB3 | 9 | 0.19 | 0.03 | 0.18 |
| (2,1389) | 1:A:61:ILE:HG21 | 1:A:69:SER:HB3 | 9 | 0.19 | 0.03 | 0.18 |
| (2,1389) | 1:A:61:ILE:HG23 | 1:A:69:SER:HB3 | 9 | 0.19 | 0.03 | 0.18 |
| (2,996) | 1:A:11:GLN:HB3 | 1:A:8:ALA:HA | 9 | 0.18 | 0.03 | 0.19 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG21 | 9 | 0.18 | 0.03 | 0.18 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG22 | 9 | 0.18 | 0.03 | 0.18 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG23 | 9 | 0.18 | 0.03 | 0.18 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG21 | 9 | 0.18 | 0.03 | 0.18 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG22 | 9 | 0.18 | 0.03 | 0.18 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG23 | 9 | 0.18 | 0.03 | 0.18 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD22 | 9 | 0.18 | 0.04 | 0.19 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD21 | 9 | 0.18 | 0.04 | 0.19 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD23 | 9 | 0.18 | 0.04 | 0.19 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD22 | 9 | 0.18 | 0.04 | 0.19 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD21 | 9 | 0.18 | 0.04 | 0.19 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD23 | 9 | 0.18 | 0.04 | 0.19 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD12 | 9 | 0.18 | 0.04 | 0.19 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD11 | 9 | 0.18 | 0.04 | 0.19 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD13 | 9 | 0.18 | 0.04 | 0.19 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD12 | 9 | 0.18 | 0.04 | 0.19 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD11 | 9 | 0.18 | 0.04 | 0.19 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD13 | 9 | 0.18 | 0.04 | 0.19 |
| (2,303) | 1:A:24:PHE:HA | 1:A:74:PHE:HD1 | 9 | 0.18 | 0.04 | 0.18 |
| (2,407) | 1:A:52:PRO:HD3 | 1:A:51:ASN:HB3 | 9 | 0.17 | 0.04 | 0.17 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD12 | 9 | 0.17 | 0.04 | 0.16 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD11 | 9 | 0.17 | 0.04 | 0.16 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD13 | 9 | 0.17 | 0.04 | 0.16 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG21 | 9 | 0.17 | 0.06 | 0.14 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG22 | 9 | 0.17 | 0.06 | 0.14 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG23 | 9 | 0.17 | 0.06 | 0.14 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|-----------------|------------------|---------------------|----------|---------------------|------------|
| (2,1313) | 1:A:38:THR:HG21 | 1:A:57:LEU:HG | 9 | 0.17 | 0.06 | 0.14 |
| (2,1313) | 1:A:38:THR:HG22 | 1:A:57:LEU:HG | 9 | 0.17 | 0.06 | 0.14 |
| (2,1313) | 1:A:38:THR:HG23 | 1:A:57:LEU:HG | 9 | 0.17 | 0.06 | 0.14 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD12 | 9 | 0.17 | 0.03 | 0.17 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD11 | 9 | 0.17 | 0.03 | 0.17 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD13 | 9 | 0.17 | 0.03 | 0.17 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD12 | 9 | 0.17 | 0.04 | 0.18 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD11 | 9 | 0.17 | 0.04 | 0.18 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD13 | 9 | 0.17 | 0.04 | 0.18 |
| (2,12) | 1:A:73:ASP:HA | 1:A:24:PHE:HD1 | 9 | 0.17 | 0.06 | 0.16 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD22 | 9 | 0.16 | 0.05 | 0.14 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD21 | 9 | 0.16 | 0.05 | 0.14 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD23 | 9 | 0.16 | 0.05 | 0.14 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:6:LYS:HA | 9 | 0.16 | 0.04 | 0.14 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:76:GLU:HA | 9 | 0.16 | 0.04 | 0.14 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:81:MET:HA | 9 | 0.16 | 0.04 | 0.14 |
| (2,241) | 1:A:83:ARG:HA | 1:A:83:ARG:HB2 | 9 | 0.12 | 0.0 | 0.12 |
| (2,1150) | 1:A:31:ALA:HA | 1:A:30:GLY:HA2 | 9 | 0.12 | 0.01 | 0.12 |
| (2,1150) | 1:A:31:ALA:HA | 1:A:32:GLU:HA | 9 | 0.12 | 0.01 | 0.12 |
| (2,714) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG12 | 8 | 0.43 | 0.15 | 0.39 |
| (2,714) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG12 | 8 | 0.43 | 0.15 | 0.39 |
| (2,714) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG12 | 8 | 0.43 | 0.15 | 0.39 |
| (2,272) | 1:A:44:VAL:HA | 1:A:47:MET:HB3 | 8 | 0.34 | 0.06 | 0.32 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:19:GLU:HB2 | 8 | 0.29 | 0.04 | 0.29 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE2 | 8 | 0.29 | 0.04 | 0.29 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE1 | 8 | 0.29 | 0.04 | 0.29 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE3 | 8 | 0.29 | 0.04 | 0.29 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD22 | 8 | 0.23 | 0.14 | 0.2 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD21 | 8 | 0.23 | 0.14 | 0.2 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD23 | 8 | 0.23 | 0.14 | 0.2 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD12 | 8 | 0.23 | 0.14 | 0.2 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD11 | 8 | 0.23 | 0.14 | 0.2 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD13 | 8 | 0.23 | 0.14 | 0.2 |
| (2,1228) | 1:A:153:MET:HG3 | 1:A:48:LEU:HB2 | 8 | 0.23 | 0.04 | 0.24 |
| (2,1228) | 1:A:153:MET:HG3 | 1:A:48:LEU:HG | 8 | 0.23 | 0.04 | 0.24 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD12 | 8 | 0.22 | 0.03 | 0.23 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD11 | 8 | 0.22 | 0.03 | 0.23 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD13 | 8 | 0.22 | 0.03 | 0.23 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG22 | 8 | 0.22 | 0.06 | 0.21 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG21 | 8 | 0.22 | 0.06 | 0.21 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG23 | 8 | 0.22 | 0.06 | 0.21 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG12 | 8 | 0.22 | 0.06 | 0.21 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG11 | 8 | 0.22 | 0.06 | 0.21 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG13 | 8 | 0.22 | 0.06 | 0.21 |
| (2,110) | 1:A:66:GLU:HA | 1:A:66:GLU:HB3 | 8 | 0.2 | 0.01 | 0.2 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG22 | 8 | 0.19 | 0.06 | 0.18 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG21 | 8 | 0.19 | 0.06 | 0.18 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG23 | 8 | 0.19 | 0.06 | 0.18 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG22 | 8 | 0.19 | 0.06 | 0.18 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG21 | 8 | 0.19 | 0.06 | 0.18 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG23 | 8 | 0.19 | 0.06 | 0.18 |
| (2,442) | 1:A:15:GLU:HG2 | 1:A:18:ASN:HB2 | 8 | 0.19 | 0.03 | 0.2 |
| (2,442) | 1:A:15:GLU:HG3 | 1:A:18:ASN:HB2 | 8 | 0.19 | 0.03 | 0.2 |
| (2,603) | 1:A:44:VAL:HB | 1:A:27:PHE:HD1 | 8 | 0.19 | 0.03 | 0.2 |
| (2,1371) | 1:A:79:VAL:HG12 | 1:A:78:LEU:HB3 | 8 | 0.19 | 0.05 | 0.18 |
| (2,1371) | 1:A:79:VAL:HG11 | 1:A:78:LEU:HB3 | 8 | 0.19 | 0.05 | 0.18 |
| (2,1371) | 1:A:79:VAL:HG13 | 1:A:78:LEU:HB3 | 8 | 0.19 | 0.05 | 0.18 |
| (2,1371) | 1:A:79:VAL:HG12 | 1:A:83:ARG:HB3 | 8 | 0.19 | 0.05 | 0.18 |
| (2,1371) | 1:A:79:VAL:HG11 | 1:A:83:ARG:HB3 | 8 | 0.19 | 0.05 | 0.18 |
| (2,1371) | 1:A:79:VAL:HG13 | 1:A:83:ARG:HB3 | 8 | 0.19 | 0.05 | 0.18 |
| (2,908) | 1:A:78:LEU:HD12 | 1:A:74:PHE:HD1 | 8 | 0.16 | 0.04 | 0.15 |
| (2,908) | 1:A:78:LEU:HD11 | 1:A:74:PHE:HD1 | 8 | 0.16 | 0.04 | 0.15 |
| (2,908) | 1:A:78:LEU:HD13 | 1:A:74:PHE:HD1 | 8 | 0.16 | 0.04 | 0.15 |
| (2,119) | 1:A:47:MET:HA | 1:A:44:VAL:HA | 8 | 0.15 | 0.02 | 0.14 |
| (2,90) | 1:A:11:GLN:HA | 1:A:11:GLN:HB2 | 8 | 0.14 | 0.02 | 0.15 |
| (2,199) | 1:A:75:ASP:HA | 1:A:75:ASP:HB2 | 8 | 0.12 | 0.0 | 0.12 |
| (2,45) | 1:A:65:ASP:HA | 1:A:61:ILE:HG22 | 7 | 0.21 | 0.06 | 0.19 |
| (2,45) | 1:A:65:ASP:HA | 1:A:61:ILE:HG21 | 7 | 0.21 | 0.06 | 0.19 |
| (2,45) | 1:A:65:ASP:HA | 1:A:61:ILE:HG23 | 7 | 0.21 | 0.06 | 0.19 |
| (2,1422) | 1:A:10:GLU:HG2 | 1:A:8:ALA:HB2 | 7 | 0.21 | 0.09 | 0.18 |
| (2,1422) | 1:A:10:GLU:HG2 | 1:A:8:ALA:HB1 | 7 | 0.21 | 0.09 | 0.18 |
| (2,1422) | 1:A:10:GLU:HG2 | 1:A:8:ALA:HB3 | 7 | 0.21 | 0.09 | 0.18 |
| (2,1422) | 1:A:63:GLU:HG2 | 1:A:80:MET:HE2 | 7 | 0.21 | 0.09 | 0.18 |
| (2,1422) | 1:A:63:GLU:HG2 | 1:A:80:MET:HE1 | 7 | 0.21 | 0.09 | 0.18 |
| (2,1422) | 1:A:63:GLU:HG2 | 1:A:80:MET:HE3 | 7 | 0.21 | 0.09 | 0.18 |
| (2,1422) | 1:A:76:GLU:HG3 | 1:A:80:MET:HE2 | 7 | 0.21 | 0.09 | 0.18 |
| (2,1422) | 1:A:76:GLU:HG3 | 1:A:80:MET:HE1 | 7 | 0.21 | 0.09 | 0.18 |
| (2,1422) | 1:A:76:GLU:HG3 | 1:A:80:MET:HE3 | 7 | 0.21 | 0.09 | 0.18 |
| (2,807) | 1:A:45:MET:HG2 | 1:A:57:LEU:HD12 | 7 | 0.18 | 0.05 | 0.16 |
| (2,807) | 1:A:45:MET:HG2 | 1:A:57:LEU:HD11 | 7 | 0.18 | 0.05 | 0.16 |
| (2,807) | 1:A:45:MET:HG2 | 1:A:57:LEU:HD13 | 7 | 0.18 | 0.05 | 0.16 |
| (2,807) | 1:A:45:MET:HG3 | 1:A:57:LEU:HD12 | 7 | 0.18 | 0.05 | 0.16 |
| (2,807) | 1:A:45:MET:HG3 | 1:A:57:LEU:HD11 | 7 | 0.18 | 0.05 | 0.16 |
| (2,807) | 1:A:45:MET:HG3 | 1:A:57:LEU:HD13 | 7 | 0.18 | 0.05 | 0.16 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (2,145) | 1:A:40:GLU:HA | 1:A:31:ALA:HB2 | 7 | 0.17 | 0.04 | 0.17 |
| (2,145) | 1:A:40:GLU:HA | 1:A:31:ALA:HB1 | 7 | 0.17 | 0.04 | 0.17 |
| (2,145) | 1:A:40:GLU:HA | 1:A:31:ALA:HB3 | 7 | 0.17 | 0.04 | 0.17 |
| (2,138) | 1:A:8:ALA:HA | 1:A:82:VAL:HG22 | 7 | 0.17 | 0.05 | 0.15 |
| (2,138) | 1:A:8:ALA:HA | 1:A:82:VAL:HG21 | 7 | 0.17 | 0.05 | 0.15 |
| (2,138) | 1:A:8:ALA:HA | 1:A:82:VAL:HG23 | 7 | 0.17 | 0.05 | 0.15 |
| (2,358) | 1:A:62:ASP:HB2 | 1:A:61:ILE:HB | 7 | 0.17 | 0.03 | 0.17 |
| (2,142) | 1:A:7:ALA:HA | 1:A:10:GLU:HB2 | 7 | 0.16 | 0.04 | 0.15 |
| (2,142) | 1:A:7:ALA:HA | 1:A:10:GLU:HB3 | 7 | 0.16 | 0.04 | 0.15 |
| (2,521) | 1:A:14:GLU:HB2 | 1:A:14:GLU:HA | 7 | 0.16 | 0.02 | 0.16 |
| (2,521) | 1:A:14:GLU:HB3 | 1:A:14:GLU:HA | 7 | 0.16 | 0.02 | 0.16 |
| (2,875) | 1:A:79:VAL:HG12 | 1:A:64:VAL:HB | 7 | 0.16 | 0.03 | 0.17 |
| (2,875) | 1:A:79:VAL:HG11 | 1:A:64:VAL:HB | 7 | 0.16 | 0.03 | 0.17 |
| (2,875) | 1:A:79:VAL:HG13 | 1:A:64:VAL:HB | 7 | 0.16 | 0.03 | 0.17 |
| (2,816) | 1:A:153:MET:HG3 | 1:A:48:LEU:HD12 | 7 | 0.15 | 0.02 | 0.16 |
| (2,816) | 1:A:153:MET:HG3 | 1:A:48:LEU:HD11 | 7 | 0.15 | 0.02 | 0.16 |
| (2,816) | 1:A:153:MET:HG3 | 1:A:48:LEU:HD13 | 7 | 0.15 | 0.02 | 0.16 |
| (2,381) | 1:A:2:ASP:HB2 | 1:A:5:TYR:HE1 | 7 | 0.14 | 0.02 | 0.12 |
| (2,498) | 1:A:10:GLU:HG3 | 1:A:10:GLU:HB2 | 7 | 0.12 | 0.01 | 0.12 |
| (2,498) | 1:A:10:GLU:HG3 | 1:A:10:GLU:HB3 | 7 | 0.12 | 0.01 | 0.12 |
| (2,799) | 1:A:143:LEU:HD12 | 1:A:143:LEU:HA | 7 | 0.12 | 0.01 | 0.11 |
| (2,799) | 1:A:143:LEU:HD11 | 1:A:143:LEU:HA | 7 | 0.12 | 0.01 | 0.11 |
| (2,799) | 1:A:143:LEU:HD13 | 1:A:143:LEU:HA | 7 | 0.12 | 0.01 | 0.11 |
| (2,865) | 1:A:61:ILE:HA | 1:A:61:ILE:HD12 | 6 | 0.26 | 0.08 | 0.26 |
| (2,865) | 1:A:61:ILE:HA | 1:A:61:ILE:HD11 | 6 | 0.26 | 0.08 | 0.26 |
| (2,865) | 1:A:61:ILE:HA | 1:A:61:ILE:HD13 | 6 | 0.26 | 0.08 | 0.26 |
| (2,1221) | 1:A:60:MET:HG2 | 1:A:57:LEU:HD12 | 6 | 0.22 | 0.06 | 0.22 |
| (2,1221) | 1:A:60:MET:HG2 | 1:A:57:LEU:HD11 | 6 | 0.22 | 0.06 | 0.22 |
| (2,1221) | 1:A:60:MET:HG2 | 1:A:57:LEU:HD13 | 6 | 0.22 | 0.06 | 0.22 |
| (2,1221) | 1:A:60:MET:HG3 | 1:A:57:LEU:HD12 | 6 | 0.22 | 0.06 | 0.22 |
| (2,1221) | 1:A:60:MET:HG3 | 1:A:57:LEU:HD11 | 6 | 0.22 | 0.06 | 0.22 |
| (2,1221) | 1:A:60:MET:HG3 | 1:A:57:LEU:HD13 | 6 | 0.22 | 0.06 | 0.22 |
| (2,1221) | 1:A:154:MET:HG2 | 1:A:158:LEU:HD22 | 6 | 0.22 | 0.06 | 0.22 |
| (2,1221) | 1:A:154:MET:HG2 | 1:A:158:LEU:HD21 | 6 | 0.22 | 0.06 | 0.22 |
| (2,1221) | 1:A:154:MET:HG2 | 1:A:158:LEU:HD23 | 6 | 0.22 | 0.06 | 0.22 |
| (2,1221) | 1:A:154:MET:HG3 | 1:A:158:LEU:HD22 | 6 | 0.22 | 0.06 | 0.22 |
| (2,1221) | 1:A:154:MET:HG3 | 1:A:158:LEU:HD21 | 6 | 0.22 | 0.06 | 0.22 |
| (2,1221) | 1:A:154:MET:HG3 | 1:A:158:LEU:HD23 | 6 | 0.22 | 0.06 | 0.22 |
| (2,1242) | 1:A:11:GLN:HB3 | 1:A:12:LEU:HD12 | 6 | 0.21 | 0.07 | 0.2 |
| (2,1242) | 1:A:11:GLN:HB3 | 1:A:12:LEU:HD11 | 6 | 0.21 | 0.07 | 0.2 |
| (2,1242) | 1:A:11:GLN:HB3 | 1:A:12:LEU:HD13 | 6 | 0.21 | 0.07 | 0.2 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:12:LEU:HD12 | 6 | 0.21 | 0.07 | 0.2 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:12:LEU:HD11 | 6 | 0.21 | 0.07 | 0.2 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:12:LEU:HD13 | 6 | 0.21 | 0.07 | 0.2 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:158:LEU:HD12 | 6 | 0.21 | 0.07 | 0.2 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:158:LEU:HD11 | 6 | 0.21 | 0.07 | 0.2 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:158:LEU:HD13 | 6 | 0.21 | 0.07 | 0.2 |
| (2,710) | 1:A:58:GLN:HG2 | 1:A:38:THR:HG21 | 6 | 0.21 | 0.07 | 0.18 |
| (2,710) | 1:A:58:GLN:HG2 | 1:A:38:THR:HG22 | 6 | 0.21 | 0.07 | 0.18 |
| (2,710) | 1:A:58:GLN:HG2 | 1:A:38:THR:HG23 | 6 | 0.21 | 0.07 | 0.18 |
| (2,502) | 1:A:85:MET:HG2 | 1:A:85:MET:HE2 | 6 | 0.19 | 0.03 | 0.2 |
| (2,502) | 1:A:85:MET:HG2 | 1:A:85:MET:HE1 | 6 | 0.19 | 0.03 | 0.2 |
| (2,502) | 1:A:85:MET:HG2 | 1:A:85:MET:HE3 | 6 | 0.19 | 0.03 | 0.2 |
| (2,1332) | 1:A:9:VAL:HG22 | 1:A:17:LYS:HD3 | 6 | 0.17 | 0.03 | 0.16 |
| (2,1332) | 1:A:9:VAL:HG21 | 1:A:17:LYS:HD3 | 6 | 0.17 | 0.03 | 0.16 |
| (2,1332) | 1:A:9:VAL:HG23 | 1:A:17:LYS:HD3 | 6 | 0.17 | 0.03 | 0.16 |
| (2,1332) | 1:A:9:VAL:HG22 | 1:A:75:ASP:HB3 | 6 | 0.17 | 0.03 | 0.16 |
| (2,1332) | 1:A:9:VAL:HG21 | 1:A:75:ASP:HB3 | 6 | 0.17 | 0.03 | 0.16 |
| (2,1332) | 1:A:9:VAL:HG23 | 1:A:75:ASP:HB3 | 6 | 0.17 | 0.03 | 0.16 |
| (2,723) | 1:A:142:THR:HG21 | 1:A:141:PRO:HA | 6 | 0.17 | 0.1 | 0.12 |
| (2,723) | 1:A:142:THR:HG22 | 1:A:141:PRO:HA | 6 | 0.17 | 0.1 | 0.12 |
| (2,723) | 1:A:142:THR:HG23 | 1:A:141:PRO:HA | 6 | 0.17 | 0.1 | 0.12 |
| (2,494) | 1:A:10:GLU:HB2 | 1:A:9:VAL:HG12 | 6 | 0.16 | 0.05 | 0.15 |
| (2,494) | 1:A:10:GLU:HB2 | 1:A:9:VAL:HG11 | 6 | 0.16 | 0.05 | 0.15 |
| (2,494) | 1:A:10:GLU:HB2 | 1:A:9:VAL:HG13 | 6 | 0.16 | 0.05 | 0.15 |
| (2,494) | 1:A:10:GLU:HB3 | 1:A:9:VAL:HG12 | 6 | 0.16 | 0.05 | 0.15 |
| (2,494) | 1:A:10:GLU:HB3 | 1:A:9:VAL:HG11 | 6 | 0.16 | 0.05 | 0.15 |
| (2,494) | 1:A:10:GLU:HB3 | 1:A:9:VAL:HG13 | 6 | 0.16 | 0.05 | 0.15 |
| (2,1046) | 1:A:48:LEU:HA | 1:A:50:GLN:HG2 | 6 | 0.16 | 0.04 | 0.16 |
| (2,1046) | 1:A:48:LEU:HA | 1:A:50:GLN:HG3 | 6 | 0.16 | 0.04 | 0.16 |
| (2,1022) | 1:A:35:SER:HA | 1:A:31:ALA:HB2 | 6 | 0.15 | 0.03 | 0.15 |
| (2,1022) | 1:A:35:SER:HA | 1:A:31:ALA:HB1 | 6 | 0.15 | 0.03 | 0.15 |
| (2,1022) | 1:A:35:SER:HA | 1:A:31:ALA:HB3 | 6 | 0.15 | 0.03 | 0.15 |
| (2,1404) | 1:A:153:MET:HE2 | 1:A:20:PHE:HB2 | 6 | 0.14 | 0.03 | 0.14 |
| (2,1404) | 1:A:153:MET:HE2 | 1:A:20:PHE:HB3 | 6 | 0.14 | 0.03 | 0.14 |
| (2,1404) | 1:A:153:MET:HE1 | 1:A:20:PHE:HB2 | 6 | 0.14 | 0.03 | 0.14 |
| (2,1404) | 1:A:153:MET:HE1 | 1:A:20:PHE:HB3 | 6 | 0.14 | 0.03 | 0.14 |
| (2,1404) | 1:A:153:MET:HE3 | 1:A:20:PHE:HB2 | 6 | 0.14 | 0.03 | 0.14 |
| (2,1404) | 1:A:153:MET:HE3 | 1:A:20:PHE:HB3 | 6 | 0.14 | 0.03 | 0.14 |
| (2,1404) | 1:A:153:MET:HE2 | 1:A:24:PHE:HA | 6 | 0.14 | 0.03 | 0.14 |
| (2,1404) | 1:A:153:MET:HE1 | 1:A:24:PHE:HA | 6 | 0.14 | 0.03 | 0.14 |
| (2,1404) | 1:A:153:MET:HE3 | 1:A:24:PHE:HA | 6 | 0.14 | 0.03 | 0.14 |
| (2,236) | 1:A:141:PRO:HD3 | 1:A:141:PRO:HB3 | 6 | 0.14 | 0.02 | 0.14 |
| (2,237) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HB2 | 5 | 0.3 | 0.11 | 0.29 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|-----------------|---------------------|----------|---------------------|------------|
| (2,143) | 1:A:40:GLU:HA | 1:A:43:LYS:HB2 | 5 | 0.25 | 0.05 | 0.25 |
| (2,143) | 1:A:40:GLU:HA | 1:A:43:LYS:HB3 | 5 | 0.25 | 0.05 | 0.25 |
| (2,558) | 1:A:55:GLU:HB2 | 1:A:55:GLU:HG2 | 5 | 0.21 | 0.03 | 0.22 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:8:ALA:HB2 | 5 | 0.18 | 0.05 | 0.17 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:8:ALA:HB1 | 5 | 0.18 | 0.05 | 0.17 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:8:ALA:HB3 | 5 | 0.18 | 0.05 | 0.17 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:8:ALA:HB2 | 5 | 0.18 | 0.05 | 0.17 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:8:ALA:HB1 | 5 | 0.18 | 0.05 | 0.17 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:8:ALA:HB3 | 5 | 0.18 | 0.05 | 0.17 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:8:ALA:HB2 | 5 | 0.18 | 0.05 | 0.17 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:8:ALA:HB1 | 5 | 0.18 | 0.05 | 0.17 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:8:ALA:HB3 | 5 | 0.18 | 0.05 | 0.17 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:150:ALA:HB2 | 5 | 0.18 | 0.05 | 0.17 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:150:ALA:HB1 | 5 | 0.18 | 0.05 | 0.17 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:150:ALA:HB3 | 5 | 0.18 | 0.05 | 0.17 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:150:ALA:HB2 | 5 | 0.18 | 0.05 | 0.17 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:150:ALA:HB1 | 5 | 0.18 | 0.05 | 0.17 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:150:ALA:HB3 | 5 | 0.18 | 0.05 | 0.17 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:150:ALA:HB2 | 5 | 0.18 | 0.05 | 0.17 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:150:ALA:HB1 | 5 | 0.18 | 0.05 | 0.17 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:150:ALA:HB3 | 5 | 0.18 | 0.05 | 0.17 |
| (2,466) | 1:A:72:VAL:HB | 1:A:61:ILE:HG22 | 5 | 0.17 | 0.03 | 0.17 |
| (2,466) | 1:A:72:VAL:HB | 1:A:61:ILE:HG21 | 5 | 0.17 | 0.03 | 0.17 |
| (2,466) | 1:A:72:VAL:HB | 1:A:61:ILE:HG23 | 5 | 0.17 | 0.03 | 0.17 |
| (2,201) | 1:A:43:LYS:HA | 1:A:43:LYS:HB2 | 5 | 0.17 | 0.02 | 0.17 |
| (2,201) | 1:A:43:LYS:HA | 1:A:43:LYS:HB3 | 5 | 0.17 | 0.02 | 0.17 |
| (2,224) | 1:A:82:VAL:HA | 1:A:85:MET:HG2 | 5 | 0.17 | 0.03 | 0.17 |
| (2,1191) | 1:A:52:PRO:HD3 | 1:A:57:LEU:HD12 | 5 | 0.15 | 0.06 | 0.12 |
| (2,1191) | 1:A:52:PRO:HD3 | 1:A:57:LEU:HD11 | 5 | 0.15 | 0.06 | 0.12 |
| (2,1191) | 1:A:52:PRO:HD3 | 1:A:57:LEU:HD13 | 5 | 0.15 | 0.06 | 0.12 |
| (2,491) | 1:A:79:VAL:HB | 1:A:83:ARG:HG3 | 5 | 0.15 | 0.04 | 0.12 |
| (2,69) | 1:A:13:THR:HA | 1:A:14:GLU:HB2 | 5 | 0.15 | 0.03 | 0.17 |
| (2,69) | 1:A:13:THR:HA | 1:A:14:GLU:HB3 | 5 | 0.15 | 0.03 | 0.17 |
| (2,785) | 1:A:157:LEU:HD12 | 1:A:27:PHE:HE1 | 5 | 0.14 | 0.01 | 0.14 |
| (2,785) | 1:A:157:LEU:HD11 | 1:A:27:PHE:HE1 | 5 | 0.14 | 0.01 | 0.14 |
| (2,785) | 1:A:157:LEU:HD13 | 1:A:27:PHE:HE1 | 5 | 0.14 | 0.01 | 0.14 |
| (2,877) | 1:A:78:LEU:HD22 | 1:A:74:PHE:HE1 | 5 | 0.14 | 0.02 | 0.15 |
| (2,877) | 1:A:78:LEU:HD21 | 1:A:74:PHE:HE1 | 5 | 0.14 | 0.02 | 0.15 |
| (2,877) | 1:A:78:LEU:HD23 | 1:A:74:PHE:HE1 | 5 | 0.14 | 0.02 | 0.15 |
| (2,1222) | 1:A:3:ASP:HB3 | 1:A:6:LYS:HB2 | 5 | 0.14 | 0.02 | 0.14 |
| (2,1222) | 1:A:3:ASP:HB3 | 1:A:6:LYS:HB3 | 5 | 0.14 | 0.02 | 0.14 |
| (2,1222) | 1:A:88:ASP:HB2 | 1:A:90:LYS:HB2 | 5 | 0.14 | 0.02 | 0.14 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (2,1222) | 1:A:88:ASP:HB3 | 1:A:90:LYS:HB2 | 5 | 0.14 | 0.02 | 0.14 |
| (2,661) | 1:A:29:LEU:HB2 | 1:A:29:LEU:HD22 | 5 | 0.13 | 0.01 | 0.13 |
| (2,661) | 1:A:29:LEU:HB2 | 1:A:29:LEU:HD21 | 5 | 0.13 | 0.01 | 0.13 |
| (2,661) | 1:A:29:LEU:HB2 | 1:A:29:LEU:HD23 | 5 | 0.13 | 0.01 | 0.13 |
| (2,1429) | 1:A:27:PHE:HA | 1:A:27:PHE:HD1 | 5 | 0.13 | 0.02 | 0.13 |
| (2,324) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HD2 | 5 | 0.13 | 0.02 | 0.12 |
| (2,324) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HD3 | 5 | 0.13 | 0.02 | 0.12 |
| (2,79) | 1:A:158:LEU:HA | 1:A:158:LEU:HG | 5 | 0.13 | 0.02 | 0.11 |
| (2,289) | 1:A:80:MET:HA | 1:A:80:MET:HB3 | 5 | 0.13 | 0.01 | 0.13 |
| (2,413) | 1:A:55:GLU:HG2 | 1:A:55:GLU:HA | 5 | 0.12 | 0.0 | 0.12 |
| (2,288) | 1:A:80:MET:HA | 1:A:80:MET:HG2 | 4 | 0.44 | 0.11 | 0.43 |
| (2,1203) | 1:A:140:ARG:HD2 | 1:A:142:THR:HA | 4 | 0.39 | 0.28 | 0.32 |
| (2,1203) | 1:A:140:ARG:HD3 | 1:A:142:THR:HA | 4 | 0.39 | 0.28 | 0.32 |
| (2,1203) | 1:A:145:ARG:HA | 1:A:147:ARG:HD2 | 4 | 0.39 | 0.28 | 0.32 |
| (2,1203) | 1:A:145:ARG:HA | 1:A:147:ARG:HD3 | 4 | 0.39 | 0.28 | 0.32 |
| (2,65) | 1:A:141:PRO:HA | 1:A:141:PRO:HG2 | 4 | 0.31 | 0.0 | 0.31 |
| (2,65) | 1:A:141:PRO:HA | 1:A:141:PRO:HG3 | 4 | 0.31 | 0.0 | 0.31 |
| (2,797) | 1:A:146:VAL:HA | 1:A:146:VAL:HG22 | 4 | 0.24 | 0.04 | 0.26 |
| (2,797) | 1:A:146:VAL:HA | 1:A:146:VAL:HG21 | 4 | 0.24 | 0.04 | 0.26 |
| (2,797) | 1:A:146:VAL:HA | 1:A:146:VAL:HG23 | 4 | 0.24 | 0.04 | 0.26 |
| (2,233) | 1:A:83:ARG:HA | 1:A:5:TYR:HD1 | 4 | 0.18 | 0.04 | 0.18 |
| (2,86) | 1:A:90:LYS:HA | 1:A:90:LYS:HG2 | 4 | 0.18 | 0.03 | 0.18 |
| (2,86) | 1:A:90:LYS:HA | 1:A:90:LYS:HG3 | 4 | 0.18 | 0.03 | 0.18 |
| (2,81) | 1:A:85:MET:HA | 1:A:85:MET:HB3 | 4 | 0.18 | 0.04 | 0.2 |
| (2,618) | 1:A:45:MET:HE2 | 1:A:148:ILE:HA | 4 | 0.18 | 0.04 | 0.16 |
| (2,618) | 1:A:45:MET:HE1 | 1:A:148:ILE:HA | 4 | 0.18 | 0.04 | 0.16 |
| (2,618) | 1:A:45:MET:HE3 | 1:A:148:ILE:HA | 4 | 0.18 | 0.04 | 0.16 |
| (2,1207) | 1:A:6:LYS:HE2 | 1:A:3:ASP:HA | 4 | 0.16 | 0.05 | 0.16 |
| (2,1207) | 1:A:6:LYS:HE3 | 1:A:3:ASP:HA | 4 | 0.16 | 0.05 | 0.16 |
| (2,1207) | 1:A:43:LYS:HE2 | 1:A:31:ALA:HA | 4 | 0.16 | 0.05 | 0.16 |
| (2,1207) | 1:A:43:LYS:HE3 | 1:A:31:ALA:HA | 4 | 0.16 | 0.05 | 0.16 |
| (2,1207) | 1:A:139:LYS:HE2 | 1:A:141:PRO:HA | 4 | 0.16 | 0.05 | 0.16 |
| (2,280) | 1:A:9:VAL:HA | 1:A:8:ALA:HB2 | 4 | 0.15 | 0.03 | 0.15 |
| (2,280) | 1:A:9:VAL:HA | 1:A:8:ALA:HB1 | 4 | 0.15 | 0.03 | 0.15 |
| (2,280) | 1:A:9:VAL:HA | 1:A:8:ALA:HB3 | 4 | 0.15 | 0.03 | 0.15 |
| (2,1091) | 1:A:40:GLU:HA | 1:A:36:ILE:HG22 | 4 | 0.15 | 0.04 | 0.14 |
| (2,1091) | 1:A:40:GLU:HA | 1:A:36:ILE:HG21 | 4 | 0.15 | 0.04 | 0.14 |
| (2,1091) | 1:A:40:GLU:HA | 1:A:36:ILE:HG23 | 4 | 0.15 | 0.04 | 0.14 |
| (2,1340) | 1:A:157:LEU:HD12 | 1:A:27:PHE:HA | 4 | 0.14 | 0.05 | 0.12 |
| (2,1340) | 1:A:157:LEU:HD11 | 1:A:27:PHE:HA | 4 | 0.14 | 0.05 | 0.12 |
| (2,1340) | 1:A:157:LEU:HD13 | 1:A:27:PHE:HA | 4 | 0.14 | 0.05 | 0.12 |
| (2,1340) | 1:A:150:ALA:HA | 1:A:157:LEU:HD12 | 4 | 0.14 | 0.05 | 0.12 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (2,1340) | 1:A:150:ALA:HA | 1:A:157:LEU:HD11 | 4 | 0.14 | 0.05 | 0.12 |
| (2,1340) | 1:A:150:ALA:HA | 1:A:157:LEU:HD13 | 4 | 0.14 | 0.05 | 0.12 |
| (2,1340) | 1:A:157:LEU:HD12 | 1:A:153:MET:HA | 4 | 0.14 | 0.05 | 0.12 |
| (2,1340) | 1:A:157:LEU:HD11 | 1:A:153:MET:HA | 4 | 0.14 | 0.05 | 0.12 |
| (2,1340) | 1:A:157:LEU:HD13 | 1:A:153:MET:HA | 4 | 0.14 | 0.05 | 0.12 |
| (2,1010) | 1:A:78:LEU:HA | 1:A:81:MET:HB2 | 4 | 0.14 | 0.02 | 0.13 |
| (2,148) | 1:A:10:GLU:HA | 1:A:10:GLU:HG2 | 4 | 0.13 | 0.02 | 0.12 |
| (2,177) | 1:A:57:LEU:HA | 1:A:60:MET:HE2 | 4 | 0.13 | 0.02 | 0.13 |
| (2,177) | 1:A:57:LEU:HA | 1:A:60:MET:HE1 | 4 | 0.13 | 0.02 | 0.13 |
| (2,177) | 1:A:57:LEU:HA | 1:A:60:MET:HE3 | 4 | 0.13 | 0.02 | 0.13 |
| (2,645) | 1:A:90:LYS:HD2 | 1:A:90:LYS:HG2 | 4 | 0.13 | 0.01 | 0.13 |
| (2,645) | 1:A:90:LYS:HD2 | 1:A:90:LYS:HG3 | 4 | 0.13 | 0.01 | 0.13 |
| (2,645) | 1:A:90:LYS:HD3 | 1:A:90:LYS:HG2 | 4 | 0.13 | 0.01 | 0.13 |
| (2,645) | 1:A:90:LYS:HD3 | 1:A:90:LYS:HG3 | 4 | 0.13 | 0.01 | 0.13 |
| (2,1426) | 1:A:24:PHE:HA | 1:A:21:LYS:HD2 | 4 | 0.13 | 0.02 | 0.12 |
| (2,111) | 1:A:157:LEU:HA | 1:A:157:LEU:HB2 | 4 | 0.12 | 0.02 | 0.11 |
| (2,444) | 1:A:40:GLU:HG3 | 1:A:40:GLU:HB2 | 4 | 0.12 | 0.01 | 0.12 |
| (2,223) | 1:A:82:VAL:HA | 1:A:85:MET:HG3 | 3 | 0.32 | 0.01 | 0.32 |
| (2,240) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HG2 | 3 | 0.22 | 0.07 | 0.17 |
| (2,240) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HG3 | 3 | 0.22 | 0.07 | 0.17 |
| (2,640) | 1:A:6:LYS:HD2 | 1:A:6:LYS:HA | 3 | 0.22 | 0.03 | 0.2 |
| (2,112) | 1:A:41:LEU:HA | 1:A:41:LEU:HD22 | 3 | 0.21 | 0.05 | 0.18 |
| (2,112) | 1:A:41:LEU:HA | 1:A:41:LEU:HD21 | 3 | 0.21 | 0.05 | 0.18 |
| (2,112) | 1:A:41:LEU:HA | 1:A:41:LEU:HD23 | 3 | 0.21 | 0.05 | 0.18 |
| (2,879) | 1:A:78:LEU:HD22 | 1:A:77:PHE:HD1 | 3 | 0.2 | 0.06 | 0.18 |
| (2,879) | 1:A:78:LEU:HD21 | 1:A:77:PHE:HD1 | 3 | 0.2 | 0.06 | 0.18 |
| (2,879) | 1:A:78:LEU:HD23 | 1:A:77:PHE:HD1 | 3 | 0.2 | 0.06 | 0.18 |
| (2,615) | 1:A:43:LYS:HD2 | 1:A:44:VAL:HG12 | 3 | 0.2 | 0.07 | 0.17 |
| (2,615) | 1:A:43:LYS:HD2 | 1:A:44:VAL:HG11 | 3 | 0.2 | 0.07 | 0.17 |
| (2,615) | 1:A:43:LYS:HD2 | 1:A:44:VAL:HG13 | 3 | 0.2 | 0.07 | 0.17 |
| (2,615) | 1:A:43:LYS:HD3 | 1:A:44:VAL:HG12 | 3 | 0.2 | 0.07 | 0.17 |
| (2,615) | 1:A:43:LYS:HD3 | 1:A:44:VAL:HG11 | 3 | 0.2 | 0.07 | 0.17 |
| (2,615) | 1:A:43:LYS:HD3 | 1:A:44:VAL:HG13 | 3 | 0.2 | 0.07 | 0.17 |
| (2,639) | 1:A:3:ASP:HA | 1:A:6:LYS:HD2 | 3 | 0.18 | 0.06 | 0.17 |
| (2,42) | 1:A:2:ASP:HA | 1:A:2:ASP:HB3 | 3 | 0.18 | 0.05 | 0.17 |
| (2,848) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG22 | 3 | 0.18 | 0.02 | 0.17 |
| (2,848) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG21 | 3 | 0.18 | 0.02 | 0.17 |
| (2,848) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG23 | 3 | 0.18 | 0.02 | 0.17 |
| (2,848) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG22 | 3 | 0.18 | 0.02 | 0.17 |
| (2,848) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG21 | 3 | 0.18 | 0.02 | 0.17 |
| (2,848) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG23 | 3 | 0.18 | 0.02 | 0.17 |
| (2,848) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG22 | 3 | 0.18 | 0.02 | 0.17 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|-----------------|---------------------|----------|---------------------|------------|
| (2,848) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG21 | 3 | 0.18 | 0.02 | 0.17 |
| (2,848) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG23 | 3 | 0.18 | 0.02 | 0.17 |
| (2,1266) | 1:A:47:MET:HE2 | 1:A:48:LEU:HA | 3 | 0.17 | 0.02 | 0.19 |
| (2,1266) | 1:A:47:MET:HE1 | 1:A:48:LEU:HA | 3 | 0.17 | 0.02 | 0.19 |
| (2,1266) | 1:A:47:MET:HE3 | 1:A:48:LEU:HA | 3 | 0.17 | 0.02 | 0.19 |
| (2,1266) | 1:A:154:MET:HA | 1:A:47:MET:HE2 | 3 | 0.17 | 0.02 | 0.19 |
| (2,1266) | 1:A:154:MET:HA | 1:A:47:MET:HE1 | 3 | 0.17 | 0.02 | 0.19 |
| (2,1266) | 1:A:154:MET:HA | 1:A:47:MET:HE3 | 3 | 0.17 | 0.02 | 0.19 |
| (2,1160) | 1:A:38:THR:HB | 1:A:41:LEU:HB3 | 3 | 0.17 | 0.02 | 0.18 |
| (2,1160) | 1:A:38:THR:HB | 1:A:57:LEU:HG | 3 | 0.17 | 0.02 | 0.18 |
| (2,1430) | 1:A:27:PHE:HA | 1:A:41:LEU:HD12 | 3 | 0.16 | 0.02 | 0.17 |
| (2,1430) | 1:A:27:PHE:HA | 1:A:41:LEU:HD11 | 3 | 0.16 | 0.02 | 0.17 |
| (2,1430) | 1:A:27:PHE:HA | 1:A:41:LEU:HD13 | 3 | 0.16 | 0.02 | 0.17 |
| (2,1430) | 1:A:27:PHE:HA | 1:A:61:ILE:HD12 | 3 | 0.16 | 0.02 | 0.17 |
| (2,1430) | 1:A:27:PHE:HA | 1:A:61:ILE:HD11 | 3 | 0.16 | 0.02 | 0.17 |
| (2,1430) | 1:A:27:PHE:HA | 1:A:61:ILE:HD13 | 3 | 0.16 | 0.02 | 0.17 |
| (2,1430) | 1:A:157:LEU:HD22 | 1:A:27:PHE:HA | 3 | 0.16 | 0.02 | 0.17 |
| (2,1430) | 1:A:157:LEU:HD21 | 1:A:27:PHE:HA | 3 | 0.16 | 0.02 | 0.17 |
| (2,1430) | 1:A:157:LEU:HD23 | 1:A:27:PHE:HA | 3 | 0.16 | 0.02 | 0.17 |
| (2,1430) | 1:A:57:LEU:HD22 | 1:A:55:GLU:HA | 3 | 0.16 | 0.02 | 0.17 |
| (2,1430) | 1:A:57:LEU:HD21 | 1:A:55:GLU:HA | 3 | 0.16 | 0.02 | 0.17 |
| (2,1430) | 1:A:57:LEU:HD23 | 1:A:55:GLU:HA | 3 | 0.16 | 0.02 | 0.17 |
| (2,991) | 1:A:60:MET:HG2 | 1:A:45:MET:HE2 | 3 | 0.16 | 0.03 | 0.17 |
| (2,991) | 1:A:60:MET:HG2 | 1:A:45:MET:HE1 | 3 | 0.16 | 0.03 | 0.17 |
| (2,991) | 1:A:60:MET:HG2 | 1:A:45:MET:HE3 | 3 | 0.16 | 0.03 | 0.17 |
| (2,991) | 1:A:60:MET:HG3 | 1:A:45:MET:HE2 | 3 | 0.16 | 0.03 | 0.17 |
| (2,991) | 1:A:60:MET:HG3 | 1:A:45:MET:HE1 | 3 | 0.16 | 0.03 | 0.17 |
| (2,991) | 1:A:60:MET:HG3 | 1:A:45:MET:HE3 | 3 | 0.16 | 0.03 | 0.17 |
| (2,1329) | 1:A:5:TYR:HA | 1:A:9:VAL:HG22 | 3 | 0.15 | 0.04 | 0.12 |
| (2,1329) | 1:A:5:TYR:HA | 1:A:9:VAL:HG21 | 3 | 0.15 | 0.04 | 0.12 |
| (2,1329) | 1:A:5:TYR:HA | 1:A:9:VAL:HG23 | 3 | 0.15 | 0.04 | 0.12 |
| (2,1329) | 1:A:5:TYR:HA | 1:A:79:VAL:HG22 | 3 | 0.15 | 0.04 | 0.12 |
| (2,1329) | 1:A:5:TYR:HA | 1:A:79:VAL:HG21 | 3 | 0.15 | 0.04 | 0.12 |
| (2,1329) | 1:A:5:TYR:HA | 1:A:79:VAL:HG23 | 3 | 0.15 | 0.04 | 0.12 |
| (2,1324) | 1:A:82:VAL:HG22 | 1:A:83:ARG:HG3 | 3 | 0.14 | 0.02 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG21 | 1:A:83:ARG:HG3 | 3 | 0.14 | 0.02 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG23 | 1:A:83:ARG:HG3 | 3 | 0.14 | 0.02 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG22 | 1:A:7:ALA:HB2 | 3 | 0.14 | 0.02 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG22 | 1:A:7:ALA:HB1 | 3 | 0.14 | 0.02 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG22 | 1:A:7:ALA:HB3 | 3 | 0.14 | 0.02 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG21 | 1:A:7:ALA:HB2 | 3 | 0.14 | 0.02 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG21 | 1:A:7:ALA:HB1 | 3 | 0.14 | 0.02 | 0.16 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|-----------------|------------------|---------------------|----------|---------------------|------------|
| (2,1324) | 1:A:82:VAL:HG21 | 1:A:7:ALA:HB3 | 3 | 0.14 | 0.02 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG23 | 1:A:7:ALA:HB2 | 3 | 0.14 | 0.02 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG23 | 1:A:7:ALA:HB1 | 3 | 0.14 | 0.02 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG23 | 1:A:7:ALA:HB3 | 3 | 0.14 | 0.02 | 0.16 |
| (2,1401) | 1:A:85:MET:HG3 | 1:A:81:MET:HG2 | 3 | 0.14 | 0.0 | 0.14 |
| (2,1401) | 1:A:85:MET:HG3 | 1:A:82:VAL:HG22 | 3 | 0.14 | 0.0 | 0.14 |
| (2,1401) | 1:A:85:MET:HG3 | 1:A:82:VAL:HG21 | 3 | 0.14 | 0.0 | 0.14 |
| (2,1401) | 1:A:85:MET:HG3 | 1:A:82:VAL:HG23 | 3 | 0.14 | 0.0 | 0.14 |
| (2,20) | 1:A:71:THR:HA | 1:A:36:ILE:HA | 3 | 0.14 | 0.02 | 0.13 |
| (2,625) | 1:A:45:MET:HE2 | 1:A:50:GLN:HG2 | 3 | 0.14 | 0.03 | 0.12 |
| (2,625) | 1:A:45:MET:HE2 | 1:A:50:GLN:HG3 | 3 | 0.14 | 0.03 | 0.12 |
| (2,625) | 1:A:45:MET:HE1 | 1:A:50:GLN:HG2 | 3 | 0.14 | 0.03 | 0.12 |
| (2,625) | 1:A:45:MET:HE1 | 1:A:50:GLN:HG3 | 3 | 0.14 | 0.03 | 0.12 |
| (2,625) | 1:A:45:MET:HE3 | 1:A:50:GLN:HG2 | 3 | 0.14 | 0.03 | 0.12 |
| (2,625) | 1:A:45:MET:HE3 | 1:A:50:GLN:HG3 | 3 | 0.14 | 0.03 | 0.12 |
| (2,385) | 1:A:59:GLU:HA | 1:A:62:ASP:HB3 | 3 | 0.13 | 0.01 | 0.13 |
| (2,457) | 1:A:53:THR:HA | 1:A:54:PRO:HG2 | 3 | 0.13 | 0.02 | 0.12 |
| (2,966) | 1:A:148:ILE:HA | 1:A:148:ILE:HD12 | 3 | 0.13 | 0.02 | 0.12 |
| (2,966) | 1:A:148:ILE:HA | 1:A:148:ILE:HD11 | 3 | 0.13 | 0.02 | 0.12 |
| (2,966) | 1:A:148:ILE:HA | 1:A:148:ILE:HD13 | 3 | 0.13 | 0.02 | 0.12 |
| (2,1331) | 1:A:79:VAL:HG22 | 1:A:2:ASP:HB2 | 3 | 0.13 | 0.0 | 0.13 |
| (2,1331) | 1:A:79:VAL:HG21 | 1:A:2:ASP:HB2 | 3 | 0.13 | 0.0 | 0.13 |
| (2,1331) | 1:A:79:VAL:HG23 | 1:A:2:ASP:HB2 | 3 | 0.13 | 0.0 | 0.13 |
| (2,1331) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG22 | 3 | 0.13 | 0.0 | 0.13 |
| (2,1331) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG21 | 3 | 0.13 | 0.0 | 0.13 |
| (2,1331) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG23 | 3 | 0.13 | 0.0 | 0.13 |
| (2,501) | 1:A:85:MET:HG3 | 1:A:85:MET:HE2 | 3 | 0.12 | 0.0 | 0.12 |
| (2,501) | 1:A:85:MET:HG3 | 1:A:85:MET:HE1 | 3 | 0.12 | 0.0 | 0.12 |
| (2,501) | 1:A:85:MET:HG3 | 1:A:85:MET:HE3 | 3 | 0.12 | 0.0 | 0.12 |
| (2,1420) | 1:A:41:LEU:HD22 | 1:A:44:VAL:HB | 3 | 0.12 | 0.01 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD21 | 1:A:44:VAL:HB | 3 | 0.12 | 0.01 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD23 | 1:A:44:VAL:HB | 3 | 0.12 | 0.01 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD22 | 1:A:52:PRO:HG3 | 3 | 0.12 | 0.01 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD21 | 1:A:52:PRO:HG3 | 3 | 0.12 | 0.01 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD23 | 1:A:52:PRO:HG3 | 3 | 0.12 | 0.01 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD22 | 1:A:60:MET:HE2 | 3 | 0.12 | 0.01 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD22 | 1:A:60:MET:HE1 | 3 | 0.12 | 0.01 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD22 | 1:A:60:MET:HE3 | 3 | 0.12 | 0.01 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD21 | 1:A:60:MET:HE2 | 3 | 0.12 | 0.01 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD21 | 1:A:60:MET:HE1 | 3 | 0.12 | 0.01 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD21 | 1:A:60:MET:HE3 | 3 | 0.12 | 0.01 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD23 | 1:A:60:MET:HE2 | 3 | 0.12 | 0.01 | 0.11 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (2,1420) | 1:A:41:LEU:HD23 | 1:A:60:MET:HE1 | 3 | 0.12 | 0.01 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD23 | 1:A:60:MET:HE3 | 3 | 0.12 | 0.01 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD22 | 1:A:148:ILE:HB | 3 | 0.12 | 0.01 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD21 | 1:A:148:ILE:HB | 3 | 0.12 | 0.01 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD23 | 1:A:148:ILE:HB | 3 | 0.12 | 0.01 | 0.11 |
| (2,95) | 1:A:139:LYS:HA | 1:A:139:LYS:HG2 | 2 | 0.44 | 0.01 | 0.44 |
| (2,95) | 1:A:139:LYS:HA | 1:A:139:LYS:HG3 | 2 | 0.44 | 0.01 | 0.44 |
| (2,599) | 1:A:56:GLU:HG2 | 1:A:56:GLU:HB2 | 2 | 0.34 | 0.0 | 0.34 |
| (2,1388) | 1:A:61:ILE:HD12 | 1:A:28:VAL:HA | 2 | 0.34 | 0.03 | 0.34 |
| (2,1388) | 1:A:61:ILE:HD11 | 1:A:28:VAL:HA | 2 | 0.34 | 0.03 | 0.34 |
| (2,1388) | 1:A:61:ILE:HD13 | 1:A:28:VAL:HA | 2 | 0.34 | 0.03 | 0.34 |
| (2,1388) | 1:A:61:ILE:HD12 | 1:A:39:LYS:HA | 2 | 0.34 | 0.03 | 0.34 |
| (2,1388) | 1:A:61:ILE:HD11 | 1:A:39:LYS:HA | 2 | 0.34 | 0.03 | 0.34 |
| (2,1388) | 1:A:61:ILE:HD13 | 1:A:39:LYS:HA | 2 | 0.34 | 0.03 | 0.34 |
| (2,1388) | 1:A:61:ILE:HD12 | 1:A:59:GLU:HA | 2 | 0.34 | 0.03 | 0.34 |
| (2,1388) | 1:A:61:ILE:HD11 | 1:A:59:GLU:HA | 2 | 0.34 | 0.03 | 0.34 |
| (2,1388) | 1:A:61:ILE:HD13 | 1:A:59:GLU:HA | 2 | 0.34 | 0.03 | 0.34 |
| (2,825) | 1:A:48:LEU:HD12 | 1:A:44:VAL:HG12 | 2 | 0.31 | 0.01 | 0.31 |
| (2,825) | 1:A:48:LEU:HD12 | 1:A:44:VAL:HG11 | 2 | 0.31 | 0.01 | 0.31 |
| (2,825) | 1:A:48:LEU:HD12 | 1:A:44:VAL:HG13 | 2 | 0.31 | 0.01 | 0.31 |
| (2,825) | 1:A:48:LEU:HD11 | 1:A:44:VAL:HG12 | 2 | 0.31 | 0.01 | 0.31 |
| (2,825) | 1:A:48:LEU:HD11 | 1:A:44:VAL:HG11 | 2 | 0.31 | 0.01 | 0.31 |
| (2,825) | 1:A:48:LEU:HD11 | 1:A:44:VAL:HG13 | 2 | 0.31 | 0.01 | 0.31 |
| (2,825) | 1:A:48:LEU:HD13 | 1:A:44:VAL:HG12 | 2 | 0.31 | 0.01 | 0.31 |
| (2,825) | 1:A:48:LEU:HD13 | 1:A:44:VAL:HG11 | 2 | 0.31 | 0.01 | 0.31 |
| (2,825) | 1:A:48:LEU:HD13 | 1:A:44:VAL:HG13 | 2 | 0.31 | 0.01 | 0.31 |
| (2,1434) | 1:A:83:ARG:HA | 1:A:82:VAL:HB | 2 | 0.27 | 0.16 | 0.27 |
| (2,1434) | 1:A:83:ARG:HA | 1:A:85:MET:HE2 | 2 | 0.27 | 0.16 | 0.27 |
| (2,1434) | 1:A:83:ARG:HA | 1:A:85:MET:HE1 | 2 | 0.27 | 0.16 | 0.27 |
| (2,1434) | 1:A:83:ARG:HA | 1:A:85:MET:HE3 | 2 | 0.27 | 0.16 | 0.27 |
| (2,1434) | 1:A:83:ARG:HA | 1:A:85:MET:HB2 | 2 | 0.27 | 0.16 | 0.27 |
| (2,1188) | 1:A:58:GLN:HA | 1:A:61:ILE:HG22 | 2 | 0.26 | 0.03 | 0.26 |
| (2,1188) | 1:A:58:GLN:HA | 1:A:61:ILE:HG21 | 2 | 0.26 | 0.03 | 0.26 |
| (2,1188) | 1:A:58:GLN:HA | 1:A:61:ILE:HG23 | 2 | 0.26 | 0.03 | 0.26 |
| (2,1188) | 1:A:58:GLN:HA | 1:A:61:ILE:HD12 | 2 | 0.26 | 0.03 | 0.26 |
| (2,1188) | 1:A:58:GLN:HA | 1:A:61:ILE:HD11 | 2 | 0.26 | 0.03 | 0.26 |
| (2,1188) | 1:A:58:GLN:HA | 1:A:61:ILE:HD13 | 2 | 0.26 | 0.03 | 0.26 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:26:ILE:HG22 | 2 | 0.24 | 0.02 | 0.24 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:26:ILE:HG21 | 2 | 0.24 | 0.02 | 0.24 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:26:ILE:HG23 | 2 | 0.24 | 0.02 | 0.24 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:48:LEU:HD22 | 2 | 0.24 | 0.02 | 0.24 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:48:LEU:HD21 | 2 | 0.24 | 0.02 | 0.24 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|-----------------|---------------------|----------|---------------------|------------|
| (2,1246) | 1:A:47:MET:HB3 | 1:A:48:LEU:HD23 | 2 | 0.24 | 0.02 | 0.24 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:48:LEU:HD12 | 2 | 0.24 | 0.02 | 0.24 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:48:LEU:HD11 | 2 | 0.24 | 0.02 | 0.24 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:48:LEU:HD13 | 2 | 0.24 | 0.02 | 0.24 |
| (2,391) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HA | 2 | 0.24 | 0.08 | 0.24 |
| (2,391) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HA | 2 | 0.24 | 0.08 | 0.24 |
| (2,604) | 1:A:161:ARG:HB3 | 1:A:161:ARG:HD2 | 2 | 0.22 | 0.08 | 0.22 |
| (2,604) | 1:A:161:ARG:HB3 | 1:A:161:ARG:HD3 | 2 | 0.22 | 0.08 | 0.22 |
| (2,1358) | 1:A:148:ILE:HG13 | 1:A:48:LEU:HD22 | 2 | 0.22 | 0.08 | 0.22 |
| (2,1358) | 1:A:148:ILE:HG13 | 1:A:48:LEU:HD21 | 2 | 0.22 | 0.08 | 0.22 |
| (2,1358) | 1:A:148:ILE:HG13 | 1:A:48:LEU:HD23 | 2 | 0.22 | 0.08 | 0.22 |
| (2,1358) | 1:A:156:ALA:HB2 | 1:A:48:LEU:HD22 | 2 | 0.22 | 0.08 | 0.22 |
| (2,1358) | 1:A:156:ALA:HB2 | 1:A:48:LEU:HD21 | 2 | 0.22 | 0.08 | 0.22 |
| (2,1358) | 1:A:156:ALA:HB2 | 1:A:48:LEU:HD23 | 2 | 0.22 | 0.08 | 0.22 |
| (2,1358) | 1:A:156:ALA:HB1 | 1:A:48:LEU:HD22 | 2 | 0.22 | 0.08 | 0.22 |
| (2,1358) | 1:A:156:ALA:HB1 | 1:A:48:LEU:HD21 | 2 | 0.22 | 0.08 | 0.22 |
| (2,1358) | 1:A:156:ALA:HB1 | 1:A:48:LEU:HD23 | 2 | 0.22 | 0.08 | 0.22 |
| (2,1358) | 1:A:156:ALA:HB3 | 1:A:48:LEU:HD22 | 2 | 0.22 | 0.08 | 0.22 |
| (2,1358) | 1:A:156:ALA:HB3 | 1:A:48:LEU:HD21 | 2 | 0.22 | 0.08 | 0.22 |
| (2,1358) | 1:A:156:ALA:HB3 | 1:A:48:LEU:HD23 | 2 | 0.22 | 0.08 | 0.22 |
| (2,582) | 1:A:45:MET:HA | 1:A:48:LEU:HG | 2 | 0.2 | 0.01 | 0.2 |
| (2,1234) | 1:A:63:GLU:HG2 | 1:A:64:VAL:HG22 | 2 | 0.2 | 0.02 | 0.2 |
| (2,1234) | 1:A:63:GLU:HG2 | 1:A:64:VAL:HG21 | 2 | 0.2 | 0.02 | 0.2 |
| (2,1234) | 1:A:63:GLU:HG2 | 1:A:64:VAL:HG23 | 2 | 0.2 | 0.02 | 0.2 |
| (2,1234) | 1:A:76:GLU:HG3 | 1:A:72:VAL:HG22 | 2 | 0.2 | 0.02 | 0.2 |
| (2,1234) | 1:A:76:GLU:HG3 | 1:A:72:VAL:HG21 | 2 | 0.2 | 0.02 | 0.2 |
| (2,1234) | 1:A:76:GLU:HG3 | 1:A:72:VAL:HG23 | 2 | 0.2 | 0.02 | 0.2 |
| (2,1234) | 1:A:10:GLU:HG2 | 1:A:9:VAL:HG12 | 2 | 0.2 | 0.02 | 0.2 |
| (2,1234) | 1:A:10:GLU:HG2 | 1:A:9:VAL:HG11 | 2 | 0.2 | 0.02 | 0.2 |
| (2,1234) | 1:A:10:GLU:HG2 | 1:A:9:VAL:HG13 | 2 | 0.2 | 0.02 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:41:LEU:HD12 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:41:LEU:HD11 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:41:LEU:HD13 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:41:LEU:HD12 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:41:LEU:HD11 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:41:LEU:HD13 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:41:LEU:HD12 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:41:LEU:HD11 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:41:LEU:HD13 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG22 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG21 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG23 | 2 | 0.2 | 0.0 | 0.2 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|-----------------|------------------|---------------------|----------|---------------------|------------|
| (2,1314) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG22 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG21 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG23 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG22 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG21 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG23 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:61:ILE:HD12 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:61:ILE:HD11 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:61:ILE:HD13 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:61:ILE:HD12 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:61:ILE:HD11 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:61:ILE:HD13 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:61:ILE:HD12 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:61:ILE:HD11 | 2 | 0.2 | 0.0 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:61:ILE:HD13 | 2 | 0.2 | 0.0 | 0.2 |
| (2,399) | 1:A:47:MET:HA | 1:A:47:MET:HG3 | 2 | 0.2 | 0.02 | 0.2 |
| (2,1025) | 1:A:35:SER:HA | 1:A:73:ASP:HB2 | 2 | 0.2 | 0.02 | 0.2 |
| (2,1176) | 1:A:84:SER:HB2 | 1:A:147:ARG:HB2 | 2 | 0.18 | 0.01 | 0.18 |
| (2,1176) | 1:A:84:SER:HB3 | 1:A:147:ARG:HB2 | 2 | 0.18 | 0.01 | 0.18 |
| (2,1176) | 1:A:84:SER:HB2 | 1:A:148:ILE:HB | 2 | 0.18 | 0.01 | 0.18 |
| (2,1176) | 1:A:84:SER:HB3 | 1:A:148:ILE:HB | 2 | 0.18 | 0.01 | 0.18 |
| (2,434) | 1:A:19:GLU:HG3 | 1:A:158:LEU:HD12 | 2 | 0.18 | 0.02 | 0.18 |
| (2,434) | 1:A:19:GLU:HG3 | 1:A:158:LEU:HD11 | 2 | 0.18 | 0.02 | 0.18 |
| (2,434) | 1:A:19:GLU:HG3 | 1:A:158:LEU:HD13 | 2 | 0.18 | 0.02 | 0.18 |
| (2,270) | 1:A:44:VAL:HA | 1:A:47:MET:HG3 | 2 | 0.17 | 0.0 | 0.17 |
| (2,1059) | 1:A:12:LEU:HG | 1:A:9:VAL:HA | 2 | 0.17 | 0.03 | 0.17 |
| (2,1400) | 1:A:47:MET:HE2 | 1:A:27:PHE:HA | 2 | 0.17 | 0.01 | 0.17 |
| (2,1400) | 1:A:47:MET:HE1 | 1:A:27:PHE:HA | 2 | 0.17 | 0.01 | 0.17 |
| (2,1400) | 1:A:47:MET:HE3 | 1:A:27:PHE:HA | 2 | 0.17 | 0.01 | 0.17 |
| (2,1400) | 1:A:43:LYS:HA | 1:A:47:MET:HE2 | 2 | 0.17 | 0.01 | 0.17 |
| (2,1400) | 1:A:43:LYS:HA | 1:A:47:MET:HE1 | 2 | 0.17 | 0.01 | 0.17 |
| (2,1400) | 1:A:43:LYS:HA | 1:A:47:MET:HE3 | 2 | 0.17 | 0.01 | 0.17 |
| (2,245) | 1:A:36:ILE:HA | 1:A:40:GLU:HG2 | 2 | 0.16 | 0.02 | 0.16 |
| (2,242) | 1:A:83:ARG:HA | 1:A:83:ARG:HG3 | 2 | 0.16 | 0.02 | 0.16 |
| (2,1262) | 1:A:11:GLN:HB3 | 1:A:7:ALA:HB2 | 2 | 0.16 | 0.03 | 0.16 |
| (2,1262) | 1:A:11:GLN:HB3 | 1:A:7:ALA:HB1 | 2 | 0.16 | 0.03 | 0.16 |
| (2,1262) | 1:A:11:GLN:HB3 | 1:A:7:ALA:HB3 | 2 | 0.16 | 0.03 | 0.16 |
| (2,1262) | 1:A:14:GLU:HB2 | 1:A:13:THR:HG21 | 2 | 0.16 | 0.03 | 0.16 |
| (2,1262) | 1:A:14:GLU:HB2 | 1:A:13:THR:HG22 | 2 | 0.16 | 0.03 | 0.16 |
| (2,1262) | 1:A:14:GLU:HB2 | 1:A:13:THR:HG23 | 2 | 0.16 | 0.03 | 0.16 |
| (2,1262) | 1:A:14:GLU:HB3 | 1:A:13:THR:HG21 | 2 | 0.16 | 0.03 | 0.16 |
| (2,1262) | 1:A:14:GLU:HB3 | 1:A:13:THR:HG22 | 2 | 0.16 | 0.03 | 0.16 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (2,1262) | 1:A:14:GLU:HB3 | 1:A:13:THR:HG23 | 2 | 0.16 | 0.03 | 0.16 |
| (2,1262) | 1:A:19:GLU:HB2 | 1:A:13:THR:HG21 | 2 | 0.16 | 0.03 | 0.16 |
| (2,1262) | 1:A:19:GLU:HB2 | 1:A:13:THR:HG22 | 2 | 0.16 | 0.03 | 0.16 |
| (2,1262) | 1:A:19:GLU:HB2 | 1:A:13:THR:HG23 | 2 | 0.16 | 0.03 | 0.16 |
| (2,271) | 1:A:44:VAL:HA | 1:A:47:MET:HB2 | 2 | 0.15 | 0.02 | 0.15 |
| (2,699) | 1:A:13:THR:HG21 | 1:A:12:LEU:HD22 | 2 | 0.14 | 0.02 | 0.14 |
| (2,699) | 1:A:13:THR:HG21 | 1:A:12:LEU:HD21 | 2 | 0.14 | 0.02 | 0.14 |
| (2,699) | 1:A:13:THR:HG21 | 1:A:12:LEU:HD23 | 2 | 0.14 | 0.02 | 0.14 |
| (2,699) | 1:A:13:THR:HG22 | 1:A:12:LEU:HD22 | 2 | 0.14 | 0.02 | 0.14 |
| (2,699) | 1:A:13:THR:HG22 | 1:A:12:LEU:HD21 | 2 | 0.14 | 0.02 | 0.14 |
| (2,699) | 1:A:13:THR:HG22 | 1:A:12:LEU:HD23 | 2 | 0.14 | 0.02 | 0.14 |
| (2,699) | 1:A:13:THR:HG23 | 1:A:12:LEU:HD22 | 2 | 0.14 | 0.02 | 0.14 |
| (2,699) | 1:A:13:THR:HG23 | 1:A:12:LEU:HD21 | 2 | 0.14 | 0.02 | 0.14 |
| (2,699) | 1:A:13:THR:HG23 | 1:A:12:LEU:HD23 | 2 | 0.14 | 0.02 | 0.14 |
| (2,906) | 1:A:78:LEU:HD12 | 1:A:20:PHE:HD1 | 2 | 0.14 | 0.03 | 0.14 |
| (2,906) | 1:A:78:LEU:HD11 | 1:A:20:PHE:HD1 | 2 | 0.14 | 0.03 | 0.14 |
| (2,906) | 1:A:78:LEU:HD13 | 1:A:20:PHE:HD1 | 2 | 0.14 | 0.03 | 0.14 |
| (2,214) | 1:A:136:GLY:HA2 | 1:A:90:LYS:HE2 | 2 | 0.14 | 0.02 | 0.14 |
| (2,214) | 1:A:136:GLY:HA2 | 1:A:90:LYS:HE3 | 2 | 0.14 | 0.02 | 0.14 |
| (2,214) | 1:A:136:GLY:HA3 | 1:A:90:LYS:HE2 | 2 | 0.14 | 0.02 | 0.14 |
| (2,214) | 1:A:136:GLY:HA3 | 1:A:90:LYS:HE3 | 2 | 0.14 | 0.02 | 0.14 |
| (2,327) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HB2 | 2 | 0.14 | 0.02 | 0.14 |
| (2,327) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HB2 | 2 | 0.14 | 0.02 | 0.14 |
| (2,435) | 1:A:16:GLN:HB3 | 1:A:12:LEU:HD22 | 2 | 0.14 | 0.01 | 0.14 |
| (2,435) | 1:A:16:GLN:HB3 | 1:A:12:LEU:HD21 | 2 | 0.14 | 0.01 | 0.14 |
| (2,435) | 1:A:16:GLN:HB3 | 1:A:12:LEU:HD23 | 2 | 0.14 | 0.01 | 0.14 |
| (2,41) | 1:A:140:ARG:HA | 1:A:140:ARG:HD2 | 2 | 0.13 | 0.02 | 0.13 |
| (2,41) | 1:A:140:ARG:HA | 1:A:140:ARG:HD3 | 2 | 0.13 | 0.02 | 0.13 |
| (2,76) | 1:A:154:MET:HA | 1:A:158:LEU:HG | 2 | 0.13 | 0.02 | 0.13 |
| (2,643) | 1:A:139:LYS:HE2 | 1:A:140:ARG:HG2 | 2 | 0.13 | 0.02 | 0.13 |
| (2,643) | 1:A:139:LYS:HE2 | 1:A:140:ARG:HG3 | 2 | 0.13 | 0.02 | 0.13 |
| (2,780) | 1:A:64:VAL:HG22 | 1:A:80:MET:HB3 | 2 | 0.13 | 0.01 | 0.13 |
| (2,780) | 1:A:64:VAL:HG21 | 1:A:80:MET:HB3 | 2 | 0.13 | 0.01 | 0.13 |
| (2,780) | 1:A:64:VAL:HG23 | 1:A:80:MET:HB3 | 2 | 0.13 | 0.01 | 0.13 |
| (2,1413) | 1:A:78:LEU:HD22 | 1:A:17:LYS:HB2 | 2 | 0.13 | 0.01 | 0.13 |
| (2,1413) | 1:A:78:LEU:HD22 | 1:A:17:LYS:HB3 | 2 | 0.13 | 0.01 | 0.13 |
| (2,1413) | 1:A:78:LEU:HD21 | 1:A:17:LYS:HB2 | 2 | 0.13 | 0.01 | 0.13 |
| (2,1413) | 1:A:78:LEU:HD21 | 1:A:17:LYS:HB3 | 2 | 0.13 | 0.01 | 0.13 |
| (2,1413) | 1:A:78:LEU:HD23 | 1:A:17:LYS:HB2 | 2 | 0.13 | 0.01 | 0.13 |
| (2,1413) | 1:A:78:LEU:HD23 | 1:A:17:LYS:HB3 | 2 | 0.13 | 0.01 | 0.13 |
| (2,1413) | 1:A:78:LEU:HD22 | 1:A:21:LYS:HB2 | 2 | 0.13 | 0.01 | 0.13 |
| (2,1413) | 1:A:78:LEU:HD21 | 1:A:21:LYS:HB2 | 2 | 0.13 | 0.01 | 0.13 |

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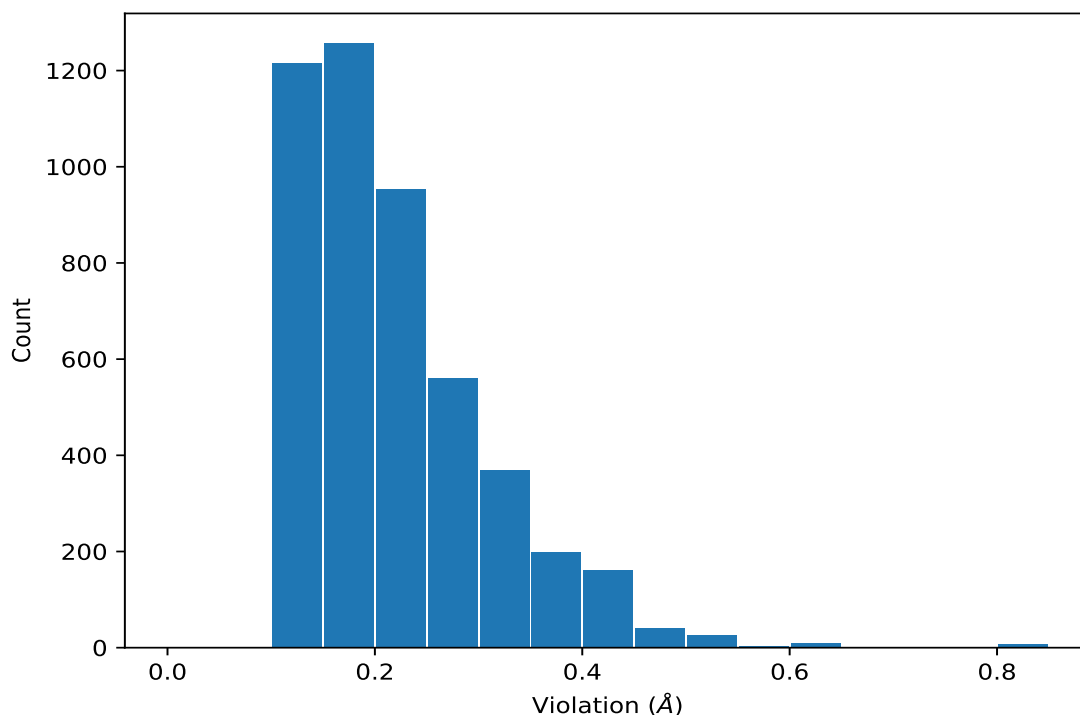
| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (2,1413) | 1:A:78:LEU:HD23 | 1:A:21:LYS:HB2 | 2 | 0.13 | 0.01 | 0.13 |
| (2,296) | 1:A:70:GLY:HA2 | 1:A:71:THR:HG21 | 2 | 0.12 | 0.01 | 0.12 |
| (2,296) | 1:A:70:GLY:HA2 | 1:A:71:THR:HG22 | 2 | 0.12 | 0.01 | 0.12 |
| (2,296) | 1:A:70:GLY:HA2 | 1:A:71:THR:HG23 | 2 | 0.12 | 0.01 | 0.12 |
| (2,814) | 1:A:26:ILE:HA | 1:A:26:ILE:HD12 | 2 | 0.12 | 0.01 | 0.12 |
| (2,814) | 1:A:26:ILE:HA | 1:A:26:ILE:HD11 | 2 | 0.12 | 0.01 | 0.12 |
| (2,814) | 1:A:26:ILE:HA | 1:A:26:ILE:HD13 | 2 | 0.12 | 0.01 | 0.12 |
| (2,1182) | 1:A:71:THR:HB | 1:A:61:ILE:HG22 | 2 | 0.12 | 0.01 | 0.12 |
| (2,1182) | 1:A:71:THR:HB | 1:A:61:ILE:HG21 | 2 | 0.12 | 0.01 | 0.12 |
| (2,1182) | 1:A:71:THR:HB | 1:A:61:ILE:HG23 | 2 | 0.12 | 0.01 | 0.12 |
| (2,1182) | 1:A:71:THR:HB | 1:A:61:ILE:HD12 | 2 | 0.12 | 0.01 | 0.12 |
| (2,1182) | 1:A:71:THR:HB | 1:A:61:ILE:HD11 | 2 | 0.12 | 0.01 | 0.12 |
| (2,1182) | 1:A:71:THR:HB | 1:A:61:ILE:HD13 | 2 | 0.12 | 0.01 | 0.12 |
| (2,1343) | 1:A:146:VAL:HG22 | 1:A:145:ARG:HA | 2 | 0.12 | 0.01 | 0.12 |
| (2,1343) | 1:A:146:VAL:HG21 | 1:A:145:ARG:HA | 2 | 0.12 | 0.01 | 0.12 |
| (2,1343) | 1:A:146:VAL:HG23 | 1:A:145:ARG:HA | 2 | 0.12 | 0.01 | 0.12 |
| (2,1343) | 1:A:148:ILE:HA | 1:A:146:VAL:HG22 | 2 | 0.12 | 0.01 | 0.12 |
| (2,1343) | 1:A:148:ILE:HA | 1:A:146:VAL:HG21 | 2 | 0.12 | 0.01 | 0.12 |
| (2,1343) | 1:A:148:ILE:HA | 1:A:146:VAL:HG23 | 2 | 0.12 | 0.01 | 0.12 |
| (2,597) | 1:A:56:GLU:HB2 | 1:A:56:GLU:HA | 2 | 0.12 | 0.0 | 0.12 |
| (2,97) | 1:A:25:ASP:HA | 1:A:28:VAL:HG12 | 2 | 0.11 | 0.0 | 0.11 |
| (2,97) | 1:A:25:ASP:HA | 1:A:28:VAL:HG11 | 2 | 0.11 | 0.0 | 0.11 |
| (2,97) | 1:A:25:ASP:HA | 1:A:28:VAL:HG13 | 2 | 0.11 | 0.0 | 0.11 |
| (2,468) | 1:A:6:LYS:HA | 1:A:9:VAL:HB | 2 | 0.11 | 0.0 | 0.11 |
| (2,866) | 1:A:61:ILE:HB | 1:A:61:ILE:HD12 | 2 | 0.11 | 0.0 | 0.11 |
| (2,866) | 1:A:61:ILE:HB | 1:A:61:ILE:HD11 | 2 | 0.11 | 0.0 | 0.11 |
| (2,866) | 1:A:61:ILE:HB | 1:A:61:ILE:HD13 | 2 | 0.11 | 0.0 | 0.11 |

¹Number of violated models, ²Standard deviation

9.5 All violated distance restraints [i](#)

9.5.1 Histogram : Distribution of distance violations [i](#)

The following histogram shows the distribution of the absolute value of the violation for all violated restraints in the ensemble.



9.5.2 Table : All distance violations [i](#)

The following table lists the absolute value of the violation for each restraint in the ensemble sorted by its value. The Key (restraint list ID, restraint ID) is the unique identifier for a given restraint. Rows with same key represent combinatorial or ambiguous restraints and are counted as a single restraint.

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1203) | 1:A:140:ARG:HD2 | 1:A:142:THR:HA | 6 | 0.83 |
| (2,1203) | 1:A:140:ARG:HD3 | 1:A:142:THR:HA | 6 | 0.83 |
| (2,1203) | 1:A:145:ARG:HA | 1:A:147:ARG:HD2 | 6 | 0.83 |
| (2,1203) | 1:A:145:ARG:HA | 1:A:147:ARG:HD3 | 6 | 0.83 |
| (2,714) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG12 | 7 | 0.81 |
| (2,714) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG12 | 7 | 0.81 |
| (2,714) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG12 | 7 | 0.81 |
| (2,907) | 1:A:78:LEU:HD12 | 1:A:74:PHE:HE1 | 2 | 0.61 |
| (2,907) | 1:A:78:LEU:HD11 | 1:A:74:PHE:HE1 | 2 | 0.61 |
| (2,907) | 1:A:78:LEU:HD13 | 1:A:74:PHE:HE1 | 2 | 0.61 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD22 | 8 | 0.6 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD21 | 8 | 0.6 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD23 | 8 | 0.6 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD12 | 8 | 0.6 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD11 | 8 | 0.6 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD13 | 8 | 0.6 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,392) | 1:A:3:ASP:HB2 | 1:A:6:LYS:HB2 | 8 | 0.56 |
| (2,392) | 1:A:3:ASP:HB2 | 1:A:6:LYS:HB3 | 8 | 0.56 |
| (2,288) | 1:A:80:MET:HA | 1:A:80:MET:HG2 | 8 | 0.56 |
| (2,907) | 1:A:78:LEU:HD12 | 1:A:74:PHE:HE1 | 3 | 0.54 |
| (2,907) | 1:A:78:LEU:HD11 | 1:A:74:PHE:HE1 | 3 | 0.54 |
| (2,907) | 1:A:78:LEU:HD13 | 1:A:74:PHE:HE1 | 3 | 0.54 |
| (2,1200) | 1:A:52:PRO:HD2 | 1:A:50:GLN:HB2 | 10 | 0.54 |
| (2,1200) | 1:A:52:PRO:HD2 | 1:A:52:PRO:HB2 | 10 | 0.54 |
| (2,907) | 1:A:78:LEU:HD12 | 1:A:74:PHE:HE1 | 5 | 0.52 |
| (2,907) | 1:A:78:LEU:HD11 | 1:A:74:PHE:HE1 | 5 | 0.52 |
| (2,907) | 1:A:78:LEU:HD13 | 1:A:74:PHE:HE1 | 5 | 0.52 |
| (2,670) | 1:A:8:ALA:HB2 | 1:A:5:TYR:HB2 | 9 | 0.52 |
| (2,670) | 1:A:8:ALA:HB1 | 1:A:5:TYR:HB2 | 9 | 0.52 |
| (2,670) | 1:A:8:ALA:HB3 | 1:A:5:TYR:HB2 | 9 | 0.52 |
| (2,288) | 1:A:80:MET:HA | 1:A:80:MET:HG2 | 6 | 0.52 |
| (2,237) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HB2 | 6 | 0.5 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD12 | 2 | 0.5 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD11 | 2 | 0.5 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD13 | 2 | 0.5 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD12 | 5 | 0.5 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD11 | 5 | 0.5 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD13 | 5 | 0.5 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD12 | 6 | 0.5 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD11 | 6 | 0.5 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD13 | 6 | 0.5 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD12 | 8 | 0.5 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD11 | 8 | 0.5 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD13 | 8 | 0.5 |
| (2,724) | 1:A:142:THR:HA | 1:A:142:THR:HG21 | 3 | 0.48 |
| (2,724) | 1:A:142:THR:HA | 1:A:142:THR:HG22 | 3 | 0.48 |
| (2,724) | 1:A:142:THR:HA | 1:A:142:THR:HG23 | 3 | 0.48 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD12 | 4 | 0.48 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD11 | 4 | 0.48 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD13 | 4 | 0.48 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD12 | 9 | 0.48 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD11 | 9 | 0.48 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD13 | 9 | 0.48 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD12 | 3 | 0.47 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD11 | 3 | 0.47 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD13 | 3 | 0.47 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD12 | 10 | 0.47 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD11 | 10 | 0.47 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD13 | 10 | 0.47 |
| (2,1200) | 1:A:52:PRO:HD2 | 1:A:50:GLN:HB2 | 2 | 0.47 |
| (2,1200) | 1:A:52:PRO:HD2 | 1:A:52:PRO:HB2 | 2 | 0.47 |
| (2,1016) | 1:A:78:LEU:HD22 | 1:A:12:LEU:HG | 4 | 0.47 |
| (2,1016) | 1:A:78:LEU:HD21 | 1:A:12:LEU:HG | 4 | 0.47 |
| (2,1016) | 1:A:78:LEU:HD23 | 1:A:12:LEU:HG | 4 | 0.47 |
| (2,979) | 1:A:44:VAL:HG12 | 1:A:27:PHE:HB3 | 2 | 0.46 |
| (2,979) | 1:A:44:VAL:HG11 | 1:A:27:PHE:HB3 | 2 | 0.46 |
| (2,979) | 1:A:44:VAL:HG13 | 1:A:27:PHE:HB3 | 2 | 0.46 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD12 | 7 | 0.46 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD11 | 7 | 0.46 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD13 | 7 | 0.46 |
| (2,1200) | 1:A:52:PRO:HD2 | 1:A:50:GLN:HB2 | 3 | 0.46 |
| (2,1200) | 1:A:52:PRO:HD2 | 1:A:52:PRO:HB2 | 3 | 0.46 |
| (2,272) | 1:A:44:VAL:HA | 1:A:47:MET:HB3 | 8 | 0.45 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG22 | 9 | 0.45 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG21 | 9 | 0.45 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG23 | 9 | 0.45 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD12 | 9 | 0.45 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD11 | 9 | 0.45 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD13 | 9 | 0.45 |
| (2,1203) | 1:A:140:ARG:HD2 | 1:A:142:THR:HA | 9 | 0.45 |
| (2,1203) | 1:A:140:ARG:HD3 | 1:A:142:THR:HA | 9 | 0.45 |
| (2,1203) | 1:A:145:ARG:HA | 1:A:147:ARG:HD2 | 9 | 0.45 |
| (2,1203) | 1:A:145:ARG:HA | 1:A:147:ARG:HD3 | 9 | 0.45 |
| (2,1200) | 1:A:52:PRO:HD2 | 1:A:50:GLN:HB2 | 5 | 0.45 |
| (2,1200) | 1:A:52:PRO:HD2 | 1:A:52:PRO:HB2 | 5 | 0.45 |
| (2,95) | 1:A:139:LYS:HA | 1:A:139:LYS:HG2 | 6 | 0.44 |
| (2,95) | 1:A:139:LYS:HA | 1:A:139:LYS:HG3 | 6 | 0.44 |
| (2,670) | 1:A:8:ALA:HB2 | 1:A:5:TYR:HB2 | 6 | 0.44 |
| (2,670) | 1:A:8:ALA:HB1 | 1:A:5:TYR:HB2 | 6 | 0.44 |
| (2,670) | 1:A:8:ALA:HB3 | 1:A:5:TYR:HB2 | 6 | 0.44 |
| (2,670) | 1:A:8:ALA:HB2 | 1:A:5:TYR:HB2 | 8 | 0.44 |
| (2,670) | 1:A:8:ALA:HB1 | 1:A:5:TYR:HB2 | 8 | 0.44 |
| (2,670) | 1:A:8:ALA:HB3 | 1:A:5:TYR:HB2 | 8 | 0.44 |
| (2,670) | 1:A:8:ALA:HB2 | 1:A:5:TYR:HB2 | 10 | 0.44 |
| (2,670) | 1:A:8:ALA:HB1 | 1:A:5:TYR:HB2 | 10 | 0.44 |
| (2,670) | 1:A:8:ALA:HB3 | 1:A:5:TYR:HB2 | 10 | 0.44 |
| (2,95) | 1:A:139:LYS:HA | 1:A:139:LYS:HG2 | 3 | 0.43 |
| (2,95) | 1:A:139:LYS:HA | 1:A:139:LYS:HG3 | 3 | 0.43 |
| (2,907) | 1:A:78:LEU:HD12 | 1:A:74:PHE:HE1 | 8 | 0.43 |
| (2,907) | 1:A:78:LEU:HD11 | 1:A:74:PHE:HE1 | 8 | 0.43 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,907) | 1:A:78:LEU:HD13 | 1:A:74:PHE:HE1 | 8 | 0.43 |
| (2,392) | 1:A:3:ASP:HB2 | 1:A:6:LYS:HB2 | 9 | 0.43 |
| (2,392) | 1:A:3:ASP:HB2 | 1:A:6:LYS:HB3 | 9 | 0.43 |
| (2,1434) | 1:A:83:ARG:HA | 1:A:82:VAL:HB | 5 | 0.43 |
| (2,1434) | 1:A:83:ARG:HA | 1:A:85:MET:HE2 | 5 | 0.43 |
| (2,1434) | 1:A:83:ARG:HA | 1:A:85:MET:HE1 | 5 | 0.43 |
| (2,1434) | 1:A:83:ARG:HA | 1:A:85:MET:HE3 | 5 | 0.43 |
| (2,1434) | 1:A:83:ARG:HA | 1:A:85:MET:HB2 | 5 | 0.43 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG22 | 5 | 0.43 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG21 | 5 | 0.43 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG23 | 5 | 0.43 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD12 | 5 | 0.43 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD11 | 5 | 0.43 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD13 | 5 | 0.43 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD12 | 10 | 0.43 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD11 | 10 | 0.43 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD13 | 10 | 0.43 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD12 | 10 | 0.43 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD11 | 10 | 0.43 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD13 | 10 | 0.43 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD12 | 10 | 0.43 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD11 | 10 | 0.43 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD13 | 10 | 0.43 |
| (2,979) | 1:A:44:VAL:HG12 | 1:A:27:PHE:HB3 | 10 | 0.42 |
| (2,979) | 1:A:44:VAL:HG11 | 1:A:27:PHE:HB3 | 10 | 0.42 |
| (2,979) | 1:A:44:VAL:HG13 | 1:A:27:PHE:HB3 | 10 | 0.42 |
| (2,923) | 1:A:44:VAL:HG12 | 1:A:45:MET:HB2 | 5 | 0.42 |
| (2,923) | 1:A:44:VAL:HG12 | 1:A:45:MET:HB3 | 5 | 0.42 |
| (2,923) | 1:A:44:VAL:HG11 | 1:A:45:MET:HB2 | 5 | 0.42 |
| (2,923) | 1:A:44:VAL:HG11 | 1:A:45:MET:HB3 | 5 | 0.42 |
| (2,923) | 1:A:44:VAL:HG13 | 1:A:45:MET:HB2 | 5 | 0.42 |
| (2,923) | 1:A:44:VAL:HG13 | 1:A:45:MET:HB3 | 5 | 0.42 |
| (2,865) | 1:A:61:ILE:HA | 1:A:61:ILE:HD12 | 7 | 0.42 |
| (2,865) | 1:A:61:ILE:HA | 1:A:61:ILE:HD11 | 7 | 0.42 |
| (2,865) | 1:A:61:ILE:HA | 1:A:61:ILE:HD13 | 7 | 0.42 |
| (2,397) | 1:A:85:MET:HA | 1:A:85:MET:HG2 | 5 | 0.42 |
| (2,272) | 1:A:44:VAL:HA | 1:A:47:MET:HB3 | 9 | 0.42 |
| (2,166) | 1:A:55:GLU:HA | 1:A:55:GLU:HB3 | 7 | 0.42 |
| (2,1422) | 1:A:10:GLU:HG2 | 1:A:8:ALA:HB2 | 2 | 0.42 |
| (2,1422) | 1:A:10:GLU:HG2 | 1:A:8:ALA:HB1 | 2 | 0.42 |
| (2,1422) | 1:A:10:GLU:HG2 | 1:A:8:ALA:HB3 | 2 | 0.42 |
| (2,1422) | 1:A:63:GLU:HG2 | 1:A:80:MET:HE2 | 2 | 0.42 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,1422) | 1:A:63:GLU:HG2 | 1:A:80:MET:HE1 | 2 | 0.42 |
| (2,1422) | 1:A:63:GLU:HG2 | 1:A:80:MET:HE3 | 2 | 0.42 |
| (2,1422) | 1:A:76:GLU:HG3 | 1:A:80:MET:HE2 | 2 | 0.42 |
| (2,1422) | 1:A:76:GLU:HG3 | 1:A:80:MET:HE1 | 2 | 0.42 |
| (2,1422) | 1:A:76:GLU:HG3 | 1:A:80:MET:HE3 | 2 | 0.42 |
| (2,1200) | 1:A:52:PRO:HD2 | 1:A:50:GLN:HB2 | 1 | 0.42 |
| (2,1200) | 1:A:52:PRO:HD2 | 1:A:52:PRO:HB2 | 1 | 0.42 |
| (2,1040) | 1:A:157:LEU:HD22 | 1:A:154:MET:HB2 | 5 | 0.42 |
| (2,1040) | 1:A:157:LEU:HD22 | 1:A:154:MET:HB3 | 5 | 0.42 |
| (2,1040) | 1:A:157:LEU:HD21 | 1:A:154:MET:HB2 | 5 | 0.42 |
| (2,1040) | 1:A:157:LEU:HD21 | 1:A:154:MET:HB3 | 5 | 0.42 |
| (2,1040) | 1:A:157:LEU:HD23 | 1:A:154:MET:HB2 | 5 | 0.42 |
| (2,1040) | 1:A:157:LEU:HD23 | 1:A:154:MET:HB3 | 5 | 0.42 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG22 | 6 | 0.41 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG21 | 6 | 0.41 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG23 | 6 | 0.41 |
| (2,907) | 1:A:78:LEU:HD12 | 1:A:74:PHE:HE1 | 9 | 0.41 |
| (2,907) | 1:A:78:LEU:HD11 | 1:A:74:PHE:HE1 | 9 | 0.41 |
| (2,907) | 1:A:78:LEU:HD13 | 1:A:74:PHE:HE1 | 9 | 0.41 |
| (2,907) | 1:A:78:LEU:HD12 | 1:A:74:PHE:HE1 | 10 | 0.41 |
| (2,907) | 1:A:78:LEU:HD11 | 1:A:74:PHE:HE1 | 10 | 0.41 |
| (2,907) | 1:A:78:LEU:HD13 | 1:A:74:PHE:HE1 | 10 | 0.41 |
| (2,714) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG12 | 9 | 0.41 |
| (2,714) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG12 | 9 | 0.41 |
| (2,714) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG12 | 9 | 0.41 |
| (2,714) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG12 | 10 | 0.41 |
| (2,714) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG12 | 10 | 0.41 |
| (2,714) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG12 | 10 | 0.41 |
| (2,670) | 1:A:8:ALA:HB2 | 1:A:5:TYR:HB2 | 5 | 0.41 |
| (2,670) | 1:A:8:ALA:HB1 | 1:A:5:TYR:HB2 | 5 | 0.41 |
| (2,670) | 1:A:8:ALA:HB3 | 1:A:5:TYR:HB2 | 5 | 0.41 |
| (2,392) | 1:A:3:ASP:HB2 | 1:A:6:LYS:HB2 | 1 | 0.41 |
| (2,392) | 1:A:3:ASP:HB2 | 1:A:6:LYS:HB3 | 1 | 0.41 |
| (2,392) | 1:A:3:ASP:HB2 | 1:A:6:LYS:HB2 | 3 | 0.41 |
| (2,392) | 1:A:3:ASP:HB2 | 1:A:6:LYS:HB3 | 3 | 0.41 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD12 | 1 | 0.41 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD11 | 1 | 0.41 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD13 | 1 | 0.41 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD12 | 1 | 0.41 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD11 | 1 | 0.41 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD13 | 1 | 0.41 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD12 | 1 | 0.41 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD11 | 1 | 0.41 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD13 | 1 | 0.41 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD12 | 1 | 0.41 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD11 | 1 | 0.41 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD13 | 1 | 0.41 |
| (2,1200) | 1:A:52:PRO:HD2 | 1:A:50:GLN:HB2 | 4 | 0.41 |
| (2,1200) | 1:A:52:PRO:HD2 | 1:A:52:PRO:HB2 | 4 | 0.41 |
| (2,1197) | 1:A:24:PHE:HA | 1:A:27:PHE:HE1 | 7 | 0.41 |
| (2,1197) | 1:A:24:PHE:HA | 1:A:77:PHE:HE1 | 7 | 0.41 |
| (2,1040) | 1:A:157:LEU:HD22 | 1:A:154:MET:HB2 | 4 | 0.41 |
| (2,1040) | 1:A:157:LEU:HD22 | 1:A:154:MET:HB3 | 4 | 0.41 |
| (2,1040) | 1:A:157:LEU:HD21 | 1:A:154:MET:HB2 | 4 | 0.41 |
| (2,1040) | 1:A:157:LEU:HD21 | 1:A:154:MET:HB3 | 4 | 0.41 |
| (2,1040) | 1:A:157:LEU:HD23 | 1:A:154:MET:HB2 | 4 | 0.41 |
| (2,1040) | 1:A:157:LEU:HD23 | 1:A:154:MET:HB3 | 4 | 0.41 |
| (2,1040) | 1:A:157:LEU:HD22 | 1:A:154:MET:HB2 | 6 | 0.41 |
| (2,1040) | 1:A:157:LEU:HD22 | 1:A:154:MET:HB3 | 6 | 0.41 |
| (2,1040) | 1:A:157:LEU:HD21 | 1:A:154:MET:HB2 | 6 | 0.41 |
| (2,1040) | 1:A:157:LEU:HD21 | 1:A:154:MET:HB3 | 6 | 0.41 |
| (2,1040) | 1:A:157:LEU:HD23 | 1:A:154:MET:HB2 | 6 | 0.41 |
| (2,1040) | 1:A:157:LEU:HD23 | 1:A:154:MET:HB3 | 6 | 0.41 |
| (2,1016) | 1:A:78:LEU:HD22 | 1:A:12:LEU:HG | 10 | 0.41 |
| (2,1016) | 1:A:78:LEU:HD21 | 1:A:12:LEU:HG | 10 | 0.41 |
| (2,1016) | 1:A:78:LEU:HD23 | 1:A:12:LEU:HG | 10 | 0.41 |
| (2,907) | 1:A:78:LEU:HD12 | 1:A:74:PHE:HE1 | 1 | 0.4 |
| (2,907) | 1:A:78:LEU:HD11 | 1:A:74:PHE:HE1 | 1 | 0.4 |
| (2,907) | 1:A:78:LEU:HD13 | 1:A:74:PHE:HE1 | 1 | 0.4 |
| (2,714) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG12 | 5 | 0.4 |
| (2,714) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG12 | 5 | 0.4 |
| (2,714) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG12 | 5 | 0.4 |
| (2,670) | 1:A:8:ALA:HB2 | 1:A:5:TYR:HB2 | 3 | 0.4 |
| (2,670) | 1:A:8:ALA:HB1 | 1:A:5:TYR:HB2 | 3 | 0.4 |
| (2,670) | 1:A:8:ALA:HB3 | 1:A:5:TYR:HB2 | 3 | 0.4 |
| (2,670) | 1:A:8:ALA:HB2 | 1:A:5:TYR:HB2 | 4 | 0.4 |
| (2,670) | 1:A:8:ALA:HB1 | 1:A:5:TYR:HB2 | 4 | 0.4 |
| (2,670) | 1:A:8:ALA:HB3 | 1:A:5:TYR:HB2 | 4 | 0.4 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD12 | 1 | 0.4 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD11 | 1 | 0.4 |
| (2,167) | 1:A:57:LEU:HA | 1:A:57:LEU:HD13 | 1 | 0.4 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD12 | 5 | 0.4 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD11 | 5 | 0.4 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD13 | 5 | 0.4 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD12 | 5 | 0.4 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD11 | 5 | 0.4 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD13 | 5 | 0.4 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD12 | 5 | 0.4 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD11 | 5 | 0.4 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD13 | 5 | 0.4 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD12 | 9 | 0.4 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD11 | 9 | 0.4 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD13 | 9 | 0.4 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD12 | 9 | 0.4 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD11 | 9 | 0.4 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD13 | 9 | 0.4 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD12 | 9 | 0.4 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD11 | 9 | 0.4 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD13 | 9 | 0.4 |
| (2,1040) | 1:A:157:LEU:HD22 | 1:A:154:MET:HB2 | 7 | 0.4 |
| (2,1040) | 1:A:157:LEU:HD22 | 1:A:154:MET:HB3 | 7 | 0.4 |
| (2,1040) | 1:A:157:LEU:HD21 | 1:A:154:MET:HB2 | 7 | 0.4 |
| (2,1040) | 1:A:157:LEU:HD21 | 1:A:154:MET:HB3 | 7 | 0.4 |
| (2,1040) | 1:A:157:LEU:HD23 | 1:A:154:MET:HB2 | 7 | 0.4 |
| (2,1040) | 1:A:157:LEU:HD23 | 1:A:154:MET:HB3 | 7 | 0.4 |
| (2,979) | 1:A:44:VAL:HG12 | 1:A:27:PHE:HB3 | 8 | 0.39 |
| (2,979) | 1:A:44:VAL:HG11 | 1:A:27:PHE:HB3 | 8 | 0.39 |
| (2,979) | 1:A:44:VAL:HG13 | 1:A:27:PHE:HB3 | 8 | 0.39 |
| (2,723) | 1:A:142:THR:HG21 | 1:A:141:PRO:HA | 6 | 0.39 |
| (2,723) | 1:A:142:THR:HG22 | 1:A:141:PRO:HA | 6 | 0.39 |
| (2,723) | 1:A:142:THR:HG23 | 1:A:141:PRO:HA | 6 | 0.39 |
| (2,670) | 1:A:8:ALA:HB2 | 1:A:5:TYR:HB2 | 1 | 0.39 |
| (2,670) | 1:A:8:ALA:HB1 | 1:A:5:TYR:HB2 | 1 | 0.39 |
| (2,670) | 1:A:8:ALA:HB3 | 1:A:5:TYR:HB2 | 1 | 0.39 |
| (2,392) | 1:A:3:ASP:HB2 | 1:A:6:LYS:HB2 | 6 | 0.39 |
| (2,392) | 1:A:3:ASP:HB2 | 1:A:6:LYS:HB3 | 6 | 0.39 |
| (2,1200) | 1:A:52:PRO:HD2 | 1:A:50:GLN:HB2 | 9 | 0.39 |
| (2,1200) | 1:A:52:PRO:HD2 | 1:A:52:PRO:HB2 | 9 | 0.39 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB2 | 2 | 0.39 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB1 | 2 | 0.39 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB3 | 2 | 0.39 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB2 | 2 | 0.39 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB1 | 2 | 0.39 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB3 | 2 | 0.39 |
| (2,1040) | 1:A:157:LEU:HD22 | 1:A:154:MET:HB2 | 10 | 0.39 |
| (2,1040) | 1:A:157:LEU:HD22 | 1:A:154:MET:HB3 | 10 | 0.39 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (2,1040) | 1:A:157:LEU:HD21 | 1:A:154:MET:HB2 | 10 | 0.39 |
| (2,1040) | 1:A:157:LEU:HD21 | 1:A:154:MET:HB3 | 10 | 0.39 |
| (2,1040) | 1:A:157:LEU:HD23 | 1:A:154:MET:HB2 | 10 | 0.39 |
| (2,1040) | 1:A:157:LEU:HD23 | 1:A:154:MET:HB3 | 10 | 0.39 |
| (2,736) | 1:A:82:VAL:HG22 | 1:A:5:TYR:HE1 | 9 | 0.38 |
| (2,736) | 1:A:82:VAL:HG21 | 1:A:5:TYR:HE1 | 9 | 0.38 |
| (2,736) | 1:A:82:VAL:HG23 | 1:A:5:TYR:HE1 | 9 | 0.38 |
| (2,714) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG12 | 3 | 0.38 |
| (2,714) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG12 | 3 | 0.38 |
| (2,714) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG12 | 3 | 0.38 |
| (2,714) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG12 | 6 | 0.38 |
| (2,714) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG12 | 6 | 0.38 |
| (2,714) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG12 | 6 | 0.38 |
| (2,392) | 1:A:3:ASP:HB2 | 1:A:6:LYS:HB2 | 5 | 0.38 |
| (2,392) | 1:A:3:ASP:HB2 | 1:A:6:LYS:HB3 | 5 | 0.38 |
| (2,272) | 1:A:44:VAL:HA | 1:A:47:MET:HB3 | 6 | 0.38 |
| (2,1016) | 1:A:78:LEU:HD22 | 1:A:12:LEU:HG | 5 | 0.38 |
| (2,1016) | 1:A:78:LEU:HD21 | 1:A:12:LEU:HG | 5 | 0.38 |
| (2,1016) | 1:A:78:LEU:HD23 | 1:A:12:LEU:HG | 5 | 0.38 |
| (2,979) | 1:A:44:VAL:HG12 | 1:A:27:PHE:HB3 | 1 | 0.37 |
| (2,979) | 1:A:44:VAL:HG11 | 1:A:27:PHE:HB3 | 1 | 0.37 |
| (2,979) | 1:A:44:VAL:HG13 | 1:A:27:PHE:HB3 | 1 | 0.37 |
| (2,979) | 1:A:44:VAL:HG12 | 1:A:27:PHE:HB3 | 3 | 0.37 |
| (2,979) | 1:A:44:VAL:HG11 | 1:A:27:PHE:HB3 | 3 | 0.37 |
| (2,979) | 1:A:44:VAL:HG13 | 1:A:27:PHE:HB3 | 3 | 0.37 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG22 | 4 | 0.37 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG21 | 4 | 0.37 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG23 | 4 | 0.37 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG22 | 7 | 0.37 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG21 | 7 | 0.37 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG23 | 7 | 0.37 |
| (2,802) | 1:A:146:VAL:HA | 1:A:146:VAL:HG12 | 5 | 0.37 |
| (2,802) | 1:A:146:VAL:HA | 1:A:146:VAL:HG11 | 5 | 0.37 |
| (2,802) | 1:A:146:VAL:HA | 1:A:146:VAL:HG13 | 5 | 0.37 |
| (2,801) | 1:A:143:LEU:HD12 | 1:A:142:THR:HG21 | 7 | 0.37 |
| (2,801) | 1:A:143:LEU:HD12 | 1:A:142:THR:HG22 | 7 | 0.37 |
| (2,801) | 1:A:143:LEU:HD12 | 1:A:142:THR:HG23 | 7 | 0.37 |
| (2,801) | 1:A:143:LEU:HD11 | 1:A:142:THR:HG21 | 7 | 0.37 |
| (2,801) | 1:A:143:LEU:HD11 | 1:A:142:THR:HG22 | 7 | 0.37 |
| (2,801) | 1:A:143:LEU:HD11 | 1:A:142:THR:HG23 | 7 | 0.37 |
| (2,801) | 1:A:143:LEU:HD13 | 1:A:142:THR:HG21 | 7 | 0.37 |
| (2,801) | 1:A:143:LEU:HD13 | 1:A:142:THR:HG22 | 7 | 0.37 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (2,801) | 1:A:143:LEU:HD13 | 1:A:142:THR:HG23 | 7 | 0.37 |
| (2,78) | 1:A:154:MET:HA | 1:A:157:LEU:HD12 | 2 | 0.37 |
| (2,78) | 1:A:154:MET:HA | 1:A:157:LEU:HD11 | 2 | 0.37 |
| (2,78) | 1:A:154:MET:HA | 1:A:157:LEU:HD13 | 2 | 0.37 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB2 | 10 | 0.37 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB1 | 10 | 0.37 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB3 | 10 | 0.37 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB2 | 10 | 0.37 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB1 | 10 | 0.37 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB3 | 10 | 0.37 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG22 | 2 | 0.37 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG21 | 2 | 0.37 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG23 | 2 | 0.37 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD12 | 2 | 0.37 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD11 | 2 | 0.37 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD13 | 2 | 0.37 |
| (2,1388) | 1:A:61:ILE:HD12 | 1:A:28:VAL:HA | 8 | 0.37 |
| (2,1388) | 1:A:61:ILE:HD11 | 1:A:28:VAL:HA | 8 | 0.37 |
| (2,1388) | 1:A:61:ILE:HD13 | 1:A:28:VAL:HA | 8 | 0.37 |
| (2,1388) | 1:A:61:ILE:HD12 | 1:A:39:LYS:HA | 8 | 0.37 |
| (2,1388) | 1:A:61:ILE:HD11 | 1:A:39:LYS:HA | 8 | 0.37 |
| (2,1388) | 1:A:61:ILE:HD13 | 1:A:39:LYS:HA | 8 | 0.37 |
| (2,1388) | 1:A:61:ILE:HD12 | 1:A:59:GLU:HA | 8 | 0.37 |
| (2,1388) | 1:A:61:ILE:HD11 | 1:A:59:GLU:HA | 8 | 0.37 |
| (2,1388) | 1:A:61:ILE:HD13 | 1:A:59:GLU:HA | 8 | 0.37 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:15:GLU:HB2 | 8 | 0.37 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:15:GLU:HB3 | 8 | 0.37 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:19:GLU:HB3 | 8 | 0.37 |
| (2,1109) | 1:A:52:PRO:HD3 | 1:A:42:GLY:HA3 | 7 | 0.37 |
| (2,1040) | 1:A:157:LEU:HD22 | 1:A:154:MET:HB2 | 3 | 0.37 |
| (2,1040) | 1:A:157:LEU:HD22 | 1:A:154:MET:HB3 | 3 | 0.37 |
| (2,1040) | 1:A:157:LEU:HD21 | 1:A:154:MET:HB2 | 3 | 0.37 |
| (2,1040) | 1:A:157:LEU:HD21 | 1:A:154:MET:HB3 | 3 | 0.37 |
| (2,1040) | 1:A:157:LEU:HD23 | 1:A:154:MET:HB2 | 3 | 0.37 |
| (2,1040) | 1:A:157:LEU:HD23 | 1:A:154:MET:HB3 | 3 | 0.37 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD22 | 10 | 0.37 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD21 | 10 | 0.37 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD23 | 10 | 0.37 |
| (2,979) | 1:A:44:VAL:HG12 | 1:A:27:PHE:HB3 | 9 | 0.36 |
| (2,979) | 1:A:44:VAL:HG11 | 1:A:27:PHE:HB3 | 9 | 0.36 |
| (2,979) | 1:A:44:VAL:HG13 | 1:A:27:PHE:HB3 | 9 | 0.36 |
| (2,670) | 1:A:8:ALA:HB2 | 1:A:5:TYR:HB2 | 2 | 0.36 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,670) | 1:A:8:ALA:HB1 | 1:A:5:TYR:HB2 | 2 | 0.36 |
| (2,670) | 1:A:8:ALA:HB3 | 1:A:5:TYR:HB2 | 2 | 0.36 |
| (2,670) | 1:A:8:ALA:HB2 | 1:A:5:TYR:HB2 | 7 | 0.36 |
| (2,670) | 1:A:8:ALA:HB1 | 1:A:5:TYR:HB2 | 7 | 0.36 |
| (2,670) | 1:A:8:ALA:HB3 | 1:A:5:TYR:HB2 | 7 | 0.36 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG12 | 4 | 0.36 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG11 | 4 | 0.36 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG13 | 4 | 0.36 |
| (2,392) | 1:A:3:ASP:HB2 | 1:A:6:LYS:HB2 | 2 | 0.36 |
| (2,392) | 1:A:3:ASP:HB2 | 1:A:6:LYS:HB3 | 2 | 0.36 |
| (2,392) | 1:A:3:ASP:HB2 | 1:A:6:LYS:HB2 | 4 | 0.36 |
| (2,392) | 1:A:3:ASP:HB2 | 1:A:6:LYS:HB3 | 4 | 0.36 |
| (2,392) | 1:A:3:ASP:HB2 | 1:A:6:LYS:HB2 | 7 | 0.36 |
| (2,392) | 1:A:3:ASP:HB2 | 1:A:6:LYS:HB3 | 7 | 0.36 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD12 | 4 | 0.36 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD11 | 4 | 0.36 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD13 | 4 | 0.36 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD12 | 4 | 0.36 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD11 | 4 | 0.36 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD13 | 4 | 0.36 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD12 | 4 | 0.36 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD11 | 4 | 0.36 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD13 | 4 | 0.36 |
| (2,1200) | 1:A:52:PRO:HD2 | 1:A:50:GLN:HB2 | 7 | 0.36 |
| (2,1200) | 1:A:52:PRO:HD2 | 1:A:52:PRO:HB2 | 7 | 0.36 |
| (2,1200) | 1:A:52:PRO:HD2 | 1:A:50:GLN:HB2 | 8 | 0.36 |
| (2,1200) | 1:A:52:PRO:HD2 | 1:A:52:PRO:HB2 | 8 | 0.36 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:15:GLU:HB2 | 4 | 0.36 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:15:GLU:HB3 | 4 | 0.36 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:19:GLU:HB3 | 4 | 0.36 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:15:GLU:HB2 | 9 | 0.36 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:15:GLU:HB3 | 9 | 0.36 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:19:GLU:HB3 | 9 | 0.36 |
| (2,1114) | 1:A:54:PRO:HA | 1:A:57:LEU:HB3 | 6 | 0.36 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD22 | 3 | 0.36 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD21 | 3 | 0.36 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD23 | 3 | 0.36 |
| (2,979) | 1:A:44:VAL:HG12 | 1:A:27:PHE:HB3 | 5 | 0.35 |
| (2,979) | 1:A:44:VAL:HG11 | 1:A:27:PHE:HB3 | 5 | 0.35 |
| (2,979) | 1:A:44:VAL:HG13 | 1:A:27:PHE:HB3 | 5 | 0.35 |
| (2,923) | 1:A:44:VAL:HG12 | 1:A:45:MET:HB2 | 6 | 0.35 |
| (2,923) | 1:A:44:VAL:HG12 | 1:A:45:MET:HB3 | 6 | 0.35 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,923) | 1:A:44:VAL:HG11 | 1:A:45:MET:HB2 | 6 | 0.35 |
| (2,923) | 1:A:44:VAL:HG11 | 1:A:45:MET:HB3 | 6 | 0.35 |
| (2,923) | 1:A:44:VAL:HG13 | 1:A:45:MET:HB2 | 6 | 0.35 |
| (2,923) | 1:A:44:VAL:HG13 | 1:A:45:MET:HB3 | 6 | 0.35 |
| (2,923) | 1:A:44:VAL:HG12 | 1:A:45:MET:HB2 | 8 | 0.35 |
| (2,923) | 1:A:44:VAL:HG12 | 1:A:45:MET:HB3 | 8 | 0.35 |
| (2,923) | 1:A:44:VAL:HG11 | 1:A:45:MET:HB2 | 8 | 0.35 |
| (2,923) | 1:A:44:VAL:HG11 | 1:A:45:MET:HB3 | 8 | 0.35 |
| (2,923) | 1:A:44:VAL:HG13 | 1:A:45:MET:HB2 | 8 | 0.35 |
| (2,923) | 1:A:44:VAL:HG13 | 1:A:45:MET:HB3 | 8 | 0.35 |
| (2,923) | 1:A:44:VAL:HG12 | 1:A:45:MET:HB2 | 9 | 0.35 |
| (2,923) | 1:A:44:VAL:HG12 | 1:A:45:MET:HB3 | 9 | 0.35 |
| (2,923) | 1:A:44:VAL:HG11 | 1:A:45:MET:HB2 | 9 | 0.35 |
| (2,923) | 1:A:44:VAL:HG11 | 1:A:45:MET:HB3 | 9 | 0.35 |
| (2,923) | 1:A:44:VAL:HG13 | 1:A:45:MET:HB2 | 9 | 0.35 |
| (2,923) | 1:A:44:VAL:HG13 | 1:A:45:MET:HB3 | 9 | 0.35 |
| (2,907) | 1:A:78:LEU:HD12 | 1:A:74:PHE:HE1 | 4 | 0.35 |
| (2,907) | 1:A:78:LEU:HD11 | 1:A:74:PHE:HE1 | 4 | 0.35 |
| (2,907) | 1:A:78:LEU:HD13 | 1:A:74:PHE:HE1 | 4 | 0.35 |
| (2,714) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG12 | 4 | 0.35 |
| (2,714) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG12 | 4 | 0.35 |
| (2,714) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG12 | 4 | 0.35 |
| (2,392) | 1:A:3:ASP:HB2 | 1:A:6:LYS:HB2 | 10 | 0.35 |
| (2,392) | 1:A:3:ASP:HB2 | 1:A:6:LYS:HB3 | 10 | 0.35 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD12 | 9 | 0.35 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD11 | 9 | 0.35 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD13 | 9 | 0.35 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD12 | 9 | 0.35 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD11 | 9 | 0.35 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD13 | 9 | 0.35 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD12 | 9 | 0.35 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD11 | 9 | 0.35 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD13 | 9 | 0.35 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD12 | 9 | 0.35 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD11 | 9 | 0.35 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD13 | 9 | 0.35 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD12 | 3 | 0.35 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD11 | 3 | 0.35 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD13 | 3 | 0.35 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD12 | 3 | 0.35 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD11 | 3 | 0.35 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD13 | 3 | 0.35 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD12 | 3 | 0.35 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD11 | 3 | 0.35 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD13 | 3 | 0.35 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:19:GLU:HB2 | 8 | 0.35 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE2 | 8 | 0.35 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE1 | 8 | 0.35 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE3 | 8 | 0.35 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD22 | 6 | 0.35 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD21 | 6 | 0.35 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD23 | 6 | 0.35 |
| (2,8) | 1:A:51:ASN:HA | 1:A:50:GLN:HB3 | 8 | 0.34 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB2 | 7 | 0.34 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB1 | 7 | 0.34 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB3 | 7 | 0.34 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB2 | 7 | 0.34 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB1 | 7 | 0.34 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB3 | 7 | 0.34 |
| (2,599) | 1:A:56:GLU:HG2 | 1:A:56:GLU:HB2 | 2 | 0.34 |
| (2,599) | 1:A:56:GLU:HG2 | 1:A:56:GLU:HB2 | 9 | 0.34 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB2 | 5 | 0.34 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB1 | 5 | 0.34 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB3 | 5 | 0.34 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB2 | 7 | 0.34 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB1 | 7 | 0.34 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB3 | 7 | 0.34 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB2 | 9 | 0.34 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB1 | 9 | 0.34 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB3 | 9 | 0.34 |
| (2,272) | 1:A:44:VAL:HA | 1:A:47:MET:HB3 | 10 | 0.34 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG22 | 8 | 0.34 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG21 | 8 | 0.34 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG23 | 8 | 0.34 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD12 | 8 | 0.34 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD11 | 8 | 0.34 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD13 | 8 | 0.34 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD12 | 7 | 0.34 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD11 | 7 | 0.34 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD13 | 7 | 0.34 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD12 | 7 | 0.34 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD11 | 7 | 0.34 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD13 | 7 | 0.34 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD12 | 7 | 0.34 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD11 | 7 | 0.34 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD13 | 7 | 0.34 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD12 | 7 | 0.34 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD11 | 7 | 0.34 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD13 | 7 | 0.34 |
| (2,1197) | 1:A:24:PHE:HA | 1:A:27:PHE:HE1 | 8 | 0.34 |
| (2,1197) | 1:A:24:PHE:HA | 1:A:77:PHE:HE1 | 8 | 0.34 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD22 | 9 | 0.34 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD21 | 9 | 0.34 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD23 | 9 | 0.34 |
| (2,1016) | 1:A:78:LEU:HD22 | 1:A:12:LEU:HG | 3 | 0.34 |
| (2,1016) | 1:A:78:LEU:HD21 | 1:A:12:LEU:HG | 3 | 0.34 |
| (2,1016) | 1:A:78:LEU:HD23 | 1:A:12:LEU:HG | 3 | 0.34 |
| (2,1016) | 1:A:78:LEU:HD22 | 1:A:12:LEU:HG | 6 | 0.34 |
| (2,1016) | 1:A:78:LEU:HD21 | 1:A:12:LEU:HG | 6 | 0.34 |
| (2,1016) | 1:A:78:LEU:HD23 | 1:A:12:LEU:HG | 6 | 0.34 |
| (2,1016) | 1:A:78:LEU:HD22 | 1:A:12:LEU:HG | 8 | 0.34 |
| (2,1016) | 1:A:78:LEU:HD21 | 1:A:12:LEU:HG | 8 | 0.34 |
| (2,1016) | 1:A:78:LEU:HD23 | 1:A:12:LEU:HG | 8 | 0.34 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG22 | 2 | 0.33 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG21 | 2 | 0.33 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG23 | 2 | 0.33 |
| (2,923) | 1:A:44:VAL:HG12 | 1:A:45:MET:HB2 | 3 | 0.33 |
| (2,923) | 1:A:44:VAL:HG12 | 1:A:45:MET:HB3 | 3 | 0.33 |
| (2,923) | 1:A:44:VAL:HG11 | 1:A:45:MET:HB2 | 3 | 0.33 |
| (2,923) | 1:A:44:VAL:HG11 | 1:A:45:MET:HB3 | 3 | 0.33 |
| (2,923) | 1:A:44:VAL:HG13 | 1:A:45:MET:HB2 | 3 | 0.33 |
| (2,923) | 1:A:44:VAL:HG13 | 1:A:45:MET:HB3 | 3 | 0.33 |
| (2,736) | 1:A:82:VAL:HG22 | 1:A:5:TYR:HE1 | 8 | 0.33 |
| (2,736) | 1:A:82:VAL:HG21 | 1:A:5:TYR:HE1 | 8 | 0.33 |
| (2,736) | 1:A:82:VAL:HG23 | 1:A:5:TYR:HE1 | 8 | 0.33 |
| (2,710) | 1:A:58:GLN:HG2 | 1:A:38:THR:HG21 | 8 | 0.33 |
| (2,710) | 1:A:58:GLN:HG2 | 1:A:38:THR:HG22 | 8 | 0.33 |
| (2,710) | 1:A:58:GLN:HG2 | 1:A:38:THR:HG23 | 8 | 0.33 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB2 | 1 | 0.33 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB1 | 1 | 0.33 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB3 | 1 | 0.33 |
| (2,288) | 1:A:80:MET:HA | 1:A:80:MET:HG2 | 9 | 0.33 |
| (2,288) | 1:A:80:MET:HA | 1:A:80:MET:HG2 | 10 | 0.33 |
| (2,223) | 1:A:82:VAL:HA | 1:A:85:MET:HG3 | 3 | 0.33 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG22 | 6 | 0.33 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG21 | 6 | 0.33 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|----------------|------------------|----------|---------------|
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG23 | 6 | 0.33 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD12 | 6 | 0.33 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD11 | 6 | 0.33 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD13 | 6 | 0.33 |
| (2,129) | 1:A:54:PRO:HA | 1:A:54:PRO:HG2 | 3 | 0.33 |
| (2,129) | 1:A:54:PRO:HA | 1:A:54:PRO:HG2 | 5 | 0.33 |
| (2,129) | 1:A:54:PRO:HA | 1:A:54:PRO:HG2 | 6 | 0.33 |
| (2,129) | 1:A:54:PRO:HA | 1:A:54:PRO:HG2 | 10 | 0.33 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:19:GLU:HB2 | 1 | 0.33 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE2 | 1 | 0.33 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE1 | 1 | 0.33 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE3 | 1 | 0.33 |
| (2,1242) | 1:A:11:GLN:HB3 | 1:A:12:LEU:HD12 | 9 | 0.33 |
| (2,1242) | 1:A:11:GLN:HB3 | 1:A:12:LEU:HD11 | 9 | 0.33 |
| (2,1242) | 1:A:11:GLN:HB3 | 1:A:12:LEU:HD13 | 9 | 0.33 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:12:LEU:HD12 | 9 | 0.33 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:12:LEU:HD11 | 9 | 0.33 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:12:LEU:HD13 | 9 | 0.33 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:158:LEU:HD12 | 9 | 0.33 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:158:LEU:HD11 | 9 | 0.33 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:158:LEU:HD13 | 9 | 0.33 |
| (2,1197) | 1:A:24:PHE:HA | 1:A:27:PHE:HE1 | 4 | 0.33 |
| (2,1197) | 1:A:24:PHE:HA | 1:A:77:PHE:HE1 | 4 | 0.33 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG22 | 6 | 0.33 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG21 | 6 | 0.33 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG23 | 6 | 0.33 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG12 | 6 | 0.33 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG11 | 6 | 0.33 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG13 | 6 | 0.33 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:15:GLU:HB2 | 2 | 0.33 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:15:GLU:HB3 | 2 | 0.33 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:19:GLU:HB3 | 2 | 0.33 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:15:GLU:HB2 | 5 | 0.33 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:15:GLU:HB3 | 5 | 0.33 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:19:GLU:HB3 | 5 | 0.33 |
| (2,1159) | 1:A:69:SER:HB2 | 1:A:68:GLY:HA2 | 8 | 0.33 |
| (2,1159) | 1:A:69:SER:HB2 | 1:A:71:THR:HB | 8 | 0.33 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD22 | 5 | 0.33 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD21 | 5 | 0.33 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD23 | 5 | 0.33 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG22 | 10 | 0.32 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG21 | 10 | 0.32 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG23 | 10 | 0.32 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG12 | 8 | 0.32 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG11 | 8 | 0.32 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG13 | 8 | 0.32 |
| (2,825) | 1:A:48:LEU:HD12 | 1:A:44:VAL:HG12 | 9 | 0.32 |
| (2,825) | 1:A:48:LEU:HD12 | 1:A:44:VAL:HG11 | 9 | 0.32 |
| (2,825) | 1:A:48:LEU:HD12 | 1:A:44:VAL:HG13 | 9 | 0.32 |
| (2,825) | 1:A:48:LEU:HD11 | 1:A:44:VAL:HG12 | 9 | 0.32 |
| (2,825) | 1:A:48:LEU:HD11 | 1:A:44:VAL:HG11 | 9 | 0.32 |
| (2,825) | 1:A:48:LEU:HD11 | 1:A:44:VAL:HG13 | 9 | 0.32 |
| (2,825) | 1:A:48:LEU:HD13 | 1:A:44:VAL:HG12 | 9 | 0.32 |
| (2,825) | 1:A:48:LEU:HD13 | 1:A:44:VAL:HG11 | 9 | 0.32 |
| (2,825) | 1:A:48:LEU:HD13 | 1:A:44:VAL:HG13 | 9 | 0.32 |
| (2,8) | 1:A:51:ASN:HA | 1:A:50:GLN:HB3 | 3 | 0.32 |
| (2,8) | 1:A:51:ASN:HA | 1:A:50:GLN:HB3 | 5 | 0.32 |
| (2,736) | 1:A:82:VAL:HG22 | 1:A:5:TYR:HE1 | 3 | 0.32 |
| (2,736) | 1:A:82:VAL:HG21 | 1:A:5:TYR:HE1 | 3 | 0.32 |
| (2,736) | 1:A:82:VAL:HG23 | 1:A:5:TYR:HE1 | 3 | 0.32 |
| (2,736) | 1:A:82:VAL:HG22 | 1:A:5:TYR:HE1 | 4 | 0.32 |
| (2,736) | 1:A:82:VAL:HG21 | 1:A:5:TYR:HE1 | 4 | 0.32 |
| (2,736) | 1:A:82:VAL:HG23 | 1:A:5:TYR:HE1 | 4 | 0.32 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB2 | 10 | 0.32 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB1 | 10 | 0.32 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB3 | 10 | 0.32 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD22 | 7 | 0.32 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD21 | 7 | 0.32 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD23 | 7 | 0.32 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD22 | 7 | 0.32 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD21 | 7 | 0.32 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD23 | 7 | 0.32 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD22 | 7 | 0.32 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD21 | 7 | 0.32 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD23 | 7 | 0.32 |
| (2,45) | 1:A:65:ASP:HA | 1:A:61:ILE:HG22 | 10 | 0.32 |
| (2,45) | 1:A:65:ASP:HA | 1:A:61:ILE:HG21 | 10 | 0.32 |
| (2,45) | 1:A:65:ASP:HA | 1:A:61:ILE:HG23 | 10 | 0.32 |
| (2,240) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HG2 | 4 | 0.32 |
| (2,240) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HG3 | 4 | 0.32 |
| (2,237) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HB2 | 9 | 0.32 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG12 | 7 | 0.32 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG11 | 7 | 0.32 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG13 | 7 | 0.32 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,223) | 1:A:82:VAL:HA | 1:A:85:MET:HG3 | 4 | 0.32 |
| (2,129) | 1:A:54:PRO:HA | 1:A:54:PRO:HG2 | 7 | 0.32 |
| (2,129) | 1:A:54:PRO:HA | 1:A:54:PRO:HG2 | 8 | 0.32 |
| (2,129) | 1:A:54:PRO:HA | 1:A:54:PRO:HG2 | 9 | 0.32 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:19:GLU:HB2 | 4 | 0.32 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE2 | 4 | 0.32 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE1 | 4 | 0.32 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE3 | 4 | 0.32 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD12 | 7 | 0.32 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD11 | 7 | 0.32 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD13 | 7 | 0.32 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD12 | 7 | 0.32 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD11 | 7 | 0.32 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD13 | 7 | 0.32 |
| (2,1197) | 1:A:24:PHE:HA | 1:A:27:PHE:HE1 | 3 | 0.32 |
| (2,1197) | 1:A:24:PHE:HA | 1:A:77:PHE:HE1 | 3 | 0.32 |
| (2,1197) | 1:A:24:PHE:HA | 1:A:27:PHE:HE1 | 6 | 0.32 |
| (2,1197) | 1:A:24:PHE:HA | 1:A:77:PHE:HE1 | 6 | 0.32 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:15:GLU:HB2 | 10 | 0.32 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:15:GLU:HB3 | 10 | 0.32 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:19:GLU:HB3 | 10 | 0.32 |
| (2,1040) | 1:A:157:LEU:HD22 | 1:A:154:MET:HB2 | 1 | 0.32 |
| (2,1040) | 1:A:157:LEU:HD22 | 1:A:154:MET:HB3 | 1 | 0.32 |
| (2,1040) | 1:A:157:LEU:HD21 | 1:A:154:MET:HB2 | 1 | 0.32 |
| (2,1040) | 1:A:157:LEU:HD21 | 1:A:154:MET:HB3 | 1 | 0.32 |
| (2,1040) | 1:A:157:LEU:HD23 | 1:A:154:MET:HB2 | 1 | 0.32 |
| (2,1040) | 1:A:157:LEU:HD23 | 1:A:154:MET:HB3 | 1 | 0.32 |
| (2,923) | 1:A:44:VAL:HG12 | 1:A:45:MET:HB2 | 2 | 0.31 |
| (2,923) | 1:A:44:VAL:HG12 | 1:A:45:MET:HB3 | 2 | 0.31 |
| (2,923) | 1:A:44:VAL:HG11 | 1:A:45:MET:HB2 | 2 | 0.31 |
| (2,923) | 1:A:44:VAL:HG11 | 1:A:45:MET:HB3 | 2 | 0.31 |
| (2,923) | 1:A:44:VAL:HG13 | 1:A:45:MET:HB2 | 2 | 0.31 |
| (2,923) | 1:A:44:VAL:HG13 | 1:A:45:MET:HB3 | 2 | 0.31 |
| (2,907) | 1:A:78:LEU:HD12 | 1:A:74:PHE:HE1 | 6 | 0.31 |
| (2,907) | 1:A:78:LEU:HD11 | 1:A:74:PHE:HE1 | 6 | 0.31 |
| (2,907) | 1:A:78:LEU:HD13 | 1:A:74:PHE:HE1 | 6 | 0.31 |
| (2,8) | 1:A:51:ASN:HA | 1:A:50:GLN:HB3 | 2 | 0.31 |
| (2,8) | 1:A:51:ASN:HA | 1:A:50:GLN:HB3 | 4 | 0.31 |
| (2,8) | 1:A:51:ASN:HA | 1:A:50:GLN:HB3 | 9 | 0.31 |
| (2,8) | 1:A:51:ASN:HA | 1:A:50:GLN:HB3 | 10 | 0.31 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD22 | 8 | 0.31 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD21 | 8 | 0.31 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD23 | 8 | 0.31 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD22 | 8 | 0.31 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD21 | 8 | 0.31 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD23 | 8 | 0.31 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD22 | 8 | 0.31 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD21 | 8 | 0.31 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD23 | 8 | 0.31 |
| (2,736) | 1:A:82:VAL:HG22 | 1:A:5:TYR:HE1 | 5 | 0.31 |
| (2,736) | 1:A:82:VAL:HG21 | 1:A:5:TYR:HE1 | 5 | 0.31 |
| (2,736) | 1:A:82:VAL:HG23 | 1:A:5:TYR:HE1 | 5 | 0.31 |
| (2,736) | 1:A:82:VAL:HG22 | 1:A:5:TYR:HE1 | 6 | 0.31 |
| (2,736) | 1:A:82:VAL:HG21 | 1:A:5:TYR:HE1 | 6 | 0.31 |
| (2,736) | 1:A:82:VAL:HG23 | 1:A:5:TYR:HE1 | 6 | 0.31 |
| (2,712) | 1:A:58:GLN:HB2 | 1:A:38:THR:HG21 | 4 | 0.31 |
| (2,712) | 1:A:58:GLN:HB2 | 1:A:38:THR:HG22 | 4 | 0.31 |
| (2,712) | 1:A:58:GLN:HB2 | 1:A:38:THR:HG23 | 4 | 0.31 |
| (2,712) | 1:A:58:GLN:HB3 | 1:A:38:THR:HG21 | 4 | 0.31 |
| (2,712) | 1:A:58:GLN:HB3 | 1:A:38:THR:HG22 | 4 | 0.31 |
| (2,712) | 1:A:58:GLN:HB3 | 1:A:38:THR:HG23 | 4 | 0.31 |
| (2,65) | 1:A:141:PRO:HA | 1:A:141:PRO:HG2 | 5 | 0.31 |
| (2,65) | 1:A:141:PRO:HA | 1:A:141:PRO:HG3 | 5 | 0.31 |
| (2,65) | 1:A:141:PRO:HA | 1:A:141:PRO:HG2 | 6 | 0.31 |
| (2,65) | 1:A:141:PRO:HA | 1:A:141:PRO:HG3 | 6 | 0.31 |
| (2,65) | 1:A:141:PRO:HA | 1:A:141:PRO:HG2 | 7 | 0.31 |
| (2,65) | 1:A:141:PRO:HA | 1:A:141:PRO:HG3 | 7 | 0.31 |
| (2,65) | 1:A:141:PRO:HA | 1:A:141:PRO:HG2 | 9 | 0.31 |
| (2,65) | 1:A:141:PRO:HA | 1:A:141:PRO:HG3 | 9 | 0.31 |
| (2,604) | 1:A:161:ARG:HB3 | 1:A:161:ARG:HD2 | 8 | 0.31 |
| (2,604) | 1:A:161:ARG:HB3 | 1:A:161:ARG:HD3 | 8 | 0.31 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG12 | 8 | 0.31 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG11 | 8 | 0.31 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG13 | 8 | 0.31 |
| (2,463) | 1:A:64:VAL:HB | 1:A:72:VAL:HB | 4 | 0.31 |
| (2,391) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HA | 8 | 0.31 |
| (2,391) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HA | 8 | 0.31 |
| (2,272) | 1:A:44:VAL:HA | 1:A:47:MET:HB3 | 5 | 0.31 |
| (2,223) | 1:A:82:VAL:HA | 1:A:85:MET:HG3 | 1 | 0.31 |
| (2,1388) | 1:A:61:ILE:HD12 | 1:A:28:VAL:HA | 1 | 0.31 |
| (2,1388) | 1:A:61:ILE:HD11 | 1:A:28:VAL:HA | 1 | 0.31 |
| (2,1388) | 1:A:61:ILE:HD13 | 1:A:28:VAL:HA | 1 | 0.31 |
| (2,1388) | 1:A:61:ILE:HD12 | 1:A:39:LYS:HA | 1 | 0.31 |
| (2,1388) | 1:A:61:ILE:HD11 | 1:A:39:LYS:HA | 1 | 0.31 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,1388) | 1:A:61:ILE:HD13 | 1:A:39:LYS:HA | 1 | 0.31 |
| (2,1388) | 1:A:61:ILE:HD12 | 1:A:59:GLU:HA | 1 | 0.31 |
| (2,1388) | 1:A:61:ILE:HD11 | 1:A:59:GLU:HA | 1 | 0.31 |
| (2,1388) | 1:A:61:ILE:HD13 | 1:A:59:GLU:HA | 1 | 0.31 |
| (2,1358) | 1:A:148:ILE:HG13 | 1:A:48:LEU:HD22 | 9 | 0.31 |
| (2,1358) | 1:A:148:ILE:HG13 | 1:A:48:LEU:HD21 | 9 | 0.31 |
| (2,1358) | 1:A:148:ILE:HG13 | 1:A:48:LEU:HD23 | 9 | 0.31 |
| (2,1358) | 1:A:156:ALA:HB2 | 1:A:48:LEU:HD22 | 9 | 0.31 |
| (2,1358) | 1:A:156:ALA:HB2 | 1:A:48:LEU:HD21 | 9 | 0.31 |
| (2,1358) | 1:A:156:ALA:HB2 | 1:A:48:LEU:HD23 | 9 | 0.31 |
| (2,1358) | 1:A:156:ALA:HB1 | 1:A:48:LEU:HD22 | 9 | 0.31 |
| (2,1358) | 1:A:156:ALA:HB1 | 1:A:48:LEU:HD21 | 9 | 0.31 |
| (2,1358) | 1:A:156:ALA:HB1 | 1:A:48:LEU:HD23 | 9 | 0.31 |
| (2,1358) | 1:A:156:ALA:HB3 | 1:A:48:LEU:HD22 | 9 | 0.31 |
| (2,1358) | 1:A:156:ALA:HB3 | 1:A:48:LEU:HD21 | 9 | 0.31 |
| (2,1358) | 1:A:156:ALA:HB3 | 1:A:48:LEU:HD23 | 9 | 0.31 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG21 | 8 | 0.31 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG22 | 8 | 0.31 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG23 | 8 | 0.31 |
| (2,1313) | 1:A:38:THR:HG21 | 1:A:57:LEU:HG | 8 | 0.31 |
| (2,1313) | 1:A:38:THR:HG22 | 1:A:57:LEU:HG | 8 | 0.31 |
| (2,1313) | 1:A:38:THR:HG23 | 1:A:57:LEU:HG | 8 | 0.31 |
| (2,129) | 1:A:54:PRO:HA | 1:A:54:PRO:HG2 | 2 | 0.31 |
| (2,129) | 1:A:54:PRO:HA | 1:A:54:PRO:HG2 | 4 | 0.31 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB2 | 3 | 0.31 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB1 | 3 | 0.31 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB3 | 3 | 0.31 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB2 | 3 | 0.31 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB1 | 3 | 0.31 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB3 | 3 | 0.31 |
| (2,1114) | 1:A:54:PRO:HA | 1:A:57:LEU:HB3 | 3 | 0.31 |
| (2,1114) | 1:A:54:PRO:HA | 1:A:57:LEU:HB3 | 9 | 0.31 |
| (2,923) | 1:A:44:VAL:HG12 | 1:A:45:MET:HB2 | 1 | 0.3 |
| (2,923) | 1:A:44:VAL:HG12 | 1:A:45:MET:HB3 | 1 | 0.3 |
| (2,923) | 1:A:44:VAL:HG11 | 1:A:45:MET:HB2 | 1 | 0.3 |
| (2,923) | 1:A:44:VAL:HG11 | 1:A:45:MET:HB3 | 1 | 0.3 |
| (2,923) | 1:A:44:VAL:HG13 | 1:A:45:MET:HB2 | 1 | 0.3 |
| (2,923) | 1:A:44:VAL:HG13 | 1:A:45:MET:HB3 | 1 | 0.3 |
| (2,907) | 1:A:78:LEU:HD12 | 1:A:74:PHE:HE1 | 7 | 0.3 |
| (2,907) | 1:A:78:LEU:HD11 | 1:A:74:PHE:HE1 | 7 | 0.3 |
| (2,907) | 1:A:78:LEU:HD13 | 1:A:74:PHE:HE1 | 7 | 0.3 |
| (2,825) | 1:A:48:LEU:HD12 | 1:A:44:VAL:HG12 | 8 | 0.3 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,825) | 1:A:48:LEU:HD12 | 1:A:44:VAL:HG11 | 8 | 0.3 |
| (2,825) | 1:A:48:LEU:HD12 | 1:A:44:VAL:HG13 | 8 | 0.3 |
| (2,825) | 1:A:48:LEU:HD11 | 1:A:44:VAL:HG12 | 8 | 0.3 |
| (2,825) | 1:A:48:LEU:HD11 | 1:A:44:VAL:HG11 | 8 | 0.3 |
| (2,825) | 1:A:48:LEU:HD11 | 1:A:44:VAL:HG13 | 8 | 0.3 |
| (2,825) | 1:A:48:LEU:HD13 | 1:A:44:VAL:HG12 | 8 | 0.3 |
| (2,825) | 1:A:48:LEU:HD13 | 1:A:44:VAL:HG11 | 8 | 0.3 |
| (2,825) | 1:A:48:LEU:HD13 | 1:A:44:VAL:HG13 | 8 | 0.3 |
| (2,736) | 1:A:82:VAL:HG22 | 1:A:5:TYR:HE1 | 2 | 0.3 |
| (2,736) | 1:A:82:VAL:HG21 | 1:A:5:TYR:HE1 | 2 | 0.3 |
| (2,736) | 1:A:82:VAL:HG23 | 1:A:5:TYR:HE1 | 2 | 0.3 |
| (2,736) | 1:A:82:VAL:HG22 | 1:A:5:TYR:HE1 | 10 | 0.3 |
| (2,736) | 1:A:82:VAL:HG21 | 1:A:5:TYR:HE1 | 10 | 0.3 |
| (2,736) | 1:A:82:VAL:HG23 | 1:A:5:TYR:HE1 | 10 | 0.3 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG22 | 1 | 0.3 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG21 | 1 | 0.3 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG23 | 1 | 0.3 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD12 | 1 | 0.3 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD11 | 1 | 0.3 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD13 | 1 | 0.3 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG22 | 3 | 0.3 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG21 | 3 | 0.3 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG23 | 3 | 0.3 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD12 | 3 | 0.3 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD11 | 3 | 0.3 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD13 | 3 | 0.3 |
| (2,143) | 1:A:40:GLU:HA | 1:A:43:LYS:HB2 | 1 | 0.3 |
| (2,143) | 1:A:40:GLU:HA | 1:A:43:LYS:HB3 | 1 | 0.3 |
| (2,143) | 1:A:40:GLU:HA | 1:A:43:LYS:HB2 | 5 | 0.3 |
| (2,143) | 1:A:40:GLU:HA | 1:A:43:LYS:HB3 | 5 | 0.3 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD12 | 2 | 0.3 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD11 | 2 | 0.3 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD13 | 2 | 0.3 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD12 | 2 | 0.3 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD11 | 2 | 0.3 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD13 | 2 | 0.3 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD12 | 2 | 0.3 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD11 | 2 | 0.3 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD13 | 2 | 0.3 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD12 | 2 | 0.3 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD11 | 2 | 0.3 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD13 | 2 | 0.3 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,129) | 1:A:54:PRO:HA | 1:A:54:PRO:HG2 | 1 | 0.3 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD12 | 1 | 0.3 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD11 | 1 | 0.3 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD13 | 1 | 0.3 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD12 | 1 | 0.3 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD11 | 1 | 0.3 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD13 | 1 | 0.3 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD12 | 1 | 0.3 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD11 | 1 | 0.3 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD13 | 1 | 0.3 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD12 | 2 | 0.3 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD11 | 2 | 0.3 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD13 | 2 | 0.3 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD12 | 2 | 0.3 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD11 | 2 | 0.3 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD13 | 2 | 0.3 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD12 | 2 | 0.3 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD11 | 2 | 0.3 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD13 | 2 | 0.3 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD12 | 6 | 0.3 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD11 | 6 | 0.3 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD13 | 6 | 0.3 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD12 | 6 | 0.3 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD11 | 6 | 0.3 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD13 | 6 | 0.3 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD12 | 6 | 0.3 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD11 | 6 | 0.3 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD13 | 6 | 0.3 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG22 | 1 | 0.3 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG21 | 1 | 0.3 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG23 | 1 | 0.3 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG22 | 1 | 0.3 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG21 | 1 | 0.3 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG23 | 1 | 0.3 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD22 | 2 | 0.3 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD21 | 2 | 0.3 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD23 | 2 | 0.3 |
| (2,1016) | 1:A:78:LEU:HD22 | 1:A:12:LEU:HG | 2 | 0.3 |
| (2,1016) | 1:A:78:LEU:HD21 | 1:A:12:LEU:HG | 2 | 0.3 |
| (2,1016) | 1:A:78:LEU:HD23 | 1:A:12:LEU:HG | 2 | 0.3 |
| (2,1016) | 1:A:78:LEU:HD22 | 1:A:12:LEU:HG | 9 | 0.3 |
| (2,1016) | 1:A:78:LEU:HD21 | 1:A:12:LEU:HG | 9 | 0.3 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1016) | 1:A:78:LEU:HD23 | 1:A:12:LEU:HG | 9 | 0.3 |
| (2,923) | 1:A:44:VAL:HG12 | 1:A:45:MET:HB2 | 10 | 0.29 |
| (2,923) | 1:A:44:VAL:HG12 | 1:A:45:MET:HB3 | 10 | 0.29 |
| (2,923) | 1:A:44:VAL:HG11 | 1:A:45:MET:HB2 | 10 | 0.29 |
| (2,923) | 1:A:44:VAL:HG11 | 1:A:45:MET:HB3 | 10 | 0.29 |
| (2,923) | 1:A:44:VAL:HG13 | 1:A:45:MET:HB2 | 10 | 0.29 |
| (2,923) | 1:A:44:VAL:HG13 | 1:A:45:MET:HB3 | 10 | 0.29 |
| (2,807) | 1:A:45:MET:HG2 | 1:A:57:LEU:HD12 | 8 | 0.29 |
| (2,807) | 1:A:45:MET:HG2 | 1:A:57:LEU:HD11 | 8 | 0.29 |
| (2,807) | 1:A:45:MET:HG2 | 1:A:57:LEU:HD13 | 8 | 0.29 |
| (2,807) | 1:A:45:MET:HG3 | 1:A:57:LEU:HD12 | 8 | 0.29 |
| (2,807) | 1:A:45:MET:HG3 | 1:A:57:LEU:HD11 | 8 | 0.29 |
| (2,807) | 1:A:45:MET:HG3 | 1:A:57:LEU:HD13 | 8 | 0.29 |
| (2,714) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG12 | 2 | 0.29 |
| (2,714) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG12 | 2 | 0.29 |
| (2,714) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG12 | 2 | 0.29 |
| (2,705) | 1:A:81:MET:HB3 | 1:A:81:MET:HG2 | 6 | 0.29 |
| (2,697) | 1:A:7:ALA:HB2 | 1:A:4:ILE:HG12 | 6 | 0.29 |
| (2,697) | 1:A:7:ALA:HB2 | 1:A:4:ILE:HG13 | 6 | 0.29 |
| (2,697) | 1:A:7:ALA:HB1 | 1:A:4:ILE:HG12 | 6 | 0.29 |
| (2,697) | 1:A:7:ALA:HB1 | 1:A:4:ILE:HG13 | 6 | 0.29 |
| (2,697) | 1:A:7:ALA:HB3 | 1:A:4:ILE:HG12 | 6 | 0.29 |
| (2,697) | 1:A:7:ALA:HB3 | 1:A:4:ILE:HG13 | 6 | 0.29 |
| (2,697) | 1:A:7:ALA:HB2 | 1:A:4:ILE:HG12 | 9 | 0.29 |
| (2,697) | 1:A:7:ALA:HB2 | 1:A:4:ILE:HG13 | 9 | 0.29 |
| (2,697) | 1:A:7:ALA:HB1 | 1:A:4:ILE:HG12 | 9 | 0.29 |
| (2,697) | 1:A:7:ALA:HB1 | 1:A:4:ILE:HG13 | 9 | 0.29 |
| (2,697) | 1:A:7:ALA:HB3 | 1:A:4:ILE:HG12 | 9 | 0.29 |
| (2,697) | 1:A:7:ALA:HB3 | 1:A:4:ILE:HG13 | 9 | 0.29 |
| (2,615) | 1:A:43:LYS:HD2 | 1:A:44:VAL:HG12 | 7 | 0.29 |
| (2,615) | 1:A:43:LYS:HD2 | 1:A:44:VAL:HG11 | 7 | 0.29 |
| (2,615) | 1:A:43:LYS:HD2 | 1:A:44:VAL:HG13 | 7 | 0.29 |
| (2,615) | 1:A:43:LYS:HD3 | 1:A:44:VAL:HG12 | 7 | 0.29 |
| (2,615) | 1:A:43:LYS:HD3 | 1:A:44:VAL:HG11 | 7 | 0.29 |
| (2,615) | 1:A:43:LYS:HD3 | 1:A:44:VAL:HG13 | 7 | 0.29 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB2 | 3 | 0.29 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB1 | 3 | 0.29 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB3 | 3 | 0.29 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB2 | 10 | 0.29 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB1 | 10 | 0.29 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB3 | 10 | 0.29 |
| (2,272) | 1:A:44:VAL:HA | 1:A:47:MET:HB3 | 2 | 0.29 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,262) | 1:A:141:PRO:HD2 | 1:A:140:ARG:HB2 | 6 | 0.29 |
| (2,237) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HB2 | 7 | 0.29 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG22 | 4 | 0.29 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG21 | 4 | 0.29 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG23 | 4 | 0.29 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD12 | 4 | 0.29 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD11 | 4 | 0.29 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD13 | 4 | 0.29 |
| (2,1251) | 1:A:52:PRO:HB2 | 1:A:52:PRO:HG3 | 6 | 0.29 |
| (2,1251) | 1:A:52:PRO:HB2 | 1:A:56:GLU:HB2 | 6 | 0.29 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:19:GLU:HB2 | 6 | 0.29 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE2 | 6 | 0.29 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE1 | 6 | 0.29 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE3 | 6 | 0.29 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:19:GLU:HB2 | 9 | 0.29 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE2 | 9 | 0.29 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE1 | 9 | 0.29 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE3 | 9 | 0.29 |
| (2,1221) | 1:A:60:MET:HG2 | 1:A:57:LEU:HD12 | 4 | 0.29 |
| (2,1221) | 1:A:60:MET:HG2 | 1:A:57:LEU:HD11 | 4 | 0.29 |
| (2,1221) | 1:A:60:MET:HG2 | 1:A:57:LEU:HD13 | 4 | 0.29 |
| (2,1221) | 1:A:60:MET:HG3 | 1:A:57:LEU:HD12 | 4 | 0.29 |
| (2,1221) | 1:A:60:MET:HG3 | 1:A:57:LEU:HD11 | 4 | 0.29 |
| (2,1221) | 1:A:60:MET:HG3 | 1:A:57:LEU:HD13 | 4 | 0.29 |
| (2,1221) | 1:A:154:MET:HG2 | 1:A:158:LEU:HD22 | 4 | 0.29 |
| (2,1221) | 1:A:154:MET:HG2 | 1:A:158:LEU:HD21 | 4 | 0.29 |
| (2,1221) | 1:A:154:MET:HG2 | 1:A:158:LEU:HD23 | 4 | 0.29 |
| (2,1221) | 1:A:154:MET:HG3 | 1:A:158:LEU:HD22 | 4 | 0.29 |
| (2,1221) | 1:A:154:MET:HG3 | 1:A:158:LEU:HD21 | 4 | 0.29 |
| (2,1221) | 1:A:154:MET:HG3 | 1:A:158:LEU:HD23 | 4 | 0.29 |
| (2,1221) | 1:A:60:MET:HG2 | 1:A:57:LEU:HD12 | 5 | 0.29 |
| (2,1221) | 1:A:60:MET:HG2 | 1:A:57:LEU:HD11 | 5 | 0.29 |
| (2,1221) | 1:A:60:MET:HG2 | 1:A:57:LEU:HD13 | 5 | 0.29 |
| (2,1221) | 1:A:60:MET:HG3 | 1:A:57:LEU:HD12 | 5 | 0.29 |
| (2,1221) | 1:A:60:MET:HG3 | 1:A:57:LEU:HD11 | 5 | 0.29 |
| (2,1221) | 1:A:60:MET:HG3 | 1:A:57:LEU:HD13 | 5 | 0.29 |
| (2,1221) | 1:A:154:MET:HG2 | 1:A:158:LEU:HD22 | 5 | 0.29 |
| (2,1221) | 1:A:154:MET:HG2 | 1:A:158:LEU:HD21 | 5 | 0.29 |
| (2,1221) | 1:A:154:MET:HG2 | 1:A:158:LEU:HD23 | 5 | 0.29 |
| (2,1221) | 1:A:154:MET:HG3 | 1:A:158:LEU:HD22 | 5 | 0.29 |
| (2,1221) | 1:A:154:MET:HG3 | 1:A:158:LEU:HD21 | 5 | 0.29 |
| (2,1221) | 1:A:154:MET:HG3 | 1:A:158:LEU:HD23 | 5 | 0.29 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD12 | 8 | 0.29 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD11 | 8 | 0.29 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD13 | 8 | 0.29 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD12 | 8 | 0.29 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD11 | 8 | 0.29 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD13 | 8 | 0.29 |
| (2,1197) | 1:A:24:PHE:HA | 1:A:27:PHE:HE1 | 1 | 0.29 |
| (2,1197) | 1:A:24:PHE:HA | 1:A:77:PHE:HE1 | 1 | 0.29 |
| (2,1197) | 1:A:24:PHE:HA | 1:A:27:PHE:HE1 | 9 | 0.29 |
| (2,1197) | 1:A:24:PHE:HA | 1:A:77:PHE:HE1 | 9 | 0.29 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG22 | 10 | 0.29 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG21 | 10 | 0.29 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG23 | 10 | 0.29 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG12 | 10 | 0.29 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG11 | 10 | 0.29 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG13 | 10 | 0.29 |
| (2,1159) | 1:A:69:SER:HB2 | 1:A:68:GLY:HA2 | 5 | 0.29 |
| (2,1159) | 1:A:69:SER:HB2 | 1:A:71:THR:HB | 5 | 0.29 |
| (2,1114) | 1:A:54:PRO:HA | 1:A:57:LEU:HB3 | 5 | 0.29 |
| (2,109) | 1:A:66:GLU:HA | 1:A:66:GLU:HB2 | 9 | 0.29 |
| (2,1040) | 1:A:157:LEU:HD22 | 1:A:154:MET:HB2 | 9 | 0.29 |
| (2,1040) | 1:A:157:LEU:HD22 | 1:A:154:MET:HB3 | 9 | 0.29 |
| (2,1040) | 1:A:157:LEU:HD21 | 1:A:154:MET:HB2 | 9 | 0.29 |
| (2,1040) | 1:A:157:LEU:HD21 | 1:A:154:MET:HB3 | 9 | 0.29 |
| (2,1040) | 1:A:157:LEU:HD23 | 1:A:154:MET:HB2 | 9 | 0.29 |
| (2,1040) | 1:A:157:LEU:HD23 | 1:A:154:MET:HB3 | 9 | 0.29 |
| (2,879) | 1:A:78:LEU:HD22 | 1:A:77:PHE:HD1 | 2 | 0.28 |
| (2,879) | 1:A:78:LEU:HD21 | 1:A:77:PHE:HD1 | 2 | 0.28 |
| (2,879) | 1:A:78:LEU:HD23 | 1:A:77:PHE:HD1 | 2 | 0.28 |
| (2,865) | 1:A:61:ILE:HA | 1:A:61:ILE:HD12 | 4 | 0.28 |
| (2,865) | 1:A:61:ILE:HA | 1:A:61:ILE:HD11 | 4 | 0.28 |
| (2,865) | 1:A:61:ILE:HA | 1:A:61:ILE:HD13 | 4 | 0.28 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD12 | 6 | 0.28 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD11 | 6 | 0.28 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD13 | 6 | 0.28 |
| (2,797) | 1:A:146:VAL:HA | 1:A:146:VAL:HG22 | 9 | 0.28 |
| (2,797) | 1:A:146:VAL:HA | 1:A:146:VAL:HG21 | 9 | 0.28 |
| (2,797) | 1:A:146:VAL:HA | 1:A:146:VAL:HG23 | 9 | 0.28 |
| (2,736) | 1:A:82:VAL:HG22 | 1:A:5:TYR:HE1 | 1 | 0.28 |
| (2,736) | 1:A:82:VAL:HG21 | 1:A:5:TYR:HE1 | 1 | 0.28 |
| (2,736) | 1:A:82:VAL:HG23 | 1:A:5:TYR:HE1 | 1 | 0.28 |
| (2,705) | 1:A:81:MET:HB3 | 1:A:81:MET:HG2 | 2 | 0.28 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,705) | 1:A:81:MET:HB3 | 1:A:81:MET:HG2 | 4 | 0.28 |
| (2,705) | 1:A:81:MET:HB3 | 1:A:81:MET:HG2 | 5 | 0.28 |
| (2,705) | 1:A:81:MET:HB3 | 1:A:81:MET:HG2 | 7 | 0.28 |
| (2,705) | 1:A:81:MET:HB3 | 1:A:81:MET:HG2 | 8 | 0.28 |
| (2,705) | 1:A:81:MET:HB3 | 1:A:81:MET:HG2 | 9 | 0.28 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD22 | 2 | 0.28 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD21 | 2 | 0.28 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD23 | 2 | 0.28 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD22 | 2 | 0.28 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD21 | 2 | 0.28 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD23 | 2 | 0.28 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD22 | 2 | 0.28 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD21 | 2 | 0.28 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD23 | 2 | 0.28 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG12 | 2 | 0.28 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG11 | 2 | 0.28 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG13 | 2 | 0.28 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG12 | 3 | 0.28 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG11 | 3 | 0.28 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG13 | 3 | 0.28 |
| (2,278) | 1:A:71:THR:HB | 1:A:35:SER:HB3 | 10 | 0.28 |
| (2,272) | 1:A:44:VAL:HA | 1:A:47:MET:HB3 | 1 | 0.28 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG12 | 8 | 0.28 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG11 | 8 | 0.28 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG13 | 8 | 0.28 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG12 | 9 | 0.28 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG11 | 9 | 0.28 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG13 | 9 | 0.28 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG22 | 10 | 0.28 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG21 | 10 | 0.28 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG23 | 10 | 0.28 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD12 | 10 | 0.28 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD11 | 10 | 0.28 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD13 | 10 | 0.28 |
| (2,1301) | 1:A:150:ALA:HB2 | 1:A:85:MET:HG2 | 8 | 0.28 |
| (2,1301) | 1:A:150:ALA:HB1 | 1:A:85:MET:HG2 | 8 | 0.28 |
| (2,1301) | 1:A:150:ALA:HB3 | 1:A:85:MET:HG2 | 8 | 0.28 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB2 | 8 | 0.28 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB1 | 8 | 0.28 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB3 | 8 | 0.28 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB2 | 8 | 0.28 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB1 | 8 | 0.28 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB3 | 8 | 0.28 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD12 | 8 | 0.28 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD11 | 8 | 0.28 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD13 | 8 | 0.28 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD12 | 8 | 0.28 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD11 | 8 | 0.28 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD13 | 8 | 0.28 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD12 | 8 | 0.28 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD11 | 8 | 0.28 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD13 | 8 | 0.28 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:19:GLU:HB2 | 10 | 0.28 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE2 | 10 | 0.28 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE1 | 10 | 0.28 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE3 | 10 | 0.28 |
| (2,1242) | 1:A:11:GLN:HB3 | 1:A:12:LEU:HD12 | 5 | 0.28 |
| (2,1242) | 1:A:11:GLN:HB3 | 1:A:12:LEU:HD11 | 5 | 0.28 |
| (2,1242) | 1:A:11:GLN:HB3 | 1:A:12:LEU:HD13 | 5 | 0.28 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:12:LEU:HD12 | 5 | 0.28 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:12:LEU:HD11 | 5 | 0.28 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:12:LEU:HD13 | 5 | 0.28 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:158:LEU:HD12 | 5 | 0.28 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:158:LEU:HD11 | 5 | 0.28 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:158:LEU:HD13 | 5 | 0.28 |
| (2,1228) | 1:A:153:MET:HG3 | 1:A:48:LEU:HB2 | 5 | 0.28 |
| (2,1228) | 1:A:153:MET:HG3 | 1:A:48:LEU:HG | 5 | 0.28 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD12 | 2 | 0.28 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD11 | 2 | 0.28 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD13 | 2 | 0.28 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD12 | 2 | 0.28 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD11 | 2 | 0.28 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD13 | 2 | 0.28 |
| (2,12) | 1:A:73:ASP:HA | 1:A:24:PHE:HD1 | 10 | 0.28 |
| (2,1197) | 1:A:24:PHE:HA | 1:A:27:PHE:HE1 | 5 | 0.28 |
| (2,1197) | 1:A:24:PHE:HA | 1:A:77:PHE:HE1 | 5 | 0.28 |
| (2,1188) | 1:A:58:GLN:HA | 1:A:61:ILE:HG22 | 1 | 0.28 |
| (2,1188) | 1:A:58:GLN:HA | 1:A:61:ILE:HG21 | 1 | 0.28 |
| (2,1188) | 1:A:58:GLN:HA | 1:A:61:ILE:HG23 | 1 | 0.28 |
| (2,1188) | 1:A:58:GLN:HA | 1:A:61:ILE:HD12 | 1 | 0.28 |
| (2,1188) | 1:A:58:GLN:HA | 1:A:61:ILE:HD11 | 1 | 0.28 |
| (2,1188) | 1:A:58:GLN:HA | 1:A:61:ILE:HD13 | 1 | 0.28 |
| (2,112) | 1:A:41:LEU:HA | 1:A:41:LEU:HD22 | 8 | 0.28 |
| (2,112) | 1:A:41:LEU:HA | 1:A:41:LEU:HD21 | 8 | 0.28 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (2,112) | 1:A:41:LEU:HA | 1:A:41:LEU:HD23 | 8 | 0.28 |
| (2,1114) | 1:A:54:PRO:HA | 1:A:57:LEU:HB3 | 10 | 0.28 |
| (2,1040) | 1:A:157:LEU:HD22 | 1:A:154:MET:HB2 | 2 | 0.28 |
| (2,1040) | 1:A:157:LEU:HD22 | 1:A:154:MET:HB3 | 2 | 0.28 |
| (2,1040) | 1:A:157:LEU:HD21 | 1:A:154:MET:HB2 | 2 | 0.28 |
| (2,1040) | 1:A:157:LEU:HD21 | 1:A:154:MET:HB3 | 2 | 0.28 |
| (2,1040) | 1:A:157:LEU:HD23 | 1:A:154:MET:HB2 | 2 | 0.28 |
| (2,1040) | 1:A:157:LEU:HD23 | 1:A:154:MET:HB3 | 2 | 0.28 |
| (2,1005) | 1:A:8:ALA:HB2 | 1:A:79:VAL:HA | 8 | 0.28 |
| (2,1005) | 1:A:8:ALA:HB1 | 1:A:79:VAL:HA | 8 | 0.28 |
| (2,1005) | 1:A:8:ALA:HB3 | 1:A:79:VAL:HA | 8 | 0.28 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG22 | 5 | 0.27 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG21 | 5 | 0.27 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG23 | 5 | 0.27 |
| (2,865) | 1:A:61:ILE:HA | 1:A:61:ILE:HD12 | 9 | 0.27 |
| (2,865) | 1:A:61:ILE:HA | 1:A:61:ILE:HD11 | 9 | 0.27 |
| (2,865) | 1:A:61:ILE:HA | 1:A:61:ILE:HD13 | 9 | 0.27 |
| (2,8) | 1:A:51:ASN:HA | 1:A:50:GLN:HB3 | 7 | 0.27 |
| (2,797) | 1:A:146:VAL:HA | 1:A:146:VAL:HG22 | 4 | 0.27 |
| (2,797) | 1:A:146:VAL:HA | 1:A:146:VAL:HG21 | 4 | 0.27 |
| (2,797) | 1:A:146:VAL:HA | 1:A:146:VAL:HG23 | 4 | 0.27 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD22 | 7 | 0.27 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD21 | 7 | 0.27 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD23 | 7 | 0.27 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD22 | 7 | 0.27 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD21 | 7 | 0.27 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD23 | 7 | 0.27 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD22 | 7 | 0.27 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD21 | 7 | 0.27 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD23 | 7 | 0.27 |
| (2,710) | 1:A:58:GLN:HG2 | 1:A:38:THR:HG21 | 1 | 0.27 |
| (2,710) | 1:A:58:GLN:HG2 | 1:A:38:THR:HG22 | 1 | 0.27 |
| (2,710) | 1:A:58:GLN:HG2 | 1:A:38:THR:HG23 | 1 | 0.27 |
| (2,705) | 1:A:81:MET:HB3 | 1:A:81:MET:HG2 | 1 | 0.27 |
| (2,705) | 1:A:81:MET:HB3 | 1:A:81:MET:HG2 | 3 | 0.27 |
| (2,705) | 1:A:81:MET:HB3 | 1:A:81:MET:HG2 | 10 | 0.27 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB2 | 1 | 0.27 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB1 | 1 | 0.27 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB3 | 1 | 0.27 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB2 | 1 | 0.27 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB1 | 1 | 0.27 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB3 | 1 | 0.27 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB2 | 3 | 0.27 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB1 | 3 | 0.27 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB3 | 3 | 0.27 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB2 | 3 | 0.27 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB1 | 3 | 0.27 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB3 | 3 | 0.27 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB2 | 8 | 0.27 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB1 | 8 | 0.27 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB3 | 8 | 0.27 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB2 | 8 | 0.27 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB1 | 8 | 0.27 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB3 | 8 | 0.27 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD22 | 5 | 0.27 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD21 | 5 | 0.27 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD23 | 5 | 0.27 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD22 | 5 | 0.27 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD21 | 5 | 0.27 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD23 | 5 | 0.27 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD22 | 5 | 0.27 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD21 | 5 | 0.27 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD23 | 5 | 0.27 |
| (2,494) | 1:A:10:GLU:HB2 | 1:A:9:VAL:HG12 | 10 | 0.27 |
| (2,494) | 1:A:10:GLU:HB2 | 1:A:9:VAL:HG11 | 10 | 0.27 |
| (2,494) | 1:A:10:GLU:HB2 | 1:A:9:VAL:HG13 | 10 | 0.27 |
| (2,494) | 1:A:10:GLU:HB3 | 1:A:9:VAL:HG12 | 10 | 0.27 |
| (2,494) | 1:A:10:GLU:HB3 | 1:A:9:VAL:HG11 | 10 | 0.27 |
| (2,494) | 1:A:10:GLU:HB3 | 1:A:9:VAL:HG13 | 10 | 0.27 |
| (2,463) | 1:A:64:VAL:HB | 1:A:72:VAL:HB | 6 | 0.27 |
| (2,272) | 1:A:44:VAL:HA | 1:A:47:MET:HB3 | 3 | 0.27 |
| (2,1272) | 1:A:52:PRO:HB3 | 1:A:57:LEU:HD12 | 10 | 0.27 |
| (2,1272) | 1:A:52:PRO:HB3 | 1:A:57:LEU:HD11 | 10 | 0.27 |
| (2,1272) | 1:A:52:PRO:HB3 | 1:A:57:LEU:HD13 | 10 | 0.27 |
| (2,1228) | 1:A:153:MET:HG3 | 1:A:48:LEU:HB2 | 6 | 0.27 |
| (2,1228) | 1:A:153:MET:HG3 | 1:A:48:LEU:HG | 6 | 0.27 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB2 | 9 | 0.27 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB1 | 9 | 0.27 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB3 | 9 | 0.27 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB2 | 9 | 0.27 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB1 | 9 | 0.27 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB3 | 9 | 0.27 |
| (2,1114) | 1:A:54:PRO:HA | 1:A:57:LEU:HB3 | 8 | 0.27 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD22 | 9 | 0.27 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD21 | 9 | 0.27 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD23 | 9 | 0.27 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD22 | 4 | 0.27 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD21 | 4 | 0.27 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD23 | 4 | 0.27 |
| (2,914) | 1:A:78:LEU:HD12 | 1:A:17:LYS:HG3 | 1 | 0.26 |
| (2,914) | 1:A:78:LEU:HD11 | 1:A:17:LYS:HG3 | 1 | 0.26 |
| (2,914) | 1:A:78:LEU:HD13 | 1:A:17:LYS:HG3 | 1 | 0.26 |
| (2,914) | 1:A:78:LEU:HD12 | 1:A:17:LYS:HG3 | 5 | 0.26 |
| (2,914) | 1:A:78:LEU:HD11 | 1:A:17:LYS:HG3 | 5 | 0.26 |
| (2,914) | 1:A:78:LEU:HD13 | 1:A:17:LYS:HG3 | 5 | 0.26 |
| (2,865) | 1:A:61:ILE:HA | 1:A:61:ILE:HD12 | 3 | 0.26 |
| (2,865) | 1:A:61:ILE:HA | 1:A:61:ILE:HD11 | 3 | 0.26 |
| (2,865) | 1:A:61:ILE:HA | 1:A:61:ILE:HD13 | 3 | 0.26 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG12 | 9 | 0.26 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG11 | 9 | 0.26 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG13 | 9 | 0.26 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB2 | 2 | 0.26 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB1 | 2 | 0.26 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB3 | 2 | 0.26 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB2 | 2 | 0.26 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB1 | 2 | 0.26 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB3 | 2 | 0.26 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB2 | 6 | 0.26 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB1 | 6 | 0.26 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB3 | 6 | 0.26 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB2 | 6 | 0.26 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB1 | 6 | 0.26 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB3 | 6 | 0.26 |
| (2,640) | 1:A:6:LYS:HD2 | 1:A:6:LYS:HA | 7 | 0.26 |
| (2,639) | 1:A:3:ASP:HA | 1:A:6:LYS:HD2 | 10 | 0.26 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB2 | 5 | 0.26 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB1 | 5 | 0.26 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB3 | 5 | 0.26 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG12 | 1 | 0.26 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG11 | 1 | 0.26 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG13 | 1 | 0.26 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG12 | 9 | 0.26 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG11 | 9 | 0.26 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG13 | 9 | 0.26 |
| (2,463) | 1:A:64:VAL:HB | 1:A:72:VAL:HB | 3 | 0.26 |
| (2,45) | 1:A:65:ASP:HA | 1:A:61:ILE:HG22 | 8 | 0.26 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,45) | 1:A:65:ASP:HA | 1:A:61:ILE:HG21 | 8 | 0.26 |
| (2,45) | 1:A:65:ASP:HA | 1:A:61:ILE:HG23 | 8 | 0.26 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB2 | 4 | 0.26 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB1 | 4 | 0.26 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB3 | 4 | 0.26 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD22 | 4 | 0.26 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD21 | 4 | 0.26 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD23 | 4 | 0.26 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD22 | 7 | 0.26 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD21 | 7 | 0.26 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD23 | 7 | 0.26 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG12 | 4 | 0.26 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG11 | 4 | 0.26 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG13 | 4 | 0.26 |
| (2,193) | 1:A:81:MET:HA | 1:A:81:MET:HB2 | 5 | 0.26 |
| (2,193) | 1:A:81:MET:HA | 1:A:81:MET:HB2 | 6 | 0.26 |
| (2,193) | 1:A:81:MET:HA | 1:A:81:MET:HB2 | 7 | 0.26 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG22 | 5 | 0.26 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG21 | 5 | 0.26 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG23 | 5 | 0.26 |
| (2,1389) | 1:A:61:ILE:HG22 | 1:A:60:MET:HA | 5 | 0.26 |
| (2,1389) | 1:A:61:ILE:HG21 | 1:A:60:MET:HA | 5 | 0.26 |
| (2,1389) | 1:A:61:ILE:HG23 | 1:A:60:MET:HA | 5 | 0.26 |
| (2,1389) | 1:A:61:ILE:HG22 | 1:A:69:SER:HB3 | 5 | 0.26 |
| (2,1389) | 1:A:61:ILE:HG21 | 1:A:69:SER:HB3 | 5 | 0.26 |
| (2,1389) | 1:A:61:ILE:HG23 | 1:A:69:SER:HB3 | 5 | 0.26 |
| (2,1375) | 1:A:78:LEU:HD12 | 1:A:77:PHE:HE1 | 1 | 0.26 |
| (2,1375) | 1:A:78:LEU:HD11 | 1:A:77:PHE:HE1 | 1 | 0.26 |
| (2,1375) | 1:A:78:LEU:HD13 | 1:A:77:PHE:HE1 | 1 | 0.26 |
| (2,1371) | 1:A:79:VAL:HG12 | 1:A:78:LEU:HB3 | 10 | 0.26 |
| (2,1371) | 1:A:79:VAL:HG11 | 1:A:78:LEU:HB3 | 10 | 0.26 |
| (2,1371) | 1:A:79:VAL:HG13 | 1:A:78:LEU:HB3 | 10 | 0.26 |
| (2,1371) | 1:A:79:VAL:HG12 | 1:A:83:ARG:HB3 | 10 | 0.26 |
| (2,1371) | 1:A:79:VAL:HG11 | 1:A:83:ARG:HB3 | 10 | 0.26 |
| (2,1371) | 1:A:79:VAL:HG13 | 1:A:83:ARG:HB3 | 10 | 0.26 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:8:ALA:HB2 | 10 | 0.26 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:8:ALA:HB1 | 10 | 0.26 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:8:ALA:HB3 | 10 | 0.26 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:8:ALA:HB2 | 10 | 0.26 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:8:ALA:HB1 | 10 | 0.26 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:8:ALA:HB3 | 10 | 0.26 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:8:ALA:HB2 | 10 | 0.26 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1257) | 1:A:85:MET:HE3 | 1:A:8:ALA:HB1 | 10 | 0.26 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:8:ALA:HB3 | 10 | 0.26 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:150:ALA:HB2 | 10 | 0.26 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:150:ALA:HB1 | 10 | 0.26 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:150:ALA:HB3 | 10 | 0.26 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:150:ALA:HB2 | 10 | 0.26 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:150:ALA:HB1 | 10 | 0.26 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:150:ALA:HB3 | 10 | 0.26 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:150:ALA:HB2 | 10 | 0.26 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:150:ALA:HB1 | 10 | 0.26 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:150:ALA:HB3 | 10 | 0.26 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:26:ILE:HG22 | 4 | 0.26 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:26:ILE:HG21 | 4 | 0.26 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:26:ILE:HG23 | 4 | 0.26 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:48:LEU:HD22 | 4 | 0.26 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:48:LEU:HD21 | 4 | 0.26 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:48:LEU:HD23 | 4 | 0.26 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:48:LEU:HD12 | 4 | 0.26 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:48:LEU:HD11 | 4 | 0.26 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:48:LEU:HD13 | 4 | 0.26 |
| (2,1228) | 1:A:153:MET:HG3 | 1:A:48:LEU:HB2 | 2 | 0.26 |
| (2,1228) | 1:A:153:MET:HG3 | 1:A:48:LEU:HG | 2 | 0.26 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD12 | 3 | 0.26 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD11 | 3 | 0.26 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD13 | 3 | 0.26 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD12 | 3 | 0.26 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD11 | 3 | 0.26 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD13 | 3 | 0.26 |
| (2,12) | 1:A:73:ASP:HA | 1:A:24:PHE:HD1 | 8 | 0.26 |
| (2,1191) | 1:A:52:PRO:HD3 | 1:A:57:LEU:HD12 | 8 | 0.26 |
| (2,1191) | 1:A:52:PRO:HD3 | 1:A:57:LEU:HD11 | 8 | 0.26 |
| (2,1191) | 1:A:52:PRO:HD3 | 1:A:57:LEU:HD13 | 8 | 0.26 |
| (2,1159) | 1:A:69:SER:HB2 | 1:A:68:GLY:HA2 | 10 | 0.26 |
| (2,1159) | 1:A:69:SER:HB2 | 1:A:71:THR:HB | 10 | 0.26 |
| (2,1114) | 1:A:54:PRO:HA | 1:A:57:LEU:HB3 | 2 | 0.26 |
| (2,1114) | 1:A:54:PRO:HA | 1:A:57:LEU:HB3 | 7 | 0.26 |
| (2,1109) | 1:A:52:PRO:HD3 | 1:A:42:GLY:HA3 | 3 | 0.26 |
| (2,1109) | 1:A:52:PRO:HD3 | 1:A:42:GLY:HA3 | 4 | 0.26 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD22 | 3 | 0.26 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD21 | 3 | 0.26 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD23 | 3 | 0.26 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD22 | 4 | 0.26 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD21 | 4 | 0.26 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD23 | 4 | 0.26 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD22 | 6 | 0.26 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD21 | 6 | 0.26 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD23 | 6 | 0.26 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD22 | 7 | 0.26 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD21 | 7 | 0.26 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD23 | 7 | 0.26 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD22 | 10 | 0.26 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD21 | 10 | 0.26 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD23 | 10 | 0.26 |
| (2,1016) | 1:A:78:LEU:HD22 | 1:A:12:LEU:HG | 1 | 0.26 |
| (2,1016) | 1:A:78:LEU:HD21 | 1:A:12:LEU:HG | 1 | 0.26 |
| (2,1016) | 1:A:78:LEU:HD23 | 1:A:12:LEU:HG | 1 | 0.26 |
| (2,1005) | 1:A:8:ALA:HB2 | 1:A:79:VAL:HA | 1 | 0.26 |
| (2,1005) | 1:A:8:ALA:HB1 | 1:A:79:VAL:HA | 1 | 0.26 |
| (2,1005) | 1:A:8:ALA:HB3 | 1:A:79:VAL:HA | 1 | 0.26 |
| (2,914) | 1:A:78:LEU:HD12 | 1:A:17:LYS:HG3 | 7 | 0.25 |
| (2,914) | 1:A:78:LEU:HD11 | 1:A:17:LYS:HG3 | 7 | 0.25 |
| (2,914) | 1:A:78:LEU:HD13 | 1:A:17:LYS:HG3 | 7 | 0.25 |
| (2,914) | 1:A:78:LEU:HD12 | 1:A:17:LYS:HG3 | 8 | 0.25 |
| (2,914) | 1:A:78:LEU:HD11 | 1:A:17:LYS:HG3 | 8 | 0.25 |
| (2,914) | 1:A:78:LEU:HD13 | 1:A:17:LYS:HG3 | 8 | 0.25 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG12 | 1 | 0.25 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG11 | 1 | 0.25 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG13 | 1 | 0.25 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD12 | 10 | 0.25 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD11 | 10 | 0.25 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD13 | 10 | 0.25 |
| (2,8) | 1:A:51:ASN:HA | 1:A:50:GLN:HB3 | 1 | 0.25 |
| (2,8) | 1:A:51:ASN:HA | 1:A:50:GLN:HB3 | 6 | 0.25 |
| (2,736) | 1:A:82:VAL:HG22 | 1:A:5:TYR:HE1 | 7 | 0.25 |
| (2,736) | 1:A:82:VAL:HG21 | 1:A:5:TYR:HE1 | 7 | 0.25 |
| (2,736) | 1:A:82:VAL:HG23 | 1:A:5:TYR:HE1 | 7 | 0.25 |
| (2,697) | 1:A:7:ALA:HB2 | 1:A:4:ILE:HG12 | 2 | 0.25 |
| (2,697) | 1:A:7:ALA:HB2 | 1:A:4:ILE:HG13 | 2 | 0.25 |
| (2,697) | 1:A:7:ALA:HB1 | 1:A:4:ILE:HG12 | 2 | 0.25 |
| (2,697) | 1:A:7:ALA:HB1 | 1:A:4:ILE:HG13 | 2 | 0.25 |
| (2,697) | 1:A:7:ALA:HB3 | 1:A:4:ILE:HG12 | 2 | 0.25 |
| (2,697) | 1:A:7:ALA:HB3 | 1:A:4:ILE:HG13 | 2 | 0.25 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB2 | 4 | 0.25 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB1 | 4 | 0.25 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|----------------|------------------|----------|---------------|
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB3 | 4 | 0.25 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB2 | 4 | 0.25 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB1 | 4 | 0.25 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB3 | 4 | 0.25 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB2 | 5 | 0.25 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB1 | 5 | 0.25 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB3 | 5 | 0.25 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB2 | 5 | 0.25 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB1 | 5 | 0.25 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB3 | 5 | 0.25 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD22 | 6 | 0.25 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD21 | 6 | 0.25 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD23 | 6 | 0.25 |
| (2,463) | 1:A:64:VAL:HB | 1:A:72:VAL:HB | 2 | 0.25 |
| (2,463) | 1:A:64:VAL:HB | 1:A:72:VAL:HB | 7 | 0.25 |
| (2,389) | 1:A:3:ASP:HA | 1:A:3:ASP:HB2 | 6 | 0.25 |
| (2,389) | 1:A:3:ASP:HA | 1:A:3:ASP:HB2 | 8 | 0.25 |
| (2,389) | 1:A:3:ASP:HA | 1:A:3:ASP:HB2 | 9 | 0.25 |
| (2,389) | 1:A:3:ASP:HA | 1:A:3:ASP:HB2 | 10 | 0.25 |
| (2,304) | 1:A:20:PHE:HB2 | 1:A:74:PHE:HE1 | 2 | 0.25 |
| (2,304) | 1:A:20:PHE:HB3 | 1:A:74:PHE:HE1 | 2 | 0.25 |
| (2,304) | 1:A:20:PHE:HB2 | 1:A:74:PHE:HE1 | 7 | 0.25 |
| (2,304) | 1:A:20:PHE:HB3 | 1:A:74:PHE:HE1 | 7 | 0.25 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG12 | 1 | 0.25 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG11 | 1 | 0.25 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG13 | 1 | 0.25 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG12 | 3 | 0.25 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG11 | 3 | 0.25 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG13 | 3 | 0.25 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG12 | 5 | 0.25 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG11 | 5 | 0.25 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG13 | 5 | 0.25 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG12 | 6 | 0.25 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG11 | 6 | 0.25 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG13 | 6 | 0.25 |
| (2,193) | 1:A:81:MET:HA | 1:A:81:MET:HB2 | 1 | 0.25 |
| (2,193) | 1:A:81:MET:HA | 1:A:81:MET:HB2 | 2 | 0.25 |
| (2,193) | 1:A:81:MET:HA | 1:A:81:MET:HB2 | 3 | 0.25 |
| (2,193) | 1:A:81:MET:HA | 1:A:81:MET:HB2 | 4 | 0.25 |
| (2,193) | 1:A:81:MET:HA | 1:A:81:MET:HB2 | 8 | 0.25 |
| (2,193) | 1:A:81:MET:HA | 1:A:81:MET:HB2 | 9 | 0.25 |
| (2,193) | 1:A:81:MET:HA | 1:A:81:MET:HB2 | 10 | 0.25 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,145) | 1:A:40:GLU:HA | 1:A:31:ALA:HB2 | 6 | 0.25 |
| (2,145) | 1:A:40:GLU:HA | 1:A:31:ALA:HB1 | 6 | 0.25 |
| (2,145) | 1:A:40:GLU:HA | 1:A:31:ALA:HB3 | 6 | 0.25 |
| (2,143) | 1:A:40:GLU:HA | 1:A:43:LYS:HB2 | 3 | 0.25 |
| (2,143) | 1:A:40:GLU:HA | 1:A:43:LYS:HB3 | 3 | 0.25 |
| (2,1393) | 1:A:26:ILE:HD12 | 1:A:27:PHE:HB2 | 5 | 0.25 |
| (2,1393) | 1:A:26:ILE:HD11 | 1:A:27:PHE:HB2 | 5 | 0.25 |
| (2,1393) | 1:A:26:ILE:HD13 | 1:A:27:PHE:HB2 | 5 | 0.25 |
| (2,1393) | 1:A:26:ILE:HD12 | 1:A:161:ARG:HD2 | 5 | 0.25 |
| (2,1393) | 1:A:26:ILE:HD12 | 1:A:161:ARG:HD3 | 5 | 0.25 |
| (2,1393) | 1:A:26:ILE:HD11 | 1:A:161:ARG:HD2 | 5 | 0.25 |
| (2,1393) | 1:A:26:ILE:HD11 | 1:A:161:ARG:HD3 | 5 | 0.25 |
| (2,1393) | 1:A:26:ILE:HD13 | 1:A:161:ARG:HD2 | 5 | 0.25 |
| (2,1393) | 1:A:26:ILE:HD13 | 1:A:161:ARG:HD3 | 5 | 0.25 |
| (2,138) | 1:A:8:ALA:HA | 1:A:82:VAL:HG22 | 10 | 0.25 |
| (2,138) | 1:A:8:ALA:HA | 1:A:82:VAL:HG21 | 10 | 0.25 |
| (2,138) | 1:A:8:ALA:HA | 1:A:82:VAL:HG23 | 10 | 0.25 |
| (2,1375) | 1:A:78:LEU:HD12 | 1:A:77:PHE:HE1 | 8 | 0.25 |
| (2,1375) | 1:A:78:LEU:HD11 | 1:A:77:PHE:HE1 | 8 | 0.25 |
| (2,1375) | 1:A:78:LEU:HD13 | 1:A:77:PHE:HE1 | 8 | 0.25 |
| (2,1371) | 1:A:79:VAL:HG12 | 1:A:78:LEU:HB3 | 4 | 0.25 |
| (2,1371) | 1:A:79:VAL:HG11 | 1:A:78:LEU:HB3 | 4 | 0.25 |
| (2,1371) | 1:A:79:VAL:HG13 | 1:A:78:LEU:HB3 | 4 | 0.25 |
| (2,1371) | 1:A:79:VAL:HG12 | 1:A:83:ARG:HB3 | 4 | 0.25 |
| (2,1371) | 1:A:79:VAL:HG11 | 1:A:83:ARG:HB3 | 4 | 0.25 |
| (2,1371) | 1:A:79:VAL:HG13 | 1:A:83:ARG:HB3 | 4 | 0.25 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:19:GLU:HB2 | 5 | 0.25 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE2 | 5 | 0.25 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE1 | 5 | 0.25 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE3 | 5 | 0.25 |
| (2,1228) | 1:A:153:MET:HG3 | 1:A:48:LEU:HB2 | 7 | 0.25 |
| (2,1228) | 1:A:153:MET:HG3 | 1:A:48:LEU:HG | 7 | 0.25 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG22 | 3 | 0.25 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG21 | 3 | 0.25 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG23 | 3 | 0.25 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG22 | 3 | 0.25 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG21 | 3 | 0.25 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG23 | 3 | 0.25 |
| (2,1197) | 1:A:24:PHE:HA | 1:A:27:PHE:HE1 | 10 | 0.25 |
| (2,1197) | 1:A:24:PHE:HA | 1:A:77:PHE:HE1 | 10 | 0.25 |
| (2,1114) | 1:A:54:PRO:HA | 1:A:57:LEU:HB3 | 4 | 0.25 |
| (2,1109) | 1:A:52:PRO:HD3 | 1:A:42:GLY:HA3 | 1 | 0.25 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,1109) | 1:A:52:PRO:HD3 | 1:A:42:GLY:HA3 | 2 | 0.25 |
| (2,1109) | 1:A:52:PRO:HD3 | 1:A:42:GLY:HA3 | 5 | 0.25 |
| (2,1109) | 1:A:52:PRO:HD3 | 1:A:42:GLY:HA3 | 9 | 0.25 |
| (2,1053) | 1:A:18:ASN:HA | 1:A:21:LYS:HD3 | 6 | 0.25 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD22 | 2 | 0.25 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD21 | 2 | 0.25 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD23 | 2 | 0.25 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD22 | 8 | 0.25 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD21 | 8 | 0.25 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD23 | 8 | 0.25 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD22 | 8 | 0.25 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD21 | 8 | 0.25 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD23 | 8 | 0.25 |
| (2,1016) | 1:A:78:LEU:HD22 | 1:A:12:LEU:HG | 7 | 0.25 |
| (2,1016) | 1:A:78:LEU:HD21 | 1:A:12:LEU:HG | 7 | 0.25 |
| (2,1016) | 1:A:78:LEU:HD23 | 1:A:12:LEU:HG | 7 | 0.25 |
| (2,996) | 1:A:11:GLN:HB3 | 1:A:8:ALA:HA | 1 | 0.24 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB2 | 6 | 0.24 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB1 | 6 | 0.24 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB3 | 6 | 0.24 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD12 | 5 | 0.24 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD11 | 5 | 0.24 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD13 | 5 | 0.24 |
| (2,797) | 1:A:146:VAL:HA | 1:A:146:VAL:HG22 | 6 | 0.24 |
| (2,797) | 1:A:146:VAL:HA | 1:A:146:VAL:HG21 | 6 | 0.24 |
| (2,797) | 1:A:146:VAL:HA | 1:A:146:VAL:HG23 | 6 | 0.24 |
| (2,790) | 1:A:153:MET:HG3 | 1:A:148:ILE:HG22 | 9 | 0.24 |
| (2,790) | 1:A:153:MET:HG3 | 1:A:148:ILE:HG21 | 9 | 0.24 |
| (2,790) | 1:A:153:MET:HG3 | 1:A:148:ILE:HG23 | 9 | 0.24 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD22 | 10 | 0.24 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD21 | 10 | 0.24 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD23 | 10 | 0.24 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD22 | 10 | 0.24 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD21 | 10 | 0.24 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD23 | 10 | 0.24 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD22 | 10 | 0.24 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD21 | 10 | 0.24 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD23 | 10 | 0.24 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD12 | 5 | 0.24 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD11 | 5 | 0.24 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD13 | 5 | 0.24 |
| (2,618) | 1:A:45:MET:HE2 | 1:A:148:ILE:HA | 5 | 0.24 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,618) | 1:A:45:MET:HE1 | 1:A:148:ILE:HA | 5 | 0.24 |
| (2,618) | 1:A:45:MET:HE3 | 1:A:148:ILE:HA | 5 | 0.24 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD22 | 4 | 0.24 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD21 | 4 | 0.24 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD23 | 4 | 0.24 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB2 | 7 | 0.24 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB1 | 7 | 0.24 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB3 | 7 | 0.24 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB2 | 8 | 0.24 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB1 | 8 | 0.24 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB3 | 8 | 0.24 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG12 | 6 | 0.24 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG11 | 6 | 0.24 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG13 | 6 | 0.24 |
| (2,463) | 1:A:64:VAL:HB | 1:A:72:VAL:HB | 8 | 0.24 |
| (2,42) | 1:A:2:ASP:HA | 1:A:2:ASP:HB3 | 8 | 0.24 |
| (2,407) | 1:A:52:PRO:HD3 | 1:A:51:ASN:HB3 | 5 | 0.24 |
| (2,407) | 1:A:52:PRO:HD3 | 1:A:51:ASN:HB3 | 8 | 0.24 |
| (2,389) | 1:A:3:ASP:HA | 1:A:3:ASP:HB2 | 1 | 0.24 |
| (2,389) | 1:A:3:ASP:HA | 1:A:3:ASP:HB2 | 2 | 0.24 |
| (2,389) | 1:A:3:ASP:HA | 1:A:3:ASP:HB2 | 4 | 0.24 |
| (2,389) | 1:A:3:ASP:HA | 1:A:3:ASP:HB2 | 5 | 0.24 |
| (2,389) | 1:A:3:ASP:HA | 1:A:3:ASP:HB2 | 7 | 0.24 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG12 | 10 | 0.24 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG11 | 10 | 0.24 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG13 | 10 | 0.24 |
| (2,142) | 1:A:7:ALA:HA | 1:A:10:GLU:HB2 | 6 | 0.24 |
| (2,142) | 1:A:7:ALA:HA | 1:A:10:GLU:HB3 | 6 | 0.24 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:6:LYS:HA | 9 | 0.24 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:76:GLU:HA | 9 | 0.24 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:81:MET:HA | 9 | 0.24 |
| (2,1375) | 1:A:78:LEU:HD12 | 1:A:77:PHE:HE1 | 6 | 0.24 |
| (2,1375) | 1:A:78:LEU:HD11 | 1:A:77:PHE:HE1 | 6 | 0.24 |
| (2,1375) | 1:A:78:LEU:HD13 | 1:A:77:PHE:HE1 | 6 | 0.24 |
| (2,1375) | 1:A:78:LEU:HD12 | 1:A:77:PHE:HE1 | 7 | 0.24 |
| (2,1375) | 1:A:78:LEU:HD11 | 1:A:77:PHE:HE1 | 7 | 0.24 |
| (2,1375) | 1:A:78:LEU:HD13 | 1:A:77:PHE:HE1 | 7 | 0.24 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD22 | 10 | 0.24 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD21 | 10 | 0.24 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD23 | 10 | 0.24 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD22 | 10 | 0.24 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD21 | 10 | 0.24 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD23 | 10 | 0.24 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD12 | 10 | 0.24 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD11 | 10 | 0.24 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD13 | 10 | 0.24 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD12 | 10 | 0.24 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD11 | 10 | 0.24 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD13 | 10 | 0.24 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG22 | 2 | 0.24 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG21 | 2 | 0.24 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG23 | 2 | 0.24 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG22 | 2 | 0.24 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG21 | 2 | 0.24 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG23 | 2 | 0.24 |
| (2,1221) | 1:A:60:MET:HG2 | 1:A:57:LEU:HD12 | 9 | 0.24 |
| (2,1221) | 1:A:60:MET:HG2 | 1:A:57:LEU:HD11 | 9 | 0.24 |
| (2,1221) | 1:A:60:MET:HG2 | 1:A:57:LEU:HD13 | 9 | 0.24 |
| (2,1221) | 1:A:60:MET:HG3 | 1:A:57:LEU:HD12 | 9 | 0.24 |
| (2,1221) | 1:A:60:MET:HG3 | 1:A:57:LEU:HD11 | 9 | 0.24 |
| (2,1221) | 1:A:60:MET:HG3 | 1:A:57:LEU:HD13 | 9 | 0.24 |
| (2,1221) | 1:A:154:MET:HG2 | 1:A:158:LEU:HD22 | 9 | 0.24 |
| (2,1221) | 1:A:154:MET:HG2 | 1:A:158:LEU:HD21 | 9 | 0.24 |
| (2,1221) | 1:A:154:MET:HG2 | 1:A:158:LEU:HD23 | 9 | 0.24 |
| (2,1221) | 1:A:154:MET:HG3 | 1:A:158:LEU:HD22 | 9 | 0.24 |
| (2,1221) | 1:A:154:MET:HG3 | 1:A:158:LEU:HD21 | 9 | 0.24 |
| (2,1221) | 1:A:154:MET:HG3 | 1:A:158:LEU:HD23 | 9 | 0.24 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD12 | 6 | 0.24 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD11 | 6 | 0.24 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD13 | 6 | 0.24 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD12 | 6 | 0.24 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD11 | 6 | 0.24 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD13 | 6 | 0.24 |
| (2,1204) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HG2 | 7 | 0.24 |
| (2,1204) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HG3 | 7 | 0.24 |
| (2,1204) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HG2 | 7 | 0.24 |
| (2,1204) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HG3 | 7 | 0.24 |
| (2,1204) | 1:A:161:ARG:HD2 | 1:A:161:ARG:HG2 | 7 | 0.24 |
| (2,1204) | 1:A:161:ARG:HD3 | 1:A:161:ARG:HG2 | 7 | 0.24 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG22 | 4 | 0.24 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG21 | 4 | 0.24 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG23 | 4 | 0.24 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG12 | 4 | 0.24 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG11 | 4 | 0.24 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG13 | 4 | 0.24 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:15:GLU:HB2 | 6 | 0.24 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:15:GLU:HB3 | 6 | 0.24 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:19:GLU:HB3 | 6 | 0.24 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD22 | 1 | 0.24 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD21 | 1 | 0.24 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD23 | 1 | 0.24 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD12 | 1 | 0.24 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD11 | 1 | 0.24 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD13 | 1 | 0.24 |
| (2,1159) | 1:A:69:SER:HB2 | 1:A:68:GLY:HA2 | 7 | 0.24 |
| (2,1159) | 1:A:69:SER:HB2 | 1:A:71:THR:HB | 7 | 0.24 |
| (2,1109) | 1:A:52:PRO:HD3 | 1:A:42:GLY:HA3 | 10 | 0.24 |
| (2,1040) | 1:A:157:LEU:HD22 | 1:A:154:MET:HB2 | 8 | 0.24 |
| (2,1040) | 1:A:157:LEU:HD22 | 1:A:154:MET:HB3 | 8 | 0.24 |
| (2,1040) | 1:A:157:LEU:HD21 | 1:A:154:MET:HB2 | 8 | 0.24 |
| (2,1040) | 1:A:157:LEU:HD21 | 1:A:154:MET:HB3 | 8 | 0.24 |
| (2,1040) | 1:A:157:LEU:HD23 | 1:A:154:MET:HB2 | 8 | 0.24 |
| (2,1040) | 1:A:157:LEU:HD23 | 1:A:154:MET:HB3 | 8 | 0.24 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD22 | 5 | 0.24 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD21 | 5 | 0.24 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD23 | 5 | 0.24 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD22 | 1 | 0.24 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD21 | 1 | 0.24 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD23 | 1 | 0.24 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB2 | 9 | 0.23 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB1 | 9 | 0.23 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB3 | 9 | 0.23 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD12 | 2 | 0.23 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD11 | 2 | 0.23 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD13 | 2 | 0.23 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD12 | 3 | 0.23 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD11 | 3 | 0.23 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD13 | 3 | 0.23 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD12 | 8 | 0.23 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD11 | 8 | 0.23 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD13 | 8 | 0.23 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD22 | 6 | 0.23 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD21 | 6 | 0.23 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD23 | 6 | 0.23 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD22 | 6 | 0.23 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD21 | 6 | 0.23 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD23 | 6 | 0.23 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD22 | 6 | 0.23 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD21 | 6 | 0.23 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD23 | 6 | 0.23 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD12 | 6 | 0.23 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD11 | 6 | 0.23 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD13 | 6 | 0.23 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG21 | 4 | 0.23 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG22 | 4 | 0.23 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG23 | 4 | 0.23 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG21 | 4 | 0.23 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG22 | 4 | 0.23 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG23 | 4 | 0.23 |
| (2,697) | 1:A:7:ALA:HB2 | 1:A:4:ILE:HG12 | 4 | 0.23 |
| (2,697) | 1:A:7:ALA:HB2 | 1:A:4:ILE:HG13 | 4 | 0.23 |
| (2,697) | 1:A:7:ALA:HB1 | 1:A:4:ILE:HG12 | 4 | 0.23 |
| (2,697) | 1:A:7:ALA:HB1 | 1:A:4:ILE:HG13 | 4 | 0.23 |
| (2,697) | 1:A:7:ALA:HB3 | 1:A:4:ILE:HG12 | 4 | 0.23 |
| (2,697) | 1:A:7:ALA:HB3 | 1:A:4:ILE:HG13 | 4 | 0.23 |
| (2,697) | 1:A:7:ALA:HB2 | 1:A:4:ILE:HG12 | 7 | 0.23 |
| (2,697) | 1:A:7:ALA:HB2 | 1:A:4:ILE:HG13 | 7 | 0.23 |
| (2,697) | 1:A:7:ALA:HB1 | 1:A:4:ILE:HG12 | 7 | 0.23 |
| (2,697) | 1:A:7:ALA:HB1 | 1:A:4:ILE:HG13 | 7 | 0.23 |
| (2,697) | 1:A:7:ALA:HB3 | 1:A:4:ILE:HG12 | 7 | 0.23 |
| (2,697) | 1:A:7:ALA:HB3 | 1:A:4:ILE:HG13 | 7 | 0.23 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD22 | 1 | 0.23 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD21 | 1 | 0.23 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD23 | 1 | 0.23 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB2 | 2 | 0.23 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB1 | 2 | 0.23 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB3 | 2 | 0.23 |
| (2,558) | 1:A:55:GLU:HB2 | 1:A:55:GLU:HG2 | 7 | 0.23 |
| (2,502) | 1:A:85:MET:HG2 | 1:A:85:MET:HE2 | 10 | 0.23 |
| (2,502) | 1:A:85:MET:HG2 | 1:A:85:MET:HE1 | 10 | 0.23 |
| (2,502) | 1:A:85:MET:HG2 | 1:A:85:MET:HE3 | 10 | 0.23 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG12 | 5 | 0.23 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG11 | 5 | 0.23 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG13 | 5 | 0.23 |
| (2,463) | 1:A:64:VAL:HB | 1:A:72:VAL:HB | 10 | 0.23 |
| (2,442) | 1:A:15:GLU:HG2 | 1:A:18:ASN:HB2 | 10 | 0.23 |
| (2,442) | 1:A:15:GLU:HG3 | 1:A:18:ASN:HB2 | 10 | 0.23 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB2 | 6 | 0.23 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB1 | 6 | 0.23 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB3 | 6 | 0.23 |
| (2,389) | 1:A:3:ASP:HA | 1:A:3:ASP:HB2 | 3 | 0.23 |
| (2,304) | 1:A:20:PHE:HB2 | 1:A:74:PHE:HE1 | 4 | 0.23 |
| (2,304) | 1:A:20:PHE:HB3 | 1:A:74:PHE:HE1 | 4 | 0.23 |
| (2,304) | 1:A:20:PHE:HB2 | 1:A:74:PHE:HE1 | 5 | 0.23 |
| (2,304) | 1:A:20:PHE:HB3 | 1:A:74:PHE:HE1 | 5 | 0.23 |
| (2,303) | 1:A:24:PHE:HA | 1:A:74:PHE:HD1 | 5 | 0.23 |
| (2,303) | 1:A:24:PHE:HA | 1:A:74:PHE:HD1 | 8 | 0.23 |
| (2,233) | 1:A:83:ARG:HA | 1:A:5:TYR:HD1 | 9 | 0.23 |
| (2,138) | 1:A:8:ALA:HA | 1:A:82:VAL:HG22 | 2 | 0.23 |
| (2,138) | 1:A:8:ALA:HA | 1:A:82:VAL:HG21 | 2 | 0.23 |
| (2,138) | 1:A:8:ALA:HA | 1:A:82:VAL:HG23 | 2 | 0.23 |
| (2,1375) | 1:A:78:LEU:HD12 | 1:A:77:PHE:HE1 | 4 | 0.23 |
| (2,1375) | 1:A:78:LEU:HD11 | 1:A:77:PHE:HE1 | 4 | 0.23 |
| (2,1375) | 1:A:78:LEU:HD13 | 1:A:77:PHE:HE1 | 4 | 0.23 |
| (2,1361) | 1:A:41:LEU:HD22 | 1:A:61:ILE:HG13 | 1 | 0.23 |
| (2,1361) | 1:A:41:LEU:HD21 | 1:A:61:ILE:HG13 | 1 | 0.23 |
| (2,1361) | 1:A:41:LEU:HD23 | 1:A:61:ILE:HG13 | 1 | 0.23 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD12 | 5 | 0.23 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD11 | 5 | 0.23 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD13 | 5 | 0.23 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD12 | 5 | 0.23 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD11 | 5 | 0.23 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD13 | 5 | 0.23 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD12 | 5 | 0.23 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD11 | 5 | 0.23 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD13 | 5 | 0.23 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD12 | 5 | 0.23 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD11 | 5 | 0.23 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD13 | 5 | 0.23 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD12 | 10 | 0.23 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD11 | 10 | 0.23 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD13 | 10 | 0.23 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD12 | 10 | 0.23 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD11 | 10 | 0.23 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD13 | 10 | 0.23 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD12 | 10 | 0.23 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD11 | 10 | 0.23 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD13 | 10 | 0.23 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD12 | 10 | 0.23 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD11 | 10 | 0.23 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD13 | 10 | 0.23 |
| (2,1301) | 1:A:150:ALA:HB2 | 1:A:85:MET:HG2 | 2 | 0.23 |
| (2,1301) | 1:A:150:ALA:HB1 | 1:A:85:MET:HG2 | 2 | 0.23 |
| (2,1301) | 1:A:150:ALA:HB3 | 1:A:85:MET:HG2 | 2 | 0.23 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB2 | 2 | 0.23 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB1 | 2 | 0.23 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB3 | 2 | 0.23 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB2 | 2 | 0.23 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB1 | 2 | 0.23 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB3 | 2 | 0.23 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD12 | 7 | 0.23 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD11 | 7 | 0.23 |
| (2,1284) | 1:A:45:MET:HE2 | 1:A:57:LEU:HD13 | 7 | 0.23 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD12 | 7 | 0.23 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD11 | 7 | 0.23 |
| (2,1284) | 1:A:45:MET:HE1 | 1:A:57:LEU:HD13 | 7 | 0.23 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD12 | 7 | 0.23 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD11 | 7 | 0.23 |
| (2,1284) | 1:A:45:MET:HE3 | 1:A:57:LEU:HD13 | 7 | 0.23 |
| (2,1242) | 1:A:11:GLN:HB3 | 1:A:12:LEU:HD12 | 7 | 0.23 |
| (2,1242) | 1:A:11:GLN:HB3 | 1:A:12:LEU:HD11 | 7 | 0.23 |
| (2,1242) | 1:A:11:GLN:HB3 | 1:A:12:LEU:HD13 | 7 | 0.23 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:12:LEU:HD12 | 7 | 0.23 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:12:LEU:HD11 | 7 | 0.23 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:12:LEU:HD13 | 7 | 0.23 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:158:LEU:HD12 | 7 | 0.23 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:158:LEU:HD11 | 7 | 0.23 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:158:LEU:HD13 | 7 | 0.23 |
| (2,1228) | 1:A:153:MET:HG3 | 1:A:48:LEU:HB2 | 4 | 0.23 |
| (2,1228) | 1:A:153:MET:HG3 | 1:A:48:LEU:HG | 4 | 0.23 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD12 | 10 | 0.23 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD11 | 10 | 0.23 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD13 | 10 | 0.23 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD12 | 10 | 0.23 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD11 | 10 | 0.23 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD13 | 10 | 0.23 |
| (2,1204) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HG2 | 8 | 0.23 |
| (2,1204) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HG3 | 8 | 0.23 |
| (2,1204) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HG2 | 8 | 0.23 |
| (2,1204) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HG3 | 8 | 0.23 |
| (2,1204) | 1:A:161:ARG:HD2 | 1:A:161:ARG:HG2 | 8 | 0.23 |
| (2,1204) | 1:A:161:ARG:HD3 | 1:A:161:ARG:HG2 | 8 | 0.23 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1204) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HG2 | 9 | 0.23 |
| (2,1204) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HG3 | 9 | 0.23 |
| (2,1204) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HG2 | 9 | 0.23 |
| (2,1204) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HG3 | 9 | 0.23 |
| (2,1204) | 1:A:161:ARG:HD2 | 1:A:161:ARG:HG2 | 9 | 0.23 |
| (2,1204) | 1:A:161:ARG:HD3 | 1:A:161:ARG:HG2 | 9 | 0.23 |
| (2,1188) | 1:A:58:GLN:HA | 1:A:61:ILE:HG22 | 8 | 0.23 |
| (2,1188) | 1:A:58:GLN:HA | 1:A:61:ILE:HG21 | 8 | 0.23 |
| (2,1188) | 1:A:58:GLN:HA | 1:A:61:ILE:HG23 | 8 | 0.23 |
| (2,1188) | 1:A:58:GLN:HA | 1:A:61:ILE:HD12 | 8 | 0.23 |
| (2,1188) | 1:A:58:GLN:HA | 1:A:61:ILE:HD11 | 8 | 0.23 |
| (2,1188) | 1:A:58:GLN:HA | 1:A:61:ILE:HD13 | 8 | 0.23 |
| (2,1159) | 1:A:69:SER:HB2 | 1:A:68:GLY:HA2 | 3 | 0.23 |
| (2,1159) | 1:A:69:SER:HB2 | 1:A:71:THR:HB | 3 | 0.23 |
| (2,1053) | 1:A:18:ASN:HA | 1:A:21:LYS:HD3 | 7 | 0.23 |
| (2,1053) | 1:A:18:ASN:HA | 1:A:21:LYS:HD3 | 9 | 0.23 |
| (2,1046) | 1:A:48:LEU:HA | 1:A:50:GLN:HG2 | 6 | 0.23 |
| (2,1046) | 1:A:48:LEU:HA | 1:A:50:GLN:HG3 | 6 | 0.23 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD22 | 7 | 0.23 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD21 | 7 | 0.23 |
| (2,1033) | 1:A:42:GLY:HA3 | 1:A:57:LEU:HD23 | 7 | 0.23 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD12 | 1 | 0.22 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD11 | 1 | 0.22 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD13 | 1 | 0.22 |
| (2,908) | 1:A:78:LEU:HD12 | 1:A:74:PHE:HD1 | 5 | 0.22 |
| (2,908) | 1:A:78:LEU:HD11 | 1:A:74:PHE:HD1 | 5 | 0.22 |
| (2,908) | 1:A:78:LEU:HD13 | 1:A:74:PHE:HD1 | 5 | 0.22 |
| (2,86) | 1:A:90:LYS:HA | 1:A:90:LYS:HG2 | 6 | 0.22 |
| (2,86) | 1:A:90:LYS:HA | 1:A:90:LYS:HG3 | 6 | 0.22 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG12 | 4 | 0.22 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG11 | 4 | 0.22 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG13 | 4 | 0.22 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG12 | 7 | 0.22 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG11 | 7 | 0.22 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG13 | 7 | 0.22 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD22 | 4 | 0.22 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD21 | 4 | 0.22 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD23 | 4 | 0.22 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD22 | 4 | 0.22 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD21 | 4 | 0.22 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD23 | 4 | 0.22 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD22 | 4 | 0.22 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD21 | 4 | 0.22 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD23 | 4 | 0.22 |
| (2,697) | 1:A:7:ALA:HB2 | 1:A:4:ILE:HG12 | 5 | 0.22 |
| (2,697) | 1:A:7:ALA:HB2 | 1:A:4:ILE:HG13 | 5 | 0.22 |
| (2,697) | 1:A:7:ALA:HB1 | 1:A:4:ILE:HG12 | 5 | 0.22 |
| (2,697) | 1:A:7:ALA:HB1 | 1:A:4:ILE:HG13 | 5 | 0.22 |
| (2,697) | 1:A:7:ALA:HB3 | 1:A:4:ILE:HG12 | 5 | 0.22 |
| (2,697) | 1:A:7:ALA:HB3 | 1:A:4:ILE:HG13 | 5 | 0.22 |
| (2,697) | 1:A:7:ALA:HB2 | 1:A:4:ILE:HG12 | 10 | 0.22 |
| (2,697) | 1:A:7:ALA:HB2 | 1:A:4:ILE:HG13 | 10 | 0.22 |
| (2,697) | 1:A:7:ALA:HB1 | 1:A:4:ILE:HG12 | 10 | 0.22 |
| (2,697) | 1:A:7:ALA:HB1 | 1:A:4:ILE:HG13 | 10 | 0.22 |
| (2,697) | 1:A:7:ALA:HB3 | 1:A:4:ILE:HG12 | 10 | 0.22 |
| (2,697) | 1:A:7:ALA:HB3 | 1:A:4:ILE:HG13 | 10 | 0.22 |
| (2,603) | 1:A:44:VAL:HB | 1:A:27:PHE:HD1 | 2 | 0.22 |
| (2,603) | 1:A:44:VAL:HB | 1:A:27:PHE:HD1 | 5 | 0.22 |
| (2,558) | 1:A:55:GLU:HB2 | 1:A:55:GLU:HG2 | 2 | 0.22 |
| (2,558) | 1:A:55:GLU:HB2 | 1:A:55:GLU:HG2 | 6 | 0.22 |
| (2,558) | 1:A:55:GLU:HB2 | 1:A:55:GLU:HG2 | 10 | 0.22 |
| (2,502) | 1:A:85:MET:HG2 | 1:A:85:MET:HE2 | 6 | 0.22 |
| (2,502) | 1:A:85:MET:HG2 | 1:A:85:MET:HE1 | 6 | 0.22 |
| (2,502) | 1:A:85:MET:HG2 | 1:A:85:MET:HE3 | 6 | 0.22 |
| (2,358) | 1:A:62:ASP:HB2 | 1:A:61:ILE:HB | 7 | 0.22 |
| (2,278) | 1:A:71:THR:HB | 1:A:35:SER:HB3 | 7 | 0.22 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG22 | 3 | 0.22 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG21 | 3 | 0.22 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG23 | 3 | 0.22 |
| (2,1389) | 1:A:61:ILE:HG22 | 1:A:60:MET:HA | 3 | 0.22 |
| (2,1389) | 1:A:61:ILE:HG21 | 1:A:60:MET:HA | 3 | 0.22 |
| (2,1389) | 1:A:61:ILE:HG23 | 1:A:60:MET:HA | 3 | 0.22 |
| (2,1389) | 1:A:61:ILE:HG22 | 1:A:69:SER:HB3 | 3 | 0.22 |
| (2,1389) | 1:A:61:ILE:HG21 | 1:A:69:SER:HB3 | 3 | 0.22 |
| (2,1389) | 1:A:61:ILE:HG23 | 1:A:69:SER:HB3 | 3 | 0.22 |
| (2,1371) | 1:A:79:VAL:HG12 | 1:A:78:LEU:HB3 | 6 | 0.22 |
| (2,1371) | 1:A:79:VAL:HG11 | 1:A:78:LEU:HB3 | 6 | 0.22 |
| (2,1371) | 1:A:79:VAL:HG13 | 1:A:78:LEU:HB3 | 6 | 0.22 |
| (2,1371) | 1:A:79:VAL:HG12 | 1:A:83:ARG:HB3 | 6 | 0.22 |
| (2,1371) | 1:A:79:VAL:HG11 | 1:A:83:ARG:HB3 | 6 | 0.22 |
| (2,1371) | 1:A:79:VAL:HG13 | 1:A:83:ARG:HB3 | 6 | 0.22 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD12 | 6 | 0.22 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD11 | 6 | 0.22 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD13 | 6 | 0.22 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD12 | 6 | 0.22 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD11 | 6 | 0.22 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD13 | 6 | 0.22 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD12 | 6 | 0.22 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD11 | 6 | 0.22 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD13 | 6 | 0.22 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD12 | 6 | 0.22 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD11 | 6 | 0.22 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD13 | 6 | 0.22 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD12 | 8 | 0.22 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD11 | 8 | 0.22 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD13 | 8 | 0.22 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD12 | 8 | 0.22 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD11 | 8 | 0.22 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD13 | 8 | 0.22 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD12 | 8 | 0.22 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD11 | 8 | 0.22 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD13 | 8 | 0.22 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD12 | 8 | 0.22 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD11 | 8 | 0.22 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD13 | 8 | 0.22 |
| (2,1340) | 1:A:157:LEU:HD12 | 1:A:27:PHE:HA | 8 | 0.22 |
| (2,1340) | 1:A:157:LEU:HD11 | 1:A:27:PHE:HA | 8 | 0.22 |
| (2,1340) | 1:A:157:LEU:HD13 | 1:A:27:PHE:HA | 8 | 0.22 |
| (2,1340) | 1:A:150:ALA:HA | 1:A:157:LEU:HD12 | 8 | 0.22 |
| (2,1340) | 1:A:150:ALA:HA | 1:A:157:LEU:HD11 | 8 | 0.22 |
| (2,1340) | 1:A:150:ALA:HA | 1:A:157:LEU:HD13 | 8 | 0.22 |
| (2,1340) | 1:A:157:LEU:HD12 | 1:A:153:MET:HA | 8 | 0.22 |
| (2,1340) | 1:A:157:LEU:HD11 | 1:A:153:MET:HA | 8 | 0.22 |
| (2,1340) | 1:A:157:LEU:HD13 | 1:A:153:MET:HA | 8 | 0.22 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG21 | 10 | 0.22 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG22 | 10 | 0.22 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG23 | 10 | 0.22 |
| (2,1313) | 1:A:38:THR:HG21 | 1:A:57:LEU:HG | 10 | 0.22 |
| (2,1313) | 1:A:38:THR:HG22 | 1:A:57:LEU:HG | 10 | 0.22 |
| (2,1313) | 1:A:38:THR:HG23 | 1:A:57:LEU:HG | 10 | 0.22 |
| (2,1301) | 1:A:150:ALA:HB2 | 1:A:85:MET:HG2 | 4 | 0.22 |
| (2,1301) | 1:A:150:ALA:HB1 | 1:A:85:MET:HG2 | 4 | 0.22 |
| (2,1301) | 1:A:150:ALA:HB3 | 1:A:85:MET:HG2 | 4 | 0.22 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB2 | 4 | 0.22 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB1 | 4 | 0.22 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB3 | 4 | 0.22 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB2 | 4 | 0.22 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB1 | 4 | 0.22 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB3 | 4 | 0.22 |
| (2,1301) | 1:A:150:ALA:HB2 | 1:A:85:MET:HG2 | 5 | 0.22 |
| (2,1301) | 1:A:150:ALA:HB1 | 1:A:85:MET:HG2 | 5 | 0.22 |
| (2,1301) | 1:A:150:ALA:HB3 | 1:A:85:MET:HG2 | 5 | 0.22 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB2 | 5 | 0.22 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB1 | 5 | 0.22 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB3 | 5 | 0.22 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB2 | 5 | 0.22 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB1 | 5 | 0.22 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB3 | 5 | 0.22 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD22 | 2 | 0.22 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD21 | 2 | 0.22 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD23 | 2 | 0.22 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD22 | 2 | 0.22 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD21 | 2 | 0.22 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD23 | 2 | 0.22 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD12 | 2 | 0.22 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD11 | 2 | 0.22 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD13 | 2 | 0.22 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD12 | 2 | 0.22 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD11 | 2 | 0.22 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD13 | 2 | 0.22 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD22 | 8 | 0.22 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD21 | 8 | 0.22 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD23 | 8 | 0.22 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD22 | 8 | 0.22 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD21 | 8 | 0.22 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD23 | 8 | 0.22 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD12 | 8 | 0.22 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD11 | 8 | 0.22 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD13 | 8 | 0.22 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD12 | 8 | 0.22 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD11 | 8 | 0.22 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD13 | 8 | 0.22 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:26:ILE:HG22 | 7 | 0.22 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:26:ILE:HG21 | 7 | 0.22 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:26:ILE:HG23 | 7 | 0.22 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:48:LEU:HD22 | 7 | 0.22 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:48:LEU:HD21 | 7 | 0.22 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:48:LEU:HD23 | 7 | 0.22 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1246) | 1:A:47:MET:HB3 | 1:A:48:LEU:HD12 | 7 | 0.22 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:48:LEU:HD11 | 7 | 0.22 |
| (2,1246) | 1:A:47:MET:HB3 | 1:A:48:LEU:HD13 | 7 | 0.22 |
| (2,1234) | 1:A:63:GLU:HG2 | 1:A:64:VAL:HG22 | 9 | 0.22 |
| (2,1234) | 1:A:63:GLU:HG2 | 1:A:64:VAL:HG21 | 9 | 0.22 |
| (2,1234) | 1:A:63:GLU:HG2 | 1:A:64:VAL:HG23 | 9 | 0.22 |
| (2,1234) | 1:A:76:GLU:HG3 | 1:A:72:VAL:HG22 | 9 | 0.22 |
| (2,1234) | 1:A:76:GLU:HG3 | 1:A:72:VAL:HG21 | 9 | 0.22 |
| (2,1234) | 1:A:76:GLU:HG3 | 1:A:72:VAL:HG23 | 9 | 0.22 |
| (2,1234) | 1:A:10:GLU:HG2 | 1:A:9:VAL:HG12 | 9 | 0.22 |
| (2,1234) | 1:A:10:GLU:HG2 | 1:A:9:VAL:HG11 | 9 | 0.22 |
| (2,1234) | 1:A:10:GLU:HG2 | 1:A:9:VAL:HG13 | 9 | 0.22 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD12 | 4 | 0.22 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD11 | 4 | 0.22 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD13 | 4 | 0.22 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD12 | 4 | 0.22 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD11 | 4 | 0.22 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD13 | 4 | 0.22 |
| (2,1204) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HG2 | 2 | 0.22 |
| (2,1204) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HG3 | 2 | 0.22 |
| (2,1204) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HG2 | 2 | 0.22 |
| (2,1204) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HG3 | 2 | 0.22 |
| (2,1204) | 1:A:161:ARG:HD2 | 1:A:161:ARG:HG2 | 2 | 0.22 |
| (2,1204) | 1:A:161:ARG:HD3 | 1:A:161:ARG:HG2 | 2 | 0.22 |
| (2,1204) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HG2 | 10 | 0.22 |
| (2,1204) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HG3 | 10 | 0.22 |
| (2,1204) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HG2 | 10 | 0.22 |
| (2,1204) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HG3 | 10 | 0.22 |
| (2,1204) | 1:A:161:ARG:HD2 | 1:A:161:ARG:HG2 | 10 | 0.22 |
| (2,1204) | 1:A:161:ARG:HD3 | 1:A:161:ARG:HG2 | 10 | 0.22 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:15:GLU:HB2 | 3 | 0.22 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:15:GLU:HB3 | 3 | 0.22 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:19:GLU:HB3 | 3 | 0.22 |
| (2,1180) | 1:A:42:GLY:HA3 | 1:A:45:MET:HE2 | 6 | 0.22 |
| (2,1180) | 1:A:42:GLY:HA3 | 1:A:45:MET:HE1 | 6 | 0.22 |
| (2,1180) | 1:A:42:GLY:HA3 | 1:A:45:MET:HE3 | 6 | 0.22 |
| (2,1180) | 1:A:42:GLY:HA3 | 1:A:46:ARG:HG2 | 6 | 0.22 |
| (2,1180) | 1:A:42:GLY:HA3 | 1:A:52:PRO:HG3 | 6 | 0.22 |
| (2,1175) | 1:A:84:SER:HB2 | 1:A:60:MET:HG2 | 4 | 0.22 |
| (2,1175) | 1:A:84:SER:HB2 | 1:A:60:MET:HG3 | 4 | 0.22 |
| (2,1175) | 1:A:84:SER:HB3 | 1:A:60:MET:HG2 | 4 | 0.22 |
| (2,1175) | 1:A:84:SER:HB3 | 1:A:60:MET:HG3 | 4 | 0.22 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1175) | 1:A:89:SER:HB2 | 1:A:87:ASP:HB2 | 4 | 0.22 |
| (2,1175) | 1:A:89:SER:HB2 | 1:A:87:ASP:HB3 | 4 | 0.22 |
| (2,1175) | 1:A:89:SER:HB2 | 1:A:88:ASP:HB2 | 4 | 0.22 |
| (2,1175) | 1:A:89:SER:HB2 | 1:A:88:ASP:HB3 | 4 | 0.22 |
| (2,1175) | 1:A:89:SER:HB3 | 1:A:87:ASP:HB2 | 4 | 0.22 |
| (2,1175) | 1:A:89:SER:HB3 | 1:A:87:ASP:HB3 | 4 | 0.22 |
| (2,1175) | 1:A:89:SER:HB3 | 1:A:88:ASP:HB2 | 4 | 0.22 |
| (2,1175) | 1:A:89:SER:HB3 | 1:A:88:ASP:HB3 | 4 | 0.22 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD22 | 2 | 0.22 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD21 | 2 | 0.22 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD23 | 2 | 0.22 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD12 | 2 | 0.22 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD11 | 2 | 0.22 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD13 | 2 | 0.22 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD22 | 9 | 0.22 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD21 | 9 | 0.22 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD23 | 9 | 0.22 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD12 | 9 | 0.22 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD11 | 9 | 0.22 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD13 | 9 | 0.22 |
| (2,1157) | 1:A:142:THR:HA | 1:A:143:LEU:HB2 | 7 | 0.22 |
| (2,1157) | 1:A:142:THR:HA | 1:A:143:LEU:HB3 | 7 | 0.22 |
| (2,1157) | 1:A:142:THR:HA | 1:A:143:LEU:HG | 7 | 0.22 |
| (2,1053) | 1:A:18:ASN:HA | 1:A:21:LYS:HD3 | 8 | 0.22 |
| (2,996) | 1:A:11:GLN:HB3 | 1:A:8:ALA:HA | 3 | 0.21 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB2 | 10 | 0.21 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB1 | 10 | 0.21 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB3 | 10 | 0.21 |
| (2,979) | 1:A:44:VAL:HG12 | 1:A:27:PHE:HB3 | 6 | 0.21 |
| (2,979) | 1:A:44:VAL:HG11 | 1:A:27:PHE:HB3 | 6 | 0.21 |
| (2,979) | 1:A:44:VAL:HG13 | 1:A:27:PHE:HB3 | 6 | 0.21 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG22 | 3 | 0.21 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG21 | 3 | 0.21 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG23 | 3 | 0.21 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG22 | 9 | 0.21 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG21 | 9 | 0.21 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG23 | 9 | 0.21 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD12 | 6 | 0.21 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD11 | 6 | 0.21 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD13 | 6 | 0.21 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD12 | 10 | 0.21 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD11 | 10 | 0.21 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD13 | 10 | 0.21 |
| (2,914) | 1:A:78:LEU:HD12 | 1:A:17:LYS:HG3 | 9 | 0.21 |
| (2,914) | 1:A:78:LEU:HD11 | 1:A:17:LYS:HG3 | 9 | 0.21 |
| (2,914) | 1:A:78:LEU:HD13 | 1:A:17:LYS:HG3 | 9 | 0.21 |
| (2,86) | 1:A:90:LYS:HA | 1:A:90:LYS:HG2 | 4 | 0.21 |
| (2,86) | 1:A:90:LYS:HA | 1:A:90:LYS:HG3 | 4 | 0.21 |
| (2,848) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG22 | 9 | 0.21 |
| (2,848) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG21 | 9 | 0.21 |
| (2,848) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG23 | 9 | 0.21 |
| (2,848) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG22 | 9 | 0.21 |
| (2,848) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG21 | 9 | 0.21 |
| (2,848) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG23 | 9 | 0.21 |
| (2,848) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG22 | 9 | 0.21 |
| (2,848) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG21 | 9 | 0.21 |
| (2,848) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG23 | 9 | 0.21 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG12 | 10 | 0.21 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG11 | 10 | 0.21 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG13 | 10 | 0.21 |
| (2,81) | 1:A:85:MET:HA | 1:A:85:MET:HB3 | 1 | 0.21 |
| (2,81) | 1:A:85:MET:HA | 1:A:85:MET:HB3 | 3 | 0.21 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD12 | 1 | 0.21 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD11 | 1 | 0.21 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD13 | 1 | 0.21 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD22 | 9 | 0.21 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD21 | 9 | 0.21 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD23 | 9 | 0.21 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD22 | 9 | 0.21 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD21 | 9 | 0.21 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD23 | 9 | 0.21 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD22 | 9 | 0.21 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD21 | 9 | 0.21 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD23 | 9 | 0.21 |
| (2,710) | 1:A:58:GLN:HG2 | 1:A:38:THR:HG21 | 2 | 0.21 |
| (2,710) | 1:A:58:GLN:HG2 | 1:A:38:THR:HG22 | 2 | 0.21 |
| (2,710) | 1:A:58:GLN:HG2 | 1:A:38:THR:HG23 | 2 | 0.21 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG21 | 3 | 0.21 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG22 | 3 | 0.21 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG23 | 3 | 0.21 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG21 | 3 | 0.21 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG22 | 3 | 0.21 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG23 | 3 | 0.21 |
| (2,697) | 1:A:7:ALA:HB2 | 1:A:4:ILE:HG12 | 3 | 0.21 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (2,697) | 1:A:7:ALA:HB2 | 1:A:4:ILE:HG13 | 3 | 0.21 |
| (2,697) | 1:A:7:ALA:HB1 | 1:A:4:ILE:HG12 | 3 | 0.21 |
| (2,697) | 1:A:7:ALA:HB1 | 1:A:4:ILE:HG13 | 3 | 0.21 |
| (2,697) | 1:A:7:ALA:HB3 | 1:A:4:ILE:HG12 | 3 | 0.21 |
| (2,697) | 1:A:7:ALA:HB3 | 1:A:4:ILE:HG13 | 3 | 0.21 |
| (2,697) | 1:A:7:ALA:HB2 | 1:A:4:ILE:HG12 | 8 | 0.21 |
| (2,697) | 1:A:7:ALA:HB2 | 1:A:4:ILE:HG13 | 8 | 0.21 |
| (2,697) | 1:A:7:ALA:HB1 | 1:A:4:ILE:HG12 | 8 | 0.21 |
| (2,697) | 1:A:7:ALA:HB1 | 1:A:4:ILE:HG13 | 8 | 0.21 |
| (2,697) | 1:A:7:ALA:HB3 | 1:A:4:ILE:HG12 | 8 | 0.21 |
| (2,697) | 1:A:7:ALA:HB3 | 1:A:4:ILE:HG13 | 8 | 0.21 |
| (2,603) | 1:A:44:VAL:HB | 1:A:27:PHE:HD1 | 1 | 0.21 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD22 | 8 | 0.21 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD21 | 8 | 0.21 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD23 | 8 | 0.21 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD22 | 10 | 0.21 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD21 | 10 | 0.21 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD23 | 10 | 0.21 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB2 | 3 | 0.21 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB1 | 3 | 0.21 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB3 | 3 | 0.21 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB2 | 4 | 0.21 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB1 | 4 | 0.21 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB3 | 4 | 0.21 |
| (2,582) | 1:A:45:MET:HA | 1:A:48:LEU:HG | 9 | 0.21 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD22 | 4 | 0.21 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD21 | 4 | 0.21 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD23 | 4 | 0.21 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD22 | 4 | 0.21 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD21 | 4 | 0.21 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD23 | 4 | 0.21 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD22 | 4 | 0.21 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD21 | 4 | 0.21 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD23 | 4 | 0.21 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD22 | 9 | 0.21 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD21 | 9 | 0.21 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD23 | 9 | 0.21 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD22 | 9 | 0.21 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD21 | 9 | 0.21 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD23 | 9 | 0.21 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD22 | 9 | 0.21 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD21 | 9 | 0.21 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD23 | 9 | 0.21 |
| (2,502) | 1:A:85:MET:HG2 | 1:A:85:MET:HE2 | 2 | 0.21 |
| (2,502) | 1:A:85:MET:HG2 | 1:A:85:MET:HE1 | 2 | 0.21 |
| (2,502) | 1:A:85:MET:HG2 | 1:A:85:MET:HE3 | 2 | 0.21 |
| (2,491) | 1:A:79:VAL:HB | 1:A:83:ARG:HG3 | 4 | 0.21 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG12 | 7 | 0.21 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG11 | 7 | 0.21 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG13 | 7 | 0.21 |
| (2,466) | 1:A:72:VAL:HB | 1:A:61:ILE:HG22 | 1 | 0.21 |
| (2,466) | 1:A:72:VAL:HB | 1:A:61:ILE:HG21 | 1 | 0.21 |
| (2,466) | 1:A:72:VAL:HB | 1:A:61:ILE:HG23 | 1 | 0.21 |
| (2,45) | 1:A:65:ASP:HA | 1:A:61:ILE:HG22 | 5 | 0.21 |
| (2,45) | 1:A:65:ASP:HA | 1:A:61:ILE:HG21 | 5 | 0.21 |
| (2,45) | 1:A:65:ASP:HA | 1:A:61:ILE:HG23 | 5 | 0.21 |
| (2,442) | 1:A:15:GLU:HG2 | 1:A:18:ASN:HB2 | 3 | 0.21 |
| (2,442) | 1:A:15:GLU:HG3 | 1:A:18:ASN:HB2 | 3 | 0.21 |
| (2,442) | 1:A:15:GLU:HG2 | 1:A:18:ASN:HB2 | 9 | 0.21 |
| (2,442) | 1:A:15:GLU:HG3 | 1:A:18:ASN:HB2 | 9 | 0.21 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB2 | 8 | 0.21 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB1 | 8 | 0.21 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB3 | 8 | 0.21 |
| (2,415) | 1:A:155:GLN:HG2 | 1:A:155:GLN:HB2 | 7 | 0.21 |
| (2,415) | 1:A:155:GLN:HG2 | 1:A:155:GLN:HB3 | 7 | 0.21 |
| (2,399) | 1:A:47:MET:HA | 1:A:47:MET:HG3 | 4 | 0.21 |
| (2,358) | 1:A:62:ASP:HB2 | 1:A:61:ILE:HB | 10 | 0.21 |
| (2,335) | 1:A:139:LYS:HE2 | 1:A:139:LYS:HG2 | 1 | 0.21 |
| (2,335) | 1:A:139:LYS:HE2 | 1:A:139:LYS:HG3 | 1 | 0.21 |
| (2,304) | 1:A:20:PHE:HB2 | 1:A:74:PHE:HE1 | 6 | 0.21 |
| (2,304) | 1:A:20:PHE:HB3 | 1:A:74:PHE:HE1 | 6 | 0.21 |
| (2,237) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HB2 | 3 | 0.21 |
| (2,233) | 1:A:83:ARG:HA | 1:A:5:TYR:HD1 | 2 | 0.21 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG12 | 2 | 0.21 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG11 | 2 | 0.21 |
| (2,226) | 1:A:82:VAL:HA | 1:A:82:VAL:HG13 | 2 | 0.21 |
| (2,145) | 1:A:40:GLU:HA | 1:A:31:ALA:HB2 | 5 | 0.21 |
| (2,145) | 1:A:40:GLU:HA | 1:A:31:ALA:HB1 | 5 | 0.21 |
| (2,145) | 1:A:40:GLU:HA | 1:A:31:ALA:HB3 | 5 | 0.21 |
| (2,143) | 1:A:40:GLU:HA | 1:A:43:LYS:HB2 | 10 | 0.21 |
| (2,143) | 1:A:40:GLU:HA | 1:A:43:LYS:HB3 | 10 | 0.21 |
| (2,1422) | 1:A:10:GLU:HG2 | 1:A:8:ALA:HB2 | 3 | 0.21 |
| (2,1422) | 1:A:10:GLU:HG2 | 1:A:8:ALA:HB1 | 3 | 0.21 |
| (2,1422) | 1:A:10:GLU:HG2 | 1:A:8:ALA:HB3 | 3 | 0.21 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1422) | 1:A:63:GLU:HG2 | 1:A:80:MET:HE2 | 3 | 0.21 |
| (2,1422) | 1:A:63:GLU:HG2 | 1:A:80:MET:HE1 | 3 | 0.21 |
| (2,1422) | 1:A:63:GLU:HG2 | 1:A:80:MET:HE3 | 3 | 0.21 |
| (2,1422) | 1:A:76:GLU:HG3 | 1:A:80:MET:HE2 | 3 | 0.21 |
| (2,1422) | 1:A:76:GLU:HG3 | 1:A:80:MET:HE1 | 3 | 0.21 |
| (2,1422) | 1:A:76:GLU:HG3 | 1:A:80:MET:HE3 | 3 | 0.21 |
| (2,1422) | 1:A:10:GLU:HG2 | 1:A:8:ALA:HB2 | 10 | 0.21 |
| (2,1422) | 1:A:10:GLU:HG2 | 1:A:8:ALA:HB1 | 10 | 0.21 |
| (2,1422) | 1:A:10:GLU:HG2 | 1:A:8:ALA:HB3 | 10 | 0.21 |
| (2,1422) | 1:A:63:GLU:HG2 | 1:A:80:MET:HE2 | 10 | 0.21 |
| (2,1422) | 1:A:63:GLU:HG2 | 1:A:80:MET:HE1 | 10 | 0.21 |
| (2,1422) | 1:A:63:GLU:HG2 | 1:A:80:MET:HE3 | 10 | 0.21 |
| (2,1422) | 1:A:76:GLU:HG3 | 1:A:80:MET:HE2 | 10 | 0.21 |
| (2,1422) | 1:A:76:GLU:HG3 | 1:A:80:MET:HE1 | 10 | 0.21 |
| (2,1422) | 1:A:76:GLU:HG3 | 1:A:80:MET:HE3 | 10 | 0.21 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG22 | 2 | 0.21 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG21 | 2 | 0.21 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG23 | 2 | 0.21 |
| (2,1389) | 1:A:61:ILE:HG22 | 1:A:60:MET:HA | 2 | 0.21 |
| (2,1389) | 1:A:61:ILE:HG21 | 1:A:60:MET:HA | 2 | 0.21 |
| (2,1389) | 1:A:61:ILE:HG23 | 1:A:60:MET:HA | 2 | 0.21 |
| (2,1389) | 1:A:61:ILE:HG22 | 1:A:69:SER:HB3 | 2 | 0.21 |
| (2,1389) | 1:A:61:ILE:HG21 | 1:A:69:SER:HB3 | 2 | 0.21 |
| (2,1389) | 1:A:61:ILE:HG23 | 1:A:69:SER:HB3 | 2 | 0.21 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG22 | 8 | 0.21 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG21 | 8 | 0.21 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG23 | 8 | 0.21 |
| (2,1389) | 1:A:61:ILE:HG22 | 1:A:60:MET:HA | 8 | 0.21 |
| (2,1389) | 1:A:61:ILE:HG21 | 1:A:60:MET:HA | 8 | 0.21 |
| (2,1389) | 1:A:61:ILE:HG23 | 1:A:60:MET:HA | 8 | 0.21 |
| (2,1389) | 1:A:61:ILE:HG22 | 1:A:69:SER:HB3 | 8 | 0.21 |
| (2,1389) | 1:A:61:ILE:HG21 | 1:A:69:SER:HB3 | 8 | 0.21 |
| (2,1389) | 1:A:61:ILE:HG23 | 1:A:69:SER:HB3 | 8 | 0.21 |
| (2,1332) | 1:A:9:VAL:HG22 | 1:A:17:LYS:HD3 | 9 | 0.21 |
| (2,1332) | 1:A:9:VAL:HG21 | 1:A:17:LYS:HD3 | 9 | 0.21 |
| (2,1332) | 1:A:9:VAL:HG23 | 1:A:17:LYS:HD3 | 9 | 0.21 |
| (2,1332) | 1:A:9:VAL:HG22 | 1:A:75:ASP:HB3 | 9 | 0.21 |
| (2,1332) | 1:A:9:VAL:HG21 | 1:A:75:ASP:HB3 | 9 | 0.21 |
| (2,1332) | 1:A:9:VAL:HG23 | 1:A:75:ASP:HB3 | 9 | 0.21 |
| (2,1329) | 1:A:5:TYR:HA | 1:A:9:VAL:HG22 | 8 | 0.21 |
| (2,1329) | 1:A:5:TYR:HA | 1:A:9:VAL:HG21 | 8 | 0.21 |
| (2,1329) | 1:A:5:TYR:HA | 1:A:9:VAL:HG23 | 8 | 0.21 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1329) | 1:A:5:TYR:HA | 1:A:79:VAL:HG22 | 8 | 0.21 |
| (2,1329) | 1:A:5:TYR:HA | 1:A:79:VAL:HG21 | 8 | 0.21 |
| (2,1329) | 1:A:5:TYR:HA | 1:A:79:VAL:HG23 | 8 | 0.21 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:19:GLU:HB2 | 2 | 0.21 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE2 | 2 | 0.21 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE1 | 2 | 0.21 |
| (2,1249) | 1:A:19:GLU:HG2 | 1:A:154:MET:HE3 | 2 | 0.21 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD22 | 3 | 0.21 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD21 | 3 | 0.21 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD23 | 3 | 0.21 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD22 | 3 | 0.21 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD21 | 3 | 0.21 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD23 | 3 | 0.21 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD12 | 3 | 0.21 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD11 | 3 | 0.21 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD13 | 3 | 0.21 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD12 | 3 | 0.21 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD11 | 3 | 0.21 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD13 | 3 | 0.21 |
| (2,1228) | 1:A:153:MET:HG3 | 1:A:48:LEU:HB2 | 10 | 0.21 |
| (2,1228) | 1:A:153:MET:HG3 | 1:A:48:LEU:HG | 10 | 0.21 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG22 | 9 | 0.21 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG21 | 9 | 0.21 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG23 | 9 | 0.21 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG22 | 9 | 0.21 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG21 | 9 | 0.21 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG23 | 9 | 0.21 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD12 | 9 | 0.21 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD11 | 9 | 0.21 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD13 | 9 | 0.21 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD12 | 9 | 0.21 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD11 | 9 | 0.21 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD13 | 9 | 0.21 |
| (2,1207) | 1:A:6:LYS:HE2 | 1:A:3:ASP:HA | 4 | 0.21 |
| (2,1207) | 1:A:6:LYS:HE3 | 1:A:3:ASP:HA | 4 | 0.21 |
| (2,1207) | 1:A:43:LYS:HE2 | 1:A:31:ALA:HA | 4 | 0.21 |
| (2,1207) | 1:A:43:LYS:HE3 | 1:A:31:ALA:HA | 4 | 0.21 |
| (2,1207) | 1:A:139:LYS:HE2 | 1:A:141:PRO:HA | 4 | 0.21 |
| (2,1197) | 1:A:24:PHE:HA | 1:A:27:PHE:HE1 | 2 | 0.21 |
| (2,1197) | 1:A:24:PHE:HA | 1:A:77:PHE:HE1 | 2 | 0.21 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG22 | 1 | 0.21 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG21 | 1 | 0.21 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG23 | 1 | 0.21 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG12 | 1 | 0.21 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG11 | 1 | 0.21 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG13 | 1 | 0.21 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG22 | 8 | 0.21 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG21 | 8 | 0.21 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG23 | 8 | 0.21 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG12 | 8 | 0.21 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG11 | 8 | 0.21 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG13 | 8 | 0.21 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB2 | 8 | 0.21 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB1 | 8 | 0.21 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB3 | 8 | 0.21 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB2 | 8 | 0.21 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB1 | 8 | 0.21 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB3 | 8 | 0.21 |
| (2,1159) | 1:A:69:SER:HB2 | 1:A:68:GLY:HA2 | 4 | 0.21 |
| (2,1159) | 1:A:69:SER:HB2 | 1:A:71:THR:HB | 4 | 0.21 |
| (2,1159) | 1:A:69:SER:HB2 | 1:A:68:GLY:HA2 | 6 | 0.21 |
| (2,1159) | 1:A:69:SER:HB2 | 1:A:71:THR:HB | 6 | 0.21 |
| (2,1109) | 1:A:52:PRO:HD3 | 1:A:42:GLY:HA3 | 8 | 0.21 |
| (2,110) | 1:A:66:GLU:HA | 1:A:66:GLU:HB3 | 6 | 0.21 |
| (2,1025) | 1:A:35:SER:HA | 1:A:73:ASP:HB2 | 4 | 0.21 |
| (2,1005) | 1:A:8:ALA:HB2 | 1:A:79:VAL:HA | 4 | 0.21 |
| (2,1005) | 1:A:8:ALA:HB1 | 1:A:79:VAL:HA | 4 | 0.21 |
| (2,1005) | 1:A:8:ALA:HB3 | 1:A:79:VAL:HA | 4 | 0.21 |
| (2,996) | 1:A:11:GLN:HB3 | 1:A:8:ALA:HA | 4 | 0.2 |
| (2,996) | 1:A:11:GLN:HB3 | 1:A:8:ALA:HA | 8 | 0.2 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB2 | 8 | 0.2 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB1 | 8 | 0.2 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB3 | 8 | 0.2 |
| (2,979) | 1:A:44:VAL:HG12 | 1:A:27:PHE:HB3 | 4 | 0.2 |
| (2,979) | 1:A:44:VAL:HG11 | 1:A:27:PHE:HB3 | 4 | 0.2 |
| (2,979) | 1:A:44:VAL:HG13 | 1:A:27:PHE:HB3 | 4 | 0.2 |
| (2,914) | 1:A:78:LEU:HD12 | 1:A:17:LYS:HG3 | 4 | 0.2 |
| (2,914) | 1:A:78:LEU:HD11 | 1:A:17:LYS:HG3 | 4 | 0.2 |
| (2,914) | 1:A:78:LEU:HD13 | 1:A:17:LYS:HG3 | 4 | 0.2 |
| (2,807) | 1:A:45:MET:HG2 | 1:A:57:LEU:HD12 | 9 | 0.2 |
| (2,807) | 1:A:45:MET:HG2 | 1:A:57:LEU:HD11 | 9 | 0.2 |
| (2,807) | 1:A:45:MET:HG2 | 1:A:57:LEU:HD13 | 9 | 0.2 |
| (2,807) | 1:A:45:MET:HG3 | 1:A:57:LEU:HD12 | 9 | 0.2 |
| (2,807) | 1:A:45:MET:HG3 | 1:A:57:LEU:HD11 | 9 | 0.2 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,807) | 1:A:45:MET:HG3 | 1:A:57:LEU:HD13 | 9 | 0.2 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD12 | 6 | 0.2 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD11 | 6 | 0.2 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD13 | 6 | 0.2 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB2 | 9 | 0.2 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB1 | 9 | 0.2 |
| (2,695) | 1:A:10:GLU:HB2 | 1:A:7:ALA:HB3 | 9 | 0.2 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB2 | 9 | 0.2 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB1 | 9 | 0.2 |
| (2,695) | 1:A:10:GLU:HB3 | 1:A:7:ALA:HB3 | 9 | 0.2 |
| (2,640) | 1:A:6:LYS:HD2 | 1:A:6:LYS:HA | 10 | 0.2 |
| (2,603) | 1:A:44:VAL:HB | 1:A:27:PHE:HD1 | 3 | 0.2 |
| (2,603) | 1:A:44:VAL:HB | 1:A:27:PHE:HD1 | 9 | 0.2 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD22 | 3 | 0.2 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD21 | 3 | 0.2 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD23 | 3 | 0.2 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD22 | 7 | 0.2 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD21 | 7 | 0.2 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD23 | 7 | 0.2 |
| (2,491) | 1:A:79:VAL:HB | 1:A:83:ARG:HG3 | 7 | 0.2 |
| (2,463) | 1:A:64:VAL:HB | 1:A:72:VAL:HB | 1 | 0.2 |
| (2,442) | 1:A:15:GLU:HG2 | 1:A:18:ASN:HB2 | 7 | 0.2 |
| (2,442) | 1:A:15:GLU:HG3 | 1:A:18:ASN:HB2 | 7 | 0.2 |
| (2,442) | 1:A:15:GLU:HG2 | 1:A:18:ASN:HB2 | 8 | 0.2 |
| (2,442) | 1:A:15:GLU:HG3 | 1:A:18:ASN:HB2 | 8 | 0.2 |
| (2,415) | 1:A:155:GLN:HG2 | 1:A:155:GLN:HB2 | 4 | 0.2 |
| (2,415) | 1:A:155:GLN:HG2 | 1:A:155:GLN:HB3 | 4 | 0.2 |
| (2,415) | 1:A:155:GLN:HG2 | 1:A:155:GLN:HB2 | 5 | 0.2 |
| (2,415) | 1:A:155:GLN:HG2 | 1:A:155:GLN:HB3 | 5 | 0.2 |
| (2,407) | 1:A:52:PRO:HD3 | 1:A:51:ASN:HB3 | 9 | 0.2 |
| (2,224) | 1:A:82:VAL:HA | 1:A:85:MET:HG2 | 2 | 0.2 |
| (2,224) | 1:A:82:VAL:HA | 1:A:85:MET:HG2 | 10 | 0.2 |
| (2,142) | 1:A:7:ALA:HA | 1:A:10:GLU:HB2 | 10 | 0.2 |
| (2,142) | 1:A:7:ALA:HA | 1:A:10:GLU:HB3 | 10 | 0.2 |
| (2,138) | 1:A:8:ALA:HA | 1:A:82:VAL:HG22 | 5 | 0.2 |
| (2,138) | 1:A:8:ALA:HA | 1:A:82:VAL:HG21 | 5 | 0.2 |
| (2,138) | 1:A:8:ALA:HA | 1:A:82:VAL:HG23 | 5 | 0.2 |
| (2,1371) | 1:A:79:VAL:HG12 | 1:A:78:LEU:HB3 | 7 | 0.2 |
| (2,1371) | 1:A:79:VAL:HG11 | 1:A:78:LEU:HB3 | 7 | 0.2 |
| (2,1371) | 1:A:79:VAL:HG13 | 1:A:78:LEU:HB3 | 7 | 0.2 |
| (2,1371) | 1:A:79:VAL:HG12 | 1:A:83:ARG:HB3 | 7 | 0.2 |
| (2,1371) | 1:A:79:VAL:HG11 | 1:A:83:ARG:HB3 | 7 | 0.2 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1371) | 1:A:79:VAL:HG13 | 1:A:83:ARG:HB3 | 7 | 0.2 |
| (2,1332) | 1:A:9:VAL:HG22 | 1:A:17:LYS:HD3 | 5 | 0.2 |
| (2,1332) | 1:A:9:VAL:HG21 | 1:A:17:LYS:HD3 | 5 | 0.2 |
| (2,1332) | 1:A:9:VAL:HG23 | 1:A:17:LYS:HD3 | 5 | 0.2 |
| (2,1332) | 1:A:9:VAL:HG22 | 1:A:75:ASP:HB3 | 5 | 0.2 |
| (2,1332) | 1:A:9:VAL:HG21 | 1:A:75:ASP:HB3 | 5 | 0.2 |
| (2,1332) | 1:A:9:VAL:HG23 | 1:A:75:ASP:HB3 | 5 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:41:LEU:HD12 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:41:LEU:HD11 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:41:LEU:HD13 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:41:LEU:HD12 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:41:LEU:HD11 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:41:LEU:HD13 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:41:LEU:HD12 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:41:LEU:HD11 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:41:LEU:HD13 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG22 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG21 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG23 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG22 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG21 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG23 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG22 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG21 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG23 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:61:ILE:HD12 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:61:ILE:HD11 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:61:ILE:HD13 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:61:ILE:HD12 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:61:ILE:HD11 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:61:ILE:HD13 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:61:ILE:HD12 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:61:ILE:HD11 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:61:ILE:HD13 | 1 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:41:LEU:HD12 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:41:LEU:HD11 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:41:LEU:HD13 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:41:LEU:HD12 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:41:LEU:HD11 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:41:LEU:HD13 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:41:LEU:HD12 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:41:LEU:HD11 | 8 | 0.2 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1314) | 1:A:38:THR:HG23 | 1:A:41:LEU:HD13 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG22 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG21 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG23 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG22 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG21 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG23 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG22 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG21 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG23 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:61:ILE:HD12 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:61:ILE:HD11 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG21 | 1:A:61:ILE:HD13 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:61:ILE:HD12 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:61:ILE:HD11 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG22 | 1:A:61:ILE:HD13 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:61:ILE:HD12 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:61:ILE:HD11 | 8 | 0.2 |
| (2,1314) | 1:A:38:THR:HG23 | 1:A:61:ILE:HD13 | 8 | 0.2 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG21 | 9 | 0.2 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG22 | 9 | 0.2 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG23 | 9 | 0.2 |
| (2,1313) | 1:A:38:THR:HG21 | 1:A:57:LEU:HG | 9 | 0.2 |
| (2,1313) | 1:A:38:THR:HG22 | 1:A:57:LEU:HG | 9 | 0.2 |
| (2,1313) | 1:A:38:THR:HG23 | 1:A:57:LEU:HG | 9 | 0.2 |
| (2,1301) | 1:A:150:ALA:HB2 | 1:A:85:MET:HG2 | 1 | 0.2 |
| (2,1301) | 1:A:150:ALA:HB1 | 1:A:85:MET:HG2 | 1 | 0.2 |
| (2,1301) | 1:A:150:ALA:HB3 | 1:A:85:MET:HG2 | 1 | 0.2 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB2 | 1 | 0.2 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB1 | 1 | 0.2 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB3 | 1 | 0.2 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB2 | 1 | 0.2 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB1 | 1 | 0.2 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB3 | 1 | 0.2 |
| (2,1301) | 1:A:150:ALA:HB2 | 1:A:85:MET:HG2 | 7 | 0.2 |
| (2,1301) | 1:A:150:ALA:HB1 | 1:A:85:MET:HG2 | 7 | 0.2 |
| (2,1301) | 1:A:150:ALA:HB3 | 1:A:85:MET:HG2 | 7 | 0.2 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB2 | 7 | 0.2 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB1 | 7 | 0.2 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB3 | 7 | 0.2 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB2 | 7 | 0.2 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB1 | 7 | 0.2 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB3 | 7 | 0.2 |
| (2,1301) | 1:A:150:ALA:HB2 | 1:A:85:MET:HG2 | 9 | 0.2 |
| (2,1301) | 1:A:150:ALA:HB1 | 1:A:85:MET:HG2 | 9 | 0.2 |
| (2,1301) | 1:A:150:ALA:HB3 | 1:A:85:MET:HG2 | 9 | 0.2 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB2 | 9 | 0.2 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB1 | 9 | 0.2 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB3 | 9 | 0.2 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB2 | 9 | 0.2 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB1 | 9 | 0.2 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB3 | 9 | 0.2 |
| (2,1296) | 1:A:157:LEU:HB2 | 1:A:26:ILE:HG13 | 2 | 0.2 |
| (2,1296) | 1:A:158:LEU:HG | 1:A:158:LEU:HB3 | 2 | 0.2 |
| (2,1228) | 1:A:153:MET:HG3 | 1:A:48:LEU:HB2 | 3 | 0.2 |
| (2,1228) | 1:A:153:MET:HG3 | 1:A:48:LEU:HG | 3 | 0.2 |
| (2,1221) | 1:A:60:MET:HG2 | 1:A:57:LEU:HD12 | 7 | 0.2 |
| (2,1221) | 1:A:60:MET:HG2 | 1:A:57:LEU:HD11 | 7 | 0.2 |
| (2,1221) | 1:A:60:MET:HG2 | 1:A:57:LEU:HD13 | 7 | 0.2 |
| (2,1221) | 1:A:60:MET:HG3 | 1:A:57:LEU:HD12 | 7 | 0.2 |
| (2,1221) | 1:A:60:MET:HG3 | 1:A:57:LEU:HD11 | 7 | 0.2 |
| (2,1221) | 1:A:60:MET:HG3 | 1:A:57:LEU:HD13 | 7 | 0.2 |
| (2,1221) | 1:A:154:MET:HG2 | 1:A:158:LEU:HD22 | 7 | 0.2 |
| (2,1221) | 1:A:154:MET:HG2 | 1:A:158:LEU:HD21 | 7 | 0.2 |
| (2,1221) | 1:A:154:MET:HG2 | 1:A:158:LEU:HD23 | 7 | 0.2 |
| (2,1221) | 1:A:154:MET:HG3 | 1:A:158:LEU:HD22 | 7 | 0.2 |
| (2,1221) | 1:A:154:MET:HG3 | 1:A:158:LEU:HD21 | 7 | 0.2 |
| (2,1221) | 1:A:154:MET:HG3 | 1:A:158:LEU:HD23 | 7 | 0.2 |
| (2,1211) | 1:A:18:ASN:HB3 | 1:A:19:GLU:HB2 | 8 | 0.2 |
| (2,1211) | 1:A:18:ASN:HB3 | 1:A:21:LYS:HB2 | 8 | 0.2 |
| (2,1207) | 1:A:6:LYS:HE2 | 1:A:3:ASP:HA | 3 | 0.2 |
| (2,1207) | 1:A:6:LYS:HE3 | 1:A:3:ASP:HA | 3 | 0.2 |
| (2,1207) | 1:A:43:LYS:HE2 | 1:A:31:ALA:HA | 3 | 0.2 |
| (2,1207) | 1:A:43:LYS:HE3 | 1:A:31:ALA:HA | 3 | 0.2 |
| (2,1207) | 1:A:139:LYS:HE2 | 1:A:141:PRO:HA | 3 | 0.2 |
| (2,110) | 1:A:66:GLU:HA | 1:A:66:GLU:HB3 | 1 | 0.2 |
| (2,110) | 1:A:66:GLU:HA | 1:A:66:GLU:HB3 | 5 | 0.2 |
| (2,110) | 1:A:66:GLU:HA | 1:A:66:GLU:HB3 | 7 | 0.2 |
| (2,110) | 1:A:66:GLU:HA | 1:A:66:GLU:HB3 | 8 | 0.2 |
| (2,1091) | 1:A:40:GLU:HA | 1:A:36:ILE:HG22 | 7 | 0.2 |
| (2,1091) | 1:A:40:GLU:HA | 1:A:36:ILE:HG21 | 7 | 0.2 |
| (2,1091) | 1:A:40:GLU:HA | 1:A:36:ILE:HG23 | 7 | 0.2 |
| (2,1059) | 1:A:12:LEU:HG | 1:A:9:VAL:HA | 7 | 0.2 |
| (2,1053) | 1:A:18:ASN:HA | 1:A:21:LYS:HD3 | 5 | 0.2 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD22 | 1 | 0.2 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD21 | 1 | 0.2 |
| (2,1035) | 1:A:57:LEU:HB2 | 1:A:57:LEU:HD23 | 1 | 0.2 |
| (2,996) | 1:A:11:GLN:HB3 | 1:A:8:ALA:HA | 6 | 0.19 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB2 | 7 | 0.19 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB1 | 7 | 0.19 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB3 | 7 | 0.19 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD12 | 8 | 0.19 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD11 | 8 | 0.19 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD13 | 8 | 0.19 |
| (2,914) | 1:A:78:LEU:HD12 | 1:A:17:LYS:HG3 | 2 | 0.19 |
| (2,914) | 1:A:78:LEU:HD11 | 1:A:17:LYS:HG3 | 2 | 0.19 |
| (2,914) | 1:A:78:LEU:HD13 | 1:A:17:LYS:HG3 | 2 | 0.19 |
| (2,908) | 1:A:78:LEU:HD12 | 1:A:74:PHE:HD1 | 3 | 0.19 |
| (2,908) | 1:A:78:LEU:HD11 | 1:A:74:PHE:HD1 | 3 | 0.19 |
| (2,908) | 1:A:78:LEU:HD13 | 1:A:74:PHE:HD1 | 3 | 0.19 |
| (2,875) | 1:A:79:VAL:HG12 | 1:A:64:VAL:HB | 8 | 0.19 |
| (2,875) | 1:A:79:VAL:HG11 | 1:A:64:VAL:HB | 8 | 0.19 |
| (2,875) | 1:A:79:VAL:HG13 | 1:A:64:VAL:HB | 8 | 0.19 |
| (2,875) | 1:A:79:VAL:HG12 | 1:A:64:VAL:HB | 10 | 0.19 |
| (2,875) | 1:A:79:VAL:HG11 | 1:A:64:VAL:HB | 10 | 0.19 |
| (2,875) | 1:A:79:VAL:HG13 | 1:A:64:VAL:HB | 10 | 0.19 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG12 | 3 | 0.19 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG11 | 3 | 0.19 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG13 | 3 | 0.19 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG12 | 6 | 0.19 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG11 | 6 | 0.19 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG13 | 6 | 0.19 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD12 | 3 | 0.19 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD11 | 3 | 0.19 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD13 | 3 | 0.19 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD22 | 1 | 0.19 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD21 | 1 | 0.19 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD23 | 1 | 0.19 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD22 | 1 | 0.19 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD21 | 1 | 0.19 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD23 | 1 | 0.19 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD22 | 1 | 0.19 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD21 | 1 | 0.19 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD23 | 1 | 0.19 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG21 | 6 | 0.19 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG22 | 6 | 0.19 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG23 | 6 | 0.19 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG21 | 6 | 0.19 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG22 | 6 | 0.19 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG23 | 6 | 0.19 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG21 | 7 | 0.19 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG22 | 7 | 0.19 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG23 | 7 | 0.19 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG21 | 7 | 0.19 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG22 | 7 | 0.19 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG23 | 7 | 0.19 |
| (2,640) | 1:A:6:LYS:HD2 | 1:A:6:LYS:HA | 2 | 0.19 |
| (2,618) | 1:A:45:MET:HE2 | 1:A:148:ILE:HA | 1 | 0.19 |
| (2,618) | 1:A:45:MET:HE1 | 1:A:148:ILE:HA | 1 | 0.19 |
| (2,618) | 1:A:45:MET:HE3 | 1:A:148:ILE:HA | 1 | 0.19 |
| (2,603) | 1:A:44:VAL:HB | 1:A:27:PHE:HD1 | 6 | 0.19 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD22 | 5 | 0.19 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD21 | 5 | 0.19 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD23 | 5 | 0.19 |
| (2,582) | 1:A:45:MET:HA | 1:A:48:LEU:HG | 8 | 0.19 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD22 | 6 | 0.19 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD21 | 6 | 0.19 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD23 | 6 | 0.19 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD22 | 6 | 0.19 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD21 | 6 | 0.19 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD23 | 6 | 0.19 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD22 | 6 | 0.19 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD21 | 6 | 0.19 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD23 | 6 | 0.19 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD22 | 10 | 0.19 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD21 | 10 | 0.19 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD23 | 10 | 0.19 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD22 | 10 | 0.19 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD21 | 10 | 0.19 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD23 | 10 | 0.19 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD22 | 10 | 0.19 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD21 | 10 | 0.19 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD23 | 10 | 0.19 |
| (2,497) | 1:A:79:VAL:HA | 1:A:79:VAL:HB | 6 | 0.19 |
| (2,497) | 1:A:79:VAL:HA | 1:A:79:VAL:HB | 9 | 0.19 |
| (2,466) | 1:A:72:VAL:HB | 1:A:61:ILE:HG22 | 2 | 0.19 |
| (2,466) | 1:A:72:VAL:HB | 1:A:61:ILE:HG21 | 2 | 0.19 |
| (2,466) | 1:A:72:VAL:HB | 1:A:61:ILE:HG23 | 2 | 0.19 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,45) | 1:A:65:ASP:HA | 1:A:61:ILE:HG22 | 1 | 0.19 |
| (2,45) | 1:A:65:ASP:HA | 1:A:61:ILE:HG21 | 1 | 0.19 |
| (2,45) | 1:A:65:ASP:HA | 1:A:61:ILE:HG23 | 1 | 0.19 |
| (2,45) | 1:A:65:ASP:HA | 1:A:61:ILE:HG22 | 7 | 0.19 |
| (2,45) | 1:A:65:ASP:HA | 1:A:61:ILE:HG21 | 7 | 0.19 |
| (2,45) | 1:A:65:ASP:HA | 1:A:61:ILE:HG23 | 7 | 0.19 |
| (2,442) | 1:A:15:GLU:HG2 | 1:A:18:ASN:HB2 | 5 | 0.19 |
| (2,442) | 1:A:15:GLU:HG3 | 1:A:18:ASN:HB2 | 5 | 0.19 |
| (2,434) | 1:A:19:GLU:HG3 | 1:A:158:LEU:HD12 | 4 | 0.19 |
| (2,434) | 1:A:19:GLU:HG3 | 1:A:158:LEU:HD11 | 4 | 0.19 |
| (2,434) | 1:A:19:GLU:HG3 | 1:A:158:LEU:HD13 | 4 | 0.19 |
| (2,415) | 1:A:155:GLN:HG2 | 1:A:155:GLN:HB2 | 1 | 0.19 |
| (2,415) | 1:A:155:GLN:HG2 | 1:A:155:GLN:HB3 | 1 | 0.19 |
| (2,415) | 1:A:155:GLN:HG2 | 1:A:155:GLN:HB2 | 8 | 0.19 |
| (2,415) | 1:A:155:GLN:HG2 | 1:A:155:GLN:HB3 | 8 | 0.19 |
| (2,415) | 1:A:155:GLN:HG2 | 1:A:155:GLN:HB2 | 9 | 0.19 |
| (2,415) | 1:A:155:GLN:HG2 | 1:A:155:GLN:HB3 | 9 | 0.19 |
| (2,415) | 1:A:155:GLN:HG2 | 1:A:155:GLN:HB2 | 10 | 0.19 |
| (2,415) | 1:A:155:GLN:HG2 | 1:A:155:GLN:HB3 | 10 | 0.19 |
| (2,304) | 1:A:20:PHE:HB2 | 1:A:74:PHE:HE1 | 9 | 0.19 |
| (2,304) | 1:A:20:PHE:HB3 | 1:A:74:PHE:HE1 | 9 | 0.19 |
| (2,303) | 1:A:24:PHE:HA | 1:A:74:PHE:HD1 | 10 | 0.19 |
| (2,245) | 1:A:36:ILE:HA | 1:A:40:GLU:HG2 | 1 | 0.19 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG22 | 3 | 0.19 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG21 | 3 | 0.19 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG23 | 3 | 0.19 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG22 | 4 | 0.19 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG21 | 4 | 0.19 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG23 | 4 | 0.19 |
| (2,201) | 1:A:43:LYS:HA | 1:A:43:LYS:HB2 | 7 | 0.19 |
| (2,201) | 1:A:43:LYS:HA | 1:A:43:LYS:HB3 | 7 | 0.19 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG22 | 7 | 0.19 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG21 | 7 | 0.19 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HG23 | 7 | 0.19 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD12 | 7 | 0.19 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD11 | 7 | 0.19 |
| (2,1432) | 1:A:62:ASP:HB3 | 1:A:61:ILE:HD13 | 7 | 0.19 |
| (2,143) | 1:A:40:GLU:HA | 1:A:43:LYS:HB2 | 2 | 0.19 |
| (2,143) | 1:A:40:GLU:HA | 1:A:43:LYS:HB3 | 2 | 0.19 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:6:LYS:HA | 7 | 0.19 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:76:GLU:HA | 7 | 0.19 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:81:MET:HA | 7 | 0.19 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1346) | 1:A:45:MET:HA | 1:A:48:LEU:HD12 | 9 | 0.19 |
| (2,1346) | 1:A:45:MET:HA | 1:A:48:LEU:HD11 | 9 | 0.19 |
| (2,1346) | 1:A:45:MET:HA | 1:A:48:LEU:HD13 | 9 | 0.19 |
| (2,1346) | 1:A:54:PRO:HA | 1:A:57:LEU:HD12 | 9 | 0.19 |
| (2,1346) | 1:A:54:PRO:HA | 1:A:57:LEU:HD11 | 9 | 0.19 |
| (2,1346) | 1:A:54:PRO:HA | 1:A:57:LEU:HD13 | 9 | 0.19 |
| (2,1301) | 1:A:150:ALA:HB2 | 1:A:85:MET:HG2 | 10 | 0.19 |
| (2,1301) | 1:A:150:ALA:HB1 | 1:A:85:MET:HG2 | 10 | 0.19 |
| (2,1301) | 1:A:150:ALA:HB3 | 1:A:85:MET:HG2 | 10 | 0.19 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB2 | 10 | 0.19 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB1 | 10 | 0.19 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB3 | 10 | 0.19 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB2 | 10 | 0.19 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB1 | 10 | 0.19 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB3 | 10 | 0.19 |
| (2,1266) | 1:A:47:MET:HE2 | 1:A:48:LEU:HA | 4 | 0.19 |
| (2,1266) | 1:A:47:MET:HE1 | 1:A:48:LEU:HA | 4 | 0.19 |
| (2,1266) | 1:A:47:MET:HE3 | 1:A:48:LEU:HA | 4 | 0.19 |
| (2,1266) | 1:A:154:MET:HA | 1:A:47:MET:HE2 | 4 | 0.19 |
| (2,1266) | 1:A:154:MET:HA | 1:A:47:MET:HE1 | 4 | 0.19 |
| (2,1266) | 1:A:154:MET:HA | 1:A:47:MET:HE3 | 4 | 0.19 |
| (2,1266) | 1:A:47:MET:HE2 | 1:A:48:LEU:HA | 7 | 0.19 |
| (2,1266) | 1:A:47:MET:HE1 | 1:A:48:LEU:HA | 7 | 0.19 |
| (2,1266) | 1:A:47:MET:HE3 | 1:A:48:LEU:HA | 7 | 0.19 |
| (2,1266) | 1:A:154:MET:HA | 1:A:47:MET:HE2 | 7 | 0.19 |
| (2,1266) | 1:A:154:MET:HA | 1:A:47:MET:HE1 | 7 | 0.19 |
| (2,1266) | 1:A:154:MET:HA | 1:A:47:MET:HE3 | 7 | 0.19 |
| (2,1262) | 1:A:11:GLN:HB3 | 1:A:7:ALA:HB2 | 7 | 0.19 |
| (2,1262) | 1:A:11:GLN:HB3 | 1:A:7:ALA:HB1 | 7 | 0.19 |
| (2,1262) | 1:A:11:GLN:HB3 | 1:A:7:ALA:HB3 | 7 | 0.19 |
| (2,1262) | 1:A:14:GLU:HB2 | 1:A:13:THR:HG21 | 7 | 0.19 |
| (2,1262) | 1:A:14:GLU:HB2 | 1:A:13:THR:HG22 | 7 | 0.19 |
| (2,1262) | 1:A:14:GLU:HB2 | 1:A:13:THR:HG23 | 7 | 0.19 |
| (2,1262) | 1:A:14:GLU:HB3 | 1:A:13:THR:HG21 | 7 | 0.19 |
| (2,1262) | 1:A:14:GLU:HB3 | 1:A:13:THR:HG22 | 7 | 0.19 |
| (2,1262) | 1:A:14:GLU:HB3 | 1:A:13:THR:HG23 | 7 | 0.19 |
| (2,1262) | 1:A:19:GLU:HB2 | 1:A:13:THR:HG21 | 7 | 0.19 |
| (2,1262) | 1:A:19:GLU:HB2 | 1:A:13:THR:HG22 | 7 | 0.19 |
| (2,1262) | 1:A:19:GLU:HB2 | 1:A:13:THR:HG23 | 7 | 0.19 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD22 | 4 | 0.19 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD21 | 4 | 0.19 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD23 | 4 | 0.19 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD22 | 4 | 0.19 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD21 | 4 | 0.19 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD23 | 4 | 0.19 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD12 | 4 | 0.19 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD11 | 4 | 0.19 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD13 | 4 | 0.19 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD12 | 4 | 0.19 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD11 | 4 | 0.19 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD13 | 4 | 0.19 |
| (2,1204) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HG2 | 1 | 0.19 |
| (2,1204) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HG3 | 1 | 0.19 |
| (2,1204) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HG2 | 1 | 0.19 |
| (2,1204) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HG3 | 1 | 0.19 |
| (2,1204) | 1:A:161:ARG:HD2 | 1:A:161:ARG:HG2 | 1 | 0.19 |
| (2,1204) | 1:A:161:ARG:HD3 | 1:A:161:ARG:HG2 | 1 | 0.19 |
| (2,1176) | 1:A:84:SER:HB2 | 1:A:147:ARG:HB2 | 10 | 0.19 |
| (2,1176) | 1:A:84:SER:HB3 | 1:A:147:ARG:HB2 | 10 | 0.19 |
| (2,1176) | 1:A:84:SER:HB2 | 1:A:148:ILE:HB | 10 | 0.19 |
| (2,1176) | 1:A:84:SER:HB3 | 1:A:148:ILE:HB | 10 | 0.19 |
| (2,1159) | 1:A:69:SER:HB2 | 1:A:68:GLY:HA2 | 1 | 0.19 |
| (2,1159) | 1:A:69:SER:HB2 | 1:A:71:THR:HB | 1 | 0.19 |
| (2,1159) | 1:A:69:SER:HB2 | 1:A:68:GLY:HA2 | 2 | 0.19 |
| (2,1159) | 1:A:69:SER:HB2 | 1:A:71:THR:HB | 2 | 0.19 |
| (2,110) | 1:A:66:GLU:HA | 1:A:66:GLU:HB3 | 2 | 0.19 |
| (2,110) | 1:A:66:GLU:HA | 1:A:66:GLU:HB3 | 4 | 0.19 |
| (2,1053) | 1:A:18:ASN:HA | 1:A:21:LYS:HD3 | 4 | 0.19 |
| (2,996) | 1:A:11:GLN:HB3 | 1:A:8:ALA:HA | 9 | 0.18 |
| (2,991) | 1:A:60:MET:HG2 | 1:A:45:MET:HE2 | 10 | 0.18 |
| (2,991) | 1:A:60:MET:HG2 | 1:A:45:MET:HE1 | 10 | 0.18 |
| (2,991) | 1:A:60:MET:HG2 | 1:A:45:MET:HE3 | 10 | 0.18 |
| (2,991) | 1:A:60:MET:HG3 | 1:A:45:MET:HE2 | 10 | 0.18 |
| (2,991) | 1:A:60:MET:HG3 | 1:A:45:MET:HE1 | 10 | 0.18 |
| (2,991) | 1:A:60:MET:HG3 | 1:A:45:MET:HE3 | 10 | 0.18 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD12 | 7 | 0.18 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD11 | 7 | 0.18 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD13 | 7 | 0.18 |
| (2,914) | 1:A:78:LEU:HD12 | 1:A:17:LYS:HG3 | 6 | 0.18 |
| (2,914) | 1:A:78:LEU:HD11 | 1:A:17:LYS:HG3 | 6 | 0.18 |
| (2,914) | 1:A:78:LEU:HD13 | 1:A:17:LYS:HG3 | 6 | 0.18 |
| (2,908) | 1:A:78:LEU:HD12 | 1:A:74:PHE:HD1 | 2 | 0.18 |
| (2,908) | 1:A:78:LEU:HD11 | 1:A:74:PHE:HD1 | 2 | 0.18 |
| (2,908) | 1:A:78:LEU:HD13 | 1:A:74:PHE:HD1 | 2 | 0.18 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (2,879) | 1:A:78:LEU:HD22 | 1:A:77:PHE:HD1 | 3 | 0.18 |
| (2,879) | 1:A:78:LEU:HD21 | 1:A:77:PHE:HD1 | 3 | 0.18 |
| (2,879) | 1:A:78:LEU:HD23 | 1:A:77:PHE:HD1 | 3 | 0.18 |
| (2,875) | 1:A:79:VAL:HG12 | 1:A:64:VAL:HB | 4 | 0.18 |
| (2,875) | 1:A:79:VAL:HG11 | 1:A:64:VAL:HB | 4 | 0.18 |
| (2,875) | 1:A:79:VAL:HG13 | 1:A:64:VAL:HB | 4 | 0.18 |
| (2,865) | 1:A:61:ILE:HA | 1:A:61:ILE:HD12 | 6 | 0.18 |
| (2,865) | 1:A:61:ILE:HA | 1:A:61:ILE:HD11 | 6 | 0.18 |
| (2,865) | 1:A:61:ILE:HA | 1:A:61:ILE:HD13 | 6 | 0.18 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG12 | 2 | 0.18 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG11 | 2 | 0.18 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG13 | 2 | 0.18 |
| (2,816) | 1:A:153:MET:HG3 | 1:A:48:LEU:HD12 | 5 | 0.18 |
| (2,816) | 1:A:153:MET:HG3 | 1:A:48:LEU:HD11 | 5 | 0.18 |
| (2,816) | 1:A:153:MET:HG3 | 1:A:48:LEU:HD13 | 5 | 0.18 |
| (2,81) | 1:A:85:MET:HA | 1:A:85:MET:HB3 | 4 | 0.18 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD12 | 4 | 0.18 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD11 | 4 | 0.18 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD13 | 4 | 0.18 |
| (2,807) | 1:A:45:MET:HG2 | 1:A:57:LEU:HD12 | 3 | 0.18 |
| (2,807) | 1:A:45:MET:HG2 | 1:A:57:LEU:HD11 | 3 | 0.18 |
| (2,807) | 1:A:45:MET:HG2 | 1:A:57:LEU:HD13 | 3 | 0.18 |
| (2,807) | 1:A:45:MET:HG3 | 1:A:57:LEU:HD12 | 3 | 0.18 |
| (2,807) | 1:A:45:MET:HG3 | 1:A:57:LEU:HD11 | 3 | 0.18 |
| (2,807) | 1:A:45:MET:HG3 | 1:A:57:LEU:HD13 | 3 | 0.18 |
| (2,797) | 1:A:146:VAL:HA | 1:A:146:VAL:HG22 | 1 | 0.18 |
| (2,797) | 1:A:146:VAL:HA | 1:A:146:VAL:HG21 | 1 | 0.18 |
| (2,797) | 1:A:146:VAL:HA | 1:A:146:VAL:HG23 | 1 | 0.18 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD12 | 1 | 0.18 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD11 | 1 | 0.18 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD13 | 1 | 0.18 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD12 | 3 | 0.18 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD11 | 3 | 0.18 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD13 | 3 | 0.18 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD12 | 8 | 0.18 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD11 | 8 | 0.18 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD13 | 8 | 0.18 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG21 | 5 | 0.18 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG22 | 5 | 0.18 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG23 | 5 | 0.18 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG21 | 5 | 0.18 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG22 | 5 | 0.18 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG23 | 5 | 0.18 |
| (2,69) | 1:A:13:THR:HA | 1:A:14:GLU:HB2 | 2 | 0.18 |
| (2,69) | 1:A:13:THR:HA | 1:A:14:GLU:HB3 | 2 | 0.18 |
| (2,625) | 1:A:45:MET:HE2 | 1:A:50:GLN:HG2 | 10 | 0.18 |
| (2,625) | 1:A:45:MET:HE2 | 1:A:50:GLN:HG3 | 10 | 0.18 |
| (2,625) | 1:A:45:MET:HE1 | 1:A:50:GLN:HG2 | 10 | 0.18 |
| (2,625) | 1:A:45:MET:HE1 | 1:A:50:GLN:HG3 | 10 | 0.18 |
| (2,625) | 1:A:45:MET:HE3 | 1:A:50:GLN:HG2 | 10 | 0.18 |
| (2,625) | 1:A:45:MET:HE3 | 1:A:50:GLN:HG3 | 10 | 0.18 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD22 | 8 | 0.18 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD21 | 8 | 0.18 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD23 | 8 | 0.18 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD22 | 8 | 0.18 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD21 | 8 | 0.18 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD23 | 8 | 0.18 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD22 | 8 | 0.18 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD21 | 8 | 0.18 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD23 | 8 | 0.18 |
| (2,521) | 1:A:14:GLU:HB2 | 1:A:14:GLU:HA | 8 | 0.18 |
| (2,521) | 1:A:14:GLU:HB3 | 1:A:14:GLU:HA | 8 | 0.18 |
| (2,502) | 1:A:85:MET:HG2 | 1:A:85:MET:HE2 | 8 | 0.18 |
| (2,502) | 1:A:85:MET:HG2 | 1:A:85:MET:HE1 | 8 | 0.18 |
| (2,502) | 1:A:85:MET:HG2 | 1:A:85:MET:HE3 | 8 | 0.18 |
| (2,502) | 1:A:85:MET:HG2 | 1:A:85:MET:HE2 | 9 | 0.18 |
| (2,502) | 1:A:85:MET:HG2 | 1:A:85:MET:HE1 | 9 | 0.18 |
| (2,502) | 1:A:85:MET:HG2 | 1:A:85:MET:HE3 | 9 | 0.18 |
| (2,497) | 1:A:79:VAL:HA | 1:A:79:VAL:HB | 1 | 0.18 |
| (2,497) | 1:A:79:VAL:HA | 1:A:79:VAL:HB | 2 | 0.18 |
| (2,497) | 1:A:79:VAL:HA | 1:A:79:VAL:HB | 3 | 0.18 |
| (2,497) | 1:A:79:VAL:HA | 1:A:79:VAL:HB | 4 | 0.18 |
| (2,497) | 1:A:79:VAL:HA | 1:A:79:VAL:HB | 5 | 0.18 |
| (2,497) | 1:A:79:VAL:HA | 1:A:79:VAL:HB | 8 | 0.18 |
| (2,497) | 1:A:79:VAL:HA | 1:A:79:VAL:HB | 10 | 0.18 |
| (2,463) | 1:A:64:VAL:HB | 1:A:72:VAL:HB | 9 | 0.18 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB2 | 2 | 0.18 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB1 | 2 | 0.18 |
| (2,417) | 1:A:155:GLN:HG3 | 1:A:152:ALA:HB3 | 2 | 0.18 |
| (2,415) | 1:A:155:GLN:HG2 | 1:A:155:GLN:HB2 | 3 | 0.18 |
| (2,415) | 1:A:155:GLN:HG2 | 1:A:155:GLN:HB3 | 3 | 0.18 |
| (2,399) | 1:A:47:MET:HA | 1:A:47:MET:HG3 | 7 | 0.18 |
| (2,381) | 1:A:2:ASP:HB2 | 1:A:5:TYR:HE1 | 5 | 0.18 |
| (2,358) | 1:A:62:ASP:HB2 | 1:A:61:ILE:HB | 5 | 0.18 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,303) | 1:A:24:PHE:HA | 1:A:74:PHE:HD1 | 1 | 0.18 |
| (2,303) | 1:A:24:PHE:HA | 1:A:74:PHE:HD1 | 2 | 0.18 |
| (2,303) | 1:A:24:PHE:HA | 1:A:74:PHE:HD1 | 9 | 0.18 |
| (2,280) | 1:A:9:VAL:HA | 1:A:8:ALA:HB2 | 6 | 0.18 |
| (2,280) | 1:A:9:VAL:HA | 1:A:8:ALA:HB1 | 6 | 0.18 |
| (2,280) | 1:A:9:VAL:HA | 1:A:8:ALA:HB3 | 6 | 0.18 |
| (2,242) | 1:A:83:ARG:HA | 1:A:83:ARG:HG3 | 2 | 0.18 |
| (2,237) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HB2 | 2 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG22 | 1 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG21 | 1 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG23 | 1 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG22 | 2 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG21 | 2 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG23 | 2 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG22 | 5 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG21 | 5 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG23 | 5 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG22 | 6 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG21 | 6 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG23 | 6 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG22 | 7 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG21 | 7 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG23 | 7 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG22 | 8 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG21 | 8 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG23 | 8 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG22 | 9 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG21 | 9 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG23 | 9 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG22 | 10 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG21 | 10 | 0.18 |
| (2,218) | 1:A:4:ILE:HA | 1:A:4:ILE:HG23 | 10 | 0.18 |
| (2,201) | 1:A:43:LYS:HA | 1:A:43:LYS:HB2 | 9 | 0.18 |
| (2,201) | 1:A:43:LYS:HA | 1:A:43:LYS:HB3 | 9 | 0.18 |
| (2,1430) | 1:A:27:PHE:HA | 1:A:41:LEU:HD12 | 2 | 0.18 |
| (2,1430) | 1:A:27:PHE:HA | 1:A:41:LEU:HD11 | 2 | 0.18 |
| (2,1430) | 1:A:27:PHE:HA | 1:A:41:LEU:HD13 | 2 | 0.18 |
| (2,1430) | 1:A:27:PHE:HA | 1:A:61:ILE:HD12 | 2 | 0.18 |
| (2,1430) | 1:A:27:PHE:HA | 1:A:61:ILE:HD11 | 2 | 0.18 |
| (2,1430) | 1:A:27:PHE:HA | 1:A:61:ILE:HD13 | 2 | 0.18 |
| (2,1430) | 1:A:157:LEU:HD22 | 1:A:27:PHE:HA | 2 | 0.18 |
| (2,1430) | 1:A:157:LEU:HD21 | 1:A:27:PHE:HA | 2 | 0.18 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,1430) | 1:A:157:LEU:HD23 | 1:A:27:PHE:HA | 2 | 0.18 |
| (2,1430) | 1:A:57:LEU:HD22 | 1:A:55:GLU:HA | 2 | 0.18 |
| (2,1430) | 1:A:57:LEU:HD21 | 1:A:55:GLU:HA | 2 | 0.18 |
| (2,1430) | 1:A:57:LEU:HD23 | 1:A:55:GLU:HA | 2 | 0.18 |
| (2,1422) | 1:A:10:GLU:HG2 | 1:A:8:ALA:HB2 | 9 | 0.18 |
| (2,1422) | 1:A:10:GLU:HG2 | 1:A:8:ALA:HB1 | 9 | 0.18 |
| (2,1422) | 1:A:10:GLU:HG2 | 1:A:8:ALA:HB3 | 9 | 0.18 |
| (2,1422) | 1:A:63:GLU:HG2 | 1:A:80:MET:HE2 | 9 | 0.18 |
| (2,1422) | 1:A:63:GLU:HG2 | 1:A:80:MET:HE1 | 9 | 0.18 |
| (2,1422) | 1:A:63:GLU:HG2 | 1:A:80:MET:HE3 | 9 | 0.18 |
| (2,1422) | 1:A:76:GLU:HG3 | 1:A:80:MET:HE2 | 9 | 0.18 |
| (2,1422) | 1:A:76:GLU:HG3 | 1:A:80:MET:HE1 | 9 | 0.18 |
| (2,1422) | 1:A:76:GLU:HG3 | 1:A:80:MET:HE3 | 9 | 0.18 |
| (2,1404) | 1:A:153:MET:HE2 | 1:A:20:PHE:HB2 | 10 | 0.18 |
| (2,1404) | 1:A:153:MET:HE2 | 1:A:20:PHE:HB3 | 10 | 0.18 |
| (2,1404) | 1:A:153:MET:HE1 | 1:A:20:PHE:HB2 | 10 | 0.18 |
| (2,1404) | 1:A:153:MET:HE1 | 1:A:20:PHE:HB3 | 10 | 0.18 |
| (2,1404) | 1:A:153:MET:HE3 | 1:A:20:PHE:HB2 | 10 | 0.18 |
| (2,1404) | 1:A:153:MET:HE3 | 1:A:20:PHE:HB3 | 10 | 0.18 |
| (2,1404) | 1:A:153:MET:HE2 | 1:A:24:PHE:HA | 10 | 0.18 |
| (2,1404) | 1:A:153:MET:HE1 | 1:A:24:PHE:HA | 10 | 0.18 |
| (2,1404) | 1:A:153:MET:HE3 | 1:A:24:PHE:HA | 10 | 0.18 |
| (2,1400) | 1:A:47:MET:HE2 | 1:A:27:PHE:HA | 7 | 0.18 |
| (2,1400) | 1:A:47:MET:HE1 | 1:A:27:PHE:HA | 7 | 0.18 |
| (2,1400) | 1:A:47:MET:HE3 | 1:A:27:PHE:HA | 7 | 0.18 |
| (2,1400) | 1:A:43:LYS:HA | 1:A:47:MET:HE2 | 7 | 0.18 |
| (2,1400) | 1:A:43:LYS:HA | 1:A:47:MET:HE1 | 7 | 0.18 |
| (2,1400) | 1:A:43:LYS:HA | 1:A:47:MET:HE3 | 7 | 0.18 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG22 | 9 | 0.18 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG21 | 9 | 0.18 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG23 | 9 | 0.18 |
| (2,1389) | 1:A:61:ILE:HG22 | 1:A:60:MET:HA | 9 | 0.18 |
| (2,1389) | 1:A:61:ILE:HG21 | 1:A:60:MET:HA | 9 | 0.18 |
| (2,1389) | 1:A:61:ILE:HG23 | 1:A:60:MET:HA | 9 | 0.18 |
| (2,1389) | 1:A:61:ILE:HG22 | 1:A:69:SER:HB3 | 9 | 0.18 |
| (2,1389) | 1:A:61:ILE:HG21 | 1:A:69:SER:HB3 | 9 | 0.18 |
| (2,1389) | 1:A:61:ILE:HG23 | 1:A:69:SER:HB3 | 9 | 0.18 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD12 | 3 | 0.18 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD11 | 3 | 0.18 |
| (2,1347) | 1:A:38:THR:HG21 | 1:A:57:LEU:HD13 | 3 | 0.18 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD12 | 3 | 0.18 |
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD11 | 3 | 0.18 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1347) | 1:A:38:THR:HG22 | 1:A:57:LEU:HD13 | 3 | 0.18 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD12 | 3 | 0.18 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD11 | 3 | 0.18 |
| (2,1347) | 1:A:38:THR:HG23 | 1:A:57:LEU:HD13 | 3 | 0.18 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD12 | 3 | 0.18 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD11 | 3 | 0.18 |
| (2,1347) | 1:A:41:LEU:HB2 | 1:A:57:LEU:HD13 | 3 | 0.18 |
| (2,1301) | 1:A:150:ALA:HB2 | 1:A:85:MET:HG2 | 6 | 0.18 |
| (2,1301) | 1:A:150:ALA:HB1 | 1:A:85:MET:HG2 | 6 | 0.18 |
| (2,1301) | 1:A:150:ALA:HB3 | 1:A:85:MET:HG2 | 6 | 0.18 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB2 | 6 | 0.18 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB1 | 6 | 0.18 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB3 | 6 | 0.18 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB2 | 6 | 0.18 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB1 | 6 | 0.18 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB3 | 6 | 0.18 |
| (2,1296) | 1:A:157:LEU:HB2 | 1:A:26:ILE:HG13 | 1 | 0.18 |
| (2,1296) | 1:A:158:LEU:HG | 1:A:158:LEU:HB3 | 1 | 0.18 |
| (2,1296) | 1:A:157:LEU:HB2 | 1:A:26:ILE:HG13 | 3 | 0.18 |
| (2,1296) | 1:A:158:LEU:HG | 1:A:158:LEU:HB3 | 3 | 0.18 |
| (2,1296) | 1:A:157:LEU:HB2 | 1:A:26:ILE:HG13 | 6 | 0.18 |
| (2,1296) | 1:A:158:LEU:HG | 1:A:158:LEU:HB3 | 6 | 0.18 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:8:ALA:HB2 | 2 | 0.18 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:8:ALA:HB1 | 2 | 0.18 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:8:ALA:HB3 | 2 | 0.18 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:8:ALA:HB2 | 2 | 0.18 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:8:ALA:HB1 | 2 | 0.18 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:8:ALA:HB3 | 2 | 0.18 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:8:ALA:HB2 | 2 | 0.18 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:8:ALA:HB1 | 2 | 0.18 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:8:ALA:HB3 | 2 | 0.18 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:150:ALA:HB2 | 2 | 0.18 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:150:ALA:HB1 | 2 | 0.18 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:150:ALA:HB3 | 2 | 0.18 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:150:ALA:HB2 | 2 | 0.18 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:150:ALA:HB1 | 2 | 0.18 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:150:ALA:HB3 | 2 | 0.18 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:150:ALA:HB2 | 2 | 0.18 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:150:ALA:HB1 | 2 | 0.18 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:150:ALA:HB3 | 2 | 0.18 |
| (2,1242) | 1:A:11:GLN:HB3 | 1:A:12:LEU:HD12 | 2 | 0.18 |
| (2,1242) | 1:A:11:GLN:HB3 | 1:A:12:LEU:HD11 | 2 | 0.18 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,1242) | 1:A:11:GLN:HB3 | 1:A:12:LEU:HD13 | 2 | 0.18 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:12:LEU:HD12 | 2 | 0.18 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:12:LEU:HD11 | 2 | 0.18 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:12:LEU:HD13 | 2 | 0.18 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:158:LEU:HD12 | 2 | 0.18 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:158:LEU:HD11 | 2 | 0.18 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:158:LEU:HD13 | 2 | 0.18 |
| (2,1234) | 1:A:63:GLU:HG2 | 1:A:64:VAL:HG22 | 4 | 0.18 |
| (2,1234) | 1:A:63:GLU:HG2 | 1:A:64:VAL:HG21 | 4 | 0.18 |
| (2,1234) | 1:A:63:GLU:HG2 | 1:A:64:VAL:HG23 | 4 | 0.18 |
| (2,1234) | 1:A:76:GLU:HG3 | 1:A:72:VAL:HG22 | 4 | 0.18 |
| (2,1234) | 1:A:76:GLU:HG3 | 1:A:72:VAL:HG21 | 4 | 0.18 |
| (2,1234) | 1:A:76:GLU:HG3 | 1:A:72:VAL:HG23 | 4 | 0.18 |
| (2,1234) | 1:A:10:GLU:HG2 | 1:A:9:VAL:HG12 | 4 | 0.18 |
| (2,1234) | 1:A:10:GLU:HG2 | 1:A:9:VAL:HG11 | 4 | 0.18 |
| (2,1234) | 1:A:10:GLU:HG2 | 1:A:9:VAL:HG13 | 4 | 0.18 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD12 | 5 | 0.18 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD11 | 5 | 0.18 |
| (2,1213) | 1:A:6:LYS:HE2 | 1:A:78:LEU:HD13 | 5 | 0.18 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD12 | 5 | 0.18 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD11 | 5 | 0.18 |
| (2,1213) | 1:A:6:LYS:HE3 | 1:A:78:LEU:HD13 | 5 | 0.18 |
| (2,1203) | 1:A:140:ARG:HD2 | 1:A:142:THR:HA | 4 | 0.18 |
| (2,1203) | 1:A:140:ARG:HD3 | 1:A:142:THR:HA | 4 | 0.18 |
| (2,1203) | 1:A:145:ARG:HA | 1:A:147:ARG:HD2 | 4 | 0.18 |
| (2,1203) | 1:A:145:ARG:HA | 1:A:147:ARG:HD3 | 4 | 0.18 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG22 | 7 | 0.18 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG21 | 7 | 0.18 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG23 | 7 | 0.18 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG12 | 7 | 0.18 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG11 | 7 | 0.18 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG13 | 7 | 0.18 |
| (2,1119) | 1:A:47:MET:HA | 1:A:44:VAL:HA | 6 | 0.18 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:15:GLU:HB2 | 1 | 0.18 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:15:GLU:HB3 | 1 | 0.18 |
| (2,1186) | 1:A:16:GLN:HA | 1:A:19:GLU:HB3 | 1 | 0.18 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB2 | 6 | 0.18 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB1 | 6 | 0.18 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB3 | 6 | 0.18 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB2 | 6 | 0.18 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB1 | 6 | 0.18 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB3 | 6 | 0.18 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1176) | 1:A:84:SER:HB2 | 1:A:147:ARG:HB2 | 5 | 0.18 |
| (2,1176) | 1:A:84:SER:HB3 | 1:A:147:ARG:HB2 | 5 | 0.18 |
| (2,1176) | 1:A:84:SER:HB2 | 1:A:148:ILE:HB | 5 | 0.18 |
| (2,1176) | 1:A:84:SER:HB3 | 1:A:148:ILE:HB | 5 | 0.18 |
| (2,1160) | 1:A:38:THR:HB | 1:A:41:LEU:HB3 | 4 | 0.18 |
| (2,1160) | 1:A:38:THR:HB | 1:A:57:LEU:HG | 4 | 0.18 |
| (2,1160) | 1:A:38:THR:HB | 1:A:41:LEU:HB3 | 6 | 0.18 |
| (2,1160) | 1:A:38:THR:HB | 1:A:57:LEU:HG | 6 | 0.18 |
| (2,112) | 1:A:41:LEU:HA | 1:A:41:LEU:HD22 | 1 | 0.18 |
| (2,112) | 1:A:41:LEU:HA | 1:A:41:LEU:HD21 | 1 | 0.18 |
| (2,112) | 1:A:41:LEU:HA | 1:A:41:LEU:HD23 | 1 | 0.18 |
| (2,110) | 1:A:66:GLU:HA | 1:A:66:GLU:HB3 | 3 | 0.18 |
| (2,1025) | 1:A:35:SER:HA | 1:A:73:ASP:HB2 | 3 | 0.18 |
| (2,1022) | 1:A:35:SER:HA | 1:A:31:ALA:HB2 | 10 | 0.18 |
| (2,1022) | 1:A:35:SER:HA | 1:A:31:ALA:HB1 | 10 | 0.18 |
| (2,1022) | 1:A:35:SER:HA | 1:A:31:ALA:HB3 | 10 | 0.18 |
| (2,991) | 1:A:60:MET:HG2 | 1:A:45:MET:HE2 | 4 | 0.17 |
| (2,991) | 1:A:60:MET:HG2 | 1:A:45:MET:HE1 | 4 | 0.17 |
| (2,991) | 1:A:60:MET:HG2 | 1:A:45:MET:HE3 | 4 | 0.17 |
| (2,991) | 1:A:60:MET:HG3 | 1:A:45:MET:HE2 | 4 | 0.17 |
| (2,991) | 1:A:60:MET:HG3 | 1:A:45:MET:HE1 | 4 | 0.17 |
| (2,991) | 1:A:60:MET:HG3 | 1:A:45:MET:HE3 | 4 | 0.17 |
| (2,979) | 1:A:44:VAL:HG12 | 1:A:27:PHE:HB3 | 7 | 0.17 |
| (2,979) | 1:A:44:VAL:HG11 | 1:A:27:PHE:HB3 | 7 | 0.17 |
| (2,979) | 1:A:44:VAL:HG13 | 1:A:27:PHE:HB3 | 7 | 0.17 |
| (2,906) | 1:A:78:LEU:HD12 | 1:A:20:PHE:HD1 | 5 | 0.17 |
| (2,906) | 1:A:78:LEU:HD11 | 1:A:20:PHE:HD1 | 5 | 0.17 |
| (2,906) | 1:A:78:LEU:HD13 | 1:A:20:PHE:HD1 | 5 | 0.17 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG22 | 3 | 0.17 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG21 | 3 | 0.17 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG23 | 3 | 0.17 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG22 | 6 | 0.17 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG21 | 6 | 0.17 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG23 | 6 | 0.17 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG22 | 8 | 0.17 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG21 | 8 | 0.17 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG23 | 8 | 0.17 |
| (2,875) | 1:A:79:VAL:HG12 | 1:A:64:VAL:HB | 1 | 0.17 |
| (2,875) | 1:A:79:VAL:HG11 | 1:A:64:VAL:HB | 1 | 0.17 |
| (2,875) | 1:A:79:VAL:HG13 | 1:A:64:VAL:HB | 1 | 0.17 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD12 | 1 | 0.17 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD11 | 1 | 0.17 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD13 | 1 | 0.17 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD12 | 9 | 0.17 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD11 | 9 | 0.17 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD13 | 9 | 0.17 |
| (2,865) | 1:A:61:ILE:HA | 1:A:61:ILE:HD12 | 5 | 0.17 |
| (2,865) | 1:A:61:ILE:HA | 1:A:61:ILE:HD11 | 5 | 0.17 |
| (2,865) | 1:A:61:ILE:HA | 1:A:61:ILE:HD13 | 5 | 0.17 |
| (2,848) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG22 | 7 | 0.17 |
| (2,848) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG21 | 7 | 0.17 |
| (2,848) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG23 | 7 | 0.17 |
| (2,848) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG22 | 7 | 0.17 |
| (2,848) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG21 | 7 | 0.17 |
| (2,848) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG23 | 7 | 0.17 |
| (2,848) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG22 | 7 | 0.17 |
| (2,848) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG21 | 7 | 0.17 |
| (2,848) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG23 | 7 | 0.17 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG12 | 5 | 0.17 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG11 | 5 | 0.17 |
| (2,841) | 1:A:79:VAL:HA | 1:A:64:VAL:HG13 | 5 | 0.17 |
| (2,816) | 1:A:153:MET:HG3 | 1:A:48:LEU:HD12 | 2 | 0.17 |
| (2,816) | 1:A:153:MET:HG3 | 1:A:48:LEU:HD11 | 2 | 0.17 |
| (2,816) | 1:A:153:MET:HG3 | 1:A:48:LEU:HD13 | 2 | 0.17 |
| (2,816) | 1:A:153:MET:HG3 | 1:A:48:LEU:HD12 | 6 | 0.17 |
| (2,816) | 1:A:153:MET:HG3 | 1:A:48:LEU:HD11 | 6 | 0.17 |
| (2,816) | 1:A:153:MET:HG3 | 1:A:48:LEU:HD13 | 6 | 0.17 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD12 | 7 | 0.17 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD11 | 7 | 0.17 |
| (2,809) | 1:A:48:LEU:HA | 1:A:48:LEU:HD13 | 7 | 0.17 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD12 | 9 | 0.17 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD11 | 9 | 0.17 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD13 | 9 | 0.17 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG21 | 1 | 0.17 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG22 | 1 | 0.17 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG23 | 1 | 0.17 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG21 | 1 | 0.17 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG22 | 1 | 0.17 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG23 | 1 | 0.17 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG21 | 9 | 0.17 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG22 | 9 | 0.17 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG23 | 9 | 0.17 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG21 | 9 | 0.17 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG22 | 9 | 0.17 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG23 | 9 | 0.17 |
| (2,697) | 1:A:7:ALA:HB2 | 1:A:4:ILE:HG12 | 1 | 0.17 |
| (2,697) | 1:A:7:ALA:HB2 | 1:A:4:ILE:HG13 | 1 | 0.17 |
| (2,697) | 1:A:7:ALA:HB1 | 1:A:4:ILE:HG12 | 1 | 0.17 |
| (2,697) | 1:A:7:ALA:HB1 | 1:A:4:ILE:HG13 | 1 | 0.17 |
| (2,697) | 1:A:7:ALA:HB3 | 1:A:4:ILE:HG12 | 1 | 0.17 |
| (2,697) | 1:A:7:ALA:HB3 | 1:A:4:ILE:HG13 | 1 | 0.17 |
| (2,69) | 1:A:13:THR:HA | 1:A:14:GLU:HB2 | 4 | 0.17 |
| (2,69) | 1:A:13:THR:HA | 1:A:14:GLU:HB3 | 4 | 0.17 |
| (2,69) | 1:A:13:THR:HA | 1:A:14:GLU:HB2 | 9 | 0.17 |
| (2,69) | 1:A:13:THR:HA | 1:A:14:GLU:HB3 | 9 | 0.17 |
| (2,639) | 1:A:3:ASP:HA | 1:A:6:LYS:HD2 | 2 | 0.17 |
| (2,615) | 1:A:43:LYS:HD2 | 1:A:44:VAL:HG12 | 8 | 0.17 |
| (2,615) | 1:A:43:LYS:HD2 | 1:A:44:VAL:HG11 | 8 | 0.17 |
| (2,615) | 1:A:43:LYS:HD2 | 1:A:44:VAL:HG13 | 8 | 0.17 |
| (2,615) | 1:A:43:LYS:HD3 | 1:A:44:VAL:HG12 | 8 | 0.17 |
| (2,615) | 1:A:43:LYS:HD3 | 1:A:44:VAL:HG11 | 8 | 0.17 |
| (2,615) | 1:A:43:LYS:HD3 | 1:A:44:VAL:HG13 | 8 | 0.17 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB2 | 9 | 0.17 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB1 | 9 | 0.17 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB3 | 9 | 0.17 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD22 | 3 | 0.17 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD21 | 3 | 0.17 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD23 | 3 | 0.17 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD22 | 3 | 0.17 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD21 | 3 | 0.17 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD23 | 3 | 0.17 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD22 | 3 | 0.17 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD21 | 3 | 0.17 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD23 | 3 | 0.17 |
| (2,521) | 1:A:14:GLU:HB2 | 1:A:14:GLU:HA | 2 | 0.17 |
| (2,521) | 1:A:14:GLU:HB3 | 1:A:14:GLU:HA | 2 | 0.17 |
| (2,521) | 1:A:14:GLU:HB2 | 1:A:14:GLU:HA | 9 | 0.17 |
| (2,521) | 1:A:14:GLU:HB3 | 1:A:14:GLU:HA | 9 | 0.17 |
| (2,497) | 1:A:79:VAL:HA | 1:A:79:VAL:HB | 7 | 0.17 |
| (2,494) | 1:A:10:GLU:HB2 | 1:A:9:VAL:HG12 | 2 | 0.17 |
| (2,494) | 1:A:10:GLU:HB2 | 1:A:9:VAL:HG11 | 2 | 0.17 |
| (2,494) | 1:A:10:GLU:HB2 | 1:A:9:VAL:HG13 | 2 | 0.17 |
| (2,494) | 1:A:10:GLU:HB3 | 1:A:9:VAL:HG12 | 2 | 0.17 |
| (2,494) | 1:A:10:GLU:HB3 | 1:A:9:VAL:HG11 | 2 | 0.17 |
| (2,494) | 1:A:10:GLU:HB3 | 1:A:9:VAL:HG13 | 2 | 0.17 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG12 | 10 | 0.17 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG11 | 10 | 0.17 |
| (2,467) | 1:A:63:GLU:HB2 | 1:A:64:VAL:HG13 | 10 | 0.17 |
| (2,466) | 1:A:72:VAL:HB | 1:A:61:ILE:HG22 | 10 | 0.17 |
| (2,466) | 1:A:72:VAL:HB | 1:A:61:ILE:HG21 | 10 | 0.17 |
| (2,466) | 1:A:72:VAL:HB | 1:A:61:ILE:HG23 | 10 | 0.17 |
| (2,42) | 1:A:2:ASP:HA | 1:A:2:ASP:HB3 | 7 | 0.17 |
| (2,415) | 1:A:155:GLN:HG2 | 1:A:155:GLN:HB2 | 6 | 0.17 |
| (2,415) | 1:A:155:GLN:HG2 | 1:A:155:GLN:HB3 | 6 | 0.17 |
| (2,407) | 1:A:52:PRO:HD3 | 1:A:51:ASN:HB3 | 3 | 0.17 |
| (2,407) | 1:A:52:PRO:HD3 | 1:A:51:ASN:HB3 | 10 | 0.17 |
| (2,358) | 1:A:62:ASP:HB2 | 1:A:61:ILE:HB | 6 | 0.17 |
| (2,324) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HD2 | 10 | 0.17 |
| (2,324) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HD3 | 10 | 0.17 |
| (2,280) | 1:A:9:VAL:HA | 1:A:8:ALA:HB2 | 10 | 0.17 |
| (2,280) | 1:A:9:VAL:HA | 1:A:8:ALA:HB1 | 10 | 0.17 |
| (2,280) | 1:A:9:VAL:HA | 1:A:8:ALA:HB3 | 10 | 0.17 |
| (2,278) | 1:A:71:THR:HB | 1:A:35:SER:HB3 | 5 | 0.17 |
| (2,278) | 1:A:71:THR:HB | 1:A:35:SER:HB3 | 8 | 0.17 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD22 | 6 | 0.17 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD21 | 6 | 0.17 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD23 | 6 | 0.17 |
| (2,271) | 1:A:44:VAL:HA | 1:A:47:MET:HB2 | 4 | 0.17 |
| (2,270) | 1:A:44:VAL:HA | 1:A:47:MET:HG3 | 4 | 0.17 |
| (2,270) | 1:A:44:VAL:HA | 1:A:47:MET:HG3 | 7 | 0.17 |
| (2,240) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HG2 | 5 | 0.17 |
| (2,240) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HG3 | 5 | 0.17 |
| (2,224) | 1:A:82:VAL:HA | 1:A:85:MET:HG2 | 8 | 0.17 |
| (2,201) | 1:A:43:LYS:HA | 1:A:43:LYS:HB2 | 8 | 0.17 |
| (2,201) | 1:A:43:LYS:HA | 1:A:43:LYS:HB3 | 8 | 0.17 |
| (2,148) | 1:A:10:GLU:HA | 1:A:10:GLU:HG2 | 9 | 0.17 |
| (2,145) | 1:A:40:GLU:HA | 1:A:31:ALA:HB2 | 2 | 0.17 |
| (2,145) | 1:A:40:GLU:HA | 1:A:31:ALA:HB1 | 2 | 0.17 |
| (2,145) | 1:A:40:GLU:HA | 1:A:31:ALA:HB3 | 2 | 0.17 |
| (2,145) | 1:A:40:GLU:HA | 1:A:31:ALA:HB2 | 4 | 0.17 |
| (2,145) | 1:A:40:GLU:HA | 1:A:31:ALA:HB1 | 4 | 0.17 |
| (2,145) | 1:A:40:GLU:HA | 1:A:31:ALA:HB3 | 4 | 0.17 |
| (2,145) | 1:A:40:GLU:HA | 1:A:31:ALA:HB2 | 9 | 0.17 |
| (2,145) | 1:A:40:GLU:HA | 1:A:31:ALA:HB1 | 9 | 0.17 |
| (2,145) | 1:A:40:GLU:HA | 1:A:31:ALA:HB3 | 9 | 0.17 |
| (2,1430) | 1:A:27:PHE:HA | 1:A:41:LEU:HD12 | 6 | 0.17 |
| (2,1430) | 1:A:27:PHE:HA | 1:A:41:LEU:HD11 | 6 | 0.17 |
| (2,1430) | 1:A:27:PHE:HA | 1:A:41:LEU:HD13 | 6 | 0.17 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,1430) | 1:A:27:PHE:HA | 1:A:61:ILE:HD12 | 6 | 0.17 |
| (2,1430) | 1:A:27:PHE:HA | 1:A:61:ILE:HD11 | 6 | 0.17 |
| (2,1430) | 1:A:27:PHE:HA | 1:A:61:ILE:HD13 | 6 | 0.17 |
| (2,1430) | 1:A:157:LEU:HD22 | 1:A:27:PHE:HA | 6 | 0.17 |
| (2,1430) | 1:A:157:LEU:HD21 | 1:A:27:PHE:HA | 6 | 0.17 |
| (2,1430) | 1:A:157:LEU:HD23 | 1:A:27:PHE:HA | 6 | 0.17 |
| (2,1430) | 1:A:57:LEU:HD22 | 1:A:55:GLU:HA | 6 | 0.17 |
| (2,1430) | 1:A:57:LEU:HD21 | 1:A:55:GLU:HA | 6 | 0.17 |
| (2,1430) | 1:A:57:LEU:HD23 | 1:A:55:GLU:HA | 6 | 0.17 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:6:LYS:HA | 1 | 0.17 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:76:GLU:HA | 1 | 0.17 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:81:MET:HA | 1 | 0.17 |
| (2,1404) | 1:A:153:MET:HE2 | 1:A:20:PHE:HB2 | 9 | 0.17 |
| (2,1404) | 1:A:153:MET:HE2 | 1:A:20:PHE:HB3 | 9 | 0.17 |
| (2,1404) | 1:A:153:MET:HE1 | 1:A:20:PHE:HB2 | 9 | 0.17 |
| (2,1404) | 1:A:153:MET:HE1 | 1:A:20:PHE:HB3 | 9 | 0.17 |
| (2,1404) | 1:A:153:MET:HE3 | 1:A:20:PHE:HB2 | 9 | 0.17 |
| (2,1404) | 1:A:153:MET:HE3 | 1:A:20:PHE:HB3 | 9 | 0.17 |
| (2,1404) | 1:A:153:MET:HE2 | 1:A:24:PHE:HA | 9 | 0.17 |
| (2,1404) | 1:A:153:MET:HE1 | 1:A:24:PHE:HA | 9 | 0.17 |
| (2,1404) | 1:A:153:MET:HE3 | 1:A:24:PHE:HA | 9 | 0.17 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG22 | 4 | 0.17 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG21 | 4 | 0.17 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG23 | 4 | 0.17 |
| (2,1389) | 1:A:61:ILE:HG22 | 1:A:60:MET:HA | 4 | 0.17 |
| (2,1389) | 1:A:61:ILE:HG21 | 1:A:60:MET:HA | 4 | 0.17 |
| (2,1389) | 1:A:61:ILE:HG23 | 1:A:60:MET:HA | 4 | 0.17 |
| (2,1389) | 1:A:61:ILE:HG22 | 1:A:69:SER:HB3 | 4 | 0.17 |
| (2,1389) | 1:A:61:ILE:HG21 | 1:A:69:SER:HB3 | 4 | 0.17 |
| (2,1389) | 1:A:61:ILE:HG23 | 1:A:69:SER:HB3 | 4 | 0.17 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG22 | 6 | 0.17 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG21 | 6 | 0.17 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG23 | 6 | 0.17 |
| (2,1389) | 1:A:61:ILE:HG22 | 1:A:60:MET:HA | 6 | 0.17 |
| (2,1389) | 1:A:61:ILE:HG21 | 1:A:60:MET:HA | 6 | 0.17 |
| (2,1389) | 1:A:61:ILE:HG23 | 1:A:60:MET:HA | 6 | 0.17 |
| (2,1389) | 1:A:61:ILE:HG22 | 1:A:69:SER:HB3 | 6 | 0.17 |
| (2,1389) | 1:A:61:ILE:HG21 | 1:A:69:SER:HB3 | 6 | 0.17 |
| (2,1389) | 1:A:61:ILE:HG23 | 1:A:69:SER:HB3 | 6 | 0.17 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG22 | 10 | 0.17 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG21 | 10 | 0.17 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG23 | 10 | 0.17 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1389) | 1:A:61:ILE:HG22 | 1:A:60:MET:HA | 10 | 0.17 |
| (2,1389) | 1:A:61:ILE:HG21 | 1:A:60:MET:HA | 10 | 0.17 |
| (2,1389) | 1:A:61:ILE:HG23 | 1:A:60:MET:HA | 10 | 0.17 |
| (2,1389) | 1:A:61:ILE:HG22 | 1:A:69:SER:HB3 | 10 | 0.17 |
| (2,1389) | 1:A:61:ILE:HG21 | 1:A:69:SER:HB3 | 10 | 0.17 |
| (2,1389) | 1:A:61:ILE:HG23 | 1:A:69:SER:HB3 | 10 | 0.17 |
| (2,1375) | 1:A:78:LEU:HD12 | 1:A:77:PHE:HE1 | 9 | 0.17 |
| (2,1375) | 1:A:78:LEU:HD11 | 1:A:77:PHE:HE1 | 9 | 0.17 |
| (2,1375) | 1:A:78:LEU:HD13 | 1:A:77:PHE:HE1 | 9 | 0.17 |
| (2,1371) | 1:A:79:VAL:HG12 | 1:A:78:LEU:HB3 | 2 | 0.17 |
| (2,1371) | 1:A:79:VAL:HG11 | 1:A:78:LEU:HB3 | 2 | 0.17 |
| (2,1371) | 1:A:79:VAL:HG13 | 1:A:78:LEU:HB3 | 2 | 0.17 |
| (2,1371) | 1:A:79:VAL:HG12 | 1:A:83:ARG:HB3 | 2 | 0.17 |
| (2,1371) | 1:A:79:VAL:HG11 | 1:A:83:ARG:HB3 | 2 | 0.17 |
| (2,1371) | 1:A:79:VAL:HG13 | 1:A:83:ARG:HB3 | 2 | 0.17 |
| (2,1296) | 1:A:157:LEU:HB2 | 1:A:26:ILE:HG13 | 4 | 0.17 |
| (2,1296) | 1:A:158:LEU:HG | 1:A:158:LEU:HB3 | 4 | 0.17 |
| (2,1296) | 1:A:157:LEU:HB2 | 1:A:26:ILE:HG13 | 8 | 0.17 |
| (2,1296) | 1:A:158:LEU:HG | 1:A:158:LEU:HB3 | 8 | 0.17 |
| (2,1296) | 1:A:157:LEU:HB2 | 1:A:26:ILE:HG13 | 9 | 0.17 |
| (2,1296) | 1:A:158:LEU:HG | 1:A:158:LEU:HB3 | 9 | 0.17 |
| (2,1296) | 1:A:157:LEU:HB2 | 1:A:26:ILE:HG13 | 10 | 0.17 |
| (2,1296) | 1:A:158:LEU:HG | 1:A:158:LEU:HB3 | 10 | 0.17 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:8:ALA:HB2 | 3 | 0.17 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:8:ALA:HB1 | 3 | 0.17 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:8:ALA:HB3 | 3 | 0.17 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:8:ALA:HB2 | 3 | 0.17 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:8:ALA:HB1 | 3 | 0.17 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:8:ALA:HB3 | 3 | 0.17 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:8:ALA:HB2 | 3 | 0.17 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:8:ALA:HB1 | 3 | 0.17 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:8:ALA:HB3 | 3 | 0.17 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:150:ALA:HB2 | 3 | 0.17 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:150:ALA:HB1 | 3 | 0.17 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:150:ALA:HB3 | 3 | 0.17 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:150:ALA:HB2 | 3 | 0.17 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:150:ALA:HB1 | 3 | 0.17 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:150:ALA:HB3 | 3 | 0.17 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:150:ALA:HB2 | 3 | 0.17 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:150:ALA:HB1 | 3 | 0.17 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:150:ALA:HB3 | 3 | 0.17 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:8:ALA:HB2 | 8 | 0.17 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,1257) | 1:A:85:MET:HE2 | 1:A:8:ALA:HB1 | 8 | 0.17 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:8:ALA:HB3 | 8 | 0.17 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:8:ALA:HB2 | 8 | 0.17 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:8:ALA:HB1 | 8 | 0.17 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:8:ALA:HB3 | 8 | 0.17 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:8:ALA:HB2 | 8 | 0.17 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:8:ALA:HB1 | 8 | 0.17 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:8:ALA:HB3 | 8 | 0.17 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:150:ALA:HB2 | 8 | 0.17 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:150:ALA:HB1 | 8 | 0.17 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:150:ALA:HB3 | 8 | 0.17 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:150:ALA:HB2 | 8 | 0.17 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:150:ALA:HB1 | 8 | 0.17 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:150:ALA:HB3 | 8 | 0.17 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:150:ALA:HB2 | 8 | 0.17 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:150:ALA:HB1 | 8 | 0.17 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:150:ALA:HB3 | 8 | 0.17 |
| (2,1221) | 1:A:60:MET:HG2 | 1:A:57:LEU:HD12 | 2 | 0.17 |
| (2,1221) | 1:A:60:MET:HG2 | 1:A:57:LEU:HD11 | 2 | 0.17 |
| (2,1221) | 1:A:60:MET:HG2 | 1:A:57:LEU:HD13 | 2 | 0.17 |
| (2,1221) | 1:A:60:MET:HG3 | 1:A:57:LEU:HD12 | 2 | 0.17 |
| (2,1221) | 1:A:60:MET:HG3 | 1:A:57:LEU:HD11 | 2 | 0.17 |
| (2,1221) | 1:A:60:MET:HG3 | 1:A:57:LEU:HD13 | 2 | 0.17 |
| (2,1221) | 1:A:154:MET:HG2 | 1:A:158:LEU:HD22 | 2 | 0.17 |
| (2,1221) | 1:A:154:MET:HG2 | 1:A:158:LEU:HD21 | 2 | 0.17 |
| (2,1221) | 1:A:154:MET:HG2 | 1:A:158:LEU:HD23 | 2 | 0.17 |
| (2,1221) | 1:A:154:MET:HG3 | 1:A:158:LEU:HD22 | 2 | 0.17 |
| (2,1221) | 1:A:154:MET:HG3 | 1:A:158:LEU:HD21 | 2 | 0.17 |
| (2,1221) | 1:A:154:MET:HG3 | 1:A:158:LEU:HD23 | 2 | 0.17 |
| (2,1204) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HG2 | 3 | 0.17 |
| (2,1204) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HG3 | 3 | 0.17 |
| (2,1204) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HG2 | 3 | 0.17 |
| (2,1204) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HG3 | 3 | 0.17 |
| (2,1204) | 1:A:161:ARG:HD2 | 1:A:161:ARG:HG2 | 3 | 0.17 |
| (2,1204) | 1:A:161:ARG:HD3 | 1:A:161:ARG:HG2 | 3 | 0.17 |
| (2,1204) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HG2 | 4 | 0.17 |
| (2,1204) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HG3 | 4 | 0.17 |
| (2,1204) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HG2 | 4 | 0.17 |
| (2,1204) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HG3 | 4 | 0.17 |
| (2,1204) | 1:A:161:ARG:HD2 | 1:A:161:ARG:HG2 | 4 | 0.17 |
| (2,1204) | 1:A:161:ARG:HD3 | 1:A:161:ARG:HG2 | 4 | 0.17 |
| (2,1204) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HG2 | 6 | 0.17 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1204) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HG3 | 6 | 0.17 |
| (2,1204) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HG2 | 6 | 0.17 |
| (2,1204) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HG3 | 6 | 0.17 |
| (2,1204) | 1:A:161:ARG:HD2 | 1:A:161:ARG:HG2 | 6 | 0.17 |
| (2,1204) | 1:A:161:ARG:HD3 | 1:A:161:ARG:HG2 | 6 | 0.17 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG22 | 3 | 0.17 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG21 | 3 | 0.17 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG23 | 3 | 0.17 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG12 | 3 | 0.17 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG11 | 3 | 0.17 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG13 | 3 | 0.17 |
| (2,119) | 1:A:47:MET:HA | 1:A:44:VAL:HA | 10 | 0.17 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD22 | 10 | 0.17 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD21 | 10 | 0.17 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD23 | 10 | 0.17 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD12 | 10 | 0.17 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD11 | 10 | 0.17 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD13 | 10 | 0.17 |
| (2,112) | 1:A:41:LEU:HA | 1:A:41:LEU:HD22 | 2 | 0.17 |
| (2,112) | 1:A:41:LEU:HA | 1:A:41:LEU:HD21 | 2 | 0.17 |
| (2,112) | 1:A:41:LEU:HA | 1:A:41:LEU:HD23 | 2 | 0.17 |
| (2,1053) | 1:A:18:ASN:HA | 1:A:21:LYS:HD3 | 3 | 0.17 |
| (2,1053) | 1:A:18:ASN:HA | 1:A:21:LYS:HD3 | 10 | 0.17 |
| (2,1046) | 1:A:48:LEU:HA | 1:A:50:GLN:HG2 | 7 | 0.17 |
| (2,1046) | 1:A:48:LEU:HA | 1:A:50:GLN:HG3 | 7 | 0.17 |
| (2,1022) | 1:A:35:SER:HA | 1:A:31:ALA:HB2 | 4 | 0.17 |
| (2,1022) | 1:A:35:SER:HA | 1:A:31:ALA:HB1 | 4 | 0.17 |
| (2,1022) | 1:A:35:SER:HA | 1:A:31:ALA:HB3 | 4 | 0.17 |
| (2,1022) | 1:A:35:SER:HA | 1:A:31:ALA:HB2 | 9 | 0.17 |
| (2,1022) | 1:A:35:SER:HA | 1:A:31:ALA:HB1 | 9 | 0.17 |
| (2,1022) | 1:A:35:SER:HA | 1:A:31:ALA:HB3 | 9 | 0.17 |
| (2,1005) | 1:A:8:ALA:HB2 | 1:A:79:VAL:HA | 6 | 0.17 |
| (2,1005) | 1:A:8:ALA:HB1 | 1:A:79:VAL:HA | 6 | 0.17 |
| (2,1005) | 1:A:8:ALA:HB3 | 1:A:79:VAL:HA | 6 | 0.17 |
| (2,1005) | 1:A:8:ALA:HB2 | 1:A:79:VAL:HA | 7 | 0.17 |
| (2,1005) | 1:A:8:ALA:HB1 | 1:A:79:VAL:HA | 7 | 0.17 |
| (2,1005) | 1:A:8:ALA:HB3 | 1:A:79:VAL:HA | 7 | 0.17 |
| (2,1005) | 1:A:8:ALA:HB2 | 1:A:79:VAL:HA | 10 | 0.17 |
| (2,1005) | 1:A:8:ALA:HB1 | 1:A:79:VAL:HA | 10 | 0.17 |
| (2,1005) | 1:A:8:ALA:HB3 | 1:A:79:VAL:HA | 10 | 0.17 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB2 | 4 | 0.16 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB1 | 4 | 0.16 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB3 | 4 | 0.16 |
| (2,966) | 1:A:148:ILE:HA | 1:A:148:ILE:HD12 | 7 | 0.16 |
| (2,966) | 1:A:148:ILE:HA | 1:A:148:ILE:HD11 | 7 | 0.16 |
| (2,966) | 1:A:148:ILE:HA | 1:A:148:ILE:HD13 | 7 | 0.16 |
| (2,908) | 1:A:78:LEU:HD12 | 1:A:74:PHE:HD1 | 8 | 0.16 |
| (2,908) | 1:A:78:LEU:HD11 | 1:A:74:PHE:HD1 | 8 | 0.16 |
| (2,908) | 1:A:78:LEU:HD13 | 1:A:74:PHE:HD1 | 8 | 0.16 |
| (2,90) | 1:A:11:GLN:HA | 1:A:11:GLN:HB2 | 6 | 0.16 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG22 | 1 | 0.16 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG21 | 1 | 0.16 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG23 | 1 | 0.16 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG22 | 2 | 0.16 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG21 | 2 | 0.16 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG23 | 2 | 0.16 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG22 | 4 | 0.16 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG21 | 4 | 0.16 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG23 | 4 | 0.16 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG22 | 9 | 0.16 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG21 | 9 | 0.16 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG23 | 9 | 0.16 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG22 | 10 | 0.16 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG21 | 10 | 0.16 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG23 | 10 | 0.16 |
| (2,877) | 1:A:78:LEU:HD22 | 1:A:74:PHE:HE1 | 3 | 0.16 |
| (2,877) | 1:A:78:LEU:HD21 | 1:A:74:PHE:HE1 | 3 | 0.16 |
| (2,877) | 1:A:78:LEU:HD23 | 1:A:74:PHE:HE1 | 3 | 0.16 |
| (2,877) | 1:A:78:LEU:HD22 | 1:A:74:PHE:HE1 | 5 | 0.16 |
| (2,877) | 1:A:78:LEU:HD21 | 1:A:74:PHE:HE1 | 5 | 0.16 |
| (2,877) | 1:A:78:LEU:HD23 | 1:A:74:PHE:HE1 | 5 | 0.16 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD12 | 2 | 0.16 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD11 | 2 | 0.16 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD13 | 2 | 0.16 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD12 | 3 | 0.16 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD11 | 3 | 0.16 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD13 | 3 | 0.16 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD12 | 4 | 0.16 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD11 | 4 | 0.16 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD13 | 4 | 0.16 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD12 | 7 | 0.16 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD11 | 7 | 0.16 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD13 | 7 | 0.16 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD12 | 8 | 0.16 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|-----------------|----------|---------------|
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD11 | 8 | 0.16 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD13 | 8 | 0.16 |
| (2,86) | 1:A:90:LYS:HA | 1:A:90:LYS:HG2 | 5 | 0.16 |
| (2,86) | 1:A:90:LYS:HA | 1:A:90:LYS:HG3 | 5 | 0.16 |
| (2,816) | 1:A:153:MET:HG3 | 1:A:48:LEU:HD12 | 10 | 0.16 |
| (2,816) | 1:A:153:MET:HG3 | 1:A:48:LEU:HD11 | 10 | 0.16 |
| (2,816) | 1:A:153:MET:HG3 | 1:A:48:LEU:HD13 | 10 | 0.16 |
| (2,807) | 1:A:45:MET:HG2 | 1:A:57:LEU:HD12 | 10 | 0.16 |
| (2,807) | 1:A:45:MET:HG2 | 1:A:57:LEU:HD11 | 10 | 0.16 |
| (2,807) | 1:A:45:MET:HG2 | 1:A:57:LEU:HD13 | 10 | 0.16 |
| (2,807) | 1:A:45:MET:HG3 | 1:A:57:LEU:HD12 | 10 | 0.16 |
| (2,807) | 1:A:45:MET:HG3 | 1:A:57:LEU:HD11 | 10 | 0.16 |
| (2,807) | 1:A:45:MET:HG3 | 1:A:57:LEU:HD13 | 10 | 0.16 |
| (2,79) | 1:A:158:LEU:HA | 1:A:158:LEU:HG | 4 | 0.16 |
| (2,785) | 1:A:157:LEU:HD12 | 1:A:27:PHE:HE1 | 4 | 0.16 |
| (2,785) | 1:A:157:LEU:HD11 | 1:A:27:PHE:HE1 | 4 | 0.16 |
| (2,785) | 1:A:157:LEU:HD13 | 1:A:27:PHE:HE1 | 4 | 0.16 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD12 | 9 | 0.16 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD11 | 9 | 0.16 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD13 | 9 | 0.16 |
| (2,710) | 1:A:58:GLN:HG2 | 1:A:38:THR:HG21 | 6 | 0.16 |
| (2,710) | 1:A:58:GLN:HG2 | 1:A:38:THR:HG22 | 6 | 0.16 |
| (2,710) | 1:A:58:GLN:HG2 | 1:A:38:THR:HG23 | 6 | 0.16 |
| (2,710) | 1:A:58:GLN:HG2 | 1:A:38:THR:HG21 | 7 | 0.16 |
| (2,710) | 1:A:58:GLN:HG2 | 1:A:38:THR:HG22 | 7 | 0.16 |
| (2,710) | 1:A:58:GLN:HG2 | 1:A:38:THR:HG23 | 7 | 0.16 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG21 | 2 | 0.16 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG22 | 2 | 0.16 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG23 | 2 | 0.16 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG21 | 2 | 0.16 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG22 | 2 | 0.16 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG23 | 2 | 0.16 |
| (2,699) | 1:A:13:THR:HG21 | 1:A:12:LEU:HD22 | 10 | 0.16 |
| (2,699) | 1:A:13:THR:HG21 | 1:A:12:LEU:HD21 | 10 | 0.16 |
| (2,699) | 1:A:13:THR:HG21 | 1:A:12:LEU:HD23 | 10 | 0.16 |
| (2,699) | 1:A:13:THR:HG22 | 1:A:12:LEU:HD22 | 10 | 0.16 |
| (2,699) | 1:A:13:THR:HG22 | 1:A:12:LEU:HD21 | 10 | 0.16 |
| (2,699) | 1:A:13:THR:HG22 | 1:A:12:LEU:HD23 | 10 | 0.16 |
| (2,699) | 1:A:13:THR:HG23 | 1:A:12:LEU:HD22 | 10 | 0.16 |
| (2,699) | 1:A:13:THR:HG23 | 1:A:12:LEU:HD21 | 10 | 0.16 |
| (2,699) | 1:A:13:THR:HG23 | 1:A:12:LEU:HD23 | 10 | 0.16 |
| (2,603) | 1:A:44:VAL:HB | 1:A:27:PHE:HD1 | 4 | 0.16 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,579) | 1:A:51:ASN:HA | 1:A:52:PRO:HG2 | 6 | 0.16 |
| (2,521) | 1:A:14:GLU:HB2 | 1:A:14:GLU:HA | 1 | 0.16 |
| (2,521) | 1:A:14:GLU:HB3 | 1:A:14:GLU:HA | 1 | 0.16 |
| (2,521) | 1:A:14:GLU:HB2 | 1:A:14:GLU:HA | 4 | 0.16 |
| (2,521) | 1:A:14:GLU:HB3 | 1:A:14:GLU:HA | 4 | 0.16 |
| (2,466) | 1:A:72:VAL:HB | 1:A:61:ILE:HG22 | 8 | 0.16 |
| (2,466) | 1:A:72:VAL:HB | 1:A:61:ILE:HG21 | 8 | 0.16 |
| (2,466) | 1:A:72:VAL:HB | 1:A:61:ILE:HG23 | 8 | 0.16 |
| (2,457) | 1:A:53:THR:HA | 1:A:54:PRO:HG2 | 10 | 0.16 |
| (2,442) | 1:A:15:GLU:HG2 | 1:A:18:ASN:HB2 | 4 | 0.16 |
| (2,442) | 1:A:15:GLU:HG3 | 1:A:18:ASN:HB2 | 4 | 0.16 |
| (2,434) | 1:A:19:GLU:HG3 | 1:A:158:LEU:HD12 | 8 | 0.16 |
| (2,434) | 1:A:19:GLU:HG3 | 1:A:158:LEU:HD11 | 8 | 0.16 |
| (2,434) | 1:A:19:GLU:HG3 | 1:A:158:LEU:HD13 | 8 | 0.16 |
| (2,415) | 1:A:155:GLN:HG2 | 1:A:155:GLN:HB2 | 2 | 0.16 |
| (2,415) | 1:A:155:GLN:HG2 | 1:A:155:GLN:HB3 | 2 | 0.16 |
| (2,407) | 1:A:52:PRO:HD3 | 1:A:51:ASN:HB3 | 1 | 0.16 |
| (2,391) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HA | 5 | 0.16 |
| (2,391) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HA | 5 | 0.16 |
| (2,321) | 1:A:52:PRO:HD2 | 1:A:50:GLN:HB3 | 6 | 0.16 |
| (2,303) | 1:A:24:PHE:HA | 1:A:74:PHE:HD1 | 6 | 0.16 |
| (2,278) | 1:A:71:THR:HB | 1:A:35:SER:HB3 | 1 | 0.16 |
| (2,278) | 1:A:71:THR:HB | 1:A:35:SER:HB3 | 4 | 0.16 |
| (2,278) | 1:A:71:THR:HB | 1:A:35:SER:HB3 | 9 | 0.16 |
| (2,240) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HG2 | 7 | 0.16 |
| (2,240) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HG3 | 7 | 0.16 |
| (2,236) | 1:A:141:PRO:HD3 | 1:A:141:PRO:HB3 | 2 | 0.16 |
| (2,233) | 1:A:83:ARG:HA | 1:A:5:TYR:HD1 | 4 | 0.16 |
| (2,224) | 1:A:82:VAL:HA | 1:A:85:MET:HG2 | 9 | 0.16 |
| (2,20) | 1:A:71:THR:HA | 1:A:36:ILE:HA | 9 | 0.16 |
| (2,176) | 1:A:57:LEU:HA | 1:A:57:LEU:HB3 | 1 | 0.16 |
| (2,1429) | 1:A:27:PHE:HA | 1:A:27:PHE:HD1 | 3 | 0.16 |
| (2,1426) | 1:A:24:PHE:HA | 1:A:21:LYS:HD2 | 10 | 0.16 |
| (2,142) | 1:A:7:ALA:HA | 1:A:10:GLU:HB2 | 4 | 0.16 |
| (2,142) | 1:A:7:ALA:HA | 1:A:10:GLU:HB3 | 4 | 0.16 |
| (2,1404) | 1:A:153:MET:HE2 | 1:A:20:PHE:HB2 | 4 | 0.16 |
| (2,1404) | 1:A:153:MET:HE2 | 1:A:20:PHE:HB3 | 4 | 0.16 |
| (2,1404) | 1:A:153:MET:HE1 | 1:A:20:PHE:HB2 | 4 | 0.16 |
| (2,1404) | 1:A:153:MET:HE1 | 1:A:20:PHE:HB3 | 4 | 0.16 |
| (2,1404) | 1:A:153:MET:HE3 | 1:A:20:PHE:HB2 | 4 | 0.16 |
| (2,1404) | 1:A:153:MET:HE3 | 1:A:20:PHE:HB3 | 4 | 0.16 |
| (2,1404) | 1:A:153:MET:HE2 | 1:A:24:PHE:HA | 4 | 0.16 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|----------------|----------|---------------|
| (2,1404) | 1:A:153:MET:HE1 | 1:A:24:PHE:HA | 4 | 0.16 |
| (2,1404) | 1:A:153:MET:HE3 | 1:A:24:PHE:HA | 4 | 0.16 |
| (2,1400) | 1:A:47:MET:HE2 | 1:A:27:PHE:HA | 4 | 0.16 |
| (2,1400) | 1:A:47:MET:HE1 | 1:A:27:PHE:HA | 4 | 0.16 |
| (2,1400) | 1:A:47:MET:HE3 | 1:A:27:PHE:HA | 4 | 0.16 |
| (2,1400) | 1:A:43:LYS:HA | 1:A:47:MET:HE2 | 4 | 0.16 |
| (2,1400) | 1:A:43:LYS:HA | 1:A:47:MET:HE1 | 4 | 0.16 |
| (2,1400) | 1:A:43:LYS:HA | 1:A:47:MET:HE3 | 4 | 0.16 |
| (2,1375) | 1:A:78:LEU:HD12 | 1:A:77:PHE:HE1 | 10 | 0.16 |
| (2,1375) | 1:A:78:LEU:HD11 | 1:A:77:PHE:HE1 | 10 | 0.16 |
| (2,1375) | 1:A:78:LEU:HD13 | 1:A:77:PHE:HE1 | 10 | 0.16 |
| (2,1370) | 1:A:79:VAL:HG12 | 1:A:1:MET:HA | 6 | 0.16 |
| (2,1370) | 1:A:79:VAL:HG11 | 1:A:1:MET:HA | 6 | 0.16 |
| (2,1370) | 1:A:79:VAL:HG13 | 1:A:1:MET:HA | 6 | 0.16 |
| (2,1370) | 1:A:79:VAL:HG12 | 1:A:76:GLU:HA | 6 | 0.16 |
| (2,1370) | 1:A:79:VAL:HG11 | 1:A:76:GLU:HA | 6 | 0.16 |
| (2,1370) | 1:A:79:VAL:HG13 | 1:A:76:GLU:HA | 6 | 0.16 |
| (2,1332) | 1:A:9:VAL:HG22 | 1:A:17:LYS:HD3 | 4 | 0.16 |
| (2,1332) | 1:A:9:VAL:HG21 | 1:A:17:LYS:HD3 | 4 | 0.16 |
| (2,1332) | 1:A:9:VAL:HG23 | 1:A:17:LYS:HD3 | 4 | 0.16 |
| (2,1332) | 1:A:9:VAL:HG22 | 1:A:75:ASP:HB3 | 4 | 0.16 |
| (2,1332) | 1:A:9:VAL:HG21 | 1:A:75:ASP:HB3 | 4 | 0.16 |
| (2,1332) | 1:A:9:VAL:HG23 | 1:A:75:ASP:HB3 | 4 | 0.16 |
| (2,1332) | 1:A:9:VAL:HG22 | 1:A:17:LYS:HD3 | 6 | 0.16 |
| (2,1332) | 1:A:9:VAL:HG21 | 1:A:17:LYS:HD3 | 6 | 0.16 |
| (2,1332) | 1:A:9:VAL:HG23 | 1:A:17:LYS:HD3 | 6 | 0.16 |
| (2,1332) | 1:A:9:VAL:HG22 | 1:A:75:ASP:HB3 | 6 | 0.16 |
| (2,1332) | 1:A:9:VAL:HG21 | 1:A:75:ASP:HB3 | 6 | 0.16 |
| (2,1332) | 1:A:9:VAL:HG23 | 1:A:75:ASP:HB3 | 6 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG22 | 1:A:83:ARG:HG3 | 7 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG21 | 1:A:83:ARG:HG3 | 7 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG23 | 1:A:83:ARG:HG3 | 7 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG22 | 1:A:7:ALA:HB2 | 7 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG22 | 1:A:7:ALA:HB1 | 7 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG22 | 1:A:7:ALA:HB3 | 7 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG21 | 1:A:7:ALA:HB2 | 7 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG21 | 1:A:7:ALA:HB1 | 7 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG21 | 1:A:7:ALA:HB3 | 7 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG23 | 1:A:7:ALA:HB2 | 7 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG23 | 1:A:7:ALA:HB1 | 7 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG23 | 1:A:7:ALA:HB3 | 7 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG22 | 1:A:83:ARG:HG3 | 10 | 0.16 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1324) | 1:A:82:VAL:HG21 | 1:A:83:ARG:HG3 | 10 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG23 | 1:A:83:ARG:HG3 | 10 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG22 | 1:A:7:ALA:HB2 | 10 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG22 | 1:A:7:ALA:HB1 | 10 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG22 | 1:A:7:ALA:HB3 | 10 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG21 | 1:A:7:ALA:HB2 | 10 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG21 | 1:A:7:ALA:HB1 | 10 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG21 | 1:A:7:ALA:HB3 | 10 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG23 | 1:A:7:ALA:HB2 | 10 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG23 | 1:A:7:ALA:HB1 | 10 | 0.16 |
| (2,1324) | 1:A:82:VAL:HG23 | 1:A:7:ALA:HB3 | 10 | 0.16 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG21 | 1 | 0.16 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG22 | 1 | 0.16 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG23 | 1 | 0.16 |
| (2,1313) | 1:A:38:THR:HG21 | 1:A:57:LEU:HG | 1 | 0.16 |
| (2,1313) | 1:A:38:THR:HG22 | 1:A:57:LEU:HG | 1 | 0.16 |
| (2,1313) | 1:A:38:THR:HG23 | 1:A:57:LEU:HG | 1 | 0.16 |
| (2,1301) | 1:A:150:ALA:HB2 | 1:A:85:MET:HG2 | 3 | 0.16 |
| (2,1301) | 1:A:150:ALA:HB1 | 1:A:85:MET:HG2 | 3 | 0.16 |
| (2,1301) | 1:A:150:ALA:HB3 | 1:A:85:MET:HG2 | 3 | 0.16 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB2 | 3 | 0.16 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB1 | 3 | 0.16 |
| (2,1301) | 1:A:151:ASP:HB2 | 1:A:152:ALA:HB3 | 3 | 0.16 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB2 | 3 | 0.16 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB1 | 3 | 0.16 |
| (2,1301) | 1:A:151:ASP:HB3 | 1:A:152:ALA:HB3 | 3 | 0.16 |
| (2,1296) | 1:A:157:LEU:HB2 | 1:A:26:ILE:HG13 | 5 | 0.16 |
| (2,1296) | 1:A:158:LEU:HG | 1:A:158:LEU:HB3 | 5 | 0.16 |
| (2,1296) | 1:A:157:LEU:HB2 | 1:A:26:ILE:HG13 | 7 | 0.16 |
| (2,1296) | 1:A:158:LEU:HG | 1:A:158:LEU:HB3 | 7 | 0.16 |
| (2,1222) | 1:A:3:ASP:HB3 | 1:A:6:LYS:HB2 | 8 | 0.16 |
| (2,1222) | 1:A:3:ASP:HB3 | 1:A:6:LYS:HB3 | 8 | 0.16 |
| (2,1222) | 1:A:88:ASP:HB2 | 1:A:90:LYS:HB2 | 8 | 0.16 |
| (2,1222) | 1:A:88:ASP:HB3 | 1:A:90:LYS:HB2 | 8 | 0.16 |
| (2,12) | 1:A:73:ASP:HA | 1:A:24:PHE:HD1 | 2 | 0.16 |
| (2,12) | 1:A:73:ASP:HA | 1:A:24:PHE:HD1 | 3 | 0.16 |
| (2,12) | 1:A:73:ASP:HA | 1:A:24:PHE:HD1 | 7 | 0.16 |
| (2,1191) | 1:A:52:PRO:HD3 | 1:A:57:LEU:HD12 | 9 | 0.16 |
| (2,1191) | 1:A:52:PRO:HD3 | 1:A:57:LEU:HD11 | 9 | 0.16 |
| (2,1191) | 1:A:52:PRO:HD3 | 1:A:57:LEU:HD13 | 9 | 0.16 |
| (2,119) | 1:A:47:MET:HA | 1:A:44:VAL:HA | 5 | 0.16 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB2 | 5 | 0.16 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB1 | 5 | 0.16 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB3 | 5 | 0.16 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB2 | 5 | 0.16 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB1 | 5 | 0.16 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB3 | 5 | 0.16 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD22 | 5 | 0.16 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD21 | 5 | 0.16 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD23 | 5 | 0.16 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD12 | 5 | 0.16 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD11 | 5 | 0.16 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD13 | 5 | 0.16 |
| (2,1046) | 1:A:48:LEU:HA | 1:A:50:GLN:HG2 | 10 | 0.16 |
| (2,1046) | 1:A:48:LEU:HA | 1:A:50:GLN:HG3 | 10 | 0.16 |
| (2,1010) | 1:A:78:LEU:HA | 1:A:81:MET:HB2 | 9 | 0.16 |
| (2,996) | 1:A:11:GLN:HB3 | 1:A:8:ALA:HA | 2 | 0.15 |
| (2,996) | 1:A:11:GLN:HB3 | 1:A:8:ALA:HA | 10 | 0.15 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB2 | 2 | 0.15 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB1 | 2 | 0.15 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB3 | 2 | 0.15 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD12 | 2 | 0.15 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD11 | 2 | 0.15 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD13 | 2 | 0.15 |
| (2,923) | 1:A:44:VAL:HG12 | 1:A:45:MET:HB2 | 7 | 0.15 |
| (2,923) | 1:A:44:VAL:HG12 | 1:A:45:MET:HB3 | 7 | 0.15 |
| (2,923) | 1:A:44:VAL:HG11 | 1:A:45:MET:HB2 | 7 | 0.15 |
| (2,923) | 1:A:44:VAL:HG11 | 1:A:45:MET:HB3 | 7 | 0.15 |
| (2,923) | 1:A:44:VAL:HG13 | 1:A:45:MET:HB2 | 7 | 0.15 |
| (2,923) | 1:A:44:VAL:HG13 | 1:A:45:MET:HB3 | 7 | 0.15 |
| (2,914) | 1:A:78:LEU:HD12 | 1:A:17:LYS:HG3 | 10 | 0.15 |
| (2,914) | 1:A:78:LEU:HD11 | 1:A:17:LYS:HG3 | 10 | 0.15 |
| (2,914) | 1:A:78:LEU:HD13 | 1:A:17:LYS:HG3 | 10 | 0.15 |
| (2,90) | 1:A:11:GLN:HA | 1:A:11:GLN:HB2 | 3 | 0.15 |
| (2,90) | 1:A:11:GLN:HA | 1:A:11:GLN:HB2 | 4 | 0.15 |
| (2,90) | 1:A:11:GLN:HA | 1:A:11:GLN:HB2 | 8 | 0.15 |
| (2,90) | 1:A:11:GLN:HA | 1:A:11:GLN:HB2 | 10 | 0.15 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG22 | 5 | 0.15 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG21 | 5 | 0.15 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG23 | 5 | 0.15 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG22 | 7 | 0.15 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG21 | 7 | 0.15 |
| (2,892) | 1:A:28:VAL:HA | 1:A:28:VAL:HG23 | 7 | 0.15 |
| (2,877) | 1:A:78:LEU:HD22 | 1:A:74:PHE:HE1 | 2 | 0.15 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (2,877) | 1:A:78:LEU:HD21 | 1:A:74:PHE:HE1 | 2 | 0.15 |
| (2,877) | 1:A:78:LEU:HD23 | 1:A:74:PHE:HE1 | 2 | 0.15 |
| (2,875) | 1:A:79:VAL:HG12 | 1:A:64:VAL:HB | 7 | 0.15 |
| (2,875) | 1:A:79:VAL:HG11 | 1:A:64:VAL:HB | 7 | 0.15 |
| (2,875) | 1:A:79:VAL:HG13 | 1:A:64:VAL:HB | 7 | 0.15 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD12 | 5 | 0.15 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD11 | 5 | 0.15 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD13 | 5 | 0.15 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD12 | 6 | 0.15 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD11 | 6 | 0.15 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD13 | 6 | 0.15 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD12 | 10 | 0.15 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD11 | 10 | 0.15 |
| (2,867) | 1:A:4:ILE:HB | 1:A:4:ILE:HD13 | 10 | 0.15 |
| (2,848) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG22 | 4 | 0.15 |
| (2,848) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG21 | 4 | 0.15 |
| (2,848) | 1:A:38:THR:HG21 | 1:A:61:ILE:HG23 | 4 | 0.15 |
| (2,848) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG22 | 4 | 0.15 |
| (2,848) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG21 | 4 | 0.15 |
| (2,848) | 1:A:38:THR:HG22 | 1:A:61:ILE:HG23 | 4 | 0.15 |
| (2,848) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG22 | 4 | 0.15 |
| (2,848) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG21 | 4 | 0.15 |
| (2,848) | 1:A:38:THR:HG23 | 1:A:61:ILE:HG23 | 4 | 0.15 |
| (2,846) | 1:A:65:ASP:HB3 | 1:A:61:ILE:HG22 | 4 | 0.15 |
| (2,846) | 1:A:65:ASP:HB3 | 1:A:61:ILE:HG21 | 4 | 0.15 |
| (2,846) | 1:A:65:ASP:HB3 | 1:A:61:ILE:HG23 | 4 | 0.15 |
| (2,807) | 1:A:45:MET:HG2 | 1:A:57:LEU:HD12 | 1 | 0.15 |
| (2,807) | 1:A:45:MET:HG2 | 1:A:57:LEU:HD11 | 1 | 0.15 |
| (2,807) | 1:A:45:MET:HG2 | 1:A:57:LEU:HD13 | 1 | 0.15 |
| (2,807) | 1:A:45:MET:HG3 | 1:A:57:LEU:HD12 | 1 | 0.15 |
| (2,807) | 1:A:45:MET:HG3 | 1:A:57:LEU:HD11 | 1 | 0.15 |
| (2,807) | 1:A:45:MET:HG3 | 1:A:57:LEU:HD13 | 1 | 0.15 |
| (2,807) | 1:A:45:MET:HG2 | 1:A:57:LEU:HD12 | 2 | 0.15 |
| (2,807) | 1:A:45:MET:HG2 | 1:A:57:LEU:HD11 | 2 | 0.15 |
| (2,807) | 1:A:45:MET:HG2 | 1:A:57:LEU:HD13 | 2 | 0.15 |
| (2,807) | 1:A:45:MET:HG3 | 1:A:57:LEU:HD12 | 2 | 0.15 |
| (2,807) | 1:A:45:MET:HG3 | 1:A:57:LEU:HD11 | 2 | 0.15 |
| (2,807) | 1:A:45:MET:HG3 | 1:A:57:LEU:HD13 | 2 | 0.15 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD12 | 4 | 0.15 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD11 | 4 | 0.15 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD13 | 4 | 0.15 |
| (2,79) | 1:A:158:LEU:HA | 1:A:158:LEU:HG | 2 | 0.15 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|-----------------|----------|---------------|
| (2,785) | 1:A:157:LEU:HD12 | 1:A:27:PHE:HE1 | 9 | 0.15 |
| (2,785) | 1:A:157:LEU:HD11 | 1:A:27:PHE:HE1 | 9 | 0.15 |
| (2,785) | 1:A:157:LEU:HD13 | 1:A:27:PHE:HE1 | 9 | 0.15 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD12 | 10 | 0.15 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD11 | 10 | 0.15 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD13 | 10 | 0.15 |
| (2,76) | 1:A:154:MET:HA | 1:A:158:LEU:HG | 2 | 0.15 |
| (2,723) | 1:A:142:THR:HG21 | 1:A:141:PRO:HA | 5 | 0.15 |
| (2,723) | 1:A:142:THR:HG22 | 1:A:141:PRO:HA | 5 | 0.15 |
| (2,723) | 1:A:142:THR:HG23 | 1:A:141:PRO:HA | 5 | 0.15 |
| (2,661) | 1:A:29:LEU:HB2 | 1:A:29:LEU:HD22 | 4 | 0.15 |
| (2,661) | 1:A:29:LEU:HB2 | 1:A:29:LEU:HD21 | 4 | 0.15 |
| (2,661) | 1:A:29:LEU:HB2 | 1:A:29:LEU:HD23 | 4 | 0.15 |
| (2,661) | 1:A:29:LEU:HB2 | 1:A:29:LEU:HD22 | 9 | 0.15 |
| (2,661) | 1:A:29:LEU:HB2 | 1:A:29:LEU:HD21 | 9 | 0.15 |
| (2,661) | 1:A:29:LEU:HB2 | 1:A:29:LEU:HD23 | 9 | 0.15 |
| (2,643) | 1:A:139:LYS:HE2 | 1:A:140:ARG:HG2 | 6 | 0.15 |
| (2,643) | 1:A:139:LYS:HE2 | 1:A:140:ARG:HG3 | 6 | 0.15 |
| (2,638) | 1:A:140:ARG:HA | 1:A:140:ARG:HG2 | 4 | 0.15 |
| (2,638) | 1:A:140:ARG:HA | 1:A:140:ARG:HG3 | 4 | 0.15 |
| (2,626) | 1:A:52:PRO:HB2 | 1:A:52:PRO:HG3 | 6 | 0.15 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB2 | 1 | 0.15 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB1 | 1 | 0.15 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB3 | 1 | 0.15 |
| (2,558) | 1:A:55:GLU:HB2 | 1:A:55:GLU:HG2 | 8 | 0.15 |
| (2,503) | 1:A:85:MET:HE2 | 1:A:81:MET:HG3 | 2 | 0.15 |
| (2,503) | 1:A:85:MET:HE1 | 1:A:81:MET:HG3 | 2 | 0.15 |
| (2,503) | 1:A:85:MET:HE3 | 1:A:81:MET:HG3 | 2 | 0.15 |
| (2,502) | 1:A:85:MET:HG2 | 1:A:85:MET:HE2 | 7 | 0.15 |
| (2,502) | 1:A:85:MET:HG2 | 1:A:85:MET:HE1 | 7 | 0.15 |
| (2,502) | 1:A:85:MET:HG2 | 1:A:85:MET:HE3 | 7 | 0.15 |
| (2,494) | 1:A:10:GLU:HB2 | 1:A:9:VAL:HG12 | 3 | 0.15 |
| (2,494) | 1:A:10:GLU:HB2 | 1:A:9:VAL:HG11 | 3 | 0.15 |
| (2,494) | 1:A:10:GLU:HB2 | 1:A:9:VAL:HG13 | 3 | 0.15 |
| (2,494) | 1:A:10:GLU:HB3 | 1:A:9:VAL:HG12 | 3 | 0.15 |
| (2,494) | 1:A:10:GLU:HB3 | 1:A:9:VAL:HG11 | 3 | 0.15 |
| (2,494) | 1:A:10:GLU:HB3 | 1:A:9:VAL:HG13 | 3 | 0.15 |
| (2,45) | 1:A:65:ASP:HA | 1:A:61:ILE:HG22 | 6 | 0.15 |
| (2,45) | 1:A:65:ASP:HA | 1:A:61:ILE:HG21 | 6 | 0.15 |
| (2,45) | 1:A:65:ASP:HA | 1:A:61:ILE:HG23 | 6 | 0.15 |
| (2,41) | 1:A:140:ARG:HA | 1:A:140:ARG:HD2 | 8 | 0.15 |
| (2,41) | 1:A:140:ARG:HA | 1:A:140:ARG:HD3 | 8 | 0.15 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,407) | 1:A:52:PRO:HD3 | 1:A:51:ASN:HB3 | 4 | 0.15 |
| (2,381) | 1:A:2:ASP:HB2 | 1:A:5:TYR:HE1 | 4 | 0.15 |
| (2,381) | 1:A:2:ASP:HB2 | 1:A:5:TYR:HE1 | 7 | 0.15 |
| (2,347) | 1:A:14:GLU:HA | 1:A:17:LYS:HE2 | 10 | 0.15 |
| (2,347) | 1:A:14:GLU:HA | 1:A:17:LYS:HE3 | 10 | 0.15 |
| (2,327) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HB2 | 4 | 0.15 |
| (2,327) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HB2 | 4 | 0.15 |
| (2,304) | 1:A:20:PHE:HB2 | 1:A:74:PHE:HE1 | 1 | 0.15 |
| (2,304) | 1:A:20:PHE:HB3 | 1:A:74:PHE:HE1 | 1 | 0.15 |
| (2,304) | 1:A:20:PHE:HB2 | 1:A:74:PHE:HE1 | 3 | 0.15 |
| (2,304) | 1:A:20:PHE:HB3 | 1:A:74:PHE:HE1 | 3 | 0.15 |
| (2,304) | 1:A:20:PHE:HB2 | 1:A:74:PHE:HE1 | 10 | 0.15 |
| (2,304) | 1:A:20:PHE:HB3 | 1:A:74:PHE:HE1 | 10 | 0.15 |
| (2,27) | 1:A:35:SER:HA | 1:A:73:ASP:HB3 | 6 | 0.15 |
| (2,242) | 1:A:83:ARG:HA | 1:A:83:ARG:HG3 | 10 | 0.15 |
| (2,236) | 1:A:141:PRO:HD3 | 1:A:141:PRO:HB3 | 3 | 0.15 |
| (2,214) | 1:A:136:GLY:HA2 | 1:A:90:LYS:HE2 | 5 | 0.15 |
| (2,214) | 1:A:136:GLY:HA2 | 1:A:90:LYS:HE3 | 5 | 0.15 |
| (2,214) | 1:A:136:GLY:HA3 | 1:A:90:LYS:HE2 | 5 | 0.15 |
| (2,214) | 1:A:136:GLY:HA3 | 1:A:90:LYS:HE3 | 5 | 0.15 |
| (2,201) | 1:A:43:LYS:HA | 1:A:43:LYS:HB2 | 4 | 0.15 |
| (2,201) | 1:A:43:LYS:HA | 1:A:43:LYS:HB3 | 4 | 0.15 |
| (2,201) | 1:A:43:LYS:HA | 1:A:43:LYS:HB2 | 6 | 0.15 |
| (2,201) | 1:A:43:LYS:HA | 1:A:43:LYS:HB3 | 6 | 0.15 |
| (2,177) | 1:A:57:LEU:HA | 1:A:60:MET:HE2 | 7 | 0.15 |
| (2,177) | 1:A:57:LEU:HA | 1:A:60:MET:HE1 | 7 | 0.15 |
| (2,177) | 1:A:57:LEU:HA | 1:A:60:MET:HE3 | 7 | 0.15 |
| (2,177) | 1:A:57:LEU:HA | 1:A:60:MET:HE2 | 10 | 0.15 |
| (2,177) | 1:A:57:LEU:HA | 1:A:60:MET:HE1 | 10 | 0.15 |
| (2,177) | 1:A:57:LEU:HA | 1:A:60:MET:HE3 | 10 | 0.15 |
| (2,174) | 1:A:55:GLU:HA | 1:A:58:GLN:HB2 | 1 | 0.15 |
| (2,174) | 1:A:55:GLU:HA | 1:A:58:GLN:HB3 | 1 | 0.15 |
| (2,1429) | 1:A:27:PHE:HA | 1:A:27:PHE:HD1 | 6 | 0.15 |
| (2,1422) | 1:A:10:GLU:HG2 | 1:A:8:ALA:HB2 | 5 | 0.15 |
| (2,1422) | 1:A:10:GLU:HG2 | 1:A:8:ALA:HB1 | 5 | 0.15 |
| (2,1422) | 1:A:10:GLU:HG2 | 1:A:8:ALA:HB3 | 5 | 0.15 |
| (2,1422) | 1:A:63:GLU:HG2 | 1:A:80:MET:HE2 | 5 | 0.15 |
| (2,1422) | 1:A:63:GLU:HG2 | 1:A:80:MET:HE1 | 5 | 0.15 |
| (2,1422) | 1:A:63:GLU:HG2 | 1:A:80:MET:HE3 | 5 | 0.15 |
| (2,1422) | 1:A:76:GLU:HG3 | 1:A:80:MET:HE2 | 5 | 0.15 |
| (2,1422) | 1:A:76:GLU:HG3 | 1:A:80:MET:HE1 | 5 | 0.15 |
| (2,1422) | 1:A:76:GLU:HG3 | 1:A:80:MET:HE3 | 5 | 0.15 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1422) | 1:A:10:GLU:HG2 | 1:A:8:ALA:HB2 | 8 | 0.15 |
| (2,1422) | 1:A:10:GLU:HG2 | 1:A:8:ALA:HB1 | 8 | 0.15 |
| (2,1422) | 1:A:10:GLU:HG2 | 1:A:8:ALA:HB3 | 8 | 0.15 |
| (2,1422) | 1:A:63:GLU:HG2 | 1:A:80:MET:HE2 | 8 | 0.15 |
| (2,1422) | 1:A:63:GLU:HG2 | 1:A:80:MET:HE1 | 8 | 0.15 |
| (2,1422) | 1:A:63:GLU:HG2 | 1:A:80:MET:HE3 | 8 | 0.15 |
| (2,1422) | 1:A:76:GLU:HG3 | 1:A:80:MET:HE2 | 8 | 0.15 |
| (2,1422) | 1:A:76:GLU:HG3 | 1:A:80:MET:HE1 | 8 | 0.15 |
| (2,1422) | 1:A:76:GLU:HG3 | 1:A:80:MET:HE3 | 8 | 0.15 |
| (2,142) | 1:A:7:ALA:HA | 1:A:10:GLU:HB2 | 5 | 0.15 |
| (2,142) | 1:A:7:ALA:HA | 1:A:10:GLU:HB3 | 5 | 0.15 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:6:LYS:HA | 6 | 0.15 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:76:GLU:HA | 6 | 0.15 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:81:MET:HA | 6 | 0.15 |
| (2,1401) | 1:A:85:MET:HG3 | 1:A:81:MET:HG2 | 3 | 0.15 |
| (2,1401) | 1:A:85:MET:HG3 | 1:A:82:VAL:HG22 | 3 | 0.15 |
| (2,1401) | 1:A:85:MET:HG3 | 1:A:82:VAL:HG21 | 3 | 0.15 |
| (2,1401) | 1:A:85:MET:HG3 | 1:A:82:VAL:HG23 | 3 | 0.15 |
| (2,138) | 1:A:8:ALA:HA | 1:A:82:VAL:HG22 | 6 | 0.15 |
| (2,138) | 1:A:8:ALA:HA | 1:A:82:VAL:HG21 | 6 | 0.15 |
| (2,138) | 1:A:8:ALA:HA | 1:A:82:VAL:HG23 | 6 | 0.15 |
| (2,1371) | 1:A:79:VAL:HG12 | 1:A:78:LEU:HB3 | 1 | 0.15 |
| (2,1371) | 1:A:79:VAL:HG11 | 1:A:78:LEU:HB3 | 1 | 0.15 |
| (2,1371) | 1:A:79:VAL:HG13 | 1:A:78:LEU:HB3 | 1 | 0.15 |
| (2,1371) | 1:A:79:VAL:HG12 | 1:A:83:ARG:HB3 | 1 | 0.15 |
| (2,1371) | 1:A:79:VAL:HG11 | 1:A:83:ARG:HB3 | 1 | 0.15 |
| (2,1371) | 1:A:79:VAL:HG13 | 1:A:83:ARG:HB3 | 1 | 0.15 |
| (2,1332) | 1:A:9:VAL:HG22 | 1:A:17:LYS:HD3 | 1 | 0.15 |
| (2,1332) | 1:A:9:VAL:HG21 | 1:A:17:LYS:HD3 | 1 | 0.15 |
| (2,1332) | 1:A:9:VAL:HG23 | 1:A:17:LYS:HD3 | 1 | 0.15 |
| (2,1332) | 1:A:9:VAL:HG22 | 1:A:75:ASP:HB3 | 1 | 0.15 |
| (2,1332) | 1:A:9:VAL:HG21 | 1:A:75:ASP:HB3 | 1 | 0.15 |
| (2,1332) | 1:A:9:VAL:HG23 | 1:A:75:ASP:HB3 | 1 | 0.15 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD22 | 7 | 0.15 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD21 | 7 | 0.15 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD23 | 7 | 0.15 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD22 | 7 | 0.15 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD21 | 7 | 0.15 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD23 | 7 | 0.15 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD12 | 7 | 0.15 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD11 | 7 | 0.15 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD13 | 7 | 0.15 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD12 | 7 | 0.15 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD11 | 7 | 0.15 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD13 | 7 | 0.15 |
| (2,1228) | 1:A:153:MET:HG3 | 1:A:48:LEU:HB2 | 1 | 0.15 |
| (2,1228) | 1:A:153:MET:HG3 | 1:A:48:LEU:HG | 1 | 0.15 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG22 | 6 | 0.15 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG21 | 6 | 0.15 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG23 | 6 | 0.15 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG22 | 6 | 0.15 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG21 | 6 | 0.15 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG23 | 6 | 0.15 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG22 | 7 | 0.15 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG21 | 7 | 0.15 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG23 | 7 | 0.15 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG22 | 7 | 0.15 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG21 | 7 | 0.15 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG23 | 7 | 0.15 |
| (2,119) | 1:A:47:MET:HA | 1:A:44:VAL:HA | 2 | 0.15 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB2 | 4 | 0.15 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB1 | 4 | 0.15 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB3 | 4 | 0.15 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB2 | 4 | 0.15 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB1 | 4 | 0.15 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB3 | 4 | 0.15 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB2 | 7 | 0.15 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB1 | 7 | 0.15 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB3 | 7 | 0.15 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB2 | 7 | 0.15 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB1 | 7 | 0.15 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB3 | 7 | 0.15 |
| (2,111) | 1:A:157:LEU:HA | 1:A:157:LEU:HB2 | 2 | 0.15 |
| (2,1108) | 1:A:50:GLN:HA | 1:A:52:PRO:HD2 | 6 | 0.15 |
| (2,1091) | 1:A:40:GLU:HA | 1:A:36:ILE:HG22 | 5 | 0.15 |
| (2,1091) | 1:A:40:GLU:HA | 1:A:36:ILE:HG21 | 5 | 0.15 |
| (2,1091) | 1:A:40:GLU:HA | 1:A:36:ILE:HG23 | 5 | 0.15 |
| (2,1053) | 1:A:18:ASN:HA | 1:A:21:LYS:HD3 | 1 | 0.15 |
| (2,1046) | 1:A:48:LEU:HA | 1:A:50:GLN:HG2 | 2 | 0.15 |
| (2,1046) | 1:A:48:LEU:HA | 1:A:50:GLN:HG3 | 2 | 0.15 |
| (2,1005) | 1:A:8:ALA:HB2 | 1:A:79:VAL:HA | 9 | 0.15 |
| (2,1005) | 1:A:8:ALA:HB1 | 1:A:79:VAL:HA | 9 | 0.15 |
| (2,1005) | 1:A:8:ALA:HB3 | 1:A:79:VAL:HA | 9 | 0.15 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB2 | 3 | 0.14 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|------------------|----------|---------------|
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB1 | 3 | 0.14 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB3 | 3 | 0.14 |
| (2,929) | 1:A:36:ILE:HD12 | 1:A:27:PHE:HD1 | 2 | 0.14 |
| (2,929) | 1:A:36:ILE:HD11 | 1:A:27:PHE:HD1 | 2 | 0.14 |
| (2,929) | 1:A:36:ILE:HD13 | 1:A:27:PHE:HD1 | 2 | 0.14 |
| (2,914) | 1:A:78:LEU:HD12 | 1:A:17:LYS:HG3 | 3 | 0.14 |
| (2,914) | 1:A:78:LEU:HD11 | 1:A:17:LYS:HG3 | 3 | 0.14 |
| (2,914) | 1:A:78:LEU:HD13 | 1:A:17:LYS:HG3 | 3 | 0.14 |
| (2,879) | 1:A:78:LEU:HD22 | 1:A:77:PHE:HD1 | 1 | 0.14 |
| (2,879) | 1:A:78:LEU:HD21 | 1:A:77:PHE:HD1 | 1 | 0.14 |
| (2,879) | 1:A:78:LEU:HD23 | 1:A:77:PHE:HD1 | 1 | 0.14 |
| (2,86) | 1:A:90:LYS:HA | 1:A:90:LYS:HG2 | 3 | 0.14 |
| (2,86) | 1:A:90:LYS:HA | 1:A:90:LYS:HG3 | 3 | 0.14 |
| (2,850) | 1:A:4:ILE:HD12 | 1:A:5:TYR:HD1 | 7 | 0.14 |
| (2,850) | 1:A:4:ILE:HD11 | 1:A:5:TYR:HD1 | 7 | 0.14 |
| (2,850) | 1:A:4:ILE:HD13 | 1:A:5:TYR:HD1 | 7 | 0.14 |
| (2,816) | 1:A:153:MET:HG3 | 1:A:48:LEU:HD12 | 7 | 0.14 |
| (2,816) | 1:A:153:MET:HG3 | 1:A:48:LEU:HD11 | 7 | 0.14 |
| (2,816) | 1:A:153:MET:HG3 | 1:A:48:LEU:HD13 | 7 | 0.14 |
| (2,807) | 1:A:45:MET:HG2 | 1:A:57:LEU:HD12 | 4 | 0.14 |
| (2,807) | 1:A:45:MET:HG2 | 1:A:57:LEU:HD11 | 4 | 0.14 |
| (2,807) | 1:A:45:MET:HG2 | 1:A:57:LEU:HD13 | 4 | 0.14 |
| (2,807) | 1:A:45:MET:HG3 | 1:A:57:LEU:HD12 | 4 | 0.14 |
| (2,807) | 1:A:45:MET:HG3 | 1:A:57:LEU:HD11 | 4 | 0.14 |
| (2,807) | 1:A:45:MET:HG3 | 1:A:57:LEU:HD13 | 4 | 0.14 |
| (2,799) | 1:A:143:LEU:HD12 | 1:A:143:LEU:HA | 8 | 0.14 |
| (2,799) | 1:A:143:LEU:HD11 | 1:A:143:LEU:HA | 8 | 0.14 |
| (2,799) | 1:A:143:LEU:HD13 | 1:A:143:LEU:HA | 8 | 0.14 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD12 | 10 | 0.14 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD11 | 10 | 0.14 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD13 | 10 | 0.14 |
| (2,785) | 1:A:157:LEU:HD12 | 1:A:27:PHE:HE1 | 3 | 0.14 |
| (2,785) | 1:A:157:LEU:HD11 | 1:A:27:PHE:HE1 | 3 | 0.14 |
| (2,785) | 1:A:157:LEU:HD13 | 1:A:27:PHE:HE1 | 3 | 0.14 |
| (2,785) | 1:A:157:LEU:HD12 | 1:A:27:PHE:HE1 | 6 | 0.14 |
| (2,785) | 1:A:157:LEU:HD11 | 1:A:27:PHE:HE1 | 6 | 0.14 |
| (2,785) | 1:A:157:LEU:HD13 | 1:A:27:PHE:HE1 | 6 | 0.14 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD22 | 2 | 0.14 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD21 | 2 | 0.14 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD23 | 2 | 0.14 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD22 | 2 | 0.14 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD21 | 2 | 0.14 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD23 | 2 | 0.14 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD22 | 2 | 0.14 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD21 | 2 | 0.14 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD23 | 2 | 0.14 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD22 | 3 | 0.14 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD21 | 3 | 0.14 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD23 | 3 | 0.14 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD22 | 3 | 0.14 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD21 | 3 | 0.14 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD23 | 3 | 0.14 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD22 | 3 | 0.14 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD21 | 3 | 0.14 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD23 | 3 | 0.14 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD22 | 5 | 0.14 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD21 | 5 | 0.14 |
| (2,783) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HD23 | 5 | 0.14 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD22 | 5 | 0.14 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD21 | 5 | 0.14 |
| (2,783) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HD23 | 5 | 0.14 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD22 | 5 | 0.14 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD21 | 5 | 0.14 |
| (2,783) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HD23 | 5 | 0.14 |
| (2,780) | 1:A:64:VAL:HG22 | 1:A:80:MET:HB3 | 4 | 0.14 |
| (2,780) | 1:A:64:VAL:HG21 | 1:A:80:MET:HB3 | 4 | 0.14 |
| (2,780) | 1:A:64:VAL:HG23 | 1:A:80:MET:HB3 | 4 | 0.14 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD12 | 1 | 0.14 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD11 | 1 | 0.14 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD13 | 1 | 0.14 |
| (2,645) | 1:A:90:LYS:HD2 | 1:A:90:LYS:HG2 | 7 | 0.14 |
| (2,645) | 1:A:90:LYS:HD2 | 1:A:90:LYS:HG3 | 7 | 0.14 |
| (2,645) | 1:A:90:LYS:HD3 | 1:A:90:LYS:HG2 | 7 | 0.14 |
| (2,645) | 1:A:90:LYS:HD3 | 1:A:90:LYS:HG3 | 7 | 0.14 |
| (2,618) | 1:A:45:MET:HE2 | 1:A:148:ILE:HA | 10 | 0.14 |
| (2,618) | 1:A:45:MET:HE1 | 1:A:148:ILE:HA | 10 | 0.14 |
| (2,618) | 1:A:45:MET:HE3 | 1:A:148:ILE:HA | 10 | 0.14 |
| (2,604) | 1:A:161:ARG:HB3 | 1:A:161:ARG:HD2 | 10 | 0.14 |
| (2,604) | 1:A:161:ARG:HB3 | 1:A:161:ARG:HD3 | 10 | 0.14 |
| (2,603) | 1:A:44:VAL:HB | 1:A:27:PHE:HD1 | 7 | 0.14 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD22 | 2 | 0.14 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD21 | 2 | 0.14 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD23 | 2 | 0.14 |
| (2,521) | 1:A:14:GLU:HB2 | 1:A:14:GLU:HA | 6 | 0.14 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (2,521) | 1:A:14:GLU:HB3 | 1:A:14:GLU:HA | 6 | 0.14 |
| (2,498) | 1:A:10:GLU:HG3 | 1:A:10:GLU:HB2 | 2 | 0.14 |
| (2,498) | 1:A:10:GLU:HG3 | 1:A:10:GLU:HB3 | 2 | 0.14 |
| (2,494) | 1:A:10:GLU:HB2 | 1:A:9:VAL:HG12 | 1 | 0.14 |
| (2,494) | 1:A:10:GLU:HB2 | 1:A:9:VAL:HG11 | 1 | 0.14 |
| (2,494) | 1:A:10:GLU:HB2 | 1:A:9:VAL:HG13 | 1 | 0.14 |
| (2,494) | 1:A:10:GLU:HB3 | 1:A:9:VAL:HG12 | 1 | 0.14 |
| (2,494) | 1:A:10:GLU:HB3 | 1:A:9:VAL:HG11 | 1 | 0.14 |
| (2,494) | 1:A:10:GLU:HB3 | 1:A:9:VAL:HG13 | 1 | 0.14 |
| (2,494) | 1:A:10:GLU:HB2 | 1:A:9:VAL:HG12 | 8 | 0.14 |
| (2,494) | 1:A:10:GLU:HB2 | 1:A:9:VAL:HG11 | 8 | 0.14 |
| (2,494) | 1:A:10:GLU:HB2 | 1:A:9:VAL:HG13 | 8 | 0.14 |
| (2,494) | 1:A:10:GLU:HB3 | 1:A:9:VAL:HG12 | 8 | 0.14 |
| (2,494) | 1:A:10:GLU:HB3 | 1:A:9:VAL:HG11 | 8 | 0.14 |
| (2,494) | 1:A:10:GLU:HB3 | 1:A:9:VAL:HG13 | 8 | 0.14 |
| (2,442) | 1:A:15:GLU:HG2 | 1:A:18:ASN:HB2 | 2 | 0.14 |
| (2,442) | 1:A:15:GLU:HG3 | 1:A:18:ASN:HB2 | 2 | 0.14 |
| (2,435) | 1:A:16:GLN:HB3 | 1:A:12:LEU:HD22 | 7 | 0.14 |
| (2,435) | 1:A:16:GLN:HB3 | 1:A:12:LEU:HD21 | 7 | 0.14 |
| (2,435) | 1:A:16:GLN:HB3 | 1:A:12:LEU:HD23 | 7 | 0.14 |
| (2,401) | 1:A:33:ASP:HB3 | 1:A:32:GLU:HB2 | 7 | 0.14 |
| (2,401) | 1:A:33:ASP:HB3 | 1:A:32:GLU:HB3 | 7 | 0.14 |
| (2,385) | 1:A:59:GLU:HA | 1:A:62:ASP:HB3 | 6 | 0.14 |
| (2,358) | 1:A:62:ASP:HB2 | 1:A:61:ILE:HB | 8 | 0.14 |
| (2,358) | 1:A:62:ASP:HB2 | 1:A:61:ILE:HB | 9 | 0.14 |
| (2,324) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HD2 | 8 | 0.14 |
| (2,324) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HD3 | 8 | 0.14 |
| (2,289) | 1:A:80:MET:HA | 1:A:80:MET:HB3 | 4 | 0.14 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD22 | 1 | 0.14 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD21 | 1 | 0.14 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD23 | 1 | 0.14 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD22 | 2 | 0.14 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD21 | 2 | 0.14 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD23 | 2 | 0.14 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD22 | 8 | 0.14 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD21 | 8 | 0.14 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD23 | 8 | 0.14 |
| (2,245) | 1:A:36:ILE:HA | 1:A:40:GLU:HG2 | 3 | 0.14 |
| (2,236) | 1:A:141:PRO:HD3 | 1:A:141:PRO:HB3 | 4 | 0.14 |
| (2,236) | 1:A:141:PRO:HD3 | 1:A:141:PRO:HB3 | 8 | 0.14 |
| (2,236) | 1:A:141:PRO:HD3 | 1:A:141:PRO:HB3 | 10 | 0.14 |
| (2,233) | 1:A:83:ARG:HA | 1:A:5:TYR:HD1 | 7 | 0.14 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,205) | 1:A:6:LYS:HA | 1:A:9:VAL:HG22 | 2 | 0.14 |
| (2,205) | 1:A:6:LYS:HA | 1:A:9:VAL:HG21 | 2 | 0.14 |
| (2,205) | 1:A:6:LYS:HA | 1:A:9:VAL:HG23 | 2 | 0.14 |
| (2,173) | 1:A:55:GLU:HA | 1:A:55:GLU:HG3 | 10 | 0.14 |
| (2,170) | 1:A:55:GLU:HA | 1:A:58:GLN:HA | 4 | 0.14 |
| (2,1420) | 1:A:41:LEU:HD22 | 1:A:44:VAL:HB | 1 | 0.14 |
| (2,1420) | 1:A:41:LEU:HD21 | 1:A:44:VAL:HB | 1 | 0.14 |
| (2,1420) | 1:A:41:LEU:HD23 | 1:A:44:VAL:HB | 1 | 0.14 |
| (2,1420) | 1:A:41:LEU:HD22 | 1:A:52:PRO:HG3 | 1 | 0.14 |
| (2,1420) | 1:A:41:LEU:HD21 | 1:A:52:PRO:HG3 | 1 | 0.14 |
| (2,1420) | 1:A:41:LEU:HD23 | 1:A:52:PRO:HG3 | 1 | 0.14 |
| (2,1420) | 1:A:41:LEU:HD22 | 1:A:60:MET:HE2 | 1 | 0.14 |
| (2,1420) | 1:A:41:LEU:HD22 | 1:A:60:MET:HE1 | 1 | 0.14 |
| (2,1420) | 1:A:41:LEU:HD22 | 1:A:60:MET:HE3 | 1 | 0.14 |
| (2,1420) | 1:A:41:LEU:HD21 | 1:A:60:MET:HE2 | 1 | 0.14 |
| (2,1420) | 1:A:41:LEU:HD21 | 1:A:60:MET:HE1 | 1 | 0.14 |
| (2,1420) | 1:A:41:LEU:HD21 | 1:A:60:MET:HE3 | 1 | 0.14 |
| (2,1420) | 1:A:41:LEU:HD23 | 1:A:60:MET:HE2 | 1 | 0.14 |
| (2,1420) | 1:A:41:LEU:HD23 | 1:A:60:MET:HE1 | 1 | 0.14 |
| (2,1420) | 1:A:41:LEU:HD23 | 1:A:60:MET:HE3 | 1 | 0.14 |
| (2,1420) | 1:A:41:LEU:HD22 | 1:A:148:ILE:HB | 1 | 0.14 |
| (2,1420) | 1:A:41:LEU:HD21 | 1:A:148:ILE:HB | 1 | 0.14 |
| (2,1420) | 1:A:41:LEU:HD23 | 1:A:148:ILE:HB | 1 | 0.14 |
| (2,1413) | 1:A:78:LEU:HD22 | 1:A:17:LYS:HB2 | 8 | 0.14 |
| (2,1413) | 1:A:78:LEU:HD22 | 1:A:17:LYS:HB3 | 8 | 0.14 |
| (2,1413) | 1:A:78:LEU:HD21 | 1:A:17:LYS:HB2 | 8 | 0.14 |
| (2,1413) | 1:A:78:LEU:HD21 | 1:A:17:LYS:HB3 | 8 | 0.14 |
| (2,1413) | 1:A:78:LEU:HD23 | 1:A:17:LYS:HB2 | 8 | 0.14 |
| (2,1413) | 1:A:78:LEU:HD23 | 1:A:17:LYS:HB3 | 8 | 0.14 |
| (2,1413) | 1:A:78:LEU:HD22 | 1:A:21:LYS:HB2 | 8 | 0.14 |
| (2,1413) | 1:A:78:LEU:HD21 | 1:A:21:LYS:HB2 | 8 | 0.14 |
| (2,1413) | 1:A:78:LEU:HD23 | 1:A:21:LYS:HB2 | 8 | 0.14 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:6:LYS:HA | 3 | 0.14 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:76:GLU:HA | 3 | 0.14 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:81:MET:HA | 3 | 0.14 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:6:LYS:HA | 8 | 0.14 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:76:GLU:HA | 8 | 0.14 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:81:MET:HA | 8 | 0.14 |
| (2,1401) | 1:A:85:MET:HG3 | 1:A:81:MET:HG2 | 1 | 0.14 |
| (2,1401) | 1:A:85:MET:HG3 | 1:A:82:VAL:HG22 | 1 | 0.14 |
| (2,1401) | 1:A:85:MET:HG3 | 1:A:82:VAL:HG21 | 1 | 0.14 |
| (2,1401) | 1:A:85:MET:HG3 | 1:A:82:VAL:HG23 | 1 | 0.14 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,1401) | 1:A:85:MET:HG3 | 1:A:81:MET:HG2 | 4 | 0.14 |
| (2,1401) | 1:A:85:MET:HG3 | 1:A:82:VAL:HG22 | 4 | 0.14 |
| (2,1401) | 1:A:85:MET:HG3 | 1:A:82:VAL:HG21 | 4 | 0.14 |
| (2,1401) | 1:A:85:MET:HG3 | 1:A:82:VAL:HG23 | 4 | 0.14 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG22 | 7 | 0.14 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG21 | 7 | 0.14 |
| (2,1389) | 1:A:57:LEU:HA | 1:A:61:ILE:HG23 | 7 | 0.14 |
| (2,1389) | 1:A:61:ILE:HG22 | 1:A:60:MET:HA | 7 | 0.14 |
| (2,1389) | 1:A:61:ILE:HG21 | 1:A:60:MET:HA | 7 | 0.14 |
| (2,1389) | 1:A:61:ILE:HG23 | 1:A:60:MET:HA | 7 | 0.14 |
| (2,1389) | 1:A:61:ILE:HG22 | 1:A:69:SER:HB3 | 7 | 0.14 |
| (2,1389) | 1:A:61:ILE:HG21 | 1:A:69:SER:HB3 | 7 | 0.14 |
| (2,1389) | 1:A:61:ILE:HG23 | 1:A:69:SER:HB3 | 7 | 0.14 |
| (2,1375) | 1:A:78:LEU:HD12 | 1:A:77:PHE:HE1 | 3 | 0.14 |
| (2,1375) | 1:A:78:LEU:HD11 | 1:A:77:PHE:HE1 | 3 | 0.14 |
| (2,1375) | 1:A:78:LEU:HD13 | 1:A:77:PHE:HE1 | 3 | 0.14 |
| (2,1358) | 1:A:148:ILE:HG13 | 1:A:48:LEU:HD22 | 8 | 0.14 |
| (2,1358) | 1:A:148:ILE:HG13 | 1:A:48:LEU:HD21 | 8 | 0.14 |
| (2,1358) | 1:A:148:ILE:HG13 | 1:A:48:LEU:HD23 | 8 | 0.14 |
| (2,1358) | 1:A:156:ALA:HB2 | 1:A:48:LEU:HD22 | 8 | 0.14 |
| (2,1358) | 1:A:156:ALA:HB2 | 1:A:48:LEU:HD21 | 8 | 0.14 |
| (2,1358) | 1:A:156:ALA:HB2 | 1:A:48:LEU:HD23 | 8 | 0.14 |
| (2,1358) | 1:A:156:ALA:HB1 | 1:A:48:LEU:HD22 | 8 | 0.14 |
| (2,1358) | 1:A:156:ALA:HB1 | 1:A:48:LEU:HD21 | 8 | 0.14 |
| (2,1358) | 1:A:156:ALA:HB1 | 1:A:48:LEU:HD23 | 8 | 0.14 |
| (2,1358) | 1:A:156:ALA:HB3 | 1:A:48:LEU:HD22 | 8 | 0.14 |
| (2,1358) | 1:A:156:ALA:HB3 | 1:A:48:LEU:HD21 | 8 | 0.14 |
| (2,1358) | 1:A:156:ALA:HB3 | 1:A:48:LEU:HD23 | 8 | 0.14 |
| (2,1332) | 1:A:9:VAL:HG22 | 1:A:17:LYS:HD3 | 2 | 0.14 |
| (2,1332) | 1:A:9:VAL:HG21 | 1:A:17:LYS:HD3 | 2 | 0.14 |
| (2,1332) | 1:A:9:VAL:HG23 | 1:A:17:LYS:HD3 | 2 | 0.14 |
| (2,1332) | 1:A:9:VAL:HG22 | 1:A:75:ASP:HB3 | 2 | 0.14 |
| (2,1332) | 1:A:9:VAL:HG21 | 1:A:75:ASP:HB3 | 2 | 0.14 |
| (2,1332) | 1:A:9:VAL:HG23 | 1:A:75:ASP:HB3 | 2 | 0.14 |
| (2,132) | 1:A:54:PRO:HA | 1:A:57:LEU:HG | 1 | 0.14 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG21 | 4 | 0.14 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG22 | 4 | 0.14 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG23 | 4 | 0.14 |
| (2,1313) | 1:A:38:THR:HG21 | 1:A:57:LEU:HG | 4 | 0.14 |
| (2,1313) | 1:A:38:THR:HG22 | 1:A:57:LEU:HG | 4 | 0.14 |
| (2,1313) | 1:A:38:THR:HG23 | 1:A:57:LEU:HG | 4 | 0.14 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG21 | 7 | 0.14 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG22 | 7 | 0.14 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG23 | 7 | 0.14 |
| (2,1313) | 1:A:38:THR:HG21 | 1:A:57:LEU:HG | 7 | 0.14 |
| (2,1313) | 1:A:38:THR:HG22 | 1:A:57:LEU:HG | 7 | 0.14 |
| (2,1313) | 1:A:38:THR:HG23 | 1:A:57:LEU:HG | 7 | 0.14 |
| (2,1269) | 1:A:154:MET:HE2 | 1:A:17:LYS:HA | 9 | 0.14 |
| (2,1269) | 1:A:154:MET:HE1 | 1:A:17:LYS:HA | 9 | 0.14 |
| (2,1269) | 1:A:154:MET:HE3 | 1:A:17:LYS:HA | 9 | 0.14 |
| (2,1269) | 1:A:154:MET:HE2 | 1:A:21:LYS:HA | 9 | 0.14 |
| (2,1269) | 1:A:154:MET:HE1 | 1:A:21:LYS:HA | 9 | 0.14 |
| (2,1269) | 1:A:154:MET:HE3 | 1:A:21:LYS:HA | 9 | 0.14 |
| (2,1269) | 1:A:154:MET:HE2 | 1:A:150:ALA:HA | 9 | 0.14 |
| (2,1269) | 1:A:154:MET:HE1 | 1:A:150:ALA:HA | 9 | 0.14 |
| (2,1269) | 1:A:154:MET:HE3 | 1:A:150:ALA:HA | 9 | 0.14 |
| (2,1269) | 1:A:154:MET:HE2 | 1:A:155:GLN:HA | 9 | 0.14 |
| (2,1269) | 1:A:154:MET:HE1 | 1:A:155:GLN:HA | 9 | 0.14 |
| (2,1269) | 1:A:154:MET:HE3 | 1:A:155:GLN:HA | 9 | 0.14 |
| (2,1266) | 1:A:47:MET:HE2 | 1:A:48:LEU:HA | 10 | 0.14 |
| (2,1266) | 1:A:47:MET:HE1 | 1:A:48:LEU:HA | 10 | 0.14 |
| (2,1266) | 1:A:47:MET:HE3 | 1:A:48:LEU:HA | 10 | 0.14 |
| (2,1266) | 1:A:154:MET:HA | 1:A:47:MET:HE2 | 10 | 0.14 |
| (2,1266) | 1:A:154:MET:HA | 1:A:47:MET:HE1 | 10 | 0.14 |
| (2,1266) | 1:A:154:MET:HA | 1:A:47:MET:HE3 | 10 | 0.14 |
| (2,1258) | 1:A:85:MET:HE2 | 1:A:81:MET:HG2 | 2 | 0.14 |
| (2,1258) | 1:A:85:MET:HE1 | 1:A:81:MET:HG2 | 2 | 0.14 |
| (2,1258) | 1:A:85:MET:HE3 | 1:A:81:MET:HG2 | 2 | 0.14 |
| (2,1258) | 1:A:85:MET:HE2 | 1:A:82:VAL:HG22 | 2 | 0.14 |
| (2,1258) | 1:A:85:MET:HE2 | 1:A:82:VAL:HG21 | 2 | 0.14 |
| (2,1258) | 1:A:85:MET:HE2 | 1:A:82:VAL:HG23 | 2 | 0.14 |
| (2,1258) | 1:A:85:MET:HE1 | 1:A:82:VAL:HG22 | 2 | 0.14 |
| (2,1258) | 1:A:85:MET:HE1 | 1:A:82:VAL:HG21 | 2 | 0.14 |
| (2,1258) | 1:A:85:MET:HE1 | 1:A:82:VAL:HG23 | 2 | 0.14 |
| (2,1258) | 1:A:85:MET:HE3 | 1:A:82:VAL:HG22 | 2 | 0.14 |
| (2,1258) | 1:A:85:MET:HE3 | 1:A:82:VAL:HG21 | 2 | 0.14 |
| (2,1258) | 1:A:85:MET:HE3 | 1:A:82:VAL:HG23 | 2 | 0.14 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD22 | 5 | 0.14 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD21 | 5 | 0.14 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD23 | 5 | 0.14 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD22 | 5 | 0.14 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD21 | 5 | 0.14 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD23 | 5 | 0.14 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD12 | 5 | 0.14 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD11 | 5 | 0.14 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD13 | 5 | 0.14 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD12 | 5 | 0.14 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD11 | 5 | 0.14 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD13 | 5 | 0.14 |
| (2,1242) | 1:A:11:GLN:HB3 | 1:A:12:LEU:HD12 | 4 | 0.14 |
| (2,1242) | 1:A:11:GLN:HB3 | 1:A:12:LEU:HD11 | 4 | 0.14 |
| (2,1242) | 1:A:11:GLN:HB3 | 1:A:12:LEU:HD13 | 4 | 0.14 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:12:LEU:HD12 | 4 | 0.14 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:12:LEU:HD11 | 4 | 0.14 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:12:LEU:HD13 | 4 | 0.14 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:158:LEU:HD12 | 4 | 0.14 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:158:LEU:HD11 | 4 | 0.14 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:158:LEU:HD13 | 4 | 0.14 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG22 | 5 | 0.14 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG21 | 5 | 0.14 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG23 | 5 | 0.14 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG22 | 5 | 0.14 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG21 | 5 | 0.14 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG23 | 5 | 0.14 |
| (2,1222) | 1:A:3:ASP:HB3 | 1:A:6:LYS:HB2 | 3 | 0.14 |
| (2,1222) | 1:A:3:ASP:HB3 | 1:A:6:LYS:HB3 | 3 | 0.14 |
| (2,1222) | 1:A:88:ASP:HB2 | 1:A:90:LYS:HB2 | 3 | 0.14 |
| (2,1222) | 1:A:88:ASP:HB3 | 1:A:90:LYS:HB2 | 3 | 0.14 |
| (2,1222) | 1:A:3:ASP:HB3 | 1:A:6:LYS:HB2 | 9 | 0.14 |
| (2,1222) | 1:A:3:ASP:HB3 | 1:A:6:LYS:HB3 | 9 | 0.14 |
| (2,1222) | 1:A:88:ASP:HB2 | 1:A:90:LYS:HB2 | 9 | 0.14 |
| (2,1222) | 1:A:88:ASP:HB3 | 1:A:90:LYS:HB2 | 9 | 0.14 |
| (2,1204) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HG2 | 5 | 0.14 |
| (2,1204) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HG3 | 5 | 0.14 |
| (2,1204) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HG2 | 5 | 0.14 |
| (2,1204) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HG3 | 5 | 0.14 |
| (2,1204) | 1:A:161:ARG:HD2 | 1:A:161:ARG:HG2 | 5 | 0.14 |
| (2,1204) | 1:A:161:ARG:HD3 | 1:A:161:ARG:HG2 | 5 | 0.14 |
| (2,1160) | 1:A:38:THR:HB | 1:A:41:LEU:HB3 | 9 | 0.14 |
| (2,1160) | 1:A:38:THR:HB | 1:A:57:LEU:HG | 9 | 0.14 |
| (2,1150) | 1:A:31:ALA:HA | 1:A:30:GLY:HA2 | 9 | 0.14 |
| (2,1150) | 1:A:31:ALA:HA | 1:A:32:GLU:HA | 9 | 0.14 |
| (2,1150) | 1:A:31:ALA:HA | 1:A:30:GLY:HA2 | 10 | 0.14 |
| (2,1150) | 1:A:31:ALA:HA | 1:A:32:GLU:HA | 10 | 0.14 |
| (2,1059) | 1:A:12:LEU:HG | 1:A:9:VAL:HA | 1 | 0.14 |
| (2,967) | 1:A:153:MET:HG3 | 1:A:148:ILE:HD12 | 6 | 0.13 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|------------------|----------|---------------|
| (2,967) | 1:A:153:MET:HG3 | 1:A:148:ILE:HD11 | 6 | 0.13 |
| (2,967) | 1:A:153:MET:HG3 | 1:A:148:ILE:HD13 | 6 | 0.13 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD12 | 9 | 0.13 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD11 | 9 | 0.13 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD13 | 9 | 0.13 |
| (2,908) | 1:A:78:LEU:HD12 | 1:A:74:PHE:HD1 | 1 | 0.13 |
| (2,908) | 1:A:78:LEU:HD11 | 1:A:74:PHE:HD1 | 1 | 0.13 |
| (2,908) | 1:A:78:LEU:HD13 | 1:A:74:PHE:HD1 | 1 | 0.13 |
| (2,908) | 1:A:78:LEU:HD12 | 1:A:74:PHE:HD1 | 10 | 0.13 |
| (2,908) | 1:A:78:LEU:HD11 | 1:A:74:PHE:HD1 | 10 | 0.13 |
| (2,908) | 1:A:78:LEU:HD13 | 1:A:74:PHE:HD1 | 10 | 0.13 |
| (2,90) | 1:A:11:GLN:HA | 1:A:11:GLN:HB2 | 1 | 0.13 |
| (2,90) | 1:A:11:GLN:HA | 1:A:11:GLN:HB2 | 7 | 0.13 |
| (2,893) | 1:A:34:GLY:HA3 | 1:A:28:VAL:HG22 | 5 | 0.13 |
| (2,893) | 1:A:34:GLY:HA3 | 1:A:28:VAL:HG21 | 5 | 0.13 |
| (2,893) | 1:A:34:GLY:HA3 | 1:A:28:VAL:HG23 | 5 | 0.13 |
| (2,877) | 1:A:78:LEU:HD22 | 1:A:74:PHE:HE1 | 9 | 0.13 |
| (2,877) | 1:A:78:LEU:HD21 | 1:A:74:PHE:HE1 | 9 | 0.13 |
| (2,877) | 1:A:78:LEU:HD23 | 1:A:74:PHE:HE1 | 9 | 0.13 |
| (2,814) | 1:A:26:ILE:HA | 1:A:26:ILE:HD12 | 5 | 0.13 |
| (2,814) | 1:A:26:ILE:HA | 1:A:26:ILE:HD11 | 5 | 0.13 |
| (2,814) | 1:A:26:ILE:HA | 1:A:26:ILE:HD13 | 5 | 0.13 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD12 | 7 | 0.13 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD11 | 7 | 0.13 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD13 | 7 | 0.13 |
| (2,789) | 1:A:146:VAL:HG22 | 1:A:147:ARG:HD2 | 3 | 0.13 |
| (2,789) | 1:A:146:VAL:HG22 | 1:A:147:ARG:HD3 | 3 | 0.13 |
| (2,789) | 1:A:146:VAL:HG21 | 1:A:147:ARG:HD2 | 3 | 0.13 |
| (2,789) | 1:A:146:VAL:HG21 | 1:A:147:ARG:HD3 | 3 | 0.13 |
| (2,789) | 1:A:146:VAL:HG23 | 1:A:147:ARG:HD2 | 3 | 0.13 |
| (2,789) | 1:A:146:VAL:HG23 | 1:A:147:ARG:HD3 | 3 | 0.13 |
| (2,785) | 1:A:157:LEU:HD12 | 1:A:27:PHE:HE1 | 1 | 0.13 |
| (2,785) | 1:A:157:LEU:HD11 | 1:A:27:PHE:HE1 | 1 | 0.13 |
| (2,785) | 1:A:157:LEU:HD13 | 1:A:27:PHE:HE1 | 1 | 0.13 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD12 | 4 | 0.13 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD11 | 4 | 0.13 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD13 | 4 | 0.13 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG21 | 8 | 0.13 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG22 | 8 | 0.13 |
| (2,702) | 1:A:54:PRO:HD2 | 1:A:53:THR:HG23 | 8 | 0.13 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG21 | 8 | 0.13 |
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG22 | 8 | 0.13 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (2,702) | 1:A:54:PRO:HD3 | 1:A:53:THR:HG23 | 8 | 0.13 |
| (2,661) | 1:A:29:LEU:HB2 | 1:A:29:LEU:HD22 | 3 | 0.13 |
| (2,661) | 1:A:29:LEU:HB2 | 1:A:29:LEU:HD21 | 3 | 0.13 |
| (2,661) | 1:A:29:LEU:HB2 | 1:A:29:LEU:HD23 | 3 | 0.13 |
| (2,645) | 1:A:90:LYS:HD2 | 1:A:90:LYS:HG2 | 5 | 0.13 |
| (2,645) | 1:A:90:LYS:HD2 | 1:A:90:LYS:HG3 | 5 | 0.13 |
| (2,645) | 1:A:90:LYS:HD3 | 1:A:90:LYS:HG2 | 5 | 0.13 |
| (2,645) | 1:A:90:LYS:HD3 | 1:A:90:LYS:HG3 | 5 | 0.13 |
| (2,645) | 1:A:90:LYS:HD2 | 1:A:90:LYS:HG2 | 9 | 0.13 |
| (2,645) | 1:A:90:LYS:HD2 | 1:A:90:LYS:HG3 | 9 | 0.13 |
| (2,645) | 1:A:90:LYS:HD3 | 1:A:90:LYS:HG2 | 9 | 0.13 |
| (2,645) | 1:A:90:LYS:HD3 | 1:A:90:LYS:HG3 | 9 | 0.13 |
| (2,618) | 1:A:45:MET:HE2 | 1:A:148:ILE:HA | 7 | 0.13 |
| (2,618) | 1:A:45:MET:HE1 | 1:A:148:ILE:HA | 7 | 0.13 |
| (2,618) | 1:A:45:MET:HE3 | 1:A:148:ILE:HA | 7 | 0.13 |
| (2,615) | 1:A:43:LYS:HD2 | 1:A:44:VAL:HG12 | 3 | 0.13 |
| (2,615) | 1:A:43:LYS:HD2 | 1:A:44:VAL:HG11 | 3 | 0.13 |
| (2,615) | 1:A:43:LYS:HD2 | 1:A:44:VAL:HG13 | 3 | 0.13 |
| (2,615) | 1:A:43:LYS:HD3 | 1:A:44:VAL:HG12 | 3 | 0.13 |
| (2,615) | 1:A:43:LYS:HD3 | 1:A:44:VAL:HG11 | 3 | 0.13 |
| (2,615) | 1:A:43:LYS:HD3 | 1:A:44:VAL:HG13 | 3 | 0.13 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD22 | 1 | 0.13 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD21 | 1 | 0.13 |
| (2,549) | 1:A:154:MET:HE2 | 1:A:157:LEU:HD23 | 1 | 0.13 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD22 | 1 | 0.13 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD21 | 1 | 0.13 |
| (2,549) | 1:A:154:MET:HE1 | 1:A:157:LEU:HD23 | 1 | 0.13 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD22 | 1 | 0.13 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD21 | 1 | 0.13 |
| (2,549) | 1:A:154:MET:HE3 | 1:A:157:LEU:HD23 | 1 | 0.13 |
| (2,547) | 1:A:154:MET:HE2 | 1:A:81:MET:HG2 | 2 | 0.13 |
| (2,547) | 1:A:154:MET:HE1 | 1:A:81:MET:HG2 | 2 | 0.13 |
| (2,547) | 1:A:154:MET:HE3 | 1:A:81:MET:HG2 | 2 | 0.13 |
| (2,521) | 1:A:14:GLU:HB2 | 1:A:14:GLU:HA | 10 | 0.13 |
| (2,521) | 1:A:14:GLU:HB3 | 1:A:14:GLU:HA | 10 | 0.13 |
| (2,501) | 1:A:85:MET:HG3 | 1:A:85:MET:HE2 | 1 | 0.13 |
| (2,501) | 1:A:85:MET:HG3 | 1:A:85:MET:HE1 | 1 | 0.13 |
| (2,501) | 1:A:85:MET:HG3 | 1:A:85:MET:HE3 | 1 | 0.13 |
| (2,498) | 1:A:10:GLU:HG3 | 1:A:10:GLU:HB2 | 10 | 0.13 |
| (2,498) | 1:A:10:GLU:HG3 | 1:A:10:GLU:HB3 | 10 | 0.13 |
| (2,463) | 1:A:64:VAL:HB | 1:A:72:VAL:HB | 5 | 0.13 |
| (2,45) | 1:A:65:ASP:HA | 1:A:61:ILE:HG22 | 2 | 0.13 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|----------------|------------------|----------|---------------|
| (2,45) | 1:A:65:ASP:HA | 1:A:61:ILE:HG21 | 2 | 0.13 |
| (2,45) | 1:A:65:ASP:HA | 1:A:61:ILE:HG23 | 2 | 0.13 |
| (2,444) | 1:A:40:GLU:HG3 | 1:A:40:GLU:HB2 | 6 | 0.13 |
| (2,435) | 1:A:16:GLN:HB3 | 1:A:12:LEU:HD22 | 9 | 0.13 |
| (2,435) | 1:A:16:GLN:HB3 | 1:A:12:LEU:HD21 | 9 | 0.13 |
| (2,435) | 1:A:16:GLN:HB3 | 1:A:12:LEU:HD23 | 9 | 0.13 |
| (2,42) | 1:A:2:ASP:HA | 1:A:2:ASP:HB3 | 10 | 0.13 |
| (2,413) | 1:A:55:GLU:HG2 | 1:A:55:GLU:HA | 3 | 0.13 |
| (2,407) | 1:A:52:PRO:HD3 | 1:A:51:ASN:HB3 | 2 | 0.13 |
| (2,385) | 1:A:59:GLU:HA | 1:A:62:ASP:HB3 | 7 | 0.13 |
| (2,358) | 1:A:62:ASP:HB2 | 1:A:61:ILE:HB | 2 | 0.13 |
| (2,305) | 1:A:24:PHE:HA | 1:A:27:PHE:HD1 | 5 | 0.13 |
| (2,303) | 1:A:24:PHE:HA | 1:A:74:PHE:HD1 | 4 | 0.13 |
| (2,296) | 1:A:70:GLY:HA2 | 1:A:71:THR:HG21 | 6 | 0.13 |
| (2,296) | 1:A:70:GLY:HA2 | 1:A:71:THR:HG22 | 6 | 0.13 |
| (2,296) | 1:A:70:GLY:HA2 | 1:A:71:THR:HG23 | 6 | 0.13 |
| (2,289) | 1:A:80:MET:HA | 1:A:80:MET:HB3 | 1 | 0.13 |
| (2,289) | 1:A:80:MET:HA | 1:A:80:MET:HB3 | 7 | 0.13 |
| (2,280) | 1:A:9:VAL:HA | 1:A:8:ALA:HB2 | 9 | 0.13 |
| (2,280) | 1:A:9:VAL:HA | 1:A:8:ALA:HB1 | 9 | 0.13 |
| (2,280) | 1:A:9:VAL:HA | 1:A:8:ALA:HB3 | 9 | 0.13 |
| (2,278) | 1:A:71:THR:HB | 1:A:35:SER:HB3 | 2 | 0.13 |
| (2,278) | 1:A:71:THR:HB | 1:A:35:SER:HB3 | 6 | 0.13 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD22 | 9 | 0.13 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD21 | 9 | 0.13 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD23 | 9 | 0.13 |
| (2,271) | 1:A:44:VAL:HA | 1:A:47:MET:HB2 | 7 | 0.13 |
| (2,257) | 1:A:38:THR:HA | 1:A:57:LEU:HD12 | 9 | 0.13 |
| (2,257) | 1:A:38:THR:HA | 1:A:57:LEU:HD11 | 9 | 0.13 |
| (2,257) | 1:A:38:THR:HA | 1:A:57:LEU:HD13 | 9 | 0.13 |
| (2,241) | 1:A:83:ARG:HA | 1:A:83:ARG:HB2 | 1 | 0.13 |
| (2,241) | 1:A:83:ARG:HA | 1:A:83:ARG:HB2 | 4 | 0.13 |
| (2,241) | 1:A:83:ARG:HA | 1:A:83:ARG:HB2 | 7 | 0.13 |
| (2,241) | 1:A:83:ARG:HA | 1:A:83:ARG:HB2 | 8 | 0.13 |
| (2,20) | 1:A:71:THR:HA | 1:A:36:ILE:HA | 2 | 0.13 |
| (2,197) | 1:A:149:SER:HA | 1:A:149:SER:HB3 | 2 | 0.13 |
| (2,145) | 1:A:40:GLU:HA | 1:A:31:ALA:HB2 | 7 | 0.13 |
| (2,145) | 1:A:40:GLU:HA | 1:A:31:ALA:HB1 | 7 | 0.13 |
| (2,145) | 1:A:40:GLU:HA | 1:A:31:ALA:HB3 | 7 | 0.13 |
| (2,1430) | 1:A:27:PHE:HA | 1:A:41:LEU:HD12 | 3 | 0.13 |
| (2,1430) | 1:A:27:PHE:HA | 1:A:41:LEU:HD11 | 3 | 0.13 |
| (2,1430) | 1:A:27:PHE:HA | 1:A:41:LEU:HD13 | 3 | 0.13 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,1430) | 1:A:27:PHE:HA | 1:A:61:ILE:HD12 | 3 | 0.13 |
| (2,1430) | 1:A:27:PHE:HA | 1:A:61:ILE:HD11 | 3 | 0.13 |
| (2,1430) | 1:A:27:PHE:HA | 1:A:61:ILE:HD13 | 3 | 0.13 |
| (2,1430) | 1:A:157:LEU:HD22 | 1:A:27:PHE:HA | 3 | 0.13 |
| (2,1430) | 1:A:157:LEU:HD21 | 1:A:27:PHE:HA | 3 | 0.13 |
| (2,1430) | 1:A:157:LEU:HD23 | 1:A:27:PHE:HA | 3 | 0.13 |
| (2,1430) | 1:A:57:LEU:HD22 | 1:A:55:GLU:HA | 3 | 0.13 |
| (2,1430) | 1:A:57:LEU:HD21 | 1:A:55:GLU:HA | 3 | 0.13 |
| (2,1430) | 1:A:57:LEU:HD23 | 1:A:55:GLU:HA | 3 | 0.13 |
| (2,1429) | 1:A:27:PHE:HA | 1:A:27:PHE:HD1 | 2 | 0.13 |
| (2,1422) | 1:A:10:GLU:HG2 | 1:A:8:ALA:HB2 | 7 | 0.13 |
| (2,1422) | 1:A:10:GLU:HG2 | 1:A:8:ALA:HB1 | 7 | 0.13 |
| (2,1422) | 1:A:10:GLU:HG2 | 1:A:8:ALA:HB3 | 7 | 0.13 |
| (2,1422) | 1:A:63:GLU:HG2 | 1:A:80:MET:HE2 | 7 | 0.13 |
| (2,1422) | 1:A:63:GLU:HG2 | 1:A:80:MET:HE1 | 7 | 0.13 |
| (2,1422) | 1:A:63:GLU:HG2 | 1:A:80:MET:HE3 | 7 | 0.13 |
| (2,1422) | 1:A:76:GLU:HG3 | 1:A:80:MET:HE2 | 7 | 0.13 |
| (2,1422) | 1:A:76:GLU:HG3 | 1:A:80:MET:HE1 | 7 | 0.13 |
| (2,1422) | 1:A:76:GLU:HG3 | 1:A:80:MET:HE3 | 7 | 0.13 |
| (2,142) | 1:A:7:ALA:HA | 1:A:10:GLU:HB2 | 7 | 0.13 |
| (2,142) | 1:A:7:ALA:HA | 1:A:10:GLU:HB3 | 7 | 0.13 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:6:LYS:HA | 2 | 0.13 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:76:GLU:HA | 2 | 0.13 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:81:MET:HA | 2 | 0.13 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:6:LYS:HA | 5 | 0.13 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:76:GLU:HA | 5 | 0.13 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:81:MET:HA | 5 | 0.13 |
| (2,138) | 1:A:8:ALA:HA | 1:A:82:VAL:HG22 | 3 | 0.13 |
| (2,138) | 1:A:8:ALA:HA | 1:A:82:VAL:HG21 | 3 | 0.13 |
| (2,138) | 1:A:8:ALA:HA | 1:A:82:VAL:HG23 | 3 | 0.13 |
| (2,1375) | 1:A:78:LEU:HD12 | 1:A:77:PHE:HE1 | 5 | 0.13 |
| (2,1375) | 1:A:78:LEU:HD11 | 1:A:77:PHE:HE1 | 5 | 0.13 |
| (2,1375) | 1:A:78:LEU:HD13 | 1:A:77:PHE:HE1 | 5 | 0.13 |
| (2,1371) | 1:A:79:VAL:HG12 | 1:A:78:LEU:HB3 | 3 | 0.13 |
| (2,1371) | 1:A:79:VAL:HG11 | 1:A:78:LEU:HB3 | 3 | 0.13 |
| (2,1371) | 1:A:79:VAL:HG13 | 1:A:78:LEU:HB3 | 3 | 0.13 |
| (2,1371) | 1:A:79:VAL:HG12 | 1:A:83:ARG:HB3 | 3 | 0.13 |
| (2,1371) | 1:A:79:VAL:HG11 | 1:A:83:ARG:HB3 | 3 | 0.13 |
| (2,1371) | 1:A:79:VAL:HG13 | 1:A:83:ARG:HB3 | 3 | 0.13 |
| (2,1343) | 1:A:146:VAL:HG22 | 1:A:145:ARG:HA | 3 | 0.13 |
| (2,1343) | 1:A:146:VAL:HG21 | 1:A:145:ARG:HA | 3 | 0.13 |
| (2,1343) | 1:A:146:VAL:HG23 | 1:A:145:ARG:HA | 3 | 0.13 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (2,1343) | 1:A:148:ILE:HA | 1:A:146:VAL:HG22 | 3 | 0.13 |
| (2,1343) | 1:A:148:ILE:HA | 1:A:146:VAL:HG21 | 3 | 0.13 |
| (2,1343) | 1:A:148:ILE:HA | 1:A:146:VAL:HG23 | 3 | 0.13 |
| (2,1340) | 1:A:157:LEU:HD12 | 1:A:27:PHE:HA | 10 | 0.13 |
| (2,1340) | 1:A:157:LEU:HD11 | 1:A:27:PHE:HA | 10 | 0.13 |
| (2,1340) | 1:A:157:LEU:HD13 | 1:A:27:PHE:HA | 10 | 0.13 |
| (2,1340) | 1:A:150:ALA:HA | 1:A:157:LEU:HD12 | 10 | 0.13 |
| (2,1340) | 1:A:150:ALA:HA | 1:A:157:LEU:HD11 | 10 | 0.13 |
| (2,1340) | 1:A:150:ALA:HA | 1:A:157:LEU:HD13 | 10 | 0.13 |
| (2,1340) | 1:A:157:LEU:HD12 | 1:A:153:MET:HA | 10 | 0.13 |
| (2,1340) | 1:A:157:LEU:HD11 | 1:A:153:MET:HA | 10 | 0.13 |
| (2,1340) | 1:A:157:LEU:HD13 | 1:A:153:MET:HA | 10 | 0.13 |
| (2,1331) | 1:A:79:VAL:HG22 | 1:A:2:ASP:HB2 | 8 | 0.13 |
| (2,1331) | 1:A:79:VAL:HG21 | 1:A:2:ASP:HB2 | 8 | 0.13 |
| (2,1331) | 1:A:79:VAL:HG23 | 1:A:2:ASP:HB2 | 8 | 0.13 |
| (2,1331) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG22 | 8 | 0.13 |
| (2,1331) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG21 | 8 | 0.13 |
| (2,1331) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG23 | 8 | 0.13 |
| (2,1331) | 1:A:79:VAL:HG22 | 1:A:2:ASP:HB2 | 9 | 0.13 |
| (2,1331) | 1:A:79:VAL:HG21 | 1:A:2:ASP:HB2 | 9 | 0.13 |
| (2,1331) | 1:A:79:VAL:HG23 | 1:A:2:ASP:HB2 | 9 | 0.13 |
| (2,1331) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG22 | 9 | 0.13 |
| (2,1331) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG21 | 9 | 0.13 |
| (2,1331) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG23 | 9 | 0.13 |
| (2,1262) | 1:A:11:GLN:HB3 | 1:A:7:ALA:HB2 | 3 | 0.13 |
| (2,1262) | 1:A:11:GLN:HB3 | 1:A:7:ALA:HB1 | 3 | 0.13 |
| (2,1262) | 1:A:11:GLN:HB3 | 1:A:7:ALA:HB3 | 3 | 0.13 |
| (2,1262) | 1:A:14:GLU:HB2 | 1:A:13:THR:HG21 | 3 | 0.13 |
| (2,1262) | 1:A:14:GLU:HB2 | 1:A:13:THR:HG22 | 3 | 0.13 |
| (2,1262) | 1:A:14:GLU:HB2 | 1:A:13:THR:HG23 | 3 | 0.13 |
| (2,1262) | 1:A:14:GLU:HB3 | 1:A:13:THR:HG21 | 3 | 0.13 |
| (2,1262) | 1:A:14:GLU:HB3 | 1:A:13:THR:HG22 | 3 | 0.13 |
| (2,1262) | 1:A:14:GLU:HB3 | 1:A:13:THR:HG23 | 3 | 0.13 |
| (2,1262) | 1:A:19:GLU:HB2 | 1:A:13:THR:HG21 | 3 | 0.13 |
| (2,1262) | 1:A:19:GLU:HB2 | 1:A:13:THR:HG22 | 3 | 0.13 |
| (2,1262) | 1:A:19:GLU:HB2 | 1:A:13:THR:HG23 | 3 | 0.13 |
| (2,1222) | 1:A:3:ASP:HB3 | 1:A:6:LYS:HB2 | 6 | 0.13 |
| (2,1222) | 1:A:3:ASP:HB3 | 1:A:6:LYS:HB3 | 6 | 0.13 |
| (2,1222) | 1:A:88:ASP:HB2 | 1:A:90:LYS:HB2 | 6 | 0.13 |
| (2,1222) | 1:A:88:ASP:HB3 | 1:A:90:LYS:HB2 | 6 | 0.13 |
| (2,1221) | 1:A:60:MET:HG2 | 1:A:57:LEU:HD12 | 3 | 0.13 |
| (2,1221) | 1:A:60:MET:HG2 | 1:A:57:LEU:HD11 | 3 | 0.13 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,1221) | 1:A:60:MET:HG2 | 1:A:57:LEU:HD13 | 3 | 0.13 |
| (2,1221) | 1:A:60:MET:HG3 | 1:A:57:LEU:HD12 | 3 | 0.13 |
| (2,1221) | 1:A:60:MET:HG3 | 1:A:57:LEU:HD11 | 3 | 0.13 |
| (2,1221) | 1:A:60:MET:HG3 | 1:A:57:LEU:HD13 | 3 | 0.13 |
| (2,1221) | 1:A:154:MET:HG2 | 1:A:158:LEU:HD22 | 3 | 0.13 |
| (2,1221) | 1:A:154:MET:HG2 | 1:A:158:LEU:HD21 | 3 | 0.13 |
| (2,1221) | 1:A:154:MET:HG2 | 1:A:158:LEU:HD23 | 3 | 0.13 |
| (2,1221) | 1:A:154:MET:HG3 | 1:A:158:LEU:HD22 | 3 | 0.13 |
| (2,1221) | 1:A:154:MET:HG3 | 1:A:158:LEU:HD21 | 3 | 0.13 |
| (2,1221) | 1:A:154:MET:HG3 | 1:A:158:LEU:HD23 | 3 | 0.13 |
| (2,12) | 1:A:73:ASP:HA | 1:A:24:PHE:HD1 | 1 | 0.13 |
| (2,119) | 1:A:47:MET:HA | 1:A:44:VAL:HA | 1 | 0.13 |
| (2,119) | 1:A:47:MET:HA | 1:A:44:VAL:HA | 3 | 0.13 |
| (2,119) | 1:A:47:MET:HA | 1:A:44:VAL:HA | 8 | 0.13 |
| (2,119) | 1:A:47:MET:HA | 1:A:44:VAL:HA | 9 | 0.13 |
| (2,1182) | 1:A:71:THR:HB | 1:A:61:ILE:HG22 | 6 | 0.13 |
| (2,1182) | 1:A:71:THR:HB | 1:A:61:ILE:HG21 | 6 | 0.13 |
| (2,1182) | 1:A:71:THR:HB | 1:A:61:ILE:HG23 | 6 | 0.13 |
| (2,1182) | 1:A:71:THR:HB | 1:A:61:ILE:HD12 | 6 | 0.13 |
| (2,1182) | 1:A:71:THR:HB | 1:A:61:ILE:HD11 | 6 | 0.13 |
| (2,1182) | 1:A:71:THR:HB | 1:A:61:ILE:HD13 | 6 | 0.13 |
| (2,1174) | 1:A:150:ALA:HA | 1:A:48:LEU:HD12 | 5 | 0.13 |
| (2,1174) | 1:A:150:ALA:HA | 1:A:48:LEU:HD11 | 5 | 0.13 |
| (2,1174) | 1:A:150:ALA:HA | 1:A:48:LEU:HD13 | 5 | 0.13 |
| (2,1174) | 1:A:150:ALA:HA | 1:A:148:ILE:HD12 | 5 | 0.13 |
| (2,1174) | 1:A:150:ALA:HA | 1:A:148:ILE:HD11 | 5 | 0.13 |
| (2,1174) | 1:A:150:ALA:HA | 1:A:148:ILE:HD13 | 5 | 0.13 |
| (2,1174) | 1:A:150:ALA:HA | 1:A:48:LEU:HD22 | 5 | 0.13 |
| (2,1174) | 1:A:150:ALA:HA | 1:A:48:LEU:HD21 | 5 | 0.13 |
| (2,1174) | 1:A:150:ALA:HA | 1:A:48:LEU:HD23 | 5 | 0.13 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD22 | 6 | 0.13 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD21 | 6 | 0.13 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD23 | 6 | 0.13 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD12 | 6 | 0.13 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD11 | 6 | 0.13 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD13 | 6 | 0.13 |
| (2,1150) | 1:A:31:ALA:HA | 1:A:30:GLY:HA2 | 6 | 0.13 |
| (2,1150) | 1:A:31:ALA:HA | 1:A:32:GLU:HA | 6 | 0.13 |
| (2,114) | 1:A:157:LEU:HA | 1:A:157:LEU:HD12 | 8 | 0.13 |
| (2,114) | 1:A:157:LEU:HA | 1:A:157:LEU:HD11 | 8 | 0.13 |
| (2,114) | 1:A:157:LEU:HA | 1:A:157:LEU:HD13 | 8 | 0.13 |
| (2,1105) | 1:A:52:PRO:HD2 | 1:A:51:ASN:HB2 | 6 | 0.13 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,1022) | 1:A:35:SER:HA | 1:A:31:ALA:HB2 | 3 | 0.13 |
| (2,1022) | 1:A:35:SER:HA | 1:A:31:ALA:HB1 | 3 | 0.13 |
| (2,1022) | 1:A:35:SER:HA | 1:A:31:ALA:HB3 | 3 | 0.13 |
| (2,1022) | 1:A:35:SER:HA | 1:A:31:ALA:HB2 | 7 | 0.13 |
| (2,1022) | 1:A:35:SER:HA | 1:A:31:ALA:HB1 | 7 | 0.13 |
| (2,1022) | 1:A:35:SER:HA | 1:A:31:ALA:HB3 | 7 | 0.13 |
| (2,1010) | 1:A:78:LEU:HA | 1:A:81:MET:HB2 | 3 | 0.13 |
| (2,1010) | 1:A:78:LEU:HA | 1:A:81:MET:HB2 | 5 | 0.13 |
| (2,1005) | 1:A:8:ALA:HB2 | 1:A:79:VAL:HA | 2 | 0.13 |
| (2,1005) | 1:A:8:ALA:HB1 | 1:A:79:VAL:HA | 2 | 0.13 |
| (2,1005) | 1:A:8:ALA:HB3 | 1:A:79:VAL:HA | 2 | 0.13 |
| (2,1005) | 1:A:8:ALA:HB2 | 1:A:79:VAL:HA | 3 | 0.13 |
| (2,1005) | 1:A:8:ALA:HB1 | 1:A:79:VAL:HA | 3 | 0.13 |
| (2,1005) | 1:A:8:ALA:HB3 | 1:A:79:VAL:HA | 3 | 0.13 |
| (2,1005) | 1:A:8:ALA:HB2 | 1:A:79:VAL:HA | 5 | 0.13 |
| (2,1005) | 1:A:8:ALA:HB1 | 1:A:79:VAL:HA | 5 | 0.13 |
| (2,1005) | 1:A:8:ALA:HB3 | 1:A:79:VAL:HA | 5 | 0.13 |
| (2,996) | 1:A:11:GLN:HB3 | 1:A:8:ALA:HA | 7 | 0.12 |
| (2,991) | 1:A:60:MET:HG2 | 1:A:45:MET:HE2 | 7 | 0.12 |
| (2,991) | 1:A:60:MET:HG2 | 1:A:45:MET:HE1 | 7 | 0.12 |
| (2,991) | 1:A:60:MET:HG2 | 1:A:45:MET:HE3 | 7 | 0.12 |
| (2,991) | 1:A:60:MET:HG3 | 1:A:45:MET:HE2 | 7 | 0.12 |
| (2,991) | 1:A:60:MET:HG3 | 1:A:45:MET:HE1 | 7 | 0.12 |
| (2,991) | 1:A:60:MET:HG3 | 1:A:45:MET:HE3 | 7 | 0.12 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB2 | 1 | 0.12 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB1 | 1 | 0.12 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB3 | 1 | 0.12 |
| (2,966) | 1:A:148:ILE:HA | 1:A:148:ILE:HD12 | 9 | 0.12 |
| (2,966) | 1:A:148:ILE:HA | 1:A:148:ILE:HD11 | 9 | 0.12 |
| (2,966) | 1:A:148:ILE:HA | 1:A:148:ILE:HD13 | 9 | 0.12 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG22 | 8 | 0.12 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG21 | 8 | 0.12 |
| (2,948) | 1:A:61:ILE:HA | 1:A:36:ILE:HG23 | 8 | 0.12 |
| (2,908) | 1:A:78:LEU:HD12 | 1:A:74:PHE:HD1 | 9 | 0.12 |
| (2,908) | 1:A:78:LEU:HD11 | 1:A:74:PHE:HD1 | 9 | 0.12 |
| (2,908) | 1:A:78:LEU:HD13 | 1:A:74:PHE:HD1 | 9 | 0.12 |
| (2,875) | 1:A:79:VAL:HG12 | 1:A:64:VAL:HB | 9 | 0.12 |
| (2,875) | 1:A:79:VAL:HG11 | 1:A:64:VAL:HB | 9 | 0.12 |
| (2,875) | 1:A:79:VAL:HG13 | 1:A:64:VAL:HB | 9 | 0.12 |
| (2,816) | 1:A:153:MET:HG3 | 1:A:48:LEU:HD12 | 3 | 0.12 |
| (2,816) | 1:A:153:MET:HG3 | 1:A:48:LEU:HD11 | 3 | 0.12 |
| (2,816) | 1:A:153:MET:HG3 | 1:A:48:LEU:HD13 | 3 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|------------------|----------|---------------|
| (2,816) | 1:A:153:MET:HG3 | 1:A:48:LEU:HD12 | 4 | 0.12 |
| (2,816) | 1:A:153:MET:HG3 | 1:A:48:LEU:HD11 | 4 | 0.12 |
| (2,816) | 1:A:153:MET:HG3 | 1:A:48:LEU:HD13 | 4 | 0.12 |
| (2,799) | 1:A:143:LEU:HD12 | 1:A:143:LEU:HA | 3 | 0.12 |
| (2,799) | 1:A:143:LEU:HD11 | 1:A:143:LEU:HA | 3 | 0.12 |
| (2,799) | 1:A:143:LEU:HD13 | 1:A:143:LEU:HA | 3 | 0.12 |
| (2,799) | 1:A:143:LEU:HD12 | 1:A:143:LEU:HA | 10 | 0.12 |
| (2,799) | 1:A:143:LEU:HD11 | 1:A:143:LEU:HA | 10 | 0.12 |
| (2,799) | 1:A:143:LEU:HD13 | 1:A:143:LEU:HA | 10 | 0.12 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD12 | 5 | 0.12 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD11 | 5 | 0.12 |
| (2,793) | 1:A:26:ILE:HG12 | 1:A:157:LEU:HD13 | 5 | 0.12 |
| (2,792) | 1:A:157:LEU:HD12 | 1:A:157:LEU:HB2 | 2 | 0.12 |
| (2,792) | 1:A:157:LEU:HD11 | 1:A:157:LEU:HB2 | 2 | 0.12 |
| (2,792) | 1:A:157:LEU:HD13 | 1:A:157:LEU:HB2 | 2 | 0.12 |
| (2,780) | 1:A:64:VAL:HG22 | 1:A:80:MET:HB3 | 7 | 0.12 |
| (2,780) | 1:A:64:VAL:HG21 | 1:A:80:MET:HB3 | 7 | 0.12 |
| (2,780) | 1:A:64:VAL:HG23 | 1:A:80:MET:HB3 | 7 | 0.12 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD12 | 7 | 0.12 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD11 | 7 | 0.12 |
| (2,773) | 1:A:26:ILE:HG12 | 1:A:29:LEU:HD13 | 7 | 0.12 |
| (2,723) | 1:A:142:THR:HG21 | 1:A:141:PRO:HA | 1 | 0.12 |
| (2,723) | 1:A:142:THR:HG22 | 1:A:141:PRO:HA | 1 | 0.12 |
| (2,723) | 1:A:142:THR:HG23 | 1:A:141:PRO:HA | 1 | 0.12 |
| (2,723) | 1:A:142:THR:HG21 | 1:A:141:PRO:HA | 7 | 0.12 |
| (2,723) | 1:A:142:THR:HG22 | 1:A:141:PRO:HA | 7 | 0.12 |
| (2,723) | 1:A:142:THR:HG23 | 1:A:141:PRO:HA | 7 | 0.12 |
| (2,710) | 1:A:58:GLN:HG2 | 1:A:38:THR:HG21 | 9 | 0.12 |
| (2,710) | 1:A:58:GLN:HG2 | 1:A:38:THR:HG22 | 9 | 0.12 |
| (2,710) | 1:A:58:GLN:HG2 | 1:A:38:THR:HG23 | 9 | 0.12 |
| (2,699) | 1:A:13:THR:HG21 | 1:A:12:LEU:HD22 | 3 | 0.12 |
| (2,699) | 1:A:13:THR:HG21 | 1:A:12:LEU:HD21 | 3 | 0.12 |
| (2,699) | 1:A:13:THR:HG21 | 1:A:12:LEU:HD23 | 3 | 0.12 |
| (2,699) | 1:A:13:THR:HG22 | 1:A:12:LEU:HD22 | 3 | 0.12 |
| (2,699) | 1:A:13:THR:HG22 | 1:A:12:LEU:HD21 | 3 | 0.12 |
| (2,699) | 1:A:13:THR:HG22 | 1:A:12:LEU:HD23 | 3 | 0.12 |
| (2,699) | 1:A:13:THR:HG23 | 1:A:12:LEU:HD22 | 3 | 0.12 |
| (2,699) | 1:A:13:THR:HG23 | 1:A:12:LEU:HD21 | 3 | 0.12 |
| (2,699) | 1:A:13:THR:HG23 | 1:A:12:LEU:HD23 | 3 | 0.12 |
| (2,69) | 1:A:13:THR:HA | 1:A:14:GLU:HB2 | 8 | 0.12 |
| (2,69) | 1:A:13:THR:HA | 1:A:14:GLU:HB3 | 8 | 0.12 |
| (2,661) | 1:A:29:LEU:HB2 | 1:A:29:LEU:HD22 | 7 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|----------------|------------------|----------|---------------|
| (2,661) | 1:A:29:LEU:HB2 | 1:A:29:LEU:HD21 | 7 | 0.12 |
| (2,661) | 1:A:29:LEU:HB2 | 1:A:29:LEU:HD23 | 7 | 0.12 |
| (2,661) | 1:A:29:LEU:HB2 | 1:A:29:LEU:HD22 | 10 | 0.12 |
| (2,661) | 1:A:29:LEU:HB2 | 1:A:29:LEU:HD21 | 10 | 0.12 |
| (2,661) | 1:A:29:LEU:HB2 | 1:A:29:LEU:HD23 | 10 | 0.12 |
| (2,645) | 1:A:90:LYS:HD2 | 1:A:90:LYS:HG2 | 1 | 0.12 |
| (2,645) | 1:A:90:LYS:HD2 | 1:A:90:LYS:HG3 | 1 | 0.12 |
| (2,645) | 1:A:90:LYS:HD3 | 1:A:90:LYS:HG2 | 1 | 0.12 |
| (2,645) | 1:A:90:LYS:HD3 | 1:A:90:LYS:HG3 | 1 | 0.12 |
| (2,639) | 1:A:3:ASP:HA | 1:A:6:LYS:HD2 | 7 | 0.12 |
| (2,625) | 1:A:45:MET:HE2 | 1:A:50:GLN:HG2 | 6 | 0.12 |
| (2,625) | 1:A:45:MET:HE2 | 1:A:50:GLN:HG3 | 6 | 0.12 |
| (2,625) | 1:A:45:MET:HE1 | 1:A:50:GLN:HG2 | 6 | 0.12 |
| (2,625) | 1:A:45:MET:HE1 | 1:A:50:GLN:HG3 | 6 | 0.12 |
| (2,625) | 1:A:45:MET:HE3 | 1:A:50:GLN:HG2 | 6 | 0.12 |
| (2,625) | 1:A:45:MET:HE3 | 1:A:50:GLN:HG3 | 6 | 0.12 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD22 | 9 | 0.12 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD21 | 9 | 0.12 |
| (2,602) | 1:A:44:VAL:HB | 1:A:157:LEU:HD23 | 9 | 0.12 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB2 | 6 | 0.12 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB1 | 6 | 0.12 |
| (2,60) | 1:A:3:ASP:HA | 1:A:7:ALA:HB3 | 6 | 0.12 |
| (2,597) | 1:A:56:GLU:HB2 | 1:A:56:GLU:HA | 8 | 0.12 |
| (2,518) | 1:A:140:ARG:HA | 1:A:141:PRO:HG2 | 5 | 0.12 |
| (2,518) | 1:A:140:ARG:HA | 1:A:141:PRO:HG3 | 5 | 0.12 |
| (2,501) | 1:A:85:MET:HG3 | 1:A:85:MET:HE2 | 3 | 0.12 |
| (2,501) | 1:A:85:MET:HG3 | 1:A:85:MET:HE1 | 3 | 0.12 |
| (2,501) | 1:A:85:MET:HG3 | 1:A:85:MET:HE3 | 3 | 0.12 |
| (2,501) | 1:A:85:MET:HG3 | 1:A:85:MET:HE2 | 4 | 0.12 |
| (2,501) | 1:A:85:MET:HG3 | 1:A:85:MET:HE1 | 4 | 0.12 |
| (2,501) | 1:A:85:MET:HG3 | 1:A:85:MET:HE3 | 4 | 0.12 |
| (2,498) | 1:A:10:GLU:HG3 | 1:A:10:GLU:HB2 | 1 | 0.12 |
| (2,498) | 1:A:10:GLU:HG3 | 1:A:10:GLU:HB3 | 1 | 0.12 |
| (2,498) | 1:A:10:GLU:HG3 | 1:A:10:GLU:HB2 | 7 | 0.12 |
| (2,498) | 1:A:10:GLU:HG3 | 1:A:10:GLU:HB3 | 7 | 0.12 |
| (2,494) | 1:A:10:GLU:HB2 | 1:A:9:VAL:HG12 | 7 | 0.12 |
| (2,494) | 1:A:10:GLU:HB2 | 1:A:9:VAL:HG11 | 7 | 0.12 |
| (2,494) | 1:A:10:GLU:HB2 | 1:A:9:VAL:HG13 | 7 | 0.12 |
| (2,494) | 1:A:10:GLU:HB3 | 1:A:9:VAL:HG12 | 7 | 0.12 |
| (2,494) | 1:A:10:GLU:HB3 | 1:A:9:VAL:HG11 | 7 | 0.12 |
| (2,494) | 1:A:10:GLU:HB3 | 1:A:9:VAL:HG13 | 7 | 0.12 |
| (2,491) | 1:A:79:VAL:HB | 1:A:83:ARG:HG3 | 6 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (2,491) | 1:A:79:VAL:HB | 1:A:83:ARG:HG3 | 8 | 0.12 |
| (2,477) | 1:A:153:MET:HE2 | 1:A:154:MET:HA | 9 | 0.12 |
| (2,477) | 1:A:153:MET:HE1 | 1:A:154:MET:HA | 9 | 0.12 |
| (2,477) | 1:A:153:MET:HE3 | 1:A:154:MET:HA | 9 | 0.12 |
| (2,466) | 1:A:72:VAL:HB | 1:A:61:ILE:HG22 | 9 | 0.12 |
| (2,466) | 1:A:72:VAL:HB | 1:A:61:ILE:HG21 | 9 | 0.12 |
| (2,466) | 1:A:72:VAL:HB | 1:A:61:ILE:HG23 | 9 | 0.12 |
| (2,457) | 1:A:53:THR:HA | 1:A:54:PRO:HG2 | 7 | 0.12 |
| (2,444) | 1:A:40:GLU:HG3 | 1:A:40:GLU:HB2 | 5 | 0.12 |
| (2,444) | 1:A:40:GLU:HG3 | 1:A:40:GLU:HB2 | 7 | 0.12 |
| (2,413) | 1:A:55:GLU:HG2 | 1:A:55:GLU:HA | 1 | 0.12 |
| (2,413) | 1:A:55:GLU:HG2 | 1:A:55:GLU:HA | 4 | 0.12 |
| (2,413) | 1:A:55:GLU:HG2 | 1:A:55:GLU:HA | 5 | 0.12 |
| (2,413) | 1:A:55:GLU:HG2 | 1:A:55:GLU:HA | 9 | 0.12 |
| (2,385) | 1:A:59:GLU:HA | 1:A:62:ASP:HB3 | 10 | 0.12 |
| (2,381) | 1:A:2:ASP:HB2 | 1:A:5:TYR:HE1 | 2 | 0.12 |
| (2,381) | 1:A:2:ASP:HB2 | 1:A:5:TYR:HE1 | 8 | 0.12 |
| (2,381) | 1:A:2:ASP:HB2 | 1:A:5:TYR:HE1 | 9 | 0.12 |
| (2,327) | 1:A:147:ARG:HD2 | 1:A:147:ARG:HB2 | 6 | 0.12 |
| (2,327) | 1:A:147:ARG:HD3 | 1:A:147:ARG:HB2 | 6 | 0.12 |
| (2,324) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HD2 | 1 | 0.12 |
| (2,324) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HD3 | 1 | 0.12 |
| (2,304) | 1:A:20:PHE:HB2 | 1:A:74:PHE:HE1 | 8 | 0.12 |
| (2,304) | 1:A:20:PHE:HB3 | 1:A:74:PHE:HE1 | 8 | 0.12 |
| (2,303) | 1:A:24:PHE:HA | 1:A:74:PHE:HD1 | 7 | 0.12 |
| (2,296) | 1:A:70:GLY:HA2 | 1:A:71:THR:HG21 | 9 | 0.12 |
| (2,296) | 1:A:70:GLY:HA2 | 1:A:71:THR:HG22 | 9 | 0.12 |
| (2,296) | 1:A:70:GLY:HA2 | 1:A:71:THR:HG23 | 9 | 0.12 |
| (2,290) | 1:A:80:MET:HA | 1:A:83:ARG:HB3 | 1 | 0.12 |
| (2,289) | 1:A:80:MET:HA | 1:A:80:MET:HB3 | 3 | 0.12 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD22 | 10 | 0.12 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD21 | 10 | 0.12 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD23 | 10 | 0.12 |
| (2,241) | 1:A:83:ARG:HA | 1:A:83:ARG:HB2 | 2 | 0.12 |
| (2,241) | 1:A:83:ARG:HA | 1:A:83:ARG:HB2 | 3 | 0.12 |
| (2,241) | 1:A:83:ARG:HA | 1:A:83:ARG:HB2 | 6 | 0.12 |
| (2,241) | 1:A:83:ARG:HA | 1:A:83:ARG:HB2 | 9 | 0.12 |
| (2,241) | 1:A:83:ARG:HA | 1:A:83:ARG:HB2 | 10 | 0.12 |
| (2,214) | 1:A:136:GLY:HA2 | 1:A:90:LYS:HE2 | 10 | 0.12 |
| (2,214) | 1:A:136:GLY:HA2 | 1:A:90:LYS:HE3 | 10 | 0.12 |
| (2,214) | 1:A:136:GLY:HA3 | 1:A:90:LYS:HE2 | 10 | 0.12 |
| (2,214) | 1:A:136:GLY:HA3 | 1:A:90:LYS:HE3 | 10 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|----------------|----------|---------------|
| (2,20) | 1:A:71:THR:HA | 1:A:36:ILE:HA | 7 | 0.12 |
| (2,2) | 1:A:37:SER:HA | 1:A:37:SER:HB3 | 5 | 0.12 |
| (2,199) | 1:A:75:ASP:HA | 1:A:75:ASP:HB2 | 1 | 0.12 |
| (2,199) | 1:A:75:ASP:HA | 1:A:75:ASP:HB2 | 2 | 0.12 |
| (2,199) | 1:A:75:ASP:HA | 1:A:75:ASP:HB2 | 4 | 0.12 |
| (2,199) | 1:A:75:ASP:HA | 1:A:75:ASP:HB2 | 5 | 0.12 |
| (2,199) | 1:A:75:ASP:HA | 1:A:75:ASP:HB2 | 8 | 0.12 |
| (2,164) | 1:A:28:VAL:HA | 1:A:40:GLU:HG2 | 3 | 0.12 |
| (2,148) | 1:A:10:GLU:HA | 1:A:10:GLU:HG2 | 4 | 0.12 |
| (2,148) | 1:A:10:GLU:HA | 1:A:10:GLU:HG2 | 5 | 0.12 |
| (2,148) | 1:A:10:GLU:HA | 1:A:10:GLU:HG2 | 6 | 0.12 |
| (2,1429) | 1:A:27:PHE:HA | 1:A:27:PHE:HD1 | 4 | 0.12 |
| (2,1426) | 1:A:24:PHE:HA | 1:A:21:LYS:HD2 | 6 | 0.12 |
| (2,1426) | 1:A:24:PHE:HA | 1:A:21:LYS:HD2 | 7 | 0.12 |
| (2,1426) | 1:A:24:PHE:HA | 1:A:21:LYS:HD2 | 9 | 0.12 |
| (2,142) | 1:A:7:ALA:HA | 1:A:10:GLU:HB2 | 3 | 0.12 |
| (2,142) | 1:A:7:ALA:HA | 1:A:10:GLU:HB3 | 3 | 0.12 |
| (2,1413) | 1:A:78:LEU:HD22 | 1:A:17:LYS:HB2 | 9 | 0.12 |
| (2,1413) | 1:A:78:LEU:HD22 | 1:A:17:LYS:HB3 | 9 | 0.12 |
| (2,1413) | 1:A:78:LEU:HD21 | 1:A:17:LYS:HB2 | 9 | 0.12 |
| (2,1413) | 1:A:78:LEU:HD21 | 1:A:17:LYS:HB3 | 9 | 0.12 |
| (2,1413) | 1:A:78:LEU:HD23 | 1:A:17:LYS:HB2 | 9 | 0.12 |
| (2,1413) | 1:A:78:LEU:HD23 | 1:A:17:LYS:HB3 | 9 | 0.12 |
| (2,1413) | 1:A:78:LEU:HD22 | 1:A:21:LYS:HB2 | 9 | 0.12 |
| (2,1413) | 1:A:78:LEU:HD21 | 1:A:21:LYS:HB2 | 9 | 0.12 |
| (2,1413) | 1:A:78:LEU:HD23 | 1:A:21:LYS:HB2 | 9 | 0.12 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:6:LYS:HA | 4 | 0.12 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:76:GLU:HA | 4 | 0.12 |
| (2,1412) | 1:A:79:VAL:HA | 1:A:81:MET:HA | 4 | 0.12 |
| (2,1404) | 1:A:153:MET:HE2 | 1:A:20:PHE:HB2 | 3 | 0.12 |
| (2,1404) | 1:A:153:MET:HE2 | 1:A:20:PHE:HB3 | 3 | 0.12 |
| (2,1404) | 1:A:153:MET:HE1 | 1:A:20:PHE:HB2 | 3 | 0.12 |
| (2,1404) | 1:A:153:MET:HE1 | 1:A:20:PHE:HB3 | 3 | 0.12 |
| (2,1404) | 1:A:153:MET:HE3 | 1:A:20:PHE:HB2 | 3 | 0.12 |
| (2,1404) | 1:A:153:MET:HE3 | 1:A:20:PHE:HB3 | 3 | 0.12 |
| (2,1404) | 1:A:153:MET:HE2 | 1:A:24:PHE:HA | 3 | 0.12 |
| (2,1404) | 1:A:153:MET:HE1 | 1:A:24:PHE:HA | 3 | 0.12 |
| (2,1404) | 1:A:153:MET:HE3 | 1:A:24:PHE:HA | 3 | 0.12 |
| (2,1404) | 1:A:153:MET:HE2 | 1:A:20:PHE:HB2 | 5 | 0.12 |
| (2,1404) | 1:A:153:MET:HE2 | 1:A:20:PHE:HB3 | 5 | 0.12 |
| (2,1404) | 1:A:153:MET:HE1 | 1:A:20:PHE:HB2 | 5 | 0.12 |
| (2,1404) | 1:A:153:MET:HE1 | 1:A:20:PHE:HB3 | 5 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1404) | 1:A:153:MET:HE3 | 1:A:20:PHE:HB2 | 5 | 0.12 |
| (2,1404) | 1:A:153:MET:HE3 | 1:A:20:PHE:HB3 | 5 | 0.12 |
| (2,1404) | 1:A:153:MET:HE2 | 1:A:24:PHE:HA | 5 | 0.12 |
| (2,1404) | 1:A:153:MET:HE1 | 1:A:24:PHE:HA | 5 | 0.12 |
| (2,1404) | 1:A:153:MET:HE3 | 1:A:24:PHE:HA | 5 | 0.12 |
| (2,138) | 1:A:8:ALA:HA | 1:A:82:VAL:HG22 | 8 | 0.12 |
| (2,138) | 1:A:8:ALA:HA | 1:A:82:VAL:HG21 | 8 | 0.12 |
| (2,138) | 1:A:8:ALA:HA | 1:A:82:VAL:HG23 | 8 | 0.12 |
| (2,1331) | 1:A:79:VAL:HG22 | 1:A:2:ASP:HB2 | 4 | 0.12 |
| (2,1331) | 1:A:79:VAL:HG21 | 1:A:2:ASP:HB2 | 4 | 0.12 |
| (2,1331) | 1:A:79:VAL:HG23 | 1:A:2:ASP:HB2 | 4 | 0.12 |
| (2,1331) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG22 | 4 | 0.12 |
| (2,1331) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG21 | 4 | 0.12 |
| (2,1331) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG23 | 4 | 0.12 |
| (2,1329) | 1:A:5:TYR:HA | 1:A:9:VAL:HG22 | 2 | 0.12 |
| (2,1329) | 1:A:5:TYR:HA | 1:A:9:VAL:HG21 | 2 | 0.12 |
| (2,1329) | 1:A:5:TYR:HA | 1:A:9:VAL:HG23 | 2 | 0.12 |
| (2,1329) | 1:A:5:TYR:HA | 1:A:79:VAL:HG22 | 2 | 0.12 |
| (2,1329) | 1:A:5:TYR:HA | 1:A:79:VAL:HG21 | 2 | 0.12 |
| (2,1329) | 1:A:5:TYR:HA | 1:A:79:VAL:HG23 | 2 | 0.12 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG21 | 2 | 0.12 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG22 | 2 | 0.12 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG23 | 2 | 0.12 |
| (2,1313) | 1:A:38:THR:HG21 | 1:A:57:LEU:HG | 2 | 0.12 |
| (2,1313) | 1:A:38:THR:HG22 | 1:A:57:LEU:HG | 2 | 0.12 |
| (2,1313) | 1:A:38:THR:HG23 | 1:A:57:LEU:HG | 2 | 0.12 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG21 | 3 | 0.12 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG22 | 3 | 0.12 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG23 | 3 | 0.12 |
| (2,1313) | 1:A:38:THR:HG21 | 1:A:57:LEU:HG | 3 | 0.12 |
| (2,1313) | 1:A:38:THR:HG22 | 1:A:57:LEU:HG | 3 | 0.12 |
| (2,1313) | 1:A:38:THR:HG23 | 1:A:57:LEU:HG | 3 | 0.12 |
| (2,1287) | 1:A:38:THR:HA | 1:A:57:LEU:HG | 7 | 0.12 |
| (2,1287) | 1:A:140:ARG:HG2 | 1:A:141:PRO:HD2 | 7 | 0.12 |
| (2,1287) | 1:A:140:ARG:HG3 | 1:A:141:PRO:HD2 | 7 | 0.12 |
| (2,1255) | 1:A:85:MET:HE2 | 1:A:81:MET:HA | 4 | 0.12 |
| (2,1255) | 1:A:85:MET:HE1 | 1:A:81:MET:HA | 4 | 0.12 |
| (2,1255) | 1:A:85:MET:HE3 | 1:A:81:MET:HA | 4 | 0.12 |
| (2,1255) | 1:A:85:MET:HE2 | 1:A:84:SER:HB2 | 4 | 0.12 |
| (2,1255) | 1:A:85:MET:HE2 | 1:A:84:SER:HB3 | 4 | 0.12 |
| (2,1255) | 1:A:85:MET:HE1 | 1:A:84:SER:HB2 | 4 | 0.12 |
| (2,1255) | 1:A:85:MET:HE1 | 1:A:84:SER:HB3 | 4 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|----------------|------------------|----------|---------------|
| (2,1255) | 1:A:85:MET:HE3 | 1:A:84:SER:HB2 | 4 | 0.12 |
| (2,1255) | 1:A:85:MET:HE3 | 1:A:84:SER:HB3 | 4 | 0.12 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD22 | 6 | 0.12 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD21 | 6 | 0.12 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD23 | 6 | 0.12 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD22 | 6 | 0.12 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD21 | 6 | 0.12 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD23 | 6 | 0.12 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD12 | 6 | 0.12 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD11 | 6 | 0.12 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD13 | 6 | 0.12 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD12 | 6 | 0.12 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD11 | 6 | 0.12 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD13 | 6 | 0.12 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD22 | 9 | 0.12 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD21 | 9 | 0.12 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD23 | 9 | 0.12 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD22 | 9 | 0.12 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD21 | 9 | 0.12 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD23 | 9 | 0.12 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD12 | 9 | 0.12 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD11 | 9 | 0.12 |
| (2,1248) | 1:A:50:GLN:HG2 | 1:A:48:LEU:HD13 | 9 | 0.12 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD12 | 9 | 0.12 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD11 | 9 | 0.12 |
| (2,1248) | 1:A:50:GLN:HG3 | 1:A:48:LEU:HD13 | 9 | 0.12 |
| (2,1242) | 1:A:11:GLN:HB3 | 1:A:12:LEU:HD12 | 6 | 0.12 |
| (2,1242) | 1:A:11:GLN:HB3 | 1:A:12:LEU:HD11 | 6 | 0.12 |
| (2,1242) | 1:A:11:GLN:HB3 | 1:A:12:LEU:HD13 | 6 | 0.12 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:12:LEU:HD12 | 6 | 0.12 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:12:LEU:HD11 | 6 | 0.12 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:12:LEU:HD13 | 6 | 0.12 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:158:LEU:HD12 | 6 | 0.12 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:158:LEU:HD11 | 6 | 0.12 |
| (2,1242) | 1:A:19:GLU:HB2 | 1:A:158:LEU:HD13 | 6 | 0.12 |
| (2,12) | 1:A:73:ASP:HA | 1:A:24:PHE:HD1 | 4 | 0.12 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG22 | 9 | 0.12 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG21 | 9 | 0.12 |
| (2,1193) | 1:A:80:MET:HA | 1:A:64:VAL:HG23 | 9 | 0.12 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG12 | 9 | 0.12 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG11 | 9 | 0.12 |
| (2,1193) | 1:A:80:MET:HA | 1:A:82:VAL:HG13 | 9 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1191) | 1:A:52:PRO:HD3 | 1:A:57:LEU:HD12 | 6 | 0.12 |
| (2,1191) | 1:A:52:PRO:HD3 | 1:A:57:LEU:HD11 | 6 | 0.12 |
| (2,1191) | 1:A:52:PRO:HD3 | 1:A:57:LEU:HD13 | 6 | 0.12 |
| (2,1191) | 1:A:52:PRO:HD3 | 1:A:57:LEU:HD12 | 7 | 0.12 |
| (2,1191) | 1:A:52:PRO:HD3 | 1:A:57:LEU:HD11 | 7 | 0.12 |
| (2,1191) | 1:A:52:PRO:HD3 | 1:A:57:LEU:HD13 | 7 | 0.12 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB2 | 10 | 0.12 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB1 | 10 | 0.12 |
| (2,1177) | 1:A:153:MET:HA | 1:A:152:ALA:HB3 | 10 | 0.12 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB2 | 10 | 0.12 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB1 | 10 | 0.12 |
| (2,1177) | 1:A:153:MET:HA | 1:A:156:ALA:HB3 | 10 | 0.12 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD22 | 3 | 0.12 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD21 | 3 | 0.12 |
| (2,1161) | 1:A:38:THR:HB | 1:A:57:LEU:HD23 | 3 | 0.12 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD12 | 3 | 0.12 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD11 | 3 | 0.12 |
| (2,1161) | 1:A:38:THR:HB | 1:A:61:ILE:HD13 | 3 | 0.12 |
| (2,1159) | 1:A:69:SER:HB2 | 1:A:68:GLY:HA2 | 9 | 0.12 |
| (2,1159) | 1:A:69:SER:HB2 | 1:A:71:THR:HB | 9 | 0.12 |
| (2,1150) | 1:A:31:ALA:HA | 1:A:30:GLY:HA2 | 2 | 0.12 |
| (2,1150) | 1:A:31:ALA:HA | 1:A:32:GLU:HA | 2 | 0.12 |
| (2,1150) | 1:A:31:ALA:HA | 1:A:30:GLY:HA2 | 3 | 0.12 |
| (2,1150) | 1:A:31:ALA:HA | 1:A:32:GLU:HA | 3 | 0.12 |
| (2,1150) | 1:A:31:ALA:HA | 1:A:30:GLY:HA2 | 4 | 0.12 |
| (2,1150) | 1:A:31:ALA:HA | 1:A:32:GLU:HA | 4 | 0.12 |
| (2,1150) | 1:A:31:ALA:HA | 1:A:30:GLY:HA2 | 7 | 0.12 |
| (2,1150) | 1:A:31:ALA:HA | 1:A:32:GLU:HA | 7 | 0.12 |
| (2,1150) | 1:A:31:ALA:HA | 1:A:30:GLY:HA2 | 8 | 0.12 |
| (2,1150) | 1:A:31:ALA:HA | 1:A:32:GLU:HA | 8 | 0.12 |
| (2,1091) | 1:A:40:GLU:HA | 1:A:36:ILE:HG22 | 2 | 0.12 |
| (2,1091) | 1:A:40:GLU:HA | 1:A:36:ILE:HG21 | 2 | 0.12 |
| (2,1091) | 1:A:40:GLU:HA | 1:A:36:ILE:HG23 | 2 | 0.12 |
| (2,1071) | 1:A:16:GLN:HG3 | 1:A:20:PHE:HD1 | 4 | 0.12 |
| (2,1023) | 1:A:71:THR:HG21 | 1:A:35:SER:HA | 1 | 0.12 |
| (2,1023) | 1:A:71:THR:HG22 | 1:A:35:SER:HA | 1 | 0.12 |
| (2,1023) | 1:A:71:THR:HG23 | 1:A:35:SER:HA | 1 | 0.12 |
| (2,1010) | 1:A:78:LEU:HA | 1:A:81:MET:HB2 | 2 | 0.12 |
| (2,99) | 1:A:163:LYS:HA | 1:A:164:GLY:HA2 | 5 | 0.11 |
| (2,99) | 1:A:163:LYS:HA | 1:A:164:GLY:HA3 | 5 | 0.11 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB2 | 5 | 0.11 |
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB1 | 5 | 0.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (2,985) | 1:A:20:PHE:HA | 1:A:22:ALA:HB3 | 5 | 0.11 |
| (2,97) | 1:A:25:ASP:HA | 1:A:28:VAL:HG12 | 2 | 0.11 |
| (2,97) | 1:A:25:ASP:HA | 1:A:28:VAL:HG11 | 2 | 0.11 |
| (2,97) | 1:A:25:ASP:HA | 1:A:28:VAL:HG13 | 2 | 0.11 |
| (2,97) | 1:A:25:ASP:HA | 1:A:28:VAL:HG12 | 10 | 0.11 |
| (2,97) | 1:A:25:ASP:HA | 1:A:28:VAL:HG11 | 10 | 0.11 |
| (2,97) | 1:A:25:ASP:HA | 1:A:28:VAL:HG13 | 10 | 0.11 |
| (2,966) | 1:A:148:ILE:HA | 1:A:148:ILE:HD12 | 4 | 0.11 |
| (2,966) | 1:A:148:ILE:HA | 1:A:148:ILE:HD11 | 4 | 0.11 |
| (2,966) | 1:A:148:ILE:HA | 1:A:148:ILE:HD13 | 4 | 0.11 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD12 | 4 | 0.11 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD11 | 4 | 0.11 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD13 | 4 | 0.11 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD12 | 5 | 0.11 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD11 | 5 | 0.11 |
| (2,944) | 1:A:72:VAL:HB | 1:A:36:ILE:HD13 | 5 | 0.11 |
| (2,923) | 1:A:44:VAL:HG12 | 1:A:45:MET:HB2 | 4 | 0.11 |
| (2,923) | 1:A:44:VAL:HG12 | 1:A:45:MET:HB3 | 4 | 0.11 |
| (2,923) | 1:A:44:VAL:HG11 | 1:A:45:MET:HB2 | 4 | 0.11 |
| (2,923) | 1:A:44:VAL:HG11 | 1:A:45:MET:HB3 | 4 | 0.11 |
| (2,923) | 1:A:44:VAL:HG13 | 1:A:45:MET:HB2 | 4 | 0.11 |
| (2,923) | 1:A:44:VAL:HG13 | 1:A:45:MET:HB3 | 4 | 0.11 |
| (2,908) | 1:A:78:LEU:HD12 | 1:A:74:PHE:HD1 | 4 | 0.11 |
| (2,908) | 1:A:78:LEU:HD11 | 1:A:74:PHE:HD1 | 4 | 0.11 |
| (2,908) | 1:A:78:LEU:HD13 | 1:A:74:PHE:HD1 | 4 | 0.11 |
| (2,906) | 1:A:78:LEU:HD12 | 1:A:20:PHE:HD1 | 4 | 0.11 |
| (2,906) | 1:A:78:LEU:HD11 | 1:A:20:PHE:HD1 | 4 | 0.11 |
| (2,906) | 1:A:78:LEU:HD13 | 1:A:20:PHE:HD1 | 4 | 0.11 |
| (2,90) | 1:A:11:GLN:HA | 1:A:11:GLN:HB2 | 2 | 0.11 |
| (2,877) | 1:A:78:LEU:HD22 | 1:A:74:PHE:HE1 | 1 | 0.11 |
| (2,877) | 1:A:78:LEU:HD21 | 1:A:74:PHE:HE1 | 1 | 0.11 |
| (2,877) | 1:A:78:LEU:HD23 | 1:A:74:PHE:HE1 | 1 | 0.11 |
| (2,876) | 1:A:78:LEU:HD22 | 1:A:77:PHE:HE1 | 2 | 0.11 |
| (2,876) | 1:A:78:LEU:HD21 | 1:A:77:PHE:HE1 | 2 | 0.11 |
| (2,876) | 1:A:78:LEU:HD23 | 1:A:77:PHE:HE1 | 2 | 0.11 |
| (2,875) | 1:A:79:VAL:HG12 | 1:A:64:VAL:HB | 6 | 0.11 |
| (2,875) | 1:A:79:VAL:HG11 | 1:A:64:VAL:HB | 6 | 0.11 |
| (2,875) | 1:A:79:VAL:HG13 | 1:A:64:VAL:HB | 6 | 0.11 |
| (2,871) | 1:A:41:LEU:HB2 | 1:A:61:ILE:HD12 | 7 | 0.11 |
| (2,871) | 1:A:41:LEU:HB2 | 1:A:61:ILE:HD11 | 7 | 0.11 |
| (2,871) | 1:A:41:LEU:HB2 | 1:A:61:ILE:HD13 | 7 | 0.11 |
| (2,866) | 1:A:61:ILE:HB | 1:A:61:ILE:HD12 | 1 | 0.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|-----------------|----------|---------------|
| (2,866) | 1:A:61:ILE:HB | 1:A:61:ILE:HD11 | 1 | 0.11 |
| (2,866) | 1:A:61:ILE:HB | 1:A:61:ILE:HD13 | 1 | 0.11 |
| (2,866) | 1:A:61:ILE:HB | 1:A:61:ILE:HD12 | 8 | 0.11 |
| (2,866) | 1:A:61:ILE:HB | 1:A:61:ILE:HD11 | 8 | 0.11 |
| (2,866) | 1:A:61:ILE:HB | 1:A:61:ILE:HD13 | 8 | 0.11 |
| (2,814) | 1:A:26:ILE:HA | 1:A:26:ILE:HD12 | 8 | 0.11 |
| (2,814) | 1:A:26:ILE:HA | 1:A:26:ILE:HD11 | 8 | 0.11 |
| (2,814) | 1:A:26:ILE:HA | 1:A:26:ILE:HD13 | 8 | 0.11 |
| (2,81) | 1:A:85:MET:HA | 1:A:85:MET:HB3 | 5 | 0.11 |
| (2,799) | 1:A:143:LEU:HD12 | 1:A:143:LEU:HA | 1 | 0.11 |
| (2,799) | 1:A:143:LEU:HD11 | 1:A:143:LEU:HA | 1 | 0.11 |
| (2,799) | 1:A:143:LEU:HD13 | 1:A:143:LEU:HA | 1 | 0.11 |
| (2,799) | 1:A:143:LEU:HD12 | 1:A:143:LEU:HA | 2 | 0.11 |
| (2,799) | 1:A:143:LEU:HD11 | 1:A:143:LEU:HA | 2 | 0.11 |
| (2,799) | 1:A:143:LEU:HD13 | 1:A:143:LEU:HA | 2 | 0.11 |
| (2,799) | 1:A:143:LEU:HD12 | 1:A:143:LEU:HA | 4 | 0.11 |
| (2,799) | 1:A:143:LEU:HD11 | 1:A:143:LEU:HA | 4 | 0.11 |
| (2,799) | 1:A:143:LEU:HD13 | 1:A:143:LEU:HA | 4 | 0.11 |
| (2,799) | 1:A:143:LEU:HD12 | 1:A:143:LEU:HA | 9 | 0.11 |
| (2,799) | 1:A:143:LEU:HD11 | 1:A:143:LEU:HA | 9 | 0.11 |
| (2,799) | 1:A:143:LEU:HD13 | 1:A:143:LEU:HA | 9 | 0.11 |
| (2,79) | 1:A:158:LEU:HA | 1:A:158:LEU:HG | 5 | 0.11 |
| (2,79) | 1:A:158:LEU:HA | 1:A:158:LEU:HG | 6 | 0.11 |
| (2,79) | 1:A:158:LEU:HA | 1:A:158:LEU:HG | 9 | 0.11 |
| (2,781) | 1:A:9:VAL:HG12 | 1:A:78:LEU:HB3 | 1 | 0.11 |
| (2,781) | 1:A:9:VAL:HG11 | 1:A:78:LEU:HB3 | 1 | 0.11 |
| (2,781) | 1:A:9:VAL:HG13 | 1:A:78:LEU:HB3 | 1 | 0.11 |
| (2,76) | 1:A:154:MET:HA | 1:A:158:LEU:HG | 1 | 0.11 |
| (2,723) | 1:A:142:THR:HG21 | 1:A:141:PRO:HA | 8 | 0.11 |
| (2,723) | 1:A:142:THR:HG22 | 1:A:141:PRO:HA | 8 | 0.11 |
| (2,723) | 1:A:142:THR:HG23 | 1:A:141:PRO:HA | 8 | 0.11 |
| (2,723) | 1:A:142:THR:HG21 | 1:A:141:PRO:HA | 10 | 0.11 |
| (2,723) | 1:A:142:THR:HG22 | 1:A:141:PRO:HA | 10 | 0.11 |
| (2,723) | 1:A:142:THR:HG23 | 1:A:141:PRO:HA | 10 | 0.11 |
| (2,69) | 1:A:13:THR:HA | 1:A:14:GLU:HB2 | 1 | 0.11 |
| (2,69) | 1:A:13:THR:HA | 1:A:14:GLU:HB3 | 1 | 0.11 |
| (2,676) | 1:A:34:GLY:HA3 | 1:A:31:ALA:HB2 | 9 | 0.11 |
| (2,676) | 1:A:34:GLY:HA3 | 1:A:31:ALA:HB1 | 9 | 0.11 |
| (2,676) | 1:A:34:GLY:HA3 | 1:A:31:ALA:HB3 | 9 | 0.11 |
| (2,643) | 1:A:139:LYS:HE2 | 1:A:140:ARG:HG2 | 3 | 0.11 |
| (2,643) | 1:A:139:LYS:HE2 | 1:A:140:ARG:HG3 | 3 | 0.11 |
| (2,625) | 1:A:45:MET:HE2 | 1:A:50:GLN:HG2 | 3 | 0.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (2,625) | 1:A:45:MET:HE2 | 1:A:50:GLN:HG3 | 3 | 0.11 |
| (2,625) | 1:A:45:MET:HE1 | 1:A:50:GLN:HG2 | 3 | 0.11 |
| (2,625) | 1:A:45:MET:HE1 | 1:A:50:GLN:HG3 | 3 | 0.11 |
| (2,625) | 1:A:45:MET:HE3 | 1:A:50:GLN:HG2 | 3 | 0.11 |
| (2,625) | 1:A:45:MET:HE3 | 1:A:50:GLN:HG3 | 3 | 0.11 |
| (2,597) | 1:A:56:GLU:HB2 | 1:A:56:GLU:HA | 9 | 0.11 |
| (2,575) | 1:A:157:LEU:HB3 | 1:A:26:ILE:HG22 | 2 | 0.11 |
| (2,575) | 1:A:157:LEU:HB3 | 1:A:26:ILE:HG21 | 2 | 0.11 |
| (2,575) | 1:A:157:LEU:HB3 | 1:A:26:ILE:HG23 | 2 | 0.11 |
| (2,498) | 1:A:10:GLU:HG3 | 1:A:10:GLU:HB2 | 3 | 0.11 |
| (2,498) | 1:A:10:GLU:HG3 | 1:A:10:GLU:HB3 | 3 | 0.11 |
| (2,498) | 1:A:10:GLU:HG3 | 1:A:10:GLU:HB2 | 6 | 0.11 |
| (2,498) | 1:A:10:GLU:HG3 | 1:A:10:GLU:HB3 | 6 | 0.11 |
| (2,498) | 1:A:10:GLU:HG3 | 1:A:10:GLU:HB2 | 8 | 0.11 |
| (2,498) | 1:A:10:GLU:HG3 | 1:A:10:GLU:HB3 | 8 | 0.11 |
| (2,491) | 1:A:79:VAL:HB | 1:A:83:ARG:HG3 | 1 | 0.11 |
| (2,468) | 1:A:6:LYS:HA | 1:A:9:VAL:HB | 4 | 0.11 |
| (2,468) | 1:A:6:LYS:HA | 1:A:9:VAL:HB | 9 | 0.11 |
| (2,457) | 1:A:53:THR:HA | 1:A:54:PRO:HG2 | 9 | 0.11 |
| (2,444) | 1:A:40:GLU:HG3 | 1:A:40:GLU:HB2 | 8 | 0.11 |
| (2,441) | 1:A:40:GLU:HA | 1:A:40:GLU:HG3 | 1 | 0.11 |
| (2,41) | 1:A:140:ARG:HA | 1:A:140:ARG:HD2 | 1 | 0.11 |
| (2,41) | 1:A:140:ARG:HA | 1:A:140:ARG:HD3 | 1 | 0.11 |
| (2,407) | 1:A:52:PRO:HD3 | 1:A:51:ASN:HB3 | 7 | 0.11 |
| (2,381) | 1:A:2:ASP:HB2 | 1:A:5:TYR:HE1 | 1 | 0.11 |
| (2,324) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HD2 | 2 | 0.11 |
| (2,324) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HD3 | 2 | 0.11 |
| (2,324) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HD2 | 9 | 0.11 |
| (2,324) | 1:A:141:PRO:HD3 | 1:A:140:ARG:HD3 | 9 | 0.11 |
| (2,289) | 1:A:80:MET:HA | 1:A:80:MET:HB3 | 5 | 0.11 |
| (2,280) | 1:A:9:VAL:HA | 1:A:8:ALA:HB2 | 5 | 0.11 |
| (2,280) | 1:A:9:VAL:HA | 1:A:8:ALA:HB1 | 5 | 0.11 |
| (2,280) | 1:A:9:VAL:HA | 1:A:8:ALA:HB3 | 5 | 0.11 |
| (2,278) | 1:A:71:THR:HB | 1:A:35:SER:HB3 | 3 | 0.11 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD22 | 3 | 0.11 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD21 | 3 | 0.11 |
| (2,275) | 1:A:44:VAL:HA | 1:A:157:LEU:HD23 | 3 | 0.11 |
| (2,268) | 1:A:58:GLN:HA | 1:A:61:ILE:HG12 | 4 | 0.11 |
| (2,236) | 1:A:141:PRO:HD3 | 1:A:141:PRO:HB3 | 1 | 0.11 |
| (2,227) | 1:A:77:PHE:HA | 1:A:72:VAL:HG22 | 6 | 0.11 |
| (2,227) | 1:A:77:PHE:HA | 1:A:72:VAL:HG21 | 6 | 0.11 |
| (2,227) | 1:A:77:PHE:HA | 1:A:72:VAL:HG23 | 6 | 0.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|----------------|----------|---------------|
| (2,224) | 1:A:82:VAL:HA | 1:A:85:MET:HG2 | 7 | 0.11 |
| (2,199) | 1:A:75:ASP:HA | 1:A:75:ASP:HB2 | 3 | 0.11 |
| (2,199) | 1:A:75:ASP:HA | 1:A:75:ASP:HB2 | 7 | 0.11 |
| (2,199) | 1:A:75:ASP:HA | 1:A:75:ASP:HB2 | 10 | 0.11 |
| (2,177) | 1:A:57:LEU:HA | 1:A:60:MET:HE2 | 3 | 0.11 |
| (2,177) | 1:A:57:LEU:HA | 1:A:60:MET:HE1 | 3 | 0.11 |
| (2,177) | 1:A:57:LEU:HA | 1:A:60:MET:HE3 | 3 | 0.11 |
| (2,177) | 1:A:57:LEU:HA | 1:A:60:MET:HE2 | 9 | 0.11 |
| (2,177) | 1:A:57:LEU:HA | 1:A:60:MET:HE1 | 9 | 0.11 |
| (2,177) | 1:A:57:LEU:HA | 1:A:60:MET:HE3 | 9 | 0.11 |
| (2,145) | 1:A:40:GLU:HA | 1:A:31:ALA:HB2 | 3 | 0.11 |
| (2,145) | 1:A:40:GLU:HA | 1:A:31:ALA:HB1 | 3 | 0.11 |
| (2,145) | 1:A:40:GLU:HA | 1:A:31:ALA:HB3 | 3 | 0.11 |
| (2,1434) | 1:A:83:ARG:HA | 1:A:82:VAL:HB | 3 | 0.11 |
| (2,1434) | 1:A:83:ARG:HA | 1:A:85:MET:HE2 | 3 | 0.11 |
| (2,1434) | 1:A:83:ARG:HA | 1:A:85:MET:HE1 | 3 | 0.11 |
| (2,1434) | 1:A:83:ARG:HA | 1:A:85:MET:HE3 | 3 | 0.11 |
| (2,1434) | 1:A:83:ARG:HA | 1:A:85:MET:HB2 | 3 | 0.11 |
| (2,1429) | 1:A:27:PHE:HA | 1:A:27:PHE:HD1 | 9 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD22 | 1:A:44:VAL:HB | 7 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD21 | 1:A:44:VAL:HB | 7 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD23 | 1:A:44:VAL:HB | 7 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD22 | 1:A:52:PRO:HG3 | 7 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD21 | 1:A:52:PRO:HG3 | 7 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD23 | 1:A:52:PRO:HG3 | 7 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD22 | 1:A:60:MET:HE2 | 7 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD22 | 1:A:60:MET:HE1 | 7 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD22 | 1:A:60:MET:HE3 | 7 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD21 | 1:A:60:MET:HE2 | 7 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD21 | 1:A:60:MET:HE1 | 7 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD21 | 1:A:60:MET:HE3 | 7 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD23 | 1:A:60:MET:HE2 | 7 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD23 | 1:A:60:MET:HE1 | 7 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD23 | 1:A:60:MET:HE3 | 7 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD22 | 1:A:148:ILE:HB | 7 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD21 | 1:A:148:ILE:HB | 7 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD23 | 1:A:148:ILE:HB | 7 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD22 | 1:A:44:VAL:HB | 9 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD21 | 1:A:44:VAL:HB | 9 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD23 | 1:A:44:VAL:HB | 9 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD22 | 1:A:52:PRO:HG3 | 9 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD21 | 1:A:52:PRO:HG3 | 9 | 0.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,1420) | 1:A:41:LEU:HD23 | 1:A:52:PRO:HG3 | 9 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD22 | 1:A:60:MET:HE2 | 9 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD22 | 1:A:60:MET:HE1 | 9 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD22 | 1:A:60:MET:HE3 | 9 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD21 | 1:A:60:MET:HE2 | 9 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD21 | 1:A:60:MET:HE1 | 9 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD21 | 1:A:60:MET:HE3 | 9 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD23 | 1:A:60:MET:HE2 | 9 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD23 | 1:A:60:MET:HE1 | 9 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD23 | 1:A:60:MET:HE3 | 9 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD22 | 1:A:148:ILE:HB | 9 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD21 | 1:A:148:ILE:HB | 9 | 0.11 |
| (2,1420) | 1:A:41:LEU:HD23 | 1:A:148:ILE:HB | 9 | 0.11 |
| (2,142) | 1:A:7:ALA:HA | 1:A:10:GLU:HB2 | 8 | 0.11 |
| (2,142) | 1:A:7:ALA:HA | 1:A:10:GLU:HB3 | 8 | 0.11 |
| (2,1404) | 1:A:153:MET:HE2 | 1:A:20:PHE:HB2 | 1 | 0.11 |
| (2,1404) | 1:A:153:MET:HE2 | 1:A:20:PHE:HB3 | 1 | 0.11 |
| (2,1404) | 1:A:153:MET:HE1 | 1:A:20:PHE:HB2 | 1 | 0.11 |
| (2,1404) | 1:A:153:MET:HE1 | 1:A:20:PHE:HB3 | 1 | 0.11 |
| (2,1404) | 1:A:153:MET:HE3 | 1:A:20:PHE:HB2 | 1 | 0.11 |
| (2,1404) | 1:A:153:MET:HE3 | 1:A:20:PHE:HB3 | 1 | 0.11 |
| (2,1404) | 1:A:153:MET:HE2 | 1:A:24:PHE:HA | 1 | 0.11 |
| (2,1404) | 1:A:153:MET:HE1 | 1:A:24:PHE:HA | 1 | 0.11 |
| (2,1404) | 1:A:153:MET:HE3 | 1:A:24:PHE:HA | 1 | 0.11 |
| (2,138) | 1:A:8:ALA:HA | 1:A:82:VAL:HG22 | 7 | 0.11 |
| (2,138) | 1:A:8:ALA:HA | 1:A:82:VAL:HG21 | 7 | 0.11 |
| (2,138) | 1:A:8:ALA:HA | 1:A:82:VAL:HG23 | 7 | 0.11 |
| (2,1377) | 1:A:44:VAL:HG12 | 1:A:47:MET:HG3 | 10 | 0.11 |
| (2,1377) | 1:A:44:VAL:HG11 | 1:A:47:MET:HG3 | 10 | 0.11 |
| (2,1377) | 1:A:44:VAL:HG13 | 1:A:47:MET:HG3 | 10 | 0.11 |
| (2,1371) | 1:A:79:VAL:HG12 | 1:A:78:LEU:HB3 | 5 | 0.11 |
| (2,1371) | 1:A:79:VAL:HG11 | 1:A:78:LEU:HB3 | 5 | 0.11 |
| (2,1371) | 1:A:79:VAL:HG13 | 1:A:78:LEU:HB3 | 5 | 0.11 |
| (2,1371) | 1:A:79:VAL:HG12 | 1:A:83:ARG:HB3 | 5 | 0.11 |
| (2,1371) | 1:A:79:VAL:HG11 | 1:A:83:ARG:HB3 | 5 | 0.11 |
| (2,1371) | 1:A:79:VAL:HG13 | 1:A:83:ARG:HB3 | 5 | 0.11 |
| (2,1368) | 1:A:157:LEU:HD22 | 1:A:27:PHE:HA | 5 | 0.11 |
| (2,1368) | 1:A:157:LEU:HD21 | 1:A:27:PHE:HA | 5 | 0.11 |
| (2,1368) | 1:A:157:LEU:HD23 | 1:A:27:PHE:HA | 5 | 0.11 |
| (2,1368) | 1:A:157:LEU:HD22 | 1:A:153:MET:HA | 5 | 0.11 |
| (2,1368) | 1:A:157:LEU:HD21 | 1:A:153:MET:HA | 5 | 0.11 |
| (2,1368) | 1:A:157:LEU:HD23 | 1:A:153:MET:HA | 5 | 0.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (2,1343) | 1:A:146:VAL:HG22 | 1:A:145:ARG:HA | 10 | 0.11 |
| (2,1343) | 1:A:146:VAL:HG21 | 1:A:145:ARG:HA | 10 | 0.11 |
| (2,1343) | 1:A:146:VAL:HG23 | 1:A:145:ARG:HA | 10 | 0.11 |
| (2,1343) | 1:A:148:ILE:HA | 1:A:146:VAL:HG22 | 10 | 0.11 |
| (2,1343) | 1:A:148:ILE:HA | 1:A:146:VAL:HG21 | 10 | 0.11 |
| (2,1343) | 1:A:148:ILE:HA | 1:A:146:VAL:HG23 | 10 | 0.11 |
| (2,1340) | 1:A:157:LEU:HD12 | 1:A:27:PHE:HA | 1 | 0.11 |
| (2,1340) | 1:A:157:LEU:HD11 | 1:A:27:PHE:HA | 1 | 0.11 |
| (2,1340) | 1:A:157:LEU:HD13 | 1:A:27:PHE:HA | 1 | 0.11 |
| (2,1340) | 1:A:150:ALA:HA | 1:A:157:LEU:HD12 | 1 | 0.11 |
| (2,1340) | 1:A:150:ALA:HA | 1:A:157:LEU:HD11 | 1 | 0.11 |
| (2,1340) | 1:A:150:ALA:HA | 1:A:157:LEU:HD13 | 1 | 0.11 |
| (2,1340) | 1:A:157:LEU:HD12 | 1:A:153:MET:HA | 1 | 0.11 |
| (2,1340) | 1:A:157:LEU:HD11 | 1:A:153:MET:HA | 1 | 0.11 |
| (2,1340) | 1:A:157:LEU:HD13 | 1:A:153:MET:HA | 1 | 0.11 |
| (2,1340) | 1:A:157:LEU:HD12 | 1:A:27:PHE:HA | 6 | 0.11 |
| (2,1340) | 1:A:157:LEU:HD11 | 1:A:27:PHE:HA | 6 | 0.11 |
| (2,1340) | 1:A:157:LEU:HD13 | 1:A:27:PHE:HA | 6 | 0.11 |
| (2,1340) | 1:A:150:ALA:HA | 1:A:157:LEU:HD12 | 6 | 0.11 |
| (2,1340) | 1:A:150:ALA:HA | 1:A:157:LEU:HD11 | 6 | 0.11 |
| (2,1340) | 1:A:150:ALA:HA | 1:A:157:LEU:HD13 | 6 | 0.11 |
| (2,1340) | 1:A:157:LEU:HD12 | 1:A:153:MET:HA | 6 | 0.11 |
| (2,1340) | 1:A:157:LEU:HD11 | 1:A:153:MET:HA | 6 | 0.11 |
| (2,1340) | 1:A:157:LEU:HD13 | 1:A:153:MET:HA | 6 | 0.11 |
| (2,1329) | 1:A:5:TYR:HA | 1:A:9:VAL:HG22 | 7 | 0.11 |
| (2,1329) | 1:A:5:TYR:HA | 1:A:9:VAL:HG21 | 7 | 0.11 |
| (2,1329) | 1:A:5:TYR:HA | 1:A:9:VAL:HG23 | 7 | 0.11 |
| (2,1329) | 1:A:5:TYR:HA | 1:A:79:VAL:HG22 | 7 | 0.11 |
| (2,1329) | 1:A:5:TYR:HA | 1:A:79:VAL:HG21 | 7 | 0.11 |
| (2,1329) | 1:A:5:TYR:HA | 1:A:79:VAL:HG23 | 7 | 0.11 |
| (2,1324) | 1:A:82:VAL:HG22 | 1:A:83:ARG:HG3 | 2 | 0.11 |
| (2,1324) | 1:A:82:VAL:HG21 | 1:A:83:ARG:HG3 | 2 | 0.11 |
| (2,1324) | 1:A:82:VAL:HG23 | 1:A:83:ARG:HG3 | 2 | 0.11 |
| (2,1324) | 1:A:82:VAL:HG22 | 1:A:7:ALA:HB2 | 2 | 0.11 |
| (2,1324) | 1:A:82:VAL:HG22 | 1:A:7:ALA:HB1 | 2 | 0.11 |
| (2,1324) | 1:A:82:VAL:HG22 | 1:A:7:ALA:HB3 | 2 | 0.11 |
| (2,1324) | 1:A:82:VAL:HG21 | 1:A:7:ALA:HB2 | 2 | 0.11 |
| (2,1324) | 1:A:82:VAL:HG21 | 1:A:7:ALA:HB1 | 2 | 0.11 |
| (2,1324) | 1:A:82:VAL:HG21 | 1:A:7:ALA:HB3 | 2 | 0.11 |
| (2,1324) | 1:A:82:VAL:HG23 | 1:A:7:ALA:HB2 | 2 | 0.11 |
| (2,1324) | 1:A:82:VAL:HG23 | 1:A:7:ALA:HB1 | 2 | 0.11 |
| (2,1324) | 1:A:82:VAL:HG23 | 1:A:7:ALA:HB3 | 2 | 0.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG21 | 5 | 0.11 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG22 | 5 | 0.11 |
| (2,1313) | 1:A:41:LEU:HB3 | 1:A:38:THR:HG23 | 5 | 0.11 |
| (2,1313) | 1:A:38:THR:HG21 | 1:A:57:LEU:HG | 5 | 0.11 |
| (2,1313) | 1:A:38:THR:HG22 | 1:A:57:LEU:HG | 5 | 0.11 |
| (2,1313) | 1:A:38:THR:HG23 | 1:A:57:LEU:HG | 5 | 0.11 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:8:ALA:HB2 | 9 | 0.11 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:8:ALA:HB1 | 9 | 0.11 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:8:ALA:HB3 | 9 | 0.11 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:8:ALA:HB2 | 9 | 0.11 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:8:ALA:HB1 | 9 | 0.11 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:8:ALA:HB3 | 9 | 0.11 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:8:ALA:HB2 | 9 | 0.11 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:8:ALA:HB1 | 9 | 0.11 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:8:ALA:HB3 | 9 | 0.11 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:150:ALA:HB2 | 9 | 0.11 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:150:ALA:HB1 | 9 | 0.11 |
| (2,1257) | 1:A:85:MET:HE2 | 1:A:150:ALA:HB3 | 9 | 0.11 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:150:ALA:HB2 | 9 | 0.11 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:150:ALA:HB1 | 9 | 0.11 |
| (2,1257) | 1:A:85:MET:HE1 | 1:A:150:ALA:HB3 | 9 | 0.11 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:150:ALA:HB2 | 9 | 0.11 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:150:ALA:HB1 | 9 | 0.11 |
| (2,1257) | 1:A:85:MET:HE3 | 1:A:150:ALA:HB3 | 9 | 0.11 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG22 | 10 | 0.11 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG21 | 10 | 0.11 |
| (2,1223) | 1:A:2:ASP:HB3 | 1:A:79:VAL:HG23 | 10 | 0.11 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG22 | 10 | 0.11 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG21 | 10 | 0.11 |
| (2,1223) | 1:A:73:ASP:HB2 | 1:A:72:VAL:HG23 | 10 | 0.11 |
| (2,1222) | 1:A:3:ASP:HB3 | 1:A:6:LYS:HB2 | 1 | 0.11 |
| (2,1222) | 1:A:3:ASP:HB3 | 1:A:6:LYS:HB3 | 1 | 0.11 |
| (2,1222) | 1:A:88:ASP:HB2 | 1:A:90:LYS:HB2 | 1 | 0.11 |
| (2,1222) | 1:A:88:ASP:HB3 | 1:A:90:LYS:HB2 | 1 | 0.11 |
| (2,1207) | 1:A:6:LYS:HE2 | 1:A:3:ASP:HA | 6 | 0.11 |
| (2,1207) | 1:A:6:LYS:HE3 | 1:A:3:ASP:HA | 6 | 0.11 |
| (2,1207) | 1:A:43:LYS:HE2 | 1:A:31:ALA:HA | 6 | 0.11 |
| (2,1207) | 1:A:43:LYS:HE3 | 1:A:31:ALA:HA | 6 | 0.11 |
| (2,1207) | 1:A:139:LYS:HE2 | 1:A:141:PRO:HA | 6 | 0.11 |
| (2,1207) | 1:A:6:LYS:HE2 | 1:A:3:ASP:HA | 9 | 0.11 |
| (2,1207) | 1:A:6:LYS:HE3 | 1:A:3:ASP:HA | 9 | 0.11 |
| (2,1207) | 1:A:43:LYS:HE2 | 1:A:31:ALA:HA | 9 | 0.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1207) | 1:A:43:LYS:HE3 | 1:A:31:ALA:HA | 9 | 0.11 |
| (2,1207) | 1:A:139:LYS:HE2 | 1:A:141:PRO:HA | 9 | 0.11 |
| (2,1203) | 1:A:140:ARG:HD2 | 1:A:142:THR:HA | 2 | 0.11 |
| (2,1203) | 1:A:140:ARG:HD3 | 1:A:142:THR:HA | 2 | 0.11 |
| (2,1203) | 1:A:145:ARG:HA | 1:A:147:ARG:HD2 | 2 | 0.11 |
| (2,1203) | 1:A:145:ARG:HA | 1:A:147:ARG:HD3 | 2 | 0.11 |
| (2,12) | 1:A:73:ASP:HA | 1:A:24:PHE:HD1 | 6 | 0.11 |
| (2,12) | 1:A:73:ASP:HA | 1:A:24:PHE:HD1 | 9 | 0.11 |
| (2,1198) | 1:A:46:ARG:HD3 | 1:A:46:ARG:HG3 | 3 | 0.11 |
| (2,1198) | 1:A:46:ARG:HD3 | 1:A:46:ARG:HB3 | 3 | 0.11 |
| (2,1191) | 1:A:52:PRO:HD3 | 1:A:57:LEU:HD12 | 10 | 0.11 |
| (2,1191) | 1:A:52:PRO:HD3 | 1:A:57:LEU:HD11 | 10 | 0.11 |
| (2,1191) | 1:A:52:PRO:HD3 | 1:A:57:LEU:HD13 | 10 | 0.11 |
| (2,1182) | 1:A:71:THR:HB | 1:A:61:ILE:HG22 | 10 | 0.11 |
| (2,1182) | 1:A:71:THR:HB | 1:A:61:ILE:HG21 | 10 | 0.11 |
| (2,1182) | 1:A:71:THR:HB | 1:A:61:ILE:HG23 | 10 | 0.11 |
| (2,1182) | 1:A:71:THR:HB | 1:A:61:ILE:HD12 | 10 | 0.11 |
| (2,1182) | 1:A:71:THR:HB | 1:A:61:ILE:HD11 | 10 | 0.11 |
| (2,1182) | 1:A:71:THR:HB | 1:A:61:ILE:HD13 | 10 | 0.11 |
| (2,1150) | 1:A:31:ALA:HA | 1:A:30:GLY:HA2 | 5 | 0.11 |
| (2,1150) | 1:A:31:ALA:HA | 1:A:32:GLU:HA | 5 | 0.11 |
| (2,1112) | 1:A:46:ARG:HD2 | 1:A:51:ASN:HA | 3 | 0.11 |
| (2,111) | 1:A:157:LEU:HA | 1:A:157:LEU:HB2 | 3 | 0.11 |
| (2,111) | 1:A:157:LEU:HA | 1:A:157:LEU:HB2 | 6 | 0.11 |
| (2,111) | 1:A:157:LEU:HA | 1:A:157:LEU:HB2 | 10 | 0.11 |
| (2,1091) | 1:A:40:GLU:HA | 1:A:36:ILE:HG22 | 4 | 0.11 |
| (2,1091) | 1:A:40:GLU:HA | 1:A:36:ILE:HG21 | 4 | 0.11 |
| (2,1091) | 1:A:40:GLU:HA | 1:A:36:ILE:HG23 | 4 | 0.11 |
| (2,1069) | 1:A:16:GLN:HA | 1:A:12:LEU:HD22 | 6 | 0.11 |
| (2,1069) | 1:A:16:GLN:HA | 1:A:12:LEU:HD21 | 6 | 0.11 |
| (2,1069) | 1:A:16:GLN:HA | 1:A:12:LEU:HD23 | 6 | 0.11 |
| (2,1054) | 1:A:18:ASN:HB3 | 1:A:19:GLU:HG3 | 7 | 0.11 |
| (2,1046) | 1:A:48:LEU:HA | 1:A:50:GLN:HG2 | 1 | 0.11 |
| (2,1046) | 1:A:48:LEU:HA | 1:A:50:GLN:HG3 | 1 | 0.11 |
| (2,1046) | 1:A:48:LEU:HA | 1:A:50:GLN:HG2 | 4 | 0.11 |
| (2,1046) | 1:A:48:LEU:HA | 1:A:50:GLN:HG3 | 4 | 0.11 |
| (2,1022) | 1:A:35:SER:HA | 1:A:31:ALA:HB2 | 8 | 0.11 |
| (2,1022) | 1:A:35:SER:HA | 1:A:31:ALA:HB1 | 8 | 0.11 |
| (2,1022) | 1:A:35:SER:HA | 1:A:31:ALA:HB3 | 8 | 0.11 |

10 Dihedral-angle violation analysis

No dihedral-angle restraints found