



Full wwPDB NMR Structure Validation Report ⓘ

Dec 24, 2024 – 05:17 PM EST

PDB ID : 2LQN
BMRB ID : 18321
Title : Solution structure of CRKL
Authors : Jankowski, W.; Saleh, T.; Kalodimos, C.
Deposited on : 2012-03-09

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
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)
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) : 2.40

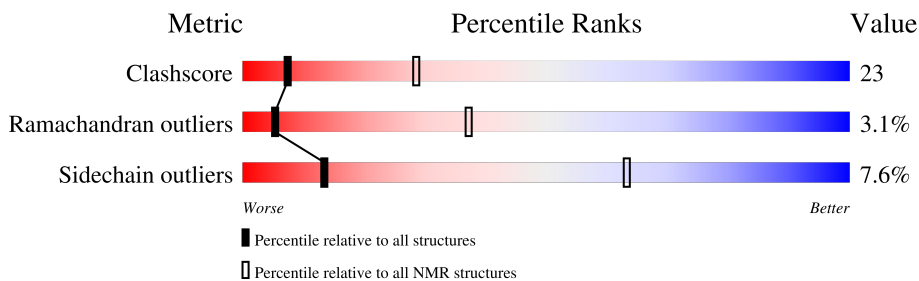
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

SOLUTION NMR

The overall completeness of chemical shifts assignment is 58%.

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 | 210492 | 14027 |
| Ramachandran outliers | 207382 | 12486 |
| Sidechain outliers | 206894 | 12463 |

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 | 303 | |

2 Ensemble composition and analysis

This entry contains 20 models. Model 14 is the overall representative, medoid model (most similar to other models). The authors have identified model 1 as representative, based on the following criterion: *closest to the average*.

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:3-A:104, A:125-A:181 (159) | 0.88 | 14 |
| 2 | A:237-A:296 (60) | 0.81 | 18 |

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 4 clusters and 1 single-model cluster was found.

| Cluster number | Models |
|-----------------------|---------------------------|
| 1 | 1, 4, 6, 7, 8, 10, 16, 18 |
| 2 | 5, 9, 11, 14, 15, 19, 20 |
| 3 | 2, 3 |
| 4 | 13, 17 |
| Single-model clusters | 12 |

3 Entry composition

There is only 1 type of molecule in this entry. The entry contains 4710 atoms, of which 2326 are hydrogens and 0 are deuteriums.

- Molecule 1 is a protein called Crk-like protein.

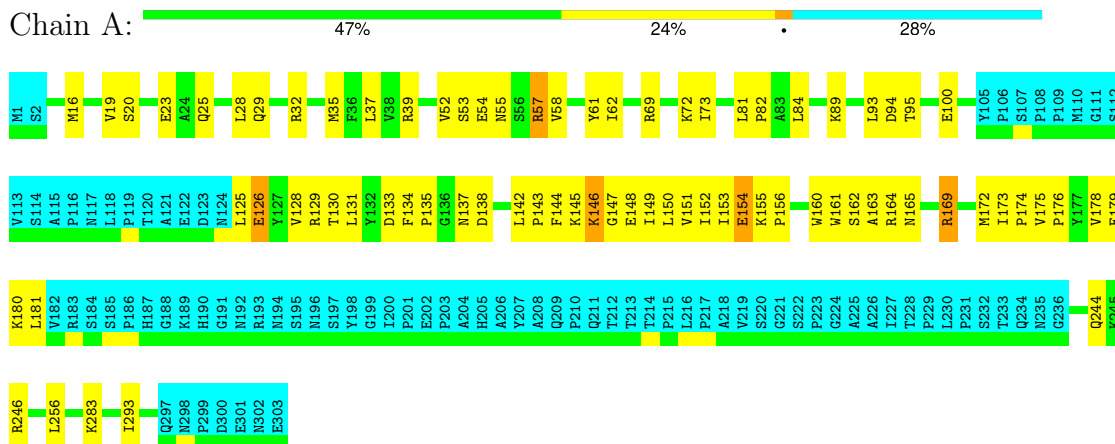
| Mol | Chain | Residues | Atoms | | | | | | Trace |
|-----|-------|----------|-------|------|------|-----|-----|---|-------|
| | | | Total | C | H | N | O | S | |
| 1 | A | 303 | 4710 | 1504 | 2326 | 419 | 453 | 8 | 0 |

4 Residue-property plots i

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: Crk-like protein

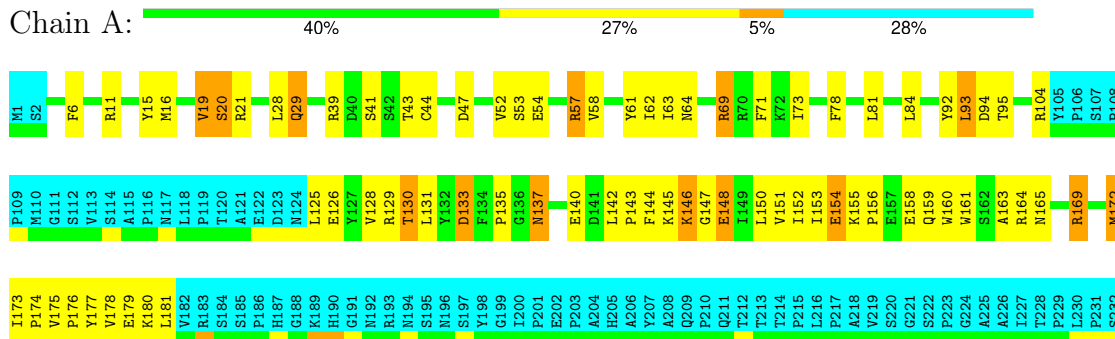


4.2 Scores per residue for each member of the ensemble

Colouring as in section 4.1 above.

4.2.1 Score per residue for model 1

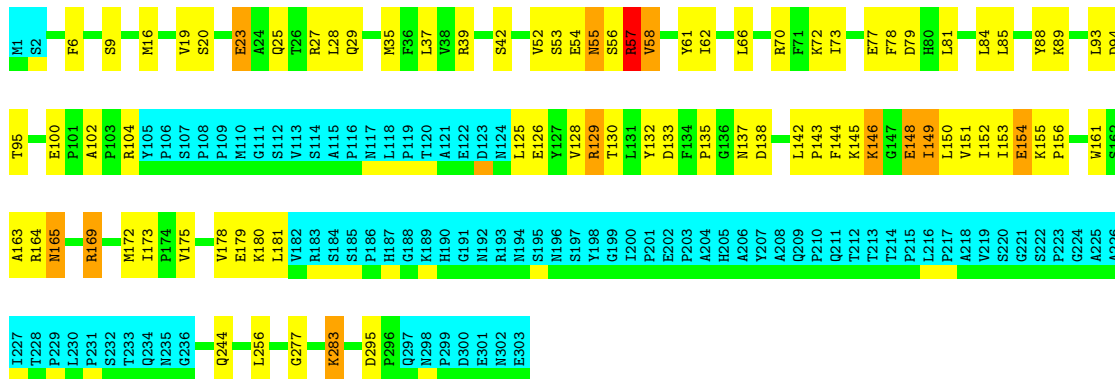
- Molecule 1: Crk-like protein





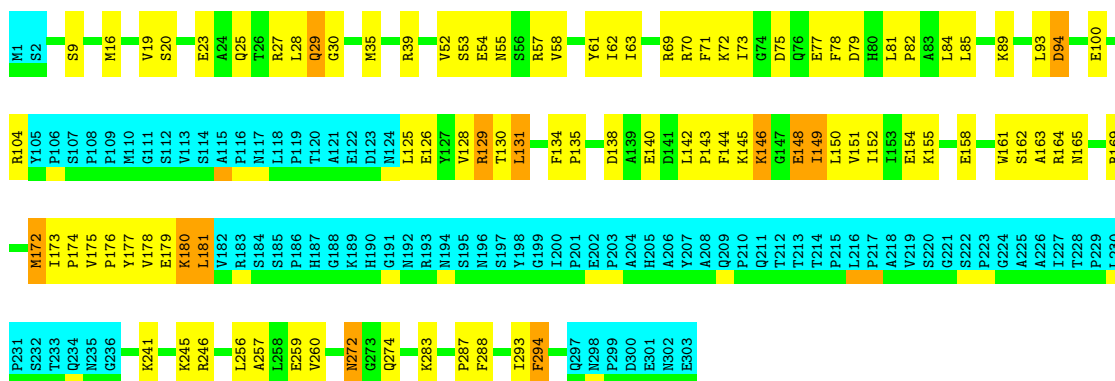
4.2.2 Score per residue for model 2

- Molecule 1: Crk-like protein



4.2.3 Score per residue for model 3

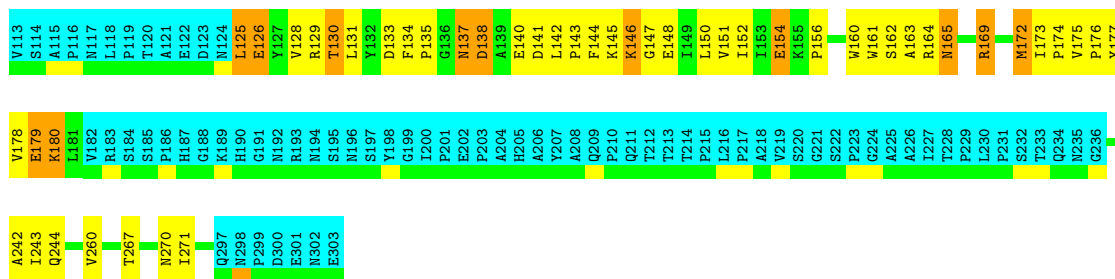
- Molecule 1: Crk-like protein



4.2.4 Score per residue for model 4

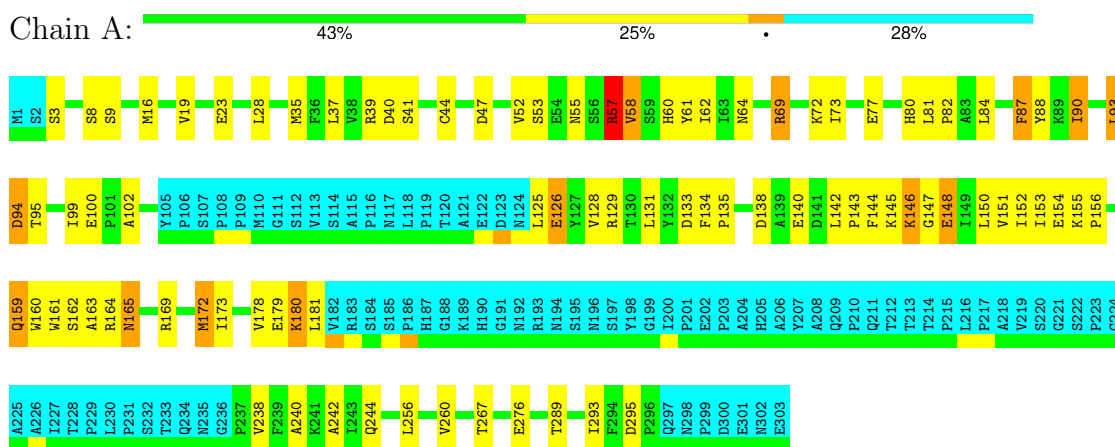
- Molecule 1: Crk-like protein





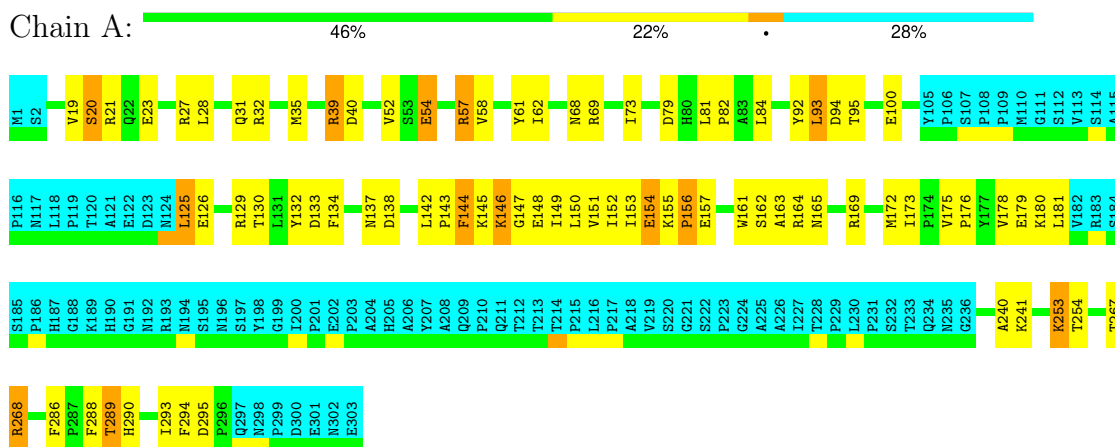
4.2.5 Score per residue for model 5

- Molecule 1: Crk-like protein



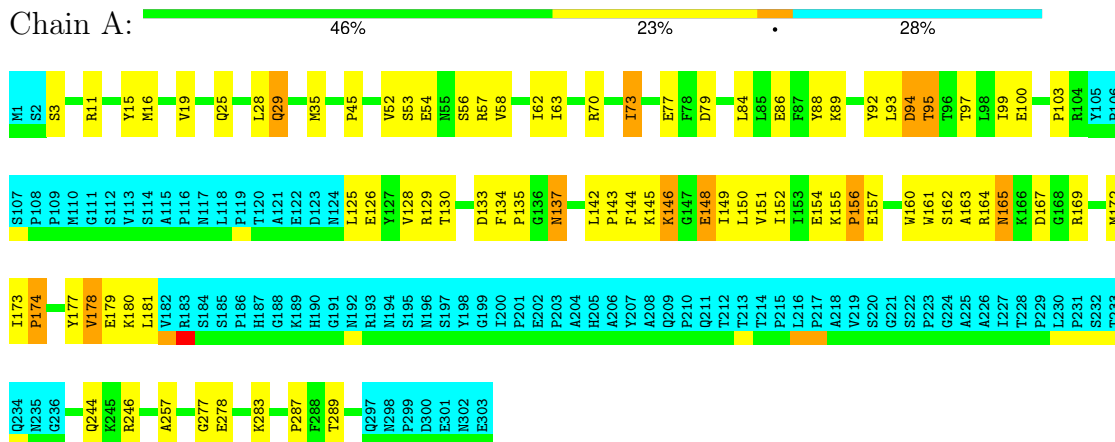
4.2.6 Score per residue for model 6

- Molecule 1: Crk-like protein



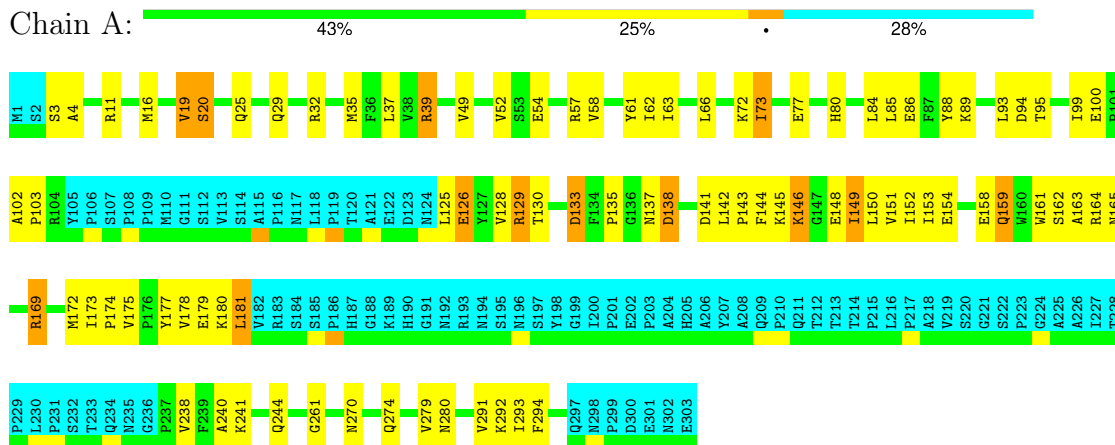
4.2.7 Score per residue for model 7

- Molecule 1: Crk-like protein



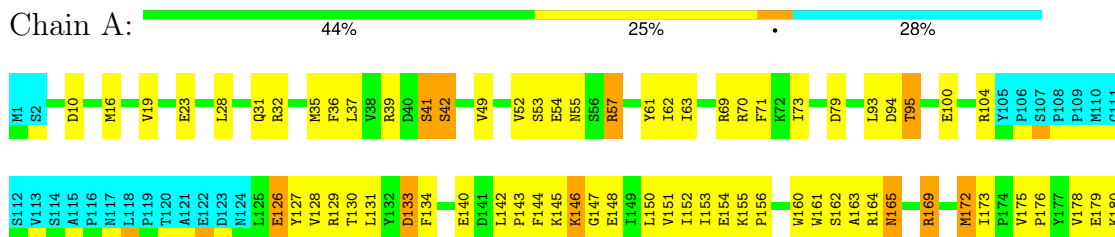
4.2.8 Score per residue for model 8

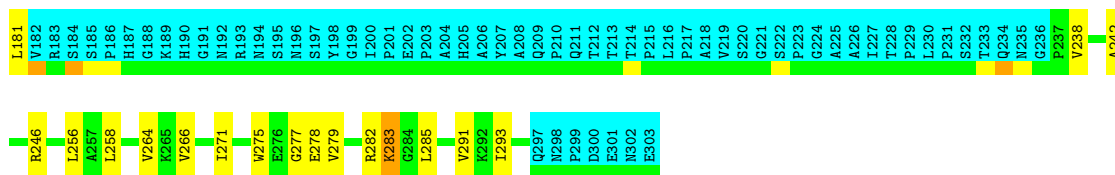
- Molecule 1: Crk-like protein



4.2.9 Score per residue for model 9

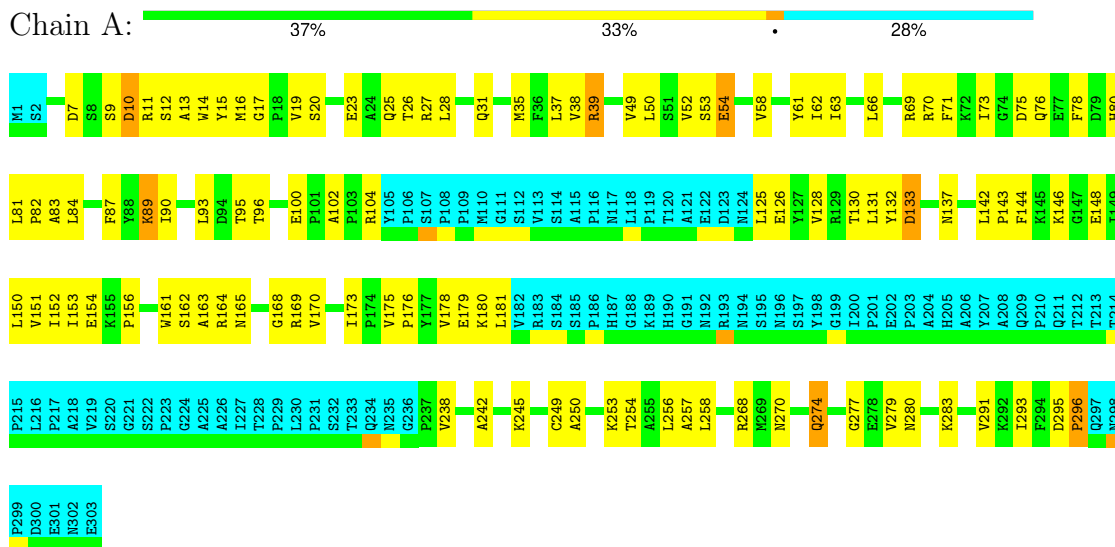
- Molecule 1: Crk-like protein





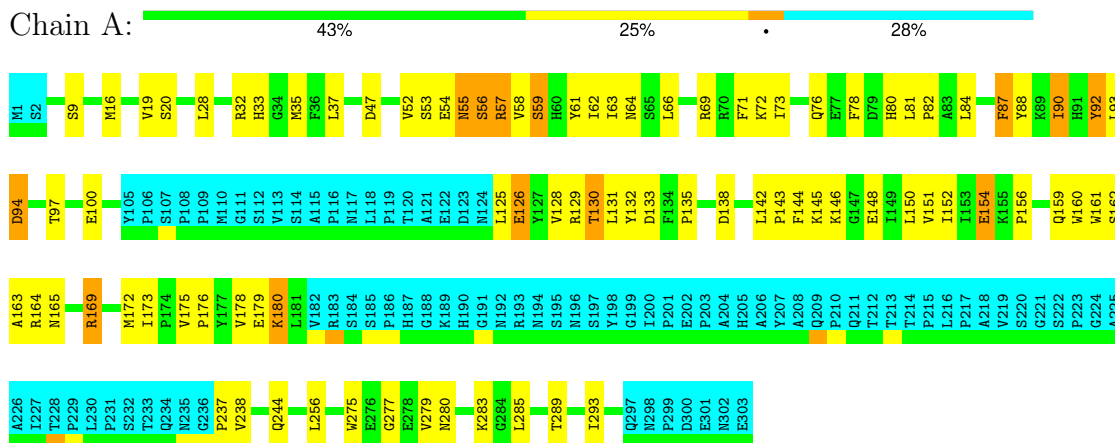
4.2.10 Score per residue for model 10

- Molecule 1: Crk-like protein



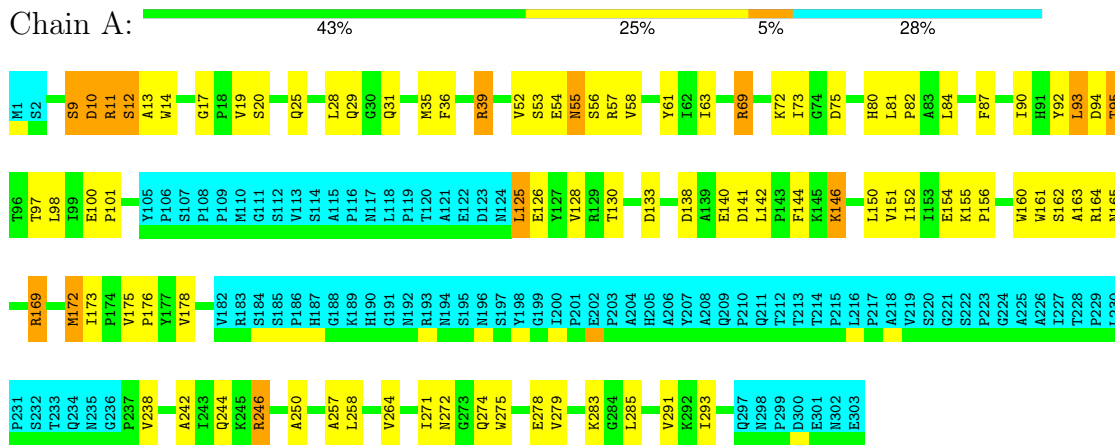
4.2.11 Score per residue for model 11

- Molecule 1: Crk-like protein



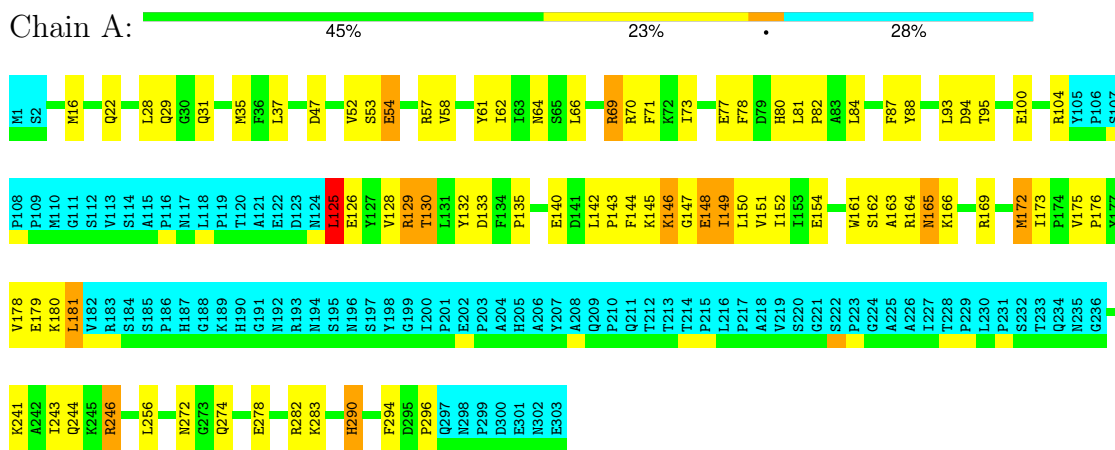
4.2.12 Score per residue for model 12

- Molecule 1: Crk-like protein



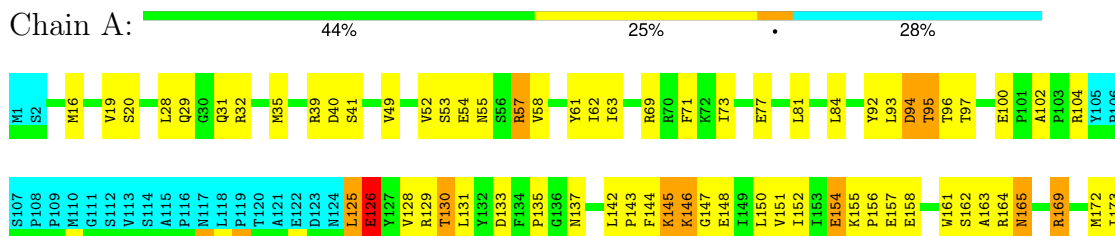
4.2.13 Score per residue for model 13

- Molecule 1: Crk-like protein



4.2.14 Score per residue for model 14 (medoid)

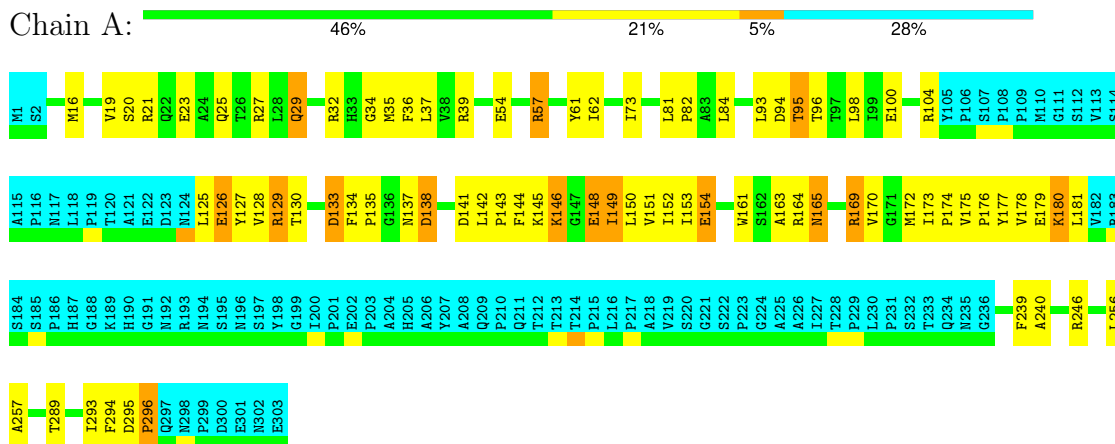
- Molecule 1: Crk-like protein





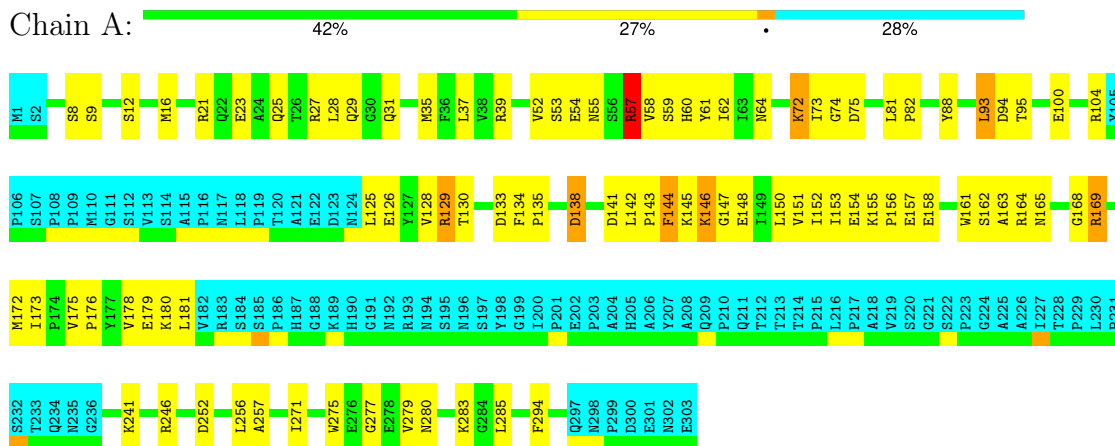
4.2.15 Score per residue for model 15

- Molecule 1: Crk-like protein



4.2.16 Score per residue for model 16

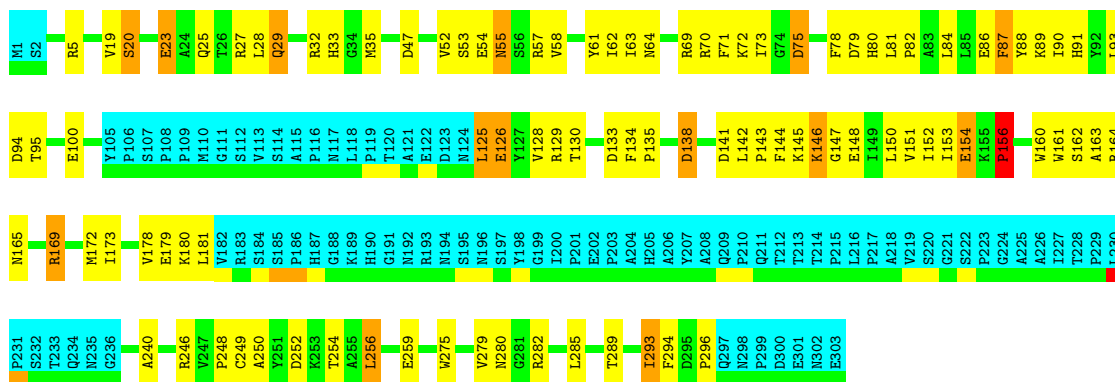
- Molecule 1: Crk-like protein



4.2.17 Score per residue for model 17

- Molecule 1: Crk-like protein

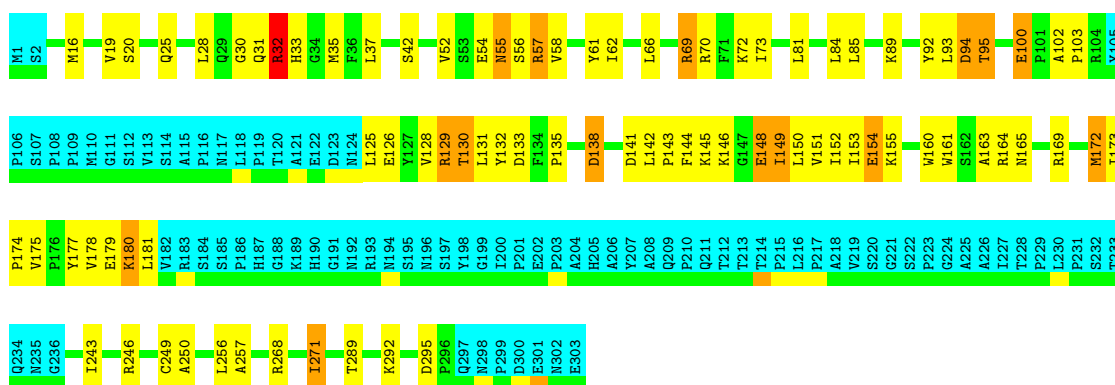




4.2.18 Score per residue for model 18

- Molecule 1: Crk-like protein

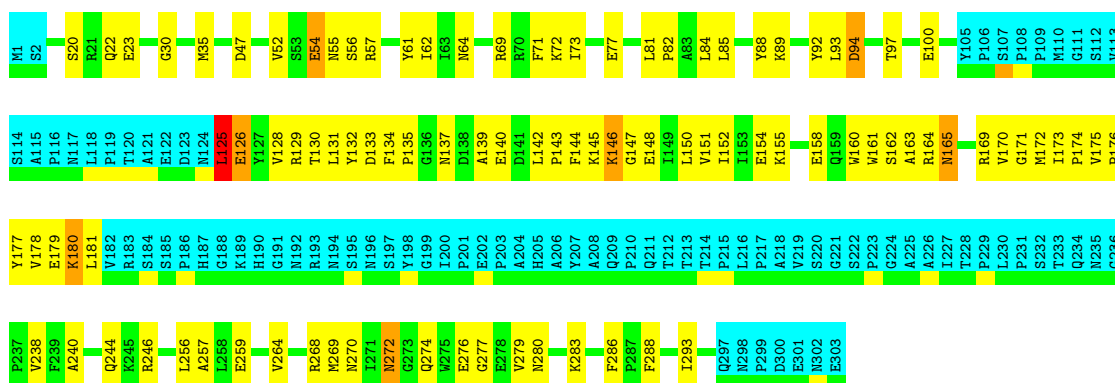
Chain A: 44% 23% 5% 28%



4.2.19 Score per residue for model 19

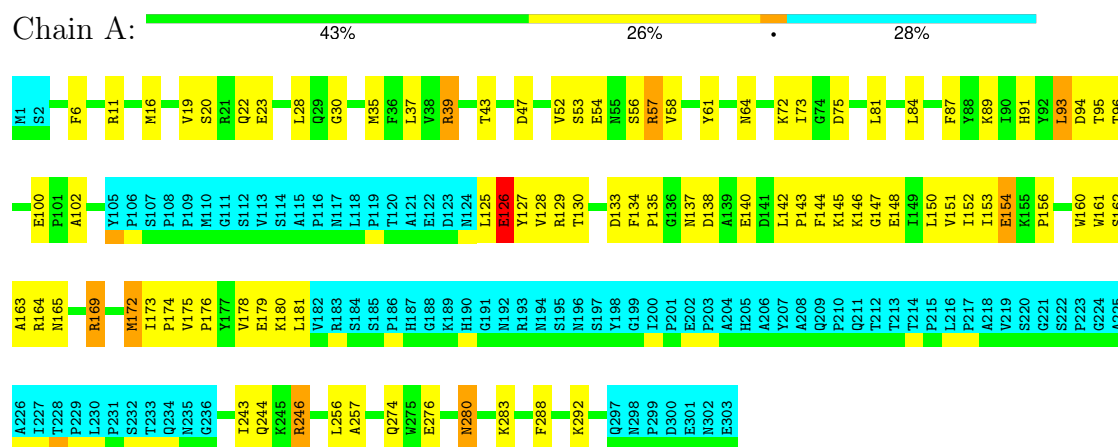
- Molecule 1: Crk-like protein

Chain A: 41% 29% 28%



4.2.20 Score per residue for model 20

● Molecule 1: Crk-like protein



5 Refinement protocol and experimental data overview

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

Of the 400 calculated structures, 20 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 |
|---------------|----------------|---------|
| CNS | 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 | 2157 |
| Number of shifts mapped to atoms | 2157 |
| Number of unparsed shifts | 0 |
| Number of shifts with mapping errors | 0 |
| Number of shifts with mapping warnings | 0 |
| Assignment completeness (well-defined parts) | 58% |

6 Model quality i

6.1 Standard geometry i

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

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|-----------------------|-------------|-----------------------|
| | | RMSZ | #Z>5 | RMSZ | #Z>5 |
| 1 | A | 0.36±0.01 | 0±0/1824 (0.0± 0.0%) | 0.50±0.02 | 0±1/2473 (0.0± 0.0%) |
| All | All | 0.36 | 0/36480 (0.0%) | 0.50 | 5/49460 (0.0%) |

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

| Mol | Chain | Chirality | Planarity |
|-----|-------|-----------|-----------|
| 1 | A | 0.0±0.0 | 0.3±0.6 |
| All | All | 0 | 6 |

There are no bond-length outliers.

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(°) | Ideal(°) | Models | |
|-----|-------|-----|------|---------|-------|-------------|----------|--------|-------|
| | | | | | | | | Worst | Total |
| 1 | A | 57 | ARG | N-CA-CB | -6.74 | 98.47 | 110.60 | 5 | 3 |
| 1 | A | 57 | ARG | N-CA-C | 5.40 | 125.57 | 111.00 | 5 | 2 |

There are no chirality outliers.

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

| Mol | Chain | Res | Type | Group | Models (Total) |
|-----|-------|-----|------|-----------|----------------|
| 1 | A | 169 | ARG | Sidechain | 2 |
| 1 | A | 178 | VAL | Peptide | 1 |
| 1 | A | 56 | SER | Peptide | 1 |
| 1 | A | 9 | SER | Peptide | 1 |
| 1 | A | 32 | ARG | Sidechain | 1 |

6.2 Too-close contacts

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 | 1776 | 1759 | 1754 | 80±7 |
| All | All | 35520 | 35180 | 35080 | 1610 |

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 23.

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

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|------------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:142:LEU:HD11 | 1:A:165:ASN:HB2 | 1.06 | 1.26 | 13 | 18 |
| 1:A:128:VAL:HG22 | 1:A:180:LYS:HG3 | 1.04 | 1.25 | 2 | 13 |
| 1:A:173:ILE:HD13 | 1:A:178:VAL:HG11 | 1.02 | 1.31 | 6 | 7 |
| 1:A:94:ASP:HA | 1:A:154:GLU:HB3 | 1.01 | 1.31 | 4 | 5 |
| 1:A:152:ILE:HD13 | 1:A:163:ALA:HB2 | 1.01 | 1.30 | 1 | 20 |
| 1:A:142:LEU:HD12 | 1:A:143:PRO:HD2 | 0.99 | 1.35 | 9 | 12 |
| 1:A:130:THR:HG22 | 1:A:178:VAL:HG12 | 0.99 | 1.34 | 10 | 13 |
| 1:A:19:VAL:HB | 1:A:39:ARG:HG3 | 0.98 | 1.32 | 10 | 4 |
| 1:A:154:GLU:HB2 | 1:A:162:SER:HB2 | 0.95 | 1.38 | 9 | 11 |
| 1:A:125:LEU:HD12 | 1:A:152:ILE:HG21 | 0.91 | 1.41 | 20 | 18 |
| 1:A:72:LYS:HD3 | 1:A:77:GLU:HG2 | 0.90 | 1.40 | 19 | 1 |
| 1:A:95:THR:HB | 1:A:156:PRO:HA | 0.88 | 1.42 | 16 | 8 |
| 1:A:131:LEU:HD11 | 1:A:179:GLU:HG2 | 0.87 | 1.43 | 4 | 5 |
| 1:A:146:LYS:HD2 | 1:A:146:LYS:H | 0.79 | 1.37 | 5 | 16 |
| 1:A:145:LYS:H | 1:A:148:GLU:HG3 | 0.79 | 1.38 | 1 | 3 |
| 1:A:61:TYR:HB3 | 1:A:73:ILE:HD11 | 0.79 | 1.54 | 14 | 19 |
| 1:A:66:LEU:HD11 | 1:A:72:LYS:HG3 | 0.78 | 1.53 | 11 | 1 |
| 1:A:131:LEU:CD1 | 1:A:179:GLU:HG3 | 0.78 | 2.08 | 19 | 1 |
| 1:A:142:LEU:CD1 | 1:A:169:ARG:HD2 | 0.78 | 2.09 | 14 | 1 |
| 1:A:19:VAL:HG22 | 1:A:39:ARG:HD2 | 0.77 | 1.56 | 9 | 1 |
| 1:A:159:GLN:HE21 | 1:A:159:GLN:HA | 0.76 | 1.40 | 8 | 2 |
| 1:A:142:LEU:HD12 | 1:A:169:ARG:HD2 | 0.76 | 1.57 | 14 | 1 |
| 1:A:258:LEU:HD21 | 1:A:279:VAL:HG21 | 0.76 | 1.56 | 10 | 3 |
| 1:A:128:VAL:HG22 | 1:A:180:LYS:CG | 0.76 | 2.11 | 13 | 12 |
| 1:A:150:LEU:CD2 | 1:A:165:ASN:HA | 0.75 | 2.11 | 20 | 6 |
| 1:A:19:VAL:HG13 | 1:A:39:ARG:HB3 | 0.75 | 1.59 | 9 | 1 |
| 1:A:57:ARG:NE | 1:A:58:VAL:H | 0.74 | 1.81 | 5 | 3 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|------------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:19:VAL:HG12 | 1:A:20:SER:H | 0.74 | 1.42 | 11 | 4 |
| 1:A:272:ASN:HD21 | 1:A:274:GLN:HG2 | 0.74 | 1.43 | 13 | 4 |
| 1:A:164:ARG:HA | 1:A:169:ARG:O | 0.74 | 1.83 | 13 | 19 |
| 1:A:159:GLN:HG3 | 1:A:160:TRP:HD1 | 0.73 | 1.43 | 11 | 1 |
| 1:A:151:VAL:HB | 1:A:164:ARG:HG2 | 0.72 | 1.60 | 9 | 18 |
| 1:A:152:ILE:HD12 | 1:A:161:TRP:HB3 | 0.72 | 1.60 | 8 | 14 |
| 1:A:66:LEU:HD12 | 1:A:70:ARG:HG3 | 0.72 | 1.61 | 18 | 3 |
| 1:A:16:MET:SD | 1:A:104:ARG:HA | 0.72 | 2.25 | 15 | 5 |
| 1:A:62:ILE:O | 1:A:73:ILE:HA | 0.71 | 1.86 | 13 | 16 |
| 1:A:130:THR:HG22 | 1:A:178:VAL:CG1 | 0.71 | 2.14 | 10 | 5 |
| 1:A:72:LYS:HE2 | 1:A:75:ASP:HA | 0.71 | 1.60 | 12 | 2 |
| 1:A:179:GLU:HG3 | 1:A:180:LYS:H | 0.71 | 1.46 | 7 | 2 |
| 1:A:9:SER:CA | 1:A:14:TRP:HE1 | 0.70 | 1.99 | 12 | 2 |
| 1:A:16:MET:SD | 1:A:104:ARG:HB3 | 0.70 | 2.26 | 10 | 2 |
| 1:A:32:ARG:HB3 | 1:A:35:MET:SD | 0.70 | 2.27 | 4 | 2 |
| 1:A:54:GLU:O | 1:A:57:ARG:HB3 | 0.69 | 1.86 | 6 | 7 |
| 1:A:28:LEU:HB3 | 1:A:53:SER:HB2 | 0.69 | 1.63 | 9 | 11 |
| 1:A:245:LYS:HG3 | 1:A:260:VAL:HG23 | 0.69 | 1.62 | 3 | 1 |
| 1:A:287:PRO:HB2 | 1:A:289:THR:HG22 | 0.69 | 1.64 | 7 | 1 |
| 1:A:128:VAL:HG22 | 1:A:180:LYS:HB3 | 0.69 | 1.64 | 11 | 3 |
| 1:A:137:ASN:HA | 1:A:143:PRO:HG3 | 0.68 | 1.63 | 1 | 8 |
| 1:A:54:GLU:HB2 | 1:A:94:ASP:HB3 | 0.68 | 1.64 | 9 | 1 |
| 1:A:16:MET:SD | 1:A:104:ARG:HG2 | 0.68 | 2.29 | 9 | 2 |
| 1:A:69:ARG:HA | 1:A:69:ARG:HE | 0.68 | 1.49 | 18 | 9 |
| 1:A:54:GLU:O | 1:A:57:ARG:HG3 | 0.67 | 1.89 | 18 | 5 |
| 1:A:129:ARG:NH2 | 1:A:181:LEU:HG | 0.67 | 2.03 | 3 | 1 |
| 1:A:142:LEU:HD11 | 1:A:165:ASN:CB | 0.67 | 2.15 | 7 | 10 |
| 1:A:148:GLU:H | 1:A:148:GLU:CD | 0.67 | 1.93 | 1 | 3 |
| 1:A:161:TRP:O | 1:A:173:ILE:HG13 | 0.67 | 1.90 | 4 | 18 |
| 1:A:152:ILE:CD1 | 1:A:163:ALA:HB2 | 0.67 | 2.19 | 15 | 12 |
| 1:A:129:ARG:NH2 | 1:A:181:LEU:HD13 | 0.67 | 2.05 | 7 | 3 |
| 1:A:69:ARG:NE | 1:A:69:ARG:HA | 0.66 | 2.05 | 17 | 5 |
| 1:A:142:LEU:CD2 | 1:A:150:LEU:HD22 | 0.66 | 2.21 | 17 | 17 |
| 1:A:35:MET:HA | 1:A:100:GLU:O | 0.66 | 1.91 | 19 | 18 |
| 1:A:57:ARG:HH21 | 1:A:94:ASP:HB2 | 0.66 | 1.47 | 15 | 2 |
| 1:A:54:GLU:HG3 | 1:A:96:THR:HG22 | 0.66 | 1.65 | 10 | 1 |
| 1:A:126:GLU:O | 1:A:151:VAL:HA | 0.66 | 1.89 | 20 | 9 |
| 1:A:57:ARG:NH2 | 1:A:94:ASP:HB2 | 0.66 | 2.06 | 8 | 1 |
| 1:A:246:ARG:HG3 | 1:A:290:HIS:HE1 | 0.66 | 1.50 | 13 | 1 |
| 1:A:253:LYS:HG3 | 1:A:254:THR:HG23 | 0.65 | 1.68 | 10 | 1 |
| 1:A:179:GLU:O | 1:A:179:GLU:HG3 | 0.65 | 1.92 | 11 | 12 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|------------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:146:LYS:HD3 | 1:A:146:LYS:N | 0.65 | 2.06 | 3 | 1 |
| 1:A:160:TRP:HB3 | 1:A:172:MET:SD | 0.65 | 2.31 | 9 | 8 |
| 1:A:54:GLU:HG3 | 1:A:55:ASN:ND2 | 0.65 | 2.07 | 18 | 3 |
| 1:A:129:ARG:HG2 | 1:A:180:LYS:O | 0.65 | 1.92 | 6 | 2 |
| 1:A:16:MET:HG3 | 1:A:37:LEU:HB2 | 0.65 | 1.68 | 2 | 6 |
| 1:A:160:TRP:HB3 | 1:A:172:MET:HE2 | 0.64 | 1.70 | 11 | 2 |
| 1:A:70:ARG:HG2 | 1:A:79:ASP:HA | 0.64 | 1.68 | 17 | 5 |
| 1:A:180:LYS:H | 1:A:180:LYS:HD2 | 0.64 | 1.52 | 18 | 4 |
| 1:A:142:LEU:HD21 | 1:A:150:LEU:HD22 | 0.64 | 1.70 | 17 | 17 |
| 1:A:19:VAL:HB | 1:A:39:ARG:CG | 0.64 | 2.17 | 10 | 3 |
| 1:A:156:PRO:HG2 | 1:A:172:MET:SD | 0.64 | 2.32 | 11 | 1 |
| 1:A:95:THR:CB | 1:A:156:PRO:HA | 0.64 | 2.23 | 5 | 6 |
| 1:A:131:LEU:HD11 | 1:A:179:GLU:CG | 0.64 | 2.23 | 10 | 2 |
| 1:A:32:ARG:CD | 1:A:56:SER:HA | 0.63 | 2.23 | 18 | 1 |
| 1:A:295:ASP:HB3 | 1:A:296:PRO:HD3 | 0.63 | 1.70 | 10 | 1 |
| 1:A:32:ARG:HB3 | 1:A:33:HIS:CD2 | 0.63 | 2.28 | 18 | 1 |
| 1:A:57:ARG:HG2 | 1:A:58:VAL:N | 0.62 | 2.09 | 2 | 1 |
| 1:A:93:LEU:O | 1:A:154:GLU:HB3 | 0.62 | 1.94 | 17 | 8 |
| 1:A:258:LEU:HD12 | 1:A:289:THR:HG21 | 0.62 | 1.71 | 1 | 1 |
| 1:A:174:PRO:O | 1:A:178:VAL:HG13 | 0.62 | 1.94 | 7 | 4 |
| 1:A:153:ILE:HG23 | 1:A:154:GLU:HG2 | 0.62 | 1.72 | 20 | 4 |
| 1:A:16:MET:HB3 | 1:A:19:VAL:HG11 | 0.62 | 1.72 | 9 | 1 |
| 1:A:246:ARG:HG3 | 1:A:290:HIS:CE1 | 0.62 | 2.29 | 13 | 1 |
| 1:A:129:ARG:CZ | 1:A:181:LEU:HD13 | 0.62 | 2.25 | 16 | 4 |
| 1:A:52:VAL:HG21 | 1:A:93:LEU:HD13 | 0.62 | 1.70 | 3 | 6 |
| 1:A:29:GLN:NE2 | 1:A:57:ARG:HB3 | 0.62 | 2.09 | 16 | 1 |
| 1:A:133:ASP:HB2 | 1:A:145:LYS:HA | 0.62 | 1.71 | 9 | 1 |
| 1:A:61:TYR:CB | 1:A:73:ILE:HD11 | 0.61 | 2.25 | 2 | 9 |
| 1:A:88:TYR:CG | 1:A:93:LEU:HD23 | 0.61 | 2.30 | 7 | 3 |
| 1:A:16:MET:CG | 1:A:37:LEU:HB2 | 0.61 | 2.25 | 2 | 7 |
| 1:A:93:LEU:HA | 1:A:154:GLU:OE2 | 0.61 | 1.95 | 3 | 7 |
| 1:A:154:GLU:HG3 | 1:A:162:SER:HB2 | 0.61 | 1.70 | 4 | 2 |
| 1:A:61:TYR:OH | 1:A:93:LEU:HB3 | 0.61 | 1.94 | 2 | 4 |
| 1:A:61:TYR:CZ | 1:A:93:LEU:HD22 | 0.61 | 2.30 | 16 | 3 |
| 1:A:133:ASP:OD1 | 1:A:145:LYS:HA | 0.61 | 1.96 | 6 | 6 |
| 1:A:129:ARG:HG3 | 1:A:179:GLU:HB3 | 0.61 | 1.73 | 4 | 1 |
| 1:A:179:GLU:C | 1:A:180:LYS:HD2 | 0.61 | 2.14 | 6 | 1 |
| 1:A:32:ARG:NH1 | 1:A:57:ARG:H | 0.61 | 1.94 | 18 | 1 |
| 1:A:61:TYR:CE2 | 1:A:93:LEU:HD22 | 0.61 | 2.31 | 3 | 8 |
| 1:A:180:LYS:HD3 | 1:A:180:LYS:H | 0.60 | 1.55 | 2 | 3 |
| 1:A:150:LEU:HB3 | 1:A:163:ALA:HB1 | 0.60 | 1.73 | 20 | 5 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|------------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:73:ILE:HG13 | 1:A:84:LEU:HD13 | 0.60 | 1.71 | 7 | 2 |
| 1:A:271:ILE:H | 1:A:271:ILE:HD13 | 0.60 | 1.56 | 18 | 1 |
| 1:A:129:ARG:O | 1:A:179:GLU:HB3 | 0.60 | 1.96 | 5 | 11 |
| 1:A:148:GLU:OE1 | 1:A:150:LEU:HG | 0.60 | 1.96 | 16 | 2 |
| 1:A:238:VAL:CG1 | 1:A:293:ILE:HD12 | 0.60 | 2.26 | 10 | 5 |
| 1:A:19:VAL:HG13 | 1:A:39:ARG:CB | 0.60 | 2.24 | 9 | 1 |
| 1:A:148:GLU:CD | 1:A:150:LEU:HG | 0.60 | 2.17 | 16 | 3 |
| 1:A:16:MET:HG3 | 1:A:19:VAL:HG21 | 0.60 | 1.73 | 7 | 5 |
| 1:A:142:LEU:HB3 | 1:A:173:ILE:CG2 | 0.60 | 2.26 | 2 | 20 |
| 1:A:75:ASP:OD2 | 1:A:168:GLY:HA2 | 0.60 | 1.97 | 10 | 1 |
| 1:A:138:ASP:HB3 | 1:A:141:ASP:HB3 | 0.60 | 1.73 | 12 | 1 |
| 1:A:162:SER:OG | 1:A:172:MET:HG2 | 0.60 | 1.96 | 6 | 7 |
| 1:A:174:PRO:O | 1:A:177:TYR:HB2 | 0.60 | 1.97 | 19 | 4 |
| 1:A:125:LEU:CD1 | 1:A:152:ILE:HG21 | 0.59 | 2.23 | 20 | 6 |
| 1:A:19:VAL:HB | 1:A:39:ARG:HD2 | 0.59 | 1.75 | 2 | 2 |
| 1:A:131:LEU:HD22 | 1:A:131:LEU:N | 0.59 | 2.13 | 11 | 1 |
| 1:A:286:PHE:HB2 | 1:A:289:THR:OG1 | 0.59 | 1.98 | 1 | 2 |
| 1:A:277:GLY:O | 1:A:283:LYS:HA | 0.59 | 1.97 | 7 | 7 |
| 1:A:88:TYR:CD1 | 1:A:93:LEU:HD23 | 0.59 | 2.33 | 5 | 4 |
| 1:A:153:ILE:HG12 | 1:A:154:GLU:OE2 | 0.59 | 1.98 | 16 | 1 |
| 1:A:94:ASP:HB3 | 1:A:154:GLU:HB3 | 0.59 | 1.75 | 2 | 1 |
| 1:A:246:ARG:O | 1:A:257:ALA:HA | 0.59 | 1.97 | 12 | 9 |
| 1:A:157:GLU:HG2 | 1:A:172:MET:CE | 0.58 | 2.28 | 6 | 4 |
| 1:A:173:ILE:O | 1:A:173:ILE:HD12 | 0.58 | 1.97 | 7 | 2 |
| 1:A:57:ARG:HH21 | 1:A:154:GLU:HA | 0.58 | 1.58 | 6 | 3 |
| 1:A:245:LYS:HG2 | 1:A:259:GLU:HA | 0.58 | 1.73 | 3 | 1 |
| 1:A:131:LEU:HD11 | 1:A:179:GLU:HG3 | 0.58 | 1.72 | 19 | 1 |
| 1:A:52:VAL:O | 1:A:58:VAL:HA | 0.58 | 1.99 | 14 | 13 |
| 1:A:148:GLU:OE2 | 1:A:150:LEU:HG | 0.58 | 1.98 | 6 | 3 |
| 1:A:95:THR:OG1 | 1:A:156:PRO:HA | 0.58 | 1.98 | 4 | 2 |
| 1:A:20:SER:H | 1:A:39:ARG:HG3 | 0.58 | 1.59 | 8 | 1 |
| 1:A:87:PHE:HE1 | 1:A:88:TYR:CE1 | 0.58 | 2.17 | 11 | 2 |
| 1:A:64:ASN:HB2 | 1:A:72:LYS:CG | 0.58 | 2.29 | 16 | 1 |
| 1:A:179:GLU:O | 1:A:180:LYS:HD3 | 0.58 | 1.99 | 7 | 1 |
| 1:A:55:ASN:HB2 | 1:A:57:ARG:NH2 | 0.58 | 2.14 | 5 | 2 |
| 1:A:69:ARG:HA | 1:A:69:ARG:NE | 0.58 | 2.14 | 3 | 5 |
| 1:A:129:ARG:HG3 | 1:A:179:GLU:CG | 0.58 | 2.29 | 11 | 5 |
| 1:A:133:ASP:OD2 | 1:A:145:LYS:HA | 0.58 | 1.99 | 20 | 8 |
| 1:A:240:ALA:HB2 | 1:A:293:ILE:HD12 | 0.58 | 1.75 | 19 | 2 |
| 1:A:129:ARG:NH1 | 1:A:181:LEU:HB2 | 0.57 | 2.14 | 8 | 4 |
| 1:A:29:GLN:HE21 | 1:A:29:GLN:HA | 0.57 | 1.58 | 7 | 1 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|------------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:140:GLU:O | 1:A:172:MET:HB2 | 0.57 | 1.98 | 13 | 9 |
| 1:A:288:PHE:O | 1:A:291:VAL:HG22 | 0.57 | 2.00 | 1 | 1 |
| 1:A:73:ILE:HD13 | 1:A:88:TYR:CE2 | 0.57 | 2.34 | 17 | 5 |
| 1:A:130:THR:HG21 | 1:A:144:PHE:CG | 0.57 | 2.34 | 7 | 5 |
| 1:A:128:VAL:CG1 | 1:A:178:VAL:HB | 0.57 | 2.30 | 17 | 16 |
| 1:A:148:GLU:CD | 1:A:148:GLU:N | 0.57 | 2.57 | 3 | 3 |
| 1:A:175:VAL:N | 1:A:176:PRO:HD2 | 0.57 | 2.14 | 12 | 14 |
| 1:A:129:ARG:HB3 | 1:A:149:ILE:HD12 | 0.57 | 1.77 | 15 | 6 |
| 1:A:57:ARG:HG2 | 1:A:58:VAL:HG23 | 0.57 | 1.77 | 2 | 1 |
| 1:A:135:PRO:HA | 1:A:143:PRO:HA | 0.57 | 1.76 | 3 | 16 |
| 1:A:179:GLU:HG3 | 1:A:180:LYS:N | 0.57 | 2.12 | 7 | 2 |
| 1:A:131:LEU:HD11 | 1:A:179:GLU:HB2 | 0.57 | 1.76 | 14 | 1 |
| 1:A:53:SER:HA | 1:A:57:ARG:O | 0.56 | 1.98 | 2 | 2 |
| 1:A:278:GLU:HG2 | 1:A:283:LYS:HB3 | 0.56 | 1.77 | 7 | 1 |
| 1:A:174:PRO:HB2 | 1:A:177:TYR:HB2 | 0.56 | 1.76 | 19 | 1 |
| 1:A:131:LEU:CG | 1:A:179:GLU:HG3 | 0.56 | 2.29 | 19 | 1 |
| 1:A:130:THR:OG1 | 1:A:144:PHE:HB2 | 0.56 | 2.00 | 16 | 5 |
| 1:A:57:ARG:HH22 | 1:A:154:GLU:HA | 0.56 | 1.59 | 11 | 3 |
| 1:A:63:ILE:HG13 | 1:A:73:ILE:CG1 | 0.56 | 2.30 | 8 | 1 |
| 1:A:154:GLU:HB2 | 1:A:162:SER:CB | 0.56 | 2.25 | 9 | 3 |
| 1:A:156:PRO:HG2 | 1:A:172:MET:HE1 | 0.56 | 1.77 | 17 | 1 |
| 1:A:243:ILE:HG12 | 1:A:292:LYS:HG3 | 0.56 | 1.75 | 20 | 1 |
| 1:A:9:SER:N | 1:A:14:TRP:HE1 | 0.56 | 1.99 | 12 | 1 |
| 1:A:256:LEU:HD21 | 1:A:279:VAL:HB | 0.56 | 1.76 | 9 | 1 |
| 1:A:95:THR:HB | 1:A:155:LYS:O | 0.56 | 2.00 | 7 | 3 |
| 1:A:128:VAL:CG2 | 1:A:180:LYS:HG3 | 0.56 | 2.30 | 1 | 2 |
| 1:A:54:GLU:OE2 | 1:A:96:THR:HB | 0.56 | 2.01 | 15 | 1 |
| 1:A:161:TRP:CZ3 | 1:A:180:LYS:HE3 | 0.56 | 2.36 | 14 | 2 |
| 1:A:146:LYS:HD3 | 1:A:146:LYS:H | 0.56 | 1.60 | 9 | 1 |
| 1:A:81:LEU:O | 1:A:84:LEU:HG | 0.55 | 2.00 | 2 | 12 |
| 1:A:173:ILE:CD1 | 1:A:178:VAL:HG11 | 0.55 | 2.21 | 6 | 5 |
| 1:A:57:ARG:CD | 1:A:58:VAL:H | 0.55 | 2.13 | 16 | 2 |
| 1:A:238:VAL:HG12 | 1:A:293:ILE:HD11 | 0.55 | 1.78 | 5 | 1 |
| 1:A:61:TYR:CE1 | 1:A:153:ILE:HD11 | 0.55 | 2.37 | 6 | 2 |
| 1:A:129:ARG:HG2 | 1:A:179:GLU:CB | 0.55 | 2.32 | 3 | 1 |
| 1:A:129:ARG:CG | 1:A:179:GLU:HB3 | 0.55 | 2.32 | 4 | 1 |
| 1:A:258:LEU:CD1 | 1:A:289:THR:HG21 | 0.55 | 2.31 | 1 | 1 |
| 1:A:61:TYR:HE1 | 1:A:153:ILE:HD11 | 0.55 | 1.60 | 6 | 2 |
| 1:A:128:VAL:HA | 1:A:180:LYS:HA | 0.55 | 1.78 | 3 | 14 |
| 1:A:241:LYS:HB2 | 1:A:294:PHE:CE1 | 0.55 | 2.37 | 3 | 4 |
| 1:A:57:ARG:NH2 | 1:A:154:GLU:HA | 0.54 | 2.17 | 6 | 5 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|------------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:54:GLU:HG3 | 1:A:55:ASN:HD22 | 0.54 | 1.62 | 18 | 2 |
| 1:A:63:ILE:HG13 | 1:A:73:ILE:HG12 | 0.54 | 1.79 | 7 | 2 |
| 1:A:160:TRP:CB | 1:A:172:MET:HE2 | 0.54 | 2.31 | 11 | 2 |
| 1:A:288:PHE:O | 1:A:290:HIS:N | 0.54 | 2.41 | 6 | 1 |
| 1:A:156:PRO:HG2 | 1:A:172:MET:CE | 0.54 | 2.33 | 11 | 2 |
| 1:A:287:PRO:C | 1:A:289:THR:H | 0.54 | 2.06 | 1 | 1 |
| 1:A:180:LYS:H | 1:A:180:LYS:CD | 0.54 | 2.15 | 18 | 5 |
| 1:A:89:LYS:HE3 | 1:A:90:ILE:HG22 | 0.54 | 1.80 | 10 | 1 |
| 1:A:8:SER:O | 1:A:82:PRO:HB3 | 0.54 | 2.03 | 16 | 2 |
| 1:A:238:VAL:HG11 | 1:A:293:ILE:HD12 | 0.54 | 1.80 | 10 | 4 |
| 1:A:20:SER:H | 1:A:39:ARG:HD2 | 0.54 | 1.63 | 1 | 1 |
| 1:A:161:TRP:CZ3 | 1:A:180:LYS:HD2 | 0.54 | 2.38 | 8 | 2 |
| 1:A:137:ASN:HA | 1:A:143:PRO:CG | 0.54 | 2.33 | 1 | 1 |
| 1:A:134:PHE:HB3 | 1:A:144:PHE:CZ | 0.54 | 2.38 | 16 | 11 |
| 1:A:125:LEU:HD11 | 1:A:161:TRP:CE2 | 0.54 | 2.37 | 8 | 3 |
| 1:A:93:LEU:O | 1:A:154:GLU:HG2 | 0.53 | 2.02 | 16 | 4 |
| 1:A:125:LEU:HG | 1:A:155:LYS:HD2 | 0.53 | 1.78 | 7 | 8 |
| 1:A:125:LEU:HD12 | 1:A:152:ILE:CG2 | 0.53 | 2.26 | 20 | 1 |
| 1:A:19:VAL:HG12 | 1:A:20:SER:N | 0.53 | 2.15 | 11 | 5 |
| 1:A:87:PHE:O | 1:A:90:ILE:HD13 | 0.53 | 2.04 | 11 | 2 |
| 1:A:179:GLU:O | 1:A:180:LYS:HD2 | 0.53 | 2.02 | 6 | 1 |
| 1:A:128:VAL:HG22 | 1:A:179:GLU:O | 0.53 | 2.03 | 7 | 1 |
| 1:A:63:ILE:CG2 | 1:A:71:PHE:HB3 | 0.53 | 2.33 | 10 | 6 |
| 1:A:125:LEU:HD11 | 1:A:161:TRP:CD2 | 0.53 | 2.39 | 18 | 3 |
| 1:A:87:PHE:HE1 | 1:A:88:TYR:CZ | 0.53 | 2.21 | 11 | 2 |
| 1:A:258:LEU:HD12 | 1:A:289:THR:CG2 | 0.53 | 2.33 | 1 | 1 |
| 1:A:23:GLU:O | 1:A:27:ARG:HG3 | 0.53 | 2.04 | 3 | 3 |
| 1:A:129:ARG:HG3 | 1:A:179:GLU:HG3 | 0.53 | 1.81 | 11 | 1 |
| 1:A:131:LEU:HG | 1:A:179:GLU:CG | 0.53 | 2.34 | 19 | 1 |
| 1:A:47:ASP:OD1 | 1:A:64:ASN:HA | 0.53 | 2.04 | 20 | 4 |
| 1:A:175:VAL:O | 1:A:178:VAL:HG22 | 0.53 | 2.04 | 16 | 10 |
| 1:A:95:THR:HB | 1:A:156:PRO:CA | 0.53 | 2.27 | 16 | 2 |
| 1:A:125:LEU:HG | 1:A:155:LYS:CD | 0.53 | 2.34 | 5 | 2 |
| 1:A:125:LEU:HD21 | 1:A:161:TRP:CH2 | 0.52 | 2.39 | 2 | 2 |
| 1:A:294:PHE:O | 1:A:296:PRO:HD3 | 0.52 | 2.04 | 15 | 2 |
| 1:A:151:VAL:O | 1:A:163:ALA:HA | 0.52 | 2.04 | 20 | 10 |
| 1:A:129:ARG:O | 1:A:179:GLU:HB2 | 0.52 | 2.04 | 3 | 1 |
| 1:A:161:TRP:CH2 | 1:A:180:LYS:HE3 | 0.52 | 2.38 | 5 | 2 |
| 1:A:47:ASP:OD2 | 1:A:64:ASN:HA | 0.52 | 2.04 | 19 | 3 |
| 1:A:157:GLU:HG2 | 1:A:172:MET:HE3 | 0.52 | 1.81 | 14 | 2 |
| 1:A:39:ARG:HG3 | 1:A:49:VAL:O | 0.52 | 2.04 | 9 | 1 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|------------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:64:ASN:O | 1:A:71:PHE:HA | 0.52 | 2.05 | 13 | 3 |
| 1:A:78:PHE:CD2 | 1:A:84:LEU:HB3 | 0.52 | 2.40 | 11 | 7 |
| 1:A:80:HIS:ND1 | 1:A:82:PRO:HG2 | 0.52 | 2.19 | 17 | 4 |
| 1:A:81:LEU:HB2 | 1:A:82:PRO:HD3 | 0.52 | 1.82 | 5 | 5 |
| 1:A:139:ALA:O | 1:A:171:GLY:HA2 | 0.52 | 2.05 | 19 | 1 |
| 1:A:52:VAL:HG12 | 1:A:54:GLU:HG2 | 0.52 | 1.82 | 20 | 1 |
| 1:A:246:ARG:HB3 | 1:A:258:LEU:HB2 | 0.52 | 1.82 | 9 | 1 |
| 1:A:32:ARG:NE | 1:A:32:ARG:HA | 0.52 | 2.20 | 18 | 1 |
| 1:A:94:ASP:CA | 1:A:154:GLU:HB3 | 0.51 | 2.27 | 5 | 1 |
| 1:A:55:ASN:HB2 | 1:A:57:ARG:CG | 0.51 | 2.35 | 14 | 1 |
| 1:A:6:PHE:CE1 | 1:A:89:LYS:HE2 | 0.51 | 2.40 | 4 | 3 |
| 1:A:57:ARG:CG | 1:A:58:VAL:N | 0.51 | 2.74 | 2 | 1 |
| 1:A:20:SER:HA | 1:A:42:SER:OG | 0.51 | 2.06 | 2 | 1 |
| 1:A:159:GLN:HG3 | 1:A:160:TRP:CD1 | 0.51 | 2.32 | 11 | 1 |
| 1:A:32:ARG:HD3 | 1:A:56:SER:HA | 0.51 | 1.83 | 18 | 1 |
| 1:A:154:GLU:HG3 | 1:A:162:SER:CB | 0.51 | 2.36 | 6 | 2 |
| 1:A:279:VAL:HG12 | 1:A:280:ASN:HD22 | 0.51 | 1.65 | 11 | 3 |
| 1:A:55:ASN:C | 1:A:57:ARG:HB2 | 0.51 | 2.26 | 11 | 1 |
| 1:A:35:MET:HB2 | 1:A:53:SER:HB3 | 0.51 | 1.83 | 12 | 1 |
| 1:A:286:PHE:HD2 | 1:A:289:THR:H | 0.51 | 1.49 | 6 | 1 |
| 1:A:240:ALA:HB2 | 1:A:293:ILE:HD13 | 0.51 | 1.82 | 6 | 5 |
| 1:A:179:GLU:C | 1:A:180:LYS:HD3 | 0.51 | 2.27 | 7 | 1 |
| 1:A:146:LYS:N | 1:A:146:LYS:HD2 | 0.51 | 2.21 | 11 | 3 |
| 1:A:131:LEU:HG | 1:A:179:GLU:HG3 | 0.51 | 1.81 | 19 | 1 |
| 1:A:54:GLU:HG3 | 1:A:94:ASP:O | 0.51 | 2.05 | 4 | 1 |
| 1:A:153:ILE:HG23 | 1:A:154:GLU:HG3 | 0.51 | 1.83 | 8 | 2 |
| 1:A:25:GLN:HG3 | 1:A:58:VAL:HB | 0.50 | 1.83 | 7 | 2 |
| 1:A:73:ILE:HG23 | 1:A:73:ILE:O | 0.50 | 2.05 | 8 | 3 |
| 1:A:144:PHE:HA | 1:A:148:GLU:OE1 | 0.50 | 2.05 | 7 | 6 |
| 1:A:152:ILE:HD13 | 1:A:163:ALA:CB | 0.50 | 2.22 | 16 | 8 |
| 1:A:32:ARG:HB2 | 1:A:35:MET:SD | 0.50 | 2.46 | 11 | 5 |
| 1:A:41:SER:HA | 1:A:49:VAL:HG23 | 0.50 | 1.83 | 14 | 2 |
| 1:A:174:PRO:HB2 | 1:A:177:TYR:CG | 0.50 | 2.40 | 19 | 1 |
| 1:A:128:VAL:HG13 | 1:A:178:VAL:HB | 0.50 | 1.82 | 18 | 2 |
| 1:A:9:SER:O | 1:A:14:TRP:NE1 | 0.50 | 2.44 | 12 | 2 |
| 1:A:242:ALA:O | 1:A:260:VAL:HA | 0.50 | 2.07 | 4 | 3 |
| 1:A:61:TYR:CZ | 1:A:93:LEU:HB2 | 0.50 | 2.41 | 5 | 1 |
| 1:A:10:ASP:O | 1:A:12:SER:N | 0.50 | 2.45 | 12 | 2 |
| 1:A:145:LYS:H | 1:A:148:GLU:CG | 0.50 | 2.17 | 13 | 3 |
| 1:A:133:ASP:HB2 | 1:A:146:LYS:N | 0.50 | 2.21 | 17 | 2 |
| 1:A:92:TYR:HA | 1:A:97:THR:CA | 0.50 | 2.36 | 12 | 1 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|------------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:23:GLU:O | 1:A:27:ARG:HG2 | 0.50 | 2.07 | 10 | 3 |
| 1:A:37:LEU:O | 1:A:50:LEU:HA | 0.50 | 2.07 | 10 | 1 |
| 1:A:54:GLU:O | 1:A:56:SER:N | 0.50 | 2.44 | 11 | 1 |
| 1:A:253:LYS:HD2 | 1:A:253:LYS:H | 0.50 | 1.64 | 6 | 1 |
| 1:A:54:GLU:HG3 | 1:A:96:THR:CG2 | 0.50 | 2.37 | 10 | 1 |
| 1:A:129:ARG:O | 1:A:179:GLU:HG2 | 0.49 | 2.06 | 19 | 1 |
| 1:A:265:LYS:HD3 | 1:A:278:GLU:HG3 | 0.49 | 1.85 | 1 | 1 |
| 1:A:61:TYR:CE2 | 1:A:93:LEU:HB2 | 0.49 | 2.42 | 5 | 1 |
| 1:A:33:HIS:HB3 | 1:A:54:GLU:OE1 | 0.49 | 2.07 | 17 | 1 |
| 1:A:150:LEU:HD22 | 1:A:165:ASN:HA | 0.49 | 1.85 | 12 | 4 |
| 1:A:21:ARG:HD2 | 1:A:39:ARG:NH2 | 0.49 | 2.22 | 16 | 2 |
| 1:A:142:LEU:HD21 | 1:A:150:LEU:CD2 | 0.49 | 2.37 | 20 | 3 |
| 1:A:173:ILE:HD13 | 1:A:178:VAL:CG1 | 0.49 | 2.21 | 6 | 1 |
| 1:A:92:TYR:HA | 1:A:97:THR:HA | 0.49 | 1.84 | 12 | 1 |
| 1:A:57:ARG:HH21 | 1:A:94:ASP:CB | 0.49 | 2.20 | 15 | 1 |
| 1:A:164:ARG:HB3 | 1:A:170:VAL:HG22 | 0.49 | 1.85 | 10 | 1 |
| 1:A:126:GLU:HG2 | 1:A:127:TYR:N | 0.49 | 2.22 | 20 | 1 |
| 1:A:57:ARG:CD | 1:A:57:ARG:N | 0.49 | 2.76 | 2 | 1 |
| 1:A:94:ASP:O | 1:A:95:THR:HB | 0.49 | 2.08 | 18 | 2 |
| 1:A:155:LYS:HE3 | 1:A:161:TRP:HE1 | 0.49 | 1.66 | 19 | 1 |
| 1:A:129:ARG:HG2 | 1:A:179:GLU:O | 0.48 | 2.08 | 8 | 7 |
| 1:A:54:GLU:HG3 | 1:A:95:THR:HG22 | 0.48 | 1.84 | 4 | 1 |
| 1:A:128:VAL:HG22 | 1:A:180:LYS:CB | 0.48 | 2.37 | 15 | 2 |
| 1:A:144:PHE:CE2 | 1:A:173:ILE:HB | 0.48 | 2.43 | 13 | 7 |
| 1:A:52:VAL:HG12 | 1:A:54:GLU:HG3 | 0.48 | 1.85 | 2 | 1 |
| 1:A:16:MET:HB2 | 1:A:37:LEU:HB2 | 0.48 | 1.84 | 4 | 2 |
| 1:A:146:LYS:HD2 | 1:A:146:LYS:N | 0.48 | 2.23 | 13 | 2 |
| 1:A:58:VAL:HG11 | 1:A:60:HIS:CE1 | 0.48 | 2.42 | 16 | 1 |
| 1:A:64:ASN:HB2 | 1:A:72:LYS:HG3 | 0.48 | 1.84 | 16 | 1 |
| 1:A:61:TYR:OH | 1:A:154:GLU:HG2 | 0.48 | 2.08 | 5 | 1 |
| 1:A:159:GLN:HE21 | 1:A:159:GLN:CA | 0.48 | 2.17 | 5 | 2 |
| 1:A:130:THR:HG23 | 1:A:148:GLU:OE2 | 0.48 | 2.09 | 6 | 1 |
| 1:A:11:ARG:H | 1:A:11:ARG:HD2 | 0.48 | 1.67 | 12 | 1 |
| 1:A:150:LEU:HA | 1:A:164:ARG:O | 0.48 | 2.07 | 12 | 1 |
| 1:A:41:SER:HB3 | 1:A:44:CYS:O | 0.48 | 2.09 | 5 | 2 |
| 1:A:94:ASP:O | 1:A:156:PRO:HB3 | 0.48 | 2.09 | 2 | 1 |
| 1:A:144:PHE:HA | 1:A:148:GLU:OE2 | 0.48 | 2.08 | 9 | 1 |
| 1:A:19:VAL:CG1 | 1:A:20:SER:H | 0.48 | 2.17 | 11 | 1 |
| 1:A:152:ILE:HD12 | 1:A:161:TRP:CB | 0.48 | 2.39 | 19 | 1 |
| 1:A:72:LYS:HE2 | 1:A:77:GLU:HB3 | 0.48 | 1.84 | 5 | 1 |
| 1:A:249:CYS:SG | 1:A:250:ALA:N | 0.48 | 2.87 | 17 | 4 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|------------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:25:GLN:O | 1:A:29:GLN:HB2 | 0.48 | 2.08 | 17 | 5 |
| 1:A:144:PHE:CD2 | 1:A:173:ILE:HG22 | 0.48 | 2.43 | 19 | 2 |
| 1:A:125:LEU:HD11 | 1:A:161:TRP:CE3 | 0.48 | 2.43 | 5 | 4 |
| 1:A:55:ASN:ND2 | 1:A:155:LYS:H | 0.48 | 2.06 | 2 | 1 |
| 1:A:146:LYS:N | 1:A:146:LYS:CD | 0.48 | 2.77 | 3 | 1 |
| 1:A:161:TRP:HZ3 | 1:A:180:LYS:HD2 | 0.48 | 1.69 | 8 | 2 |
| 1:A:279:VAL:HG12 | 1:A:280:ASN:ND2 | 0.48 | 2.24 | 8 | 4 |
| 1:A:152:ILE:HG23 | 1:A:161:TRP:HB3 | 0.48 | 1.85 | 10 | 1 |
| 1:A:146:LYS:H | 1:A:146:LYS:CD | 0.48 | 2.21 | 17 | 7 |
| 1:A:73:ILE:HB | 1:A:84:LEU:HD22 | 0.48 | 1.86 | 8 | 2 |
| 1:A:78:PHE:CZ | 1:A:87:PHE:CD1 | 0.48 | 3.01 | 17 | 1 |
| 1:A:11:ARG:O | 1:A:15:TYR:HB3 | 0.48 | 2.08 | 1 | 2 |
| 1:A:275:TRP:O | 1:A:285:LEU:HA | 0.48 | 2.09 | 11 | 6 |
| 1:A:25:GLN:HG3 | 1:A:58:VAL:HG21 | 0.48 | 1.84 | 2 | 1 |
| 1:A:95:THR:HA | 1:A:156:PRO:HA | 0.48 | 1.85 | 9 | 2 |
| 1:A:92:TYR:CD2 | 1:A:97:THR:HG23 | 0.48 | 2.44 | 7 | 4 |
| 1:A:256:LEU:HD23 | 1:A:257:ALA:N | 0.48 | 2.23 | 10 | 1 |
| 1:A:94:ASP:CG | 1:A:95:THR:N | 0.48 | 2.67 | 13 | 1 |
| 1:A:144:PHE:CE1 | 1:A:173:ILE:HB | 0.48 | 2.44 | 16 | 1 |
| 1:A:133:ASP:HB3 | 1:A:145:LYS:C | 0.48 | 2.29 | 1 | 1 |
| 1:A:131:LEU:HD23 | 1:A:178:VAL:HA | 0.47 | 1.84 | 11 | 1 |
| 1:A:66:LEU:HD11 | 1:A:72:LYS:HB2 | 0.47 | 1.86 | 2 | 3 |
| 1:A:19:VAL:O | 1:A:20:SER:CB | 0.47 | 2.62 | 6 | 2 |
| 1:A:28:LEU:O | 1:A:58:VAL:HG22 | 0.47 | 2.09 | 13 | 2 |
| 1:A:289:THR:O | 1:A:290:HIS:CB | 0.47 | 2.62 | 1 | 1 |
| 1:A:28:LEU:HD21 | 1:A:102:ALA:HB2 | 0.47 | 1.84 | 18 | 4 |
| 1:A:9:SER:CA | 1:A:14:TRP:NE1 | 0.47 | 2.76 | 12 | 1 |
| 1:A:129:ARG:CG | 1:A:179:GLU:HB2 | 0.47 | 2.39 | 19 | 1 |
| 1:A:151:VAL:HB | 1:A:164:ARG:CG | 0.47 | 2.40 | 19 | 5 |
| 1:A:17:GLY:O | 1:A:39:ARG:HB2 | 0.47 | 2.09 | 10 | 2 |
| 1:A:9:SER:HA | 1:A:14:TRP:CZ2 | 0.47 | 2.45 | 12 | 1 |
| 1:A:30:GLY:HA2 | 1:A:56:SER:HA | 0.47 | 1.85 | 20 | 1 |
| 1:A:87:PHE:C | 1:A:87:PHE:CD1 | 0.47 | 2.88 | 5 | 2 |
| 1:A:19:VAL:HG13 | 1:A:23:GLU:HB3 | 0.47 | 1.86 | 17 | 2 |
| 1:A:130:THR:OG1 | 1:A:148:GLU:HG3 | 0.47 | 2.09 | 6 | 1 |
| 1:A:93:LEU:O | 1:A:154:GLU:HA | 0.47 | 2.09 | 9 | 1 |
| 1:A:72:LYS:HE3 | 1:A:75:ASP:O | 0.47 | 2.10 | 20 | 1 |
| 1:A:85:LEU:O | 1:A:89:LYS:HG3 | 0.47 | 2.09 | 4 | 6 |
| 1:A:158:GLU:O | 1:A:175:VAL:HG21 | 0.47 | 2.10 | 8 | 4 |
| 1:A:138:ASP:HB3 | 1:A:141:ASP:H | 0.47 | 1.70 | 4 | 6 |
| 1:A:20:SER:HB3 | 1:A:23:GLU:OE1 | 0.47 | 2.09 | 19 | 1 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|------------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:276:GLU:HB3 | 1:A:283:LYS:HE2 | 0.47 | 1.86 | 20 | 1 |
| 1:A:9:SER:O | 1:A:11:ARG:N | 0.47 | 2.48 | 12 | 1 |
| 1:A:39:ARG:HG3 | 1:A:40:ASP:O | 0.47 | 2.10 | 14 | 1 |
| 1:A:139:ALA:HA | 1:A:170:VAL:O | 0.47 | 2.10 | 19 | 1 |
| 1:A:129:ARG:HH12 | 1:A:181:LEU:HB2 | 0.47 | 1.68 | 8 | 2 |
| 1:A:132:TYR:O | 1:A:133:ASP:HB3 | 0.47 | 2.10 | 13 | 7 |
| 1:A:94:ASP:HA | 1:A:154:GLU:CB | 0.47 | 2.29 | 5 | 1 |
| 1:A:61:TYR:HB3 | 1:A:73:ILE:CD1 | 0.46 | 2.40 | 2 | 2 |
| 1:A:94:ASP:CG | 1:A:95:THR:H | 0.46 | 2.13 | 13 | 1 |
| 1:A:160:TRP:CH2 | 1:A:174:PRO:HG3 | 0.46 | 2.45 | 19 | 1 |
| 1:A:129:ARG:NH2 | 1:A:181:LEU:CG | 0.46 | 2.78 | 3 | 1 |
| 1:A:160:TRP:HB3 | 1:A:172:MET:CE | 0.46 | 2.38 | 11 | 1 |
| 1:A:73:ILE:HD13 | 1:A:88:TYR:HE2 | 0.46 | 1.70 | 2 | 3 |
| 1:A:60:HIS:O | 1:A:153:ILE:HD11 | 0.46 | 2.09 | 5 | 1 |
| 1:A:72:LYS:HG3 | 1:A:77:GLU:HB3 | 0.46 | 1.85 | 8 | 1 |
| 1:A:94:ASP:OD1 | 1:A:96:THR:HG22 | 0.46 | 2.10 | 14 | 1 |
| 1:A:242:ALA:HA | 1:A:291:VAL:HG12 | 0.46 | 1.88 | 9 | 3 |
| 1:A:72:LYS:HD3 | 1:A:77:GLU:CG | 0.46 | 2.28 | 19 | 1 |
| 1:A:57:ARG:HH22 | 1:A:94:ASP:CG | 0.46 | 2.14 | 20 | 1 |
| 1:A:142:LEU:HD22 | 1:A:163:ALA:O | 0.46 | 2.11 | 19 | 6 |
| 1:A:142:LEU:CD1 | 1:A:165:ASN:HB2 | 0.46 | 2.19 | 13 | 2 |
| 1:A:27:ARG:O | 1:A:31:GLN:HG3 | 0.46 | 2.11 | 6 | 2 |
| 1:A:155:LYS:HG3 | 1:A:161:TRP:CD1 | 0.46 | 2.45 | 9 | 2 |
| 1:A:125:LEU:HD12 | 1:A:152:ILE:HG13 | 0.46 | 1.88 | 15 | 1 |
| 1:A:129:ARG:HG2 | 1:A:179:GLU:HB3 | 0.46 | 1.87 | 3 | 1 |
| 1:A:131:LEU:HD21 | 1:A:179:GLU:HG2 | 0.46 | 1.88 | 3 | 1 |
| 1:A:130:THR:HB | 1:A:144:PHE:CD1 | 0.46 | 2.45 | 18 | 5 |
| 1:A:15:TYR:HA | 1:A:38:VAL:O | 0.46 | 2.11 | 10 | 1 |
| 1:A:21:ARG:HD2 | 1:A:39:ARG:HH22 | 0.46 | 1.70 | 16 | 1 |
| 1:A:36:PHE:CB | 1:A:52:VAL:HG22 | 0.46 | 2.41 | 12 | 2 |
| 1:A:92:TYR:HA | 1:A:97:THR:HG22 | 0.46 | 1.88 | 12 | 1 |
| 1:A:94:ASP:CB | 1:A:154:GLU:HG3 | 0.46 | 2.41 | 16 | 1 |
| 1:A:246:ARG:CZ | 1:A:287:PRO:HD3 | 0.46 | 2.41 | 3 | 1 |
| 1:A:52:VAL:HG21 | 1:A:93:LEU:HD11 | 0.46 | 1.87 | 5 | 1 |
| 1:A:57:ARG:O | 1:A:57:ARG:HD2 | 0.46 | 2.10 | 18 | 2 |
| 1:A:174:PRO:HB2 | 1:A:177:TYR:CD1 | 0.45 | 2.46 | 14 | 5 |
| 1:A:36:PHE:CD1 | 1:A:98:LEU:HD22 | 0.45 | 2.45 | 15 | 1 |
| 1:A:165:ASN:HD22 | 1:A:165:ASN:C | 0.45 | 2.12 | 9 | 1 |
| 1:A:59:SER:HB2 | 1:A:61:TYR:CE2 | 0.45 | 2.47 | 11 | 1 |
| 1:A:92:TYR:C | 1:A:94:ASP:H | 0.45 | 2.14 | 12 | 1 |
| 1:A:74:GLY:O | 1:A:75:ASP:HB3 | 0.45 | 2.11 | 16 | 1 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|------------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:150:LEU:HD23 | 1:A:165:ASN:HA | 0.45 | 1.85 | 20 | 1 |
| 1:A:127:TYR:CE2 | 1:A:151:VAL:HG22 | 0.45 | 2.46 | 9 | 1 |
| 1:A:54:GLU:HG3 | 1:A:94:ASP:HB3 | 0.45 | 1.87 | 19 | 1 |
| 1:A:3:SER:O | 1:A:99:ILE:HG23 | 0.45 | 2.11 | 7 | 3 |
| 1:A:94:ASP:O | 1:A:95:THR:HG22 | 0.45 | 2.11 | 15 | 2 |
| 1:A:142:LEU:CD2 | 1:A:150:LEU:CD2 | 0.45 | 2.95 | 20 | 3 |
| 1:A:92:TYR:N | 1:A:97:THR:HG22 | 0.45 | 2.27 | 19 | 1 |
| 1:A:270:ASN:HD21 | 1:A:276:GLU:HG3 | 0.45 | 1.71 | 19 | 1 |
| 1:A:55:ASN:HB2 | 1:A:57:ARG:HH21 | 0.45 | 1.71 | 5 | 1 |
| 1:A:95:THR:CA | 1:A:156:PRO:HA | 0.45 | 2.41 | 9 | 3 |
| 1:A:268:ARG:HD2 | 1:A:276:GLU:OE2 | 0.45 | 2.11 | 19 | 1 |
| 1:A:81:LEU:N | 1:A:82:PRO:HD2 | 0.45 | 2.27 | 3 | 4 |
| 1:A:125:LEU:HD21 | 1:A:161:TRP:CZ2 | 0.45 | 2.45 | 3 | 1 |
| 1:A:131:LEU:HD21 | 1:A:179:GLU:CB | 0.45 | 2.41 | 11 | 1 |
| 1:A:72:LYS:CE | 1:A:75:ASP:HA | 0.45 | 2.39 | 12 | 1 |
| 1:A:272:ASN:ND2 | 1:A:274:GLN:HG2 | 0.45 | 2.26 | 19 | 3 |
| 1:A:55:ASN:HB2 | 1:A:57:ARG:HG2 | 0.45 | 1.88 | 14 | 1 |
| 1:A:278:GLU:HG2 | 1:A:283:LYS:HE2 | 0.45 | 1.87 | 13 | 1 |
| 1:A:28:LEU:HD22 | 1:A:53:SER:HB2 | 0.45 | 1.89 | 2 | 4 |
| 1:A:81:LEU:HD23 | 1:A:84:LEU:HD21 | 0.45 | 1.89 | 3 | 2 |
| 1:A:160:TRP:HA | 1:A:173:ILE:O | 0.45 | 2.12 | 7 | 1 |
| 1:A:88:TYR:CG | 1:A:93:LEU:HD21 | 0.45 | 2.47 | 16 | 1 |
| 1:A:155:LYS:HE3 | 1:A:161:TRP:NE1 | 0.45 | 2.27 | 19 | 1 |
| 1:A:131:LEU:N | 1:A:131:LEU:CD2 | 0.45 | 2.80 | 11 | 1 |
| 1:A:55:ASN:OD1 | 1:A:155:LYS:HE2 | 0.45 | 2.12 | 12 | 1 |
| 1:A:16:MET:CG | 1:A:19:VAL:HG21 | 0.44 | 2.42 | 1 | 2 |
| 1:A:55:ASN:HD22 | 1:A:94:ASP:CG | 0.44 | 2.15 | 2 | 1 |
| 1:A:49:VAL:HG22 | 1:A:62:ILE:HG12 | 0.44 | 1.90 | 10 | 2 |
| 1:A:9:SER:O | 1:A:10:ASP:C | 0.44 | 2.54 | 10 | 2 |
| 1:A:175:VAL:HA | 1:A:178:VAL:HG22 | 0.44 | 1.89 | 12 | 1 |
| 1:A:35:MET:HB3 | 1:A:102:ALA:HB2 | 0.44 | 1.87 | 2 | 2 |
| 1:A:89:LYS:HE3 | 1:A:90:ILE:CG2 | 0.44 | 2.42 | 10 | 1 |
| 1:A:129:ARG:HG2 | 1:A:179:GLU:CG | 0.44 | 2.42 | 16 | 1 |
| 1:A:63:ILE:HG23 | 1:A:71:PHE:HB3 | 0.44 | 1.89 | 17 | 1 |
| 1:A:174:PRO:HB2 | 1:A:177:TYR:CB | 0.44 | 2.42 | 19 | 1 |
| 1:A:131:LEU:CD2 | 1:A:178:VAL:HA | 0.44 | 2.42 | 11 | 1 |
| 1:A:54:GLU:OE2 | 1:A:93:LEU:HD12 | 0.44 | 2.13 | 2 | 1 |
| 1:A:19:VAL:HG12 | 1:A:39:ARG:HD2 | 0.44 | 1.89 | 3 | 1 |
| 1:A:73:ILE:HG13 | 1:A:84:LEU:CD1 | 0.44 | 2.41 | 7 | 1 |
| 1:A:55:ASN:O | 1:A:57:ARG:HG3 | 0.44 | 2.13 | 16 | 1 |
| 1:A:88:TYR:CD1 | 1:A:93:LEU:HD21 | 0.44 | 2.47 | 17 | 1 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|------------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:32:ARG:NH2 | 1:A:58:VAL:HG22 | 0.44 | 2.28 | 18 | 1 |
| 1:A:61:TYR:HB3 | 1:A:73:ILE:CG1 | 0.44 | 2.43 | 2 | 1 |
| 1:A:63:ILE:HG13 | 1:A:73:ILE:HB | 0.44 | 1.88 | 9 | 3 |
| 1:A:274:GLN:HA | 1:A:288:PHE:CZ | 0.44 | 2.48 | 3 | 2 |
| 1:A:61:TYR:CZ | 1:A:93:LEU:HB3 | 0.44 | 2.48 | 6 | 1 |
| 1:A:157:GLU:HB2 | 1:A:160:TRP:O | 0.44 | 2.13 | 7 | 1 |
| 1:A:180:LYS:N | 1:A:180:LYS:HD3 | 0.44 | 2.28 | 9 | 1 |
| 1:A:294:PHE:CE2 | 1:A:296:PRO:HA | 0.44 | 2.48 | 13 | 1 |
| 1:A:174:PRO:HG2 | 1:A:177:TYR:CD2 | 0.44 | 2.48 | 7 | 1 |
| 1:A:148:GLU:HB2 | 1:A:166:LYS:HB2 | 0.44 | 1.90 | 13 | 1 |
| 1:A:94:ASP:HB2 | 1:A:154:GLU:HG3 | 0.44 | 1.90 | 16 | 1 |
| 1:A:23:GLU:HG2 | 1:A:27:ARG:HE | 0.44 | 1.72 | 6 | 1 |
| 1:A:39:ARG:HD3 | 1:A:40:ASP:O | 0.44 | 2.12 | 6 | 1 |
| 1:A:165:ASN:ND2 | 1:A:167:ASP:HB2 | 0.44 | 2.27 | 7 | 1 |
| 1:A:4:ALA:HB1 | 1:A:89:LYS:HE3 | 0.44 | 1.88 | 8 | 1 |
| 1:A:258:LEU:HD22 | 1:A:264:VAL:HG22 | 0.44 | 1.90 | 9 | 1 |
| 1:A:131:LEU:CD1 | 1:A:179:GLU:HB2 | 0.44 | 2.42 | 14 | 1 |
| 1:A:5:ARG:HA | 1:A:5:ARG:CZ | 0.44 | 2.42 | 17 | 1 |
| 1:A:287:PRO:C | 1:A:289:THR:N | 0.43 | 2.72 | 1 | 1 |
| 1:A:25:GLN:HA | 1:A:58:VAL:HG21 | 0.43 | 1.90 | 10 | 2 |
| 1:A:33:HIS:CE1 | 1:A:55:ASN:HA | 0.43 | 2.48 | 11 | 1 |
| 1:A:130:THR:HG23 | 1:A:150:LEU:CD1 | 0.43 | 2.43 | 20 | 1 |
| 1:A:173:ILE:HD12 | 1:A:173:ILE:C | 0.43 | 2.33 | 7 | 1 |
| 1:A:156:PRO:CG | 1:A:172:MET:HE1 | 0.43 | 2.43 | 17 | 1 |
| 1:A:289:THR:O | 1:A:290:HIS:HB2 | 0.43 | 2.13 | 1 | 1 |
| 1:A:55:ASN:HD21 | 1:A:155:LYS:H | 0.43 | 1.56 | 2 | 1 |
| 1:A:131:LEU:CD1 | 1:A:179:GLU:CG | 0.43 | 2.90 | 19 | 1 |
| 1:A:86:GLU:OE2 | 1:A:89:LYS:HD2 | 0.43 | 2.14 | 17 | 1 |
| 1:A:131:LEU:HD11 | 1:A:179:GLU:OE2 | 0.43 | 2.14 | 3 | 1 |
| 1:A:178:VAL:HG23 | 1:A:180:LYS:HD2 | 0.43 | 1.89 | 2 | 1 |
| 1:A:131:LEU:HD21 | 1:A:179:GLU:HB3 | 0.43 | 1.89 | 11 | 1 |
| 1:A:135:PRO:HA | 1:A:143:PRO:CA | 0.43 | 2.43 | 11 | 1 |
| 1:A:264:VAL:HA | 1:A:279:VAL:HG22 | 0.43 | 1.91 | 12 | 1 |
| 1:A:87:PHE:CE2 | 1:A:91:HIS:ND1 | 0.43 | 2.86 | 20 | 1 |
| 1:A:54:GLU:HG2 | 1:A:94:ASP:O | 0.43 | 2.14 | 16 | 1 |
| 1:A:128:VAL:HG13 | 1:A:180:LYS:HG3 | 0.43 | 1.91 | 4 | 1 |
| 1:A:21:ARG:HA | 1:A:39:ARG:NH2 | 0.43 | 2.29 | 6 | 1 |
| 1:A:88:TYR:CD1 | 1:A:93:LEU:HB3 | 0.43 | 2.49 | 7 | 1 |
| 1:A:128:VAL:HG21 | 1:A:152:ILE:HD11 | 0.43 | 1.90 | 7 | 1 |
| 1:A:37:LEU:HD12 | 1:A:37:LEU:O | 0.43 | 2.14 | 9 | 1 |
| 1:A:180:LYS:HD3 | 1:A:180:LYS:N | 0.43 | 2.28 | 2 | 1 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|------------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:148:GLU:CD | 1:A:148:GLU:C | 0.43 | 2.77 | 6 | 3 |
| 1:A:178:VAL:CG2 | 1:A:180:LYS:HD2 | 0.43 | 2.44 | 2 | 1 |
| 1:A:93:LEU:O | 1:A:94:ASP:HB2 | 0.43 | 2.14 | 5 | 1 |
| 1:A:271:ILE:HD12 | 1:A:271:ILE:H | 0.43 | 1.73 | 16 | 1 |
| 1:A:131:LEU:HD11 | 1:A:179:GLU:CD | 0.42 | 2.34 | 5 | 2 |
| 1:A:289:THR:HB | 1:A:291:VAL:HG13 | 0.42 | 1.90 | 1 | 1 |
| 1:A:148:GLU:OE1 | 1:A:150:LEU:CD2 | 0.42 | 2.67 | 6 | 1 |
| 1:A:241:LYS:HE3 | 1:A:261:GLY:HA2 | 0.42 | 1.91 | 8 | 1 |
| 1:A:35:MET:SD | 1:A:103:PRO:HD3 | 0.42 | 2.54 | 7 | 1 |
| 1:A:81:LEU:CB | 1:A:82:PRO:HD3 | 0.42 | 2.44 | 16 | 1 |
| 1:A:19:VAL:CB | 1:A:39:ARG:HD2 | 0.42 | 2.43 | 2 | 1 |
| 1:A:264:VAL:HG13 | 1:A:279:VAL:CG2 | 0.42 | 2.45 | 9 | 2 |
| 1:A:19:VAL:O | 1:A:20:SER:HB3 | 0.42 | 2.14 | 10 | 1 |
| 1:A:130:THR:C | 1:A:131:LEU:HD22 | 0.42 | 2.34 | 11 | 1 |
| 1:A:246:ARG:HG3 | 1:A:256:LEU:O | 0.42 | 2.13 | 17 | 1 |
| 1:A:34:GLY:CA | 1:A:96:THR:HG21 | 0.42 | 2.45 | 15 | 1 |
| 1:A:54:GLU:CG | 1:A:95:THR:HG22 | 0.42 | 2.44 | 1 | 1 |
| 1:A:142:LEU:HD13 | 1:A:169:ARG:O | 0.42 | 2.14 | 13 | 2 |
| 1:A:28:LEU:HA | 1:A:31:GLN:HG3 | 0.42 | 1.92 | 6 | 1 |
| 1:A:86:GLU:HA | 1:A:89:LYS:HD3 | 0.42 | 1.90 | 8 | 1 |
| 1:A:148:GLU:OE1 | 1:A:165:ASN:HB2 | 0.42 | 2.14 | 9 | 1 |
| 1:A:238:VAL:HB | 1:A:266:VAL:HG13 | 0.42 | 1.92 | 9 | 1 |
| 1:A:37:LEU:O | 1:A:37:LEU:HD12 | 0.42 | 2.15 | 10 | 1 |
| 1:A:145:LYS:N | 1:A:148:GLU:HG3 | 0.42 | 2.19 | 13 | 1 |
| 1:A:148:GLU:OE1 | 1:A:150:LEU:CG | 0.42 | 2.67 | 16 | 1 |
| 1:A:78:PHE:CZ | 1:A:87:PHE:CG | 0.42 | 3.07 | 17 | 1 |
| 1:A:175:VAL:C | 1:A:177:TYR:H | 0.42 | 2.16 | 19 | 1 |
| 1:A:19:VAL:O | 1:A:20:SER:HB2 | 0.42 | 2.15 | 12 | 2 |
| 1:A:158:GLU:HG3 | 1:A:159:GLN:HG2 | 0.42 | 1.90 | 1 | 1 |
| 1:A:270:ASN:HB2 | 1:A:274:GLN:O | 0.42 | 2.15 | 10 | 2 |
| 1:A:248:PRO:HB3 | 1:A:252:ASP:CG | 0.42 | 2.35 | 17 | 1 |
| 1:A:87:PHE:O | 1:A:90:ILE:HG12 | 0.42 | 2.14 | 10 | 2 |
| 1:A:55:ASN:ND2 | 1:A:94:ASP:OD1 | 0.42 | 2.53 | 11 | 1 |
| 1:A:57:ARG:HE | 1:A:94:ASP:CG | 0.42 | 2.18 | 15 | 1 |
| 1:A:126:GLU:HG2 | 1:A:127:TYR:CD2 | 0.42 | 2.50 | 15 | 1 |
| 1:A:128:VAL:O | 1:A:150:LEU:HB2 | 0.42 | 2.14 | 20 | 1 |
| 1:A:74:GLY:O | 1:A:75:ASP:HB2 | 0.42 | 2.15 | 4 | 1 |
| 1:A:137:ASN:CA | 1:A:143:PRO:HG3 | 0.42 | 2.42 | 7 | 1 |
| 1:A:25:GLN:O | 1:A:29:GLN:N | 0.42 | 2.52 | 3 | 1 |
| 1:A:54:GLU:HB3 | 1:A:94:ASP:CG | 0.42 | 2.35 | 3 | 1 |
| 1:A:102:ALA:HB1 | 1:A:103:PRO:HD2 | 0.42 | 1.91 | 8 | 1 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|------------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:156:PRO:HD2 | 1:A:172:MET:HE1 | 0.42 | 1.92 | 9 | 1 |
| 1:A:36:PHE:HB2 | 1:A:52:VAL:HG22 | 0.42 | 1.90 | 12 | 1 |
| 1:A:54:GLU:HB2 | 1:A:94:ASP:CG | 0.42 | 2.35 | 13 | 1 |
| 1:A:244:GLN:HB3 | 1:A:290:HIS:HB2 | 0.42 | 1.92 | 13 | 1 |
| 1:A:31:GLN:HB2 | 1:A:35:MET:CE | 0.42 | 2.45 | 18 | 1 |
| 1:A:256:LEU:HA | 1:A:282:ARG:NH1 | 0.41 | 2.30 | 1 | 1 |
| 1:A:72:LYS:HG3 | 1:A:77:GLU:HG2 | 0.41 | 1.91 | 3 | 1 |
| 1:A:86:GLU:HA | 1:A:89:LYS:CG | 0.41 | 2.44 | 7 | 1 |
| 1:A:57:ARG:HH12 | 1:A:154:GLU:CA | 0.41 | 2.28 | 13 | 1 |
| 1:A:72:LYS:HG3 | 1:A:72:LYS:O | 0.41 | 2.15 | 16 | 1 |
| 1:A:78:PHE:CZ | 1:A:87:PHE:CD2 | 0.41 | 3.08 | 13 | 1 |
| 1:A:12:SER:HA | 1:A:104:ARG:NH1 | 0.41 | 2.30 | 16 | 1 |
| 1:A:54:GLU:HG2 | 1:A:95:THR:HG22 | 0.41 | 1.93 | 1 | 1 |
| 1:A:57:ARG:HG3 | 1:A:57:ARG:O | 0.41 | 2.15 | 1 | 1 |
| 1:A:239:PHE:HB2 | 1:A:296:PRO:CG | 0.41 | 2.46 | 15 | 1 |
| 1:A:268:ARG:NE | 1:A:268:ARG:HA | 0.41 | 2.29 | 18 | 1 |
| 1:A:80:HIS:CE1 | 1:A:83:ALA:HB2 | 0.41 | 2.50 | 10 | 1 |
| 1:A:278:GLU:HB3 | 1:A:283:LYS:HG2 | 0.41 | 1.91 | 12 | 1 |
| 1:A:130:THR:CG2 | 1:A:178:VAL:HG12 | 0.41 | 2.45 | 1 | 1 |
| 1:A:289:THR:O | 1:A:289:THR:HG22 | 0.41 | 2.14 | 6 | 1 |
| 1:A:283:LYS:O | 1:A:283:LYS:HD2 | 0.41 | 2.15 | 9 | 1 |
| 1:A:126:GLU:CG | 1:A:127:TYR:N | 0.41 | 2.84 | 20 | 1 |
| 1:A:142:LEU:HD21 | 1:A:165:ASN:HA | 0.41 | 1.91 | 6 | 1 |
| 1:A:93:LEU:HD11 | 1:A:98:LEU:CD2 | 0.41 | 2.45 | 12 | 1 |
| 1:A:240:ALA:HB2 | 1:A:293:ILE:HG13 | 0.41 | 1.90 | 17 | 1 |
| 1:A:30:GLY:C | 1:A:32:ARG:HG2 | 0.41 | 2.35 | 18 | 1 |
| 1:A:180:LYS:CD | 1:A:180:LYS:N | 0.41 | 2.83 | 18 | 1 |
| 1:A:63:ILE:HA | 1:A:73:ILE:HA | 0.41 | 1.92 | 10 | 1 |
| 1:A:162:SER:HA | 1:A:172:MET:HA | 0.41 | 1.93 | 19 | 1 |
| 1:A:129:ARG:NH2 | 1:A:149:ILE:HD11 | 0.41 | 2.30 | 6 | 1 |
| 1:A:267:THR:OG1 | 1:A:268:ARG:HD2 | 0.41 | 2.16 | 6 | 1 |
| 1:A:52:VAL:HG11 | 1:A:93:LEU:CD1 | 0.41 | 2.45 | 7 | 1 |
| 1:A:54:GLU:CB | 1:A:94:ASP:HB3 | 0.41 | 2.40 | 9 | 1 |
| 1:A:142:LEU:HD23 | 1:A:150:LEU:HD13 | 0.41 | 1.92 | 10 | 1 |
| 1:A:88:TYR:CD1 | 1:A:93:LEU:CD2 | 0.41 | 3.04 | 17 | 2 |
| 1:A:131:LEU:HA | 1:A:146:LYS:O | 0.41 | 2.16 | 18 | 1 |
| 1:A:243:ILE:HD13 | 1:A:292:LYS:HG2 | 0.41 | 1.93 | 18 | 1 |
| 1:A:80:HIS:ND1 | 1:A:82:PRO:HD2 | 0.41 | 2.31 | 5 | 1 |
| 1:A:39:ARG:CZ | 1:A:49:VAL:HB | 0.41 | 2.46 | 8 | 1 |
| 1:A:39:ARG:HH21 | 1:A:42:SER:HB3 | 0.41 | 1.75 | 9 | 1 |
| 1:A:153:ILE:HG21 | 1:A:170:VAL:HG22 | 0.41 | 1.92 | 15 | 1 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|------------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:55:ASN:O | 1:A:57:ARG:HB2 | 0.41 | 2.15 | 17 | 1 |
| 1:A:258:LEU:HD12 | 1:A:289:THR:OG1 | 0.40 | 2.16 | 1 | 1 |
| 1:A:156:PRO:HG2 | 1:A:172:MET:HE3 | 0.40 | 1.92 | 2 | 1 |
| 1:A:32:ARG:HB2 | 1:A:35:MET:HG3 | 0.40 | 1.92 | 8 | 1 |
| 1:A:291:VAL:O | 1:A:292:LYS:HD2 | 0.40 | 2.17 | 8 | 1 |
| 1:A:66:LEU:HD21 | 1:A:72:LYS:HD2 | 0.40 | 1.92 | 11 | 1 |
| 1:A:129:ARG:HG3 | 1:A:179:GLU:HG2 | 0.40 | 1.92 | 14 | 1 |
| 1:A:238:VAL:HB | 1:A:269:MET:HE3 | 0.40 | 1.93 | 19 | 1 |
| 1:A:238:VAL:CG1 | 1:A:293:ILE:HD11 | 0.40 | 2.46 | 5 | 1 |
| 1:A:175:VAL:N | 1:A:176:PRO:CD | 0.40 | 2.85 | 9 | 2 |
| 1:A:243:ILE:HG12 | 1:A:290:HIS:O | 0.40 | 2.16 | 13 | 1 |
| 1:A:19:VAL:HB | 1:A:39:ARG:CB | 0.40 | 2.46 | 15 | 1 |
| 1:A:290:HIS:H | 1:A:290:HIS:CD2 | 0.40 | 2.34 | 13 | 1 |
| 1:A:164:ARG:HB2 | 1:A:168:GLY:C | 0.40 | 2.37 | 16 | 1 |
| 1:A:144:PHE:CE2 | 1:A:173:ILE:HG22 | 0.40 | 2.51 | 19 | 1 |
| 1:A:264:VAL:HG11 | 1:A:286:PHE:CZ | 0.40 | 2.52 | 19 | 1 |
| 1:A:130:THR:HG23 | 1:A:150:LEU:HD12 | 0.40 | 1.93 | 20 | 1 |
| 1:A:52:VAL:HG21 | 1:A:93:LEU:CD1 | 0.40 | 2.44 | 3 | 1 |
| 1:A:7:ASP:HB3 | 1:A:13:ALA:CB | 0.40 | 2.47 | 10 | 1 |
| 1:A:13:ALA:O | 1:A:101:PRO:HG2 | 0.40 | 2.16 | 12 | 1 |
| 1:A:69:ARG:HE | 1:A:69:ARG:HA | 0.40 | 1.77 | 13 | 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 | 219/303 (72%) | 185±4 (85±2%) | 27±4 (12±2%) | 7±2 (3±1%) | 5 | 37 |
| All | All | 4380/6060 (72%) | 3704 (85%) | 542 (12%) | 134 (3%) | 5 | 37 |

All 39 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 | 126 | GLU | 19 |

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| Mol | Chain | Res | Type | Models (Total) |
|-----|-------|-----|------|----------------|
| 1 | A | 147 | GLY | 11 |
| 1 | A | 181 | LEU | 8 |
| 1 | A | 165 | ASN | 8 |
| 1 | A | 125 | LEU | 7 |
| 1 | A | 95 | THR | 6 |
| 1 | A | 20 | SER | 5 |
| 1 | A | 92 | TYR | 5 |
| 1 | A | 93 | LEU | 5 |
| 1 | A | 133 | ASP | 5 |
| 1 | A | 9 | SER | 5 |
| 1 | A | 94 | ASP | 5 |
| 1 | A | 156 | PRO | 4 |
| 1 | A | 31 | GLN | 4 |
| 1 | A | 75 | ASP | 3 |
| 1 | A | 271 | ILE | 3 |
| 1 | A | 295 | ASP | 3 |
| 1 | A | 10 | ASP | 3 |
| 1 | A | 19 | VAL | 2 |
| 1 | A | 272 | ASN | 2 |
| 1 | A | 11 | ARG | 2 |
| 1 | A | 296 | PRO | 2 |
| 1 | A | 6 | PHE | 1 |
| 1 | A | 248 | PRO | 1 |
| 1 | A | 279 | VAL | 1 |
| 1 | A | 290 | HIS | 1 |
| 1 | A | 57 | ARG | 1 |
| 1 | A | 270 | ASN | 1 |
| 1 | A | 289 | THR | 1 |
| 1 | A | 45 | PRO | 1 |
| 1 | A | 41 | SER | 1 |
| 1 | A | 42 | SER | 1 |
| 1 | A | 55 | ASN | 1 |
| 1 | A | 12 | SER | 1 |
| 1 | A | 56 | SER | 1 |
| 1 | A | 250 | ALA | 1 |
| 1 | A | 32 | ARG | 1 |
| 1 | A | 103 | PRO | 1 |
| 1 | A | 280 | ASN | 1 |

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 | 193/262 (74%) | 178±3 (92±1%) | 15±3 (8±1%) | 13 63 |
| All | All | 3860/5240 (74%) | 3568 (92%) | 292 (8%) | 13 63 |

All 81 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 | 146 | LYS | 17 |
| 1 | A | 148 | GLU | 14 |
| 1 | A | 57 | ARG | 13 |
| 1 | A | 256 | LEU | 12 |
| 1 | A | 138 | ASP | 12 |
| 1 | A | 169 | ARG | 11 |
| 1 | A | 154 | GLU | 10 |
| 1 | A | 172 | MET | 10 |
| 1 | A | 244 | GLN | 10 |
| 1 | A | 29 | GLN | 9 |
| 1 | A | 130 | THR | 8 |
| 1 | A | 180 | LYS | 8 |
| 1 | A | 129 | ARG | 7 |
| 1 | A | 149 | ILE | 7 |
| 1 | A | 54 | GLU | 7 |
| 1 | A | 69 | ARG | 6 |
| 1 | A | 137 | ASN | 6 |
| 1 | A | 55 | ASN | 6 |
| 1 | A | 289 | THR | 5 |
| 1 | A | 39 | ARG | 5 |
| 1 | A | 246 | ARG | 4 |
| 1 | A | 77 | GLU | 4 |
| 1 | A | 94 | ASP | 4 |
| 1 | A | 23 | GLU | 3 |
| 1 | A | 283 | LYS | 3 |
| 1 | A | 93 | LEU | 3 |
| 1 | A | 87 | PHE | 3 |
| 1 | A | 90 | ILE | 3 |
| 1 | A | 95 | THR | 3 |

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| Mol | Chain | Res | Type | Models (Total) |
|-----|-------|-----|------|----------------|
| 1 | A | 282 | ARG | 3 |
| 1 | A | 22 | GLN | 3 |
| 1 | A | 43 | THR | 2 |
| 1 | A | 252 | ASP | 2 |
| 1 | A | 58 | VAL | 2 |
| 1 | A | 181 | LEU | 2 |
| 1 | A | 293 | ILE | 2 |
| 1 | A | 294 | PHE | 2 |
| 1 | A | 267 | THR | 2 |
| 1 | A | 159 | GLN | 2 |
| 1 | A | 144 | PHE | 2 |
| 1 | A | 254 | THR | 2 |
| 1 | A | 268 | ARG | 2 |
| 1 | A | 73 | ILE | 2 |
| 1 | A | 11 | ARG | 2 |
| 1 | A | 80 | HIS | 2 |
| 1 | A | 133 | ASP | 2 |
| 1 | A | 145 | LYS | 2 |
| 1 | A | 76 | GLN | 2 |
| 1 | A | 280 | ASN | 2 |
| 1 | A | 59 | SER | 2 |
| 1 | A | 100 | GLU | 2 |
| 1 | A | 125 | LEU | 2 |
| 1 | A | 126 | GLU | 2 |
| 1 | A | 259 | GLU | 2 |
| 1 | A | 292 | LYS | 1 |
| 1 | A | 20 | SER | 1 |
| 1 | A | 131 | LEU | 1 |
| 1 | A | 64 | ASN | 1 |
| 1 | A | 179 | GLU | 1 |
| 1 | A | 243 | ILE | 1 |
| 1 | A | 40 | ASP | 1 |
| 1 | A | 276 | GLU | 1 |
| 1 | A | 68 | ASN | 1 |
| 1 | A | 79 | ASP | 1 |
| 1 | A | 253 | LYS | 1 |
| 1 | A | 174 | PRO | 1 |
| 1 | A | 31 | GLN | 1 |
| 1 | A | 165 | ASN | 1 |
| 1 | A | 278 | GLU | 1 |
| 1 | A | 89 | LYS | 1 |
| 1 | A | 245 | LYS | 1 |

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| Mol | Chain | Res | Type | Models (Total) |
|-----|-------|-----|------|----------------|
| 1 | A | 274 | GLN | 1 |
| 1 | A | 290 | HIS | 1 |
| 1 | A | 21 | ARG | 1 |
| 1 | A | 72 | LYS | 1 |
| 1 | A | 91 | HIS | 1 |
| 1 | A | 156 | PRO | 1 |
| 1 | A | 42 | SER | 1 |
| 1 | A | 271 | ILE | 1 |
| 1 | A | 158 | GLU | 1 |
| 1 | A | 96 | THR | 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 oligosaccharides in this entry.

6.6 Ligand geometry [i](#)

There are no ligands in this entry.

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 58% for the well-defined parts and 53% for the entire structure.

7.1 Chemical shift list 1

File name: working_cs.cif

Chemical shift list name: *assigned_chem_shift_list_1*

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 | 2157 |
| Number of shifts mapped to atoms | 2157 |
| Number of unparsed shifts | 0 |
| Number of shifts with mapping errors | 0 |
| Number of shifts with mapping warnings | 0 |
| Number of shift outliers (ShiftChecker) | 16 |

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 |
|------------------------|----------|---------------------------------|-------------------------|
| $^{13}\text{C}_\alpha$ | 267 | 0.13 ± 0.10 | None needed (< 0.5 ppm) |
| $^{13}\text{C}_\beta$ | 242 | 0.20 ± 0.17 | None needed (< 0.5 ppm) |
| $^{13}\text{C}'$ | 211 | 0.07 ± 0.08 | None needed (< 0.5 ppm) |
| ^{15}N | 232 | 0.11 ± 0.32 | 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 58%, i.e. 1786 atoms were assigned a chemical shift out of a possible 3081. 0 out of 34 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

| | Total | ^1H | ^{13}C | ^{15}N |
|-----------|----------------|----------------|-----------------|-----------------|
| Backbone | 912/1079 (85%) | 347/437 (79%) | 380/438 (87%) | 185/204 (91%) |
| Sidechain | 874/1723 (51%) | 541/1115 (49%) | 333/531 (63%) | 0/77 (0%) |

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| | Total | ¹ H | ¹³ C | ¹⁵ N |
|----------|-----------------|----------------|-----------------|-----------------|
| Aromatic | 0/279 (0%) | 0/135 (0%) | 0/130 (0%) | 0/14 (0%) |
| Overall | 1786/3081 (58%) | 888/1687 (53%) | 713/1099 (65%) | 185/295 (63%) |

The following table shows the completeness of the chemical shift assignments for the full structure. The overall completeness is 53%, i.e. 2153 atoms were assigned a chemical shift out of a possible 4079. 0 out of 40 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

| | Total | ¹ H | ¹³ C | ¹⁵ N |
|-----------|-----------------|-----------------|-----------------|-----------------|
| Backbone | 1139/1476 (77%) | 429/597 (72%) | 478/606 (79%) | 232/273 (85%) |
| Sidechain | 1014/2273 (45%) | 610/1473 (41%) | 404/704 (57%) | 0/96 (0%) |
| Aromatic | 0/330 (0%) | 0/159 (0%) | 0/151 (0%) | 0/20 (0%) |
| Overall | 2153/4079 (53%) | 1039/2229 (47%) | 882/1461 (60%) | 232/389 (60%) |

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.

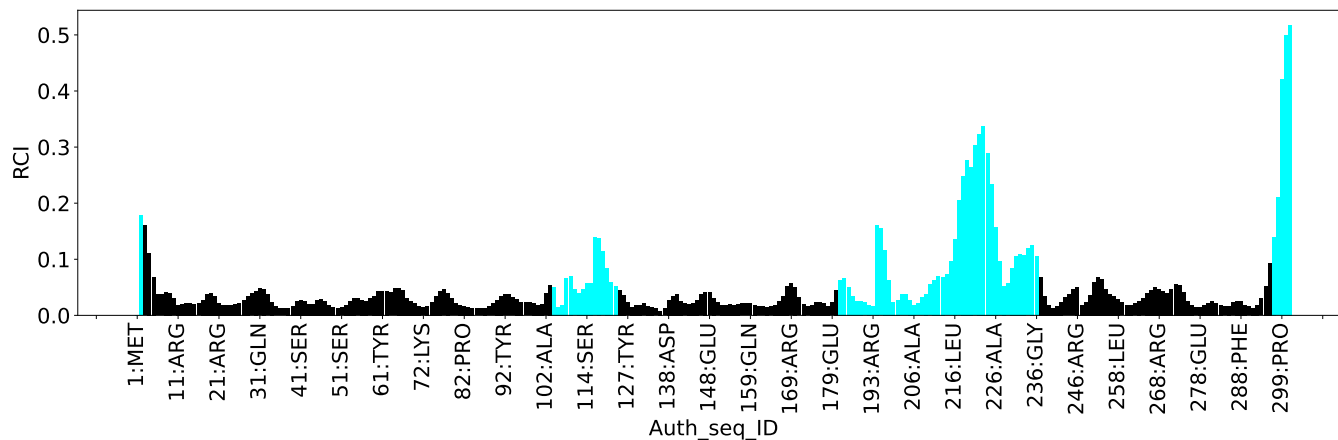
| List Id | Chain | Res | Type | Atom | Shift, ppm | Expected range, ppm | Z-score |
|---------|-------|-----|------|------|------------|---------------------|---------|
| 1 | A | 32 | ARG | HH21 | 1.64 | 4.81 – 8.80 | -12.9 |
| 1 | A | 21 | ARG | CD | 51.74 | 38.57 – 47.75 | 9.3 |
| 1 | A | 231 | PRO | CD | 42.81 | 45.11 – 55.58 | -7.2 |
| 1 | A | 11 | ARG | CB | 43.01 | 21.74 – 39.52 | 7.0 |
| 1 | A | 206 | ALA | CA | 40.20 | 43.52 – 62.81 | -6.7 |
| 1 | A | 101 | PRO | CA | 53.31 | 55.85 – 70.84 | -6.7 |
| 1 | A | 201 | PRO | CA | 53.89 | 55.85 – 70.84 | -6.3 |
| 1 | A | 269 | MET | HG3 | 0.14 | 0.54 – 4.26 | -6.1 |
| 1 | A | 11 | ARG | HA | 1.94 | 2.06 – 6.51 | -5.3 |
| 1 | A | 85 | LEU | HD21 | -0.73 | -0.65 – 2.13 | -5.3 |
| 1 | A | 85 | LEU | HD22 | -0.73 | -0.65 – 2.13 | -5.3 |
| 1 | A | 85 | LEU | HD23 | -0.73 | -0.65 – 2.13 | -5.3 |
| 1 | A | 84 | LEU | HA | 1.92 | 2.04 – 6.55 | -5.3 |
| 1 | A | 93 | LEU | HD21 | -0.68 | -0.65 – 2.13 | -5.1 |
| 1 | A | 93 | LEU | HD22 | -0.68 | -0.65 – 2.13 | -5.1 |
| 1 | A | 93 | LEU | HD23 | -0.68 | -0.65 – 2.13 | -5.1 |

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 | 3975 |
| Intra-residue ($ i-j =0$) | 765 |
| Sequential ($ i-j =1$) | 1012 |
| Medium range ($ i-j >1$ and $ i-j <5$) | 522 |
| Long range ($ i-j \geq 5$) | 1675 |
| Inter-chain | 0 |
| Hydrogen bond restraints | 1 |
| Disulfide bond restraints | 0 |
| Total dihedral-angle restraints | 183 |
| Number of unmapped restraints | 0 |
| Number of restraints per residue | 13.7 |
| Number of long range restraints per residue ¹ | 5.5 |

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) | 17.1 | 0.2 |
| 0.2-0.5 (Medium) | 38.5 | 0.5 |
| >0.5 (Large) | 66.0 | 6.38 |

8.2.2 Average number of dihedral-angle violations per model [i](#)

Dihedral-angle violations less than 1° are not included in the calculation.

| Bins (°) | Average number of violations per model | Max (°) |
|--------------------|--|---------|
| 1.0-10.0 (Small) | 15.3 | 8.6 |
| 10.0-20.0 (Medium) | None | None |
| >20.0 (Large) | None | None |

9 Distance violation analysis i

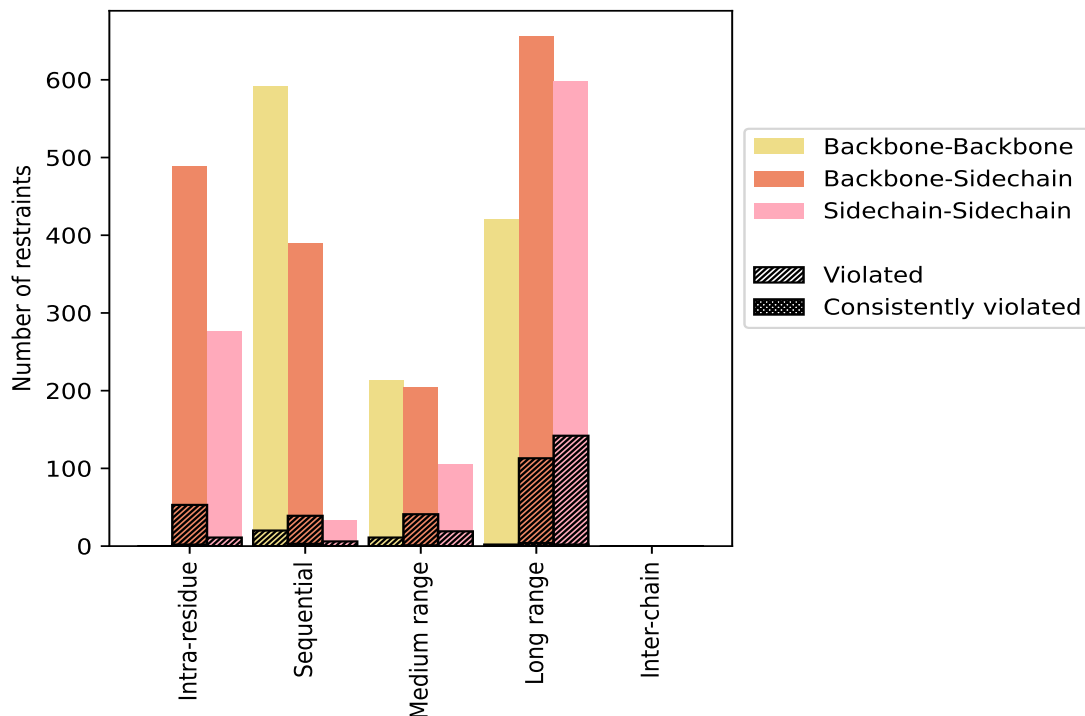
9.1 Summary of distance violations i

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 ($i-j =0$) | 765 | 19.2 | 64 | 8.4 | 1.6 | 2 | 0.3 | 0.1 |
| Backbone-Backbone | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 489 | 12.3 | 53 | 10.8 | 1.3 | 2 | 0.4 | 0.1 |
| Sidechain-Sidechain | 276 | 6.9 | 11 | 4.0 | 0.3 | 0 | 0.0 | 0.0 |
| Sequential ($i-j =1$) | 1012 | 25.5 | 64 | 6.3 | 1.6 | 2 | 0.2 | 0.1 |
| Backbone-Backbone | 591 | 14.9 | 20 | 3.4 | 0.5 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 388 | 9.8 | 38 | 9.8 | 1.0 | 2 | 0.5 | 0.1 |
| Sidechain-Sidechain | 33 | 0.8 | 6 | 18.2 | 0.2 | 0 | 0.0 | 0.0 |
| Medium range ($i-j >1$ & $i-j <5$) | 522 | 13.1 | 71 | 13.6 | 1.8 | 1 | 0.2 | 0.0 |
| Backbone-Backbone | 213 | 5.4 | 11 | 5.2 | 0.3 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 204 | 5.1 | 41 | 20.1 | 1.0 | 1 | 0.5 | 0.0 |
| Sidechain-Sidechain | 105 | 2.6 | 19 | 18.1 | 0.5 | 0 | 0.0 | 0.0 |
| Long range ($i-j \geq 5$) | 1675 | 42.1 | 257 | 15.3 | 6.5 | 6 | 0.4 | 0.2 |
| Backbone-Backbone | 421 | 10.6 | 2 | 0.5 | 0.1 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 656 | 16.5 | 113 | 17.2 | 2.8 | 4 | 0.6 | 0.1 |
| Sidechain-Sidechain | 598 | 15.0 | 142 | 23.7 | 3.6 | 2 | 0.3 | 0.1 |
| 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 | 1 | 0.0 | 1 | 100.0 | 0.0 | 1 | 100.0 | 0.0 |
| Disulfide bond | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Total | 3975 | 100.0 | 457 | 11.5 | 11.5 | 12 | 0.3 | 0.3 |
| Backbone-Backbone | 1225 | 30.8 | 33 | 2.7 | 0.8 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 1738 | 43.7 | 246 | 14.2 | 6.2 | 10 | 0.6 | 0.3 |
| Sidechain-Sidechain | 1012 | 25.5 | 178 | 17.6 | 4.5 | 2 | 0.2 | 0.1 |

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 | 11 | 12 | 20 | 65 | 0 | 108 | 0.76 | 3.16 | 0.76 | 0.43 |
| 2 | 12 | 16 | 17 | 50 | 0 | 95 | 0.8 | 3.39 | 0.77 | 0.52 |
| 3 | 9 | 17 | 10 | 44 | 0 | 80 | 0.48 | 1.87 | 0.33 | 0.41 |
| 4 | 17 | 19 | 22 | 68 | 0 | 126 | 0.94 | 5.36 | 0.98 | 0.52 |
| 5 | 13 | 22 | 22 | 91 | 0 | 148 | 1.12 | 5.15 | 0.99 | 0.74 |
| 6 | 9 | 14 | 23 | 91 | 0 | 137 | 1.0 | 3.97 | 0.94 | 0.62 |
| 7 | 11 | 23 | 16 | 84 | 0 | 134 | 1.04 | 4.25 | 0.94 | 0.67 |
| 8 | 16 | 27 | 16 | 83 | 0 | 142 | 1.0 | 4.1 | 0.91 | 0.61 |
| 9 | 16 | 25 | 17 | 74 | 0 | 132 | 0.76 | 4.27 | 0.87 | 0.42 |
| 10 | 18 | 17 | 13 | 67 | 0 | 115 | 0.67 | 3.59 | 0.66 | 0.43 |

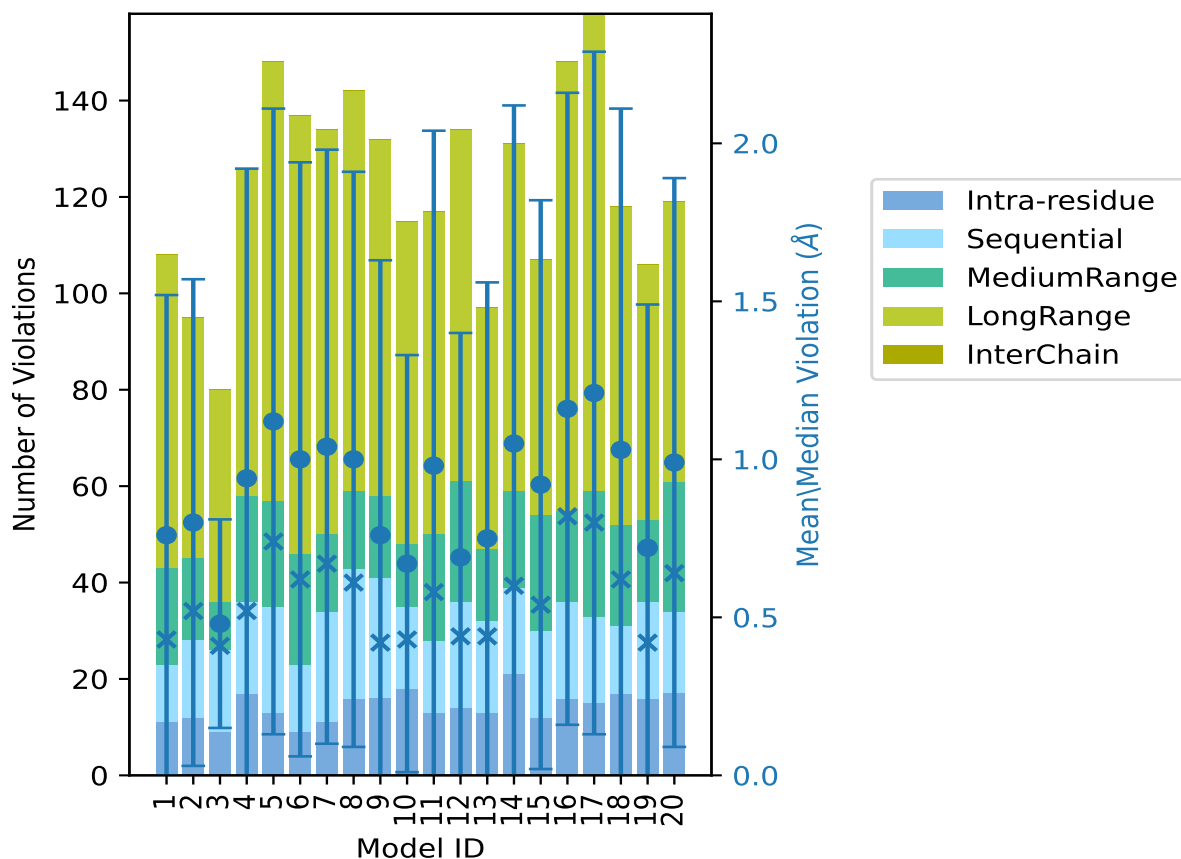
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| Model ID | Number of violations | | | | | Total | Mean (Å) | Max (Å) | SD ⁶ (Å) | Median (Å) |
|----------|----------------------|-----------------|-----------------|-----------------|-----------------|-------|----------|---------|---------------------|------------|
| | IR ¹ | SQ ² | MR ³ | LR ⁴ | IC ⁵ | | | | | |
| 11 | 13 | 15 | 22 | 67 | 0 | 117 | 0.98 | 6.2 | 1.06 | 0.58 |
| 12 | 14 | 22 | 25 | 73 | 0 | 134 | 0.69 | 3.86 | 0.71 | 0.44 |
| 13 | 13 | 19 | 15 | 50 | 0 | 97 | 0.75 | 4.08 | 0.81 | 0.44 |
| 14 | 21 | 18 | 20 | 72 | 0 | 131 | 1.05 | 6.03 | 1.07 | 0.6 |
| 15 | 12 | 18 | 24 | 53 | 0 | 107 | 0.92 | 4.24 | 0.9 | 0.54 |
| 16 | 16 | 20 | 19 | 93 | 0 | 148 | 1.16 | 5.39 | 1.0 | 0.82 |
| 17 | 15 | 18 | 26 | 99 | 0 | 158 | 1.21 | 5.43 | 1.08 | 0.8 |
| 18 | 17 | 14 | 21 | 66 | 0 | 118 | 1.03 | 6.38 | 1.08 | 0.62 |
| 19 | 16 | 20 | 17 | 53 | 0 | 106 | 0.72 | 3.94 | 0.77 | 0.42 |
| 20 | 17 | 17 | 27 | 58 | 0 | 119 | 0.99 | 4.09 | 0.9 | 0.64 |

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

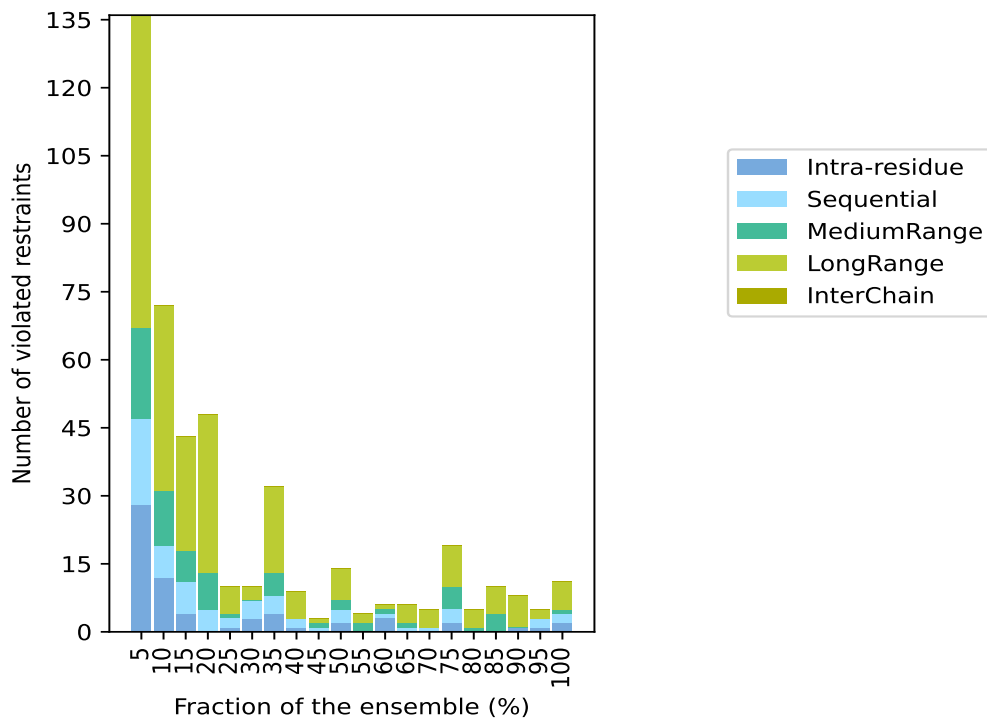
9.3 Distance violation statistics for the ensemble

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, 3518(IR:701, SQ:948, MR:451, LR:1418, 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 | % |
| 28 | 19 | 20 | 69 | 0 | 136 | 1 | 5.0 |
| 12 | 7 | 12 | 41 | 0 | 72 | 2 | 10.0 |
| 4 | 7 | 7 | 25 | 0 | 43 | 3 | 15.0 |
| 0 | 5 | 8 | 35 | 0 | 48 | 4 | 20.0 |
| 1 | 2 | 1 | 6 | 0 | 10 | 5 | 25.0 |
| 3 | 4 | 0 | 3 | 0 | 10 | 6 | 30.0 |
| 4 | 4 | 5 | 19 | 0 | 32 | 7 | 35.0 |
| 1 | 2 | 0 | 6 | 0 | 9 | 8 | 40.0 |
| 0 | 1 | 1 | 1 | 0 | 3 | 9 | 45.0 |
| 2 | 3 | 2 | 7 | 0 | 14 | 10 | 50.0 |
| 0 | 0 | 2 | 2 | 0 | 4 | 11 | 55.0 |
| 3 | 1 | 1 | 1 | 0 | 6 | 12 | 60.0 |
| 0 | 1 | 1 | 4 | 0 | 6 | 13 | 65.0 |
| 0 | 1 | 0 | 4 | 0 | 5 | 14 | 70.0 |
| 2 | 3 | 5 | 9 | 0 | 19 | 15 | 75.0 |
| 0 | 0 | 1 | 4 | 0 | 5 | 16 | 80.0 |
| 0 | 0 | 4 | 6 | 0 | 10 | 17 | 85.0 |
| 1 | 0 | 0 | 7 | 0 | 8 | 18 | 90.0 |
| 1 | 2 | 0 | 2 | 0 | 5 | 19 | 95.0 |
| 2 | 2 | 1 | 6 | 0 | 11 | 20 | 100.0 |

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

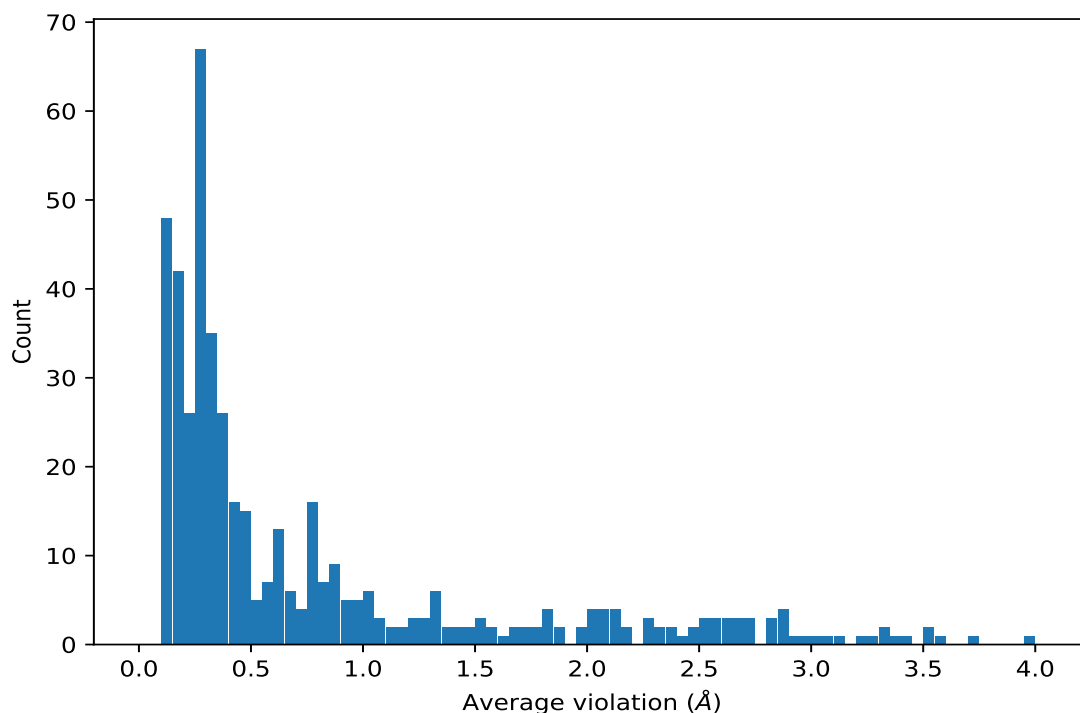
9.3.1 Bar graph : Distance violation statistics for the ensemble [\(i\)](#)



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) |
|----------|-----------------|------------------|---------------------|----------|---------------------|------------|
| (1,206) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB2 | 20 | 1.49 | 0.26 | 1.43 |
| (1,3180) | 1:242:A:ALA:H | 1:263:A:ILE:HD13 | 20 | 0.79 | 0.25 | 0.82 |
| (1,204) | 1:16:A:MET:HE1 | 1:102:A:ALA:HA | 20 | 0.78 | 0.34 | 0.67 |
| (1,148) | 1:15:A:TYR:H | 1:16:A:MET:HE3 | 20 | 0.7 | 0.26 | 0.66 |
| (1,205) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB1 | 20 | 0.69 | 0.31 | 0.62 |
| (1,605) | 1:37:A:LEU:HA | 1:102:A:ALA:HB2 | 20 | 0.63 | 0.14 | 0.6 |
| (1,129) | 1:14:A:TRP:HA | 1:16:A:MET:HE3 | 20 | 0.63 | 0.27 | 0.55 |
| (1,3136) | 1:240:A:ALA:HB2 | 1:294:A:PHE:H | 20 | 0.61 | 0.23 | 0.6 |
| (1,1586) | 1:102:A:ALA:H | 1:102:A:ALA:HB2 | 20 | 0.6 | 0.01 | 0.6 |
| (1,1585) | 1:101:A:PRO:HA | 1:102:A:ALA:HB2 | 20 | 0.58 | 0.04 | 0.57 |
| (1,1061) | 1:66:A:LEU:HA | 1:66:A:LEU:HD23 | 20 | 0.38 | 0.05 | 0.36 |
| (2,43) | 1:166:A:LYS:N | 1:165:A:ASN:O | 20 | 0.26 | 0.01 | 0.26 |
| (1,3134) | 1:240:A:ALA:HB2 | 1:293:A:ILE:HA | 19 | 0.78 | 0.19 | 0.8 |
| (1,155) | 1:15:A:TYR:HA | 1:16:A:MET:HE3 | 19 | 0.51 | 0.23 | 0.53 |
| (1,1036) | 1:65:A:SER:HA | 1:66:A:LEU:HD23 | 19 | 0.46 | 0.13 | 0.44 |
| (1,1050) | 1:66:A:LEU:H | 1:66:A:LEU:HD23 | 19 | 0.32 | 0.1 | 0.34 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,563) | 1:36:A:PHE:HA | 1:102:A:ALA:HB2 | 19 | 0.29 | 0.15 | 0.26 |
| (1,2456) | 1:156:A:PRO:HG2 | 1:172:A:MET:HE3 | 18 | 0.96 | 0.14 | 0.96 |
| (1,3216) | 1:242:A:ALA:HB2 | 1:258:A:LEU:HD23 | 18 | 0.73 | 0.23 | 0.72 |
| (1,3166) | 1:241:A:LYS:HA | 1:263:A:ILE:HD13 | 18 | 0.68 | 0.23 | 0.71 |
| (1,3133) | 1:240:A:ALA:HB2 | 1:293:A:ILE:H | 18 | 0.53 | 0.17 | 0.46 |
| (1,2610) | 1:162:A:SER:HA | 1:172:A:MET:HE3 | 18 | 0.41 | 0.1 | 0.45 |
| (1,3378) | 1:255:A:ALA:H | 1:255:A:ALA:HB2 | 18 | 0.33 | 0.05 | 0.34 |
| (1,2364) | 1:152:A:ILE:HA | 1:163:A:ALA:HB2 | 18 | 0.27 | 0.08 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD11 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD12 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD13 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD21 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD22 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD23 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD11 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD12 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD13 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD21 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD22 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD23 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD11 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD12 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD13 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD21 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD22 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD23 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD11 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD12 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD13 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD21 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD22 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD23 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD11 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD12 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD13 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD21 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD22 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD23 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD11 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD12 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD13 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD21 | 18 | 0.26 | 0.03 | 0.27 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD22 | 18 | 0.26 | 0.03 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD23 | 18 | 0.26 | 0.03 | 0.27 |
| (1,1896) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HD1 | 17 | 3.55 | 1.56 | 2.77 |
| (1,1905) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HD1 | 17 | 3.31 | 1.34 | 2.9 |
| (1,3356) | 1:253:A:LYS:HA | 1:255:A:ALA:HB2 | 17 | 0.97 | 0.43 | 0.88 |
| (1,2576) | 1:161:A:TRP:HB2 | 1:163:A:ALA:HB2 | 17 | 0.91 | 0.15 | 0.91 |
| (1,3308) | 1:247:A:VAL:HA | 1:257:A:ALA:HB2 | 17 | 0.76 | 0.51 | 0.55 |
| (1,3060) | 1:238:A:VAL:HB | 1:269:A:MET:HE1 | 17 | 0.64 | 0.34 | 0.55 |
| (1,2595) | 1:162:A:SER:H | 1:172:A:MET:HE3 | 17 | 0.62 | 0.16 | 0.68 |
| (1,3048) | 1:238:A:VAL:H | 1:269:A:MET:HE1 | 17 | 0.61 | 0.3 | 0.72 |
| (1,758) | 1:49:A:VAL:H | 1:63:A:ILE:HD13 | 17 | 0.37 | 0.11 | 0.38 |
| (1,806) | 1:50:A:LEU:HG | 1:63:A:ILE:HD12 | 17 | 0.3 | 0.17 | 0.26 |
| (1,1906) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HE1 | 16 | 2.7 | 1.21 | 2.2 |
| (1,2427) | 1:155:A:LYS:HA | 1:172:A:MET:HE3 | 16 | 0.83 | 0.13 | 0.84 |
| (1,2618) | 1:162:A:SER:HB2 | 1:172:A:MET:HE3 | 16 | 0.58 | 0.12 | 0.6 |
| (1,1234) | 1:79:A:ASP:H | 1:83:A:ALA:HB1 | 16 | 0.38 | 0.14 | 0.36 |
| (1,616) | 1:37:A:LEU:HG | 1:102:A:ALA:HB2 | 16 | 0.36 | 0.2 | 0.33 |
| (1,1903) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HA | 15 | 3.99 | 0.21 | 4.02 |
| (1,1894) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HA | 15 | 3.71 | 0.25 | 3.74 |
| (1,1902) | 1:132:A:TYR:HD2 | 1:134:A:PHE:H | 15 | 3.01 | 0.28 | 2.96 |
| (1,1908) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HE2 | 15 | 2.7 | 0.25 | 2.81 |
| (1,1901) | 1:132:A:TYR:HD2 | 1:133:A:ASP:HA | 15 | 2.26 | 0.05 | 2.27 |
| (1,1897) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HE2 | 15 | 2.11 | 0.2 | 2.15 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB2 | 15 | 2.09 | 0.23 | 2.13 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB3 | 15 | 2.09 | 0.23 | 2.13 |
| (1,1909) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HD2 | 15 | 1.64 | 0.2 | 1.64 |
| (1,1907) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HZ | 15 | 1.59 | 0.22 | 1.52 |
| (1,1861) | 1:131:A:LEU:HB2 | 1:132:A:TYR:HD1 | 15 | 1.47 | 0.21 | 1.48 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB2 | 15 | 1.34 | 0.28 | 1.36 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB3 | 15 | 1.34 | 0.28 | 1.36 |
| (1,1898) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HH | 15 | 1.2 | 0.3 | 1.31 |
| (1,1900) | 1:132:A:TYR:HD2 | 1:133:A:ASP:H | 15 | 1.04 | 0.03 | 1.04 |
| (1,2545) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE1 | 15 | 0.44 | 0.17 | 0.4 |
| (1,1882) | 1:132:A:TYR:HB2 | 1:132:A:TYR:HD1 | 15 | 0.42 | 0.02 | 0.42 |
| (1,3488) | 1:258:A:LEU:HD21 | 1:279:A:VAL:HB | 15 | 0.41 | 0.19 | 0.34 |
| (1,2546) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE2 | 15 | 0.35 | 0.18 | 0.32 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD11 | 15 | 0.26 | 0.1 | 0.24 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD12 | 15 | 0.26 | 0.1 | 0.24 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD13 | 15 | 0.26 | 0.1 | 0.24 |
| (1,994) | 1:63:A:ILE:HB | 1:63:A:ILE:HD13 | 15 | 0.15 | 0.03 | 0.15 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB2 | 14 | 0.82 | 0.39 | 0.66 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB3 | 14 | 0.82 | 0.39 | 0.66 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,1892) | 1:132:A:TYR:HD1 | 1:177:A:TYR:HA | 14 | 0.47 | 0.29 | 0.37 |
| (1,3205) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD23 | 14 | 0.44 | 0.26 | 0.43 |
| (1,201) | 1:16:A:MET:HE1 | 1:37:A:LEU:HD23 | 14 | 0.27 | 0.14 | 0.22 |
| (1,3360) | 1:254:A:THR:H | 1:255:A:ALA:HB2 | 14 | 0.25 | 0.13 | 0.2 |
| (1,3440) | 1:257:A:ALA:HB1 | 1:282:A:ARG:HH22 | 13 | 0.6 | 0.33 | 0.6 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD11 | 13 | 0.38 | 0.29 | 0.29 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD12 | 13 | 0.38 | 0.29 | 0.29 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD13 | 13 | 0.38 | 0.29 | 0.29 |
| (1,3351) | 1:252:A:ASP:HA | 1:255:A:ALA:HB2 | 13 | 0.34 | 0.11 | 0.36 |
| (1,2621) | 1:162:A:SER:HG | 1:172:A:MET:HE3 | 13 | 0.31 | 0.13 | 0.29 |
| (1,114) | 1:13:A:ALA:HB1 | 1:14:A:TRP:HA | 13 | 0.31 | 0.1 | 0.27 |
| (1,2521) | 1:160:A:TRP:H | 1:172:A:MET:HE1 | 13 | 0.31 | 0.17 | 0.23 |
| (1,3353) | 1:253:A:LYS:H | 1:255:A:ALA:HB2 | 12 | 0.88 | 0.24 | 0.94 |
| (1,3054) | 1:238:A:VAL:HA | 1:269:A:MET:HE1 | 12 | 0.79 | 0.4 | 0.92 |
| (1,187) | 1:16:A:MET:H | 1:16:A:MET:HE3 | 12 | 0.42 | 0.13 | 0.45 |
| (1,2275) | 1:149:A:ILE:HA | 1:149:A:ILE:HD12 | 12 | 0.35 | 0.19 | 0.36 |
| (1,3441) | 1:257:A:ALA:HB2 | 1:258:A:LEU:H | 12 | 0.2 | 0.06 | 0.19 |
| (1,404) | 1:28:A:LEU:H | 1:28:A:LEU:HD21 | 12 | 0.18 | 0.05 | 0.19 |
| (1,3327) | 1:249:A:CYS:HG | 1:251:A:TYR:HD1 | 11 | 1.01 | 0.29 | 0.99 |
| (1,3328) | 1:249:A:CYS:HG | 1:251:A:TYR:HE1 | 11 | 0.82 | 0.42 | 0.81 |
| (1,1760) | 1:129:A:ARG:HA | 1:149:A:ILE:HD12 | 11 | 0.69 | 0.27 | 0.75 |
| (1,3137) | 1:240:A:ALA:HB2 | 1:294:A:PHE:HD1 | 11 | 0.27 | 0.14 | 0.18 |
| (1,1999) | 1:134:A:PHE:HD2 | 1:144:A:PHE:HD2 | 10 | 1.83 | 0.65 | 2.16 |
| (1,530) | 1:35:A:MET:HA | 1:36:A:PHE:HD2 | 10 | 1.66 | 0.07 | 1.64 |
| (1,1998) | 1:134:A:PHE:HD2 | 1:144:A:PHE:HE2 | 10 | 1.35 | 0.37 | 1.5 |
| (1,3085) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HD12 | 10 | 1.08 | 0.55 | 1.34 |
| (1,2998) | 1:213:A:THR:H | 1:214:A:THR:HB | 10 | 0.83 | 0.3 | 0.77 |
| (1,3497) | 1:258:A:LEU:HD23 | 1:264:A:VAL:HG22 | 10 | 0.69 | 0.25 | 0.72 |
| (1,3226) | 1:242:A:ALA:HB3 | 1:291:A:VAL:HG13 | 10 | 0.58 | 0.07 | 0.6 |
| (1,3148) | 1:241:A:LYS:H | 1:263:A:ILE:HD13 | 10 | 0.47 | 0.2 | 0.44 |
| (1,540) | 1:36:A:PHE:H | 1:36:A:PHE:HD2 | 10 | 0.4 | 0.05 | 0.4 |
| (1,1260) | 1:80:A:HIS:HD1 | 1:83:A:ALA:HB2 | 10 | 0.38 | 0.25 | 0.3 |
| (1,42) | 1:7:A:ASP:H | 1:13:A:ALA:HB1 | 10 | 0.36 | 0.24 | 0.34 |
| (1,1243) | 1:80:A:HIS:H | 1:83:A:ALA:HB1 | 10 | 0.3 | 0.08 | 0.31 |
| (1,1877) | 1:132:A:TYR:HA | 1:132:A:TYR:HD1 | 10 | 0.2 | 0.07 | 0.2 |
| (1,2646) | 1:163:A:ALA:HB3 | 1:164:A:ARG:HA | 10 | 0.18 | 0.04 | 0.18 |
| (1,1263) | 1:80:A:HIS:HD2 | 1:83:A:ALA:HB2 | 9 | 0.6 | 0.2 | 0.56 |
| (1,3552) | 1:263:A:ILE:HD11 | 1:294:A:PHE:HE2 | 9 | 0.38 | 0.18 | 0.32 |
| (1,3000) | 1:217:A:PRO:HA | 1:218:A:ALA:H | 9 | 0.2 | 0.02 | 0.21 |
| (1,3247) | 1:243:A:ILE:HD13 | 1:290:A:HIS:HA | 8 | 0.9 | 0.44 | 0.84 |
| (1,203) | 1:16:A:MET:HE1 | 1:102:A:ALA:H | 8 | 0.38 | 0.19 | 0.36 |
| (1,1201) | 1:78:A:PHE:HA | 1:83:A:ALA:HB1 | 8 | 0.37 | 0.22 | 0.28 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,3219) | 1:242:A:ALA:HB2 | 1:261:A:GLY:H | 8 | 0.35 | 0.19 | 0.33 |
| (1,214) | 1:16:A:MET:HE3 | 1:38:A:VAL:H | 8 | 0.34 | 0.13 | 0.4 |
| (1,2995) | 1:211:A:GLN:HB2 | 1:212:A:THR:HA | 8 | 0.29 | 0.15 | 0.24 |
| (1,1620) | 1:122:A:GLU:HA | 1:123:A:ASP:H | 8 | 0.27 | 0.05 | 0.29 |
| (1,1596) | 1:112:A:SER:H | 1:112:A:SER:HB2 | 8 | 0.26 | 0.08 | 0.28 |
| (1,2465) | 1:156:A:PRO:HD2 | 1:172:A:MET:HE3 | 8 | 0.18 | 0.05 | 0.16 |
| (1,1995) | 1:134:A:PHE:HD2 | 1:143:A:PRO:HA | 7 | 3.25 | 0.15 | 3.34 |
| (1,3084) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HB | 7 | 3.12 | 0.13 | 3.16 |
| (1,1988) | 1:134:A:PHE:HE2 | 1:141:A:ASP:HA | 7 | 2.92 | 0.44 | 3.01 |
| (1,1983) | 1:134:A:PHE:HD1 | 1:177:A:TYR:HH | 7 | 2.74 | 0.21 | 2.7 |
| (1,3083) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HA | 7 | 2.68 | 0.07 | 2.66 |
| (1,1987) | 1:134:A:PHE:HE2 | 1:136:A:GLY:HA3 | 7 | 2.65 | 0.15 | 2.69 |
| (1,1994) | 1:134:A:PHE:HD2 | 1:137:A:ASN:H | 7 | 2.61 | 0.12 | 2.58 |
| (1,1989) | 1:134:A:PHE:HE2 | 1:143:A:PRO:HA | 7 | 2.59 | 0.13 | 2.64 |
| (1,1992) | 1:134:A:PHE:HD2 | 1:136:A:GLY:H | 7 | 2.59 | 0.18 | 2.63 |
| (1,3086) | 1:239:A:PHE:HD1 | 1:264:A:VAL:H | 7 | 2.3 | 0.16 | 2.24 |
| (1,1996) | 1:134:A:PHE:HD2 | 1:144:A:PHE:H | 7 | 2.27 | 0.15 | 2.27 |
| (1,3087) | 1:239:A:PHE:HD1 | 1:265:A:LYS:H | 7 | 2.12 | 0.26 | 2.09 |
| (1,1986) | 1:134:A:PHE:HE2 | 1:136:A:GLY:H | 7 | 2.07 | 0.16 | 2.08 |
| (1,1993) | 1:134:A:PHE:HD2 | 1:136:A:GLY:HA3 | 7 | 2.02 | 0.14 | 2.05 |
| (1,1985) | 1:134:A:PHE:HE1 | 1:177:A:TYR:HH | 7 | 1.99 | 0.28 | 1.97 |
| (1,3052) | 1:238:A:VAL:HA | 1:239:A:PHE:HD2 | 7 | 1.5 | 0.16 | 1.44 |
| (1,1981) | 1:134:A:PHE:HD1 | 1:177:A:TYR:HE2 | 7 | 1.44 | 0.23 | 1.32 |
| (1,2000) | 1:134:A:PHE:HD2 | 1:160:A:TRP:HZ3 | 7 | 1.36 | 0.36 | 1.43 |
| (1,3069) | 1:239:A:PHE:H | 1:239:A:PHE:HD2 | 7 | 1.29 | 0.07 | 1.25 |
| (1,3082) | 1:239:A:PHE:HD1 | 1:240:A:ALA:H | 7 | 1.24 | 0.09 | 1.24 |
| (1,1990) | 1:134:A:PHE:HE2 | 1:160:A:TRP:HZ3 | 7 | 1.13 | 0.36 | 1.16 |
| (1,3116) | 1:240:A:ALA:HB1 | 1:264:A:VAL:HG22 | 7 | 0.93 | 0.16 | 0.9 |
| (1,3088) | 1:239:A:PHE:HD1 | 1:265:A:LYS:HA | 7 | 0.91 | 0.27 | 0.88 |
| (1,3090) | 1:239:A:PHE:HE1 | 1:265:A:LYS:HA | 7 | 0.91 | 0.28 | 1.0 |
| (1,397) | 1:27:A:ARG:HH11 | 1:37:A:LEU:HD23 | 7 | 0.65 | 0.35 | 0.45 |
| (1,1960) | 1:134:A:PHE:HA | 1:134:A:PHE:HD1 | 7 | 0.57 | 0.06 | 0.55 |
| (1,1611) | 1:120:A:THR:HA | 1:121:A:ALA:H | 7 | 0.49 | 0.08 | 0.52 |
| (1,521) | 1:34:A:GLY:HA2 | 1:99:A:ILE:HD13 | 7 | 0.36 | 0.11 | 0.42 |
| (1,1626) | 1:123:A:ASP:H | 1:123:A:ASP:HB2 | 7 | 0.35 | 0.13 | 0.34 |
| (1,2989) | 1:204:A:ALA:H | 1:204:A:ALA:HB1 | 7 | 0.3 | 0.16 | 0.22 |
| (1,2286) | 1:149:A:ILE:HD12 | 1:150:A:LEU:H | 7 | 0.27 | 0.1 | 0.23 |
| (1,2316) | 1:150:A:LEU:HD11 | 1:165:A:ASN:HA | 7 | 0.18 | 0.04 | 0.17 |
| (1,2316) | 1:150:A:LEU:HD12 | 1:165:A:ASN:HA | 7 | 0.18 | 0.04 | 0.17 |
| (1,2316) | 1:150:A:LEU:HD13 | 1:165:A:ASN:HA | 7 | 0.18 | 0.04 | 0.17 |
| (1,2316) | 1:150:A:LEU:HD21 | 1:165:A:ASN:HA | 7 | 0.18 | 0.04 | 0.17 |
| (1,2316) | 1:150:A:LEU:HD22 | 1:165:A:ASN:HA | 7 | 0.18 | 0.04 | 0.17 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,2316) | 1:150:A:LEU:HD23 | 1:165:A:ASN:HA | 7 | 0.18 | 0.04 | 0.17 |
| (1,3972) | 1:76:A:GLN:HG2 | 1:169:A:ARG:HA | 6 | 0.88 | 0.62 | 0.8 |
| (1,3972) | 1:76:A:GLN:HG3 | 1:169:A:ARG:HA | 6 | 0.88 | 0.62 | 0.8 |
| (1,3002) | 1:221:A:GLY:HA2 | 1:222:A:SER:H | 6 | 0.41 | 0.11 | 0.43 |
| (1,3004) | 1:223:A:PRO:HA | 1:224:A:GLY:H | 6 | 0.4 | 0.13 | 0.4 |
| (1,1424) | 1:90:A:ILE:H | 1:97:A:THR:HG22 | 6 | 0.35 | 0.18 | 0.3 |
| (1,3321) | 1:249:A:CYS:H | 1:255:A:ALA:HB2 | 6 | 0.32 | 0.16 | 0.28 |
| (1,2983) | 1:198:A:TYR:H | 1:198:A:TYR:HB2 | 6 | 0.31 | 0.05 | 0.31 |
| (1,2993) | 1:210:A:PRO:HA | 1:211:A:GLN:H | 6 | 0.31 | 0.04 | 0.33 |
| (1,1617) | 1:121:A:ALA:H | 1:122:A:GLU:HB2 | 6 | 0.26 | 0.08 | 0.26 |
| (1,1617) | 1:121:A:ALA:H | 1:122:A:GLU:HB3 | 6 | 0.26 | 0.08 | 0.26 |
| (1,3072) | 1:239:A:PHE:HA | 1:239:A:PHE:HD1 | 6 | 0.25 | 0.06 | 0.22 |
| (1,2497) | 1:158:A:GLU:H | 1:158:A:GLU:HB2 | 6 | 0.13 | 0.03 | 0.12 |
| (1,1526) | 1:96:A:THR:HG1 | 1:99:A:ILE:HD13 | 5 | 1.42 | 0.09 | 1.39 |
| (1,1203) | 1:78:A:PHE:HD1 | 1:83:A:ALA:HB1 | 5 | 0.97 | 0.81 | 0.55 |
| (1,3970) | 1:74:A:GLY:HA2 | 1:153:A:ILE:HD11 | 5 | 0.78 | 0.43 | 0.64 |
| (1,3970) | 1:74:A:GLY:HA2 | 1:153:A:ILE:HD12 | 5 | 0.78 | 0.43 | 0.64 |
| (1,3970) | 1:74:A:GLY:HA2 | 1:153:A:ILE:HD13 | 5 | 0.78 | 0.43 | 0.64 |
| (1,3486) | 1:258:A:LEU:HD21 | 1:264:A:VAL:HG13 | 5 | 0.51 | 0.27 | 0.6 |
| (1,2001) | 1:134:A:PHE:HD2 | 1:160:A:TRP:HH2 | 5 | 0.47 | 0.24 | 0.53 |
| (1,2002) | 1:134:A:PHE:HD2 | 1:174:A:PRO:HD2 | 5 | 0.35 | 0.12 | 0.31 |
| (1,3429) | 1:257:A:ALA:H | 1:258:A:LEU:HD22 | 5 | 0.3 | 0.13 | 0.26 |
| (1,1608) | 1:120:A:THR:H | 1:120:A:THR:HB | 5 | 0.27 | 0.17 | 0.24 |
| (1,3675) | 1:269:A:MET:HE2 | 1:275:A:TRP:HE3 | 5 | 0.2 | 0.06 | 0.22 |
| (1,1606) | 1:115:A:ALA:H | 1:116:A:PRO:HD2 | 5 | 0.2 | 0.05 | 0.21 |
| (1,2208) | 1:144:A:PHE:HE2 | 1:160:A:TRP:HZ3 | 4 | 3.36 | 0.14 | 3.37 |
| (1,2211) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HG21 | 4 | 3.06 | 0.77 | 3.04 |
| (1,2210) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HA | 4 | 2.89 | 0.2 | 2.82 |
| (1,2186) | 1:144:A:PHE:HD1 | 1:146:A:LYS:HA | 4 | 2.87 | 0.1 | 2.88 |
| (1,1914) | 1:133:A:ASP:H | 1:144:A:PHE:HD1 | 4 | 2.86 | 0.05 | 2.88 |
| (1,2128) | 1:142:A:LEU:HG | 1:144:A:PHE:HD2 | 4 | 2.84 | 0.05 | 2.84 |
| (1,1938) | 1:133:A:ASP:HB2 | 1:144:A:PHE:HD1 | 4 | 2.83 | 0.04 | 2.82 |
| (1,1928) | 1:133:A:ASP:HA | 1:144:A:PHE:HD1 | 4 | 2.69 | 0.04 | 2.68 |
| (1,1915) | 1:133:A:ASP:H | 1:144:A:PHE:HE1 | 4 | 2.64 | 0.09 | 2.65 |
| (1,2223) | 1:144:A:PHE:HD2 | 1:173:A:ILE:HG22 | 4 | 2.46 | 0.12 | 2.46 |
| (1,2209) | 1:144:A:PHE:HE2 | 1:160:A:TRP:HH2 | 4 | 2.44 | 0.1 | 2.45 |
| (1,2212) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HG23 | 4 | 2.38 | 0.59 | 2.4 |
| (1,1886) | 1:132:A:TYR:HB2 | 1:144:A:PHE:HE1 | 4 | 2.36 | 0.17 | 2.37 |
| (1,2185) | 1:144:A:PHE:HD1 | 1:145:A:LYS:HA | 4 | 2.33 | 0.02 | 2.32 |
| (1,2221) | 1:144:A:PHE:HD2 | 1:173:A:ILE:HA | 4 | 2.17 | 0.2 | 2.12 |
| (1,1872) | 1:132:A:TYR:H | 1:144:A:PHE:HE1 | 4 | 2.14 | 0.13 | 2.09 |
| (1,2187) | 1:144:A:PHE:HD1 | 1:147:A:GLY:H | 4 | 2.12 | 0.1 | 2.12 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|-----------------|------------------|---------------------|----------|---------------------|------------|
| (1,2213) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HG12 | 4 | 2.04 | 0.1 | 2.08 |
| (1,1929) | 1:133:A:ASP:HA | 1:144:A:PHE:HE1 | 4 | 2.04 | 0.05 | 2.01 |
| (1,2222) | 1:144:A:PHE:HD2 | 1:173:A:ILE:HB | 4 | 1.89 | 0.13 | 1.88 |
| (1,1871) | 1:132:A:TYR:H | 1:144:A:PHE:HD1 | 4 | 1.84 | 0.1 | 1.83 |
| (1,1825) | 1:130:A:THR:HB | 1:144:A:PHE:HD1 | 4 | 1.82 | 0.15 | 1.86 |
| (1,1531) | 1:97:A:THR:H | 1:99:A:ILE:HD13 | 4 | 1.74 | 0.01 | 1.74 |
| (1,2188) | 1:144:A:PHE:HD1 | 1:148:A:GLU:H | 4 | 1.74 | 0.08 | 1.69 |
| (1,2196) | 1:144:A:PHE:HE1 | 1:177:A:TYR:HD2 | 4 | 1.67 | 0.03 | 1.67 |
| (1,2217) | 1:144:A:PHE:HE2 | 1:174:A:PRO:HD2 | 4 | 1.58 | 0.22 | 1.58 |
| (1,2193) | 1:144:A:PHE:HE1 | 1:177:A:TYR:HA | 4 | 1.5 | 0.21 | 1.6 |
| (1,1964) | 1:134:A:PHE:HA | 1:144:A:PHE:HE1 | 4 | 1.31 | 0.04 | 1.3 |
| (1,1826) | 1:130:A:THR:HB | 1:144:A:PHE:HE1 | 4 | 1.3 | 0.19 | 1.4 |
| (1,1467) | 1:92:A:TYR:HE2 | 1:97:A:THR:H | 4 | 1.26 | 0.66 | 1.44 |
| (1,2195) | 1:144:A:PHE:HE1 | 1:177:A:TYR:HE2 | 4 | 1.23 | 0.12 | 1.19 |
| (1,1951) | 1:134:A:PHE:H | 1:144:A:PHE:HD1 | 4 | 1.16 | 0.04 | 1.14 |
| (1,1813) | 1:130:A:THR:HA | 1:144:A:PHE:HD1 | 4 | 1.1 | 0.15 | 1.13 |
| (1,1952) | 1:134:A:PHE:H | 1:144:A:PHE:HE1 | 4 | 0.99 | 0.07 | 0.97 |
| (1,2224) | 1:144:A:PHE:HD2 | 1:174:A:PRO:HD2 | 4 | 0.89 | 0.22 | 0.91 |
| (1,2184) | 1:144:A:PHE:HD1 | 1:145:A:LYS:H | 4 | 0.86 | 0.12 | 0.86 |
| (1,2189) | 1:144:A:PHE:HD1 | 1:177:A:TYR:HD2 | 4 | 0.83 | 0.04 | 0.82 |
| (1,1796) | 1:130:A:THR:H | 1:144:A:PHE:HD1 | 4 | 0.59 | 0.1 | 0.63 |
| (1,3971) | 1:75:A:ASP:HB2 | 1:168:A:GLY:HA2 | 4 | 0.58 | 0.29 | 0.52 |
| (1,3971) | 1:75:A:ASP:HB2 | 1:168:A:GLY:HA3 | 4 | 0.58 | 0.29 | 0.52 |
| (1,3438) | 1:257:A:ALA:HB1 | 1:282:A:ARG:HH11 | 4 | 0.47 | 0.47 | 0.24 |
| (1,2945) | 1:185:A:SER:HB2 | 1:186:A:PRO:HA | 4 | 0.46 | 0.13 | 0.52 |
| (1,3030) | 1:233:A:THR:HG1 | 1:235:A:ASN:HD22 | 4 | 0.41 | 0.13 | 0.46 |
| (1,1991) | 1:134:A:PHE:HE2 | 1:160:A:TRP:HH2 | 4 | 0.4 | 0.24 | 0.32 |
| (1,249) | 1:20:A:SER:H | 1:23:A:GLU:H | 4 | 0.39 | 0.27 | 0.35 |
| (1,1625) | 1:122:A:GLU:HB2 | 1:123:A:ASP:HA | 4 | 0.31 | 0.17 | 0.26 |
| (1,2214) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HD11 | 4 | 0.3 | 0.16 | 0.29 |
| (1,2214) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HD12 | 4 | 0.3 | 0.16 | 0.29 |
| (1,2214) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HD13 | 4 | 0.3 | 0.16 | 0.29 |
| (1,3001) | 1:220:A:SER:HA | 1:221:A:GLY:H | 4 | 0.3 | 0.07 | 0.3 |
| (1,1259) | 1:80:A:HIS:HD1 | 1:83:A:ALA:HB1 | 4 | 0.18 | 0.03 | 0.18 |
| (1,1472) | 1:92:A:TYR:HD2 | 1:96:A:THR:HA | 3 | 3.5 | 0.18 | 3.59 |
| (1,1474) | 1:92:A:TYR:HD2 | 1:96:A:THR:HG1 | 3 | 3.4 | 0.62 | 3.69 |
| (1,1473) | 1:92:A:TYR:HD2 | 1:96:A:THR:HB | 3 | 3.24 | 0.1 | 3.19 |
| (1,1466) | 1:92:A:TYR:HE2 | 1:96:A:THR:HA | 3 | 2.45 | 0.22 | 2.37 |
| (1,1475) | 1:92:A:TYR:HD2 | 1:97:A:THR:H | 3 | 2.01 | 0.3 | 1.84 |
| (1,1471) | 1:92:A:TYR:HD2 | 1:96:A:THR:H | 3 | 1.84 | 0.08 | 1.83 |
| (1,3201) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD11 | 3 | 1.33 | 0.2 | 1.38 |
| (1,3203) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD13 | 3 | 1.17 | 0.18 | 1.15 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,3202) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD12 | 3 | 1.02 | 0.2 | 0.92 |
| (1,1428) | 1:90:A:ILE:HA | 1:92:A:TYR:HE1 | 3 | 1.0 | 0.35 | 0.91 |
| (1,709) | 1:43:A:THR:HG1 | 1:62:A:ILE:HD11 | 3 | 0.63 | 0.2 | 0.68 |
| (1,2229) | 1:145:A:LYS:H | 1:146:A:LYS:HD2 | 3 | 0.63 | 0.19 | 0.69 |
| (1,3200) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HG | 3 | 0.62 | 0.22 | 0.54 |
| (1,1304) | 1:83:A:ALA:HB1 | 1:84:A:LEU:HA | 3 | 0.54 | 0.02 | 0.53 |
| (1,1476) | 1:92:A:TYR:HD2 | 1:97:A:THR:HA | 3 | 0.49 | 0.06 | 0.48 |
| (1,3287) | 1:246:A:ARG:HE | 1:290:A:HIS:HD1 | 3 | 0.49 | 0.13 | 0.56 |
| (1,274) | 1:21:A:ARG:HA | 1:39:A:ARG:HH21 | 3 | 0.46 | 0.1 | 0.44 |
| (1,2216) | 1:144:A:PHE:HE2 | 1:174:A:PRO:HG2 | 3 | 0.45 | 0.21 | 0.49 |
| (1,3677) | 1:269:A:MET:HE3 | 1:275:A:TRP:HZ3 | 3 | 0.4 | 0.01 | 0.4 |
| (1,3587) | 1:264:A:VAL:HG13 | 1:279:A:VAL:HG23 | 3 | 0.4 | 0.08 | 0.45 |
| (1,202) | 1:16:A:MET:HE1 | 1:101:A:PRO:HA | 3 | 0.39 | 0.06 | 0.4 |
| (1,3217) | 1:242:A:ALA:HB2 | 1:259:A:GLU:H | 3 | 0.38 | 0.06 | 0.38 |
| (1,3485) | 1:258:A:LEU:HD21 | 1:264:A:VAL:HB | 3 | 0.37 | 0.18 | 0.36 |
| (1,1368) | 1:87:A:PHE:HD1 | 1:90:A:ILE:HD13 | 3 | 0.36 | 0.29 | 0.16 |
| (1,1982) | 1:134:A:PHE:HD1 | 1:177:A:TYR:HD2 | 3 | 0.35 | 0.14 | 0.39 |
| (1,1867) | 1:131:A:LEU:HD11 | 1:179:A:GLU:HG2 | 3 | 0.34 | 0.16 | 0.24 |
| (1,1867) | 1:131:A:LEU:HD12 | 1:179:A:GLU:HG2 | 3 | 0.34 | 0.16 | 0.24 |
| (1,1867) | 1:131:A:LEU:HD13 | 1:179:A:GLU:HG2 | 3 | 0.34 | 0.16 | 0.24 |
| (1,1867) | 1:131:A:LEU:HD21 | 1:179:A:GLU:HG2 | 3 | 0.34 | 0.16 | 0.24 |
| (1,1867) | 1:131:A:LEU:HD22 | 1:179:A:GLU:HG2 | 3 | 0.34 | 0.16 | 0.24 |
| (1,1867) | 1:131:A:LEU:HD23 | 1:179:A:GLU:HG2 | 3 | 0.34 | 0.16 | 0.24 |
| (1,1618) | 1:122:A:GLU:H | 1:122:A:GLU:HB2 | 3 | 0.33 | 0.05 | 0.32 |
| (1,2992) | 1:207:A:TYR:HA | 1:207:A:TYR:HD1 | 3 | 0.33 | 0.02 | 0.33 |
| (1,2374) | 1:152:A:ILE:HD11 | 1:163:A:ALA:HB3 | 3 | 0.32 | 0.02 | 0.31 |
| (1,2374) | 1:152:A:ILE:HD12 | 1:163:A:ALA:HB3 | 3 | 0.32 | 0.02 | 0.31 |
| (1,2374) | 1:152:A:ILE:HD13 | 1:163:A:ALA:HB3 | 3 | 0.32 | 0.02 | 0.31 |
| (1,1605) | 1:115:A:ALA:H | 1:115:A:ALA:HB1 | 3 | 0.3 | 0.08 | 0.28 |
| (1,3210) | 1:242:A:ALA:HB1 | 1:291:A:VAL:HB | 3 | 0.28 | 0.08 | 0.29 |
| (1,3496) | 1:258:A:LEU:HD23 | 1:264:A:VAL:HA | 3 | 0.27 | 0.09 | 0.26 |
| (1,115) | 1:13:A:ALA:HB1 | 1:14:A:TRP:HD1 | 3 | 0.26 | 0.15 | 0.22 |
| (1,2220) | 1:144:A:PHE:HD2 | 1:150:A:LEU:HD11 | 3 | 0.25 | 0.13 | 0.24 |
| (1,2220) | 1:144:A:PHE:HD2 | 1:150:A:LEU:HD12 | 3 | 0.25 | 0.13 | 0.24 |
| (1,2220) | 1:144:A:PHE:HD2 | 1:150:A:LEU:HD13 | 3 | 0.25 | 0.13 | 0.24 |
| (1,2220) | 1:144:A:PHE:HD2 | 1:150:A:LEU:HD21 | 3 | 0.25 | 0.13 | 0.24 |
| (1,2220) | 1:144:A:PHE:HD2 | 1:150:A:LEU:HD22 | 3 | 0.25 | 0.13 | 0.24 |
| (1,2220) | 1:144:A:PHE:HD2 | 1:150:A:LEU:HD23 | 3 | 0.25 | 0.13 | 0.24 |
| (1,3414) | 1:256:A:LEU:HD11 | 1:279:A:VAL:HB | 3 | 0.23 | 0.09 | 0.23 |
| (1,3414) | 1:256:A:LEU:HD12 | 1:279:A:VAL:HB | 3 | 0.23 | 0.09 | 0.23 |
| (1,3414) | 1:256:A:LEU:HD13 | 1:279:A:VAL:HB | 3 | 0.23 | 0.09 | 0.23 |
| (1,3414) | 1:256:A:LEU:HD21 | 1:279:A:VAL:HB | 3 | 0.23 | 0.09 | 0.23 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,3414) | 1:256:A:LEU:HD22 | 1:279:A:VAL:HB | 3 | 0.23 | 0.09 | 0.23 |
| (1,3414) | 1:256:A:LEU:HD23 | 1:279:A:VAL:HB | 3 | 0.23 | 0.09 | 0.23 |
| (1,2963) | 1:187:A:HIS:HB2 | 1:188:A:GLY:HA2 | 3 | 0.23 | 0.08 | 0.24 |
| (1,455) | 1:32:A:ARG:H | 1:32:A:ARG:HE | 3 | 0.21 | 0.03 | 0.22 |
| (1,510) | 1:34:A:GLY:H | 1:96:A:THR:HG23 | 3 | 0.21 | 0.04 | 0.21 |
| (1,3493) | 1:258:A:LEU:HD22 | 1:279:A:VAL:HB | 3 | 0.21 | 0.07 | 0.25 |
| (1,2986) | 1:199:A:GLY:H | 1:200:A:ILE:H | 3 | 0.17 | 0.04 | 0.17 |
| (1,2133) | 1:142:A:LEU:HD11 | 1:143:A:PRO:HD2 | 3 | 0.16 | 0.02 | 0.15 |
| (1,2133) | 1:142:A:LEU:HD11 | 1:143:A:PRO:HD3 | 3 | 0.16 | 0.02 | 0.15 |
| (1,2133) | 1:142:A:LEU:HD12 | 1:143:A:PRO:HD2 | 3 | 0.16 | 0.02 | 0.15 |
| (1,2133) | 1:142:A:LEU:HD12 | 1:143:A:PRO:HD3 | 3 | 0.16 | 0.02 | 0.15 |
| (1,2133) | 1:142:A:LEU:HD13 | 1:143:A:PRO:HD2 | 3 | 0.16 | 0.02 | 0.15 |
| (1,2133) | 1:142:A:LEU:HD13 | 1:143:A:PRO:HD3 | 3 | 0.16 | 0.02 | 0.15 |
| (1,2133) | 1:142:A:LEU:HD21 | 1:143:A:PRO:HD2 | 3 | 0.16 | 0.02 | 0.15 |
| (1,2133) | 1:142:A:LEU:HD21 | 1:143:A:PRO:HD3 | 3 | 0.16 | 0.02 | 0.15 |
| (1,2133) | 1:142:A:LEU:HD22 | 1:143:A:PRO:HD2 | 3 | 0.16 | 0.02 | 0.15 |
| (1,2133) | 1:142:A:LEU:HD22 | 1:143:A:PRO:HD3 | 3 | 0.16 | 0.02 | 0.15 |
| (1,2133) | 1:142:A:LEU:HD23 | 1:143:A:PRO:HD2 | 3 | 0.16 | 0.02 | 0.15 |
| (1,2133) | 1:142:A:LEU:HD23 | 1:143:A:PRO:HD3 | 3 | 0.16 | 0.02 | 0.15 |
| (1,2788) | 1:173:A:ILE:HD11 | 1:178:A:VAL:HG12 | 3 | 0.16 | 0.02 | 0.16 |
| (1,2788) | 1:173:A:ILE:HD12 | 1:178:A:VAL:HG12 | 3 | 0.16 | 0.02 | 0.16 |
| (1,2788) | 1:173:A:ILE:HD13 | 1:178:A:VAL:HG12 | 3 | 0.16 | 0.02 | 0.16 |
| (1,2142) | 1:142:A:LEU:HD11 | 1:143:A:PRO:HD2 | 3 | 0.15 | 0.02 | 0.15 |
| (1,2142) | 1:142:A:LEU:HD12 | 1:143:A:PRO:HD2 | 3 | 0.15 | 0.02 | 0.15 |
| (1,2142) | 1:142:A:LEU:HD13 | 1:143:A:PRO:HD2 | 3 | 0.15 | 0.02 | 0.15 |
| (1,2142) | 1:142:A:LEU:HD21 | 1:143:A:PRO:HD2 | 3 | 0.15 | 0.02 | 0.15 |
| (1,2142) | 1:142:A:LEU:HD22 | 1:143:A:PRO:HD2 | 3 | 0.15 | 0.02 | 0.15 |
| (1,2142) | 1:142:A:LEU:HD23 | 1:143:A:PRO:HD2 | 3 | 0.15 | 0.02 | 0.15 |
| (1,1682) | 1:127:A:TYR:HD1 | 1:150:A:LEU:H | 2 | 3.5 | 0.09 | 3.5 |
| (1,1683) | 1:127:A:TYR:HD1 | 1:150:A:LEU:HA | 2 | 3.32 | 0.09 | 3.32 |
| (1,1228) | 1:78:A:PHE:HE2 | 1:88:A:TYR:HH | 2 | 2.98 | 0.0 | 2.98 |
| (1,1142) | 1:72:A:LYS:HA | 1:78:A:PHE:HD2 | 2 | 2.86 | 0.28 | 2.86 |
| (1,1149) | 1:73:A:ILE:H | 1:78:A:PHE:HD2 | 2 | 2.84 | 0.19 | 2.84 |
| (1,1148) | 1:73:A:ILE:H | 1:78:A:PHE:HE2 | 2 | 2.62 | 0.14 | 2.62 |
| (1,1164) | 1:73:A:ILE:HG21 | 1:78:A:PHE:HE2 | 2 | 2.55 | 0.32 | 2.55 |
| (1,1168) | 1:73:A:ILE:HG22 | 1:78:A:PHE:HE2 | 2 | 2.51 | 0.28 | 2.51 |
| (1,1210) | 1:78:A:PHE:HE1 | 1:87:A:PHE:HD1 | 2 | 2.5 | 0.06 | 2.5 |
| (1,1172) | 1:73:A:ILE:HG23 | 1:78:A:PHE:HE2 | 2 | 2.5 | 0.06 | 2.5 |
| (1,1209) | 1:78:A:PHE:HE1 | 1:87:A:PHE:HA | 2 | 2.26 | 0.1 | 2.26 |
| (1,1165) | 1:73:A:ILE:HG21 | 1:78:A:PHE:HD2 | 2 | 2.19 | 0.57 | 2.19 |
| (1,1191) | 1:77:A:GLU:HA | 1:78:A:PHE:HD2 | 2 | 2.06 | 0.04 | 2.06 |
| (1,1159) | 1:73:A:ILE:HB | 1:78:A:PHE:HD2 | 2 | 1.96 | 0.12 | 1.96 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|-----------------|---------------------|----------|---------------------|------------|
| (1,1211) | 1:78:A:PHE:HE1 | 1:87:A:PHE:HE1 | 2 | 1.86 | 0.02 | 1.86 |
| (1,1226) | 1:78:A:PHE:HE2 | 1:88:A:TYR:HE1 | 2 | 1.76 | 0.08 | 1.76 |
| (1,1226) | 1:78:A:PHE:HE2 | 1:88:A:TYR:HE2 | 2 | 1.76 | 0.08 | 1.76 |
| (1,1169) | 1:73:A:ILE:HG22 | 1:78:A:PHE:HD2 | 2 | 1.5 | 0.51 | 1.5 |
| (1,1208) | 1:78:A:PHE:HE1 | 1:87:A:PHE:H | 2 | 1.3 | 0.12 | 1.3 |
| (1,1689) | 1:127:A:TYR:HE1 | 1:164:A:ARG:HE | 2 | 1.26 | 0.44 | 1.26 |
| (1,1232) | 1:78:A:PHE:HD2 | 1:88:A:TYR:HE1 | 2 | 1.07 | 0.09 | 1.07 |
| (1,1232) | 1:78:A:PHE:HD2 | 1:88:A:TYR:HE2 | 2 | 1.07 | 0.09 | 1.07 |
| (1,2447) | 1:156:A:PRO:HB2 | 1:172:A:MET:HE3 | 2 | 1.03 | 0.1 | 1.03 |
| (1,1192) | 1:78:A:PHE:H | 1:78:A:PHE:HD2 | 2 | 1.02 | 0.02 | 1.02 |
| (1,3638) | 1:266:A:VAL:HG21 | 1:269:A:MET:HE2 | 2 | 0.95 | 0.23 | 0.95 |
| (1,71) | 1:10:A:ASP:H | 1:14:A:TRP:HE1 | 2 | 0.88 | 0.24 | 0.88 |
| (1,1681) | 1:127:A:TYR:HD1 | 1:128:A:VAL:H | 2 | 0.88 | 0.02 | 0.88 |
| (1,1684) | 1:127:A:TYR:HD1 | 1:151:A:VAL:HA | 2 | 0.88 | 0.12 | 0.88 |
| (1,1230) | 1:78:A:PHE:HD2 | 1:84:A:LEU:HG | 2 | 0.87 | 0.05 | 0.87 |
| (1,70) | 1:10:A:ASP:H | 1:14:A:TRP:HD1 | 2 | 0.8 | 0.4 | 0.8 |
| (1,324) | 1:23:A:GLU:HA | 1:26:A:THR:HG23 | 2 | 0.77 | 0.04 | 0.77 |
| (1,1231) | 1:78:A:PHE:HD2 | 1:84:A:LEU:HD11 | 2 | 0.77 | 0.1 | 0.77 |
| (1,1231) | 1:78:A:PHE:HD2 | 1:84:A:LEU:HD12 | 2 | 0.77 | 0.1 | 0.77 |
| (1,1231) | 1:78:A:PHE:HD2 | 1:84:A:LEU:HD13 | 2 | 0.77 | 0.1 | 0.77 |
| (1,1231) | 1:78:A:PHE:HD2 | 1:84:A:LEU:HD21 | 2 | 0.77 | 0.1 | 0.77 |
| (1,1231) | 1:78:A:PHE:HD2 | 1:84:A:LEU:HD22 | 2 | 0.77 | 0.1 | 0.77 |
| (1,1231) | 1:78:A:PHE:HD2 | 1:84:A:LEU:HD23 | 2 | 0.77 | 0.1 | 0.77 |
| (1,1470) | 1:92:A:TYR:HD2 | 1:95:A:THR:HA | 2 | 0.76 | 0.12 | 0.76 |
| (1,1212) | 1:78:A:PHE:HE1 | 1:87:A:PHE:HZ | 2 | 0.72 | 0.02 | 0.72 |
| (1,3329) | 1:249:A:CYS:HG | 1:251:A:TYR:HH | 2 | 0.7 | 0.04 | 0.7 |
| (1,1687) | 1:127:A:TYR:HE1 | 1:151:A:VAL:HA | 2 | 0.68 | 0.15 | 0.68 |
| (1,2530) | 1:160:A:TRP:HA | 1:172:A:MET:HE2 | 2 | 0.6 | 0.01 | 0.6 |
| (1,3680) | 1:269:A:MET:HE3 | 1:286:A:PHE:HZ | 2 | 0.53 | 0.07 | 0.53 |
| (1,1227) | 1:78:A:PHE:HE2 | 1:88:A:TYR:HD1 | 2 | 0.49 | 0.06 | 0.49 |
| (1,1227) | 1:78:A:PHE:HE2 | 1:88:A:TYR:HD2 | 2 | 0.49 | 0.06 | 0.49 |
| (1,1214) | 1:78:A:PHE:HE1 | 1:87:A:PHE:HD2 | 2 | 0.48 | 0.08 | 0.48 |
| (1,2656) | 1:164:A:ARG:HA | 1:165:A:ASN:HB2 | 2 | 0.48 | 0.04 | 0.48 |
| (1,3006) | 1:226:A:ALA:HA | 1:227:A:ILE:H | 2 | 0.44 | 0.02 | 0.44 |
| (1,3248) | 1:243:A:ILE:HD13 | 1:291:A:VAL:HA | 2 | 0.4 | 0.11 | 0.4 |
| (1,2985) | 1:198:A:TYR:HB2 | 1:199:A:GLY:HA3 | 2 | 0.4 | 0.1 | 0.4 |
| (1,1598) | 1:112:A:SER:HA | 1:113:A:VAL:H | 2 | 0.36 | 0.13 | 0.36 |
| (1,77) | 1:10:A:ASP:HA | 1:14:A:TRP:HE1 | 2 | 0.34 | 0.06 | 0.34 |
| (1,1597) | 1:112:A:SER:HA | 1:112:A:SER:HG | 2 | 0.34 | 0.16 | 0.34 |
| (1,2462) | 1:156:A:PRO:HD2 | 1:172:A:MET:HG2 | 2 | 0.32 | 0.12 | 0.32 |
| (1,1673) | 1:127:A:TYR:HB2 | 1:127:A:TYR:HD2 | 2 | 0.31 | 0.0 | 0.31 |
| (1,3678) | 1:269:A:MET:HE3 | 1:275:A:TRP:HZ2 | 2 | 0.29 | 0.11 | 0.29 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,3139) | 1:240:A:ALA:HB3 | 1:264:A:VAL:H | 2 | 0.28 | 0.16 | 0.28 |
| (1,3494) | 1:258:A:LEU:HD22 | 1:279:A:VAL:HG11 | 2 | 0.28 | 0.04 | 0.28 |
| (1,3199) | 1:242:A:ALA:HB1 | 1:244:A:GLN:H | 2 | 0.27 | 0.1 | 0.27 |
| (1,90) | 1:11:A:ARG:HA | 1:14:A:TRP:HE3 | 2 | 0.26 | 0.02 | 0.26 |
| (1,307) | 1:22:A:GLN:H | 1:22:A:GLN:HE21 | 2 | 0.24 | 0.14 | 0.24 |
| (1,3490) | 1:258:A:LEU:HD21 | 1:279:A:VAL:HG22 | 2 | 0.24 | 0.08 | 0.24 |
| (1,1013) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HB | 2 | 0.24 | 0.0 | 0.24 |
| (1,2679) | 1:165:A:ASN:H | 1:165:A:ASN:HB2 | 2 | 0.24 | 0.0 | 0.24 |
| (1,2428) | 1:155:A:LYS:HB2 | 1:155:A:LYS:HD2 | 2 | 0.23 | 0.07 | 0.23 |
| (1,1224) | 1:78:A:PHE:HE2 | 1:84:A:LEU:HD11 | 2 | 0.2 | 0.07 | 0.2 |
| (1,1224) | 1:78:A:PHE:HE2 | 1:84:A:LEU:HD12 | 2 | 0.2 | 0.07 | 0.2 |
| (1,1224) | 1:78:A:PHE:HE2 | 1:84:A:LEU:HD13 | 2 | 0.2 | 0.07 | 0.2 |
| (1,1224) | 1:78:A:PHE:HE2 | 1:84:A:LEU:HD21 | 2 | 0.2 | 0.07 | 0.2 |
| (1,1224) | 1:78:A:PHE:HE2 | 1:84:A:LEU:HD22 | 2 | 0.2 | 0.07 | 0.2 |
| (1,1224) | 1:78:A:PHE:HE2 | 1:84:A:LEU:HD23 | 2 | 0.2 | 0.07 | 0.2 |
| (1,24) | 1:6:A:PHE:H | 1:6:A:PHE:HD1 | 2 | 0.18 | 0.02 | 0.18 |
| (1,24) | 1:6:A:PHE:H | 1:6:A:PHE:HD2 | 2 | 0.18 | 0.02 | 0.18 |
| (1,2886) | 1:178:A:VAL:HG13 | 1:178:A:VAL:HG21 | 2 | 0.18 | 0.01 | 0.18 |
| (1,31) | 1:6:A:PHE:HE1 | 1:100:A:GLU:HA | 2 | 0.18 | 0.02 | 0.18 |
| (1,31) | 1:6:A:PHE:HE2 | 1:100:A:GLU:HA | 2 | 0.18 | 0.02 | 0.18 |
| (1,2913) | 1:182:A:VAL:H | 1:182:A:VAL:HG11 | 2 | 0.18 | 0.06 | 0.18 |
| (1,2758) | 1:172:A:MET:HA | 1:172:A:MET:HE2 | 2 | 0.16 | 0.01 | 0.16 |
| (1,3005) | 1:225:A:ALA:H | 1:225:A:ALA:HB1 | 2 | 0.16 | 0.05 | 0.16 |
| (1,3876) | 1:287:A:PRO:HA | 1:290:A:HIS:H | 2 | 0.15 | 0.04 | 0.15 |
| (1,331) | 1:24:A:ALA:H | 1:39:A:ARG:HE | 2 | 0.14 | 0.01 | 0.14 |
| (1,3525) | 1:260:A:VAL:HG23 | 1:261:A:GLY:H | 2 | 0.14 | 0.02 | 0.14 |
| (1,1160) | 1:73:A:ILE:HB | 1:84:A:LEU:HD11 | 2 | 0.13 | 0.01 | 0.13 |
| (1,1160) | 1:73:A:ILE:HB | 1:84:A:LEU:HD12 | 2 | 0.13 | 0.01 | 0.13 |
| (1,1160) | 1:73:A:ILE:HB | 1:84:A:LEU:HD13 | 2 | 0.13 | 0.01 | 0.13 |
| (1,1160) | 1:73:A:ILE:HB | 1:84:A:LEU:HD21 | 2 | 0.13 | 0.01 | 0.13 |
| (1,1160) | 1:73:A:ILE:HB | 1:84:A:LEU:HD22 | 2 | 0.13 | 0.01 | 0.13 |
| (1,1160) | 1:73:A:ILE:HB | 1:84:A:LEU:HD23 | 2 | 0.13 | 0.01 | 0.13 |
| (1,2940) | 1:185:A:SER:H | 1:187:A:HIS:HE1 | 2 | 0.13 | 0.03 | 0.13 |
| (1,653) | 1:38:A:VAL:HG11 | 1:50:A:LEU:HD11 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG11 | 1:50:A:LEU:HD12 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG11 | 1:50:A:LEU:HD13 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG11 | 1:50:A:LEU:HD21 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG11 | 1:50:A:LEU:HD22 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG11 | 1:50:A:LEU:HD23 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG12 | 1:50:A:LEU:HD11 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG12 | 1:50:A:LEU:HD12 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG12 | 1:50:A:LEU:HD13 | 2 | 0.12 | 0.01 | 0.12 |

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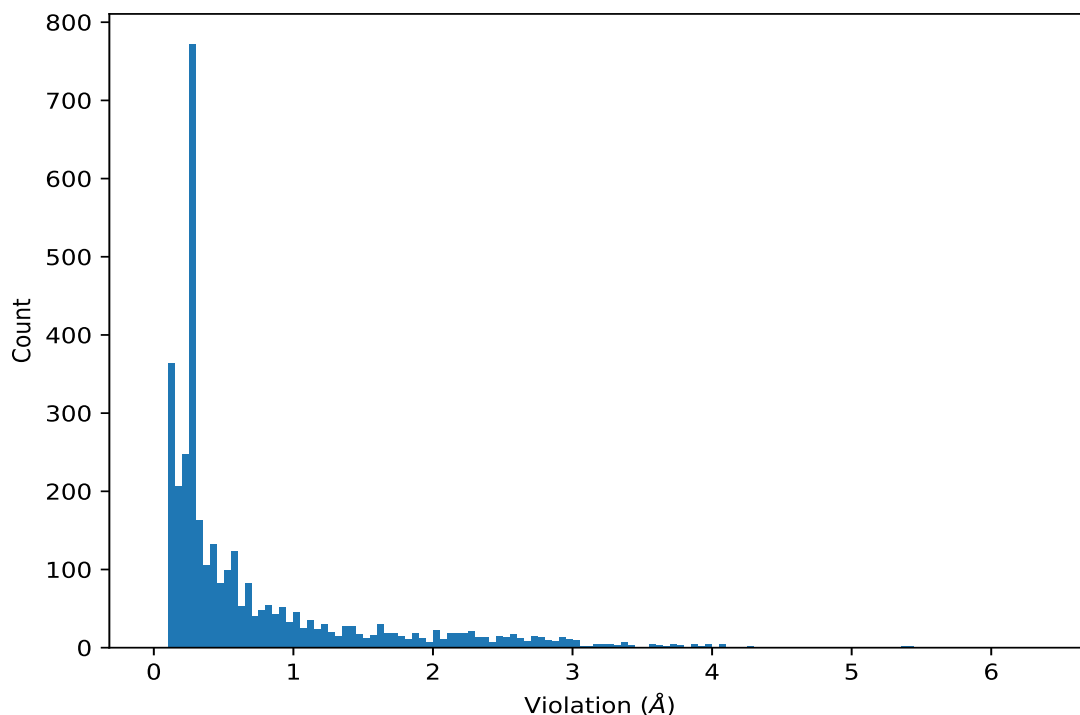
| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|-----------------|---------------------|----------|---------------------|------------|
| (1,653) | 1:38:A:VAL:HG12 | 1:50:A:LEU:HD21 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG12 | 1:50:A:LEU:HD22 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG12 | 1:50:A:LEU:HD23 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG13 | 1:50:A:LEU:HD11 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG13 | 1:50:A:LEU:HD12 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG13 | 1:50:A:LEU:HD13 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG13 | 1:50:A:LEU:HD21 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG13 | 1:50:A:LEU:HD22 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG13 | 1:50:A:LEU:HD23 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG21 | 1:50:A:LEU:HD11 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG21 | 1:50:A:LEU:HD12 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG21 | 1:50:A:LEU:HD13 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG21 | 1:50:A:LEU:HD21 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG21 | 1:50:A:LEU:HD22 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG21 | 1:50:A:LEU:HD23 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG22 | 1:50:A:LEU:HD11 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG22 | 1:50:A:LEU:HD12 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG22 | 1:50:A:LEU:HD13 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG22 | 1:50:A:LEU:HD21 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG22 | 1:50:A:LEU:HD22 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG22 | 1:50:A:LEU:HD23 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG23 | 1:50:A:LEU:HD11 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG23 | 1:50:A:LEU:HD12 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG23 | 1:50:A:LEU:HD13 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG23 | 1:50:A:LEU:HD21 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG23 | 1:50:A:LEU:HD22 | 2 | 0.12 | 0.01 | 0.12 |
| (1,653) | 1:38:A:VAL:HG23 | 1:50:A:LEU:HD23 | 2 | 0.12 | 0.01 | 0.12 |
| (1,3584) | 1:264:A:VAL:HG13 | 1:266:A:VAL:HA | 2 | 0.12 | 0.02 | 0.12 |
| (1,920) | 1:59:A:SER:H | 1:59:A:SER:HG | 2 | 0.12 | 0.0 | 0.12 |

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) |
|----------|-----------------|-----------------|----------|---------------|
| (1,1896) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HD1 | 18 | 6.38 |
| (1,1896) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HD1 | 11 | 6.2 |
| (1,1896) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HD1 | 14 | 6.03 |
| (1,1905) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HD1 | 18 | 5.66 |
| (1,1905) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HD1 | 11 | 5.44 |
| (1,1896) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HD1 | 17 | 5.43 |
| (1,1906) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HE1 | 16 | 5.39 |
| (1,1896) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HD1 | 4 | 5.36 |
| (1,1905) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HD1 | 14 | 5.31 |
| (1,1906) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HE1 | 5 | 5.15 |
| (1,1906) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HE1 | 17 | 4.99 |
| (1,1905) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HD1 | 4 | 4.92 |
| (1,1905) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HD1 | 17 | 4.85 |
| (1,1903) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HA | 9 | 4.27 |
| (1,1903) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HA | 7 | 4.25 |
| (1,1903) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HA | 15 | 4.24 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1903) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HA | 8 | 4.1 |
| (1,1903) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HA | 20 | 4.09 |
| (1,1903) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HA | 13 | 4.08 |
| (1,1903) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HA | 5 | 4.06 |
| (1,1903) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HA | 16 | 4.02 |
| (1,1903) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HA | 18 | 3.98 |
| (1,1894) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HA | 9 | 3.97 |
| (1,1474) | 1:92:A:TYR:HD2 | 1:96:A:THR:HG1 | 6 | 3.97 |
| (1,1903) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HA | 14 | 3.96 |
| (1,1894) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HA | 15 | 3.95 |
| (1,1903) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HA | 19 | 3.94 |
| (1,1894) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HA | 7 | 3.94 |
| (1,1894) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HA | 20 | 3.87 |
| (1,2211) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HG21 | 16 | 3.86 |
| (1,1903) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HA | 12 | 3.86 |
| (1,1894) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HA | 13 | 3.86 |
| (1,1894) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HA | 5 | 3.84 |
| (1,2211) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HG21 | 5 | 3.8 |
| (1,1903) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HA | 11 | 3.8 |
| (1,1894) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HA | 14 | 3.78 |
| (1,1894) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HA | 16 | 3.74 |
| (1,1894) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HA | 8 | 3.73 |
| (1,1894) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HA | 19 | 3.73 |
| (1,1903) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HA | 17 | 3.72 |
| (1,1474) | 1:92:A:TYR:HD2 | 1:96:A:THR:HG1 | 20 | 3.69 |
| (1,1894) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HA | 18 | 3.66 |
| (1,1472) | 1:92:A:TYR:HD2 | 1:96:A:THR:HA | 15 | 3.65 |
| (1,1902) | 1:132:A:TYR:HD2 | 1:134:A:PHE:H | 9 | 3.63 |
| (1,1894) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HA | 11 | 3.62 |
| (1,1682) | 1:127:A:TYR:HD1 | 1:150:A:LEU:H | 10 | 3.59 |
| (1,1472) | 1:92:A:TYR:HD2 | 1:96:A:THR:HA | 6 | 3.59 |
| (1,1894) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HA | 12 | 3.58 |
| (1,1988) | 1:134:A:PHE:HE2 | 1:141:A:ASP:HA | 17 | 3.56 |
| (1,2208) | 1:144:A:PHE:HE2 | 1:160:A:TRP:HZ3 | 17 | 3.55 |
| (1,1903) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HA | 4 | 3.46 |
| (1,1995) | 1:134:A:PHE:HD2 | 1:143:A:PRO:HA | 17 | 3.42 |
| (1,1683) | 1:127:A:TYR:HD1 | 1:150:A:LEU:HA | 10 | 3.42 |
| (1,1995) | 1:134:A:PHE:HD2 | 1:143:A:PRO:HA | 14 | 3.41 |
| (1,1894) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HA | 17 | 3.4 |
| (1,1682) | 1:127:A:TYR:HD1 | 1:150:A:LEU:H | 9 | 3.4 |
| (1,1988) | 1:134:A:PHE:HE2 | 1:141:A:ASP:HA | 2 | 3.39 |
| (1,1902) | 1:132:A:TYR:HD2 | 1:134:A:PHE:H | 15 | 3.39 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,2208) | 1:144:A:PHE:HE2 | 1:160:A:TRP:HZ3 | 6 | 3.38 |
| (1,1473) | 1:92:A:TYR:HD2 | 1:96:A:THR:HB | 6 | 3.38 |
| (1,2208) | 1:144:A:PHE:HE2 | 1:160:A:TRP:HZ3 | 5 | 3.36 |
| (1,1995) | 1:134:A:PHE:HD2 | 1:143:A:PRO:HA | 2 | 3.34 |
| (1,1995) | 1:134:A:PHE:HD2 | 1:143:A:PRO:HA | 4 | 3.34 |
| (1,3084) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HB | 5 | 3.33 |
| (1,1896) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HD1 | 9 | 3.3 |
| (1,1902) | 1:132:A:TYR:HD2 | 1:134:A:PHE:H | 7 | 3.25 |
| (1,1902) | 1:132:A:TYR:HD2 | 1:134:A:PHE:H | 8 | 3.25 |
| (1,1472) | 1:92:A:TYR:HD2 | 1:96:A:THR:HA | 20 | 3.25 |
| (1,1905) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HD1 | 9 | 3.23 |
| (1,1683) | 1:127:A:TYR:HD1 | 1:150:A:LEU:HA | 9 | 3.23 |
| (1,3084) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HB | 16 | 3.22 |
| (1,2210) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HA | 6 | 3.21 |
| (1,3084) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HB | 8 | 3.2 |
| (1,1473) | 1:92:A:TYR:HD2 | 1:96:A:THR:HB | 20 | 3.19 |
| (1,3084) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HB | 7 | 3.16 |
| (1,2208) | 1:144:A:PHE:HE2 | 1:160:A:TRP:HZ3 | 16 | 3.16 |
| (1,1995) | 1:134:A:PHE:HD2 | 1:143:A:PRO:HA | 1 | 3.16 |
| (1,1473) | 1:92:A:TYR:HD2 | 1:96:A:THR:HB | 15 | 3.16 |
| (1,1902) | 1:132:A:TYR:HD2 | 1:134:A:PHE:H | 12 | 3.15 |
| (1,1142) | 1:72:A:LYS:HA | 1:78:A:PHE:HD2 | 7 | 3.14 |
| (1,1995) | 1:134:A:PHE:HD2 | 1:143:A:PRO:HA | 18 | 3.06 |
| (1,1983) | 1:134:A:PHE:HD1 | 1:177:A:TYR:HH | 18 | 3.06 |
| (1,1995) | 1:134:A:PHE:HD2 | 1:143:A:PRO:HA | 11 | 3.05 |
| (1,1988) | 1:134:A:PHE:HE2 | 1:141:A:ASP:HA | 4 | 3.05 |
| (1,1902) | 1:132:A:TYR:HD2 | 1:134:A:PHE:H | 19 | 3.04 |
| (1,1908) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HE2 | 12 | 3.02 |
| (1,1902) | 1:132:A:TYR:HD2 | 1:134:A:PHE:H | 18 | 3.02 |
| (1,1149) | 1:73:A:ILE:H | 1:78:A:PHE:HD2 | 7 | 3.02 |
| (1,3084) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HB | 10 | 3.01 |
| (1,3084) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HB | 14 | 3.01 |
| (1,1988) | 1:134:A:PHE:HE2 | 1:141:A:ASP:HA | 11 | 3.01 |
| (1,1983) | 1:134:A:PHE:HD1 | 1:177:A:TYR:HH | 1 | 2.99 |
| (1,1894) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HA | 4 | 2.98 |
| (1,1228) | 1:78:A:PHE:HE2 | 1:88:A:TYR:HH | 7 | 2.98 |
| (1,2212) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HG23 | 6 | 2.97 |
| (1,1908) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HE2 | 16 | 2.97 |
| (1,1228) | 1:78:A:PHE:HE2 | 1:88:A:TYR:HH | 8 | 2.97 |
| (1,2212) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HG23 | 17 | 2.96 |
| (1,2186) | 1:144:A:PHE:HD1 | 1:146:A:LYS:HA | 6 | 2.96 |
| (1,2186) | 1:144:A:PHE:HD1 | 1:146:A:LYS:HA | 16 | 2.96 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,1908) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HE2 | 9 | 2.96 |
| (1,1902) | 1:132:A:TYR:HD2 | 1:134:A:PHE:H | 20 | 2.96 |
| (1,1905) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HD1 | 13 | 2.93 |
| (1,1896) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HD1 | 13 | 2.93 |
| (1,3084) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HB | 20 | 2.92 |
| (1,2128) | 1:142:A:LEU:HG | 1:144:A:PHE:HD2 | 17 | 2.92 |
| (1,1908) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HE2 | 7 | 2.92 |
| (1,1908) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HE2 | 8 | 2.92 |
| (1,1902) | 1:132:A:TYR:HD2 | 1:134:A:PHE:H | 11 | 2.92 |
| (1,1902) | 1:132:A:TYR:HD2 | 1:134:A:PHE:H | 14 | 2.92 |
| (1,2210) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HA | 17 | 2.91 |
| (1,1914) | 1:133:A:ASP:H | 1:144:A:PHE:HD1 | 16 | 2.91 |
| (1,1914) | 1:133:A:ASP:H | 1:144:A:PHE:HD1 | 17 | 2.91 |
| (1,1905) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HD1 | 7 | 2.91 |
| (1,1902) | 1:132:A:TYR:HD2 | 1:134:A:PHE:H | 13 | 2.91 |
| (1,1905) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HD1 | 16 | 2.9 |
| (1,1938) | 1:133:A:ASP:HB2 | 1:144:A:PHE:HD1 | 17 | 2.89 |
| (1,1902) | 1:132:A:TYR:HD2 | 1:134:A:PHE:H | 5 | 2.87 |
| (1,1164) | 1:73:A:ILE:HG21 | 1:78:A:PHE:HE2 | 8 | 2.87 |
| (1,2128) | 1:142:A:LEU:HG | 1:144:A:PHE:HD2 | 5 | 2.86 |
| (1,1987) | 1:134:A:PHE:HE2 | 1:136:A:GLY:HA3 | 14 | 2.85 |
| (1,1938) | 1:133:A:ASP:HB2 | 1:144:A:PHE:HD1 | 5 | 2.85 |
| (1,1908) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HE2 | 15 | 2.85 |
| (1,1914) | 1:133:A:ASP:H | 1:144:A:PHE:HD1 | 6 | 2.84 |
| (1,2128) | 1:142:A:LEU:HG | 1:144:A:PHE:HD2 | 16 | 2.83 |
| (1,1908) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HE2 | 20 | 2.83 |
| (1,1994) | 1:134:A:PHE:HD2 | 1:137:A:ASN:H | 14 | 2.82 |
| (1,1987) | 1:134:A:PHE:HE2 | 1:136:A:GLY:HA3 | 4 | 2.82 |
| (1,1983) | 1:134:A:PHE:HD1 | 1:177:A:TYR:HH | 11 | 2.82 |
| (1,2186) | 1:144:A:PHE:HD1 | 1:146:A:LYS:HA | 5 | 2.81 |
| (1,1992) | 1:134:A:PHE:HD2 | 1:136:A:GLY:H | 14 | 2.81 |
| (1,1908) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HE2 | 18 | 2.81 |
| (1,3083) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HA | 5 | 2.8 |
| (1,1938) | 1:133:A:ASP:HB2 | 1:144:A:PHE:HD1 | 6 | 2.8 |
| (1,1914) | 1:133:A:ASP:H | 1:144:A:PHE:HD1 | 5 | 2.8 |
| (1,1168) | 1:73:A:ILE:HG22 | 1:78:A:PHE:HE2 | 7 | 2.8 |
| (1,1896) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HD1 | 1 | 2.79 |
| (1,1992) | 1:134:A:PHE:HD2 | 1:136:A:GLY:H | 17 | 2.78 |
| (1,1938) | 1:133:A:ASP:HB2 | 1:144:A:PHE:HD1 | 16 | 2.78 |
| (1,2128) | 1:142:A:LEU:HG | 1:144:A:PHE:HD2 | 6 | 2.77 |
| (1,1989) | 1:134:A:PHE:HE2 | 1:143:A:PRO:HA | 14 | 2.77 |
| (1,1896) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HD1 | 7 | 2.77 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1165) | 1:73:A:ILE:HG21 | 1:78:A:PHE:HD2 | 8 | 2.76 |
| (1,1148) | 1:73:A:ILE:H | 1:78:A:PHE:HE2 | 7 | 2.76 |
| (1,1928) | 1:133:A:ASP:HA | 1:144:A:PHE:HD1 | 17 | 2.75 |
| (1,1466) | 1:92:A:TYR:HE2 | 1:96:A:THR:HA | 15 | 2.75 |
| (1,2210) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HA | 5 | 2.74 |
| (1,2186) | 1:144:A:PHE:HD1 | 1:146:A:LYS:HA | 17 | 2.74 |
| (1,1915) | 1:133:A:ASP:H | 1:144:A:PHE:HE1 | 17 | 2.74 |
| (1,3083) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HA | 8 | 2.73 |
| (1,1896) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HD1 | 16 | 2.73 |
| (1,3083) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HA | 10 | 2.72 |
| (1,1987) | 1:134:A:PHE:HE2 | 1:136:A:GLY:HA3 | 1 | 2.72 |
| (1,1905) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HD1 | 5 | 2.72 |
| (1,1994) | 1:134:A:PHE:HD2 | 1:137:A:ASN:H | 4 | 2.71 |
| (1,1989) | 1:134:A:PHE:HE2 | 1:143:A:PRO:HA | 17 | 2.71 |
| (1,1915) | 1:133:A:ASP:H | 1:144:A:PHE:HE1 | 16 | 2.71 |
| (1,2210) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HA | 16 | 2.7 |
| (1,1992) | 1:134:A:PHE:HD2 | 1:136:A:GLY:H | 4 | 2.7 |
| (1,1983) | 1:134:A:PHE:HD1 | 1:177:A:TYR:HH | 2 | 2.7 |
| (1,1902) | 1:132:A:TYR:HD2 | 1:134:A:PHE:H | 16 | 2.7 |
| (1,1987) | 1:134:A:PHE:HE2 | 1:136:A:GLY:HA3 | 17 | 2.69 |
| (1,1928) | 1:133:A:ASP:HA | 1:144:A:PHE:HD1 | 6 | 2.68 |
| (1,1905) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HD1 | 8 | 2.68 |
| (1,1905) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HD1 | 20 | 2.68 |
| (1,1928) | 1:133:A:ASP:HA | 1:144:A:PHE:HD1 | 5 | 2.67 |
| (1,3083) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HA | 20 | 2.66 |
| (1,1989) | 1:134:A:PHE:HE2 | 1:143:A:PRO:HA | 2 | 2.66 |
| (1,1928) | 1:133:A:ASP:HA | 1:144:A:PHE:HD1 | 16 | 2.66 |
| (1,1908) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HE2 | 14 | 2.65 |
| (1,1149) | 1:73:A:ILE:H | 1:78:A:PHE:HD2 | 8 | 2.65 |
| (1,1989) | 1:134:A:PHE:HE2 | 1:143:A:PRO:HA | 4 | 2.64 |
| (1,1896) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HD1 | 5 | 2.64 |
| (1,3083) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HA | 7 | 2.63 |
| (1,1994) | 1:134:A:PHE:HD2 | 1:137:A:ASN:H | 17 | 2.63 |
| (1,1992) | 1:134:A:PHE:HD2 | 1:136:A:GLY:H | 2 | 2.63 |
| (1,3083) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HA | 14 | 2.62 |
| (1,1988) | 1:134:A:PHE:HE2 | 1:141:A:ASP:HA | 1 | 2.62 |
| (1,3083) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HA | 16 | 2.61 |
| (1,3086) | 1:239:A:PHE:HD1 | 1:264:A:VAL:H | 8 | 2.6 |
| (1,1902) | 1:132:A:TYR:HD2 | 1:134:A:PHE:H | 4 | 2.6 |
| (1,2223) | 1:144:A:PHE:HD2 | 1:173:A:ILE:HG22 | 16 | 2.59 |
| (1,1915) | 1:133:A:ASP:H | 1:144:A:PHE:HE1 | 6 | 2.59 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB2 | 9 | 2.59 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB3 | 9 | 2.59 |
| (1,1142) | 1:72:A:LYS:HA | 1:78:A:PHE:HD2 | 8 | 2.59 |
| (1,1994) | 1:134:A:PHE:HD2 | 1:137:A:ASN:H | 1 | 2.58 |
| (1,1983) | 1:134:A:PHE:HD1 | 1:177:A:TYR:HH | 17 | 2.58 |
| (1,1908) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HE2 | 5 | 2.58 |
| (1,1908) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HE2 | 13 | 2.58 |
| (1,1905) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HD1 | 15 | 2.58 |
| (1,1896) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HD1 | 20 | 2.58 |
| (1,2223) | 1:144:A:PHE:HD2 | 1:173:A:ILE:HG22 | 5 | 2.56 |
| (1,2209) | 1:144:A:PHE:HE2 | 1:160:A:TRP:HH2 | 6 | 2.56 |
| (1,1988) | 1:134:A:PHE:HE2 | 1:141:A:ASP:HA | 14 | 2.56 |
| (1,1902) | 1:132:A:TYR:HD2 | 1:134:A:PHE:H | 17 | 2.56 |
| (1,1210) | 1:78:A:PHE:HE1 | 1:87:A:PHE:HD1 | 7 | 2.56 |
| (1,1172) | 1:73:A:ILE:HG23 | 1:78:A:PHE:HE2 | 7 | 2.56 |
| (1,1999) | 1:134:A:PHE:HD2 | 1:144:A:PHE:HD2 | 2 | 2.54 |
| (1,1994) | 1:134:A:PHE:HD2 | 1:137:A:ASN:H | 2 | 2.54 |
| (1,1989) | 1:134:A:PHE:HE2 | 1:143:A:PRO:HA | 1 | 2.54 |
| (1,1987) | 1:134:A:PHE:HE2 | 1:136:A:GLY:HA3 | 2 | 2.54 |
| (1,1906) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HE1 | 9 | 2.54 |
| (1,1992) | 1:134:A:PHE:HD2 | 1:136:A:GLY:H | 1 | 2.53 |
| (1,1886) | 1:132:A:TYR:HB2 | 1:144:A:PHE:HE1 | 6 | 2.53 |
| (1,1474) | 1:92:A:TYR:HD2 | 1:96:A:THR:HG1 | 15 | 2.53 |
| (1,2209) | 1:144:A:PHE:HE2 | 1:160:A:TRP:HH2 | 17 | 2.52 |
| (1,1983) | 1:134:A:PHE:HD1 | 1:177:A:TYR:HH | 14 | 2.52 |
| (1,1896) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HD1 | 19 | 2.52 |
| (1,1886) | 1:132:A:TYR:HB2 | 1:144:A:PHE:HE1 | 16 | 2.52 |
| (1,1915) | 1:133:A:ASP:H | 1:144:A:PHE:HE1 | 5 | 2.51 |
| (1,1994) | 1:134:A:PHE:HD2 | 1:137:A:ASN:H | 18 | 2.5 |
| (1,1996) | 1:134:A:PHE:HD2 | 1:144:A:PHE:H | 17 | 2.49 |
| (1,1987) | 1:134:A:PHE:HE2 | 1:136:A:GLY:HA3 | 11 | 2.49 |
| (1,1908) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HE2 | 4 | 2.49 |
| (1,1906) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HE1 | 6 | 2.49 |
| (1,1896) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HD1 | 15 | 2.49 |
| (1,2221) | 1:144:A:PHE:HD2 | 1:173:A:ILE:HA | 6 | 2.48 |
| (1,1989) | 1:134:A:PHE:HE2 | 1:143:A:PRO:HA | 11 | 2.48 |
| (1,1983) | 1:134:A:PHE:HD1 | 1:177:A:TYR:HH | 4 | 2.48 |
| (1,1148) | 1:73:A:ILE:H | 1:78:A:PHE:HE2 | 8 | 2.47 |
| (1,3087) | 1:239:A:PHE:HD1 | 1:265:A:LYS:H | 8 | 2.46 |
| (1,1994) | 1:134:A:PHE:HD2 | 1:137:A:ASN:H | 11 | 2.46 |
| (1,1905) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HD1 | 19 | 2.46 |
| (1,1896) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HD1 | 8 | 2.46 |
| (1,1996) | 1:134:A:PHE:HD2 | 1:144:A:PHE:H | 2 | 2.45 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1987) | 1:134:A:PHE:HE2 | 1:136:A:GLY:HA3 | 18 | 2.45 |
| (1,1475) | 1:92:A:TYR:HD2 | 1:97:A:THR:H | 6 | 2.44 |
| (1,1210) | 1:78:A:PHE:HE1 | 1:87:A:PHE:HD1 | 8 | 2.44 |
| (1,3086) | 1:239:A:PHE:HD1 | 1:264:A:VAL:H | 10 | 2.43 |
| (1,1172) | 1:73:A:ILE:HG23 | 1:78:A:PHE:HE2 | 8 | 2.43 |
| (1,3087) | 1:239:A:PHE:HD1 | 1:265:A:LYS:H | 20 | 2.41 |
| (1,1999) | 1:134:A:PHE:HD2 | 1:144:A:PHE:HD2 | 14 | 2.41 |
| (1,1985) | 1:134:A:PHE:HE1 | 1:177:A:TYR:HH | 18 | 2.41 |
| (1,1992) | 1:134:A:PHE:HD2 | 1:136:A:GLY:H | 18 | 2.39 |
| (1,1897) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HE2 | 9 | 2.39 |
| (1,2209) | 1:144:A:PHE:HE2 | 1:160:A:TRP:HH2 | 16 | 2.38 |
| (1,2185) | 1:144:A:PHE:HD1 | 1:145:A:LYS:HA | 6 | 2.37 |
| (1,1897) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HE2 | 12 | 2.37 |
| (1,1466) | 1:92:A:TYR:HE2 | 1:96:A:THR:HA | 6 | 2.37 |
| (1,1999) | 1:134:A:PHE:HD2 | 1:144:A:PHE:HD2 | 4 | 2.36 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB2 | 18 | 2.36 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB3 | 18 | 2.36 |
| (1,1209) | 1:78:A:PHE:HE1 | 1:87:A:PHE:HA | 7 | 2.36 |
| (1,3086) | 1:239:A:PHE:HD1 | 1:264:A:VAL:H | 20 | 2.35 |
| (1,2223) | 1:144:A:PHE:HD2 | 1:173:A:ILE:HG22 | 6 | 2.35 |
| (1,1989) | 1:134:A:PHE:HE2 | 1:143:A:PRO:HA | 18 | 2.35 |
| (1,1872) | 1:132:A:TYR:H | 1:144:A:PHE:HE1 | 16 | 2.35 |
| (1,1986) | 1:134:A:PHE:HE2 | 1:136:A:GLY:H | 14 | 2.34 |
| (1,2223) | 1:144:A:PHE:HD2 | 1:173:A:ILE:HG22 | 17 | 2.33 |
| (1,1996) | 1:134:A:PHE:HD2 | 1:144:A:PHE:H | 14 | 2.33 |
| (1,1908) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HE2 | 11 | 2.33 |
| (1,1908) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HE2 | 19 | 2.33 |
| (1,1901) | 1:132:A:TYR:HD2 | 1:133:A:ASP:HA | 13 | 2.33 |
| (1,2209) | 1:144:A:PHE:HE2 | 1:160:A:TRP:HH2 | 5 | 2.32 |
| (1,2185) | 1:144:A:PHE:HD1 | 1:145:A:LYS:HA | 5 | 2.32 |
| (1,1901) | 1:132:A:TYR:HD2 | 1:133:A:ASP:HA | 7 | 2.32 |
| (1,3087) | 1:239:A:PHE:HD1 | 1:265:A:LYS:H | 7 | 2.31 |
| (1,2185) | 1:144:A:PHE:HD1 | 1:145:A:LYS:HA | 16 | 2.31 |
| (1,2185) | 1:144:A:PHE:HD1 | 1:145:A:LYS:HA | 17 | 2.31 |
| (1,1901) | 1:132:A:TYR:HD2 | 1:133:A:ASP:HA | 15 | 2.31 |
| (1,1901) | 1:132:A:TYR:HD2 | 1:133:A:ASP:HA | 5 | 2.3 |
| (1,1901) | 1:132:A:TYR:HD2 | 1:133:A:ASP:HA | 20 | 2.3 |
| (1,2211) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HG21 | 17 | 2.29 |
| (1,1985) | 1:134:A:PHE:HE1 | 1:177:A:TYR:HH | 1 | 2.29 |
| (1,1901) | 1:132:A:TYR:HD2 | 1:133:A:ASP:HA | 11 | 2.29 |
| (1,1901) | 1:132:A:TYR:HD2 | 1:133:A:ASP:HA | 19 | 2.29 |
| (1,2211) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HG21 | 6 | 2.28 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,1992) | 1:134:A:PHE:HD2 | 1:136:A:GLY:H | 11 | 2.28 |
| (1,1908) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HE2 | 17 | 2.28 |
| (1,1906) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HE1 | 15 | 2.28 |
| (1,1897) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HE2 | 8 | 2.28 |
| (1,1999) | 1:134:A:PHE:HD2 | 1:144:A:PHE:HD2 | 11 | 2.27 |
| (1,1996) | 1:134:A:PHE:HD2 | 1:144:A:PHE:H | 4 | 2.27 |
| (1,1901) | 1:132:A:TYR:HD2 | 1:133:A:ASP:HA | 16 | 2.27 |
| (1,2187) | 1:144:A:PHE:HD1 | 1:147:A:GLY:H | 16 | 2.26 |
| (1,1897) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HE2 | 18 | 2.26 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB2 | 13 | 2.25 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB3 | 13 | 2.25 |
| (1,1901) | 1:132:A:TYR:HD2 | 1:133:A:ASP:HA | 9 | 2.25 |
| (1,1901) | 1:132:A:TYR:HD2 | 1:133:A:ASP:HA | 12 | 2.25 |
| (1,1901) | 1:132:A:TYR:HD2 | 1:133:A:ASP:HA | 14 | 2.25 |
| (1,3086) | 1:239:A:PHE:HD1 | 1:264:A:VAL:H | 5 | 2.24 |
| (1,3086) | 1:239:A:PHE:HD1 | 1:264:A:VAL:H | 16 | 2.24 |
| (1,1988) | 1:134:A:PHE:HE2 | 1:141:A:ASP:HA | 18 | 2.24 |
| (1,1906) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HE1 | 8 | 2.24 |
| (1,1906) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HE1 | 12 | 2.23 |
| (1,1466) | 1:92:A:TYR:HE2 | 1:96:A:THR:HA | 20 | 2.23 |
| (1,1168) | 1:73:A:ILE:HG22 | 1:78:A:PHE:HE2 | 8 | 2.23 |
| (1,1164) | 1:73:A:ILE:HG21 | 1:78:A:PHE:HE2 | 7 | 2.23 |
| (1,3086) | 1:239:A:PHE:HD1 | 1:264:A:VAL:H | 7 | 2.22 |
| (1,1907) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HZ | 9 | 2.22 |
| (1,1901) | 1:132:A:TYR:HD2 | 1:133:A:ASP:HA | 17 | 2.22 |
| (1,1886) | 1:132:A:TYR:HB2 | 1:144:A:PHE:HE1 | 5 | 2.22 |
| (1,2221) | 1:144:A:PHE:HD2 | 1:173:A:ILE:HA | 17 | 2.21 |
| (1,1993) | 1:134:A:PHE:HD2 | 1:136:A:GLY:HA3 | 4 | 2.21 |
| (1,1901) | 1:132:A:TYR:HD2 | 1:133:A:ASP:HA | 8 | 2.21 |
| (1,1901) | 1:132:A:TYR:HD2 | 1:133:A:ASP:HA | 18 | 2.21 |
| (1,1897) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HE2 | 15 | 2.21 |
| (1,1897) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HE2 | 16 | 2.21 |
| (1,1996) | 1:134:A:PHE:HD2 | 1:144:A:PHE:H | 1 | 2.19 |
| (1,1203) | 1:78:A:PHE:HD1 | 1:83:A:ALA:HB1 | 7 | 2.19 |
| (1,1999) | 1:134:A:PHE:HD2 | 1:144:A:PHE:HD2 | 18 | 2.18 |
| (1,1986) | 1:134:A:PHE:HE2 | 1:136:A:GLY:H | 17 | 2.18 |
| (1,1905) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HD1 | 12 | 2.18 |
| (1,1897) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HE2 | 14 | 2.18 |
| (1,2187) | 1:144:A:PHE:HD1 | 1:147:A:GLY:H | 5 | 2.17 |
| (1,1906) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HE1 | 7 | 2.17 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB2 | 7 | 2.17 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB3 | 7 | 2.17 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB2 | 11 | 2.17 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB3 | 11 | 2.17 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB2 | 8 | 2.16 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB3 | 8 | 2.16 |
| (1,1886) | 1:132:A:TYR:HB2 | 1:144:A:PHE:HE1 | 17 | 2.16 |
| (1,1999) | 1:134:A:PHE:HD2 | 1:144:A:PHE:HD2 | 1 | 2.15 |
| (1,1897) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HE2 | 7 | 2.15 |
| (1,1209) | 1:78:A:PHE:HE1 | 1:87:A:PHE:HA | 8 | 2.15 |
| (1,1993) | 1:134:A:PHE:HD2 | 1:136:A:GLY:HA3 | 14 | 2.14 |
| (1,1986) | 1:134:A:PHE:HE2 | 1:136:A:GLY:H | 4 | 2.14 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB2 | 15 | 2.14 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB3 | 15 | 2.14 |
| (1,1993) | 1:134:A:PHE:HD2 | 1:136:A:GLY:HA3 | 17 | 2.13 |
| (1,1929) | 1:133:A:ASP:HA | 1:144:A:PHE:HE1 | 17 | 2.13 |
| (1,1906) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HE1 | 19 | 2.13 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB2 | 20 | 2.13 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB3 | 20 | 2.13 |
| (1,2213) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HG12 | 5 | 2.12 |
| (1,2213) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HG12 | 16 | 2.12 |
| (1,1996) | 1:134:A:PHE:HD2 | 1:144:A:PHE:H | 11 | 2.12 |
| (1,1901) | 1:132:A:TYR:HD2 | 1:133:A:ASP:HA | 4 | 2.12 |
| (1,1897) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HE2 | 20 | 2.12 |
| (1,1872) | 1:132:A:TYR:H | 1:144:A:PHE:HE1 | 17 | 2.12 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB2 | 19 | 2.1 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB3 | 19 | 2.1 |
| (1,1191) | 1:77:A:GLU:HA | 1:78:A:PHE:HD2 | 8 | 2.1 |
| (1,3087) | 1:239:A:PHE:HD1 | 1:265:A:LYS:H | 10 | 2.09 |
| (1,1909) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HD2 | 9 | 2.09 |
| (1,1896) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HD1 | 12 | 2.09 |
| (1,2222) | 1:144:A:PHE:HD2 | 1:173:A:ILE:HB | 6 | 2.08 |
| (1,1986) | 1:134:A:PHE:HE2 | 1:136:A:GLY:H | 2 | 2.08 |
| (1,1897) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HE2 | 11 | 2.08 |
| (1,1159) | 1:73:A:ILE:HB | 1:78:A:PHE:HD2 | 7 | 2.08 |
| (1,1996) | 1:134:A:PHE:HD2 | 1:144:A:PHE:H | 18 | 2.07 |
| (1,1872) | 1:132:A:TYR:H | 1:144:A:PHE:HE1 | 5 | 2.07 |
| (1,2187) | 1:144:A:PHE:HD1 | 1:147:A:GLY:H | 17 | 2.06 |
| (1,1985) | 1:134:A:PHE:HE1 | 1:177:A:TYR:HH | 11 | 2.06 |
| (1,3086) | 1:239:A:PHE:HD1 | 1:264:A:VAL:H | 14 | 2.05 |
| (1,2213) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HG12 | 17 | 2.05 |
| (1,2000) | 1:134:A:PHE:HD2 | 1:160:A:TRP:HZ3 | 17 | 2.05 |
| (1,1993) | 1:134:A:PHE:HD2 | 1:136:A:GLY:HA3 | 1 | 2.05 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB2 | 14 | 2.05 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB3 | 14 | 2.05 |
| (1,3972) | 1:76:A:GLN:HG2 | 1:169:A:ARG:HA | 12 | 2.04 |
| (1,3972) | 1:76:A:GLN:HG3 | 1:169:A:ARG:HA | 12 | 2.04 |
| (1,2221) | 1:144:A:PHE:HD2 | 1:173:A:ILE:HA | 5 | 2.04 |
| (1,1986) | 1:134:A:PHE:HE2 | 1:136:A:GLY:H | 1 | 2.04 |
| (1,1906) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HE1 | 18 | 2.04 |
| (1,1897) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HE2 | 13 | 2.04 |
| (1,1897) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HE2 | 5 | 2.03 |
| (1,1929) | 1:133:A:ASP:HA | 1:144:A:PHE:HE1 | 16 | 2.02 |
| (1,1906) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HE1 | 11 | 2.02 |
| (1,1191) | 1:77:A:GLU:HA | 1:78:A:PHE:HD2 | 7 | 2.02 |
| (1,1929) | 1:133:A:ASP:HA | 1:144:A:PHE:HE1 | 6 | 2.01 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB2 | 16 | 2.01 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB3 | 16 | 2.01 |
| (1,1872) | 1:132:A:TYR:H | 1:144:A:PHE:HE1 | 6 | 2.01 |
| (1,1169) | 1:73:A:ILE:HG22 | 1:78:A:PHE:HD2 | 7 | 2.01 |
| (1,2187) | 1:144:A:PHE:HD1 | 1:147:A:GLY:H | 6 | 2.0 |
| (1,1897) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HE2 | 19 | 2.0 |
| (1,1929) | 1:133:A:ASP:HA | 1:144:A:PHE:HE1 | 5 | 1.99 |
| (1,1871) | 1:132:A:TYR:H | 1:144:A:PHE:HD1 | 16 | 1.99 |
| (1,1825) | 1:130:A:THR:HB | 1:144:A:PHE:HD1 | 16 | 1.99 |
| (1,1467) | 1:92:A:TYR:HE2 | 1:97:A:THR:H | 6 | 1.99 |
| (1,3087) | 1:239:A:PHE:HD1 | 1:265:A:LYS:H | 16 | 1.97 |
| (1,1985) | 1:134:A:PHE:HE1 | 1:177:A:TYR:HH | 2 | 1.97 |
| (1,1993) | 1:134:A:PHE:HD2 | 1:136:A:GLY:HA3 | 2 | 1.96 |
| (1,1471) | 1:92:A:TYR:HD2 | 1:96:A:THR:H | 6 | 1.95 |
| (1,2221) | 1:144:A:PHE:HD2 | 1:173:A:ILE:HA | 16 | 1.94 |
| (1,3087) | 1:239:A:PHE:HD1 | 1:265:A:LYS:H | 5 | 1.93 |
| (1,1906) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HE1 | 14 | 1.93 |
| (1,1906) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HE1 | 20 | 1.93 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB2 | 5 | 1.93 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB3 | 5 | 1.93 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB2 | 12 | 1.93 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB3 | 12 | 1.93 |
| (1,2222) | 1:144:A:PHE:HD2 | 1:173:A:ILE:HB | 17 | 1.92 |
| (1,1985) | 1:134:A:PHE:HE1 | 1:177:A:TYR:HH | 17 | 1.92 |
| (1,1909) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HD2 | 12 | 1.91 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB2 | 9 | 1.9 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB3 | 9 | 1.9 |
| (1,2213) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HG12 | 6 | 1.88 |
| (1,2188) | 1:144:A:PHE:HD1 | 1:148:A:GLU:H | 16 | 1.88 |
| (1,1861) | 1:131:A:LEU:HB2 | 1:132:A:TYR:HD1 | 19 | 1.88 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1825) | 1:130:A:THR:HB | 1:144:A:PHE:HD1 | 17 | 1.87 |
| (1,1211) | 1:78:A:PHE:HE1 | 1:87:A:PHE:HE1 | 7 | 1.87 |
| (1,206) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB2 | 3 | 1.87 |
| (1,2217) | 1:144:A:PHE:HE2 | 1:174:A:PRO:HD2 | 6 | 1.86 |
| (1,1993) | 1:134:A:PHE:HD2 | 1:136:A:GLY:HA3 | 18 | 1.86 |
| (1,1906) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HE1 | 4 | 1.86 |
| (1,1905) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HD1 | 1 | 1.86 |
| (1,1871) | 1:132:A:TYR:H | 1:144:A:PHE:HD1 | 5 | 1.86 |
| (1,2222) | 1:144:A:PHE:HD2 | 1:173:A:ILE:HB | 5 | 1.85 |
| (1,1986) | 1:134:A:PHE:HE2 | 1:136:A:GLY:H | 11 | 1.85 |
| (1,1986) | 1:134:A:PHE:HE2 | 1:136:A:GLY:H | 18 | 1.85 |
| (1,1825) | 1:130:A:THR:HB | 1:144:A:PHE:HD1 | 5 | 1.85 |
| (1,1159) | 1:73:A:ILE:HB | 1:78:A:PHE:HD2 | 8 | 1.85 |
| (1,206) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB2 | 7 | 1.85 |
| (1,1990) | 1:134:A:PHE:HE2 | 1:160:A:TRP:HZ3 | 17 | 1.84 |
| (1,1475) | 1:92:A:TYR:HD2 | 1:97:A:THR:H | 20 | 1.84 |
| (1,1226) | 1:78:A:PHE:HE2 | 1:88:A:TYR:HE1 | 8 | 1.84 |
| (1,1226) | 1:78:A:PHE:HE2 | 1:88:A:TYR:HE2 | 8 | 1.84 |
| (1,1211) | 1:78:A:PHE:HE1 | 1:87:A:PHE:HE1 | 8 | 1.84 |
| (1,2212) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HG23 | 16 | 1.83 |
| (1,1471) | 1:92:A:TYR:HD2 | 1:96:A:THR:H | 15 | 1.83 |
| (1,206) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB2 | 1 | 1.83 |
| (1,1998) | 1:134:A:PHE:HD2 | 1:144:A:PHE:HE2 | 2 | 1.82 |
| (1,1981) | 1:134:A:PHE:HD1 | 1:177:A:TYR:HE2 | 1 | 1.8 |
| (1,1871) | 1:132:A:TYR:H | 1:144:A:PHE:HD1 | 17 | 1.8 |
| (1,1993) | 1:134:A:PHE:HD2 | 1:136:A:GLY:HA3 | 11 | 1.79 |
| (1,1909) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HD2 | 8 | 1.77 |
| (1,1909) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HD2 | 18 | 1.77 |
| (1,206) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB2 | 6 | 1.77 |
| (1,2212) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HG23 | 5 | 1.76 |
| (1,1909) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HD2 | 19 | 1.76 |
| (1,1907) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HZ | 12 | 1.76 |
| (1,1897) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HE2 | 4 | 1.76 |
| (1,1475) | 1:92:A:TYR:HD2 | 1:97:A:THR:H | 15 | 1.76 |
| (1,530) | 1:35:A:MET:HA | 1:36:A:PHE:HD2 | 14 | 1.76 |
| (1,530) | 1:35:A:MET:HA | 1:36:A:PHE:HD2 | 18 | 1.76 |
| (1,1531) | 1:97:A:THR:H | 1:99:A:ILE:HD13 | 3 | 1.75 |
| (1,1531) | 1:97:A:THR:H | 1:99:A:ILE:HD13 | 12 | 1.75 |
| (1,1471) | 1:92:A:TYR:HD2 | 1:96:A:THR:H | 20 | 1.75 |
| (1,206) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB2 | 4 | 1.75 |
| (1,3052) | 1:238:A:VAL:HA | 1:239:A:PHE:HD2 | 14 | 1.74 |
| (1,1998) | 1:134:A:PHE:HD2 | 1:144:A:PHE:HE2 | 14 | 1.74 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,1906) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HE1 | 13 | 1.74 |
| (1,1909) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HD2 | 15 | 1.73 |
| (1,1907) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HZ | 8 | 1.73 |
| (1,1531) | 1:97:A:THR:H | 1:99:A:ILE:HD13 | 14 | 1.73 |
| (1,1531) | 1:97:A:THR:H | 1:99:A:ILE:HD13 | 19 | 1.73 |
| (1,530) | 1:35:A:MET:HA | 1:36:A:PHE:HD2 | 8 | 1.73 |
| (1,206) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB2 | 14 | 1.73 |
| (1,3052) | 1:238:A:VAL:HA | 1:239:A:PHE:HD2 | 8 | 1.72 |
| (1,2222) | 1:144:A:PHE:HD2 | 1:173:A:ILE:HB | 16 | 1.72 |
| (1,2217) | 1:144:A:PHE:HE2 | 1:174:A:PRO:HD2 | 17 | 1.72 |
| (1,1909) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HD2 | 16 | 1.72 |
| (1,1907) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HZ | 19 | 1.72 |
| (1,1871) | 1:132:A:TYR:H | 1:144:A:PHE:HD1 | 6 | 1.72 |
| (1,2188) | 1:144:A:PHE:HD1 | 1:148:A:GLU:H | 6 | 1.71 |
| (1,1999) | 1:134:A:PHE:HD2 | 1:144:A:PHE:HD2 | 17 | 1.71 |
| (1,1985) | 1:134:A:PHE:HE1 | 1:177:A:TYR:HH | 14 | 1.71 |
| (1,1907) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HZ | 18 | 1.71 |
| (1,3356) | 1:253:A:LYS:HA | 1:255:A:ALA:HB2 | 1 | 1.7 |
| (1,3087) | 1:239:A:PHE:HD1 | 1:265:A:LYS:H | 14 | 1.7 |
| (1,2196) | 1:144:A:PHE:HE1 | 1:177:A:TYR:HD2 | 6 | 1.7 |
| (1,2196) | 1:144:A:PHE:HE1 | 1:177:A:TYR:HD2 | 16 | 1.7 |
| (1,1689) | 1:127:A:TYR:HE1 | 1:164:A:ARG:HE | 10 | 1.7 |
| (1,1861) | 1:131:A:LEU:HB2 | 1:132:A:TYR:HD1 | 17 | 1.69 |
| (1,1226) | 1:78:A:PHE:HE2 | 1:88:A:TYR:HE1 | 7 | 1.69 |
| (1,1226) | 1:78:A:PHE:HE2 | 1:88:A:TYR:HE2 | 7 | 1.69 |
| (1,2188) | 1:144:A:PHE:HD1 | 1:148:A:GLU:H | 5 | 1.68 |
| (1,2188) | 1:144:A:PHE:HD1 | 1:148:A:GLU:H | 17 | 1.68 |
| (1,1998) | 1:134:A:PHE:HD2 | 1:144:A:PHE:HE2 | 4 | 1.68 |
| (1,1981) | 1:134:A:PHE:HD1 | 1:177:A:TYR:HE2 | 11 | 1.68 |
| (1,206) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB2 | 12 | 1.68 |
| (1,3356) | 1:253:A:LYS:HA | 1:255:A:ALA:HB2 | 16 | 1.67 |
| (1,2193) | 1:144:A:PHE:HE1 | 1:177:A:TYR:HA | 16 | 1.67 |
| (1,3356) | 1:253:A:LYS:HA | 1:255:A:ALA:HB2 | 17 | 1.66 |
| (1,1907) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HZ | 16 | 1.66 |
| (1,1203) | 1:78:A:PHE:HD1 | 1:83:A:ALA:HB1 | 8 | 1.66 |
| (1,530) | 1:35:A:MET:HA | 1:36:A:PHE:HD2 | 16 | 1.66 |
| (1,2196) | 1:144:A:PHE:HE1 | 1:177:A:TYR:HD2 | 5 | 1.65 |
| (1,2196) | 1:144:A:PHE:HE1 | 1:177:A:TYR:HD2 | 17 | 1.65 |
| (1,1907) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HZ | 15 | 1.65 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB2 | 4 | 1.65 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB3 | 4 | 1.65 |
| (1,1896) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HD1 | 2 | 1.65 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,530) | 1:35:A:MET:HA | 1:36:A:PHE:HD2 | 20 | 1.65 |
| (1,3328) | 1:249:A:CYS:HG | 1:251:A:TYR:HE1 | 19 | 1.64 |
| (1,1909) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HD2 | 7 | 1.64 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB2 | 17 | 1.64 |
| (1,1904) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HB3 | 17 | 1.64 |
| (1,1897) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HE2 | 17 | 1.64 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB2 | 18 | 1.64 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB3 | 18 | 1.64 |
| (1,530) | 1:35:A:MET:HA | 1:36:A:PHE:HD2 | 9 | 1.63 |
| (1,1165) | 1:73:A:ILE:HG21 | 1:78:A:PHE:HD2 | 7 | 1.62 |
| (1,530) | 1:35:A:MET:HA | 1:36:A:PHE:HD2 | 2 | 1.62 |
| (1,530) | 1:35:A:MET:HA | 1:36:A:PHE:HD2 | 13 | 1.62 |
| (1,206) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB2 | 10 | 1.61 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB2 | 4 | 1.6 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB3 | 4 | 1.6 |
| (1,3085) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HD12 | 14 | 1.6 |
| (1,2193) | 1:144:A:PHE:HE1 | 1:177:A:TYR:HA | 5 | 1.6 |
| (1,2193) | 1:144:A:PHE:HE1 | 1:177:A:TYR:HA | 17 | 1.6 |
| (1,1981) | 1:134:A:PHE:HD1 | 1:177:A:TYR:HE2 | 18 | 1.6 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB2 | 11 | 1.6 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB3 | 11 | 1.6 |
| (1,1861) | 1:131:A:LEU:HB2 | 1:132:A:TYR:HD1 | 5 | 1.6 |
| (1,1861) | 1:131:A:LEU:HB2 | 1:132:A:TYR:HD1 | 13 | 1.6 |
| (1,530) | 1:35:A:MET:HA | 1:36:A:PHE:HD2 | 15 | 1.6 |
| (1,3970) | 1:74:A:GLY:HA2 | 1:153:A:ILE:HD11 | 10 | 1.59 |
| (1,3970) | 1:74:A:GLY:HA2 | 1:153:A:ILE:HD12 | 10 | 1.59 |
| (1,3970) | 1:74:A:GLY:HA2 | 1:153:A:ILE:HD13 | 10 | 1.59 |
| (1,1998) | 1:134:A:PHE:HD2 | 1:144:A:PHE:HE2 | 11 | 1.59 |
| (1,3085) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HD12 | 10 | 1.58 |
| (1,1825) | 1:130:A:THR:HB | 1:144:A:PHE:HD1 | 6 | 1.58 |
| (1,1526) | 1:96:A:THR:HG1 | 1:99:A:ILE:HD13 | 8 | 1.58 |
| (1,1909) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HD2 | 11 | 1.57 |
| (1,3247) | 1:243:A:ILE:HD13 | 1:290:A:HIS:HA | 6 | 1.56 |
| (1,1861) | 1:131:A:LEU:HB2 | 1:132:A:TYR:HD1 | 16 | 1.56 |
| (1,2000) | 1:134:A:PHE:HD2 | 1:160:A:TRP:HZ3 | 4 | 1.55 |
| (1,1998) | 1:134:A:PHE:HD2 | 1:144:A:PHE:HE2 | 18 | 1.55 |
| (1,1985) | 1:134:A:PHE:HE1 | 1:177:A:TYR:HH | 4 | 1.55 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB2 | 13 | 1.55 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB3 | 13 | 1.55 |
| (1,530) | 1:35:A:MET:HA | 1:36:A:PHE:HD2 | 4 | 1.55 |
| (1,3247) | 1:243:A:ILE:HD13 | 1:290:A:HIS:HA | 1 | 1.54 |
| (1,3201) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD11 | 10 | 1.54 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,3327) | 1:249:A:CYS:HG | 1:251:A:TYR:HD1 | 19 | 1.53 |
| (1,3085) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HD12 | 5 | 1.52 |
| (1,3085) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HD12 | 8 | 1.52 |
| (1,1909) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HD2 | 20 | 1.52 |
| (1,1907) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HZ | 11 | 1.52 |
| (1,3052) | 1:238:A:VAL:HA | 1:239:A:PHE:HD2 | 10 | 1.51 |
| (1,1909) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HD2 | 4 | 1.51 |
| (1,1907) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HZ | 7 | 1.51 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB2 | 5 | 1.5 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB3 | 5 | 1.5 |
| (1,1909) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HD2 | 14 | 1.49 |
| (1,1861) | 1:131:A:LEU:HB2 | 1:132:A:TYR:HD1 | 8 | 1.49 |
| (1,1861) | 1:131:A:LEU:HB2 | 1:132:A:TYR:HD1 | 20 | 1.49 |
| (1,3085) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HD12 | 16 | 1.48 |
| (1,1861) | 1:131:A:LEU:HB2 | 1:132:A:TYR:HD1 | 7 | 1.48 |
| (1,2000) | 1:134:A:PHE:HD2 | 1:160:A:TRP:HZ3 | 14 | 1.47 |
| (1,1898) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HH | 8 | 1.47 |
| (1,1898) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HH | 18 | 1.47 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB2 | 19 | 1.47 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB3 | 19 | 1.47 |
| (1,1861) | 1:131:A:LEU:HB2 | 1:132:A:TYR:HD1 | 4 | 1.47 |
| (1,206) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB2 | 2 | 1.47 |
| (1,3308) | 1:247:A:VAL:HA | 1:257:A:ALA:HB2 | 7 | 1.46 |
| (1,1998) | 1:134:A:PHE:HD2 | 1:144:A:PHE:HE2 | 1 | 1.46 |
| (1,1909) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HD2 | 5 | 1.46 |
| (1,1861) | 1:131:A:LEU:HB2 | 1:132:A:TYR:HD1 | 18 | 1.46 |
| (1,1428) | 1:90:A:ILE:HA | 1:92:A:TYR:HE1 | 20 | 1.46 |
| (1,1909) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HD2 | 13 | 1.45 |
| (1,1907) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HZ | 20 | 1.45 |
| (1,1826) | 1:130:A:THR:HB | 1:144:A:PHE:HE1 | 16 | 1.45 |
| (1,3356) | 1:253:A:LYS:HA | 1:255:A:ALA:HB2 | 11 | 1.44 |
| (1,3308) | 1:247:A:VAL:HA | 1:257:A:ALA:HB2 | 4 | 1.44 |
| (1,3052) | 1:238:A:VAL:HA | 1:239:A:PHE:HD2 | 16 | 1.44 |
| (1,1907) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HZ | 4 | 1.44 |
| (1,1907) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HZ | 14 | 1.44 |
| (1,1898) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HH | 14 | 1.44 |
| (1,1467) | 1:92:A:TYR:HE2 | 1:97:A:THR:H | 20 | 1.44 |
| (1,206) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB2 | 5 | 1.44 |
| (1,2217) | 1:144:A:PHE:HE2 | 1:174:A:PRO:HD2 | 5 | 1.43 |
| (1,2195) | 1:144:A:PHE:HE1 | 1:177:A:TYR:HE2 | 6 | 1.43 |
| (1,2000) | 1:134:A:PHE:HD2 | 1:160:A:TRP:HZ3 | 11 | 1.43 |
| (1,1526) | 1:96:A:THR:HG1 | 1:99:A:ILE:HD13 | 15 | 1.43 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1467) | 1:92:A:TYR:HE2 | 1:97:A:THR:H | 15 | 1.43 |
| (1,1208) | 1:78:A:PHE:HE1 | 1:87:A:PHE:H | 7 | 1.43 |
| (1,1861) | 1:131:A:LEU:HB2 | 1:132:A:TYR:HD1 | 14 | 1.42 |
| (1,206) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB2 | 8 | 1.42 |
| (1,206) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB2 | 15 | 1.42 |
| (1,129) | 1:14:A:TRP:HA | 1:16:A:MET:HE3 | 12 | 1.42 |
| (1,3203) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD13 | 10 | 1.41 |
| (1,3069) | 1:239:A:PHE:H | 1:239:A:PHE:HD2 | 14 | 1.41 |
| (1,3052) | 1:238:A:VAL:HA | 1:239:A:PHE:HD2 | 5 | 1.41 |
| (1,3052) | 1:238:A:VAL:HA | 1:239:A:PHE:HD2 | 7 | 1.41 |
| (1,1907) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HZ | 5 | 1.41 |
| (1,148) | 1:15:A:TYR:H | 1:16:A:MET:HE3 | 12 | 1.41 |
| (1,1826) | 1:130:A:THR:HB | 1:144:A:PHE:HE1 | 5 | 1.4 |
| (1,206) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB2 | 20 | 1.4 |
| (1,1907) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HZ | 13 | 1.39 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB2 | 14 | 1.39 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB3 | 14 | 1.39 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB2 | 15 | 1.39 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB3 | 15 | 1.39 |
| (1,1861) | 1:131:A:LEU:HB2 | 1:132:A:TYR:HD1 | 15 | 1.39 |
| (1,1826) | 1:130:A:THR:HB | 1:144:A:PHE:HE1 | 17 | 1.39 |
| (1,1526) | 1:96:A:THR:HG1 | 1:99:A:ILE:HD13 | 17 | 1.39 |
| (1,3308) | 1:247:A:VAL:HA | 1:257:A:ALA:HB2 | 15 | 1.38 |
| (1,3201) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD11 | 9 | 1.38 |
| (1,3069) | 1:239:A:PHE:H | 1:239:A:PHE:HD2 | 5 | 1.38 |
| (1,1964) | 1:134:A:PHE:HA | 1:144:A:PHE:HE1 | 17 | 1.38 |
| (1,1861) | 1:131:A:LEU:HB2 | 1:132:A:TYR:HD1 | 11 | 1.38 |
| (1,3180) | 1:242:A:ALA:H | 1:263:A:ILE:HD13 | 19 | 1.37 |
| (1,3308) | 1:247:A:VAL:HA | 1:257:A:ALA:HB2 | 8 | 1.36 |
| (1,1898) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HH | 15 | 1.36 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB2 | 7 | 1.36 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB3 | 7 | 1.36 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB2 | 20 | 1.36 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB3 | 20 | 1.36 |
| (1,1526) | 1:96:A:THR:HG1 | 1:99:A:ILE:HD13 | 18 | 1.36 |
| (1,206) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB2 | 9 | 1.36 |
| (1,3308) | 1:247:A:VAL:HA | 1:257:A:ALA:HB2 | 17 | 1.35 |
| (1,1898) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HH | 13 | 1.35 |
| (1,206) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB2 | 13 | 1.35 |
| (1,1898) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HH | 9 | 1.34 |
| (1,1526) | 1:96:A:THR:HG1 | 1:99:A:ILE:HD13 | 20 | 1.34 |
| (1,3327) | 1:249:A:CYS:HG | 1:251:A:TYR:HD1 | 12 | 1.32 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,3082) | 1:239:A:PHE:HD1 | 1:240:A:ALA:H | 7 | 1.32 |
| (1,3082) | 1:239:A:PHE:HD1 | 1:240:A:ALA:H | 20 | 1.32 |
| (1,2217) | 1:144:A:PHE:HE2 | 1:174:A:PRO:HD2 | 16 | 1.32 |
| (1,1981) | 1:134:A:PHE:HD1 | 1:177:A:TYR:HE2 | 2 | 1.32 |
| (1,1898) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HH | 16 | 1.32 |
| (1,3327) | 1:249:A:CYS:HG | 1:251:A:TYR:HD1 | 16 | 1.31 |
| (1,1898) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HH | 12 | 1.31 |
| (1,1898) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HH | 20 | 1.31 |
| (1,3202) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD12 | 10 | 1.3 |
| (1,3054) | 1:238:A:VAL:HA | 1:269:A:MET:HE1 | 18 | 1.3 |
| (1,1981) | 1:134:A:PHE:HD1 | 1:177:A:TYR:HE2 | 14 | 1.3 |
| (1,1964) | 1:134:A:PHE:HA | 1:144:A:PHE:HE1 | 6 | 1.3 |
| (1,3328) | 1:249:A:CYS:HG | 1:251:A:TYR:HE1 | 16 | 1.29 |
| (1,3308) | 1:247:A:VAL:HA | 1:257:A:ALA:HB2 | 20 | 1.29 |
| (1,3082) | 1:239:A:PHE:HD1 | 1:240:A:ALA:H | 8 | 1.29 |
| (1,3069) | 1:239:A:PHE:H | 1:239:A:PHE:HD2 | 16 | 1.29 |
| (1,1964) | 1:134:A:PHE:HA | 1:144:A:PHE:HE1 | 5 | 1.29 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB2 | 8 | 1.29 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB3 | 8 | 1.29 |
| (1,3216) | 1:242:A:ALA:HB2 | 1:258:A:LEU:HD23 | 17 | 1.28 |
| (1,3052) | 1:238:A:VAL:HA | 1:239:A:PHE:HD2 | 20 | 1.28 |
| (1,1813) | 1:130:A:THR:HA | 1:144:A:PHE:HD1 | 16 | 1.28 |
| (1,204) | 1:16:A:MET:HE1 | 1:102:A:ALA:HA | 1 | 1.28 |
| (1,3438) | 1:257:A:ALA:HB1 | 1:282:A:ARG:HH11 | 20 | 1.27 |
| (1,1990) | 1:134:A:PHE:HE2 | 1:160:A:TRP:HZ3 | 14 | 1.27 |
| (1,1909) | 1:132:A:TYR:HD2 | 1:177:A:TYR:HD2 | 17 | 1.27 |
| (1,1964) | 1:134:A:PHE:HA | 1:144:A:PHE:HE1 | 16 | 1.26 |
| (1,3088) | 1:239:A:PHE:HD1 | 1:265:A:LYS:HA | 8 | 1.25 |
| (1,3069) | 1:239:A:PHE:H | 1:239:A:PHE:HD2 | 7 | 1.25 |
| (1,1898) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HH | 7 | 1.25 |
| (1,206) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB2 | 18 | 1.25 |
| (1,204) | 1:16:A:MET:HE1 | 1:102:A:ALA:HA | 6 | 1.25 |
| (1,3356) | 1:253:A:LYS:HA | 1:255:A:ALA:HB2 | 18 | 1.24 |
| (1,3082) | 1:239:A:PHE:HD1 | 1:240:A:ALA:H | 5 | 1.24 |
| (1,3069) | 1:239:A:PHE:H | 1:239:A:PHE:HD2 | 8 | 1.24 |
| (1,3069) | 1:239:A:PHE:H | 1:239:A:PHE:HD2 | 10 | 1.24 |
| (1,3054) | 1:238:A:VAL:HA | 1:269:A:MET:HE1 | 15 | 1.24 |
| (1,2998) | 1:213:A:THR:H | 1:214:A:THR:HB | 9 | 1.24 |
| (1,1990) | 1:134:A:PHE:HE2 | 1:160:A:TRP:HZ3 | 11 | 1.24 |
| (1,1907) | 1:132:A:TYR:HD2 | 1:144:A:PHE:HZ | 17 | 1.24 |
| (1,1898) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HH | 11 | 1.24 |
| (1,206) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB2 | 11 | 1.24 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,204) | 1:16:A:MET:HE1 | 1:102:A:ALA:HA | 3 | 1.24 |
| (1,3090) | 1:239:A:PHE:HE1 | 1:265:A:LYS:HA | 20 | 1.23 |
| (1,3082) | 1:239:A:PHE:HD1 | 1:240:A:ALA:H | 10 | 1.23 |
| (1,3082) | 1:239:A:PHE:HD1 | 1:240:A:ALA:H | 16 | 1.23 |
| (1,2195) | 1:144:A:PHE:HE1 | 1:177:A:TYR:HE2 | 16 | 1.23 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB2 | 12 | 1.23 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB3 | 12 | 1.23 |
| (1,204) | 1:16:A:MET:HE1 | 1:102:A:ALA:HA | 14 | 1.23 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB2 | 6 | 1.22 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB3 | 6 | 1.22 |
| (1,3353) | 1:253:A:LYS:H | 1:255:A:ALA:HB2 | 4 | 1.22 |
| (1,3328) | 1:249:A:CYS:HG | 1:251:A:TYR:HE1 | 12 | 1.22 |
| (1,3054) | 1:238:A:VAL:HA | 1:269:A:MET:HE1 | 20 | 1.22 |
| (1,2998) | 1:213:A:THR:H | 1:214:A:THR:HB | 20 | 1.22 |
| (1,1951) | 1:134:A:PHE:H | 1:144:A:PHE:HD1 | 17 | 1.22 |
| (1,205) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB1 | 1 | 1.22 |
| (1,3116) | 1:240:A:ALA:HB1 | 1:264:A:VAL:HG22 | 13 | 1.21 |
| (1,3085) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HD12 | 7 | 1.21 |
| (1,3069) | 1:239:A:PHE:H | 1:239:A:PHE:HD2 | 20 | 1.21 |
| (1,2576) | 1:161:A:TRP:HB2 | 1:163:A:ALA:HB2 | 6 | 1.21 |
| (1,1981) | 1:134:A:PHE:HD1 | 1:177:A:TYR:HE2 | 17 | 1.2 |
| (1,206) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB2 | 17 | 1.2 |
| (1,70) | 1:10:A:ASP:H | 1:14:A:TRP:HD1 | 10 | 1.2 |
| (1,3638) | 1:266:A:VAL:HG21 | 1:269:A:MET:HE2 | 14 | 1.18 |
| (1,2456) | 1:156:A:PRO:HG2 | 1:172:A:MET:HE3 | 16 | 1.18 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB2 | 5 | 1.18 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB3 | 5 | 1.18 |
| (1,1208) | 1:78:A:PHE:HE1 | 1:87:A:PHE:H | 8 | 1.18 |
| (1,129) | 1:14:A:TRP:HA | 1:16:A:MET:HE3 | 10 | 1.18 |
| (1,3054) | 1:238:A:VAL:HA | 1:269:A:MET:HE1 | 16 | 1.17 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB2 | 16 | 1.17 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB3 | 16 | 1.17 |
| (1,148) | 1:15:A:TYR:H | 1:16:A:MET:HE3 | 9 | 1.17 |
| (1,3356) | 1:253:A:LYS:HA | 1:255:A:ALA:HB2 | 5 | 1.16 |
| (1,2576) | 1:161:A:TRP:HB2 | 1:163:A:ALA:HB2 | 18 | 1.16 |
| (1,1990) | 1:134:A:PHE:HE2 | 1:160:A:TRP:HZ3 | 4 | 1.16 |
| (1,1981) | 1:134:A:PHE:HD1 | 1:177:A:TYR:HE2 | 4 | 1.16 |
| (1,1951) | 1:134:A:PHE:H | 1:144:A:PHE:HD1 | 6 | 1.16 |
| (1,1861) | 1:131:A:LEU:HB2 | 1:132:A:TYR:HD1 | 12 | 1.16 |
| (1,1813) | 1:130:A:THR:HA | 1:144:A:PHE:HD1 | 17 | 1.16 |
| (1,1232) | 1:78:A:PHE:HD2 | 1:88:A:TYR:HE1 | 8 | 1.16 |
| (1,1232) | 1:78:A:PHE:HD2 | 1:88:A:TYR:HE2 | 8 | 1.16 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,397) | 1:27:A:ARG:HH11 | 1:37:A:LEU:HD23 | 18 | 1.16 |
| (1,206) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB2 | 16 | 1.16 |
| (1,3205) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD23 | 10 | 1.15 |
| (1,3203) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD13 | 9 | 1.15 |
| (1,3088) | 1:239:A:PHE:HD1 | 1:265:A:LYS:HA | 20 | 1.15 |
| (1,2427) | 1:155:A:LYS:HA | 1:172:A:MET:HE3 | 12 | 1.15 |
| (1,2224) | 1:144:A:PHE:HD2 | 1:174:A:PRO:HD2 | 6 | 1.15 |
| (1,2195) | 1:144:A:PHE:HE1 | 1:177:A:TYR:HE2 | 5 | 1.15 |
| (1,2193) | 1:144:A:PHE:HE1 | 1:177:A:TYR:HA | 6 | 1.15 |
| (1,3972) | 1:76:A:GLN:HG2 | 1:169:A:ARG:HA | 6 | 1.14 |
| (1,3972) | 1:76:A:GLN:HG3 | 1:169:A:ARG:HA | 6 | 1.14 |
| (1,3166) | 1:241:A:LYS:HA | 1:263:A:ILE:HD13 | 19 | 1.14 |
| (1,2456) | 1:156:A:PRO:HG2 | 1:172:A:MET:HE3 | 8 | 1.14 |
| (1,1898) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HH | 5 | 1.14 |
| (1,2456) | 1:156:A:PRO:HG2 | 1:172:A:MET:HE3 | 6 | 1.13 |
| (1,2447) | 1:156:A:PRO:HB2 | 1:172:A:MET:HE3 | 8 | 1.13 |
| (1,2195) | 1:144:A:PHE:HE1 | 1:177:A:TYR:HE2 | 17 | 1.13 |
| (1,1951) | 1:134:A:PHE:H | 1:144:A:PHE:HD1 | 5 | 1.13 |
| (1,1951) | 1:134:A:PHE:H | 1:144:A:PHE:HD1 | 16 | 1.13 |
| (1,204) | 1:16:A:MET:HE1 | 1:102:A:ALA:HA | 4 | 1.13 |
| (1,129) | 1:14:A:TRP:HA | 1:16:A:MET:HE3 | 9 | 1.13 |
| (1,3327) | 1:249:A:CYS:HG | 1:251:A:TYR:HD1 | 18 | 1.12 |
| (1,3090) | 1:239:A:PHE:HE1 | 1:265:A:LYS:HA | 8 | 1.12 |
| (1,3088) | 1:239:A:PHE:HD1 | 1:265:A:LYS:HA | 7 | 1.12 |
| (1,2456) | 1:156:A:PRO:HG2 | 1:172:A:MET:HE3 | 7 | 1.12 |
| (1,1892) | 1:132:A:TYR:HD1 | 1:177:A:TYR:HA | 11 | 1.12 |
| (1,205) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB1 | 3 | 1.12 |
| (1,205) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB1 | 14 | 1.12 |
| (1,71) | 1:10:A:ASP:H | 1:14:A:TRP:HE1 | 10 | 1.12 |
| (1,3353) | 1:253:A:LYS:H | 1:255:A:ALA:HB2 | 3 | 1.11 |
| (1,3327) | 1:249:A:CYS:HG | 1:251:A:TYR:HD1 | 2 | 1.11 |
| (1,3180) | 1:242:A:ALA:H | 1:263:A:ILE:HD13 | 18 | 1.11 |
| (1,2998) | 1:213:A:THR:H | 1:214:A:THR:HB | 5 | 1.11 |
| (1,1952) | 1:134:A:PHE:H | 1:144:A:PHE:HE1 | 17 | 1.11 |
| (1,204) | 1:16:A:MET:HE1 | 1:102:A:ALA:HA | 7 | 1.11 |
| (1,1900) | 1:132:A:TYR:HD2 | 1:133:A:ASP:H | 15 | 1.1 |
| (1,1813) | 1:130:A:THR:HA | 1:144:A:PHE:HD1 | 5 | 1.1 |
| (1,3440) | 1:257:A:ALA:HB1 | 1:282:A:ARG:HH22 | 15 | 1.09 |
| (1,3353) | 1:253:A:LYS:H | 1:255:A:ALA:HB2 | 20 | 1.09 |
| (1,3090) | 1:239:A:PHE:HE1 | 1:265:A:LYS:HA | 7 | 1.09 |
| (1,3048) | 1:238:A:VAL:H | 1:269:A:MET:HE1 | 4 | 1.09 |
| (1,1900) | 1:132:A:TYR:HD2 | 1:133:A:ASP:H | 11 | 1.09 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3116) | 1:240:A:ALA:HB1 | 1:264:A:VAL:HG22 | 17 | 1.08 |
| (1,3060) | 1:238:A:VAL:HB | 1:269:A:MET:HE1 | 15 | 1.08 |
| (1,3060) | 1:238:A:VAL:HB | 1:269:A:MET:HE1 | 20 | 1.08 |
| (1,3247) | 1:243:A:ILE:HD13 | 1:290:A:HIS:HA | 8 | 1.07 |
| (1,3085) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HD12 | 20 | 1.07 |
| (1,1900) | 1:132:A:TYR:HD2 | 1:133:A:ASP:H | 12 | 1.07 |
| (1,397) | 1:27:A:ARG:HH11 | 1:37:A:LEU:HD23 | 11 | 1.07 |
| (1,204) | 1:16:A:MET:HE1 | 1:102:A:ALA:HA | 15 | 1.07 |
| (1,148) | 1:15:A:TYR:H | 1:16:A:MET:HE3 | 10 | 1.07 |
| (1,3201) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD11 | 12 | 1.06 |
| (1,3060) | 1:238:A:VAL:HB | 1:269:A:MET:HE1 | 18 | 1.06 |
| (1,1900) | 1:132:A:TYR:HD2 | 1:133:A:ASP:H | 8 | 1.06 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB2 | 18 | 1.05 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB3 | 18 | 1.05 |
| (1,3136) | 1:240:A:ALA:HB2 | 1:294:A:PHE:H | 13 | 1.05 |
| (1,3082) | 1:239:A:PHE:HD1 | 1:240:A:ALA:H | 14 | 1.05 |
| (1,3060) | 1:238:A:VAL:HB | 1:269:A:MET:HE1 | 4 | 1.05 |
| (1,1900) | 1:132:A:TYR:HD2 | 1:133:A:ASP:H | 7 | 1.05 |
| (1,1900) | 1:132:A:TYR:HD2 | 1:133:A:ASP:H | 19 | 1.05 |
| (1,1760) | 1:129:A:ARG:HA | 1:149:A:ILE:HD12 | 20 | 1.05 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB2 | 1 | 1.04 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB3 | 1 | 1.04 |
| (1,3497) | 1:258:A:LEU:HD23 | 1:264:A:VAL:HG22 | 18 | 1.04 |
| (1,3136) | 1:240:A:ALA:HB2 | 1:294:A:PHE:H | 2 | 1.04 |
| (1,2224) | 1:144:A:PHE:HD2 | 1:174:A:PRO:HD2 | 17 | 1.04 |
| (1,1900) | 1:132:A:TYR:HD2 | 1:133:A:ASP:H | 13 | 1.04 |
| (1,1900) | 1:132:A:TYR:HD2 | 1:133:A:ASP:H | 18 | 1.04 |
| (1,1192) | 1:78:A:PHE:H | 1:78:A:PHE:HD2 | 8 | 1.04 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD11 | 8 | 1.04 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD12 | 8 | 1.04 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD13 | 8 | 1.04 |
| (1,205) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB1 | 7 | 1.04 |
| (1,3356) | 1:253:A:LYS:HA | 1:255:A:ALA:HB2 | 7 | 1.03 |
| (1,3060) | 1:238:A:VAL:HB | 1:269:A:MET:HE1 | 16 | 1.03 |
| (1,2456) | 1:156:A:PRO:HG2 | 1:172:A:MET:HE3 | 4 | 1.03 |
| (1,2456) | 1:156:A:PRO:HG2 | 1:172:A:MET:HE3 | 14 | 1.03 |
| (1,2427) | 1:155:A:LYS:HA | 1:172:A:MET:HE3 | 7 | 1.03 |
| (1,1900) | 1:132:A:TYR:HD2 | 1:133:A:ASP:H | 5 | 1.03 |
| (1,1900) | 1:132:A:TYR:HD2 | 1:133:A:ASP:H | 9 | 1.03 |
| (1,3134) | 1:240:A:ALA:HB2 | 1:293:A:ILE:HA | 9 | 1.02 |
| (1,3134) | 1:240:A:ALA:HB2 | 1:293:A:ILE:HA | 18 | 1.02 |
| (1,2576) | 1:161:A:TRP:HB2 | 1:163:A:ALA:HB2 | 11 | 1.02 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2456) | 1:156:A:PRO:HG2 | 1:172:A:MET:HE3 | 15 | 1.02 |
| (1,2184) | 1:144:A:PHE:HD1 | 1:145:A:LYS:H | 17 | 1.02 |
| (1,2000) | 1:134:A:PHE:HD2 | 1:160:A:TRP:HZ3 | 18 | 1.02 |
| (1,1905) | 1:132:A:TYR:HD2 | 1:134:A:PHE:HD1 | 2 | 1.02 |
| (1,3353) | 1:253:A:LYS:H | 1:255:A:ALA:HB2 | 8 | 1.01 |
| (1,2998) | 1:213:A:THR:H | 1:214:A:THR:HB | 4 | 1.01 |
| (1,2576) | 1:161:A:TRP:HB2 | 1:163:A:ALA:HB2 | 5 | 1.01 |
| (1,2456) | 1:156:A:PRO:HG2 | 1:172:A:MET:HE3 | 20 | 1.01 |
| (1,2000) | 1:134:A:PHE:HD2 | 1:160:A:TRP:HZ3 | 2 | 1.01 |
| (1,1900) | 1:132:A:TYR:HD2 | 1:133:A:ASP:H | 20 | 1.01 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD11 | 7 | 1.01 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD12 | 7 | 1.01 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD13 | 7 | 1.01 |
| (1,3440) | 1:257:A:ALA:HB1 | 1:282:A:ARG:HH22 | 11 | 1.0 |
| (1,3328) | 1:249:A:CYS:HG | 1:251:A:TYR:HE1 | 2 | 1.0 |
| (1,3090) | 1:239:A:PHE:HE1 | 1:265:A:LYS:HA | 10 | 1.0 |
| (1,1952) | 1:134:A:PHE:H | 1:144:A:PHE:HE1 | 5 | 1.0 |
| (1,1900) | 1:132:A:TYR:HD2 | 1:133:A:ASP:H | 4 | 1.0 |
| (1,1900) | 1:132:A:TYR:HD2 | 1:133:A:ASP:H | 14 | 1.0 |
| (1,1900) | 1:132:A:TYR:HD2 | 1:133:A:ASP:H | 17 | 1.0 |
| (1,1898) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HH | 4 | 1.0 |
| (1,1684) | 1:127:A:TYR:HD1 | 1:151:A:VAL:HA | 10 | 1.0 |
| (1,1192) | 1:78:A:PHE:H | 1:78:A:PHE:HD2 | 7 | 1.0 |
| (1,3971) | 1:75:A:ASP:HB2 | 1:168:A:GLY:HA2 | 5 | 0.99 |
| (1,3971) | 1:75:A:ASP:HB2 | 1:168:A:GLY:HA3 | 5 | 0.99 |
| (1,3327) | 1:249:A:CYS:HG | 1:251:A:TYR:HD1 | 3 | 0.99 |
| (1,3247) | 1:243:A:ILE:HD13 | 1:290:A:HIS:HA | 5 | 0.99 |
| (1,3216) | 1:242:A:ALA:HB2 | 1:258:A:LEU:HD23 | 6 | 0.99 |
| (1,3054) | 1:238:A:VAL:HA | 1:269:A:MET:HE1 | 4 | 0.99 |
| (1,3054) | 1:238:A:VAL:HA | 1:269:A:MET:HE1 | 14 | 0.99 |
| (1,2576) | 1:161:A:TRP:HB2 | 1:163:A:ALA:HB2 | 15 | 0.99 |
| (1,1900) | 1:132:A:TYR:HD2 | 1:133:A:ASP:H | 16 | 0.99 |
| (1,3497) | 1:258:A:LEU:HD23 | 1:264:A:VAL:HG22 | 7 | 0.98 |
| (1,3353) | 1:253:A:LYS:H | 1:255:A:ALA:HB2 | 15 | 0.98 |
| (1,3180) | 1:242:A:ALA:H | 1:263:A:ILE:HD13 | 16 | 0.98 |
| (1,3134) | 1:240:A:ALA:HB2 | 1:293:A:ILE:HA | 12 | 0.98 |
| (1,3048) | 1:238:A:VAL:H | 1:269:A:MET:HE1 | 16 | 0.98 |
| (1,2576) | 1:161:A:TRP:HB2 | 1:163:A:ALA:HB2 | 14 | 0.98 |
| (1,1232) | 1:78:A:PHE:HD2 | 1:88:A:TYR:HE1 | 7 | 0.98 |
| (1,1232) | 1:78:A:PHE:HD2 | 1:88:A:TYR:HE2 | 7 | 0.98 |
| (1,1169) | 1:73:A:ILE:HG22 | 1:78:A:PHE:HD2 | 8 | 0.98 |
| (1,3884) | 1:288:A:PHE:HA | 1:291:A:VAL:HG21 | 1 | 0.97 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3308) | 1:247:A:VAL:HA | 1:257:A:ALA:HB2 | 11 | 0.97 |
| (1,3134) | 1:240:A:ALA:HB2 | 1:293:A:ILE:HA | 2 | 0.97 |
| (1,2000) | 1:134:A:PHE:HD2 | 1:160:A:TRP:HZ3 | 1 | 0.97 |
| (1,1998) | 1:134:A:PHE:HD2 | 1:144:A:PHE:HE2 | 5 | 0.97 |
| (1,1826) | 1:130:A:THR:HB | 1:144:A:PHE:HE1 | 6 | 0.97 |
| (1,3440) | 1:257:A:ALA:HB1 | 1:282:A:ARG:HH22 | 17 | 0.96 |
| (1,3328) | 1:249:A:CYS:HG | 1:251:A:TYR:HE1 | 18 | 0.96 |
| (1,3203) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD13 | 12 | 0.96 |
| (1,3116) | 1:240:A:ALA:HB1 | 1:264:A:VAL:HG22 | 1 | 0.96 |
| (1,2576) | 1:161:A:TRP:HB2 | 1:163:A:ALA:HB2 | 4 | 0.96 |
| (1,2456) | 1:156:A:PRO:HG2 | 1:172:A:MET:HE3 | 19 | 0.96 |
| (1,1263) | 1:80:A:HIS:HD2 | 1:83:A:ALA:HB2 | 11 | 0.96 |
| (1,205) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB1 | 12 | 0.96 |
| (1,3353) | 1:253:A:LYS:H | 1:255:A:ALA:HB2 | 18 | 0.95 |
| (1,3308) | 1:247:A:VAL:HA | 1:257:A:ALA:HB2 | 13 | 0.95 |
| (1,3180) | 1:242:A:ALA:H | 1:263:A:ILE:HD13 | 14 | 0.95 |
| (1,2456) | 1:156:A:PRO:HG2 | 1:172:A:MET:HE3 | 1 | 0.95 |
| (1,2456) | 1:156:A:PRO:HG2 | 1:172:A:MET:HE3 | 13 | 0.95 |
| (1,1861) | 1:131:A:LEU:HB2 | 1:132:A:TYR:HD1 | 9 | 0.95 |
| (1,3353) | 1:253:A:LYS:H | 1:255:A:ALA:HB2 | 19 | 0.94 |
| (1,3166) | 1:241:A:LYS:HA | 1:263:A:ILE:HD13 | 14 | 0.94 |
| (1,3060) | 1:238:A:VAL:HB | 1:269:A:MET:HE1 | 14 | 0.94 |
| (1,2576) | 1:161:A:TRP:HB2 | 1:163:A:ALA:HB2 | 20 | 0.94 |
| (1,2184) | 1:144:A:PHE:HD1 | 1:145:A:LYS:H | 5 | 0.94 |
| (1,1998) | 1:134:A:PHE:HD2 | 1:144:A:PHE:HE2 | 6 | 0.94 |
| (1,1952) | 1:134:A:PHE:H | 1:144:A:PHE:HE1 | 16 | 0.94 |
| (1,605) | 1:37:A:LEU:HA | 1:102:A:ALA:HB2 | 2 | 0.94 |
| (1,204) | 1:16:A:MET:HE1 | 1:102:A:ALA:HA | 12 | 0.94 |
| (1,3972) | 1:76:A:GLN:HG2 | 1:169:A:ARG:HA | 5 | 0.93 |
| (1,3972) | 1:76:A:GLN:HG3 | 1:169:A:ARG:HA | 5 | 0.93 |
| (1,3497) | 1:258:A:LEU:HD23 | 1:264:A:VAL:HG22 | 15 | 0.93 |
| (1,3440) | 1:257:A:ALA:HB1 | 1:282:A:ARG:HH22 | 13 | 0.93 |
| (1,3356) | 1:253:A:LYS:HA | 1:255:A:ALA:HB2 | 14 | 0.93 |
| (1,3200) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HG | 10 | 0.93 |
| (1,3180) | 1:242:A:ALA:H | 1:263:A:ILE:HD13 | 4 | 0.93 |
| (1,3180) | 1:242:A:ALA:H | 1:263:A:ILE:HD13 | 7 | 0.93 |
| (1,2456) | 1:156:A:PRO:HG2 | 1:172:A:MET:HE3 | 2 | 0.93 |
| (1,2456) | 1:156:A:PRO:HG2 | 1:172:A:MET:HE3 | 3 | 0.93 |
| (1,2456) | 1:156:A:PRO:HG2 | 1:172:A:MET:HE3 | 5 | 0.93 |
| (1,2456) | 1:156:A:PRO:HG2 | 1:172:A:MET:HE3 | 18 | 0.93 |
| (1,2447) | 1:156:A:PRO:HB2 | 1:172:A:MET:HE3 | 2 | 0.93 |
| (1,2427) | 1:155:A:LYS:HA | 1:172:A:MET:HE3 | 15 | 0.93 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1999) | 1:134:A:PHE:HD2 | 1:144:A:PHE:HD2 | 5 | 0.93 |
| (1,1263) | 1:80:A:HIS:HD2 | 1:83:A:ALA:HB2 | 8 | 0.93 |
| (1,206) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB2 | 19 | 0.93 |
| (1,3216) | 1:242:A:ALA:HB2 | 1:258:A:LEU:HD23 | 16 | 0.92 |
| (1,3216) | 1:242:A:ALA:HB2 | 1:258:A:LEU:HD23 | 18 | 0.92 |
| (1,3202) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD12 | 9 | 0.92 |
| (1,3134) | 1:240:A:ALA:HB2 | 1:293:A:ILE:HA | 11 | 0.92 |
| (1,3048) | 1:238:A:VAL:H | 1:269:A:MET:HE1 | 6 | 0.92 |
| (1,1952) | 1:134:A:PHE:H | 1:144:A:PHE:HE1 | 6 | 0.92 |
| (1,1230) | 1:78:A:PHE:HD2 | 1:84:A:LEU:HG | 8 | 0.92 |
| (1,205) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB1 | 4 | 0.92 |
| (1,3216) | 1:242:A:ALA:HB2 | 1:258:A:LEU:HD23 | 15 | 0.91 |
| (1,3180) | 1:242:A:ALA:H | 1:263:A:ILE:HD13 | 8 | 0.91 |
| (1,3136) | 1:240:A:ALA:HB2 | 1:294:A:PHE:H | 9 | 0.91 |
| (1,3048) | 1:238:A:VAL:H | 1:269:A:MET:HE1 | 18 | 0.91 |
| (1,2576) | 1:161:A:TRP:HB2 | 1:163:A:ALA:HB2 | 7 | 0.91 |
| (1,1428) | 1:90:A:ILE:HA | 1:92:A:TYR:HE1 | 15 | 0.91 |
| (1,3486) | 1:258:A:LEU:HD21 | 1:264:A:VAL:HG13 | 17 | 0.9 |
| (1,3116) | 1:240:A:ALA:HB1 | 1:264:A:VAL:HG22 | 19 | 0.9 |
| (1,2427) | 1:155:A:LYS:HA | 1:172:A:MET:HE3 | 3 | 0.9 |
| (1,2189) | 1:144:A:PHE:HD1 | 1:177:A:TYR:HD2 | 6 | 0.9 |
| (1,1681) | 1:127:A:TYR:HD1 | 1:128:A:VAL:H | 10 | 0.9 |
| (1,205) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB1 | 6 | 0.9 |
| (1,3353) | 1:253:A:LYS:H | 1:255:A:ALA:HB2 | 13 | 0.89 |
| (1,3327) | 1:249:A:CYS:HG | 1:251:A:TYR:HD1 | 20 | 0.89 |
| (1,3180) | 1:242:A:ALA:H | 1:263:A:ILE:HD13 | 11 | 0.89 |
| (1,3166) | 1:241:A:LYS:HA | 1:263:A:ILE:HD13 | 11 | 0.89 |
| (1,3166) | 1:241:A:LYS:HA | 1:263:A:ILE:HD13 | 18 | 0.89 |
| (1,1999) | 1:134:A:PHE:HD2 | 1:144:A:PHE:HD2 | 6 | 0.89 |
| (1,1760) | 1:129:A:ARG:HA | 1:149:A:ILE:HD12 | 4 | 0.89 |
| (1,605) | 1:37:A:LEU:HA | 1:102:A:ALA:HB2 | 9 | 0.89 |
| (1,205) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB1 | 15 | 0.89 |
| (1,155) | 1:15:A:TYR:HA | 1:16:A:MET:HE3 | 17 | 0.89 |
| (1,3440) | 1:257:A:ALA:HB1 | 1:282:A:ARG:HH22 | 7 | 0.88 |
| (1,3356) | 1:253:A:LYS:HA | 1:255:A:ALA:HB2 | 2 | 0.88 |
| (1,3356) | 1:253:A:LYS:HA | 1:255:A:ALA:HB2 | 6 | 0.88 |
| (1,3088) | 1:239:A:PHE:HD1 | 1:265:A:LYS:HA | 10 | 0.88 |
| (1,2576) | 1:161:A:TRP:HB2 | 1:163:A:ALA:HB2 | 19 | 0.88 |
| (1,1760) | 1:129:A:ARG:HA | 1:149:A:ILE:HD12 | 1 | 0.88 |
| (1,1470) | 1:92:A:TYR:HD2 | 1:95:A:THR:HA | 20 | 0.88 |
| (1,204) | 1:16:A:MET:HE1 | 1:102:A:ALA:HA | 10 | 0.88 |
| (1,3180) | 1:242:A:ALA:H | 1:263:A:ILE:HD13 | 5 | 0.87 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,3166) | 1:241:A:LYS:HA | 1:263:A:ILE:HD13 | 16 | 0.87 |
| (1,3134) | 1:240:A:ALA:HB2 | 1:293:A:ILE:HA | 13 | 0.87 |
| (1,3133) | 1:240:A:ALA:HB2 | 1:293:A:ILE:H | 12 | 0.87 |
| (1,3116) | 1:240:A:ALA:HB1 | 1:264:A:VAL:HG22 | 20 | 0.87 |
| (1,2576) | 1:161:A:TRP:HB2 | 1:163:A:ALA:HB2 | 16 | 0.87 |
| (1,2427) | 1:155:A:LYS:HA | 1:172:A:MET:HE3 | 19 | 0.87 |
| (1,1892) | 1:132:A:TYR:HD1 | 1:177:A:TYR:HA | 19 | 0.87 |
| (1,1760) | 1:129:A:ARG:HA | 1:149:A:ILE:HD12 | 19 | 0.87 |
| (1,1231) | 1:78:A:PHE:HD2 | 1:84:A:LEU:HD11 | 8 | 0.87 |
| (1,1231) | 1:78:A:PHE:HD2 | 1:84:A:LEU:HD12 | 8 | 0.87 |
| (1,1231) | 1:78:A:PHE:HD2 | 1:84:A:LEU:HD13 | 8 | 0.87 |
| (1,1231) | 1:78:A:PHE:HD2 | 1:84:A:LEU:HD21 | 8 | 0.87 |
| (1,1231) | 1:78:A:PHE:HD2 | 1:84:A:LEU:HD22 | 8 | 0.87 |
| (1,1231) | 1:78:A:PHE:HD2 | 1:84:A:LEU:HD23 | 8 | 0.87 |
| (1,397) | 1:27:A:ARG:HH11 | 1:37:A:LEU:HD23 | 16 | 0.87 |
| (1,155) | 1:15:A:TYR:HA | 1:16:A:MET:HE3 | 12 | 0.87 |
| (1,42) | 1:7:A:ASP:H | 1:13:A:ALA:HB1 | 1 | 0.87 |
| (1,3216) | 1:242:A:ALA:HB2 | 1:258:A:LEU:HD23 | 1 | 0.86 |
| (1,3134) | 1:240:A:ALA:HB2 | 1:293:A:ILE:HA | 10 | 0.86 |
| (1,3048) | 1:238:A:VAL:H | 1:269:A:MET:HE1 | 14 | 0.86 |
| (1,1998) | 1:134:A:PHE:HD2 | 1:144:A:PHE:HE2 | 16 | 0.86 |
| (1,1813) | 1:130:A:THR:HA | 1:144:A:PHE:HD1 | 6 | 0.86 |
| (1,1681) | 1:127:A:TYR:HD1 | 1:128:A:VAL:H | 9 | 0.86 |
| (1,148) | 1:15:A:TYR:H | 1:16:A:MET:HE3 | 17 | 0.86 |
| (1,3090) | 1:239:A:PHE:HE1 | 1:265:A:LYS:HA | 16 | 0.85 |
| (1,3060) | 1:238:A:VAL:HB | 1:269:A:MET:HE1 | 6 | 0.85 |
| (1,3048) | 1:238:A:VAL:H | 1:269:A:MET:HE1 | 2 | 0.85 |
| (1,2427) | 1:155:A:LYS:HA | 1:172:A:MET:HE3 | 9 | 0.85 |
| (1,2427) | 1:155:A:LYS:HA | 1:172:A:MET:HE3 | 10 | 0.85 |
| (1,2427) | 1:155:A:LYS:HA | 1:172:A:MET:HE3 | 13 | 0.85 |
| (1,2001) | 1:134:A:PHE:HD2 | 1:160:A:TRP:HH2 | 17 | 0.85 |
| (1,1999) | 1:134:A:PHE:HD2 | 1:144:A:PHE:HD2 | 16 | 0.85 |
| (1,1990) | 1:134:A:PHE:HE2 | 1:160:A:TRP:HZ3 | 2 | 0.85 |
| (1,1260) | 1:80:A:HIS:HD1 | 1:83:A:ALA:HB2 | 9 | 0.85 |
| (1,709) | 1:43:A:THR:HG1 | 1:62:A:ILE:HD11 | 15 | 0.85 |
| (1,3054) | 1:238:A:VAL:HA | 1:269:A:MET:HE1 | 19 | 0.84 |
| (1,1998) | 1:134:A:PHE:HD2 | 1:144:A:PHE:HE2 | 17 | 0.84 |
| (1,1990) | 1:134:A:PHE:HE2 | 1:160:A:TRP:HZ3 | 1 | 0.84 |
| (1,1687) | 1:127:A:TYR:HE1 | 1:151:A:VAL:HA | 10 | 0.84 |
| (1,3202) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD12 | 12 | 0.83 |
| (1,3148) | 1:241:A:LYS:H | 1:263:A:ILE:HD13 | 14 | 0.83 |
| (1,3088) | 1:239:A:PHE:HD1 | 1:265:A:LYS:HA | 16 | 0.83 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,2998) | 1:213:A:THR:H | 1:214:A:THR:HB | 19 | 0.83 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB2 | 17 | 0.83 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB3 | 17 | 0.83 |
| (1,1689) | 1:127:A:TYR:HE1 | 1:164:A:ARG:HE | 9 | 0.83 |
| (1,3327) | 1:249:A:CYS:HG | 1:251:A:TYR:HD1 | 17 | 0.82 |
| (1,3180) | 1:242:A:ALA:H | 1:263:A:ILE:HD13 | 15 | 0.82 |
| (1,3166) | 1:241:A:LYS:HA | 1:263:A:ILE:HD13 | 7 | 0.82 |
| (1,3136) | 1:240:A:ALA:HB2 | 1:294:A:PHE:H | 3 | 0.82 |
| (1,3134) | 1:240:A:ALA:HB2 | 1:293:A:ILE:HA | 15 | 0.82 |
| (1,3134) | 1:240:A:ALA:HB2 | 1:293:A:ILE:HA | 20 | 0.82 |
| (1,2576) | 1:161:A:TRP:HB2 | 1:163:A:ALA:HB2 | 17 | 0.82 |
| (1,2427) | 1:155:A:LYS:HA | 1:172:A:MET:HE3 | 4 | 0.82 |
| (1,2427) | 1:155:A:LYS:HA | 1:172:A:MET:HE3 | 6 | 0.82 |
| (1,2229) | 1:145:A:LYS:H | 1:146:A:LYS:HD2 | 9 | 0.82 |
| (1,2189) | 1:144:A:PHE:HD1 | 1:177:A:TYR:HD2 | 16 | 0.82 |
| (1,1230) | 1:78:A:PHE:HD2 | 1:84:A:LEU:HG | 7 | 0.82 |
| (1,3970) | 1:74:A:GLY:HA2 | 1:153:A:ILE:HD11 | 16 | 0.81 |
| (1,3970) | 1:74:A:GLY:HA2 | 1:153:A:ILE:HD12 | 16 | 0.81 |
| (1,3970) | 1:74:A:GLY:HA2 | 1:153:A:ILE:HD13 | 16 | 0.81 |
| (1,3328) | 1:249:A:CYS:HG | 1:251:A:TYR:HE1 | 3 | 0.81 |
| (1,3180) | 1:242:A:ALA:H | 1:263:A:ILE:HD13 | 17 | 0.81 |
| (1,2545) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE1 | 9 | 0.81 |
| (1,2545) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE1 | 12 | 0.81 |
| (1,2427) | 1:155:A:LYS:HA | 1:172:A:MET:HE3 | 18 | 0.81 |
| (1,2189) | 1:144:A:PHE:HD1 | 1:177:A:TYR:HD2 | 5 | 0.81 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB2 | 4 | 0.81 |
| (1,1895) | 1:132:A:TYR:HE2 | 1:134:A:PHE:HB3 | 4 | 0.81 |
| (1,324) | 1:23:A:GLU:HA | 1:26:A:THR:HG23 | 14 | 0.81 |
| (1,148) | 1:15:A:TYR:H | 1:16:A:MET:HE3 | 20 | 0.81 |
| (1,3134) | 1:240:A:ALA:HB2 | 1:293:A:ILE:HA | 7 | 0.8 |
| (1,2595) | 1:162:A:SER:H | 1:172:A:MET:HE3 | 19 | 0.8 |
| (1,2595) | 1:162:A:SER:H | 1:172:A:MET:HE3 | 20 | 0.8 |
| (1,2576) | 1:161:A:TRP:HB2 | 1:163:A:ALA:HB2 | 2 | 0.8 |
| (1,2576) | 1:161:A:TRP:HB2 | 1:163:A:ALA:HB2 | 3 | 0.8 |
| (1,1991) | 1:134:A:PHE:HE2 | 1:160:A:TRP:HH2 | 17 | 0.8 |
| (1,1201) | 1:78:A:PHE:HA | 1:83:A:ALA:HB1 | 12 | 0.8 |
| (1,3166) | 1:241:A:LYS:HA | 1:263:A:ILE:HD13 | 9 | 0.79 |
| (1,2618) | 1:162:A:SER:HB2 | 1:172:A:MET:HE3 | 7 | 0.79 |
| (1,2576) | 1:161:A:TRP:HB2 | 1:163:A:ALA:HB2 | 13 | 0.79 |
| (1,1760) | 1:129:A:ARG:HA | 1:149:A:ILE:HD12 | 6 | 0.79 |
| (1,616) | 1:37:A:LEU:HG | 1:102:A:ALA:HB2 | 2 | 0.79 |
| (1,3353) | 1:253:A:LYS:H | 1:255:A:ALA:HB2 | 6 | 0.78 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3205) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD23 | 17 | 0.78 |
| (1,3180) | 1:242:A:ALA:H | 1:263:A:ILE:HD13 | 6 | 0.78 |
| (1,3134) | 1:240:A:ALA:HB2 | 1:293:A:ILE:HA | 6 | 0.78 |
| (1,2224) | 1:144:A:PHE:HD2 | 1:174:A:PRO:HD2 | 5 | 0.78 |
| (1,2189) | 1:144:A:PHE:HD1 | 1:177:A:TYR:HD2 | 17 | 0.78 |
| (1,2184) | 1:144:A:PHE:HD1 | 1:145:A:LYS:H | 6 | 0.78 |
| (1,1368) | 1:87:A:PHE:HD1 | 1:90:A:ILE:HD13 | 17 | 0.78 |
| (1,3497) | 1:258:A:LEU:HD23 | 1:264:A:VAL:HG22 | 5 | 0.77 |
| (1,3488) | 1:258:A:LEU:HD21 | 1:279:A:VAL:HB | 10 | 0.77 |
| (1,3134) | 1:240:A:ALA:HB2 | 1:293:A:ILE:HA | 4 | 0.77 |
| (1,3134) | 1:240:A:ALA:HB2 | 1:293:A:ILE:HA | 16 | 0.77 |
| (1,3133) | 1:240:A:ALA:HB2 | 1:293:A:ILE:H | 9 | 0.77 |
| (1,3116) | 1:240:A:ALA:HB1 | 1:264:A:VAL:HG22 | 6 | 0.77 |
| (1,3048) | 1:238:A:VAL:H | 1:269:A:MET:HE1 | 17 | 0.77 |
| (1,2546) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE2 | 8 | 0.77 |
| (1,2427) | 1:155:A:LYS:HA | 1:172:A:MET:HE3 | 16 | 0.77 |
| (1,605) | 1:37:A:LEU:HA | 1:102:A:ALA:HB2 | 10 | 0.77 |
| (1,605) | 1:37:A:LEU:HA | 1:102:A:ALA:HB2 | 17 | 0.77 |
| (1,148) | 1:15:A:TYR:H | 1:16:A:MET:HE3 | 5 | 0.77 |
| (1,3497) | 1:258:A:LEU:HD23 | 1:264:A:VAL:HG22 | 14 | 0.76 |
| (1,3219) | 1:242:A:ALA:HB2 | 1:261:A:GLY:H | 1 | 0.76 |
| (1,3166) | 1:241:A:LYS:HA | 1:263:A:ILE:HD13 | 8 | 0.76 |
| (1,2714) | 1:169:A:ARG:H | 1:169:A:ARG:HB2 | 10 | 0.76 |
| (1,2595) | 1:162:A:SER:H | 1:172:A:MET:HE3 | 13 | 0.76 |
| (1,2595) | 1:162:A:SER:H | 1:172:A:MET:HE3 | 15 | 0.76 |
| (1,2456) | 1:156:A:PRO:HG2 | 1:172:A:MET:HE3 | 10 | 0.76 |
| (1,1892) | 1:132:A:TYR:HD1 | 1:177:A:TYR:HA | 17 | 0.76 |
| (1,1684) | 1:127:A:TYR:HD1 | 1:151:A:VAL:HA | 9 | 0.76 |
| (1,1260) | 1:80:A:HIS:HD1 | 1:83:A:ALA:HB2 | 12 | 0.76 |
| (1,1036) | 1:65:A:SER:HA | 1:66:A:LEU:HD23 | 7 | 0.76 |
| (1,205) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB1 | 10 | 0.76 |
| (1,155) | 1:15:A:TYR:HA | 1:16:A:MET:HE3 | 20 | 0.76 |
| (1,148) | 1:15:A:TYR:H | 1:16:A:MET:HE3 | 8 | 0.76 |
| (1,148) | 1:15:A:TYR:H | 1:16:A:MET:HE3 | 13 | 0.76 |
| (1,3329) | 1:249:A:CYS:HG | 1:251:A:TYR:HH | 9 | 0.75 |
| (1,3327) | 1:249:A:CYS:HG | 1:251:A:TYR:HD1 | 5 | 0.75 |
| (1,3180) | 1:242:A:ALA:H | 1:263:A:ILE:HD13 | 20 | 0.75 |
| (1,3166) | 1:241:A:LYS:HA | 1:263:A:ILE:HD13 | 4 | 0.75 |
| (1,2160) | 1:143:A:PRO:HG2 | 1:165:A:ASN:HB2 | 12 | 0.75 |
| (1,1760) | 1:129:A:ARG:HA | 1:149:A:ILE:HD12 | 14 | 0.75 |
| (1,1760) | 1:129:A:ARG:HA | 1:149:A:ILE:HD12 | 17 | 0.75 |
| (1,249) | 1:20:A:SER:H | 1:23:A:GLU:H | 12 | 0.75 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB2 | 2 | 0.74 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB3 | 2 | 0.74 |
| (1,3552) | 1:263:A:ILE:HD11 | 1:294:A:PHE:HE2 | 12 | 0.74 |
| (1,3216) | 1:242:A:ALA:HB2 | 1:258:A:LEU:HD23 | 20 | 0.74 |
| (1,3148) | 1:241:A:LYS:H | 1:263:A:ILE:HD13 | 9 | 0.74 |
| (1,3136) | 1:240:A:ALA:HB2 | 1:294:A:PHE:H | 4 | 0.74 |
| (1,3134) | 1:240:A:ALA:HB2 | 1:293:A:ILE:HA | 14 | 0.74 |
| (1,3088) | 1:239:A:PHE:HD1 | 1:265:A:LYS:HA | 5 | 0.74 |
| (1,3048) | 1:238:A:VAL:H | 1:269:A:MET:HE1 | 1 | 0.74 |
| (1,1212) | 1:78:A:PHE:HE1 | 1:87:A:PHE:HZ | 8 | 0.74 |
| (1,605) | 1:37:A:LEU:HA | 1:102:A:ALA:HB2 | 5 | 0.74 |
| (1,3356) | 1:253:A:LYS:HA | 1:255:A:ALA:HB2 | 3 | 0.73 |
| (1,3216) | 1:242:A:ALA:HB2 | 1:258:A:LEU:HD23 | 3 | 0.73 |
| (1,3216) | 1:242:A:ALA:HB2 | 1:258:A:LEU:HD23 | 14 | 0.73 |
| (1,3136) | 1:240:A:ALA:HB2 | 1:294:A:PHE:H | 18 | 0.73 |
| (1,3116) | 1:240:A:ALA:HB1 | 1:264:A:VAL:HG22 | 11 | 0.73 |
| (1,2618) | 1:162:A:SER:HB2 | 1:172:A:MET:HE3 | 19 | 0.73 |
| (1,2595) | 1:162:A:SER:H | 1:172:A:MET:HE3 | 3 | 0.73 |
| (1,2595) | 1:162:A:SER:H | 1:172:A:MET:HE3 | 18 | 0.73 |
| (1,324) | 1:23:A:GLU:HA | 1:26:A:THR:HG23 | 7 | 0.73 |
| (1,3638) | 1:266:A:VAL:HG21 | 1:269:A:MET:HE2 | 20 | 0.72 |
| (1,3488) | 1:258:A:LEU:HD21 | 1:279:A:VAL:HB | 17 | 0.72 |
| (1,3216) | 1:242:A:ALA:HB2 | 1:258:A:LEU:HD23 | 4 | 0.72 |
| (1,3133) | 1:240:A:ALA:HB2 | 1:293:A:ILE:H | 11 | 0.72 |
| (1,3048) | 1:238:A:VAL:H | 1:269:A:MET:HE1 | 15 | 0.72 |
| (1,2618) | 1:162:A:SER:HB2 | 1:172:A:MET:HE3 | 12 | 0.72 |
| (1,2184) | 1:144:A:PHE:HD1 | 1:145:A:LYS:H | 16 | 0.72 |
| (1,605) | 1:37:A:LEU:HA | 1:102:A:ALA:HB2 | 11 | 0.72 |
| (1,155) | 1:15:A:TYR:HA | 1:16:A:MET:HE3 | 9 | 0.72 |
| (1,3971) | 1:75:A:ASP:HB2 | 1:168:A:GLY:HA2 | 8 | 0.71 |
| (1,3971) | 1:75:A:ASP:HB2 | 1:168:A:GLY:HA3 | 8 | 0.71 |
| (1,3134) | 1:240:A:ALA:HB2 | 1:293:A:ILE:HA | 1 | 0.71 |
| (1,2998) | 1:213:A:THR:H | 1:214:A:THR:HB | 7 | 0.71 |
| (1,2546) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE2 | 2 | 0.71 |
| (1,1892) | 1:132:A:TYR:HD1 | 1:177:A:TYR:HA | 13 | 0.71 |
| (1,1760) | 1:129:A:ARG:HA | 1:149:A:ILE:HD12 | 11 | 0.71 |
| (1,1585) | 1:101:A:PRO:HA | 1:102:A:ALA:HB2 | 11 | 0.71 |
| (1,1511) | 1:95:A:THR:HG22 | 1:96:A:THR:HB | 8 | 0.71 |
| (1,1212) | 1:78:A:PHE:HE1 | 1:87:A:PHE:HZ | 7 | 0.71 |
| (1,605) | 1:37:A:LEU:HA | 1:102:A:ALA:HB2 | 13 | 0.71 |
| (1,3136) | 1:240:A:ALA:HB2 | 1:294:A:PHE:H | 15 | 0.7 |
| (1,3133) | 1:240:A:ALA:HB2 | 1:293:A:ILE:H | 1 | 0.7 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3133) | 1:240:A:ALA:HB2 | 1:293:A:ILE:H | 6 | 0.7 |
| (1,2595) | 1:162:A:SER:H | 1:172:A:MET:HE3 | 14 | 0.7 |
| (1,616) | 1:37:A:LEU:HG | 1:102:A:ALA:HB2 | 11 | 0.7 |
| (1,3488) | 1:258:A:LEU:HD21 | 1:279:A:VAL:HB | 16 | 0.69 |
| (1,3353) | 1:253:A:LYS:H | 1:255:A:ALA:HB2 | 11 | 0.69 |
| (1,3328) | 1:249:A:CYS:HG | 1:251:A:TYR:HE1 | 20 | 0.69 |
| (1,3180) | 1:242:A:ALA:H | 1:263:A:ILE:HD13 | 3 | 0.69 |
| (1,3180) | 1:242:A:ALA:H | 1:263:A:ILE:HD13 | 9 | 0.69 |
| (1,3090) | 1:239:A:PHE:HE1 | 1:265:A:LYS:HA | 5 | 0.69 |
| (1,2998) | 1:213:A:THR:H | 1:214:A:THR:HB | 12 | 0.69 |
| (1,2595) | 1:162:A:SER:H | 1:172:A:MET:HE3 | 16 | 0.69 |
| (1,2521) | 1:160:A:TRP:H | 1:172:A:MET:HE1 | 9 | 0.69 |
| (1,2456) | 1:156:A:PRO:HG2 | 1:172:A:MET:HE3 | 12 | 0.69 |
| (1,2427) | 1:155:A:LYS:HA | 1:172:A:MET:HE3 | 1 | 0.69 |
| (1,2427) | 1:155:A:LYS:HA | 1:172:A:MET:HE3 | 5 | 0.69 |
| (1,2275) | 1:149:A:ILE:HA | 1:149:A:ILE:HD12 | 19 | 0.69 |
| (1,2229) | 1:145:A:LYS:H | 1:146:A:LYS:HD2 | 10 | 0.69 |
| (1,2216) | 1:144:A:PHE:HE2 | 1:174:A:PRO:HG2 | 6 | 0.69 |
| (1,1943) | 1:133:A:ASP:HB2 | 1:147:A:GLY:H | 1 | 0.69 |
| (1,1796) | 1:130:A:THR:H | 1:144:A:PHE:HD1 | 16 | 0.69 |
| (1,1234) | 1:79:A:ASP:H | 1:83:A:ALA:HB1 | 12 | 0.69 |
| (1,3497) | 1:258:A:LEU:HD23 | 1:264:A:VAL:HG22 | 2 | 0.68 |
| (1,3497) | 1:258:A:LEU:HD23 | 1:264:A:VAL:HG22 | 3 | 0.68 |
| (1,3440) | 1:257:A:ALA:HB1 | 1:282:A:ARG:HH22 | 4 | 0.68 |
| (1,3247) | 1:243:A:ILE:HD13 | 1:290:A:HIS:HA | 12 | 0.68 |
| (1,3226) | 1:242:A:ALA:HB3 | 1:291:A:VAL:HG13 | 3 | 0.68 |
| (1,3136) | 1:240:A:ALA:HB2 | 1:294:A:PHE:H | 12 | 0.68 |
| (1,2998) | 1:213:A:THR:H | 1:214:A:THR:HB | 8 | 0.68 |
| (1,2595) | 1:162:A:SER:H | 1:172:A:MET:HE3 | 4 | 0.68 |
| (1,1990) | 1:134:A:PHE:HE2 | 1:160:A:TRP:HZ3 | 18 | 0.68 |
| (1,709) | 1:43:A:THR:HG1 | 1:62:A:ILE:HD11 | 7 | 0.68 |
| (1,205) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB1 | 2 | 0.68 |
| (1,204) | 1:16:A:MET:HE1 | 1:102:A:ALA:HA | 11 | 0.68 |
| (1,155) | 1:15:A:TYR:HA | 1:16:A:MET:HE3 | 10 | 0.68 |
| (1,148) | 1:15:A:TYR:H | 1:16:A:MET:HE3 | 2 | 0.68 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB2 | 7 | 0.67 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB3 | 7 | 0.67 |
| (1,3226) | 1:242:A:ALA:HB3 | 1:291:A:VAL:HG13 | 6 | 0.67 |
| (1,3216) | 1:242:A:ALA:HB2 | 1:258:A:LEU:HD23 | 5 | 0.67 |
| (1,3216) | 1:242:A:ALA:HB2 | 1:258:A:LEU:HD23 | 11 | 0.67 |
| (1,3166) | 1:241:A:LYS:HA | 1:263:A:ILE:HD13 | 5 | 0.67 |
| (1,3166) | 1:241:A:LYS:HA | 1:263:A:ILE:HD13 | 6 | 0.67 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,3136) | 1:240:A:ALA:HB2 | 1:294:A:PHE:H | 10 | 0.67 |
| (1,2595) | 1:162:A:SER:H | 1:172:A:MET:HE3 | 5 | 0.67 |
| (1,1960) | 1:134:A:PHE:HA | 1:134:A:PHE:HD1 | 18 | 0.67 |
| (1,1585) | 1:101:A:PRO:HA | 1:102:A:ALA:HB2 | 19 | 0.67 |
| (1,1424) | 1:90:A:ILE:H | 1:97:A:THR:HG22 | 10 | 0.67 |
| (1,1231) | 1:78:A:PHE:HD2 | 1:84:A:LEU:HD11 | 7 | 0.67 |
| (1,1231) | 1:78:A:PHE:HD2 | 1:84:A:LEU:HD12 | 7 | 0.67 |
| (1,1231) | 1:78:A:PHE:HD2 | 1:84:A:LEU:HD13 | 7 | 0.67 |
| (1,1231) | 1:78:A:PHE:HD2 | 1:84:A:LEU:HD21 | 7 | 0.67 |
| (1,1231) | 1:78:A:PHE:HD2 | 1:84:A:LEU:HD22 | 7 | 0.67 |
| (1,1231) | 1:78:A:PHE:HD2 | 1:84:A:LEU:HD23 | 7 | 0.67 |
| (1,806) | 1:50:A:LEU:HG | 1:63:A:ILE:HD12 | 8 | 0.67 |
| (1,605) | 1:37:A:LEU:HA | 1:102:A:ALA:HB2 | 12 | 0.67 |
| (1,605) | 1:37:A:LEU:HA | 1:102:A:ALA:HB2 | 20 | 0.67 |
| (1,187) | 1:16:A:MET:H | 1:16:A:MET:HE3 | 8 | 0.67 |
| (1,3972) | 1:76:A:GLN:HG2 | 1:169:A:ARG:HA | 13 | 0.66 |
| (1,3972) | 1:76:A:GLN:HG3 | 1:169:A:ARG:HA | 13 | 0.66 |
| (1,3356) | 1:253:A:LYS:HA | 1:255:A:ALA:HB2 | 4 | 0.66 |
| (1,3329) | 1:249:A:CYS:HG | 1:251:A:TYR:HH | 10 | 0.66 |
| (1,2621) | 1:162:A:SER:HG | 1:172:A:MET:HE3 | 7 | 0.66 |
| (1,2618) | 1:162:A:SER:HB2 | 1:172:A:MET:HE3 | 10 | 0.66 |
| (1,2618) | 1:162:A:SER:HB2 | 1:172:A:MET:HE3 | 14 | 0.66 |
| (1,806) | 1:50:A:LEU:HG | 1:63:A:ILE:HD12 | 7 | 0.66 |
| (1,204) | 1:16:A:MET:HE1 | 1:102:A:ALA:HA | 9 | 0.66 |
| (1,148) | 1:15:A:TYR:H | 1:16:A:MET:HE3 | 18 | 0.66 |
| (1,3360) | 1:254:A:THR:H | 1:255:A:ALA:HB2 | 12 | 0.65 |
| (1,3327) | 1:249:A:CYS:HG | 1:251:A:TYR:HD1 | 15 | 0.65 |
| (1,3226) | 1:242:A:ALA:HB3 | 1:291:A:VAL:HG13 | 18 | 0.65 |
| (1,3216) | 1:242:A:ALA:HB2 | 1:258:A:LEU:HD23 | 13 | 0.65 |
| (1,2618) | 1:162:A:SER:HB2 | 1:172:A:MET:HE3 | 9 | 0.65 |
| (1,2576) | 1:161:A:TRP:HB2 | 1:163:A:ALA:HB2 | 1 | 0.65 |
| (1,2456) | 1:156:A:PRO:HG2 | 1:172:A:MET:HE3 | 9 | 0.65 |
| (1,1960) | 1:134:A:PHE:HA | 1:134:A:PHE:HD1 | 2 | 0.65 |
| (1,1036) | 1:65:A:SER:HA | 1:66:A:LEU:HD23 | 1 | 0.65 |
| (1,1036) | 1:65:A:SER:HA | 1:66:A:LEU:HD23 | 13 | 0.65 |
| (1,203) | 1:16:A:MET:HE1 | 1:102:A:ALA:H | 1 | 0.65 |
| (1,155) | 1:15:A:TYR:HA | 1:16:A:MET:HE3 | 8 | 0.65 |
| (1,148) | 1:15:A:TYR:H | 1:16:A:MET:HE3 | 19 | 0.65 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB2 | 12 | 0.64 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB3 | 12 | 0.64 |
| (1,3970) | 1:74:A:GLY:HA2 | 1:153:A:ILE:HD11 | 9 | 0.64 |
| (1,3970) | 1:74:A:GLY:HA2 | 1:153:A:ILE:HD12 | 9 | 0.64 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3970) | 1:74:A:GLY:HA2 | 1:153:A:ILE:HD13 | 9 | 0.64 |
| (1,3356) | 1:253:A:LYS:HA | 1:255:A:ALA:HB2 | 13 | 0.64 |
| (1,3356) | 1:253:A:LYS:HA | 1:255:A:ALA:HB2 | 20 | 0.64 |
| (1,3136) | 1:240:A:ALA:HB2 | 1:294:A:PHE:H | 11 | 0.64 |
| (1,3133) | 1:240:A:ALA:HB2 | 1:293:A:ILE:H | 18 | 0.64 |
| (1,3060) | 1:238:A:VAL:HB | 1:269:A:MET:HE1 | 2 | 0.64 |
| (1,2995) | 1:211:A:GLN:HB2 | 1:212:A:THR:HA | 15 | 0.64 |
| (1,2427) | 1:155:A:LYS:HA | 1:172:A:MET:HE3 | 14 | 0.64 |
| (1,2427) | 1:155:A:LYS:HA | 1:172:A:MET:HE3 | 20 | 0.64 |
| (1,1796) | 1:130:A:THR:H | 1:144:A:PHE:HD1 | 17 | 0.64 |
| (1,1263) | 1:80:A:HIS:HD2 | 1:83:A:ALA:HB2 | 12 | 0.64 |
| (1,71) | 1:10:A:ASP:H | 1:14:A:TRP:HE1 | 12 | 0.64 |
| (1,3134) | 1:240:A:ALA:HB2 | 1:293:A:ILE:HA | 17 | 0.63 |
| (1,2618) | 1:162:A:SER:HB2 | 1:172:A:MET:HE3 | 15 | 0.63 |
| (1,2576) | 1:161:A:TRP:HB2 | 1:163:A:ALA:HB2 | 8 | 0.63 |
| (1,1470) | 1:92:A:TYR:HD2 | 1:95:A:THR:HA | 6 | 0.63 |
| (1,148) | 1:15:A:TYR:H | 1:16:A:MET:HE3 | 16 | 0.63 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB2 | 19 | 0.62 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB3 | 19 | 0.62 |
| (1,3226) | 1:242:A:ALA:HB3 | 1:291:A:VAL:HG13 | 11 | 0.62 |
| (1,3216) | 1:242:A:ALA:HB2 | 1:258:A:LEU:HD23 | 8 | 0.62 |
| (1,3133) | 1:240:A:ALA:HB2 | 1:293:A:ILE:H | 10 | 0.62 |
| (1,2618) | 1:162:A:SER:HB2 | 1:172:A:MET:HE3 | 13 | 0.62 |
| (1,2275) | 1:149:A:ILE:HA | 1:149:A:ILE:HD12 | 11 | 0.62 |
| (1,1796) | 1:130:A:THR:H | 1:144:A:PHE:HD1 | 5 | 0.62 |
| (1,1586) | 1:102:A:ALA:H | 1:102:A:ALA:HB2 | 13 | 0.62 |
| (1,1585) | 1:101:A:PRO:HA | 1:102:A:ALA:HB2 | 18 | 0.62 |
| (1,1428) | 1:90:A:ILE:HA | 1:92:A:TYR:HE1 | 6 | 0.62 |
| (1,806) | 1:50:A:LEU:HG | 1:63:A:ILE:HD12 | 5 | 0.62 |
| (1,605) | 1:37:A:LEU:HA | 1:102:A:ALA:HB2 | 8 | 0.62 |
| (1,204) | 1:16:A:MET:HE1 | 1:102:A:ALA:HA | 2 | 0.62 |
| (1,155) | 1:15:A:TYR:HA | 1:16:A:MET:HE3 | 2 | 0.62 |
| (1,3486) | 1:258:A:LEU:HD21 | 1:264:A:VAL:HG13 | 15 | 0.61 |
| (1,3321) | 1:249:A:CYS:H | 1:255:A:ALA:HB2 | 18 | 0.61 |
| (1,3287) | 1:246:A:ARG:HE | 1:290:A:HIS:HD1 | 12 | 0.61 |
| (1,3226) | 1:242:A:ALA:HB3 | 1:291:A:VAL:HG13 | 14 | 0.61 |
| (1,3148) | 1:241:A:LYS:H | 1:263:A:ILE:HD13 | 11 | 0.61 |
| (1,3134) | 1:240:A:ALA:HB2 | 1:293:A:ILE:HA | 3 | 0.61 |
| (1,2595) | 1:162:A:SER:H | 1:172:A:MET:HE3 | 1 | 0.61 |
| (1,2521) | 1:160:A:TRP:H | 1:172:A:MET:HE1 | 12 | 0.61 |
| (1,1586) | 1:102:A:ALA:H | 1:102:A:ALA:HB2 | 9 | 0.61 |
| (1,1586) | 1:102:A:ALA:H | 1:102:A:ALA:HB2 | 10 | 0.61 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1586) | 1:102:A:ALA:H | 1:102:A:ALA:HB2 | 11 | 0.61 |
| (1,1586) | 1:102:A:ALA:H | 1:102:A:ALA:HB2 | 19 | 0.61 |
| (1,1585) | 1:101:A:PRO:HA | 1:102:A:ALA:HB2 | 15 | 0.61 |
| (1,1234) | 1:79:A:ASP:H | 1:83:A:ALA:HB1 | 7 | 0.61 |
| (1,204) | 1:16:A:MET:HE1 | 1:102:A:ALA:HA | 20 | 0.61 |
| (1,155) | 1:15:A:TYR:HA | 1:16:A:MET:HE3 | 5 | 0.61 |
| (1,155) | 1:15:A:TYR:HA | 1:16:A:MET:HE3 | 13 | 0.61 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB2 | 11 | 0.6 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB3 | 11 | 0.6 |
| (1,3680) | 1:269:A:MET:HE3 | 1:286:A:PHE:HZ | 9 | 0.6 |
| (1,3486) | 1:258:A:LEU:HD21 | 1:264:A:VAL:HG13 | 1 | 0.6 |
| (1,3485) | 1:258:A:LEU:HD21 | 1:264:A:VAL:HB | 17 | 0.6 |
| (1,3440) | 1:257:A:ALA:HB1 | 1:282:A:ARG:HH22 | 8 | 0.6 |
| (1,3180) | 1:242:A:ALA:H | 1:263:A:ILE:HD13 | 1 | 0.6 |
| (1,2595) | 1:162:A:SER:H | 1:172:A:MET:HE3 | 6 | 0.6 |
| (1,2530) | 1:160:A:TRP:HA | 1:172:A:MET:HE2 | 8 | 0.6 |
| (1,2224) | 1:144:A:PHE:HD2 | 1:174:A:PRO:HD2 | 16 | 0.6 |
| (1,1898) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HH | 17 | 0.6 |
| (1,1892) | 1:132:A:TYR:HD1 | 1:177:A:TYR:HA | 14 | 0.6 |
| (1,1586) | 1:102:A:ALA:H | 1:102:A:ALA:HB2 | 1 | 0.6 |
| (1,1586) | 1:102:A:ALA:H | 1:102:A:ALA:HB2 | 2 | 0.6 |
| (1,1586) | 1:102:A:ALA:H | 1:102:A:ALA:HB2 | 3 | 0.6 |
| (1,1586) | 1:102:A:ALA:H | 1:102:A:ALA:HB2 | 4 | 0.6 |
| (1,1586) | 1:102:A:ALA:H | 1:102:A:ALA:HB2 | 7 | 0.6 |
| (1,1586) | 1:102:A:ALA:H | 1:102:A:ALA:HB2 | 14 | 0.6 |
| (1,1586) | 1:102:A:ALA:H | 1:102:A:ALA:HB2 | 15 | 0.6 |
| (1,1586) | 1:102:A:ALA:H | 1:102:A:ALA:HB2 | 16 | 0.6 |
| (1,1586) | 1:102:A:ALA:H | 1:102:A:ALA:HB2 | 20 | 0.6 |
| (1,1585) | 1:101:A:PRO:HA | 1:102:A:ALA:HB2 | 3 | 0.6 |
| (1,1585) | 1:101:A:PRO:HA | 1:102:A:ALA:HB2 | 20 | 0.6 |
| (1,1036) | 1:65:A:SER:HA | 1:66:A:LEU:HD23 | 5 | 0.6 |
| (1,616) | 1:37:A:LEU:HG | 1:102:A:ALA:HB2 | 16 | 0.6 |
| (1,563) | 1:36:A:PHE:HA | 1:102:A:ALA:HB2 | 9 | 0.6 |
| (1,203) | 1:16:A:MET:HE1 | 1:102:A:ALA:H | 14 | 0.6 |
| (1,3327) | 1:249:A:CYS:HG | 1:251:A:TYR:HD1 | 1 | 0.59 |
| (1,3216) | 1:242:A:ALA:HB2 | 1:258:A:LEU:HD23 | 19 | 0.59 |
| (1,3180) | 1:242:A:ALA:H | 1:263:A:ILE:HD13 | 10 | 0.59 |
| (1,3180) | 1:242:A:ALA:H | 1:263:A:ILE:HD13 | 12 | 0.59 |
| (1,3134) | 1:240:A:ALA:HB2 | 1:293:A:ILE:HA | 8 | 0.59 |
| (1,2989) | 1:204:A:ALA:H | 1:204:A:ALA:HB1 | 18 | 0.59 |
| (1,2938) | 1:185:A:SER:H | 1:185:A:SER:HG | 2 | 0.59 |
| (1,2530) | 1:160:A:TRP:HA | 1:172:A:MET:HE2 | 2 | 0.59 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1608) | 1:120:A:THR:H | 1:120:A:THR:HB | 7 | 0.59 |
| (1,1586) | 1:102:A:ALA:H | 1:102:A:ALA:HB2 | 5 | 0.59 |
| (1,1586) | 1:102:A:ALA:H | 1:102:A:ALA:HB2 | 6 | 0.59 |
| (1,1586) | 1:102:A:ALA:H | 1:102:A:ALA:HB2 | 12 | 0.59 |
| (1,1586) | 1:102:A:ALA:H | 1:102:A:ALA:HB2 | 17 | 0.59 |
| (1,1585) | 1:101:A:PRO:HA | 1:102:A:ALA:HB2 | 1 | 0.59 |
| (1,1585) | 1:101:A:PRO:HA | 1:102:A:ALA:HB2 | 16 | 0.59 |
| (1,1260) | 1:80:A:HIS:HD1 | 1:83:A:ALA:HB2 | 10 | 0.59 |
| (1,274) | 1:21:A:ARG:HA | 1:39:A:ARG:HH21 | 9 | 0.59 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB2 | 20 | 0.58 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB3 | 20 | 0.58 |
| (1,3861) | 1:286:A:PHE:HZ | 1:291:A:VAL:HG21 | 1 | 0.58 |
| (1,3226) | 1:242:A:ALA:HB3 | 1:291:A:VAL:HG13 | 15 | 0.58 |
| (1,3216) | 1:242:A:ALA:HB2 | 1:258:A:LEU:HD23 | 7 | 0.58 |
| (1,3166) | 1:241:A:LYS:HA | 1:263:A:ILE:HD13 | 3 | 0.58 |
| (1,2618) | 1:162:A:SER:HB2 | 1:172:A:MET:HE3 | 20 | 0.58 |
| (1,2595) | 1:162:A:SER:H | 1:172:A:MET:HE3 | 7 | 0.58 |
| (1,1586) | 1:102:A:ALA:H | 1:102:A:ALA:HB2 | 8 | 0.58 |
| (1,1586) | 1:102:A:ALA:H | 1:102:A:ALA:HB2 | 18 | 0.58 |
| (1,1585) | 1:101:A:PRO:HA | 1:102:A:ALA:HB2 | 4 | 0.58 |
| (1,1585) | 1:101:A:PRO:HA | 1:102:A:ALA:HB2 | 10 | 0.58 |
| (1,605) | 1:37:A:LEU:HA | 1:102:A:ALA:HB2 | 3 | 0.58 |
| (1,605) | 1:37:A:LEU:HA | 1:102:A:ALA:HB2 | 6 | 0.58 |
| (1,605) | 1:37:A:LEU:HA | 1:102:A:ALA:HB2 | 18 | 0.58 |
| (1,563) | 1:36:A:PHE:HA | 1:102:A:ALA:HB2 | 11 | 0.58 |
| (1,3136) | 1:240:A:ALA:HB2 | 1:294:A:PHE:H | 20 | 0.57 |
| (1,3133) | 1:240:A:ALA:HB2 | 1:293:A:ILE:H | 14 | 0.57 |
| (1,2618) | 1:162:A:SER:HB2 | 1:172:A:MET:HE3 | 3 | 0.57 |
| (1,1960) | 1:134:A:PHE:HA | 1:134:A:PHE:HD1 | 11 | 0.57 |
| (1,1867) | 1:131:A:LEU:HD11 | 1:179:A:GLU:HG2 | 4 | 0.57 |
| (1,1867) | 1:131:A:LEU:HD12 | 1:179:A:GLU:HG2 | 4 | 0.57 |
| (1,1867) | 1:131:A:LEU:HD13 | 1:179:A:GLU:HG2 | 4 | 0.57 |
| (1,1867) | 1:131:A:LEU:HD21 | 1:179:A:GLU:HG2 | 4 | 0.57 |
| (1,1867) | 1:131:A:LEU:HD22 | 1:179:A:GLU:HG2 | 4 | 0.57 |
| (1,1867) | 1:131:A:LEU:HD23 | 1:179:A:GLU:HG2 | 4 | 0.57 |
| (1,1625) | 1:122:A:GLU:HB2 | 1:123:A:ASP:HA | 3 | 0.57 |
| (1,1585) | 1:101:A:PRO:HA | 1:102:A:ALA:HB2 | 6 | 0.57 |
| (1,1585) | 1:101:A:PRO:HA | 1:102:A:ALA:HB2 | 13 | 0.57 |
| (1,1585) | 1:101:A:PRO:HA | 1:102:A:ALA:HB2 | 14 | 0.57 |
| (1,1585) | 1:101:A:PRO:HA | 1:102:A:ALA:HB2 | 17 | 0.57 |
| (1,1476) | 1:92:A:TYR:HD2 | 1:97:A:THR:HA | 6 | 0.57 |
| (1,1304) | 1:83:A:ALA:HB1 | 1:84:A:LEU:HA | 12 | 0.57 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1263) | 1:80:A:HIS:HD2 | 1:83:A:ALA:HB2 | 16 | 0.57 |
| (1,605) | 1:37:A:LEU:HA | 1:102:A:ALA:HB2 | 14 | 0.57 |
| (1,205) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB1 | 5 | 0.57 |
| (1,148) | 1:15:A:TYR:H | 1:16:A:MET:HE3 | 4 | 0.57 |
| (1,129) | 1:14:A:TRP:HA | 1:16:A:MET:HE3 | 3 | 0.57 |
| (1,114) | 1:13:A:ALA:HB1 | 1:14:A:TRP:HA | 10 | 0.57 |
| (1,3287) | 1:246:A:ARG:HE | 1:290:A:HIS:HD1 | 10 | 0.56 |
| (1,3247) | 1:243:A:ILE:HD13 | 1:290:A:HIS:HA | 14 | 0.56 |
| (1,3166) | 1:241:A:LYS:HA | 1:263:A:ILE:HD13 | 15 | 0.56 |
| (1,3136) | 1:240:A:ALA:HB2 | 1:294:A:PHE:H | 16 | 0.56 |
| (1,3048) | 1:238:A:VAL:H | 1:269:A:MET:HE1 | 20 | 0.56 |
| (1,2945) | 1:185:A:SER:HB2 | 1:186:A:PRO:HA | 13 | 0.56 |
| (1,2545) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE1 | 17 | 0.56 |
| (1,1760) | 1:129:A:ARG:HA | 1:149:A:ILE:HD12 | 16 | 0.56 |
| (1,1585) | 1:101:A:PRO:HA | 1:102:A:ALA:HB2 | 12 | 0.56 |
| (1,1263) | 1:80:A:HIS:HD2 | 1:83:A:ALA:HB2 | 19 | 0.56 |
| (1,1214) | 1:78:A:PHE:HE1 | 1:87:A:PHE:HD2 | 7 | 0.56 |
| (1,1036) | 1:65:A:SER:HA | 1:66:A:LEU:HD23 | 3 | 0.56 |
| (1,249) | 1:20:A:SER:H | 1:23:A:GLU:H | 10 | 0.56 |
| (1,129) | 1:14:A:TRP:HA | 1:16:A:MET:HE3 | 1 | 0.56 |
| (1,129) | 1:14:A:TRP:HA | 1:16:A:MET:HE3 | 4 | 0.56 |
| (1,129) | 1:14:A:TRP:HA | 1:16:A:MET:HE3 | 7 | 0.56 |
| (1,3640) | 1:266:A:VAL:HG21 | 1:286:A:PHE:HZ | 3 | 0.55 |
| (1,3552) | 1:263:A:ILE:HD11 | 1:294:A:PHE:HE2 | 5 | 0.55 |
| (1,3308) | 1:247:A:VAL:HA | 1:257:A:ALA:HB2 | 9 | 0.55 |
| (1,3136) | 1:240:A:ALA:HB2 | 1:294:A:PHE:H | 17 | 0.55 |
| (1,3060) | 1:238:A:VAL:HB | 1:269:A:MET:HE1 | 19 | 0.55 |
| (1,2998) | 1:213:A:THR:H | 1:214:A:THR:HB | 16 | 0.55 |
| (1,2214) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HD11 | 6 | 0.55 |
| (1,2214) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HD12 | 6 | 0.55 |
| (1,2214) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HD13 | 6 | 0.55 |
| (1,1960) | 1:134:A:PHE:HA | 1:134:A:PHE:HD1 | 1 | 0.55 |
| (1,1960) | 1:134:A:PHE:HA | 1:134:A:PHE:HD1 | 14 | 0.55 |
| (1,1611) | 1:120:A:THR:HA | 1:121:A:ALA:H | 19 | 0.55 |
| (1,1585) | 1:101:A:PRO:HA | 1:102:A:ALA:HB2 | 2 | 0.55 |
| (1,1585) | 1:101:A:PRO:HA | 1:102:A:ALA:HB2 | 7 | 0.55 |
| (1,1227) | 1:78:A:PHE:HE2 | 1:88:A:TYR:HD1 | 8 | 0.55 |
| (1,1227) | 1:78:A:PHE:HE2 | 1:88:A:TYR:HD2 | 8 | 0.55 |
| (1,1203) | 1:78:A:PHE:HD1 | 1:83:A:ALA:HB1 | 12 | 0.55 |
| (1,605) | 1:37:A:LEU:HA | 1:102:A:ALA:HB2 | 7 | 0.55 |
| (1,201) | 1:16:A:MET:HE1 | 1:37:A:LEU:HD23 | 3 | 0.55 |
| (1,129) | 1:14:A:TRP:HA | 1:16:A:MET:HE3 | 6 | 0.55 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,129) | 1:14:A:TRP:HA | 1:16:A:MET:HE3 | 13 | 0.55 |
| (1,129) | 1:14:A:TRP:HA | 1:16:A:MET:HE3 | 14 | 0.55 |
| (1,129) | 1:14:A:TRP:HA | 1:16:A:MET:HE3 | 16 | 0.55 |
| (1,129) | 1:14:A:TRP:HA | 1:16:A:MET:HE3 | 20 | 0.55 |
| (1,3970) | 1:74:A:GLY:HA2 | 1:153:A:ILE:HD11 | 6 | 0.54 |
| (1,3970) | 1:74:A:GLY:HA2 | 1:153:A:ILE:HD12 | 6 | 0.54 |
| (1,3970) | 1:74:A:GLY:HA2 | 1:153:A:ILE:HD13 | 6 | 0.54 |
| (1,3488) | 1:258:A:LEU:HD21 | 1:279:A:VAL:HB | 7 | 0.54 |
| (1,3353) | 1:253:A:LYS:H | 1:255:A:ALA:HB2 | 2 | 0.54 |
| (1,3226) | 1:242:A:ALA:HB3 | 1:291:A:VAL:HG13 | 2 | 0.54 |
| (1,3200) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HG | 9 | 0.54 |
| (1,3166) | 1:241:A:LYS:HA | 1:263:A:ILE:HD13 | 20 | 0.54 |
| (1,3004) | 1:223:A:PRO:HA | 1:224:A:GLY:H | 13 | 0.54 |
| (1,2945) | 1:185:A:SER:HB2 | 1:186:A:PRO:HA | 15 | 0.54 |
| (1,2001) | 1:134:A:PHE:HD2 | 1:160:A:TRP:HH2 | 4 | 0.54 |
| (1,1611) | 1:120:A:THR:HA | 1:121:A:ALA:H | 2 | 0.54 |
| (1,1585) | 1:101:A:PRO:HA | 1:102:A:ALA:HB2 | 8 | 0.54 |
| (1,1585) | 1:101:A:PRO:HA | 1:102:A:ALA:HB2 | 9 | 0.54 |
| (1,1201) | 1:78:A:PHE:HA | 1:83:A:ALA:HB1 | 10 | 0.54 |
| (1,605) | 1:37:A:LEU:HA | 1:102:A:ALA:HB2 | 4 | 0.54 |
| (1,205) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB1 | 9 | 0.54 |
| (1,187) | 1:16:A:MET:H | 1:16:A:MET:HE3 | 19 | 0.54 |
| (1,129) | 1:14:A:TRP:HA | 1:16:A:MET:HE3 | 5 | 0.54 |
| (1,129) | 1:14:A:TRP:HA | 1:16:A:MET:HE3 | 17 | 0.54 |
| (1,129) | 1:14:A:TRP:HA | 1:16:A:MET:HE3 | 19 | 0.54 |
| (1,3205) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD23 | 12 | 0.53 |
| (1,3148) | 1:241:A:LYS:H | 1:263:A:ILE:HD13 | 7 | 0.53 |
| (1,3030) | 1:233:A:THR:HG1 | 1:235:A:ASN:HD22 | 5 | 0.53 |
| (1,3004) | 1:223:A:PRO:HA | 1:224:A:GLY:H | 8 | 0.53 |
| (1,3002) | 1:221:A:GLY:HA2 | 1:222:A:SER:H | 3 | 0.53 |
| (1,2989) | 1:204:A:ALA:H | 1:204:A:ALA:HB1 | 14 | 0.53 |
| (1,2618) | 1:162:A:SER:HB2 | 1:172:A:MET:HE3 | 5 | 0.53 |
| (1,2001) | 1:134:A:PHE:HD2 | 1:160:A:TRP:HH2 | 14 | 0.53 |
| (1,1960) | 1:134:A:PHE:HA | 1:134:A:PHE:HD1 | 17 | 0.53 |
| (1,1892) | 1:132:A:TYR:HD1 | 1:177:A:TYR:HA | 5 | 0.53 |
| (1,1687) | 1:127:A:TYR:HE1 | 1:151:A:VAL:HA | 9 | 0.53 |
| (1,1626) | 1:123:A:ASP:H | 1:123:A:ASP:HB2 | 1 | 0.53 |
| (1,1611) | 1:120:A:THR:HA | 1:121:A:ALA:H | 3 | 0.53 |
| (1,1585) | 1:101:A:PRO:HA | 1:102:A:ALA:HB2 | 5 | 0.53 |
| (1,1304) | 1:83:A:ALA:HB1 | 1:84:A:LEU:HA | 10 | 0.53 |
| (1,1201) | 1:78:A:PHE:HA | 1:83:A:ALA:HB1 | 16 | 0.53 |
| (1,758) | 1:49:A:VAL:H | 1:63:A:ILE:HD13 | 4 | 0.53 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,204) | 1:16:A:MET:HE1 | 1:102:A:ALA:HA | 5 | 0.53 |
| (1,203) | 1:16:A:MET:HE1 | 1:102:A:ALA:H | 15 | 0.53 |
| (1,155) | 1:15:A:TYR:HA | 1:16:A:MET:HE3 | 18 | 0.53 |
| (1,129) | 1:14:A:TRP:HA | 1:16:A:MET:HE3 | 15 | 0.53 |
| (1,42) | 1:7:A:ASP:H | 1:13:A:ALA:HB1 | 17 | 0.53 |
| (1,3429) | 1:257:A:ALA:H | 1:258:A:LEU:HD22 | 12 | 0.52 |
| (1,3226) | 1:242:A:ALA:HB3 | 1:291:A:VAL:HG13 | 5 | 0.52 |
| (1,3205) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD23 | 9 | 0.52 |
| (1,3030) | 1:233:A:THR:HG1 | 1:235:A:ASN:HD22 | 4 | 0.52 |
| (1,2656) | 1:164:A:ARG:HA | 1:165:A:ASN:HB2 | 9 | 0.52 |
| (1,2275) | 1:149:A:ILE:HA | 1:149:A:ILE:HD12 | 4 | 0.52 |
| (1,2002) | 1:134:A:PHE:HD2 | 1:174:A:PRO:HD2 | 2 | 0.52 |
| (1,1611) | 1:120:A:THR:HA | 1:121:A:ALA:H | 10 | 0.52 |
| (1,758) | 1:49:A:VAL:H | 1:63:A:ILE:HD13 | 8 | 0.52 |
| (1,205) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB1 | 16 | 0.52 |
| (1,187) | 1:16:A:MET:H | 1:16:A:MET:HE3 | 13 | 0.52 |
| (1,148) | 1:15:A:TYR:H | 1:16:A:MET:HE3 | 11 | 0.52 |
| (1,129) | 1:14:A:TRP:HA | 1:16:A:MET:HE3 | 8 | 0.52 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB2 | 17 | 0.51 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB3 | 17 | 0.51 |
| (1,3552) | 1:263:A:ILE:HD11 | 1:294:A:PHE:HE2 | 3 | 0.51 |
| (1,3328) | 1:249:A:CYS:HG | 1:251:A:TYR:HE1 | 17 | 0.51 |
| (1,3248) | 1:243:A:ILE:HD13 | 1:291:A:VAL:HA | 8 | 0.51 |
| (1,3137) | 1:240:A:ALA:HB2 | 1:294:A:PHE:HD1 | 17 | 0.51 |
| (1,3060) | 1:238:A:VAL:HB | 1:269:A:MET:HE1 | 17 | 0.51 |
| (1,3024) | 1:233:A:THR:HB | 1:234:A:GLN:HA | 14 | 0.51 |
| (1,3002) | 1:221:A:GLY:HA2 | 1:222:A:SER:H | 2 | 0.51 |
| (1,3002) | 1:221:A:GLY:HA2 | 1:222:A:SER:H | 6 | 0.51 |
| (1,2610) | 1:162:A:SER:HA | 1:172:A:MET:HE3 | 5 | 0.51 |
| (1,2610) | 1:162:A:SER:HA | 1:172:A:MET:HE3 | 12 | 0.51 |
| (1,1304) | 1:83:A:ALA:HB1 | 1:84:A:LEU:HA | 9 | 0.51 |
| (1,1263) | 1:80:A:HIS:HD2 | 1:83:A:ALA:HB2 | 4 | 0.51 |
| (1,1061) | 1:66:A:LEU:HA | 1:66:A:LEU:HD23 | 3 | 0.51 |
| (1,1036) | 1:65:A:SER:HA | 1:66:A:LEU:HD23 | 16 | 0.51 |
| (1,1036) | 1:65:A:SER:HA | 1:66:A:LEU:HD23 | 18 | 0.51 |
| (1,540) | 1:36:A:PHE:H | 1:36:A:PHE:HD2 | 14 | 0.51 |
| (1,214) | 1:16:A:MET:HE3 | 1:38:A:VAL:H | 17 | 0.51 |
| (1,155) | 1:15:A:TYR:HA | 1:16:A:MET:HE3 | 19 | 0.51 |
| (1,148) | 1:15:A:TYR:H | 1:16:A:MET:HE3 | 6 | 0.51 |
| (1,148) | 1:15:A:TYR:H | 1:16:A:MET:HE3 | 7 | 0.51 |
| (1,114) | 1:13:A:ALA:HB1 | 1:14:A:TRP:HA | 12 | 0.51 |
| (1,3969) | 1:55:A:ASN:HD21 | 1:155:A:LYS:HD2 | 8 | 0.5 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3969) | 1:55:A:ASN:HD21 | 1:155:A:LYS:HD3 | 8 | 0.5 |
| (1,3969) | 1:55:A:ASN:HD22 | 1:155:A:LYS:HD2 | 8 | 0.5 |
| (1,3969) | 1:55:A:ASN:HD22 | 1:155:A:LYS:HD3 | 8 | 0.5 |
| (1,3356) | 1:253:A:LYS:HA | 1:255:A:ALA:HB2 | 8 | 0.5 |
| (1,3247) | 1:243:A:ILE:HD13 | 1:290:A:HIS:HA | 19 | 0.5 |
| (1,3205) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD23 | 18 | 0.5 |
| (1,2945) | 1:185:A:SER:HB2 | 1:186:A:PRO:HA | 2 | 0.5 |
| (1,2618) | 1:162:A:SER:HB2 | 1:172:A:MET:HE3 | 1 | 0.5 |
| (1,2618) | 1:162:A:SER:HB2 | 1:172:A:MET:HE3 | 18 | 0.5 |
| (1,1982) | 1:134:A:PHE:HD1 | 1:177:A:TYR:HD2 | 11 | 0.5 |
| (1,1626) | 1:123:A:ASP:H | 1:123:A:ASP:HB2 | 16 | 0.5 |
| (1,1234) | 1:79:A:ASP:H | 1:83:A:ALA:HB1 | 4 | 0.5 |
| (1,758) | 1:49:A:VAL:H | 1:63:A:ILE:HD13 | 13 | 0.5 |
| (1,605) | 1:37:A:LEU:HA | 1:102:A:ALA:HB2 | 16 | 0.5 |
| (1,205) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB1 | 8 | 0.5 |
| (1,205) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB1 | 11 | 0.5 |
| (1,205) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB1 | 20 | 0.5 |
| (1,148) | 1:15:A:TYR:H | 1:16:A:MET:HE3 | 15 | 0.5 |
| (1,129) | 1:14:A:TRP:HA | 1:16:A:MET:HE3 | 18 | 0.5 |
| (1,3351) | 1:252:A:ASP:HA | 1:255:A:ALA:HB2 | 19 | 0.49 |
| (1,3148) | 1:241:A:LYS:H | 1:263:A:ILE:HD13 | 16 | 0.49 |
| (1,3137) | 1:240:A:ALA:HB2 | 1:294:A:PHE:HD1 | 12 | 0.49 |
| (1,3136) | 1:240:A:ALA:HB2 | 1:294:A:PHE:H | 14 | 0.49 |
| (1,2985) | 1:198:A:TYR:HB2 | 1:199:A:GLY:HA3 | 8 | 0.49 |
| (1,2621) | 1:162:A:SER:HG | 1:172:A:MET:HE3 | 12 | 0.49 |
| (1,2610) | 1:162:A:SER:HA | 1:172:A:MET:HE3 | 13 | 0.49 |
| (1,2610) | 1:162:A:SER:HA | 1:172:A:MET:HE3 | 15 | 0.49 |
| (1,2545) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE1 | 10 | 0.49 |
| (1,2216) | 1:144:A:PHE:HE2 | 1:174:A:PRO:HG2 | 17 | 0.49 |
| (1,1611) | 1:120:A:THR:HA | 1:121:A:ALA:H | 1 | 0.49 |
| (1,1598) | 1:112:A:SER:HA | 1:113:A:VAL:H | 16 | 0.49 |
| (1,1597) | 1:112:A:SER:HA | 1:112:A:SER:HG | 20 | 0.49 |
| (1,1424) | 1:90:A:ILE:H | 1:97:A:THR:HG22 | 9 | 0.49 |
| (1,1061) | 1:66:A:LEU:HA | 1:66:A:LEU:HD23 | 1 | 0.49 |
| (1,563) | 1:36:A:PHE:HA | 1:102:A:ALA:HB2 | 19 | 0.49 |
| (1,521) | 1:34:A:GLY:HA2 | 1:99:A:ILE:HD13 | 19 | 0.49 |
| (1,201) | 1:16:A:MET:HE1 | 1:37:A:LEU:HD23 | 8 | 0.49 |
| (1,42) | 1:7:A:ASP:H | 1:13:A:ALA:HB1 | 2 | 0.49 |
| (1,3488) | 1:258:A:LEU:HD21 | 1:279:A:VAL:HB | 12 | 0.48 |
| (1,3205) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD23 | 6 | 0.48 |
| (1,3136) | 1:240:A:ALA:HB2 | 1:294:A:PHE:H | 7 | 0.48 |
| (1,3060) | 1:238:A:VAL:HB | 1:269:A:MET:HE1 | 12 | 0.48 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2610) | 1:162:A:SER:HA | 1:172:A:MET:HE3 | 3 | 0.48 |
| (1,1960) | 1:134:A:PHE:HA | 1:134:A:PHE:HD1 | 4 | 0.48 |
| (1,1611) | 1:120:A:THR:HA | 1:121:A:ALA:H | 7 | 0.48 |
| (1,1476) | 1:92:A:TYR:HD2 | 1:97:A:THR:HA | 20 | 0.48 |
| (1,1234) | 1:79:A:ASP:H | 1:83:A:ALA:HB1 | 9 | 0.48 |
| (1,1050) | 1:66:A:LEU:H | 1:66:A:LEU:HD23 | 7 | 0.48 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD11 | 11 | 0.48 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD12 | 11 | 0.48 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD13 | 11 | 0.48 |
| (1,616) | 1:37:A:LEU:HG | 1:102:A:ALA:HB2 | 20 | 0.48 |
| (1,210) | 1:16:A:MET:HE2 | 1:104:A:ARG:HA | 10 | 0.48 |
| (1,3439) | 1:257:A:ALA:HB1 | 1:282:A:ARG:HH12 | 8 | 0.47 |
| (1,3226) | 1:242:A:ALA:HB3 | 1:291:A:VAL:HG13 | 8 | 0.47 |
| (1,3226) | 1:242:A:ALA:HB3 | 1:291:A:VAL:HG13 | 20 | 0.47 |
| (1,3219) | 1:242:A:ALA:HB2 | 1:261:A:GLY:H | 9 | 0.47 |
| (1,3136) | 1:240:A:ALA:HB2 | 1:294:A:PHE:H | 6 | 0.47 |
| (1,3133) | 1:240:A:ALA:HB2 | 1:293:A:ILE:H | 20 | 0.47 |
| (1,3046) | 1:238:A:VAL:H | 1:266:A:VAL:HG13 | 17 | 0.47 |
| (1,2610) | 1:162:A:SER:HA | 1:172:A:MET:HE3 | 1 | 0.47 |
| (1,2610) | 1:162:A:SER:HA | 1:172:A:MET:HE3 | 19 | 0.47 |
| (1,1036) | 1:65:A:SER:HA | 1:66:A:LEU:HD23 | 6 | 0.47 |
| (1,616) | 1:37:A:LEU:HG | 1:102:A:ALA:HB2 | 5 | 0.47 |
| (1,563) | 1:36:A:PHE:HA | 1:102:A:ALA:HB2 | 3 | 0.47 |
| (1,187) | 1:16:A:MET:H | 1:16:A:MET:HE3 | 18 | 0.47 |
| (1,42) | 1:7:A:ASP:H | 1:13:A:ALA:HB1 | 3 | 0.47 |
| (1,42) | 1:7:A:ASP:H | 1:13:A:ALA:HB1 | 18 | 0.47 |
| (1,3680) | 1:269:A:MET:HE3 | 1:286:A:PHE:HZ | 10 | 0.46 |
| (1,3587) | 1:264:A:VAL:HG13 | 1:279:A:VAL:HG23 | 4 | 0.46 |
| (1,3351) | 1:252:A:ASP:HA | 1:255:A:ALA:HB2 | 13 | 0.46 |
| (1,3133) | 1:240:A:ALA:HB2 | 1:293:A:ILE:H | 2 | 0.46 |
| (1,3133) | 1:240:A:ALA:HB2 | 1:293:A:ILE:H | 15 | 0.46 |
| (1,2002) | 1:134:A:PHE:HD2 | 1:174:A:PRO:HD2 | 17 | 0.46 |
| (1,540) | 1:36:A:PHE:H | 1:36:A:PHE:HD2 | 8 | 0.46 |
| (1,203) | 1:16:A:MET:HE1 | 1:102:A:ALA:H | 3 | 0.46 |
| (1,202) | 1:16:A:MET:HE1 | 1:101:A:PRO:HA | 15 | 0.46 |
| (1,187) | 1:16:A:MET:H | 1:16:A:MET:HE3 | 2 | 0.46 |
| (1,148) | 1:15:A:TYR:H | 1:16:A:MET:HE3 | 3 | 0.46 |
| (1,3587) | 1:264:A:VAL:HG13 | 1:279:A:VAL:HG23 | 3 | 0.45 |
| (1,3488) | 1:258:A:LEU:HD21 | 1:279:A:VAL:HB | 8 | 0.45 |
| (1,3351) | 1:252:A:ASP:HA | 1:255:A:ALA:HB2 | 15 | 0.45 |
| (1,3217) | 1:242:A:ALA:HB2 | 1:259:A:GLU:H | 9 | 0.45 |
| (1,3133) | 1:240:A:ALA:HB2 | 1:293:A:ILE:H | 8 | 0.45 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3006) | 1:226:A:ALA:HA | 1:227:A:ILE:H | 8 | 0.45 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD11 | 11 | 0.45 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD12 | 11 | 0.45 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD13 | 11 | 0.45 |
| (1,2618) | 1:162:A:SER:HB2 | 1:172:A:MET:HE3 | 16 | 0.45 |
| (1,2610) | 1:162:A:SER:HA | 1:172:A:MET:HE3 | 4 | 0.45 |
| (1,2610) | 1:162:A:SER:HA | 1:172:A:MET:HE3 | 9 | 0.45 |
| (1,2610) | 1:162:A:SER:HA | 1:172:A:MET:HE3 | 10 | 0.45 |
| (1,2610) | 1:162:A:SER:HA | 1:172:A:MET:HE3 | 18 | 0.45 |
| (1,2546) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE2 | 6 | 0.45 |
| (1,2275) | 1:149:A:ILE:HA | 1:149:A:ILE:HD12 | 14 | 0.45 |
| (1,1882) | 1:132:A:TYR:HB2 | 1:132:A:TYR:HD1 | 7 | 0.45 |
| (1,1882) | 1:132:A:TYR:HB2 | 1:132:A:TYR:HD1 | 20 | 0.45 |
| (1,1036) | 1:65:A:SER:HA | 1:66:A:LEU:HD23 | 14 | 0.45 |
| (1,397) | 1:27:A:ARG:HH11 | 1:37:A:LEU:HD23 | 15 | 0.45 |
| (1,187) | 1:16:A:MET:H | 1:16:A:MET:HE3 | 5 | 0.45 |
| (1,187) | 1:16:A:MET:H | 1:16:A:MET:HE3 | 20 | 0.45 |
| (1,115) | 1:13:A:ALA:HB1 | 1:14:A:TRP:HD1 | 7 | 0.45 |
| (1,3440) | 1:257:A:ALA:HB1 | 1:282:A:ARG:HH22 | 6 | 0.44 |
| (1,3356) | 1:253:A:LYS:HA | 1:255:A:ALA:HB2 | 15 | 0.44 |
| (1,3321) | 1:249:A:CYS:H | 1:255:A:ALA:HB2 | 7 | 0.44 |
| (1,3205) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD23 | 15 | 0.44 |
| (1,3085) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HD12 | 13 | 0.44 |
| (1,2656) | 1:164:A:ARG:HA | 1:165:A:ASN:HB2 | 12 | 0.44 |
| (1,2618) | 1:162:A:SER:HB2 | 1:172:A:MET:HE3 | 4 | 0.44 |
| (1,2595) | 1:162:A:SER:H | 1:172:A:MET:HE3 | 10 | 0.44 |
| (1,2595) | 1:162:A:SER:H | 1:172:A:MET:HE3 | 12 | 0.44 |
| (1,2546) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE2 | 14 | 0.44 |
| (1,2545) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE1 | 1 | 0.44 |
| (1,2462) | 1:156:A:PRO:HD2 | 1:172:A:MET:HG2 | 12 | 0.44 |
| (1,2286) | 1:149:A:ILE:HD12 | 1:150:A:LEU:H | 19 | 0.44 |
| (1,1882) | 1:132:A:TYR:HB2 | 1:132:A:TYR:HD1 | 5 | 0.44 |
| (1,1882) | 1:132:A:TYR:HB2 | 1:132:A:TYR:HD1 | 13 | 0.44 |
| (1,1263) | 1:80:A:HIS:HD2 | 1:83:A:ALA:HB2 | 13 | 0.44 |
| (1,1061) | 1:66:A:LEU:HA | 1:66:A:LEU:HD23 | 14 | 0.44 |
| (1,1036) | 1:65:A:SER:HA | 1:66:A:LEU:HD23 | 15 | 0.44 |
| (1,758) | 1:49:A:VAL:H | 1:63:A:ILE:HD13 | 17 | 0.44 |
| (1,397) | 1:27:A:ARG:HH11 | 1:37:A:LEU:HD23 | 17 | 0.44 |
| (1,274) | 1:21:A:ARG:HA | 1:39:A:ARG:HH21 | 12 | 0.44 |
| (1,214) | 1:16:A:MET:HE3 | 1:38:A:VAL:H | 12 | 0.44 |
| (1,204) | 1:16:A:MET:HE1 | 1:102:A:ALA:HA | 16 | 0.44 |
| (1,155) | 1:15:A:TYR:HA | 1:16:A:MET:HE3 | 11 | 0.44 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,155) | 1:15:A:TYR:HA | 1:16:A:MET:HE3 | 16 | 0.44 |
| (1,3552) | 1:263:A:ILE:HD11 | 1:294:A:PHE:HE2 | 10 | 0.43 |
| (1,3351) | 1:252:A:ASP:HA | 1:255:A:ALA:HB2 | 3 | 0.43 |
| (1,3139) | 1:240:A:ALA:HB3 | 1:264:A:VAL:H | 19 | 0.43 |
| (1,3054) | 1:238:A:VAL:HA | 1:269:A:MET:HE1 | 12 | 0.43 |
| (1,3048) | 1:238:A:VAL:H | 1:269:A:MET:HE1 | 13 | 0.43 |
| (1,2610) | 1:162:A:SER:HA | 1:172:A:MET:HE3 | 7 | 0.43 |
| (1,2610) | 1:162:A:SER:HA | 1:172:A:MET:HE3 | 14 | 0.43 |
| (1,2570) | 1:161:A:TRP:HA | 1:172:A:MET:HE2 | 11 | 0.43 |
| (1,2545) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE1 | 3 | 0.43 |
| (1,2545) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE1 | 5 | 0.43 |
| (1,1898) | 1:132:A:TYR:HE2 | 1:177:A:TYR:HH | 19 | 0.43 |
| (1,1882) | 1:132:A:TYR:HB2 | 1:132:A:TYR:HD1 | 15 | 0.43 |
| (1,1882) | 1:132:A:TYR:HB2 | 1:132:A:TYR:HD1 | 16 | 0.43 |
| (1,1882) | 1:132:A:TYR:HB2 | 1:132:A:TYR:HD1 | 17 | 0.43 |
| (1,1476) | 1:92:A:TYR:HD2 | 1:97:A:THR:HA | 15 | 0.43 |
| (1,1263) | 1:80:A:HIS:HD2 | 1:83:A:ALA:HB2 | 5 | 0.43 |
| (1,1227) | 1:78:A:PHE:HE2 | 1:88:A:TYR:HD1 | 7 | 0.43 |
| (1,1227) | 1:78:A:PHE:HE2 | 1:88:A:TYR:HD2 | 7 | 0.43 |
| (1,1061) | 1:66:A:LEU:HA | 1:66:A:LEU:HD23 | 10 | 0.43 |
| (1,1050) | 1:66:A:LEU:H | 1:66:A:LEU:HD23 | 5 | 0.43 |
| (1,758) | 1:49:A:VAL:H | 1:63:A:ILE:HD13 | 2 | 0.43 |
| (1,758) | 1:49:A:VAL:H | 1:63:A:ILE:HD13 | 15 | 0.43 |
| (1,605) | 1:37:A:LEU:HA | 1:102:A:ALA:HB2 | 15 | 0.43 |
| (1,605) | 1:37:A:LEU:HA | 1:102:A:ALA:HB2 | 19 | 0.43 |
| (1,540) | 1:36:A:PHE:H | 1:36:A:PHE:HD2 | 18 | 0.43 |
| (1,521) | 1:34:A:GLY:HA2 | 1:99:A:ILE:HD13 | 9 | 0.43 |
| (1,521) | 1:34:A:GLY:HA2 | 1:99:A:ILE:HD13 | 15 | 0.43 |
| (1,214) | 1:16:A:MET:HE3 | 1:38:A:VAL:H | 18 | 0.43 |
| (1,205) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB1 | 13 | 0.43 |
| (1,3677) | 1:269:A:MET:HE3 | 1:275:A:TRP:HZ3 | 9 | 0.42 |
| (1,3378) | 1:255:A:ALA:H | 1:255:A:ALA:HB2 | 17 | 0.42 |
| (1,3205) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD23 | 1 | 0.42 |
| (1,3166) | 1:241:A:LYS:HA | 1:263:A:ILE:HD13 | 12 | 0.42 |
| (1,3060) | 1:238:A:VAL:HB | 1:269:A:MET:HE1 | 1 | 0.42 |
| (1,3006) | 1:226:A:ALA:HA | 1:227:A:ILE:H | 17 | 0.42 |
| (1,2917) | 1:182:A:VAL:HA | 1:182:A:VAL:HG13 | 1 | 0.42 |
| (1,2610) | 1:162:A:SER:HA | 1:172:A:MET:HE3 | 20 | 0.42 |
| (1,1882) | 1:132:A:TYR:HB2 | 1:132:A:TYR:HD1 | 8 | 0.42 |
| (1,1882) | 1:132:A:TYR:HB2 | 1:132:A:TYR:HD1 | 9 | 0.42 |
| (1,1882) | 1:132:A:TYR:HB2 | 1:132:A:TYR:HD1 | 19 | 0.42 |
| (1,1796) | 1:130:A:THR:H | 1:144:A:PHE:HD1 | 6 | 0.42 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1626) | 1:123:A:ASP:H | 1:123:A:ASP:HB2 | 8 | 0.42 |
| (1,1061) | 1:66:A:LEU:HA | 1:66:A:LEU:HD23 | 7 | 0.42 |
| (1,1050) | 1:66:A:LEU:H | 1:66:A:LEU:HD23 | 18 | 0.42 |
| (1,1036) | 1:65:A:SER:HA | 1:66:A:LEU:HD23 | 2 | 0.42 |
| (1,563) | 1:36:A:PHE:HA | 1:102:A:ALA:HB2 | 1 | 0.42 |
| (1,521) | 1:34:A:GLY:HA2 | 1:99:A:ILE:HD13 | 10 | 0.42 |
| (1,204) | 1:16:A:MET:HE1 | 1:102:A:ALA:HA | 18 | 0.42 |
| (1,201) | 1:16:A:MET:HE1 | 1:37:A:LEU:HD23 | 1 | 0.42 |
| (1,148) | 1:15:A:TYR:H | 1:16:A:MET:HE3 | 14 | 0.42 |
| (1,129) | 1:14:A:TRP:HA | 1:16:A:MET:HE3 | 2 | 0.42 |
| (1,3378) | 1:255:A:ALA:H | 1:255:A:ALA:HB2 | 11 | 0.41 |
| (1,3351) | 1:252:A:ASP:HA | 1:255:A:ALA:HB2 | 4 | 0.41 |
| (1,3308) | 1:247:A:VAL:HA | 1:257:A:ALA:HB2 | 18 | 0.41 |
| (1,3004) | 1:223:A:PRO:HA | 1:224:A:GLY:H | 12 | 0.41 |
| (1,2914) | 1:182:A:VAL:H | 1:182:A:VAL:HG21 | 14 | 0.41 |
| (1,2594) | 1:162:A:SER:H | 1:172:A:MET:HE2 | 11 | 0.41 |
| (1,2546) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE2 | 9 | 0.41 |
| (1,2521) | 1:160:A:TRP:H | 1:172:A:MET:HE1 | 1 | 0.41 |
| (1,2274) | 1:149:A:ILE:H | 1:166:A:LYS:HE2 | 12 | 0.41 |
| (1,2220) | 1:144:A:PHE:HD2 | 1:150:A:LEU:HD11 | 6 | 0.41 |
| (1,2220) | 1:144:A:PHE:HD2 | 1:150:A:LEU:HD12 | 6 | 0.41 |
| (1,2220) | 1:144:A:PHE:HD2 | 1:150:A:LEU:HD13 | 6 | 0.41 |
| (1,2220) | 1:144:A:PHE:HD2 | 1:150:A:LEU:HD21 | 6 | 0.41 |
| (1,2220) | 1:144:A:PHE:HD2 | 1:150:A:LEU:HD22 | 6 | 0.41 |
| (1,2220) | 1:144:A:PHE:HD2 | 1:150:A:LEU:HD23 | 6 | 0.41 |
| (1,1892) | 1:132:A:TYR:HD1 | 1:177:A:TYR:HA | 4 | 0.41 |
| (1,1882) | 1:132:A:TYR:HB2 | 1:132:A:TYR:HD1 | 11 | 0.41 |
| (1,1882) | 1:132:A:TYR:HB2 | 1:132:A:TYR:HD1 | 14 | 0.41 |
| (1,1243) | 1:80:A:HIS:H | 1:83:A:ALA:HB1 | 7 | 0.41 |
| (1,1214) | 1:78:A:PHE:HE1 | 1:87:A:PHE:HD2 | 8 | 0.41 |
| (1,1050) | 1:66:A:LEU:H | 1:66:A:LEU:HD23 | 13 | 0.41 |
| (1,1050) | 1:66:A:LEU:H | 1:66:A:LEU:HD23 | 20 | 0.41 |
| (1,1036) | 1:65:A:SER:HA | 1:66:A:LEU:HD23 | 11 | 0.41 |
| (1,1036) | 1:65:A:SER:HA | 1:66:A:LEU:HD23 | 20 | 0.41 |
| (1,758) | 1:49:A:VAL:H | 1:63:A:ILE:HD13 | 5 | 0.41 |
| (1,758) | 1:49:A:VAL:H | 1:63:A:ILE:HD13 | 20 | 0.41 |
| (1,540) | 1:36:A:PHE:H | 1:36:A:PHE:HD2 | 20 | 0.41 |
| (1,204) | 1:16:A:MET:HE1 | 1:102:A:ALA:HA | 13 | 0.41 |
| (1,77) | 1:10:A:ASP:HA | 1:14:A:TRP:HE1 | 10 | 0.41 |
| (1,3678) | 1:269:A:MET:HE3 | 1:275:A:TRP:HZ2 | 10 | 0.4 |
| (1,3677) | 1:269:A:MET:HE3 | 1:275:A:TRP:HZ3 | 10 | 0.4 |
| (1,3351) | 1:252:A:ASP:HA | 1:255:A:ALA:HB2 | 7 | 0.4 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3200) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HG | 12 | 0.4 |
| (1,3166) | 1:241:A:LYS:HA | 1:263:A:ILE:HD13 | 10 | 0.4 |
| (1,3166) | 1:241:A:LYS:HA | 1:263:A:ILE:HD13 | 17 | 0.4 |
| (1,3004) | 1:223:A:PRO:HA | 1:224:A:GLY:H | 15 | 0.4 |
| (1,2995) | 1:211:A:GLN:HB2 | 1:212:A:THR:HA | 17 | 0.4 |
| (1,2621) | 1:162:A:SER:HG | 1:172:A:MET:HE3 | 19 | 0.4 |
| (1,2545) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE1 | 18 | 0.4 |
| (1,2545) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE1 | 19 | 0.4 |
| (1,2275) | 1:149:A:ILE:HA | 1:149:A:ILE:HD12 | 17 | 0.4 |
| (1,1882) | 1:132:A:TYR:HB2 | 1:132:A:TYR:HD1 | 4 | 0.4 |
| (1,1882) | 1:132:A:TYR:HB2 | 1:132:A:TYR:HD1 | 12 | 0.4 |
| (1,1882) | 1:132:A:TYR:HB2 | 1:132:A:TYR:HD1 | 18 | 0.4 |
| (1,1618) | 1:122:A:GLU:H | 1:122:A:GLU:HB2 | 15 | 0.4 |
| (1,1617) | 1:121:A:ALA:H | 1:122:A:GLU:HB2 | 4 | 0.4 |
| (1,1617) | 1:121:A:ALA:H | 1:122:A:GLU:HB3 | 4 | 0.4 |
| (1,1605) | 1:115:A:ALA:H | 1:115:A:ALA:HB1 | 9 | 0.4 |
| (1,1234) | 1:79:A:ASP:H | 1:83:A:ALA:HB1 | 17 | 0.4 |
| (1,1050) | 1:66:A:LEU:H | 1:66:A:LEU:HD23 | 16 | 0.4 |
| (1,616) | 1:37:A:LEU:HG | 1:102:A:ALA:HB2 | 8 | 0.4 |
| (1,540) | 1:36:A:PHE:H | 1:36:A:PHE:HD2 | 2 | 0.4 |
| (1,540) | 1:36:A:PHE:H | 1:36:A:PHE:HD2 | 15 | 0.4 |
| (1,214) | 1:16:A:MET:HE3 | 1:38:A:VAL:H | 9 | 0.4 |
| (1,202) | 1:16:A:MET:HE1 | 1:101:A:PRO:HA | 1 | 0.4 |
| (1,70) | 1:10:A:ASP:H | 1:14:A:TRP:HD1 | 12 | 0.4 |
| (1,3677) | 1:269:A:MET:HE3 | 1:275:A:TRP:HZ3 | 12 | 0.39 |
| (1,3497) | 1:258:A:LEU:HD23 | 1:264:A:VAL:HG22 | 4 | 0.39 |
| (1,3497) | 1:258:A:LEU:HD23 | 1:264:A:VAL:HG22 | 8 | 0.39 |
| (1,3308) | 1:247:A:VAL:HA | 1:257:A:ALA:HB2 | 2 | 0.39 |
| (1,3216) | 1:242:A:ALA:HB2 | 1:258:A:LEU:HD23 | 2 | 0.39 |
| (1,3137) | 1:240:A:ALA:HB2 | 1:294:A:PHE:HD1 | 3 | 0.39 |
| (1,3088) | 1:239:A:PHE:HD1 | 1:265:A:LYS:HA | 14 | 0.39 |
| (1,3030) | 1:233:A:THR:HG1 | 1:235:A:ASN:HD22 | 1 | 0.39 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD11 | 7 | 0.39 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD12 | 7 | 0.39 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD13 | 7 | 0.39 |
| (1,2521) | 1:160:A:TRP:H | 1:172:A:MET:HE1 | 20 | 0.39 |
| (1,2364) | 1:152:A:ILE:HA | 1:163:A:ALA:HB2 | 2 | 0.39 |
| (1,2275) | 1:149:A:ILE:HA | 1:149:A:ILE:HD12 | 20 | 0.39 |
| (1,1982) | 1:134:A:PHE:HD1 | 1:177:A:TYR:HD2 | 1 | 0.39 |
| (1,1243) | 1:80:A:HIS:H | 1:83:A:ALA:HB1 | 11 | 0.39 |
| (1,1234) | 1:79:A:ASP:H | 1:83:A:ALA:HB1 | 3 | 0.39 |
| (1,1234) | 1:79:A:ASP:H | 1:83:A:ALA:HB1 | 6 | 0.39 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1061) | 1:66:A:LEU:HA | 1:66:A:LEU:HD23 | 4 | 0.39 |
| (1,1050) | 1:66:A:LEU:H | 1:66:A:LEU:HD23 | 3 | 0.39 |
| (1,1050) | 1:66:A:LEU:H | 1:66:A:LEU:HD23 | 14 | 0.39 |
| (1,1036) | 1:65:A:SER:HA | 1:66:A:LEU:HD23 | 4 | 0.39 |
| (1,214) | 1:16:A:MET:HE3 | 1:38:A:VAL:H | 10 | 0.39 |
| (1,204) | 1:16:A:MET:HE1 | 1:102:A:ALA:HA | 17 | 0.39 |
| (1,3867) | 1:286:A:PHE:HE2 | 1:291:A:VAL:HG23 | 6 | 0.38 |
| (1,3496) | 1:258:A:LEU:HD23 | 1:264:A:VAL:HA | 13 | 0.38 |
| (1,3488) | 1:258:A:LEU:HD21 | 1:279:A:VAL:HB | 15 | 0.38 |
| (1,3378) | 1:255:A:ALA:H | 1:255:A:ALA:HB2 | 12 | 0.38 |
| (1,3217) | 1:242:A:ALA:HB2 | 1:259:A:GLU:H | 17 | 0.38 |
| (1,3148) | 1:241:A:LYS:H | 1:263:A:ILE:HD13 | 6 | 0.38 |
| (1,3001) | 1:220:A:SER:HA | 1:221:A:GLY:H | 12 | 0.38 |
| (1,2983) | 1:198:A:TYR:H | 1:198:A:TYR:HB2 | 6 | 0.38 |
| (1,2521) | 1:160:A:TRP:H | 1:172:A:MET:HE1 | 19 | 0.38 |
| (1,2364) | 1:152:A:ILE:HA | 1:163:A:ALA:HB2 | 7 | 0.38 |
| (1,2286) | 1:149:A:ILE:HD12 | 1:150:A:LEU:H | 11 | 0.38 |
| (1,1991) | 1:134:A:PHE:HE2 | 1:160:A:TRP:HH2 | 14 | 0.38 |
| (1,1942) | 1:133:A:ASP:HB2 | 1:146:A:LYS:HG2 | 1 | 0.38 |
| (1,1243) | 1:80:A:HIS:H | 1:83:A:ALA:HB1 | 8 | 0.38 |
| (1,1234) | 1:79:A:ASP:H | 1:83:A:ALA:HB1 | 10 | 0.38 |
| (1,1061) | 1:66:A:LEU:HA | 1:66:A:LEU:HD23 | 5 | 0.38 |
| (1,1061) | 1:66:A:LEU:HA | 1:66:A:LEU:HD23 | 12 | 0.38 |
| (1,758) | 1:49:A:VAL:H | 1:63:A:ILE:HD13 | 1 | 0.38 |
| (1,605) | 1:37:A:LEU:HA | 1:102:A:ALA:HB2 | 1 | 0.38 |
| (1,540) | 1:36:A:PHE:H | 1:36:A:PHE:HD2 | 16 | 0.38 |
| (1,307) | 1:22:A:GLN:H | 1:22:A:GLN:HE21 | 20 | 0.38 |
| (1,3972) | 1:76:A:GLN:HG2 | 1:169:A:ARG:HA | 20 | 0.37 |
| (1,3972) | 1:76:A:GLN:HG3 | 1:169:A:ARG:HA | 20 | 0.37 |
| (1,3378) | 1:255:A:ALA:H | 1:255:A:ALA:HB2 | 3 | 0.37 |
| (1,3378) | 1:255:A:ALA:H | 1:255:A:ALA:HB2 | 16 | 0.37 |
| (1,3353) | 1:253:A:LYS:H | 1:255:A:ALA:HB2 | 5 | 0.37 |
| (1,3219) | 1:242:A:ALA:HB2 | 1:261:A:GLY:H | 4 | 0.37 |
| (1,3219) | 1:242:A:ALA:HB2 | 1:261:A:GLY:H | 12 | 0.37 |
| (1,3210) | 1:242:A:ALA:HB1 | 1:291:A:VAL:HB | 9 | 0.37 |
| (1,3199) | 1:242:A:ALA:HB1 | 1:244:A:GLN:H | 7 | 0.37 |
| (1,3133) | 1:240:A:ALA:HB2 | 1:293:A:ILE:H | 16 | 0.37 |
| (1,3133) | 1:240:A:ALA:HB2 | 1:293:A:ILE:H | 17 | 0.37 |
| (1,3048) | 1:238:A:VAL:H | 1:269:A:MET:HE1 | 12 | 0.37 |
| (1,2610) | 1:162:A:SER:HA | 1:172:A:MET:HE3 | 16 | 0.37 |
| (1,2595) | 1:162:A:SER:H | 1:172:A:MET:HE3 | 9 | 0.37 |
| (1,2545) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE1 | 13 | 0.37 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2364) | 1:152:A:ILE:HA | 1:163:A:ALA:HB2 | 20 | 0.37 |
| (1,2345) | 1:151:A:VAL:HB | 1:164:A:ARG:HG2 | 9 | 0.37 |
| (1,2229) | 1:145:A:LYS:H | 1:146:A:LYS:HD2 | 3 | 0.37 |
| (1,2215) | 1:144:A:PHE:HE2 | 1:174:A:PRO:HB2 | 6 | 0.37 |
| (1,2215) | 1:144:A:PHE:HE2 | 1:174:A:PRO:HB3 | 6 | 0.37 |
| (1,1447) | 1:92:A:TYR:H | 1:97:A:THR:HG22 | 10 | 0.37 |
| (1,1036) | 1:65:A:SER:HA | 1:66:A:LEU:HD23 | 19 | 0.37 |
| (1,540) | 1:36:A:PHE:H | 1:36:A:PHE:HD2 | 4 | 0.37 |
| (1,187) | 1:16:A:MET:H | 1:16:A:MET:HE3 | 12 | 0.37 |
| (1,148) | 1:15:A:TYR:H | 1:16:A:MET:HE3 | 1 | 0.37 |
| (1,3485) | 1:258:A:LEU:HD21 | 1:264:A:VAL:HB | 1 | 0.36 |
| (1,3378) | 1:255:A:ALA:H | 1:255:A:ALA:HB2 | 1 | 0.36 |
| (1,3378) | 1:255:A:ALA:H | 1:255:A:ALA:HB2 | 5 | 0.36 |
| (1,3360) | 1:254:A:THR:H | 1:255:A:ALA:HB2 | 7 | 0.36 |
| (1,3360) | 1:254:A:THR:H | 1:255:A:ALA:HB2 | 14 | 0.36 |
| (1,3351) | 1:252:A:ASP:HA | 1:255:A:ALA:HB2 | 11 | 0.36 |
| (1,3328) | 1:249:A:CYS:HG | 1:251:A:TYR:HE1 | 5 | 0.36 |
| (1,3308) | 1:247:A:VAL:HA | 1:257:A:ALA:HB2 | 19 | 0.36 |
| (1,3137) | 1:240:A:ALA:HB2 | 1:294:A:PHE:HD1 | 13 | 0.36 |
| (1,3136) | 1:240:A:ALA:HB2 | 1:294:A:PHE:H | 8 | 0.36 |
| (1,3133) | 1:240:A:ALA:HB2 | 1:293:A:ILE:H | 4 | 0.36 |
| (1,3090) | 1:239:A:PHE:HE1 | 1:265:A:LYS:HA | 14 | 0.36 |
| (1,3054) | 1:238:A:VAL:HA | 1:269:A:MET:HE1 | 9 | 0.36 |
| (1,3004) | 1:223:A:PRO:HA | 1:224:A:GLY:H | 18 | 0.36 |
| (1,2992) | 1:207:A:TYR:HA | 1:207:A:TYR:HD1 | 9 | 0.36 |
| (1,2983) | 1:198:A:TYR:H | 1:198:A:TYR:HB2 | 10 | 0.36 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD11 | 14 | 0.36 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD12 | 14 | 0.36 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD13 | 14 | 0.36 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD11 | 15 | 0.36 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD12 | 15 | 0.36 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD13 | 15 | 0.36 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD11 | 16 | 0.36 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD12 | 16 | 0.36 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD13 | 16 | 0.36 |
| (1,1263) | 1:80:A:HIS:HD2 | 1:83:A:ALA:HB2 | 18 | 0.36 |
| (1,1061) | 1:66:A:LEU:HA | 1:66:A:LEU:HD23 | 2 | 0.36 |
| (1,1061) | 1:66:A:LEU:HA | 1:66:A:LEU:HD23 | 8 | 0.36 |
| (1,1061) | 1:66:A:LEU:HA | 1:66:A:LEU:HD23 | 15 | 0.36 |
| (1,1050) | 1:66:A:LEU:H | 1:66:A:LEU:HD23 | 11 | 0.36 |
| (1,758) | 1:49:A:VAL:H | 1:63:A:ILE:HD13 | 3 | 0.36 |
| (1,758) | 1:49:A:VAL:H | 1:63:A:ILE:HD13 | 11 | 0.36 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,709) | 1:43:A:THR:HG1 | 1:62:A:ILE:HD11 | 18 | 0.36 |
| (1,204) | 1:16:A:MET:HE1 | 1:102:A:ALA:HA | 8 | 0.36 |
| (1,11) | 1:4:A:ALA:HA | 1:99:A:ILE:HD12 | 11 | 0.36 |
| (1,3695) | 1:270:A:ASN:HA | 1:273:A:GLY:H | 9 | 0.35 |
| (1,3440) | 1:257:A:ALA:HB1 | 1:282:A:ARG:HH22 | 19 | 0.35 |
| (1,3378) | 1:255:A:ALA:H | 1:255:A:ALA:HB2 | 2 | 0.35 |
| (1,3133) | 1:240:A:ALA:HB2 | 1:293:A:ILE:H | 3 | 0.35 |
| (1,3133) | 1:240:A:ALA:HB2 | 1:293:A:ILE:H | 7 | 0.35 |
| (1,3054) | 1:238:A:VAL:HA | 1:269:A:MET:HE1 | 2 | 0.35 |
| (1,2621) | 1:162:A:SER:HG | 1:172:A:MET:HE3 | 10 | 0.35 |
| (1,2545) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE1 | 20 | 0.35 |
| (1,2374) | 1:152:A:ILE:HD11 | 1:163:A:ALA:HB3 | 9 | 0.35 |
| (1,2374) | 1:152:A:ILE:HD12 | 1:163:A:ALA:HB3 | 9 | 0.35 |
| (1,2374) | 1:152:A:ILE:HD13 | 1:163:A:ALA:HB3 | 9 | 0.35 |
| (1,2364) | 1:152:A:ILE:HA | 1:163:A:ALA:HB2 | 19 | 0.35 |
| (1,1061) | 1:66:A:LEU:HA | 1:66:A:LEU:HD23 | 6 | 0.35 |
| (1,1061) | 1:66:A:LEU:HA | 1:66:A:LEU:HD23 | 9 | 0.35 |
| (1,1061) | 1:66:A:LEU:HA | 1:66:A:LEU:HD23 | 16 | 0.35 |
| (1,1061) | 1:66:A:LEU:HA | 1:66:A:LEU:HD23 | 17 | 0.35 |
| (1,1061) | 1:66:A:LEU:HA | 1:66:A:LEU:HD23 | 18 | 0.35 |
| (1,616) | 1:37:A:LEU:HG | 1:102:A:ALA:HB2 | 1 | 0.35 |
| (1,540) | 1:36:A:PHE:H | 1:36:A:PHE:HD2 | 13 | 0.35 |
| (1,201) | 1:16:A:MET:HE1 | 1:37:A:LEU:HD23 | 20 | 0.35 |
| (1,3971) | 1:75:A:ASP:HB2 | 1:168:A:GLY:HA2 | 17 | 0.34 |
| (1,3971) | 1:75:A:ASP:HB2 | 1:168:A:GLY:HA3 | 17 | 0.34 |
| (1,3488) | 1:258:A:LEU:HD21 | 1:279:A:VAL:HB | 2 | 0.34 |
| (1,3488) | 1:258:A:LEU:HD21 | 1:279:A:VAL:HB | 9 | 0.34 |
| (1,3414) | 1:256:A:LEU:HD11 | 1:279:A:VAL:HB | 9 | 0.34 |
| (1,3414) | 1:256:A:LEU:HD12 | 1:279:A:VAL:HB | 9 | 0.34 |
| (1,3414) | 1:256:A:LEU:HD13 | 1:279:A:VAL:HB | 9 | 0.34 |
| (1,3414) | 1:256:A:LEU:HD21 | 1:279:A:VAL:HB | 9 | 0.34 |
| (1,3414) | 1:256:A:LEU:HD22 | 1:279:A:VAL:HB | 9 | 0.34 |
| (1,3414) | 1:256:A:LEU:HD23 | 1:279:A:VAL:HB | 9 | 0.34 |
| (1,3378) | 1:255:A:ALA:H | 1:255:A:ALA:HB2 | 4 | 0.34 |
| (1,3002) | 1:221:A:GLY:HA2 | 1:222:A:SER:H | 1 | 0.34 |
| (1,2993) | 1:210:A:PRO:HA | 1:211:A:GLN:H | 13 | 0.34 |
| (1,2961) | 1:187:A:HIS:HB2 | 1:187:A:HIS:HD1 | 11 | 0.34 |
| (1,2546) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE2 | 12 | 0.34 |
| (1,2545) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE1 | 4 | 0.34 |
| (1,2364) | 1:152:A:ILE:HA | 1:163:A:ALA:HB2 | 13 | 0.34 |
| (1,1626) | 1:123:A:ASP:H | 1:123:A:ASP:HB2 | 13 | 0.34 |
| (1,1596) | 1:112:A:SER:H | 1:112:A:SER:HB2 | 5 | 0.34 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1260) | 1:80:A:HIS:HD1 | 1:83:A:ALA:HB2 | 17 | 0.34 |
| (1,1243) | 1:80:A:HIS:H | 1:83:A:ALA:HB1 | 4 | 0.34 |
| (1,1234) | 1:79:A:ASP:H | 1:83:A:ALA:HB1 | 2 | 0.34 |
| (1,1234) | 1:79:A:ASP:H | 1:83:A:ALA:HB1 | 8 | 0.34 |
| (1,1061) | 1:66:A:LEU:HA | 1:66:A:LEU:HD23 | 13 | 0.34 |
| (1,1050) | 1:66:A:LEU:H | 1:66:A:LEU:HD23 | 2 | 0.34 |
| (1,758) | 1:49:A:VAL:H | 1:63:A:ILE:HD13 | 16 | 0.34 |
| (1,274) | 1:21:A:ARG:HA | 1:39:A:ARG:HH21 | 10 | 0.34 |
| (1,201) | 1:16:A:MET:HE1 | 1:37:A:LEU:HD23 | 7 | 0.34 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB2 | 14 | 0.33 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB3 | 14 | 0.33 |
| (1,3970) | 1:74:A:GLY:HA2 | 1:153:A:ILE:HD11 | 4 | 0.33 |
| (1,3970) | 1:74:A:GLY:HA2 | 1:153:A:ILE:HD12 | 4 | 0.33 |
| (1,3970) | 1:74:A:GLY:HA2 | 1:153:A:ILE:HD13 | 4 | 0.33 |
| (1,3440) | 1:257:A:ALA:HB1 | 1:282:A:ARG:HH22 | 14 | 0.33 |
| (1,3429) | 1:257:A:ALA:H | 1:258:A:LEU:HD22 | 9 | 0.33 |
| (1,3378) | 1:255:A:ALA:H | 1:255:A:ALA:HB2 | 18 | 0.33 |
| (1,3356) | 1:253:A:LYS:HA | 1:255:A:ALA:HB2 | 12 | 0.33 |
| (1,3148) | 1:241:A:LYS:H | 1:263:A:ILE:HD13 | 18 | 0.33 |
| (1,3137) | 1:240:A:ALA:HB2 | 1:294:A:PHE:HD1 | 10 | 0.33 |
| (1,3072) | 1:239:A:PHE:HA | 1:239:A:PHE:HD1 | 20 | 0.33 |
| (1,3060) | 1:238:A:VAL:HB | 1:269:A:MET:HE1 | 3 | 0.33 |
| (1,2993) | 1:210:A:PRO:HA | 1:211:A:GLN:H | 2 | 0.33 |
| (1,2993) | 1:210:A:PRO:HA | 1:211:A:GLN:H | 3 | 0.33 |
| (1,2993) | 1:210:A:PRO:HA | 1:211:A:GLN:H | 18 | 0.33 |
| (1,2992) | 1:207:A:TYR:HA | 1:207:A:TYR:HD1 | 4 | 0.33 |
| (1,2710) | 1:167:A:ASP:H | 1:167:A:ASP:HB2 | 9 | 0.33 |
| (1,2621) | 1:162:A:SER:HG | 1:172:A:MET:HE3 | 15 | 0.33 |
| (1,2546) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE2 | 1 | 0.33 |
| (1,2364) | 1:152:A:ILE:HA | 1:163:A:ALA:HB2 | 6 | 0.33 |
| (1,2364) | 1:152:A:ILE:HA | 1:163:A:ALA:HB2 | 9 | 0.33 |
| (1,2275) | 1:149:A:ILE:HA | 1:149:A:ILE:HD12 | 12 | 0.33 |
| (1,1892) | 1:132:A:TYR:HD1 | 1:177:A:TYR:HA | 18 | 0.33 |
| (1,1877) | 1:132:A:TYR:HA | 1:132:A:TYR:HD1 | 4 | 0.33 |
| (1,1626) | 1:123:A:ASP:H | 1:123:A:ASP:HB2 | 4 | 0.33 |
| (1,1622) | 1:122:A:GLU:HA | 1:123:A:ASP:HB2 | 5 | 0.33 |
| (1,1622) | 1:122:A:GLU:HA | 1:123:A:ASP:HB3 | 5 | 0.33 |
| (1,1620) | 1:122:A:GLU:HA | 1:123:A:ASP:H | 9 | 0.33 |
| (1,1620) | 1:122:A:GLU:HA | 1:123:A:ASP:H | 10 | 0.33 |
| (1,1596) | 1:112:A:SER:H | 1:112:A:SER:HB2 | 4 | 0.33 |
| (1,1596) | 1:112:A:SER:H | 1:112:A:SER:HB2 | 13 | 0.33 |
| (1,1243) | 1:80:A:HIS:H | 1:83:A:ALA:HB1 | 17 | 0.33 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1234) | 1:79:A:ASP:H | 1:83:A:ALA:HB1 | 1 | 0.33 |
| (1,1234) | 1:79:A:ASP:H | 1:83:A:ALA:HB1 | 13 | 0.33 |
| (1,1234) | 1:79:A:ASP:H | 1:83:A:ALA:HB1 | 16 | 0.33 |
| (1,1203) | 1:78:A:PHE:HD1 | 1:83:A:ALA:HB1 | 9 | 0.33 |
| (1,1061) | 1:66:A:LEU:HA | 1:66:A:LEU:HD23 | 11 | 0.33 |
| (1,1061) | 1:66:A:LEU:HA | 1:66:A:LEU:HD23 | 20 | 0.33 |
| (1,1036) | 1:65:A:SER:HA | 1:66:A:LEU:HD23 | 9 | 0.33 |
| (1,1036) | 1:65:A:SER:HA | 1:66:A:LEU:HD23 | 12 | 0.33 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD11 | 16 | 0.33 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD12 | 16 | 0.33 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD13 | 16 | 0.33 |
| (1,806) | 1:50:A:LEU:HG | 1:63:A:ILE:HD12 | 11 | 0.33 |
| (1,616) | 1:37:A:LEU:HG | 1:102:A:ALA:HB2 | 3 | 0.33 |
| (1,616) | 1:37:A:LEU:HG | 1:102:A:ALA:HB2 | 13 | 0.33 |
| (1,563) | 1:36:A:PHE:HA | 1:102:A:ALA:HB2 | 10 | 0.33 |
| (1,397) | 1:27:A:ARG:HH11 | 1:37:A:LEU:HD23 | 19 | 0.33 |
| (1,114) | 1:13:A:ALA:HB1 | 1:14:A:TRP:HA | 6 | 0.33 |
| (1,114) | 1:13:A:ALA:HB1 | 1:14:A:TRP:HA | 17 | 0.33 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB2 | 16 | 0.32 |
| (1,3973) | 1:94:A:ASP:HA | 1:154:A:GLU:HB3 | 16 | 0.32 |
| (1,3552) | 1:263:A:ILE:HD11 | 1:294:A:PHE:HE2 | 17 | 0.32 |
| (1,3494) | 1:258:A:LEU:HD22 | 1:279:A:VAL:HG11 | 8 | 0.32 |
| (1,3490) | 1:258:A:LEU:HD21 | 1:279:A:VAL:HG22 | 19 | 0.32 |
| (1,3441) | 1:257:A:ALA:HB2 | 1:258:A:LEU:H | 9 | 0.32 |
| (1,3438) | 1:257:A:ALA:HB1 | 1:282:A:ARG:HH11 | 17 | 0.32 |
| (1,3247) | 1:243:A:ILE:HD13 | 1:290:A:HIS:HA | 15 | 0.32 |
| (1,3205) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD23 | 20 | 0.32 |
| (1,3148) | 1:241:A:LYS:H | 1:263:A:ILE:HD13 | 5 | 0.32 |
| (1,3136) | 1:240:A:ALA:HB2 | 1:294:A:PHE:H | 5 | 0.32 |
| (1,3072) | 1:239:A:PHE:HA | 1:239:A:PHE:HD1 | 7 | 0.32 |
| (1,3048) | 1:238:A:VAL:H | 1:269:A:MET:HE1 | 19 | 0.32 |
| (1,3001) | 1:220:A:SER:HA | 1:221:A:GLY:H | 5 | 0.32 |
| (1,2993) | 1:210:A:PRO:HA | 1:211:A:GLN:H | 19 | 0.32 |
| (1,2983) | 1:198:A:TYR:H | 1:198:A:TYR:HB2 | 12 | 0.32 |
| (1,2963) | 1:187:A:HIS:HB2 | 1:188:A:GLY:HA2 | 4 | 0.32 |
| (1,2546) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE2 | 7 | 0.32 |
| (1,2545) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE1 | 15 | 0.32 |
| (1,1625) | 1:122:A:GLU:HB2 | 1:123:A:ASP:HA | 20 | 0.32 |
| (1,1618) | 1:122:A:GLU:H | 1:122:A:GLU:HB2 | 18 | 0.32 |
| (1,1596) | 1:112:A:SER:H | 1:112:A:SER:HB2 | 1 | 0.32 |
| (1,1061) | 1:66:A:LEU:HA | 1:66:A:LEU:HD23 | 19 | 0.32 |
| (1,758) | 1:49:A:VAL:H | 1:63:A:ILE:HD13 | 7 | 0.32 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,521) | 1:34:A:GLY:HA2 | 1:99:A:ILE:HD13 | 6 | 0.32 |
| (1,204) | 1:16:A:MET:HE1 | 1:102:A:ALA:HA | 19 | 0.32 |
| (1,201) | 1:16:A:MET:HE1 | 1:37:A:LEU:HD23 | 16 | 0.32 |
| (1,187) | 1:16:A:MET:H | 1:16:A:MET:HE3 | 16 | 0.32 |
| (1,114) | 1:13:A:ALA:HB1 | 1:14:A:TRP:HA | 15 | 0.32 |
| (1,3552) | 1:263:A:ILE:HD11 | 1:294:A:PHE:HE2 | 6 | 0.31 |
| (1,3488) | 1:258:A:LEU:HD21 | 1:279:A:VAL:HB | 4 | 0.31 |
| (1,3486) | 1:258:A:LEU:HD21 | 1:264:A:VAL:HG13 | 12 | 0.31 |
| (1,3378) | 1:255:A:ALA:H | 1:255:A:ALA:HB2 | 8 | 0.31 |
| (1,3378) | 1:255:A:ALA:H | 1:255:A:ALA:HB2 | 20 | 0.31 |
| (1,3351) | 1:252:A:ASP:HA | 1:255:A:ALA:HB2 | 18 | 0.31 |
| (1,3328) | 1:249:A:CYS:HG | 1:251:A:TYR:HE1 | 15 | 0.31 |
| (1,3321) | 1:249:A:CYS:H | 1:255:A:ALA:HB2 | 5 | 0.31 |
| (1,3300) | 1:247:A:VAL:H | 1:247:A:VAL:HG23 | 10 | 0.31 |
| (1,3287) | 1:246:A:ARG:HE | 1:290:A:HIS:HD1 | 9 | 0.31 |
| (1,3002) | 1:221:A:GLY:HA2 | 1:222:A:SER:H | 8 | 0.31 |
| (1,2992) | 1:207:A:TYR:HA | 1:207:A:TYR:HD1 | 16 | 0.31 |
| (1,2621) | 1:162:A:SER:HG | 1:172:A:MET:HE3 | 16 | 0.31 |
| (1,2546) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE2 | 18 | 0.31 |
| (1,2374) | 1:152:A:ILE:HD11 | 1:163:A:ALA:HB3 | 10 | 0.31 |
| (1,2374) | 1:152:A:ILE:HD12 | 1:163:A:ALA:HB3 | 10 | 0.31 |
| (1,2374) | 1:152:A:ILE:HD13 | 1:163:A:ALA:HB3 | 10 | 0.31 |
| (1,2374) | 1:152:A:ILE:HD11 | 1:163:A:ALA:HB3 | 12 | 0.31 |
| (1,2374) | 1:152:A:ILE:HD12 | 1:163:A:ALA:HB3 | 12 | 0.31 |
| (1,2374) | 1:152:A:ILE:HD13 | 1:163:A:ALA:HB3 | 12 | 0.31 |
| (1,2002) | 1:134:A:PHE:HD2 | 1:174:A:PRO:HD2 | 14 | 0.31 |
| (1,2001) | 1:134:A:PHE:HD2 | 1:160:A:TRP:HH2 | 11 | 0.31 |
| (1,1673) | 1:127:A:TYR:HB2 | 1:127:A:TYR:HD2 | 9 | 0.31 |
| (1,1673) | 1:127:A:TYR:HB2 | 1:127:A:TYR:HD2 | 10 | 0.31 |
| (1,1620) | 1:122:A:GLU:HA | 1:123:A:ASP:H | 5 | 0.31 |
| (1,1620) | 1:122:A:GLU:HA | 1:123:A:ASP:H | 17 | 0.31 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD11 | 1 | 0.31 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD12 | 1 | 0.31 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD13 | 1 | 0.31 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD11 | 20 | 0.31 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD12 | 20 | 0.31 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD13 | 20 | 0.31 |
| (1,563) | 1:36:A:PHE:HA | 1:102:A:ALA:HB2 | 12 | 0.31 |
| (1,540) | 1:36:A:PHE:H | 1:36:A:PHE:HD2 | 9 | 0.31 |
| (1,202) | 1:16:A:MET:HE1 | 1:101:A:PRO:HA | 14 | 0.31 |
| (1,3378) | 1:255:A:ALA:H | 1:255:A:ALA:HB2 | 13 | 0.3 |
| (1,3358) | 1:254:A:THR:H | 1:254:A:THR:HG22 | 17 | 0.3 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3308) | 1:247:A:VAL:HA | 1:257:A:ALA:HB2 | 16 | 0.3 |
| (1,3248) | 1:243:A:ILE:HD13 | 1:291:A:VAL:HA | 6 | 0.3 |
| (1,3217) | 1:242:A:ALA:HB2 | 1:259:A:GLU:H | 18 | 0.3 |
| (1,3205) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD23 | 16 | 0.3 |
| (1,3136) | 1:240:A:ALA:HB2 | 1:294:A:PHE:H | 1 | 0.3 |
| (1,2995) | 1:211:A:GLN:HB2 | 1:212:A:THR:HA | 1 | 0.3 |
| (1,2985) | 1:198:A:TYR:HB2 | 1:199:A:GLY:HA3 | 2 | 0.3 |
| (1,2983) | 1:198:A:TYR:H | 1:198:A:TYR:HB2 | 9 | 0.3 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD11 | 4 | 0.3 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD12 | 4 | 0.3 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD13 | 4 | 0.3 |
| (1,2546) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE2 | 16 | 0.3 |
| (1,2428) | 1:155:A:LYS:HB2 | 1:155:A:LYS:HD2 | 9 | 0.3 |
| (1,2286) | 1:149:A:ILE:HD12 | 1:150:A:LEU:H | 4 | 0.3 |
| (1,2285) | 1:149:A:ILE:HB | 1:166:A:LYS:HB2 | 9 | 0.3 |
| (1,2214) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HD11 | 17 | 0.3 |
| (1,2214) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HD12 | 17 | 0.3 |
| (1,2214) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HD13 | 17 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD11 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD12 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD13 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD21 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD22 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD23 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD11 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD12 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD13 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD21 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD22 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD23 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD11 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD12 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD13 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD21 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD22 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD23 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD11 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD12 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD13 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD21 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD22 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD23 | 19 | 0.3 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD11 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD12 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD13 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD21 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD22 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD23 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD11 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD12 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD13 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD21 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD22 | 19 | 0.3 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD23 | 19 | 0.3 |
| (1,1829) | 1:130:A:THR:HB | 1:177:A:TYR:HB2 | 19 | 0.3 |
| (1,1611) | 1:120:A:THR:HA | 1:121:A:ALA:H | 9 | 0.3 |
| (1,1424) | 1:90:A:ILE:H | 1:97:A:THR:HG22 | 3 | 0.3 |
| (1,1424) | 1:90:A:ILE:H | 1:97:A:THR:HG22 | 12 | 0.3 |
| (1,1260) | 1:80:A:HIS:HD1 | 1:83:A:ALA:HB2 | 15 | 0.3 |
| (1,207) | 1:16:A:MET:HE1 | 1:104:A:ARG:HA | 10 | 0.3 |
| (1,3971) | 1:75:A:ASP:HB2 | 1:168:A:GLY:HA2 | 11 | 0.29 |
| (1,3971) | 1:75:A:ASP:HB2 | 1:168:A:GLY:HA3 | 11 | 0.29 |
| (1,3757) | 1:275:A:TRP:HE3 | 1:291:A:VAL:HG21 | 5 | 0.29 |
| (1,3710) | 1:272:A:ASN:H | 1:273:A:GLY:H | 19 | 0.29 |
| (1,3441) | 1:257:A:ALA:HB2 | 1:258:A:LEU:H | 12 | 0.29 |
| (1,3378) | 1:255:A:ALA:H | 1:255:A:ALA:HB2 | 6 | 0.29 |
| (1,3378) | 1:255:A:ALA:H | 1:255:A:ALA:HB2 | 7 | 0.29 |
| (1,3378) | 1:255:A:ALA:H | 1:255:A:ALA:HB2 | 14 | 0.29 |
| (1,3378) | 1:255:A:ALA:H | 1:255:A:ALA:HB2 | 15 | 0.29 |
| (1,3351) | 1:252:A:ASP:HA | 1:255:A:ALA:HB2 | 2 | 0.29 |
| (1,3219) | 1:242:A:ALA:HB2 | 1:261:A:GLY:H | 6 | 0.29 |
| (1,3210) | 1:242:A:ALA:HB1 | 1:291:A:VAL:HB | 10 | 0.29 |
| (1,3180) | 1:242:A:ALA:H | 1:263:A:ILE:HD13 | 13 | 0.29 |
| (1,3133) | 1:240:A:ALA:HB2 | 1:293:A:ILE:H | 13 | 0.29 |
| (1,3060) | 1:238:A:VAL:HB | 1:269:A:MET:HE1 | 13 | 0.29 |
| (1,3054) | 1:238:A:VAL:HA | 1:269:A:MET:HE1 | 3 | 0.29 |
| (1,3048) | 1:238:A:VAL:H | 1:269:A:MET:HE1 | 3 | 0.29 |
| (1,3001) | 1:220:A:SER:HA | 1:221:A:GLY:H | 7 | 0.29 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD11 | 18 | 0.29 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD12 | 18 | 0.29 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD13 | 18 | 0.29 |
| (1,2621) | 1:162:A:SER:HG | 1:172:A:MET:HE3 | 13 | 0.29 |
| (1,2618) | 1:162:A:SER:HB2 | 1:172:A:MET:HE3 | 6 | 0.29 |
| (1,2546) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE2 | 3 | 0.29 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2364) | 1:152:A:ILE:HA | 1:163:A:ALA:HB2 | 10 | 0.29 |
| (1,1892) | 1:132:A:TYR:HD1 | 1:177:A:TYR:HA | 9 | 0.29 |
| (1,1608) | 1:120:A:THR:H | 1:120:A:THR:HB | 18 | 0.29 |
| (1,1260) | 1:80:A:HIS:HD1 | 1:83:A:ALA:HB2 | 1 | 0.29 |
| (1,1243) | 1:80:A:HIS:H | 1:83:A:ALA:HB1 | 2 | 0.29 |
| (1,1201) | 1:78:A:PHE:HA | 1:83:A:ALA:HB1 | 4 | 0.29 |
| (1,1050) | 1:66:A:LEU:H | 1:66:A:LEU:HD23 | 15 | 0.29 |
| (1,1036) | 1:65:A:SER:HA | 1:66:A:LEU:HD23 | 17 | 0.29 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD11 | 4 | 0.29 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD12 | 4 | 0.29 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD13 | 4 | 0.29 |
| (1,563) | 1:36:A:PHE:HA | 1:102:A:ALA:HB2 | 20 | 0.29 |
| (1,201) | 1:16:A:MET:HE1 | 1:37:A:LEU:HD23 | 4 | 0.29 |
| (1,187) | 1:16:A:MET:H | 1:16:A:MET:HE3 | 11 | 0.29 |
| (2,43) | 1:166:A:LYS:N | 1:165:A:ASN:O | 3 | 0.28 |
| (2,43) | 1:166:A:LYS:N | 1:165:A:ASN:O | 13 | 0.28 |
| (1,3675) | 1:269:A:MET:HE2 | 1:275:A:TRP:HE3 | 19 | 0.28 |
| (1,3587) | 1:264:A:VAL:HG13 | 1:279:A:VAL:HG23 | 2 | 0.28 |
| (1,3497) | 1:258:A:LEU:HD23 | 1:264:A:VAL:HG22 | 16 | 0.28 |
| (1,3440) | 1:257:A:ALA:HB1 | 1:282:A:ARG:HH22 | 16 | 0.28 |
| (1,3331) | 1:250:A:ALA:H | 1:251:A:TYR:H | 12 | 0.28 |
| (1,3328) | 1:249:A:CYS:HG | 1:251:A:TYR:HE1 | 1 | 0.28 |
| (1,3284) | 1:246:A:ARG:HE | 1:255:A:ALA:HB1 | 11 | 0.28 |
| (1,2621) | 1:162:A:SER:HG | 1:172:A:MET:HE3 | 9 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD11 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD12 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD13 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD21 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD22 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD23 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD11 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD12 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD13 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD21 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD22 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD23 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD11 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD12 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD13 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD21 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD22 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD23 | 5 | 0.28 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD11 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD12 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD13 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD21 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD22 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD23 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD11 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD12 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD13 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD21 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD22 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD23 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD11 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD12 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD13 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD21 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD22 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD23 | 5 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD11 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD12 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD13 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD21 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD22 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD23 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD11 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD12 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD13 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD21 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD22 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD23 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD11 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD12 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD13 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD21 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD22 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD23 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD11 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD12 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD13 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD21 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD22 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD23 | 11 | 0.28 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD11 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD12 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD13 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD21 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD22 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD23 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD11 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD12 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD13 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD21 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD22 | 11 | 0.28 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD23 | 11 | 0.28 |
| (1,2037) | 1:137:A:ASN:HA | 1:143:A:PRO:HG2 | 9 | 0.28 |
| (1,1638) | 1:125:A:LEU:HA | 1:152:A:ILE:HB | 13 | 0.28 |
| (1,1618) | 1:122:A:GLU:H | 1:122:A:GLU:HB2 | 19 | 0.28 |
| (1,1617) | 1:121:A:ALA:H | 1:122:A:GLU:HB2 | 9 | 0.28 |
| (1,1617) | 1:121:A:ALA:H | 1:122:A:GLU:HB3 | 9 | 0.28 |
| (1,1605) | 1:115:A:ALA:H | 1:115:A:ALA:HB1 | 10 | 0.28 |
| (1,1604) | 1:114:A:SER:HG | 1:115:A:ALA:H | 13 | 0.28 |
| (1,1243) | 1:80:A:HIS:H | 1:83:A:ALA:HB1 | 13 | 0.28 |
| (1,1050) | 1:66:A:LEU:H | 1:66:A:LEU:HD23 | 1 | 0.28 |
| (1,563) | 1:36:A:PHE:HA | 1:102:A:ALA:HB2 | 14 | 0.28 |
| (1,515) | 1:34:A:GLY:HA2 | 1:96:A:THR:HG22 | 2 | 0.28 |
| (1,205) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB1 | 17 | 0.28 |
| (1,155) | 1:15:A:TYR:HA | 1:16:A:MET:HE3 | 15 | 0.28 |
| (1,114) | 1:13:A:ALA:HB1 | 1:14:A:TRP:HA | 1 | 0.28 |
| (1,77) | 1:10:A:ASP:HA | 1:14:A:TRP:HE1 | 12 | 0.28 |
| (2,43) | 1:166:A:LYS:N | 1:165:A:ASN:O | 2 | 0.27 |
| (2,43) | 1:166:A:LYS:N | 1:165:A:ASN:O | 4 | 0.27 |
| (2,43) | 1:166:A:LYS:N | 1:165:A:ASN:O | 5 | 0.27 |
| (2,43) | 1:166:A:LYS:N | 1:165:A:ASN:O | 7 | 0.27 |
| (2,43) | 1:166:A:LYS:N | 1:165:A:ASN:O | 11 | 0.27 |
| (2,43) | 1:166:A:LYS:N | 1:165:A:ASN:O | 14 | 0.27 |
| (2,43) | 1:166:A:LYS:N | 1:165:A:ASN:O | 15 | 0.27 |
| (2,43) | 1:166:A:LYS:N | 1:165:A:ASN:O | 18 | 0.27 |
| (1,3552) | 1:263:A:ILE:HD11 | 1:294:A:PHE:HE2 | 11 | 0.27 |
| (1,3493) | 1:258:A:LEU:HD22 | 1:279:A:VAL:HB | 16 | 0.27 |
| (1,3488) | 1:258:A:LEU:HD21 | 1:279:A:VAL:HB | 11 | 0.27 |
| (1,3360) | 1:254:A:THR:H | 1:255:A:ALA:HB2 | 3 | 0.27 |
| (1,3351) | 1:252:A:ASP:HA | 1:255:A:ALA:HB2 | 14 | 0.27 |
| (1,3308) | 1:247:A:VAL:HA | 1:257:A:ALA:HB2 | 10 | 0.27 |
| (1,3180) | 1:242:A:ALA:H | 1:263:A:ILE:HD13 | 2 | 0.27 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3003) | 1:222:A:SER:H | 1:222:A:SER:HB2 | 16 | 0.27 |
| (1,2998) | 1:213:A:THR:H | 1:214:A:THR:HB | 13 | 0.27 |
| (1,2983) | 1:198:A:TYR:H | 1:198:A:TYR:HB2 | 18 | 0.27 |
| (1,2546) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE2 | 5 | 0.27 |
| (1,2521) | 1:160:A:TRP:H | 1:172:A:MET:HE1 | 3 | 0.27 |
| (1,2214) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HD11 | 5 | 0.27 |
| (1,2214) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HD12 | 5 | 0.27 |
| (1,2214) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HD13 | 5 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD11 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD12 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD13 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD21 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD22 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD23 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD11 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD12 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD13 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD21 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD22 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD23 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD11 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD12 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD13 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD21 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD22 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD23 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD11 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD12 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD13 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD21 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD22 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD23 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD11 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD12 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD13 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD21 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD22 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD23 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD11 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD12 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD13 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD21 | 3 | 0.27 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD22 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD23 | 3 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD11 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD12 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD13 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD21 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD22 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD23 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD11 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD12 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD13 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD21 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD22 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD23 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD11 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD12 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD13 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD21 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD22 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD23 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD11 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD12 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD13 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD21 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD22 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD23 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD11 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD12 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD13 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD21 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD22 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD23 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD11 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD12 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD13 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD21 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD22 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD23 | 6 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD11 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD12 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD13 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD21 | 7 | 0.27 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD22 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD23 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD11 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD12 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD13 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD21 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD22 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD23 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD11 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD12 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD13 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD21 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD22 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD23 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD11 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD12 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD13 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD21 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD22 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD23 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD11 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD12 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD13 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD21 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD22 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD23 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD11 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD12 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD13 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD21 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD22 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD23 | 7 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD11 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD12 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD13 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD21 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD22 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD23 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD11 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD12 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD13 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD21 | 13 | 0.27 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD22 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD23 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD11 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD12 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD13 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD21 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD22 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD23 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD11 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD12 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD13 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD21 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD22 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD23 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD11 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD12 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD13 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD21 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD22 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD23 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD11 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD12 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD13 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD21 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD22 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD23 | 13 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD11 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD12 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD13 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD21 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD22 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD23 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD11 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD12 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD13 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD21 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD22 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD23 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD11 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD12 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD13 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD21 | 14 | 0.27 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD22 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD23 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD11 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD12 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD13 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD21 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD22 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD23 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD11 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD12 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD13 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD21 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD22 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD23 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD11 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD12 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD13 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD21 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD22 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD23 | 14 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD11 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD12 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD13 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD21 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD22 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD23 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD11 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD12 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD13 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD21 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD22 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD23 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD11 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD12 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD13 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD21 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD22 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD23 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD11 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD12 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD13 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD21 | 17 | 0.27 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD22 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD23 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD11 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD12 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD13 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD21 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD22 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD23 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD11 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD12 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD13 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD21 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD22 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD23 | 17 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD11 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD12 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD13 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD21 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD22 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD23 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD11 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD12 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD13 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD21 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD22 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD23 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD11 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD12 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD13 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD21 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD22 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD23 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD11 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD12 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD13 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD21 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD22 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD23 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD11 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD12 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD13 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD21 | 20 | 0.27 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD22 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD23 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD11 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD12 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD13 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD21 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD22 | 20 | 0.27 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD23 | 20 | 0.27 |
| (1,1877) | 1:132:A:TYR:HA | 1:132:A:TYR:HD1 | 18 | 0.27 |
| (1,1620) | 1:122:A:GLU:HA | 1:123:A:ASP:H | 2 | 0.27 |
| (1,1617) | 1:121:A:ALA:H | 1:122:A:GLU:HB2 | 10 | 0.27 |
| (1,1617) | 1:121:A:ALA:H | 1:122:A:GLU:HB3 | 10 | 0.27 |
| (1,1446) | 1:92:A:TYR:H | 1:97:A:THR:HG21 | 10 | 0.27 |
| (1,1224) | 1:78:A:PHE:HE2 | 1:84:A:LEU:HD11 | 8 | 0.27 |
| (1,1224) | 1:78:A:PHE:HE2 | 1:84:A:LEU:HD12 | 8 | 0.27 |
| (1,1224) | 1:78:A:PHE:HE2 | 1:84:A:LEU:HD13 | 8 | 0.27 |
| (1,1224) | 1:78:A:PHE:HE2 | 1:84:A:LEU:HD21 | 8 | 0.27 |
| (1,1224) | 1:78:A:PHE:HE2 | 1:84:A:LEU:HD22 | 8 | 0.27 |
| (1,1224) | 1:78:A:PHE:HE2 | 1:84:A:LEU:HD23 | 8 | 0.27 |
| (1,1201) | 1:78:A:PHE:HA | 1:83:A:ALA:HB1 | 9 | 0.27 |
| (1,1085) | 1:67:A:PRO:HA | 1:69:A:ARG:HE | 10 | 0.27 |
| (1,1050) | 1:66:A:LEU:H | 1:66:A:LEU:HD23 | 8 | 0.27 |
| (1,806) | 1:50:A:LEU:HG | 1:63:A:ILE:HD12 | 15 | 0.27 |
| (1,806) | 1:50:A:LEU:HG | 1:63:A:ILE:HD12 | 17 | 0.27 |
| (1,404) | 1:28:A:LEU:H | 1:28:A:LEU:HD21 | 15 | 0.27 |
| (1,214) | 1:16:A:MET:HE3 | 1:38:A:VAL:H | 19 | 0.27 |
| (1,155) | 1:15:A:TYR:HA | 1:16:A:MET:HE3 | 4 | 0.27 |
| (1,114) | 1:13:A:ALA:HB1 | 1:14:A:TRP:HA | 3 | 0.27 |
| (1,114) | 1:13:A:ALA:HB1 | 1:14:A:TRP:HA | 8 | 0.27 |
| (1,90) | 1:11:A:ARG:HA | 1:14:A:TRP:HE3 | 12 | 0.27 |
| (2,43) | 1:166:A:LYS:N | 1:165:A:ASN:O | 1 | 0.26 |
| (2,43) | 1:166:A:LYS:N | 1:165:A:ASN:O | 6 | 0.26 |
| (2,43) | 1:166:A:LYS:N | 1:165:A:ASN:O | 8 | 0.26 |
| (2,43) | 1:166:A:LYS:N | 1:165:A:ASN:O | 16 | 0.26 |
| (2,43) | 1:166:A:LYS:N | 1:165:A:ASN:O | 17 | 0.26 |
| (2,43) | 1:166:A:LYS:N | 1:165:A:ASN:O | 19 | 0.26 |
| (1,3496) | 1:258:A:LEU:HD23 | 1:264:A:VAL:HA | 20 | 0.26 |
| (1,3429) | 1:257:A:ALA:H | 1:258:A:LEU:HD22 | 10 | 0.26 |
| (1,3351) | 1:252:A:ASP:HA | 1:255:A:ALA:HB2 | 8 | 0.26 |
| (1,2465) | 1:156:A:PRO:HD2 | 1:172:A:MET:HE3 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD11 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD12 | 2 | 0.26 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD13 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD21 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD22 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD23 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD11 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD12 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD13 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD21 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD22 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD23 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD11 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD12 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD13 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD21 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD22 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD23 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD11 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD12 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD13 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD21 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD22 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD23 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD11 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD12 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD13 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD21 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD22 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD23 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD11 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD12 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD13 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD21 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD22 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD23 | 2 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD11 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD12 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD13 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD21 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD22 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD23 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD11 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD12 | 4 | 0.26 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD13 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD21 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD22 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD23 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD11 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD12 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD13 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD21 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD22 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD23 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD11 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD12 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD13 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD21 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD22 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD23 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD11 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD12 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD13 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD21 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD22 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD23 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD11 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD12 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD13 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD21 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD22 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD23 | 4 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD11 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD12 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD13 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD21 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD22 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD23 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD11 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD12 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD13 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD21 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD22 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD23 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD11 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD12 | 8 | 0.26 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD13 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD21 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD22 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD23 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD11 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD12 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD13 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD21 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD22 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD23 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD11 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD12 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD13 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD21 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD22 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD23 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD11 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD12 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD13 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD21 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD22 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD23 | 8 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD11 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD12 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD13 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD21 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD22 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD23 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD11 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD12 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD13 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD21 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD22 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD23 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD11 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD12 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD13 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD21 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD22 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD23 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD11 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD12 | 15 | 0.26 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD13 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD21 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD22 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD23 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD11 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD12 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD13 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD21 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD22 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD23 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD11 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD12 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD13 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD21 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD22 | 15 | 0.26 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD23 | 15 | 0.26 |
| (1,2002) | 1:134:A:PHE:HD2 | 1:174:A:PRO:HD2 | 18 | 0.26 |
| (1,1892) | 1:132:A:TYR:HD1 | 1:177:A:TYR:HA | 8 | 0.26 |
| (1,1641) | 1:125:A:LEU:HB2 | 1:152:A:ILE:HB | 9 | 0.26 |
| (1,1620) | 1:122:A:GLU:HA | 1:123:A:ASP:H | 8 | 0.26 |
| (1,1606) | 1:115:A:ALA:H | 1:116:A:PRO:HD2 | 16 | 0.26 |
| (1,1207) | 1:78:A:PHE:HE1 | 1:84:A:LEU:HA | 7 | 0.26 |
| (1,1050) | 1:66:A:LEU:H | 1:66:A:LEU:HD23 | 6 | 0.26 |
| (1,1050) | 1:66:A:LEU:H | 1:66:A:LEU:HD23 | 12 | 0.26 |
| (1,1036) | 1:65:A:SER:HA | 1:66:A:LEU:HD23 | 8 | 0.26 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD11 | 15 | 0.26 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD12 | 15 | 0.26 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD13 | 15 | 0.26 |
| (1,806) | 1:50:A:LEU:HG | 1:63:A:ILE:HD12 | 14 | 0.26 |
| (1,806) | 1:50:A:LEU:HG | 1:63:A:ILE:HD12 | 16 | 0.26 |
| (1,806) | 1:50:A:LEU:HG | 1:63:A:ILE:HD12 | 18 | 0.26 |
| (1,758) | 1:49:A:VAL:H | 1:63:A:ILE:HD13 | 6 | 0.26 |
| (1,563) | 1:36:A:PHE:HA | 1:102:A:ALA:HB2 | 5 | 0.26 |
| (1,510) | 1:34:A:GLY:H | 1:96:A:THR:HG23 | 17 | 0.26 |
| (1,404) | 1:28:A:LEU:H | 1:28:A:LEU:HD21 | 1 | 0.26 |
| (1,203) | 1:16:A:MET:HE1 | 1:102:A:ALA:H | 6 | 0.26 |
| (1,129) | 1:14:A:TRP:HA | 1:16:A:MET:HE3 | 11 | 0.26 |
| (1,114) | 1:13:A:ALA:HB1 | 1:14:A:TRP:HA | 16 | 0.26 |
| (2,43) | 1:166:A:LYS:N | 1:165:A:ASN:O | 9 | 0.25 |
| (2,43) | 1:166:A:LYS:N | 1:165:A:ASN:O | 10 | 0.25 |
| (2,43) | 1:166:A:LYS:N | 1:165:A:ASN:O | 12 | 0.25 |
| (2,43) | 1:166:A:LYS:N | 1:165:A:ASN:O | 20 | 0.25 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3862) | 1:286:A:PHE:HZ | 1:291:A:VAL:HG23 | 6 | 0.25 |
| (1,3701) | 1:271:A:ILE:H | 1:272:A:ASN:H | 3 | 0.25 |
| (1,3493) | 1:258:A:LEU:HD22 | 1:279:A:VAL:HB | 7 | 0.25 |
| (1,3378) | 1:255:A:ALA:H | 1:255:A:ALA:HB2 | 19 | 0.25 |
| (1,3219) | 1:242:A:ALA:HB2 | 1:261:A:GLY:H | 19 | 0.25 |
| (1,3054) | 1:238:A:VAL:HA | 1:269:A:MET:HE1 | 6 | 0.25 |
| (1,3048) | 1:238:A:VAL:H | 1:269:A:MET:HE1 | 5 | 0.25 |
| (1,2983) | 1:198:A:TYR:H | 1:198:A:TYR:HB2 | 4 | 0.25 |
| (1,2522) | 1:160:A:TRP:H | 1:172:A:MET:HE2 | 8 | 0.25 |
| (1,2465) | 1:156:A:PRO:HD2 | 1:172:A:MET:HE3 | 12 | 0.25 |
| (1,2364) | 1:152:A:ILE:HA | 1:163:A:ALA:HB2 | 5 | 0.25 |
| (1,2364) | 1:152:A:ILE:HA | 1:163:A:ALA:HB2 | 8 | 0.25 |
| (1,2364) | 1:152:A:ILE:HA | 1:163:A:ALA:HB2 | 12 | 0.25 |
| (1,2364) | 1:152:A:ILE:HA | 1:163:A:ALA:HB2 | 18 | 0.25 |
| (1,2172) | 1:144:A:PHE:HA | 1:148:A:GLU:HB2 | 9 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD11 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD12 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD13 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD21 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD22 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD23 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD11 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD12 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD13 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD21 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD22 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD23 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD11 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD12 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD13 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD21 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD22 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD23 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD11 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD12 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD13 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD21 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD22 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD23 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD11 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD12 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD13 | 16 | 0.25 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD21 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD22 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD23 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD11 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD12 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD13 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD21 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD22 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD23 | 16 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD11 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD12 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD13 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD21 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD22 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD23 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD11 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD12 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD13 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD21 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD22 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD23 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD11 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD12 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD13 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD21 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD22 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD23 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD11 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD12 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD13 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD21 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD22 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD23 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD11 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD12 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD13 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD21 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD22 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD23 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD11 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD12 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD13 | 18 | 0.25 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD21 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD22 | 18 | 0.25 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD23 | 18 | 0.25 |
| (1,1991) | 1:134:A:PHE:HE2 | 1:160:A:TRP:HH2 | 11 | 0.25 |
| (1,1877) | 1:132:A:TYR:HA | 1:132:A:TYR:HD1 | 12 | 0.25 |
| (1,1606) | 1:115:A:ALA:H | 1:116:A:PRO:HD2 | 8 | 0.25 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD11 | 18 | 0.25 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD12 | 18 | 0.25 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD13 | 18 | 0.25 |
| (1,616) | 1:37:A:LEU:HG | 1:102:A:ALA:HB2 | 17 | 0.25 |
| (1,455) | 1:32:A:ARG:H | 1:32:A:ARG:HE | 12 | 0.25 |
| (1,187) | 1:16:A:MET:H | 1:16:A:MET:HE3 | 17 | 0.25 |
| (1,114) | 1:13:A:ALA:HB1 | 1:14:A:TRP:HA | 4 | 0.25 |
| (1,114) | 1:13:A:ALA:HB1 | 1:14:A:TRP:HA | 7 | 0.25 |
| (1,3675) | 1:269:A:MET:HE2 | 1:275:A:TRP:HE3 | 18 | 0.24 |
| (1,3488) | 1:258:A:LEU:HD21 | 1:279:A:VAL:HB | 20 | 0.24 |
| (1,3474) | 1:258:A:LEU:HD12 | 1:291:A:VAL:HG12 | 17 | 0.24 |
| (1,3441) | 1:257:A:ALA:HB2 | 1:258:A:LEU:H | 10 | 0.24 |
| (1,3360) | 1:254:A:THR:H | 1:255:A:ALA:HB2 | 2 | 0.24 |
| (1,3321) | 1:249:A:CYS:H | 1:255:A:ALA:HB2 | 16 | 0.24 |
| (1,3216) | 1:242:A:ALA:HB2 | 1:258:A:LEU:HD23 | 10 | 0.24 |
| (1,3072) | 1:239:A:PHE:HA | 1:239:A:PHE:HD1 | 8 | 0.24 |
| (1,3002) | 1:221:A:GLY:HA2 | 1:222:A:SER:H | 14 | 0.24 |
| (1,2995) | 1:211:A:GLN:HB2 | 1:212:A:THR:HA | 3 | 0.24 |
| (1,2963) | 1:187:A:HIS:HB2 | 1:188:A:GLY:HA2 | 15 | 0.24 |
| (1,2945) | 1:185:A:SER:HB2 | 1:186:A:PRO:HA | 11 | 0.24 |
| (1,2913) | 1:182:A:VAL:H | 1:182:A:VAL:HG11 | 19 | 0.24 |
| (1,2679) | 1:165:A:ASN:H | 1:165:A:ASN:HB2 | 12 | 0.24 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD11 | 5 | 0.24 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD12 | 5 | 0.24 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD13 | 5 | 0.24 |
| (1,2621) | 1:162:A:SER:HG | 1:172:A:MET:HE3 | 14 | 0.24 |
| (1,2595) | 1:162:A:SER:H | 1:172:A:MET:HE3 | 11 | 0.24 |
| (1,2545) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE1 | 14 | 0.24 |
| (1,2508) | 1:159:A:GLN:H | 1:159:A:GLN:HG2 | 14 | 0.24 |
| (1,2275) | 1:149:A:ILE:HA | 1:149:A:ILE:HD12 | 5 | 0.24 |
| (1,2220) | 1:144:A:PHE:HD2 | 1:150:A:LEU:HD11 | 16 | 0.24 |
| (1,2220) | 1:144:A:PHE:HD2 | 1:150:A:LEU:HD12 | 16 | 0.24 |
| (1,2220) | 1:144:A:PHE:HD2 | 1:150:A:LEU:HD13 | 16 | 0.24 |
| (1,2220) | 1:144:A:PHE:HD2 | 1:150:A:LEU:HD21 | 16 | 0.24 |
| (1,2220) | 1:144:A:PHE:HD2 | 1:150:A:LEU:HD22 | 16 | 0.24 |
| (1,2220) | 1:144:A:PHE:HD2 | 1:150:A:LEU:HD23 | 16 | 0.24 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1940) | 1:133:A:ASP:HB2 | 1:145:A:LYS:HA | 9 | 0.24 |
| (1,1867) | 1:131:A:LEU:HD11 | 1:179:A:GLU:HG2 | 3 | 0.24 |
| (1,1867) | 1:131:A:LEU:HD12 | 1:179:A:GLU:HG2 | 3 | 0.24 |
| (1,1867) | 1:131:A:LEU:HD13 | 1:179:A:GLU:HG2 | 3 | 0.24 |
| (1,1867) | 1:131:A:LEU:HD21 | 1:179:A:GLU:HG2 | 3 | 0.24 |
| (1,1867) | 1:131:A:LEU:HD22 | 1:179:A:GLU:HG2 | 3 | 0.24 |
| (1,1867) | 1:131:A:LEU:HD23 | 1:179:A:GLU:HG2 | 3 | 0.24 |
| (1,1617) | 1:121:A:ALA:H | 1:122:A:GLU:HB2 | 19 | 0.24 |
| (1,1617) | 1:121:A:ALA:H | 1:122:A:GLU:HB3 | 19 | 0.24 |
| (1,1608) | 1:120:A:THR:H | 1:120:A:THR:HB | 4 | 0.24 |
| (1,1424) | 1:90:A:ILE:H | 1:97:A:THR:HG22 | 19 | 0.24 |
| (1,1260) | 1:80:A:HIS:HD1 | 1:83:A:ALA:HB2 | 20 | 0.24 |
| (1,1243) | 1:80:A:HIS:H | 1:83:A:ALA:HB1 | 6 | 0.24 |
| (1,1234) | 1:79:A:ASP:H | 1:83:A:ALA:HB1 | 11 | 0.24 |
| (1,1013) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HB | 8 | 0.24 |
| (1,563) | 1:36:A:PHE:HA | 1:102:A:ALA:HB2 | 2 | 0.24 |
| (1,397) | 1:27:A:ARG:HH11 | 1:37:A:LEU:HD23 | 20 | 0.24 |
| (1,203) | 1:16:A:MET:HE1 | 1:102:A:ALA:H | 7 | 0.24 |
| (1,90) | 1:11:A:ARG:HA | 1:14:A:TRP:HE3 | 10 | 0.24 |
| (1,3494) | 1:258:A:LEU:HD22 | 1:279:A:VAL:HG11 | 3 | 0.23 |
| (1,3488) | 1:258:A:LEU:HD21 | 1:279:A:VAL:HB | 5 | 0.23 |
| (1,3441) | 1:257:A:ALA:HB2 | 1:258:A:LEU:H | 19 | 0.23 |
| (1,3429) | 1:257:A:ALA:H | 1:258:A:LEU:HD22 | 8 | 0.23 |
| (1,3414) | 1:256:A:LEU:HD11 | 1:279:A:VAL:HB | 12 | 0.23 |
| (1,3414) | 1:256:A:LEU:HD12 | 1:279:A:VAL:HB | 12 | 0.23 |
| (1,3414) | 1:256:A:LEU:HD13 | 1:279:A:VAL:HB | 12 | 0.23 |
| (1,3414) | 1:256:A:LEU:HD21 | 1:279:A:VAL:HB | 12 | 0.23 |
| (1,3414) | 1:256:A:LEU:HD22 | 1:279:A:VAL:HB | 12 | 0.23 |
| (1,3414) | 1:256:A:LEU:HD23 | 1:279:A:VAL:HB | 12 | 0.23 |
| (1,3360) | 1:254:A:THR:H | 1:255:A:ALA:HB2 | 15 | 0.23 |
| (1,3308) | 1:247:A:VAL:HA | 1:257:A:ALA:HB2 | 5 | 0.23 |
| (1,3085) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HD12 | 2 | 0.23 |
| (1,3058) | 1:238:A:VAL:HB | 1:266:A:VAL:HG12 | 19 | 0.23 |
| (1,3000) | 1:217:A:PRO:HA | 1:218:A:ALA:H | 16 | 0.23 |
| (1,2995) | 1:211:A:GLN:HB2 | 1:212:A:THR:HA | 5 | 0.23 |
| (1,2995) | 1:211:A:GLN:HB2 | 1:212:A:THR:HA | 18 | 0.23 |
| (1,2989) | 1:204:A:ALA:H | 1:204:A:ALA:HB1 | 2 | 0.23 |
| (1,2986) | 1:199:A:GLY:H | 1:200:A:ILE:H | 8 | 0.23 |
| (1,2679) | 1:165:A:ASN:H | 1:165:A:ASN:HB2 | 9 | 0.23 |
| (1,2646) | 1:163:A:ALA:HB3 | 1:164:A:ARG:HA | 17 | 0.23 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD11 | 6 | 0.23 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD12 | 6 | 0.23 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD13 | 6 | 0.23 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD11 | 8 | 0.23 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD12 | 8 | 0.23 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD13 | 8 | 0.23 |
| (1,2521) | 1:160:A:TRP:H | 1:172:A:MET:HE1 | 4 | 0.23 |
| (1,2364) | 1:152:A:ILE:HA | 1:163:A:ALA:HB2 | 17 | 0.23 |
| (1,2286) | 1:149:A:ILE:HD12 | 1:150:A:LEU:H | 14 | 0.23 |
| (1,2275) | 1:149:A:ILE:HA | 1:149:A:ILE:HD12 | 6 | 0.23 |
| (1,1664) | 1:127:A:TYR:HA | 1:150:A:LEU:H | 10 | 0.23 |
| (1,1598) | 1:112:A:SER:HA | 1:113:A:VAL:H | 2 | 0.23 |
| (1,1596) | 1:112:A:SER:H | 1:112:A:SER:HB2 | 2 | 0.23 |
| (1,1596) | 1:112:A:SER:H | 1:112:A:SER:HB2 | 8 | 0.23 |
| (1,1596) | 1:112:A:SER:H | 1:112:A:SER:HB2 | 19 | 0.23 |
| (1,1050) | 1:66:A:LEU:H | 1:66:A:LEU:HD23 | 17 | 0.23 |
| (1,1013) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HB | 7 | 0.23 |
| (1,806) | 1:50:A:LEU:HG | 1:63:A:ILE:HD12 | 4 | 0.23 |
| (1,758) | 1:49:A:VAL:H | 1:63:A:ILE:HD13 | 14 | 0.23 |
| (1,521) | 1:34:A:GLY:HA2 | 1:99:A:ILE:HD13 | 20 | 0.23 |
| (1,404) | 1:28:A:LEU:H | 1:28:A:LEU:HD21 | 17 | 0.23 |
| (1,205) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB1 | 19 | 0.23 |
| (1,114) | 1:13:A:ALA:HB1 | 1:14:A:TRP:HA | 5 | 0.23 |
| (1,3675) | 1:269:A:MET:HE2 | 1:275:A:TRP:HE3 | 14 | 0.22 |
| (1,3441) | 1:257:A:ALA:HB2 | 1:258:A:LEU:H | 8 | 0.22 |
| (1,3205) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD23 | 13 | 0.22 |
| (1,3166) | 1:241:A:LYS:HA | 1:263:A:ILE:HD13 | 1 | 0.22 |
| (1,3148) | 1:241:A:LYS:H | 1:263:A:ILE:HD13 | 8 | 0.22 |
| (1,3140) | 1:240:A:ALA:HB3 | 1:264:A:VAL:HB | 19 | 0.22 |
| (1,3000) | 1:217:A:PRO:HA | 1:218:A:ALA:H | 10 | 0.22 |
| (1,2993) | 1:210:A:PRO:HA | 1:211:A:GLN:H | 8 | 0.22 |
| (1,2989) | 1:204:A:ALA:H | 1:204:A:ALA:HB1 | 16 | 0.22 |
| (1,2646) | 1:163:A:ALA:HB3 | 1:164:A:ARG:HA | 2 | 0.22 |
| (1,2364) | 1:152:A:ILE:HA | 1:163:A:ALA:HB2 | 3 | 0.22 |
| (1,2316) | 1:150:A:LEU:HD11 | 1:165:A:ASN:HA | 12 | 0.22 |
| (1,2316) | 1:150:A:LEU:HD12 | 1:165:A:ASN:HA | 12 | 0.22 |
| (1,2316) | 1:150:A:LEU:HD13 | 1:165:A:ASN:HA | 12 | 0.22 |
| (1,2316) | 1:150:A:LEU:HD21 | 1:165:A:ASN:HA | 12 | 0.22 |
| (1,2316) | 1:150:A:LEU:HD22 | 1:165:A:ASN:HA | 12 | 0.22 |
| (1,2316) | 1:150:A:LEU:HD23 | 1:165:A:ASN:HA | 12 | 0.22 |
| (1,2002) | 1:134:A:PHE:HD2 | 1:174:A:PRO:HD2 | 11 | 0.22 |
| (1,1626) | 1:123:A:ASP:H | 1:123:A:ASP:HB2 | 5 | 0.22 |
| (1,1430) | 1:90:A:ILE:HA | 1:97:A:THR:HG22 | 10 | 0.22 |
| (1,1259) | 1:80:A:HIS:HD1 | 1:83:A:ALA:HB1 | 1 | 0.22 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1201) | 1:78:A:PHE:HA | 1:83:A:ALA:HB1 | 7 | 0.22 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD11 | 6 | 0.22 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD12 | 6 | 0.22 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD13 | 6 | 0.22 |
| (1,806) | 1:50:A:LEU:HG | 1:63:A:ILE:HD12 | 6 | 0.22 |
| (1,806) | 1:50:A:LEU:HG | 1:63:A:ILE:HD12 | 19 | 0.22 |
| (1,455) | 1:32:A:ARG:H | 1:32:A:ARG:HE | 10 | 0.22 |
| (1,404) | 1:28:A:LEU:H | 1:28:A:LEU:HD21 | 14 | 0.22 |
| (1,187) | 1:16:A:MET:H | 1:16:A:MET:HE3 | 10 | 0.22 |
| (1,115) | 1:13:A:ALA:HB1 | 1:14:A:TRP:HD1 | 4 | 0.22 |
| (1,114) | 1:13:A:ALA:HB1 | 1:14:A:TRP:HA | 9 | 0.22 |
| (1,42) | 1:7:A:ASP:H | 1:13:A:ALA:HB1 | 5 | 0.22 |
| (1,3882) | 1:288:A:PHE:HA | 1:290:A:HIS:H | 6 | 0.21 |
| (1,3488) | 1:258:A:LEU:HD21 | 1:279:A:VAL:HB | 1 | 0.21 |
| (1,3299) | 1:247:A:VAL:H | 1:247:A:VAL:HG21 | 10 | 0.21 |
| (1,3205) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD23 | 11 | 0.21 |
| (1,3148) | 1:241:A:LYS:H | 1:263:A:ILE:HD13 | 3 | 0.21 |
| (1,3048) | 1:238:A:VAL:H | 1:269:A:MET:HE1 | 7 | 0.21 |
| (1,3000) | 1:217:A:PRO:HA | 1:218:A:ALA:H | 3 | 0.21 |
| (1,3000) | 1:217:A:PRO:HA | 1:218:A:ALA:H | 7 | 0.21 |
| (1,3000) | 1:217:A:PRO:HA | 1:218:A:ALA:H | 15 | 0.21 |
| (1,2807) | 1:174:A:PRO:HB2 | 1:177:A:TYR:HB2 | 19 | 0.21 |
| (1,2807) | 1:174:A:PRO:HB3 | 1:177:A:TYR:HB2 | 19 | 0.21 |
| (1,2646) | 1:163:A:ALA:HB3 | 1:164:A:ARG:HA | 1 | 0.21 |
| (1,2621) | 1:162:A:SER:HG | 1:172:A:MET:HE3 | 3 | 0.21 |
| (1,2610) | 1:162:A:SER:HA | 1:172:A:MET:HE3 | 17 | 0.21 |
| (1,2521) | 1:160:A:TRP:H | 1:172:A:MET:HE1 | 5 | 0.21 |
| (1,2316) | 1:150:A:LEU:HD11 | 1:165:A:ASN:HA | 9 | 0.21 |
| (1,2316) | 1:150:A:LEU:HD12 | 1:165:A:ASN:HA | 9 | 0.21 |
| (1,2316) | 1:150:A:LEU:HD13 | 1:165:A:ASN:HA | 9 | 0.21 |
| (1,2316) | 1:150:A:LEU:HD21 | 1:165:A:ASN:HA | 9 | 0.21 |
| (1,2316) | 1:150:A:LEU:HD22 | 1:165:A:ASN:HA | 9 | 0.21 |
| (1,2316) | 1:150:A:LEU:HD23 | 1:165:A:ASN:HA | 9 | 0.21 |
| (1,2316) | 1:150:A:LEU:HD11 | 1:165:A:ASN:HA | 20 | 0.21 |
| (1,2316) | 1:150:A:LEU:HD12 | 1:165:A:ASN:HA | 20 | 0.21 |
| (1,2316) | 1:150:A:LEU:HD13 | 1:165:A:ASN:HA | 20 | 0.21 |
| (1,2316) | 1:150:A:LEU:HD21 | 1:165:A:ASN:HA | 20 | 0.21 |
| (1,2316) | 1:150:A:LEU:HD22 | 1:165:A:ASN:HA | 20 | 0.21 |
| (1,2316) | 1:150:A:LEU:HD23 | 1:165:A:ASN:HA | 20 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD11 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD12 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD13 | 1 | 0.21 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD21 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD22 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD23 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD11 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD12 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD13 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD21 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD22 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD23 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD11 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD12 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD13 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD21 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD22 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD23 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD11 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD12 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD13 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD21 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD22 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD23 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD11 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD12 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD13 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD21 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD22 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD23 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD11 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD12 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD13 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD21 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD22 | 1 | 0.21 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD23 | 1 | 0.21 |
| (1,1877) | 1:132:A:TYR:HA | 1:132:A:TYR:HD1 | 11 | 0.21 |
| (1,1867) | 1:131:A:LEU:HD11 | 1:179:A:GLU:HG2 | 11 | 0.21 |
| (1,1867) | 1:131:A:LEU:HD12 | 1:179:A:GLU:HG2 | 11 | 0.21 |
| (1,1867) | 1:131:A:LEU:HD13 | 1:179:A:GLU:HG2 | 11 | 0.21 |
| (1,1867) | 1:131:A:LEU:HD21 | 1:179:A:GLU:HG2 | 11 | 0.21 |
| (1,1867) | 1:131:A:LEU:HD22 | 1:179:A:GLU:HG2 | 11 | 0.21 |
| (1,1867) | 1:131:A:LEU:HD23 | 1:179:A:GLU:HG2 | 11 | 0.21 |
| (1,1760) | 1:129:A:ARG:HA | 1:149:A:ILE:HD12 | 12 | 0.21 |
| (1,1625) | 1:122:A:GLU:HB2 | 1:123:A:ASP:HA | 17 | 0.21 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1620) | 1:122:A:GLU:HA | 1:123:A:ASP:H | 7 | 0.21 |
| (1,1606) | 1:115:A:ALA:H | 1:116:A:PRO:HD2 | 3 | 0.21 |
| (1,1605) | 1:115:A:ALA:H | 1:115:A:ALA:HB1 | 11 | 0.21 |
| (1,1259) | 1:80:A:HIS:HD1 | 1:83:A:ALA:HB1 | 20 | 0.21 |
| (1,510) | 1:34:A:GLY:H | 1:96:A:THR:HG23 | 12 | 0.21 |
| (1,404) | 1:28:A:LEU:H | 1:28:A:LEU:HD21 | 20 | 0.21 |
| (1,190) | 1:16:A:MET:H | 1:19:A:VAL:HB | 9 | 0.21 |
| (1,155) | 1:15:A:TYR:HA | 1:16:A:MET:HE3 | 6 | 0.21 |
| (1,24) | 1:6:A:PHE:H | 1:6:A:PHE:HD1 | 8 | 0.21 |
| (1,24) | 1:6:A:PHE:H | 1:6:A:PHE:HD2 | 8 | 0.21 |
| (1,3582) | 1:264:A:VAL:HG12 | 1:286:A:PHE:HE2 | 17 | 0.2 |
| (1,3441) | 1:257:A:ALA:HB2 | 1:258:A:LEU:H | 15 | 0.2 |
| (1,3360) | 1:254:A:THR:H | 1:255:A:ALA:HB2 | 11 | 0.2 |
| (1,3360) | 1:254:A:THR:H | 1:255:A:ALA:HB2 | 19 | 0.2 |
| (1,3098) | 1:240:A:ALA:H | 1:264:A:VAL:HG22 | 6 | 0.2 |
| (1,3072) | 1:239:A:PHE:HA | 1:239:A:PHE:HD1 | 5 | 0.2 |
| (1,3072) | 1:239:A:PHE:HA | 1:239:A:PHE:HD1 | 10 | 0.2 |
| (1,3030) | 1:233:A:THR:HG1 | 1:235:A:ASN:HD22 | 15 | 0.2 |
| (1,3005) | 1:225:A:ALA:H | 1:225:A:ALA:HB1 | 4 | 0.2 |
| (1,3000) | 1:217:A:PRO:HA | 1:218:A:ALA:H | 6 | 0.2 |
| (1,3000) | 1:217:A:PRO:HA | 1:218:A:ALA:H | 8 | 0.2 |
| (1,2989) | 1:204:A:ALA:H | 1:204:A:ALA:HB1 | 9 | 0.2 |
| (1,2646) | 1:163:A:ALA:HB3 | 1:164:A:ARG:HA | 3 | 0.2 |
| (1,2646) | 1:163:A:ALA:HB3 | 1:164:A:ARG:HA | 13 | 0.2 |
| (1,2610) | 1:162:A:SER:HA | 1:172:A:MET:HE3 | 6 | 0.2 |
| (1,2521) | 1:160:A:TRP:H | 1:172:A:MET:HE1 | 10 | 0.2 |
| (1,2521) | 1:160:A:TRP:H | 1:172:A:MET:HE1 | 17 | 0.2 |
| (1,2364) | 1:152:A:ILE:HA | 1:163:A:ALA:HB2 | 1 | 0.2 |
| (1,2364) | 1:152:A:ILE:HA | 1:163:A:ALA:HB2 | 16 | 0.2 |
| (1,2286) | 1:149:A:ILE:HD12 | 1:150:A:LEU:H | 17 | 0.2 |
| (1,2232) | 1:145:A:LYS:H | 1:148:A:GLU:HA | 9 | 0.2 |
| (1,1892) | 1:132:A:TYR:HD1 | 1:177:A:TYR:HA | 12 | 0.2 |
| (1,1877) | 1:132:A:TYR:HA | 1:132:A:TYR:HD1 | 9 | 0.2 |
| (1,1680) | 1:127:A:TYR:HB2 | 1:182:A:VAL:H | 14 | 0.2 |
| (1,1617) | 1:121:A:ALA:H | 1:122:A:GLU:HB2 | 7 | 0.2 |
| (1,1617) | 1:121:A:ALA:H | 1:122:A:GLU:HB3 | 7 | 0.2 |
| (1,1420) | 1:90:A:ILE:H | 1:90:A:ILE:HD12 | 17 | 0.2 |
| (1,1243) | 1:80:A:HIS:H | 1:83:A:ALA:HB1 | 1 | 0.2 |
| (1,1204) | 1:78:A:PHE:HD1 | 1:84:A:LEU:HA | 7 | 0.2 |
| (1,1050) | 1:66:A:LEU:H | 1:66:A:LEU:HD23 | 9 | 0.2 |
| (1,1018) | 1:64:A:ASN:H | 1:64:A:ASN:HD21 | 14 | 0.2 |
| (1,994) | 1:63:A:ILE:HB | 1:63:A:ILE:HD13 | 13 | 0.2 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,806) | 1:50:A:LEU:HG | 1:63:A:ILE:HD12 | 20 | 0.2 |
| (1,616) | 1:37:A:LEU:HG | 1:102:A:ALA:HB2 | 7 | 0.2 |
| (1,616) | 1:37:A:LEU:HG | 1:102:A:ALA:HB2 | 14 | 0.2 |
| (1,563) | 1:36:A:PHE:HA | 1:102:A:ALA:HB2 | 13 | 0.2 |
| (1,563) | 1:36:A:PHE:HA | 1:102:A:ALA:HB2 | 15 | 0.2 |
| (1,404) | 1:28:A:LEU:H | 1:28:A:LEU:HD21 | 18 | 0.2 |
| (1,155) | 1:15:A:TYR:HA | 1:16:A:MET:HE3 | 7 | 0.2 |
| (1,155) | 1:15:A:TYR:HA | 1:16:A:MET:HE3 | 14 | 0.2 |
| (1,31) | 1:6:A:PHE:HE1 | 1:100:A:GLU:HA | 9 | 0.2 |
| (1,31) | 1:6:A:PHE:HE2 | 1:100:A:GLU:HA | 9 | 0.2 |
| (1,3876) | 1:287:A:PRO:HA | 1:290:A:HIS:H | 6 | 0.19 |
| (1,3360) | 1:254:A:THR:H | 1:255:A:ALA:HB2 | 4 | 0.19 |
| (1,3360) | 1:254:A:THR:H | 1:255:A:ALA:HB2 | 13 | 0.19 |
| (1,3219) | 1:242:A:ALA:HB2 | 1:261:A:GLY:H | 8 | 0.19 |
| (1,3136) | 1:240:A:ALA:HB2 | 1:294:A:PHE:H | 19 | 0.19 |
| (1,3134) | 1:240:A:ALA:HB2 | 1:293:A:ILE:HA | 5 | 0.19 |
| (1,3072) | 1:239:A:PHE:HA | 1:239:A:PHE:HD1 | 16 | 0.19 |
| (1,3060) | 1:238:A:VAL:HB | 1:269:A:MET:HE1 | 7 | 0.19 |
| (1,3060) | 1:238:A:VAL:HB | 1:269:A:MET:HE1 | 9 | 0.19 |
| (1,3034) | 1:235:A:ASN:HA | 1:235:A:ASN:HD21 | 14 | 0.19 |
| (1,3001) | 1:220:A:SER:HA | 1:221:A:GLY:H | 9 | 0.19 |
| (1,2886) | 1:178:A:VAL:HG13 | 1:178:A:VAL:HG21 | 20 | 0.19 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD11 | 17 | 0.19 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD12 | 17 | 0.19 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD13 | 17 | 0.19 |
| (1,2621) | 1:162:A:SER:HG | 1:172:A:MET:HE3 | 4 | 0.19 |
| (1,2621) | 1:162:A:SER:HG | 1:172:A:MET:HE3 | 5 | 0.19 |
| (1,2609) | 1:162:A:SER:HA | 1:172:A:MET:HE2 | 11 | 0.19 |
| (1,2497) | 1:158:A:GLU:H | 1:158:A:GLU:HB2 | 20 | 0.19 |
| (1,2465) | 1:156:A:PRO:HD2 | 1:172:A:MET:HE3 | 19 | 0.19 |
| (1,2462) | 1:156:A:PRO:HD2 | 1:172:A:MET:HG2 | 9 | 0.19 |
| (1,2286) | 1:149:A:ILE:HD12 | 1:150:A:LEU:H | 20 | 0.19 |
| (1,2070) | 1:140:A:GLU:H | 1:142:A:LEU:HA | 12 | 0.19 |
| (1,1941) | 1:133:A:ASP:HB2 | 1:145:A:LYS:HB2 | 12 | 0.19 |
| (1,1892) | 1:132:A:TYR:HD1 | 1:177:A:TYR:HA | 15 | 0.19 |
| (1,1892) | 1:132:A:TYR:HD1 | 1:177:A:TYR:HA | 20 | 0.19 |
| (1,1877) | 1:132:A:TYR:HA | 1:132:A:TYR:HD1 | 14 | 0.19 |
| (1,1467) | 1:92:A:TYR:HE2 | 1:97:A:THR:H | 12 | 0.19 |
| (1,994) | 1:63:A:ILE:HB | 1:63:A:ILE:HD13 | 5 | 0.19 |
| (1,563) | 1:36:A:PHE:HA | 1:102:A:ALA:HB2 | 8 | 0.19 |
| (1,456) | 1:32:A:ARG:H | 1:33:A:HIS:H | 16 | 0.19 |
| (1,203) | 1:16:A:MET:HE1 | 1:102:A:ALA:H | 4 | 0.19 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,3678) | 1:269:A:MET:HE3 | 1:275:A:TRP:HZ2 | 9 | 0.18 |
| (1,3441) | 1:257:A:ALA:HB2 | 1:258:A:LEU:H | 7 | 0.18 |
| (1,3321) | 1:249:A:CYS:H | 1:255:A:ALA:HB2 | 1 | 0.18 |
| (1,3291) | 1:246:A:ARG:HH12 | 1:290:A:HIS:HE1 | 9 | 0.18 |
| (1,3210) | 1:242:A:ALA:HB1 | 1:291:A:VAL:HB | 12 | 0.18 |
| (1,3205) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD23 | 14 | 0.18 |
| (1,3137) | 1:240:A:ALA:HB2 | 1:294:A:PHE:HD1 | 11 | 0.18 |
| (1,3060) | 1:238:A:VAL:HB | 1:269:A:MET:HE1 | 5 | 0.18 |
| (1,3048) | 1:238:A:VAL:H | 1:269:A:MET:HE1 | 11 | 0.18 |
| (1,2989) | 1:204:A:ALA:H | 1:204:A:ALA:HB1 | 8 | 0.18 |
| (1,2989) | 1:204:A:ALA:H | 1:204:A:ALA:HB1 | 12 | 0.18 |
| (1,2886) | 1:178:A:VAL:HG13 | 1:178:A:VAL:HG21 | 13 | 0.18 |
| (1,2788) | 1:173:A:ILE:HD11 | 1:178:A:VAL:HG12 | 6 | 0.18 |
| (1,2788) | 1:173:A:ILE:HD12 | 1:178:A:VAL:HG12 | 6 | 0.18 |
| (1,2788) | 1:173:A:ILE:HD13 | 1:178:A:VAL:HG12 | 6 | 0.18 |
| (1,2610) | 1:162:A:SER:HA | 1:172:A:MET:HE3 | 11 | 0.18 |
| (1,2581) | 1:161:A:TRP:HB2 | 1:175:A:VAL:HG21 | 7 | 0.18 |
| (1,2216) | 1:144:A:PHE:HE2 | 1:174:A:PRO:HG2 | 5 | 0.18 |
| (1,2133) | 1:142:A:LEU:HD11 | 1:143:A:PRO:HD2 | 9 | 0.18 |
| (1,2133) | 1:142:A:LEU:HD11 | 1:143:A:PRO:HD3 | 9 | 0.18 |
| (1,2133) | 1:142:A:LEU:HD12 | 1:143:A:PRO:HD2 | 9 | 0.18 |
| (1,2133) | 1:142:A:LEU:HD12 | 1:143:A:PRO:HD3 | 9 | 0.18 |
| (1,2133) | 1:142:A:LEU:HD13 | 1:143:A:PRO:HD2 | 9 | 0.18 |
| (1,2133) | 1:142:A:LEU:HD13 | 1:143:A:PRO:HD3 | 9 | 0.18 |
| (1,2133) | 1:142:A:LEU:HD21 | 1:143:A:PRO:HD2 | 9 | 0.18 |
| (1,2133) | 1:142:A:LEU:HD21 | 1:143:A:PRO:HD3 | 9 | 0.18 |
| (1,2133) | 1:142:A:LEU:HD22 | 1:143:A:PRO:HD2 | 9 | 0.18 |
| (1,2133) | 1:142:A:LEU:HD22 | 1:143:A:PRO:HD3 | 9 | 0.18 |
| (1,2133) | 1:142:A:LEU:HD23 | 1:143:A:PRO:HD2 | 9 | 0.18 |
| (1,2133) | 1:142:A:LEU:HD23 | 1:143:A:PRO:HD3 | 9 | 0.18 |
| (1,1877) | 1:132:A:TYR:HA | 1:132:A:TYR:HD1 | 8 | 0.18 |
| (1,1597) | 1:112:A:SER:HA | 1:112:A:SER:HG | 6 | 0.18 |
| (1,1260) | 1:80:A:HIS:HD1 | 1:83:A:ALA:HB2 | 2 | 0.18 |
| (1,1201) | 1:78:A:PHE:HA | 1:83:A:ALA:HB1 | 19 | 0.18 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD11 | 17 | 0.18 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD12 | 17 | 0.18 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD13 | 17 | 0.18 |
| (1,806) | 1:50:A:LEU:HG | 1:63:A:ILE:HD12 | 2 | 0.18 |
| (1,758) | 1:49:A:VAL:H | 1:63:A:ILE:HD13 | 19 | 0.18 |
| (1,616) | 1:37:A:LEU:HG | 1:102:A:ALA:HB2 | 4 | 0.18 |
| (1,563) | 1:36:A:PHE:HA | 1:102:A:ALA:HB2 | 17 | 0.18 |
| (1,521) | 1:34:A:GLY:HA2 | 1:99:A:ILE:HD13 | 1 | 0.18 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,404) | 1:28:A:LEU:H | 1:28:A:LEU:HD21 | 3 | 0.18 |
| (1,72) | 1:10:A:ASP:H | 1:14:A:TRP:HZ2 | 10 | 0.18 |
| (1,42) | 1:7:A:ASP:H | 1:13:A:ALA:HB1 | 8 | 0.18 |
| (1,3496) | 1:258:A:LEU:HD23 | 1:264:A:VAL:HA | 1 | 0.17 |
| (1,3441) | 1:257:A:ALA:HB2 | 1:258:A:LEU:H | 18 | 0.17 |
| (1,3360) | 1:254:A:THR:H | 1:255:A:ALA:HB2 | 6 | 0.17 |
| (1,3199) | 1:242:A:ALA:HB1 | 1:244:A:GLN:H | 5 | 0.17 |
| (1,3000) | 1:217:A:PRO:HA | 1:218:A:ALA:H | 9 | 0.17 |
| (1,2995) | 1:211:A:GLN:HB2 | 1:212:A:THR:HA | 13 | 0.17 |
| (1,2986) | 1:199:A:GLY:H | 1:200:A:ILE:H | 19 | 0.17 |
| (1,2971) | 1:189:A:LYS:H | 1:190:A:HIS:H | 4 | 0.17 |
| (1,2919) | 1:182:A:VAL:HB | 1:183:A:ARG:H | 11 | 0.17 |
| (1,2646) | 1:163:A:ALA:HB3 | 1:164:A:ARG:HA | 5 | 0.17 |
| (1,2646) | 1:163:A:ALA:HB3 | 1:164:A:ARG:HA | 20 | 0.17 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD11 | 2 | 0.17 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD12 | 2 | 0.17 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD13 | 2 | 0.17 |
| (1,2521) | 1:160:A:TRP:H | 1:172:A:MET:HE1 | 18 | 0.17 |
| (1,2465) | 1:156:A:PRO:HD2 | 1:172:A:MET:HE3 | 15 | 0.17 |
| (1,2316) | 1:150:A:LEU:HD11 | 1:165:A:ASN:HA | 16 | 0.17 |
| (1,2316) | 1:150:A:LEU:HD12 | 1:165:A:ASN:HA | 16 | 0.17 |
| (1,2316) | 1:150:A:LEU:HD13 | 1:165:A:ASN:HA | 16 | 0.17 |
| (1,2316) | 1:150:A:LEU:HD21 | 1:165:A:ASN:HA | 16 | 0.17 |
| (1,2316) | 1:150:A:LEU:HD22 | 1:165:A:ASN:HA | 16 | 0.17 |
| (1,2316) | 1:150:A:LEU:HD23 | 1:165:A:ASN:HA | 16 | 0.17 |
| (1,2142) | 1:142:A:LEU:HD11 | 1:143:A:PRO:HD2 | 9 | 0.17 |
| (1,2142) | 1:142:A:LEU:HD12 | 1:143:A:PRO:HD2 | 9 | 0.17 |
| (1,2142) | 1:142:A:LEU:HD13 | 1:143:A:PRO:HD2 | 9 | 0.17 |
| (1,2142) | 1:142:A:LEU:HD21 | 1:143:A:PRO:HD2 | 9 | 0.17 |
| (1,2142) | 1:142:A:LEU:HD22 | 1:143:A:PRO:HD2 | 9 | 0.17 |
| (1,2142) | 1:142:A:LEU:HD23 | 1:143:A:PRO:HD2 | 9 | 0.17 |
| (1,1991) | 1:134:A:PHE:HE2 | 1:160:A:TRP:HH2 | 4 | 0.17 |
| (1,1620) | 1:122:A:GLU:HA | 1:123:A:ASP:H | 15 | 0.17 |
| (1,1234) | 1:79:A:ASP:H | 1:83:A:ALA:HB1 | 14 | 0.17 |
| (1,1234) | 1:79:A:ASP:H | 1:83:A:ALA:HB1 | 19 | 0.17 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD11 | 19 | 0.17 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD12 | 19 | 0.17 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD13 | 19 | 0.17 |
| (1,994) | 1:63:A:ILE:HB | 1:63:A:ILE:HD13 | 4 | 0.17 |
| (1,994) | 1:63:A:ILE:HB | 1:63:A:ILE:HD13 | 17 | 0.17 |
| (1,806) | 1:50:A:LEU:HG | 1:63:A:ILE:HD12 | 3 | 0.17 |
| (1,616) | 1:37:A:LEU:HG | 1:102:A:ALA:HB2 | 15 | 0.17 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,510) | 1:34:A:GLY:H | 1:96:A:THR:HG23 | 11 | 0.17 |
| (1,455) | 1:32:A:ARG:H | 1:32:A:ARG:HE | 9 | 0.17 |
| (1,422) | 1:28:A:LEU:HG | 1:102:A:ALA:HB2 | 11 | 0.17 |
| (1,3675) | 1:269:A:MET:HE2 | 1:275:A:TRP:HE3 | 16 | 0.16 |
| (1,3552) | 1:263:A:ILE:HD11 | 1:294:A:PHE:HE2 | 4 | 0.16 |
| (1,3525) | 1:260:A:VAL:HG23 | 1:261:A:GLY:H | 14 | 0.16 |
| (1,3490) | 1:258:A:LEU:HD21 | 1:279:A:VAL:HG22 | 4 | 0.16 |
| (1,3485) | 1:258:A:LEU:HD21 | 1:264:A:VAL:HB | 13 | 0.16 |
| (1,3441) | 1:257:A:ALA:HB2 | 1:258:A:LEU:H | 2 | 0.16 |
| (1,3441) | 1:257:A:ALA:HB2 | 1:258:A:LEU:H | 4 | 0.16 |
| (1,3438) | 1:257:A:ALA:HB1 | 1:282:A:ARG:HH11 | 11 | 0.16 |
| (1,3351) | 1:252:A:ASP:HA | 1:255:A:ALA:HB2 | 20 | 0.16 |
| (1,3137) | 1:240:A:ALA:HB2 | 1:294:A:PHE:HD1 | 18 | 0.16 |
| (1,3085) | 1:239:A:PHE:HD1 | 1:263:A:ILE:HD12 | 1 | 0.16 |
| (1,3000) | 1:217:A:PRO:HA | 1:218:A:ALA:H | 20 | 0.16 |
| (1,2940) | 1:185:A:SER:H | 1:187:A:HIS:HE1 | 12 | 0.16 |
| (1,2832) | 1:175:A:VAL:HA | 1:178:A:VAL:HG11 | 6 | 0.16 |
| (1,2788) | 1:173:A:ILE:HD11 | 1:178:A:VAL:HG12 | 12 | 0.16 |
| (1,2788) | 1:173:A:ILE:HD12 | 1:178:A:VAL:HG12 | 12 | 0.16 |
| (1,2788) | 1:173:A:ILE:HD13 | 1:178:A:VAL:HG12 | 12 | 0.16 |
| (1,2758) | 1:172:A:MET:HA | 1:172:A:MET:HE2 | 19 | 0.16 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD11 | 3 | 0.16 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD12 | 3 | 0.16 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD13 | 3 | 0.16 |
| (1,2465) | 1:156:A:PRO:HD2 | 1:172:A:MET:HE3 | 7 | 0.16 |
| (1,2435) | 1:155:A:LYS:HG2 | 1:155:A:LYS:HE2 | 3 | 0.16 |
| (1,2428) | 1:155:A:LYS:HB2 | 1:155:A:LYS:HD2 | 12 | 0.16 |
| (1,2316) | 1:150:A:LEU:HD11 | 1:165:A:ASN:HA | 1 | 0.16 |
| (1,2316) | 1:150:A:LEU:HD12 | 1:165:A:ASN:HA | 1 | 0.16 |
| (1,2316) | 1:150:A:LEU:HD13 | 1:165:A:ASN:HA | 1 | 0.16 |
| (1,2316) | 1:150:A:LEU:HD21 | 1:165:A:ASN:HA | 1 | 0.16 |
| (1,2316) | 1:150:A:LEU:HD22 | 1:165:A:ASN:HA | 1 | 0.16 |
| (1,2316) | 1:150:A:LEU:HD23 | 1:165:A:ASN:HA | 1 | 0.16 |
| (1,2316) | 1:150:A:LEU:HD11 | 1:165:A:ASN:HA | 6 | 0.16 |
| (1,2316) | 1:150:A:LEU:HD12 | 1:165:A:ASN:HA | 6 | 0.16 |
| (1,2316) | 1:150:A:LEU:HD13 | 1:165:A:ASN:HA | 6 | 0.16 |
| (1,2316) | 1:150:A:LEU:HD21 | 1:165:A:ASN:HA | 6 | 0.16 |
| (1,2316) | 1:150:A:LEU:HD22 | 1:165:A:ASN:HA | 6 | 0.16 |
| (1,2316) | 1:150:A:LEU:HD23 | 1:165:A:ASN:HA | 6 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD11 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD12 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD13 | 10 | 0.16 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD21 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD22 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD11 | 1:150:A:LEU:HD23 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD11 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD12 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD13 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD21 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD22 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD12 | 1:150:A:LEU:HD23 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD11 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD12 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD13 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD21 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD22 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD13 | 1:150:A:LEU:HD23 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD11 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD12 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD13 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD21 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD22 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD21 | 1:150:A:LEU:HD23 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD11 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD12 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD13 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD21 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD22 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD22 | 1:150:A:LEU:HD23 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD11 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD12 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD13 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD21 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD22 | 10 | 0.16 |
| (1,2134) | 1:142:A:LEU:HD23 | 1:150:A:LEU:HD23 | 10 | 0.16 |
| (1,1982) | 1:134:A:PHE:HD1 | 1:177:A:TYR:HD2 | 14 | 0.16 |
| (1,1368) | 1:87:A:PHE:HD1 | 1:90:A:ILE:HD13 | 5 | 0.16 |
| (1,1259) | 1:80:A:HIS:HD1 | 1:83:A:ALA:HB1 | 15 | 0.16 |
| (1,994) | 1:63:A:ILE:HB | 1:63:A:ILE:HD13 | 6 | 0.16 |
| (1,994) | 1:63:A:ILE:HB | 1:63:A:ILE:HD13 | 16 | 0.16 |
| (1,806) | 1:50:A:LEU:HG | 1:63:A:ILE:HD12 | 1 | 0.16 |
| (1,616) | 1:37:A:LEU:HG | 1:102:A:ALA:HB2 | 6 | 0.16 |
| (1,563) | 1:36:A:PHE:HA | 1:102:A:ALA:HB2 | 6 | 0.16 |
| (1,563) | 1:36:A:PHE:HA | 1:102:A:ALA:HB2 | 16 | 0.16 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,214) | 1:16:A:MET:HE3 | 1:38:A:VAL:H | 13 | 0.16 |
| (1,201) | 1:16:A:MET:HE1 | 1:37:A:LEU:HD23 | 11 | 0.16 |
| (1,95) | 1:11:A:ARG:HA | 1:15:A:TYR:H | 12 | 0.16 |
| (1,31) | 1:6:A:PHE:HE1 | 1:100:A:GLU:HA | 12 | 0.16 |
| (1,31) | 1:6:A:PHE:HE2 | 1:100:A:GLU:HA | 12 | 0.16 |
| (1,24) | 1:6:A:PHE:H | 1:6:A:PHE:HD1 | 17 | 0.16 |
| (1,24) | 1:6:A:PHE:H | 1:6:A:PHE:HD2 | 17 | 0.16 |
| (1,3879) | 1:288:A:PHE:H | 1:290:A:HIS:H | 6 | 0.15 |
| (1,3552) | 1:263:A:ILE:HD11 | 1:294:A:PHE:HE2 | 18 | 0.15 |
| (1,3440) | 1:257:A:ALA:HB1 | 1:282:A:ARG:HH22 | 2 | 0.15 |
| (1,3321) | 1:249:A:CYS:H | 1:255:A:ALA:HB2 | 2 | 0.15 |
| (1,3142) | 1:240:A:ALA:HB3 | 1:291:A:VAL:HG21 | 16 | 0.15 |
| (1,3137) | 1:240:A:ALA:HB2 | 1:294:A:PHE:HD1 | 9 | 0.15 |
| (1,2924) | 1:183:A:ARG:HA | 1:183:A:ARG:HE | 15 | 0.15 |
| (1,2758) | 1:172:A:MET:HA | 1:172:A:MET:HE2 | 20 | 0.15 |
| (1,2621) | 1:162:A:SER:HG | 1:172:A:MET:HE3 | 18 | 0.15 |
| (1,2546) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE2 | 4 | 0.15 |
| (1,2545) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE1 | 7 | 0.15 |
| (1,2465) | 1:156:A:PRO:HD2 | 1:172:A:MET:HE3 | 13 | 0.15 |
| (1,2142) | 1:142:A:LEU:HD11 | 1:143:A:PRO:HD2 | 13 | 0.15 |
| (1,2142) | 1:142:A:LEU:HD12 | 1:143:A:PRO:HD2 | 13 | 0.15 |
| (1,2142) | 1:142:A:LEU:HD13 | 1:143:A:PRO:HD2 | 13 | 0.15 |
| (1,2142) | 1:142:A:LEU:HD21 | 1:143:A:PRO:HD2 | 13 | 0.15 |
| (1,2142) | 1:142:A:LEU:HD22 | 1:143:A:PRO:HD2 | 13 | 0.15 |
| (1,2142) | 1:142:A:LEU:HD23 | 1:143:A:PRO:HD2 | 13 | 0.15 |
| (1,2133) | 1:142:A:LEU:HD11 | 1:143:A:PRO:HD2 | 13 | 0.15 |
| (1,2133) | 1:142:A:LEU:HD11 | 1:143:A:PRO:HD3 | 13 | 0.15 |
| (1,2133) | 1:142:A:LEU:HD12 | 1:143:A:PRO:HD2 | 13 | 0.15 |
| (1,2133) | 1:142:A:LEU:HD12 | 1:143:A:PRO:HD3 | 13 | 0.15 |
| (1,2133) | 1:142:A:LEU:HD13 | 1:143:A:PRO:HD2 | 13 | 0.15 |
| (1,2133) | 1:142:A:LEU:HD13 | 1:143:A:PRO:HD3 | 13 | 0.15 |
| (1,2133) | 1:142:A:LEU:HD21 | 1:143:A:PRO:HD2 | 13 | 0.15 |
| (1,2133) | 1:142:A:LEU:HD21 | 1:143:A:PRO:HD3 | 13 | 0.15 |
| (1,2133) | 1:142:A:LEU:HD22 | 1:143:A:PRO:HD2 | 13 | 0.15 |
| (1,2133) | 1:142:A:LEU:HD22 | 1:143:A:PRO:HD3 | 13 | 0.15 |
| (1,2133) | 1:142:A:LEU:HD23 | 1:143:A:PRO:HD2 | 13 | 0.15 |
| (1,2133) | 1:142:A:LEU:HD23 | 1:143:A:PRO:HD3 | 13 | 0.15 |
| (1,1617) | 1:121:A:ALA:H | 1:122:A:GLU:HB2 | 1 | 0.15 |
| (1,1617) | 1:121:A:ALA:H | 1:122:A:GLU:HB3 | 1 | 0.15 |
| (1,1429) | 1:90:A:ILE:HA | 1:97:A:THR:HB | 12 | 0.15 |
| (1,1368) | 1:87:A:PHE:HD1 | 1:90:A:ILE:HD13 | 11 | 0.15 |
| (1,1243) | 1:80:A:HIS:H | 1:83:A:ALA:HB1 | 3 | 0.15 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1050) | 1:66:A:LEU:H | 1:66:A:LEU:HD23 | 10 | 0.15 |
| (1,994) | 1:63:A:ILE:HB | 1:63:A:ILE:HD13 | 2 | 0.15 |
| (1,994) | 1:63:A:ILE:HB | 1:63:A:ILE:HD13 | 11 | 0.15 |
| (1,954) | 1:61:A:TYR:HH | 1:94:A:ASP:HA | 9 | 0.15 |
| (1,404) | 1:28:A:LEU:H | 1:28:A:LEU:HD21 | 10 | 0.15 |
| (1,331) | 1:24:A:ALA:H | 1:39:A:ARG:HE | 12 | 0.15 |
| (1,201) | 1:16:A:MET:HE1 | 1:37:A:LEU:HD23 | 5 | 0.15 |
| (1,201) | 1:16:A:MET:HE1 | 1:37:A:LEU:HD23 | 19 | 0.15 |
| (1,89) | 1:11:A:ARG:HA | 1:14:A:TRP:HD1 | 12 | 0.15 |
| (1,3679) | 1:269:A:MET:HE3 | 1:275:A:TRP:HH2 | 10 | 0.14 |
| (1,3584) | 1:264:A:VAL:HG13 | 1:266:A:VAL:HA | 20 | 0.14 |
| (1,3429) | 1:257:A:ALA:H | 1:258:A:LEU:HD22 | 19 | 0.14 |
| (1,3360) | 1:254:A:THR:H | 1:255:A:ALA:HB2 | 8 | 0.14 |
| (1,3351) | 1:252:A:ASP:HA | 1:255:A:ALA:HB2 | 5 | 0.14 |
| (1,3137) | 1:240:A:ALA:HB2 | 1:294:A:PHE:HD1 | 4 | 0.14 |
| (1,3137) | 1:240:A:ALA:HB2 | 1:294:A:PHE:HD1 | 6 | 0.14 |
| (1,3004) | 1:223:A:PRO:HA | 1:224:A:GLY:H | 9 | 0.14 |
| (1,2995) | 1:211:A:GLN:HB2 | 1:212:A:THR:HA | 10 | 0.14 |
| (1,2922) | 1:183:A:ARG:H | 1:184:A:SER:H | 11 | 0.14 |
| (1,2450) | 1:156:A:PRO:HG2 | 1:157:A:GLU:HG2 | 19 | 0.14 |
| (1,2275) | 1:149:A:ILE:HA | 1:149:A:ILE:HD12 | 13 | 0.14 |
| (1,2133) | 1:142:A:LEU:HD11 | 1:143:A:PRO:HD2 | 5 | 0.14 |
| (1,2133) | 1:142:A:LEU:HD11 | 1:143:A:PRO:HD3 | 5 | 0.14 |
| (1,2133) | 1:142:A:LEU:HD12 | 1:143:A:PRO:HD2 | 5 | 0.14 |
| (1,2133) | 1:142:A:LEU:HD12 | 1:143:A:PRO:HD3 | 5 | 0.14 |
| (1,2133) | 1:142:A:LEU:HD13 | 1:143:A:PRO:HD2 | 5 | 0.14 |
| (1,2133) | 1:142:A:LEU:HD13 | 1:143:A:PRO:HD3 | 5 | 0.14 |
| (1,2133) | 1:142:A:LEU:HD21 | 1:143:A:PRO:HD2 | 5 | 0.14 |
| (1,2133) | 1:142:A:LEU:HD21 | 1:143:A:PRO:HD3 | 5 | 0.14 |
| (1,2133) | 1:142:A:LEU:HD22 | 1:143:A:PRO:HD2 | 5 | 0.14 |
| (1,2133) | 1:142:A:LEU:HD22 | 1:143:A:PRO:HD3 | 5 | 0.14 |
| (1,2133) | 1:142:A:LEU:HD23 | 1:143:A:PRO:HD2 | 5 | 0.14 |
| (1,2133) | 1:142:A:LEU:HD23 | 1:143:A:PRO:HD3 | 5 | 0.14 |
| (1,2001) | 1:134:A:PHE:HD2 | 1:160:A:TRP:HH2 | 2 | 0.14 |
| (1,1892) | 1:132:A:TYR:HD1 | 1:177:A:TYR:HA | 16 | 0.14 |
| (1,1877) | 1:132:A:TYR:HA | 1:132:A:TYR:HD1 | 19 | 0.14 |
| (1,1760) | 1:129:A:ARG:HA | 1:149:A:ILE:HD12 | 5 | 0.14 |
| (1,1626) | 1:123:A:ASP:H | 1:123:A:ASP:HB2 | 18 | 0.14 |
| (1,1606) | 1:115:A:ALA:H | 1:116:A:PRO:HD2 | 6 | 0.14 |
| (1,1259) | 1:80:A:HIS:HD1 | 1:83:A:ALA:HB1 | 6 | 0.14 |
| (1,1160) | 1:73:A:ILE:HB | 1:84:A:LEU:HD11 | 8 | 0.14 |
| (1,1160) | 1:73:A:ILE:HB | 1:84:A:LEU:HD12 | 8 | 0.14 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1160) | 1:73:A:ILE:HB | 1:84:A:LEU:HD13 | 8 | 0.14 |
| (1,1160) | 1:73:A:ILE:HB | 1:84:A:LEU:HD21 | 8 | 0.14 |
| (1,1160) | 1:73:A:ILE:HB | 1:84:A:LEU:HD22 | 8 | 0.14 |
| (1,1160) | 1:73:A:ILE:HB | 1:84:A:LEU:HD23 | 8 | 0.14 |
| (1,994) | 1:63:A:ILE:HB | 1:63:A:ILE:HD13 | 18 | 0.14 |
| (1,994) | 1:63:A:ILE:HB | 1:63:A:ILE:HD13 | 19 | 0.14 |
| (1,994) | 1:63:A:ILE:HB | 1:63:A:ILE:HD13 | 20 | 0.14 |
| (1,806) | 1:50:A:LEU:HG | 1:63:A:ILE:HD12 | 13 | 0.14 |
| (1,758) | 1:49:A:VAL:H | 1:63:A:ILE:HD13 | 18 | 0.14 |
| (1,404) | 1:28:A:LEU:H | 1:28:A:LEU:HD21 | 19 | 0.14 |
| (1,249) | 1:20:A:SER:H | 1:23:A:GLU:H | 1 | 0.14 |
| (1,205) | 1:16:A:MET:HE1 | 1:102:A:ALA:HB1 | 18 | 0.14 |
| (1,201) | 1:16:A:MET:HE1 | 1:37:A:LEU:HD23 | 2 | 0.14 |
| (1,66) | 1:9:A:SER:HA | 1:14:A:TRP:HZ2 | 12 | 0.14 |
| (1,3486) | 1:258:A:LEU:HD21 | 1:264:A:VAL:HG13 | 6 | 0.13 |
| (1,3438) | 1:257:A:ALA:HB1 | 1:282:A:ARG:HH11 | 13 | 0.13 |
| (1,3414) | 1:256:A:LEU:HD11 | 1:279:A:VAL:HB | 10 | 0.13 |
| (1,3414) | 1:256:A:LEU:HD12 | 1:279:A:VAL:HB | 10 | 0.13 |
| (1,3414) | 1:256:A:LEU:HD13 | 1:279:A:VAL:HB | 10 | 0.13 |
| (1,3414) | 1:256:A:LEU:HD21 | 1:279:A:VAL:HB | 10 | 0.13 |
| (1,3414) | 1:256:A:LEU:HD22 | 1:279:A:VAL:HB | 10 | 0.13 |
| (1,3414) | 1:256:A:LEU:HD23 | 1:279:A:VAL:HB | 10 | 0.13 |
| (1,3308) | 1:247:A:VAL:HA | 1:257:A:ALA:HB2 | 1 | 0.13 |
| (1,3308) | 1:247:A:VAL:HA | 1:257:A:ALA:HB2 | 14 | 0.13 |
| (1,3062) | 1:238:A:VAL:HB | 1:269:A:MET:HE3 | 8 | 0.13 |
| (1,2963) | 1:187:A:HIS:HB2 | 1:188:A:GLY:HA2 | 7 | 0.13 |
| (1,2788) | 1:173:A:ILE:HD11 | 1:178:A:VAL:HG12 | 9 | 0.13 |
| (1,2788) | 1:173:A:ILE:HD12 | 1:178:A:VAL:HG12 | 9 | 0.13 |
| (1,2788) | 1:173:A:ILE:HD13 | 1:178:A:VAL:HG12 | 9 | 0.13 |
| (1,2523) | 1:160:A:TRP:H | 1:175:A:VAL:HG23 | 10 | 0.13 |
| (1,2497) | 1:158:A:GLU:H | 1:158:A:GLU:HB2 | 19 | 0.13 |
| (1,2465) | 1:156:A:PRO:HD2 | 1:172:A:MET:HE3 | 5 | 0.13 |
| (1,2283) | 1:149:A:ILE:HB | 1:149:A:ILE:HD12 | 10 | 0.13 |
| (1,1878) | 1:132:A:TYR:HA | 1:132:A:TYR:HE1 | 4 | 0.13 |
| (1,1625) | 1:122:A:GLU:HB2 | 1:123:A:ASP:HA | 11 | 0.13 |
| (1,1608) | 1:120:A:THR:H | 1:120:A:THR:HB | 19 | 0.13 |
| (1,1606) | 1:115:A:ALA:H | 1:116:A:PRO:HD2 | 12 | 0.13 |
| (1,1477) | 1:92:A:TYR:HD2 | 1:97:A:THR:HG22 | 6 | 0.13 |
| (1,1451) | 1:92:A:TYR:HA | 1:93:A:LEU:H | 12 | 0.13 |
| (1,1260) | 1:80:A:HIS:HD1 | 1:83:A:ALA:HB2 | 6 | 0.13 |
| (1,1260) | 1:80:A:HIS:HD1 | 1:83:A:ALA:HB2 | 7 | 0.13 |
| (1,1224) | 1:78:A:PHE:HE2 | 1:84:A:LEU:HD11 | 7 | 0.13 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,1224) | 1:78:A:PHE:HE2 | 1:84:A:LEU:HD12 | 7 | 0.13 |
| (1,1224) | 1:78:A:PHE:HE2 | 1:84:A:LEU:HD13 | 7 | 0.13 |
| (1,1224) | 1:78:A:PHE:HE2 | 1:84:A:LEU:HD21 | 7 | 0.13 |
| (1,1224) | 1:78:A:PHE:HE2 | 1:84:A:LEU:HD22 | 7 | 0.13 |
| (1,1224) | 1:78:A:PHE:HE2 | 1:84:A:LEU:HD23 | 7 | 0.13 |
| (1,1201) | 1:78:A:PHE:HA | 1:83:A:ALA:HB1 | 1 | 0.13 |
| (1,1173) | 1:73:A:ILE:HD11 | 1:81:A:LEU:HD11 | 8 | 0.13 |
| (1,1173) | 1:73:A:ILE:HD11 | 1:81:A:LEU:HD12 | 8 | 0.13 |
| (1,1173) | 1:73:A:ILE:HD11 | 1:81:A:LEU:HD13 | 8 | 0.13 |
| (1,1173) | 1:73:A:ILE:HD11 | 1:81:A:LEU:HD21 | 8 | 0.13 |
| (1,1173) | 1:73:A:ILE:HD11 | 1:81:A:LEU:HD22 | 8 | 0.13 |
| (1,1173) | 1:73:A:ILE:HD11 | 1:81:A:LEU:HD23 | 8 | 0.13 |
| (1,1173) | 1:73:A:ILE:HD12 | 1:81:A:LEU:HD11 | 8 | 0.13 |
| (1,1173) | 1:73:A:ILE:HD12 | 1:81:A:LEU:HD12 | 8 | 0.13 |
| (1,1173) | 1:73:A:ILE:HD12 | 1:81:A:LEU:HD13 | 8 | 0.13 |
| (1,1173) | 1:73:A:ILE:HD12 | 1:81:A:LEU:HD21 | 8 | 0.13 |
| (1,1173) | 1:73:A:ILE:HD12 | 1:81:A:LEU:HD22 | 8 | 0.13 |
| (1,1173) | 1:73:A:ILE:HD12 | 1:81:A:LEU:HD23 | 8 | 0.13 |
| (1,1173) | 1:73:A:ILE:HD13 | 1:81:A:LEU:HD11 | 8 | 0.13 |
| (1,1173) | 1:73:A:ILE:HD13 | 1:81:A:LEU:HD12 | 8 | 0.13 |
| (1,1173) | 1:73:A:ILE:HD13 | 1:81:A:LEU:HD13 | 8 | 0.13 |
| (1,1173) | 1:73:A:ILE:HD13 | 1:81:A:LEU:HD21 | 8 | 0.13 |
| (1,1173) | 1:73:A:ILE:HD13 | 1:81:A:LEU:HD22 | 8 | 0.13 |
| (1,1173) | 1:73:A:ILE:HD13 | 1:81:A:LEU:HD23 | 8 | 0.13 |
| (1,1138) | 1:72:A:LYS:HA | 1:76:A:GLN:H | 10 | 0.13 |
| (1,994) | 1:63:A:ILE:HB | 1:63:A:ILE:HD13 | 1 | 0.13 |
| (1,911) | 1:58:A:VAL:H | 1:60:A:HIS:HE2 | 16 | 0.13 |
| (1,757) | 1:49:A:VAL:H | 1:63:A:ILE:HD11 | 8 | 0.13 |
| (1,653) | 1:38:A:VAL:HG11 | 1:50:A:LEU:HD11 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG11 | 1:50:A:LEU:HD12 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG11 | 1:50:A:LEU:HD13 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG11 | 1:50:A:LEU:HD21 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG11 | 1:50:A:LEU:HD22 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG11 | 1:50:A:LEU:HD23 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG12 | 1:50:A:LEU:HD11 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG12 | 1:50:A:LEU:HD12 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG12 | 1:50:A:LEU:HD13 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG12 | 1:50:A:LEU:HD21 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG12 | 1:50:A:LEU:HD22 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG12 | 1:50:A:LEU:HD23 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG13 | 1:50:A:LEU:HD11 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG13 | 1:50:A:LEU:HD12 | 10 | 0.13 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,653) | 1:38:A:VAL:HG13 | 1:50:A:LEU:HD13 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG13 | 1:50:A:LEU:HD21 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG13 | 1:50:A:LEU:HD22 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG13 | 1:50:A:LEU:HD23 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG21 | 1:50:A:LEU:HD11 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG21 | 1:50:A:LEU:HD12 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG21 | 1:50:A:LEU:HD13 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG21 | 1:50:A:LEU:HD21 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG21 | 1:50:A:LEU:HD22 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG21 | 1:50:A:LEU:HD23 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG22 | 1:50:A:LEU:HD11 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG22 | 1:50:A:LEU:HD12 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG22 | 1:50:A:LEU:HD13 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG22 | 1:50:A:LEU:HD21 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG22 | 1:50:A:LEU:HD22 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG22 | 1:50:A:LEU:HD23 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG23 | 1:50:A:LEU:HD11 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG23 | 1:50:A:LEU:HD12 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG23 | 1:50:A:LEU:HD13 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG23 | 1:50:A:LEU:HD21 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG23 | 1:50:A:LEU:HD22 | 10 | 0.13 |
| (1,653) | 1:38:A:VAL:HG23 | 1:50:A:LEU:HD23 | 10 | 0.13 |
| (1,448) | 1:30:A:GLY:H | 1:53:A:SER:HG | 18 | 0.13 |
| (1,331) | 1:24:A:ALA:H | 1:39:A:ARG:HE | 10 | 0.13 |
| (1,214) | 1:16:A:MET:HE3 | 1:38:A:VAL:H | 2 | 0.13 |
| (1,203) | 1:16:A:MET:HE1 | 1:102:A:ALA:H | 12 | 0.13 |
| (1,201) | 1:16:A:MET:HE1 | 1:37:A:LEU:HD23 | 12 | 0.13 |
| (1,201) | 1:16:A:MET:HE1 | 1:37:A:LEU:HD23 | 18 | 0.13 |
| (1,82) | 1:11:A:ARG:H | 1:14:A:TRP:HE1 | 12 | 0.13 |
| (1,42) | 1:7:A:ASP:H | 1:13:A:ALA:HB1 | 14 | 0.13 |
| (1,3972) | 1:76:A:GLN:HG2 | 1:169:A:ARG:HA | 11 | 0.12 |
| (1,3972) | 1:76:A:GLN:HG3 | 1:169:A:ARG:HA | 11 | 0.12 |
| (1,3551) | 1:263:A:ILE:HD11 | 1:294:A:PHE:HZ | 12 | 0.12 |
| (1,3525) | 1:260:A:VAL:HG23 | 1:261:A:GLY:H | 4 | 0.12 |
| (1,3493) | 1:258:A:LEU:HD22 | 1:279:A:VAL:HB | 8 | 0.12 |
| (1,3488) | 1:258:A:LEU:HD21 | 1:279:A:VAL:HB | 3 | 0.12 |
| (1,3441) | 1:257:A:ALA:HB2 | 1:258:A:LEU:H | 14 | 0.12 |
| (1,3360) | 1:254:A:THR:H | 1:255:A:ALA:HB2 | 5 | 0.12 |
| (1,3360) | 1:254:A:THR:H | 1:255:A:ALA:HB2 | 20 | 0.12 |
| (1,3205) | 1:242:A:ALA:HB1 | 1:258:A:LEU:HD23 | 7 | 0.12 |
| (1,3139) | 1:240:A:ALA:HB3 | 1:264:A:VAL:H | 8 | 0.12 |
| (1,2986) | 1:199:A:GLY:H | 1:200:A:ILE:H | 14 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2956) | 1:187:A:HIS:H | 1:188:A:GLY:H | 6 | 0.12 |
| (1,2927) | 1:183:A:ARG:HB2 | 1:183:A:ARG:HE | 2 | 0.12 |
| (1,2913) | 1:182:A:VAL:H | 1:182:A:VAL:HG11 | 5 | 0.12 |
| (1,2646) | 1:163:A:ALA:HB3 | 1:164:A:ARG:HA | 18 | 0.12 |
| (1,2646) | 1:163:A:ALA:HB3 | 1:164:A:ARG:HA | 19 | 0.12 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD11 | 1 | 0.12 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD12 | 1 | 0.12 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD13 | 1 | 0.12 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD11 | 13 | 0.12 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD12 | 13 | 0.12 |
| (1,2644) | 1:163:A:ALA:HB2 | 1:173:A:ILE:HD13 | 13 | 0.12 |
| (1,2546) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE2 | 13 | 0.12 |
| (1,2521) | 1:160:A:TRP:H | 1:172:A:MET:HE1 | 13 | 0.12 |
| (1,2497) | 1:158:A:GLU:H | 1:158:A:GLU:HB2 | 7 | 0.12 |
| (1,2497) | 1:158:A:GLU:H | 1:158:A:GLU:HB2 | 14 | 0.12 |
| (1,2286) | 1:149:A:ILE:HD12 | 1:150:A:LEU:H | 12 | 0.12 |
| (1,2142) | 1:142:A:LEU:HD11 | 1:143:A:PRO:HD2 | 5 | 0.12 |
| (1,2142) | 1:142:A:LEU:HD12 | 1:143:A:PRO:HD2 | 5 | 0.12 |
| (1,2142) | 1:142:A:LEU:HD13 | 1:143:A:PRO:HD2 | 5 | 0.12 |
| (1,2142) | 1:142:A:LEU:HD21 | 1:143:A:PRO:HD2 | 5 | 0.12 |
| (1,2142) | 1:142:A:LEU:HD22 | 1:143:A:PRO:HD2 | 5 | 0.12 |
| (1,2142) | 1:142:A:LEU:HD23 | 1:143:A:PRO:HD2 | 5 | 0.12 |
| (1,2084) | 1:141:A:ASP:H | 1:171:A:GLY:HA2 | 18 | 0.12 |
| (1,1877) | 1:132:A:TYR:HA | 1:132:A:TYR:HD1 | 15 | 0.12 |
| (1,1608) | 1:120:A:THR:H | 1:120:A:THR:HB | 17 | 0.12 |
| (1,1444) | 1:91:A:HIS:HD2 | 1:92:A:TYR:H | 12 | 0.12 |
| (1,1395) | 1:88:A:TYR:HD1 | 1:92:A:TYR:HA | 9 | 0.12 |
| (1,1395) | 1:88:A:TYR:HD2 | 1:92:A:TYR:HA | 9 | 0.12 |
| (1,1203) | 1:78:A:PHE:HD1 | 1:83:A:ALA:HB1 | 10 | 0.12 |
| (1,1195) | 1:78:A:PHE:HA | 1:78:A:PHE:HD1 | 7 | 0.12 |
| (1,1160) | 1:73:A:ILE:HB | 1:84:A:LEU:HD11 | 7 | 0.12 |
| (1,1160) | 1:73:A:ILE:HB | 1:84:A:LEU:HD12 | 7 | 0.12 |
| (1,1160) | 1:73:A:ILE:HB | 1:84:A:LEU:HD13 | 7 | 0.12 |
| (1,1160) | 1:73:A:ILE:HB | 1:84:A:LEU:HD21 | 7 | 0.12 |
| (1,1160) | 1:73:A:ILE:HB | 1:84:A:LEU:HD22 | 7 | 0.12 |
| (1,1160) | 1:73:A:ILE:HB | 1:84:A:LEU:HD23 | 7 | 0.12 |
| (1,1050) | 1:66:A:LEU:H | 1:66:A:LEU:HD23 | 19 | 0.12 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD11 | 14 | 0.12 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD12 | 14 | 0.12 |
| (1,1014) | 1:63:A:ILE:HD12 | 1:73:A:ILE:HD13 | 14 | 0.12 |
| (1,994) | 1:63:A:ILE:HB | 1:63:A:ILE:HD13 | 14 | 0.12 |
| (1,920) | 1:59:A:SER:H | 1:59:A:SER:HG | 9 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (1,920) | 1:59:A:SER:H | 1:59:A:SER:HG | 10 | 0.12 |
| (1,653) | 1:38:A:VAL:HG11 | 1:50:A:LEU:HD11 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG11 | 1:50:A:LEU:HD12 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG11 | 1:50:A:LEU:HD13 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG11 | 1:50:A:LEU:HD21 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG11 | 1:50:A:LEU:HD22 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG11 | 1:50:A:LEU:HD23 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG12 | 1:50:A:LEU:HD11 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG12 | 1:50:A:LEU:HD12 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG12 | 1:50:A:LEU:HD13 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG12 | 1:50:A:LEU:HD21 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG12 | 1:50:A:LEU:HD22 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG12 | 1:50:A:LEU:HD23 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG13 | 1:50:A:LEU:HD11 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG13 | 1:50:A:LEU:HD12 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG13 | 1:50:A:LEU:HD13 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG13 | 1:50:A:LEU:HD21 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG13 | 1:50:A:LEU:HD22 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG13 | 1:50:A:LEU:HD23 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG21 | 1:50:A:LEU:HD11 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG21 | 1:50:A:LEU:HD12 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG21 | 1:50:A:LEU:HD13 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG21 | 1:50:A:LEU:HD21 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG21 | 1:50:A:LEU:HD22 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG21 | 1:50:A:LEU:HD23 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG22 | 1:50:A:LEU:HD11 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG22 | 1:50:A:LEU:HD12 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG22 | 1:50:A:LEU:HD13 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG22 | 1:50:A:LEU:HD21 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG22 | 1:50:A:LEU:HD22 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG22 | 1:50:A:LEU:HD23 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG23 | 1:50:A:LEU:HD11 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG23 | 1:50:A:LEU:HD12 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG23 | 1:50:A:LEU:HD13 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG23 | 1:50:A:LEU:HD21 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG23 | 1:50:A:LEU:HD22 | 9 | 0.12 |
| (1,653) | 1:38:A:VAL:HG23 | 1:50:A:LEU:HD23 | 9 | 0.12 |
| (1,616) | 1:37:A:LEU:HG | 1:102:A:ALA:HB2 | 9 | 0.12 |
| (1,563) | 1:36:A:PHE:HA | 1:102:A:ALA:HB2 | 7 | 0.12 |
| (1,496) | 1:33:A:HIS:HE1 | 1:56:A:SER:H | 12 | 0.12 |
| (1,404) | 1:28:A:LEU:H | 1:28:A:LEU:HD21 | 13 | 0.12 |
| (1,247) | 1:20:A:SER:H | 1:20:A:SER:HG | 6 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,201) | 1:16:A:MET:HE1 | 1:37:A:LEU:HD23 | 6 | 0.12 |
| (1,155) | 1:15:A:TYR:HA | 1:16:A:MET:HE3 | 3 | 0.12 |
| (1,47) | 1:7:A:ASP:HA | 1:10:A:ASP:H | 10 | 0.12 |
| (1,3876) | 1:287:A:PRO:HA | 1:290:A:HIS:H | 1 | 0.11 |
| (1,3675) | 1:269:A:MET:HE2 | 1:275:A:TRP:HE3 | 4 | 0.11 |
| (1,3584) | 1:264:A:VAL:HG13 | 1:266:A:VAL:HA | 4 | 0.11 |
| (1,3470) | 1:258:A:LEU:HD12 | 1:264:A:VAL:HG22 | 18 | 0.11 |
| (1,3441) | 1:257:A:ALA:HB2 | 1:258:A:LEU:H | 17 | 0.11 |
| (1,3440) | 1:257:A:ALA:HB1 | 1:282:A:ARG:HH22 | 1 | 0.11 |
| (1,3425) | 1:256:A:LEU:HD11 | 1:257:A:ALA:H | 11 | 0.11 |
| (1,3425) | 1:256:A:LEU:HD12 | 1:257:A:ALA:H | 11 | 0.11 |
| (1,3425) | 1:256:A:LEU:HD13 | 1:257:A:ALA:H | 11 | 0.11 |
| (1,3425) | 1:256:A:LEU:HD21 | 1:257:A:ALA:H | 11 | 0.11 |
| (1,3425) | 1:256:A:LEU:HD22 | 1:257:A:ALA:H | 11 | 0.11 |
| (1,3425) | 1:256:A:LEU:HD23 | 1:257:A:ALA:H | 11 | 0.11 |
| (1,3377) | 1:254:A:THR:HG23 | 1:255:A:ALA:H | 1 | 0.11 |
| (1,3221) | 1:242:A:ALA:HB2 | 1:264:A:VAL:HG22 | 13 | 0.11 |
| (1,3191) | 1:242:A:ALA:HA | 1:264:A:VAL:HG22 | 13 | 0.11 |
| (1,3137) | 1:240:A:ALA:HB2 | 1:294:A:PHE:HD1 | 2 | 0.11 |
| (1,3045) | 1:238:A:VAL:H | 1:266:A:VAL:HG11 | 1 | 0.11 |
| (1,3005) | 1:225:A:ALA:H | 1:225:A:ALA:HB1 | 14 | 0.11 |
| (1,2954) | 1:187:A:HIS:H | 1:187:A:HIS:HB2 | 14 | 0.11 |
| (1,2937) | 1:184:A:SER:HG | 1:190:A:HIS:HD2 | 12 | 0.11 |
| (1,2929) | 1:183:A:ARG:HD2 | 1:183:A:ARG:HH11 | 1 | 0.11 |
| (1,2894) | 1:179:A:GLU:HA | 1:180:A:LYS:H | 7 | 0.11 |
| (1,2646) | 1:163:A:ALA:HB3 | 1:164:A:ARG:HA | 6 | 0.11 |
| (1,2568) | 1:161:A:TRP:HA | 1:172:A:MET:HG2 | 9 | 0.11 |
| (1,2546) | 1:160:A:TRP:HB2 | 1:172:A:MET:HE2 | 15 | 0.11 |
| (1,2497) | 1:158:A:GLU:H | 1:158:A:GLU:HB2 | 15 | 0.11 |
| (1,2461) | 1:156:A:PRO:HD2 | 1:162:A:SER:HA | 12 | 0.11 |
| (1,2275) | 1:149:A:ILE:HA | 1:149:A:ILE:HD12 | 3 | 0.11 |
| (1,2275) | 1:149:A:ILE:HA | 1:149:A:ILE:HD12 | 16 | 0.11 |
| (1,2227) | 1:145:A:LYS:H | 1:145:A:LYS:HD2 | 10 | 0.11 |
| (1,2194) | 1:144:A:PHE:HE1 | 1:177:A:TYR:HB2 | 19 | 0.11 |
| (1,1961) | 1:134:A:PHE:HA | 1:134:A:PHE:HE1 | 18 | 0.11 |
| (1,994) | 1:63:A:ILE:HB | 1:63:A:ILE:HD13 | 3 | 0.11 |
| (1,994) | 1:63:A:ILE:HB | 1:63:A:ILE:HD13 | 15 | 0.11 |
| (1,563) | 1:36:A:PHE:HA | 1:102:A:ALA:HB2 | 4 | 0.11 |
| (1,404) | 1:28:A:LEU:H | 1:28:A:LEU:HD21 | 4 | 0.11 |
| (1,404) | 1:28:A:LEU:H | 1:28:A:LEU:HD21 | 8 | 0.11 |
| (1,307) | 1:22:A:GLN:H | 1:22:A:GLN:HE21 | 11 | 0.11 |
| (1,249) | 1:20:A:SER:H | 1:23:A:GLU:H | 20 | 0.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,65) | 1:9:A:SER:HA | 1:14:A:TRP:HE1 | 10 | 0.11 |
| (1,42) | 1:7:A:ASP:H | 1:13:A:ALA:HB1 | 4 | 0.11 |
| (1,42) | 1:7:A:ASP:H | 1:13:A:ALA:HB1 | 7 | 0.11 |
| (1,3446) | 1:258:A:LEU:H | 1:258:A:LEU:HD22 | 17 | 0.1 |
| (1,3349) | 1:252:A:ASP:HA | 1:255:A:ALA:H | 9 | 0.1 |
| (1,3347) | 1:252:A:ASP:H | 1:253:A:LYS:HA | 16 | 0.1 |
| (1,3219) | 1:242:A:ALA:HB2 | 1:261:A:GLY:H | 3 | 0.1 |
| (1,2972) | 1:189:A:LYS:HA | 1:189:A:LYS:HD2 | 3 | 0.1 |
| (1,2940) | 1:185:A:SER:H | 1:187:A:HIS:HE1 | 11 | 0.1 |
| (1,2521) | 1:160:A:TRP:H | 1:172:A:MET:HE1 | 15 | 0.1 |
| (1,2497) | 1:158:A:GLU:H | 1:158:A:GLU:HB2 | 12 | 0.1 |
| (1,2465) | 1:156:A:PRO:HD2 | 1:172:A:MET:HE3 | 4 | 0.1 |
| (1,2364) | 1:152:A:ILE:HA | 1:163:A:ALA:HB2 | 11 | 0.1 |
| (1,2364) | 1:152:A:ILE:HA | 1:163:A:ALA:HB2 | 14 | 0.1 |
| (1,2316) | 1:150:A:LEU:HD11 | 1:165:A:ASN:HA | 13 | 0.1 |
| (1,2316) | 1:150:A:LEU:HD12 | 1:165:A:ASN:HA | 13 | 0.1 |
| (1,2316) | 1:150:A:LEU:HD13 | 1:165:A:ASN:HA | 13 | 0.1 |
| (1,2316) | 1:150:A:LEU:HD21 | 1:165:A:ASN:HA | 13 | 0.1 |
| (1,2316) | 1:150:A:LEU:HD22 | 1:165:A:ASN:HA | 13 | 0.1 |
| (1,2316) | 1:150:A:LEU:HD23 | 1:165:A:ASN:HA | 13 | 0.1 |
| (1,2220) | 1:144:A:PHE:HD2 | 1:150:A:LEU:HD11 | 17 | 0.1 |
| (1,2220) | 1:144:A:PHE:HD2 | 1:150:A:LEU:HD12 | 17 | 0.1 |
| (1,2220) | 1:144:A:PHE:HD2 | 1:150:A:LEU:HD13 | 17 | 0.1 |
| (1,2220) | 1:144:A:PHE:HD2 | 1:150:A:LEU:HD21 | 17 | 0.1 |
| (1,2220) | 1:144:A:PHE:HD2 | 1:150:A:LEU:HD22 | 17 | 0.1 |
| (1,2220) | 1:144:A:PHE:HD2 | 1:150:A:LEU:HD23 | 17 | 0.1 |
| (1,2214) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HD11 | 16 | 0.1 |
| (1,2214) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HD12 | 16 | 0.1 |
| (1,2214) | 1:144:A:PHE:HE2 | 1:173:A:ILE:HD13 | 16 | 0.1 |
| (1,1877) | 1:132:A:TYR:HA | 1:132:A:TYR:HD1 | 16 | 0.1 |
| (1,1596) | 1:112:A:SER:H | 1:112:A:SER:HB2 | 14 | 0.1 |
| (1,1544) | 1:97:A:THR:HG1 | 1:97:A:THR:HG23 | 10 | 0.1 |
| (1,1424) | 1:90:A:ILE:H | 1:97:A:THR:HG22 | 17 | 0.1 |
| (1,242) | 1:19:A:VAL:HB | 1:40:A:ASP:H | 9 | 0.1 |
| (1,115) | 1:13:A:ALA:HB1 | 1:14:A:TRP:HD1 | 1 | 0.1 |

10 Dihedral-angle violation analysis [i](#)

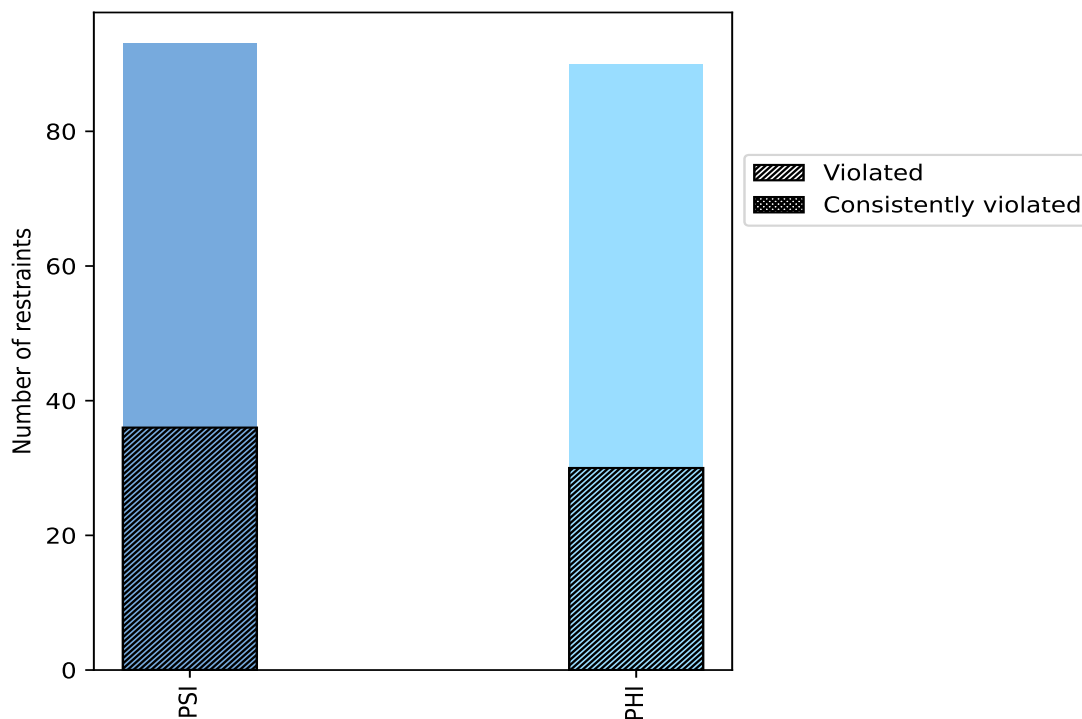
10.1 Summary of dihedral-angle violations [i](#)

The following table provides the summary of dihedral-angle violations in different dihedral-angle types. Violations less than 1° are not included in the calculation.

| Angle type | Count | % ¹ | Violated ³ | | | Consistently Violated ⁴ | | |
|------------|-------|----------------|-----------------------|----------------|----------------|------------------------------------|----------------|----------------|
| | | | Count | % ² | % ¹ | Count | % ² | % ¹ |
| PSI | 93 | 50.8 | 36 | 38.7 | 19.7 | 0 | 0.0 | 0.0 |
| PHI | 90 | 49.2 | 30 | 33.3 | 16.4 | 0 | 0.0 | 0.0 |
| Total | 183 | 100.0 | 66 | 36.1 | 36.1 | 0 | 0.0 | 0.0 |

¹ percentage calculated with respect to total number of dihedral-angle restraints, ² percentage calculated with respect to number of restraints in a particular dihedral-angle type, ³ violated in at least one model, ⁴ violated in all the models

10.1.1 Bar chart : Distribution of dihedral-angles and violations [i](#)



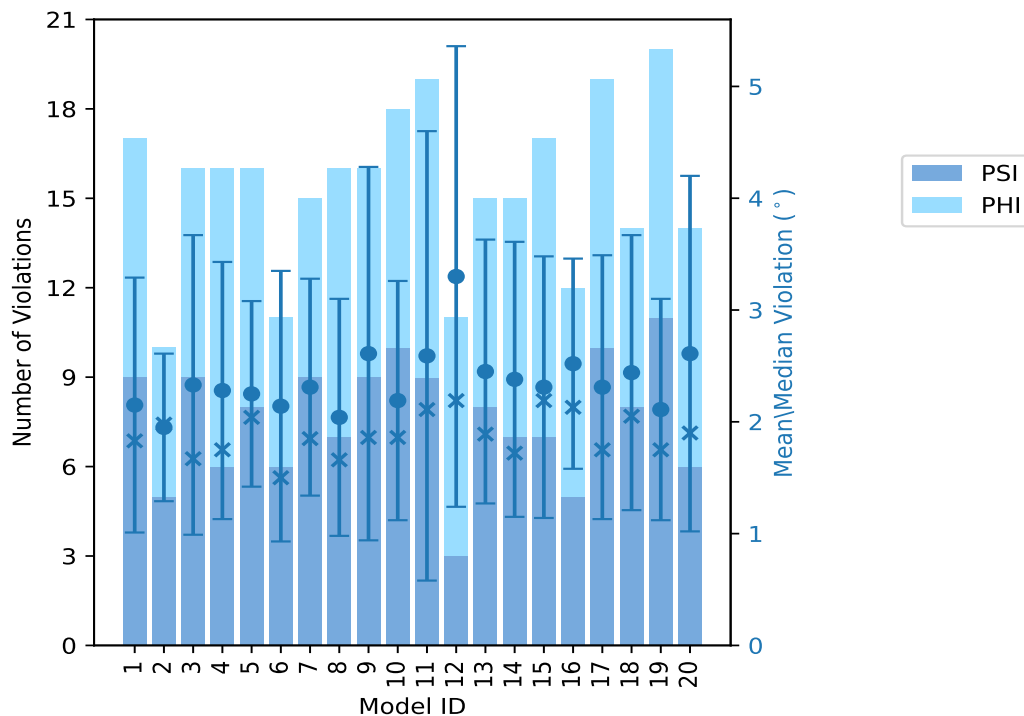
Violated and consistently violated restraints are shown using different hatch patterns in their respective categories

10.2 Dihedral-angle violation statistics for each model [i](#)

The following table provides the dihedral-angle violation statistics for each model in the ensemble. Violations less than 1° are not included in the statistics.

| Model ID | Number of violations | | | Mean (°) | Max (°) | SD (°) | Median (°) |
|----------|----------------------|-----|-------|----------|---------|--------|------------|
| | PSI | PHI | Total | | | | |
| 1 | 9 | 8 | 17 | 2.15 | 4.83 | 1.14 | 1.83 |
| 2 | 5 | 5 | 10 | 1.95 | 3.47 | 0.66 | 1.98 |
| 3 | 9 | 7 | 16 | 2.33 | 4.76 | 1.34 | 1.67 |
| 4 | 6 | 10 | 16 | 2.28 | 5.78 | 1.15 | 1.75 |
| 5 | 8 | 8 | 16 | 2.25 | 4.24 | 0.83 | 2.04 |
| 6 | 6 | 5 | 11 | 2.14 | 4.39 | 1.21 | 1.5 |
| 7 | 9 | 6 | 15 | 2.31 | 4.06 | 0.97 | 1.85 |
| 8 | 7 | 9 | 16 | 2.04 | 5.33 | 1.06 | 1.66 |
| 9 | 9 | 7 | 16 | 2.61 | 6.64 | 1.67 | 1.86 |
| 10 | 10 | 8 | 18 | 2.19 | 4.85 | 1.07 | 1.86 |
| 11 | 9 | 10 | 19 | 2.59 | 8.6 | 2.01 | 2.11 |
| 12 | 3 | 8 | 11 | 3.3 | 7.65 | 2.06 | 2.19 |
| 13 | 8 | 7 | 15 | 2.45 | 4.94 | 1.18 | 1.89 |
| 14 | 7 | 8 | 15 | 2.38 | 4.76 | 1.23 | 1.72 |
| 15 | 7 | 10 | 17 | 2.31 | 5.22 | 1.17 | 2.19 |
| 16 | 5 | 7 | 12 | 2.52 | 3.88 | 0.94 | 2.13 |
| 17 | 10 | 9 | 19 | 2.31 | 4.79 | 1.18 | 1.75 |
| 18 | 8 | 6 | 14 | 2.44 | 6.2 | 1.23 | 2.05 |
| 19 | 11 | 9 | 20 | 2.11 | 4.85 | 0.99 | 1.75 |
| 20 | 6 | 8 | 14 | 2.61 | 7.06 | 1.59 | 1.9 |

10.2.1 Bar graph : Dihedral 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

10.3 Dihedral-angle violation statistics for the ensemble [i](#)

Violation analysis may find that some restraints are violated in very 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 ensemble.

| Number of violated restraints | | | Fraction of the ensemble | |
|-------------------------------|-----|-------|--------------------------|------|
| PSI | PHI | Total | Count ¹ | % |
| 12 | 7 | 19 | 1 | 5.0 |
| 4 | 5 | 9 | 2 | 10.0 |
| 7 | 3 | 10 | 3 | 15.0 |
| 2 | 5 | 7 | 4 | 20.0 |
| 2 | 2 | 4 | 5 | 25.0 |
| 1 | 2 | 3 | 6 | 30.0 |
| 1 | 0 | 1 | 7 | 35.0 |
| 2 | 1 | 3 | 8 | 40.0 |
| 0 | 0 | 0 | 9 | 45.0 |
| 2 | 0 | 2 | 10 | 50.0 |
| 0 | 0 | 0 | 11 | 55.0 |

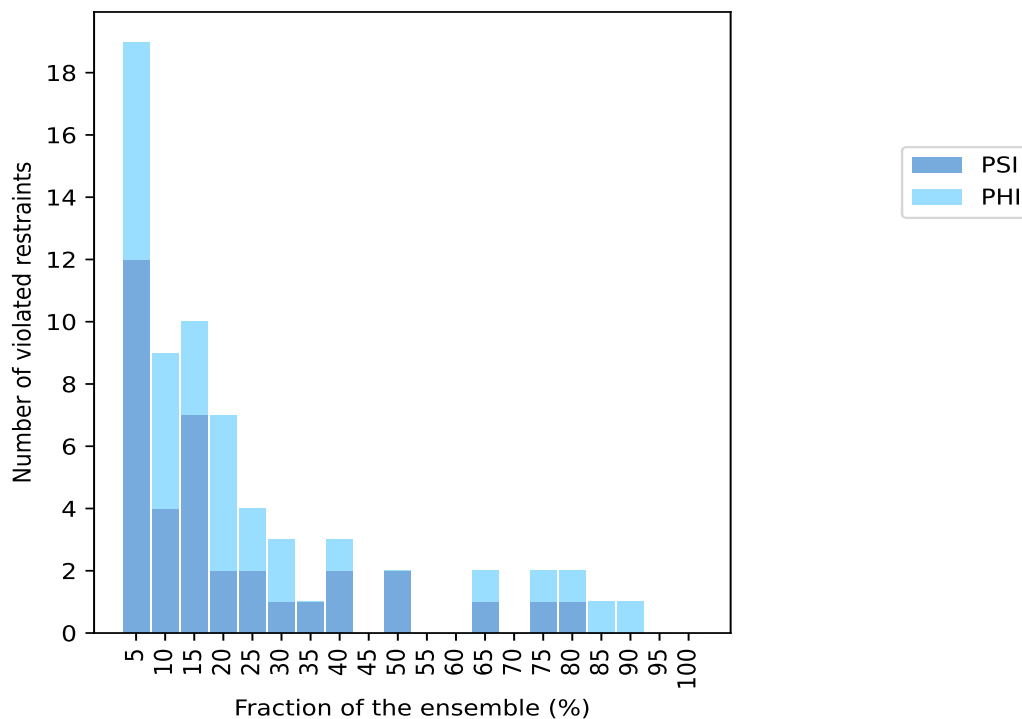
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| Number of violated restraints | | | Fraction of the ensemble | |
|-------------------------------|-----|-------|--------------------------|-------|
| PSI | PHI | Total | Count ¹ | % |
| 0 | 0 | 0 | 12 | 60.0 |
| 1 | 1 | 2 | 13 | 65.0 |
| 0 | 0 | 0 | 14 | 70.0 |
| 1 | 1 | 2 | 15 | 75.0 |
| 1 | 1 | 2 | 16 | 80.0 |
| 0 | 1 | 1 | 17 | 85.0 |
| 0 | 1 | 1 | 18 | 90.0 |
| 0 | 0 | 0 | 19 | 95.0 |
| 0 | 0 | 0 | 20 | 100.0 |

¹ Number of models with violations

10.3.1 Bar graph : Dihedral-angle Violation statistics for the ensemble [i](#)

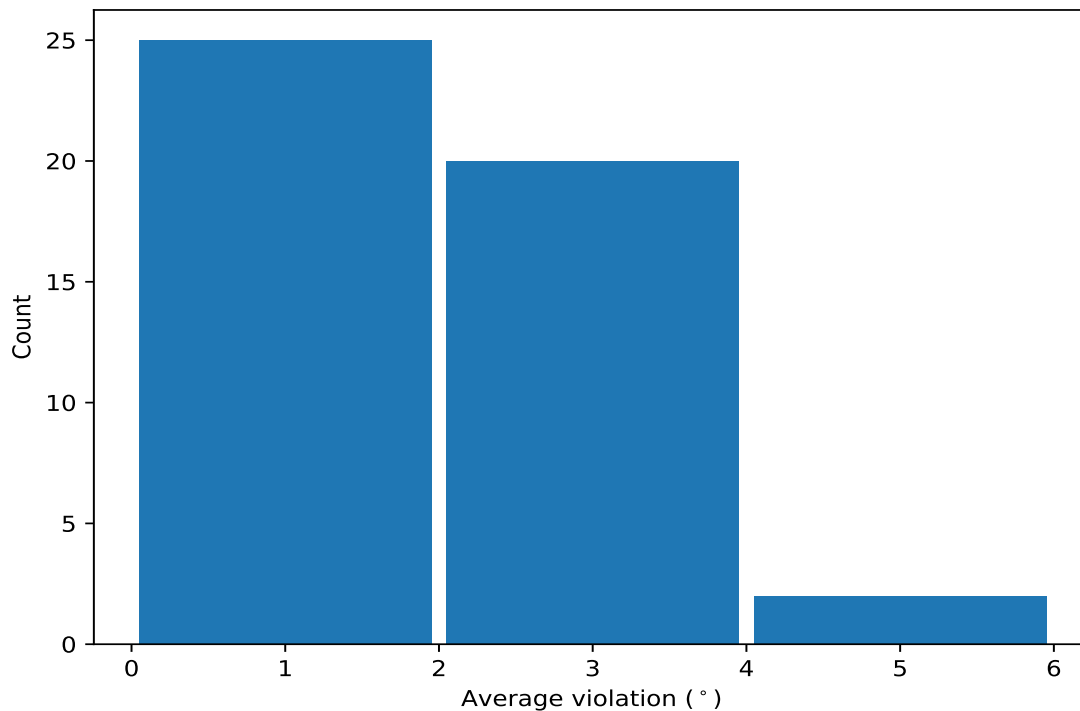


10.4 Most violated dihedral-angle restraints in the ensemble [i](#)

10.4.1 Histogram : Distribution of mean dihedral-angle 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



10.4.2 Table: Most violated dihedral-angle 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.

| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Models ¹ | Mean | SD ² | Median |
|---------|---------------|----------------|----------------|---------------|---------------------|------|-----------------|--------|
| (1,46) | 1:50:A:LEU:C | 1:51:A:SER:N | 1:51:A:SER:CA | 1:51:A:SER:C | 18 | 1.93 | 0.5 | 1.84 |
| (1,12) | 1:16:A:MET:C | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 17 | 1.85 | 0.42 | 1.85 |
| (1,57) | 1:59:A:SER:N | 1:59:A:SER:CA | 1:59:A:SER:C | 1:60:A:HIS:N | 16 | 3.51 | 1.28 | 3.37 |
| (1,109) | 1:151:A:VAL:C | 1:152:A:ILE:N | 1:152:A:ILE:CA | 1:152:A:ILE:C | 16 | 3.12 | 1.1 | 3.04 |
| (1,114) | 1:154:A:GLU:N | 1:154:A:GLU:CA | 1:154:A:GLU:C | 1:155:A:LYS:N | 15 | 3.62 | 1.34 | 3.69 |
| (1,105) | 1:149:A:ILE:C | 1:150:A:LEU:N | 1:150:A:LEU:CA | 1:150:A:LEU:C | 15 | 3.15 | 1.35 | 3.39 |
| (1,13) | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 1:18:A:PRO:N | 13 | 2.42 | 0.85 | 2.51 |
| (1,20) | 1:23:A:GLU:C | 1:24:A:ALA:N | 1:24:A:ALA:CA | 1:24:A:ALA:C | 13 | 1.84 | 0.29 | 1.84 |
| (1,108) | 1:151:A:VAL:N | 1:151:A:VAL:CA | 1:151:A:VAL:C | 1:152:A:ILE:N | 10 | 2.35 | 0.87 | 2.45 |
| (1,138) | 1:180:A:LYS:N | 1:180:A:LYS:CA | 1:180:A:LYS:C | 1:181:A:LEU:N | 10 | 2.12 | 1.04 | 1.7 |
| (1,52) | 1:53:A:SER:C | 1:54:A:GLU:N | 1:54:A:GLU:CA | 1:54:A:GLU:C | 8 | 5.22 | 2.11 | 5.28 |
| (1,65) | 1:63:A:ILE:N | 1:63:A:ILE:CA | 1:63:A:ILE:C | 1:64:A:ASN:N | 8 | 2.57 | 1.6 | 1.85 |
| (1,169) | 1:278:A:GLU:N | 1:278:A:GLU:CA | 1:278:A:GLU:C | 1:279:A:VAL:N | 8 | 1.98 | 0.96 | 1.5 |
| (1,106) | 1:150:A:LEU:N | 1:150:A:LEU:CA | 1:150:A:LEU:C | 1:151:A:VAL:N | 7 | 1.79 | 0.57 | 1.65 |
| (1,97) | 1:128:A:VAL:C | 1:129:A:ARG:N | 1:129:A:ARG:CA | 1:129:A:ARG:C | 6 | 2.39 | 1.04 | 2.25 |
| (1,94) | 1:127:A:TYR:N | 1:127:A:TYR:CA | 1:127:A:TYR:C | 1:128:A:VAL:N | 6 | 1.71 | 0.65 | 1.46 |
| (1,142) | 1:239:A:PHE:C | 1:240:A:ALA:N | 1:240:A:ALA:CA | 1:240:A:ALA:C | 6 | 1.39 | 0.43 | 1.15 |
| (1,112) | 1:153:A:ILE:N | 1:153:A:ILE:CA | 1:153:A:ILE:C | 1:154:A:GLU:N | 5 | 2.34 | 0.74 | 2.26 |
| (1,19) | 1:23:A:GLU:N | 1:23:A:GLU:CA | 1:23:A:GLU:C | 1:24:A:ALA:N | 5 | 1.54 | 0.32 | 1.31 |
| (1,4) | 1:12:A:SER:C | 1:13:A:ALA:N | 1:13:A:ALA:CA | 1:13:A:ALA:C | 5 | 1.42 | 0.29 | 1.34 |

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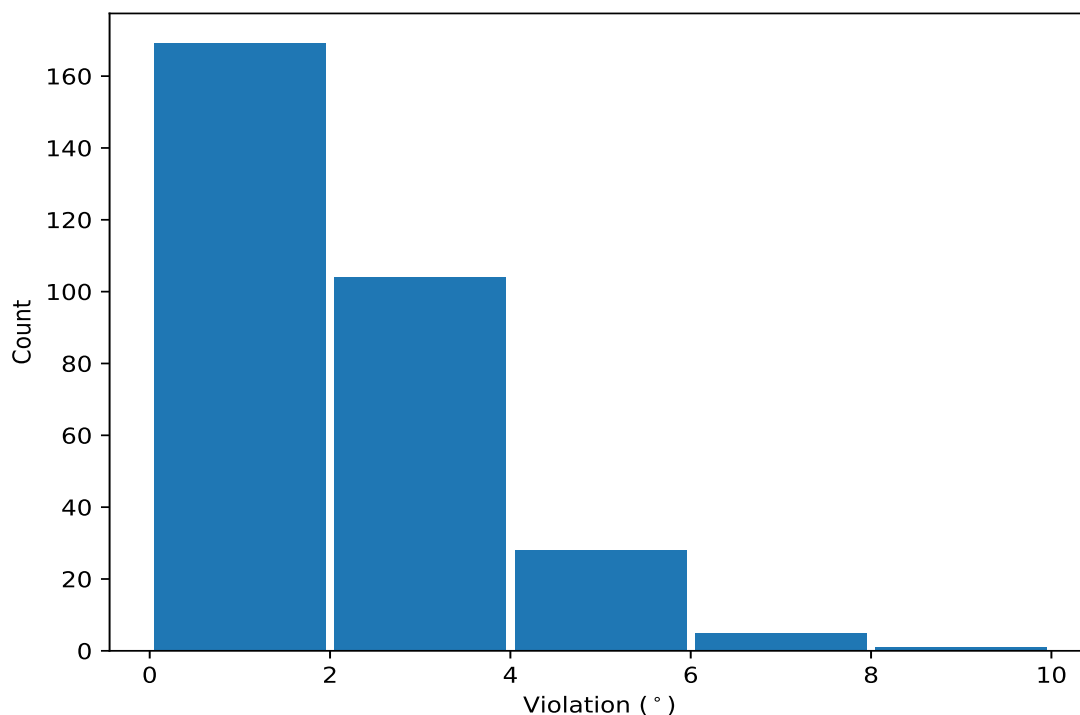
| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Models ¹ | Mean | SD ² | Median |
|---------|---------------|----------------|----------------|---------------|---------------------|------|-----------------|--------|
| (1,123) | 1:163:A:ALA:C | 1:164:A:ARG:N | 1:164:A:ARG:CA | 1:164:A:ARG:C | 5 | 1.38 | 0.2 | 1.36 |
| (1,39) | 1:40:A:ASP:N | 1:40:A:ASP:CA | 1:40:A:ASP:C | 1:41:A:SER:N | 4 | 3.04 | 2.18 | 2.14 |
| (1,115) | 1:159:A:GLN:C | 1:160:A:TRP:N | 1:160:A:TRP:CA | 1:160:A:TRP:C | 4 | 2.28 | 0.83 | 2.22 |
| (1,54) | 1:56:A:SER:C | 1:57:A:ARG:N | 1:57:A:ARG:CA | 1:57:A:ARG:C | 4 | 2.06 | 0.66 | 1.98 |
| (1,162) | 1:274:A:GLN:C | 1:275:A:TRP:N | 1:275:A:TRP:CA | 1:275:A:TRP:C | 4 | 1.93 | 0.37 | 1.95 |
| (1,178) | 1:290:A:HIS:C | 1:291:A:VAL:N | 1:291:A:VAL:CA | 1:291:A:VAL:C | 4 | 1.59 | 0.39 | 1.54 |
| (1,135) | 1:177:A:TYR:C | 1:178:A:VAL:N | 1:178:A:VAL:CA | 1:178:A:VAL:C | 4 | 1.52 | 0.35 | 1.48 |
| (1,171) | 1:283:A:LYS:N | 1:283:A:LYS:CA | 1:283:A:LYS:C | 1:284:A:GLY:N | 4 | 1.28 | 0.28 | 1.23 |
| (1,93) | 1:88:A:TYR:N | 1:88:A:TYR:CA | 1:88:A:TYR:C | 1:89:A:LYS:N | 3 | 3.85 | 0.17 | 3.8 |
| (1,61) | 1:61:A:TYR:N | 1:61:A:TYR:CA | 1:61:A:TYR:C | 1:62:A:ILE:N | 3 | 2.19 | 0.48 | 2.35 |
| (1,82) | 1:82:A:PRO:C | 1:83:A:ALA:N | 1:83:A:ALA:CA | 1:83:A:ALA:C | 3 | 2.18 | 1.38 | 1.32 |
| (1,29) | 1:28:A:LEU:N | 1:28:A:LEU:CA | 1:28:A:LEU:C | 1:29:A:GLN:N | 3 | 1.95 | 1.12 | 1.19 |
| (1,100) | 1:130:A:THR:N | 1:130:A:THR:CA | 1:130:A:THR:C | 1:131:A:LEU:N | 3 | 1.88 | 0.47 | 1.76 |
| (1,5) | 1:13:A:ALA:N | 1:13:A:ALA:CA | 1:13:A:ALA:C | 1:14:A:TRP:N | 3 | 1.63 | 0.16 | 1.7 |
| (1,137) | 1:178:A:VAL:C | 1:179:A:GLU:N | 1:179:A:GLU:CA | 1:179:A:GLU:C | 3 | 1.52 | 0.35 | 1.7 |
| (1,49) | 1:52:A:VAL:N | 1:52:A:VAL:CA | 1:52:A:VAL:C | 1:53:A:SER:N | 3 | 1.23 | 0.12 | 1.3 |
| (1,62) | 1:61:A:TYR:C | 1:62:A:ILE:N | 1:62:A:ILE:CA | 1:62:A:ILE:C | 3 | 1.2 | 0.1 | 1.15 |
| (1,7) | 1:14:A:TRP:N | 1:14:A:TRP:CA | 1:14:A:TRP:C | 1:15:A:TYR:N | 3 | 1.12 | 0.11 | 1.05 |
| (1,56) | 1:58:A:VAL:C | 1:59:A:SER:N | 1:59:A:SER:CA | 1:59:A:SER:C | 2 | 4.06 | 0.18 | 4.06 |
| (1,27) | 1:27:A:ARG:N | 1:27:A:ARG:CA | 1:27:A:ARG:C | 1:28:A:LEU:N | 2 | 2.54 | 1.19 | 2.54 |
| (1,101) | 1:147:A:GLY:C | 1:148:A:GLU:N | 1:148:A:GLU:CA | 1:148:A:GLU:C | 2 | 2.46 | 0.52 | 2.46 |
| (1,6) | 1:13:A:ALA:C | 1:14:A:TRP:N | 1:14:A:TRP:CA | 1:14:A:TRP:C | 2 | 2.3 | 0.11 | 2.3 |
| (1,73) | 1:71:A:PHE:N | 1:71:A:PHE:CA | 1:71:A:PHE:C | 1:72:A:LYS:N | 2 | 2.18 | 0.51 | 2.18 |
| (1,110) | 1:152:A:ILE:N | 1:152:A:ILE:CA | 1:152:A:ILE:C | 1:153:A:ILE:N | 2 | 1.74 | 0.49 | 1.74 |
| (1,84) | 1:83:A:ALA:C | 1:84:A:LEU:N | 1:84:A:LEU:CA | 1:84:A:LEU:C | 2 | 1.71 | 0.05 | 1.71 |
| (1,132) | 1:173:A:ILE:N | 1:173:A:ILE:CA | 1:173:A:ILE:C | 1:174:A:PRO:N | 2 | 1.62 | 0.22 | 1.62 |
| (1,140) | 1:238:A:VAL:C | 1:239:A:PHE:N | 1:239:A:PHE:CA | 1:239:A:PHE:C | 2 | 1.48 | 0.19 | 1.48 |

¹ Number of violated models, ²Standard deviation, All angle values are in degree (°)

10.5 All violated dihedral-angle restraints [\(i\)](#)

10.5.1 Histogram : Distribution of violations [\(i\)](#)

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



10.5.2 Table: All violated dihedral-angle restraints [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.

| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---------|---------------|----------------|----------------|---------------|----------|---------------|
| (1,53) | 1:54:A:GLU:N | 1:54:A:GLU:CA | 1:54:A:GLU:C | 1:55:A:ASN:N | 11 | 8.6 |
| (1,52) | 1:53:A:SER:C | 1:54:A:GLU:N | 1:54:A:GLU:CA | 1:54:A:GLU:C | 12 | 7.65 |
| (1,52) | 1:53:A:SER:C | 1:54:A:GLU:N | 1:54:A:GLU:CA | 1:54:A:GLU:C | 11 | 7.54 |
| (1,52) | 1:53:A:SER:C | 1:54:A:GLU:N | 1:54:A:GLU:CA | 1:54:A:GLU:C | 20 | 7.06 |
| (1,39) | 1:40:A:ASP:N | 1:40:A:ASP:CA | 1:40:A:ASP:C | 1:41:A:SER:N | 9 | 6.64 |
| (1,57) | 1:59:A:SER:N | 1:59:A:SER:CA | 1:59:A:SER:C | 1:60:A:HIS:N | 18 | 6.2 |
| (1,114) | 1:154:A:GLU:N | 1:154:A:GLU:CA | 1:154:A:GLU:C | 1:155:A:LYS:N | 9 | 5.98 |
| (1,65) | 1:63:A:ILE:N | 1:63:A:ILE:CA | 1:63:A:ILE:C | 1:64:A:ASN:N | 12 | 5.86 |
| (1,109) | 1:151:A:VAL:C | 1:152:A:ILE:N | 1:152:A:ILE:CA | 1:152:A:ILE:C | 4 | 5.78 |
| (1,114) | 1:154:A:GLU:N | 1:154:A:GLU:CA | 1:154:A:GLU:C | 1:155:A:LYS:N | 12 | 5.46 |
| (1,52) | 1:53:A:SER:C | 1:54:A:GLU:N | 1:54:A:GLU:CA | 1:54:A:GLU:C | 8 | 5.33 |
| (1,52) | 1:53:A:SER:C | 1:54:A:GLU:N | 1:54:A:GLU:CA | 1:54:A:GLU:C | 15 | 5.22 |
| (1,52) | 1:53:A:SER:C | 1:54:A:GLU:N | 1:54:A:GLU:CA | 1:54:A:GLU:C | 13 | 4.94 |
| (1,105) | 1:149:A:ILE:C | 1:150:A:LEU:N | 1:150:A:LEU:CA | 1:150:A:LEU:C | 20 | 4.92 |
| (1,57) | 1:59:A:SER:N | 1:59:A:SER:CA | 1:59:A:SER:C | 1:60:A:HIS:N | 13 | 4.88 |
| (1,114) | 1:154:A:GLU:N | 1:154:A:GLU:CA | 1:154:A:GLU:C | 1:155:A:LYS:N | 10 | 4.85 |
| (1,114) | 1:154:A:GLU:N | 1:154:A:GLU:CA | 1:154:A:GLU:C | 1:155:A:LYS:N | 19 | 4.85 |
| (1,105) | 1:149:A:ILE:C | 1:150:A:LEU:N | 1:150:A:LEU:CA | 1:150:A:LEU:C | 1 | 4.83 |
| (1,57) | 1:59:A:SER:N | 1:59:A:SER:CA | 1:59:A:SER:C | 1:60:A:HIS:N | 17 | 4.79 |
| (1,105) | 1:149:A:ILE:C | 1:150:A:LEU:N | 1:150:A:LEU:CA | 1:150:A:LEU:C | 3 | 4.76 |
| (1,57) | 1:59:A:SER:N | 1:59:A:SER:CA | 1:59:A:SER:C | 1:60:A:HIS:N | 14 | 4.76 |

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| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---------|---------------|----------------|----------------|---------------|----------|---------------|
| (1,109) | 1:151:A:VAL:C | 1:152:A:ILE:N | 1:152:A:ILE:CA | 1:152:A:ILE:C | 3 | 4.7 |
| (1,65) | 1:63:A:ILE:N | 1:63:A:ILE:CA | 1:63:A:ILE:C | 1:64:A:ASN:N | 9 | 4.64 |
| (1,114) | 1:154:A:GLU:N | 1:154:A:GLU:CA | 1:154:A:GLU:C | 1:155:A:LYS:N | 17 | 4.63 |
| (1,57) | 1:59:A:SER:N | 1:59:A:SER:CA | 1:59:A:SER:C | 1:60:A:HIS:N | 1 | 4.45 |
| (1,105) | 1:149:A:ILE:C | 1:150:A:LEU:N | 1:150:A:LEU:CA | 1:150:A:LEU:C | 6 | 4.39 |
| (1,105) | 1:149:A:ILE:C | 1:150:A:LEU:N | 1:150:A:LEU:CA | 1:150:A:LEU:C | 12 | 4.28 |
| (1,138) | 1:180:A:LYS:N | 1:180:A:LYS:CA | 1:180:A:LYS:C | 1:181:A:LEU:N | 6 | 4.26 |
| (1,56) | 1:58:A:VAL:C | 1:59:A:SER:N | 1:59:A:SER:CA | 1:59:A:SER:C | 5 | 4.24 |
| (1,97) | 1:128:A:VAL:C | 1:129:A:ARG:N | 1:129:A:ARG:CA | 1:129:A:ARG:C | 14 | 4.18 |
| (1,82) | 1:82:A:PRO:C | 1:83:A:ALA:N | 1:83:A:ALA:CA | 1:83:A:ALA:C | 10 | 4.13 |
| (1,93) | 1:88:A:TYR:N | 1:88:A:TYR:CA | 1:88:A:TYR:C | 1:89:A:LYS:N | 17 | 4.07 |
| (1,114) | 1:154:A:GLU:N | 1:154:A:GLU:CA | 1:154:A:GLU:C | 1:155:A:LYS:N | 7 | 4.06 |
| (1,57) | 1:59:A:SER:N | 1:59:A:SER:CA | 1:59:A:SER:C | 1:60:A:HIS:N | 4 | 4.04 |
| (1,105) | 1:149:A:ILE:C | 1:150:A:LEU:N | 1:150:A:LEU:CA | 1:150:A:LEU:C | 16 | 3.88 |
| (1,56) | 1:58:A:VAL:C | 1:59:A:SER:N | 1:59:A:SER:CA | 1:59:A:SER:C | 16 | 3.88 |
| (1,109) | 1:151:A:VAL:C | 1:152:A:ILE:N | 1:152:A:ILE:CA | 1:152:A:ILE:C | 19 | 3.86 |
| (1,138) | 1:180:A:LYS:N | 1:180:A:LYS:CA | 1:180:A:LYS:C | 1:181:A:LEU:N | 3 | 3.85 |
| (1,114) | 1:154:A:GLU:N | 1:154:A:GLU:CA | 1:154:A:GLU:C | 1:155:A:LYS:N | 3 | 3.85 |
| (1,105) | 1:149:A:ILE:C | 1:150:A:LEU:N | 1:150:A:LEU:CA | 1:150:A:LEU:C | 15 | 3.85 |
| (1,13) | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 1:18:A:PRO:N | 17 | 3.84 |
| (1,93) | 1:88:A:TYR:N | 1:88:A:TYR:CA | 1:88:A:TYR:C | 1:89:A:LYS:N | 9 | 3.8 |
| (1,109) | 1:151:A:VAL:C | 1:152:A:ILE:N | 1:152:A:ILE:CA | 1:152:A:ILE:C | 13 | 3.79 |
| (1,109) | 1:151:A:VAL:C | 1:152:A:ILE:N | 1:152:A:ILE:CA | 1:152:A:ILE:C | 14 | 3.77 |
| (1,169) | 1:278:A:GLU:N | 1:278:A:GLU:CA | 1:278:A:GLU:C | 1:279:A:VAL:N | 14 | 3.74 |
| (1,27) | 1:27:A:ARG:N | 1:27:A:ARG:CA | 1:27:A:ARG:C | 1:28:A:LEU:N | 20 | 3.73 |
| (1,114) | 1:154:A:GLU:N | 1:154:A:GLU:CA | 1:154:A:GLU:C | 1:155:A:LYS:N | 15 | 3.69 |
| (1,108) | 1:151:A:VAL:N | 1:151:A:VAL:CA | 1:151:A:VAL:C | 1:152:A:ILE:N | 16 | 3.68 |
| (1,93) | 1:88:A:TYR:N | 1:88:A:TYR:CA | 1:88:A:TYR:C | 1:89:A:LYS:N | 10 | 3.67 |
| (1,57) | 1:59:A:SER:N | 1:59:A:SER:CA | 1:59:A:SER:C | 1:60:A:HIS:N | 3 | 3.67 |
| (1,46) | 1:50:A:LEU:C | 1:51:A:SER:N | 1:51:A:SER:CA | 1:51:A:SER:C | 16 | 3.57 |
| (1,109) | 1:151:A:VAL:C | 1:152:A:ILE:N | 1:152:A:ILE:CA | 1:152:A:ILE:C | 7 | 3.54 |
| (1,29) | 1:28:A:LEU:N | 1:28:A:LEU:CA | 1:28:A:LEU:C | 1:29:A:GLN:N | 18 | 3.54 |
| (1,13) | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 1:18:A:PRO:N | 1 | 3.51 |
| (1,112) | 1:153:A:ILE:N | 1:153:A:ILE:CA | 1:153:A:ILE:C | 1:154:A:GLU:N | 15 | 3.5 |
| (1,109) | 1:151:A:VAL:C | 1:152:A:ILE:N | 1:152:A:ILE:CA | 1:152:A:ILE:C | 8 | 3.49 |
| (1,108) | 1:151:A:VAL:N | 1:151:A:VAL:CA | 1:151:A:VAL:C | 1:152:A:ILE:N | 2 | 3.47 |
| (1,169) | 1:278:A:GLU:N | 1:278:A:GLU:CA | 1:278:A:GLU:C | 1:279:A:VAL:N | 5 | 3.42 |
| (1,57) | 1:59:A:SER:N | 1:59:A:SER:CA | 1:59:A:SER:C | 1:60:A:HIS:N | 6 | 3.42 |
| (1,114) | 1:154:A:GLU:N | 1:154:A:GLU:CA | 1:154:A:GLU:C | 1:155:A:LYS:N | 1 | 3.41 |
| (1,105) | 1:149:A:ILE:C | 1:150:A:LEU:N | 1:150:A:LEU:CA | 1:150:A:LEU:C | 5 | 3.39 |
| (1,57) | 1:59:A:SER:N | 1:59:A:SER:CA | 1:59:A:SER:C | 1:60:A:HIS:N | 11 | 3.32 |
| (1,13) | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 1:18:A:PRO:N | 7 | 3.27 |
| (1,115) | 1:159:A:GLN:C | 1:160:A:TRP:N | 1:160:A:TRP:CA | 1:160:A:TRP:C | 7 | 3.23 |
| (1,1) | 1:11:A:ARG:N | 1:11:A:ARG:CA | 1:11:A:ARG:C | 1:12:A:SER:N | 10 | 3.21 |
| (1,57) | 1:59:A:SER:N | 1:59:A:SER:CA | 1:59:A:SER:C | 1:60:A:HIS:N | 7 | 3.2 |
| (1,114) | 1:154:A:GLU:N | 1:154:A:GLU:CA | 1:154:A:GLU:C | 1:155:A:LYS:N | 14 | 3.18 |
| (1,109) | 1:151:A:VAL:C | 1:152:A:ILE:N | 1:152:A:ILE:CA | 1:152:A:ILE:C | 15 | 3.16 |
| (1,97) | 1:128:A:VAL:C | 1:129:A:ARG:N | 1:129:A:ARG:CA | 1:129:A:ARG:C | 4 | 3.1 |
| (1,54) | 1:56:A:SER:C | 1:57:A:ARG:N | 1:57:A:ARG:CA | 1:57:A:ARG:C | 18 | 3.04 |
| (1,13) | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 1:18:A:PRO:N | 13 | 3.04 |
| (1,57) | 1:59:A:SER:N | 1:59:A:SER:CA | 1:59:A:SER:C | 1:60:A:HIS:N | 19 | 3.03 |

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| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---------|---------------|----------------|----------------|---------------|----------|---------------|
| (1,57) | 1:59:A:SER:N | 1:59:A:SER:CA | 1:59:A:SER:C | 1:60:A:HIS:N | 20 | 3.02 |
| (1,105) | 1:149:A:ILE:C | 1:150:A:LEU:N | 1:150:A:LEU:CA | 1:150:A:LEU:C | 7 | 2.99 |
| (1,115) | 1:159:A:GLN:C | 1:160:A:TRP:N | 1:160:A:TRP:CA | 1:160:A:TRP:C | 11 | 2.98 |
| (1,101) | 1:147:A:GLY:C | 1:148:A:GLU:N | 1:148:A:GLU:CA | 1:148:A:GLU:C | 19 | 2.98 |
| (1,94) | 1:127:A:TYR:N | 1:127:A:TYR:CA | 1:127:A:TYR:C | 1:128:A:VAL:N | 19 | 2.97 |
| (1,109) | 1:151:A:VAL:C | 1:152:A:ILE:N | 1:152:A:ILE:CA | 1:152:A:ILE:C | 11 | 2.92 |
| (1,106) | 1:150:A:LEU:N | 1:150:A:LEU:CA | 1:150:A:LEU:C | 1:151:A:VAL:N | 3 | 2.91 |
| (1,39) | 1:40:A:ASP:N | 1:40:A:ASP:CA | 1:40:A:ASP:C | 1:41:A:SER:N | 17 | 2.89 |
| (1,13) | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 1:18:A:PRO:N | 14 | 2.87 |
| (1,108) | 1:151:A:VAL:N | 1:151:A:VAL:CA | 1:151:A:VAL:C | 1:152:A:ILE:N | 18 | 2.83 |
| (1,108) | 1:151:A:VAL:N | 1:151:A:VAL:CA | 1:151:A:VAL:C | 1:152:A:ILE:N | 20 | 2.83 |
| (1,109) | 1:151:A:VAL:C | 1:152:A:ILE:N | 1:152:A:ILE:CA | 1:152:A:ILE:C | 18 | 2.82 |
| (1,60) | 1:60:A:HIS:C | 1:61:A:TYR:N | 1:61:A:TYR:CA | 1:61:A:TYR:C | 16 | 2.76 |
| (1,114) | 1:154:A:GLU:N | 1:154:A:GLU:CA | 1:154:A:GLU:C | 1:155:A:LYS:N | 8 | 2.75 |
| (1,13) | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 1:18:A:PRO:N | 5 | 2.73 |
| (1,112) | 1:153:A:ILE:N | 1:153:A:ILE:CA | 1:153:A:ILE:C | 1:154:A:GLU:N | 11 | 2.71 |
| (1,73) | 1:71:A:PHE:N | 1:71:A:PHE:CA | 1:71:A:PHE:C | 1:72:A:LYS:N | 17 | 2.69 |
| (1,61) | 1:61:A:TYR:N | 1:61:A:TYR:CA | 1:61:A:TYR:C | 1:62:A:ILE:N | 7 | 2.69 |
| (1,57) | 1:59:A:SER:N | 1:59:A:SER:CA | 1:59:A:SER:C | 1:60:A:HIS:N | 9 | 2.66 |
| (1,114) | 1:154:A:GLU:N | 1:154:A:GLU:CA | 1:154:A:GLU:C | 1:155:A:LYS:N | 13 | 2.63 |
| (1,12) | 1:16:A:MET:C | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 19 | 2.62 |
| (1,97) | 1:128:A:VAL:C | 1:129:A:ARG:N | 1:129:A:ARG:CA | 1:129:A:ARG:C | 19 | 2.59 |
| (1,105) | 1:149:A:ILE:C | 1:150:A:LEU:N | 1:150:A:LEU:CA | 1:150:A:LEU:C | 13 | 2.54 |
| (1,52) | 1:53:A:SER:C | 1:54:A:GLU:N | 1:54:A:GLU:CA | 1:54:A:GLU:C | 4 | 2.53 |
| (1,12) | 1:16:A:MET:C | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 12 | 2.53 |
| (1,109) | 1:151:A:VAL:C | 1:152:A:ILE:N | 1:152:A:ILE:CA | 1:152:A:ILE:C | 17 | 2.52 |
| (1,100) | 1:130:A:THR:N | 1:130:A:THR:CA | 1:130:A:THR:C | 1:131:A:LEU:N | 11 | 2.51 |
| (1,46) | 1:50:A:LEU:C | 1:51:A:SER:N | 1:51:A:SER:CA | 1:51:A:SER:C | 10 | 2.51 |
| (1,13) | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 1:18:A:PRO:N | 2 | 2.51 |
| (1,109) | 1:151:A:VAL:C | 1:152:A:ILE:N | 1:152:A:ILE:CA | 1:152:A:ILE:C | 5 | 2.49 |
| (1,108) | 1:151:A:VAL:N | 1:151:A:VAL:CA | 1:151:A:VAL:C | 1:152:A:ILE:N | 5 | 2.48 |
| (1,77) | 1:73:A:ILE:N | 1:73:A:ILE:CA | 1:73:A:ILE:C | 1:74:A:GLY:N | 8 | 2.45 |
| (1,138) | 1:180:A:LYS:N | 1:180:A:LYS:CA | 1:180:A:LYS:C | 1:181:A:LEU:N | 13 | 2.43 |
| (1,162) | 1:274:A:GLN:C | 1:275:A:TRP:N | 1:275:A:TRP:CA | 1:275:A:TRP:C | 15 | 2.42 |
| (1,108) | 1:151:A:VAL:N | 1:151:A:VAL:CA | 1:151:A:VAL:C | 1:152:A:ILE:N | 17 | 2.41 |
| (1,6) | 1:13:A:ALA:C | 1:14:A:TRP:N | 1:14:A:TRP:CA | 1:14:A:TRP:C | 10 | 2.41 |
| (1,20) | 1:23:A:GLU:C | 1:24:A:ALA:N | 1:24:A:ALA:CA | 1:24:A:ALA:C | 4 | 2.37 |
| (1,61) | 1:61:A:TYR:N | 1:61:A:TYR:CA | 1:61:A:TYR:C | 1:62:A:ILE:N | 5 | 2.35 |
| (1,12) | 1:16:A:MET:C | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 4 | 2.3 |
| (1,20) | 1:23:A:GLU:C | 1:24:A:ALA:N | 1:24:A:ALA:CA | 1:24:A:ALA:C | 14 | 2.29 |
| (1,112) | 1:153:A:ILE:N | 1:153:A:ILE:CA | 1:153:A:ILE:C | 1:154:A:GLU:N | 4 | 2.26 |
| (1,46) | 1:50:A:LEU:C | 1:51:A:SER:N | 1:51:A:SER:CA | 1:51:A:SER:C | 8 | 2.26 |
| (1,106) | 1:150:A:LEU:N | 1:150:A:LEU:CA | 1:150:A:LEU:C | 1:151:A:VAL:N | 15 | 2.25 |
| (1,110) | 1:152:A:ILE:N | 1:152:A:ILE:CA | 1:152:A:ILE:C | 1:153:A:ILE:N | 9 | 2.23 |
| (1,46) | 1:50:A:LEU:C | 1:51:A:SER:N | 1:51:A:SER:CA | 1:51:A:SER:C | 15 | 2.22 |
| (1,12) | 1:16:A:MET:C | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 11 | 2.22 |
| (1,142) | 1:239:A:PHE:C | 1:240:A:ALA:N | 1:240:A:ALA:CA | 1:240:A:ALA:C | 18 | 2.19 |
| (1,74) | 1:71:A:PHE:C | 1:72:A:LYS:N | 1:72:A:LYS:CA | 1:72:A:LYS:C | 11 | 2.19 |
| (1,54) | 1:56:A:SER:C | 1:57:A:ARG:N | 1:57:A:ARG:CA | 1:57:A:ARG:C | 15 | 2.19 |
| (1,6) | 1:13:A:ALA:C | 1:14:A:TRP:N | 1:14:A:TRP:CA | 1:14:A:TRP:C | 12 | 2.19 |
| (1,154) | 1:265:A:LYS:C | 1:266:A:VAL:N | 1:266:A:VAL:CA | 1:266:A:VAL:C | 10 | 2.18 |

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| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---------|---------------|----------------|----------------|---------------|----------|---------------|
| (1,108) | 1:151:A:VAL:N | 1:151:A:VAL:CA | 1:151:A:VAL:C | 1:152:A:ILE:N | 1 | 2.17 |
| (1,109) | 1:151:A:VAL:C | 1:152:A:ILE:N | 1:152:A:ILE:CA | 1:152:A:ILE:C | 6 | 2.16 |
| (1,12) | 1:16:A:MET:C | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 16 | 2.15 |
| (1,65) | 1:63:A:ILE:N | 1:63:A:ILE:CA | 1:63:A:ILE:C | 1:64:A:ASN:N | 2 | 2.12 |
| (1,46) | 1:50:A:LEU:C | 1:51:A:SER:N | 1:51:A:SER:CA | 1:51:A:SER:C | 20 | 2.12 |
| (1,20) | 1:23:A:GLU:C | 1:24:A:ALA:N | 1:24:A:ALA:CA | 1:24:A:ALA:C | 5 | 2.12 |
| (1,13) | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 1:18:A:PRO:N | 16 | 2.12 |
| (1,178) | 1:290:A:HIS:C | 1:291:A:VAL:N | 1:291:A:VAL:CA | 1:291:A:VAL:C | 18 | 2.11 |
| (1,94) | 1:127:A:TYR:N | 1:127:A:TYR:CA | 1:127:A:TYR:C | 1:128:A:VAL:N | 11 | 2.11 |
| (1,138) | 1:180:A:LYS:N | 1:180:A:LYS:CA | 1:180:A:LYS:C | 1:181:A:LEU:N | 16 | 2.07 |
| (1,46) | 1:50:A:LEU:C | 1:51:A:SER:N | 1:51:A:SER:CA | 1:51:A:SER:C | 12 | 2.04 |
| (1,20) | 1:23:A:GLU:C | 1:24:A:ALA:N | 1:24:A:ALA:CA | 1:24:A:ALA:C | 2 | 2.04 |
| (1,162) | 1:274:A:GLN:C | 1:275:A:TRP:N | 1:275:A:TRP:CA | 1:275:A:TRP:C | 20 | 2.02 |
| (1,19) | 1:23:A:GLU:N | 1:23:A:GLU:CA | 1:23:A:GLU:C | 1:24:A:ALA:N | 10 | 2.02 |
| (1,12) | 1:16:A:MET:C | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 18 | 2.0 |
| (1,46) | 1:50:A:LEU:C | 1:51:A:SER:N | 1:51:A:SER:CA | 1:51:A:SER:C | 2 | 1.99 |
| (1,114) | 1:154:A:GLU:N | 1:154:A:GLU:CA | 1:154:A:GLU:C | 1:155:A:LYS:N | 2 | 1.98 |
| (1,12) | 1:16:A:MET:C | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 5 | 1.97 |
| (1,135) | 1:177:A:TYR:C | 1:178:A:VAL:N | 1:178:A:VAL:CA | 1:178:A:VAL:C | 1 | 1.96 |
| (1,46) | 1:50:A:LEU:C | 1:51:A:SER:N | 1:51:A:SER:CA | 1:51:A:SER:C | 1 | 1.96 |
| (1,20) | 1:23:A:GLU:C | 1:24:A:ALA:N | 1:24:A:ALA:CA | 1:24:A:ALA:C | 8 | 1.95 |
| (1,13) | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 1:18:A:PRO:N | 3 | 1.95 |
| (1,112) | 1:153:A:ILE:N | 1:153:A:ILE:CA | 1:153:A:ILE:C | 1:154:A:GLU:N | 18 | 1.94 |
| (1,57) | 1:59:A:SER:N | 1:59:A:SER:CA | 1:59:A:SER:C | 1:60:A:HIS:N | 8 | 1.94 |
| (1,101) | 1:147:A:GLY:C | 1:148:A:GLU:N | 1:148:A:GLU:CA | 1:148:A:GLU:C | 9 | 1.93 |
| (1,169) | 1:278:A:GLU:N | 1:278:A:GLU:CA | 1:278:A:GLU:C | 1:279:A:VAL:N | 19 | 1.92 |
| (1,97) | 1:128:A:VAL:C | 1:129:A:ARG:N | 1:129:A:ARG:CA | 1:129:A:ARG:C | 15 | 1.91 |
| (1,12) | 1:16:A:MET:C | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 13 | 1.89 |
| (1,162) | 1:274:A:GLN:C | 1:275:A:TRP:N | 1:275:A:TRP:CA | 1:275:A:TRP:C | 17 | 1.88 |
| (1,65) | 1:63:A:ILE:N | 1:63:A:ILE:CA | 1:63:A:ILE:C | 1:64:A:ASN:N | 10 | 1.86 |
| (1,46) | 1:50:A:LEU:C | 1:51:A:SER:N | 1:51:A:SER:CA | 1:51:A:SER:C | 9 | 1.86 |
| (1,109) | 1:151:A:VAL:C | 1:152:A:ILE:N | 1:152:A:ILE:CA | 1:152:A:ILE:C | 9 | 1.85 |
| (1,20) | 1:23:A:GLU:C | 1:24:A:ALA:N | 1:24:A:ALA:CA | 1:24:A:ALA:C | 19 | 1.85 |
| (1,19) | 1:23:A:GLU:N | 1:23:A:GLU:CA | 1:23:A:GLU:C | 1:24:A:ALA:N | 7 | 1.85 |
| (1,12) | 1:16:A:MET:C | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 10 | 1.85 |
| (1,132) | 1:173:A:ILE:N | 1:173:A:ILE:CA | 1:173:A:ILE:C | 1:174:A:PRO:N | 19 | 1.84 |
| (1,20) | 1:23:A:GLU:C | 1:24:A:ALA:N | 1:24:A:ALA:CA | 1:24:A:ALA:C | 1 | 1.84 |
| (1,178) | 1:290:A:HIS:C | 1:291:A:VAL:N | 1:291:A:VAL:CA | 1:291:A:VAL:C | 13 | 1.83 |
| (1,105) | 1:149:A:ILE:C | 1:150:A:LEU:N | 1:150:A:LEU:CA | 1:150:A:LEU:C | 11 | 1.83 |
| (1,65) | 1:63:A:ILE:N | 1:63:A:ILE:CA | 1:63:A:ILE:C | 1:64:A:ASN:N | 1 | 1.83 |
| (1,137) | 1:178:A:VAL:C | 1:179:A:GLU:N | 1:179:A:GLU:CA | 1:179:A:GLU:C | 18 | 1.82 |
| (1,46) | 1:50:A:LEU:C | 1:51:A:SER:N | 1:51:A:SER:CA | 1:51:A:SER:C | 3 | 1.82 |
| (1,106) | 1:150:A:LEU:N | 1:150:A:LEU:CA | 1:150:A:LEU:C | 1:151:A:VAL:N | 1 | 1.81 |
| (1,4) | 1:12:A:SER:C | 1:13:A:ALA:N | 1:13:A:ALA:CA | 1:13:A:ALA:C | 12 | 1.8 |
| (1,5) | 1:13:A:ALA:N | 1:13:A:ALA:CA | 1:13:A:ALA:C | 1:14:A:TRP:N | 7 | 1.79 |
| (1,54) | 1:56:A:SER:C | 1:57:A:ARG:N | 1:57:A:ARG:CA | 1:57:A:ARG:C | 4 | 1.78 |
| (1,12) | 1:16:A:MET:C | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 20 | 1.78 |
| (1,13) | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 1:18:A:PRO:N | 11 | 1.77 |
| (1,138) | 1:180:A:LYS:N | 1:180:A:LYS:CA | 1:180:A:LYS:C | 1:181:A:LEU:N | 20 | 1.76 |
| (1,135) | 1:177:A:TYR:C | 1:178:A:VAL:N | 1:178:A:VAL:CA | 1:178:A:VAL:C | 16 | 1.76 |
| (1,100) | 1:130:A:THR:N | 1:130:A:THR:CA | 1:130:A:THR:C | 1:131:A:LEU:N | 10 | 1.76 |

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| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---------|---------------|----------------|----------------|---------------|----------|---------------|
| (1,84) | 1:83:A:ALA:C | 1:84:A:LEU:N | 1:84:A:LEU:CA | 1:84:A:LEU:C | 8 | 1.76 |
| (1,114) | 1:154:A:GLU:N | 1:154:A:GLU:CA | 1:154:A:GLU:C | 1:155:A:LYS:N | 5 | 1.75 |
| (1,46) | 1:50:A:LEU:C | 1:51:A:SER:N | 1:51:A:SER:CA | 1:51:A:SER:C | 17 | 1.75 |
| (1,4) | 1:12:A:SER:C | 1:13:A:ALA:N | 1:13:A:ALA:CA | 1:13:A:ALA:C | 17 | 1.74 |
| (1,142) | 1:239:A:PHE:C | 1:240:A:ALA:N | 1:240:A:ALA:CA | 1:240:A:ALA:C | 14 | 1.72 |
| (1,65) | 1:63:A:ILE:N | 1:63:A:ILE:CA | 1:63:A:ILE:C | 1:64:A:ASN:N | 4 | 1.72 |
| (1,46) | 1:50:A:LEU:C | 1:51:A:SER:N | 1:51:A:SER:CA | 1:51:A:SER:C | 4 | 1.72 |
| (1,20) | 1:23:A:GLU:C | 1:24:A:ALA:N | 1:24:A:ALA:CA | 1:24:A:ALA:C | 20 | 1.71 |
| (1,137) | 1:178:A:VAL:C | 1:179:A:GLU:N | 1:179:A:GLU:CA | 1:179:A:GLU:C | 5 | 1.7 |
| (1,5) | 1:13:A:ALA:N | 1:13:A:ALA:CA | 1:13:A:ALA:C | 1:14:A:TRP:N | 9 | 1.7 |
| (1,46) | 1:50:A:LEU:C | 1:51:A:SER:N | 1:51:A:SER:CA | 1:51:A:SER:C | 14 | 1.69 |
| (1,20) | 1:23:A:GLU:C | 1:24:A:ALA:N | 1:24:A:ALA:CA | 1:24:A:ALA:C | 7 | 1.69 |
| (1,140) | 1:238:A:VAL:C | 1:239:A:PHE:N | 1:239:A:PHE:CA | 1:239:A:PHE:C | 5 | 1.68 |
| (1,159) | 1:268:A:ARG:N | 1:268:A:ARG:CA | 1:268:A:ARG:C | 1:269:A:MET:N | 5 | 1.67 |
| (1,105) | 1:149:A:ILE:C | 1:150:A:LEU:N | 1:150:A:LEU:CA | 1:150:A:LEU:C | 14 | 1.67 |
| (1,73) | 1:71:A:PHE:N | 1:71:A:PHE:CA | 1:71:A:PHE:C | 1:72:A:LYS:N | 13 | 1.67 |
| (1,171) | 1:283:A:LYS:N | 1:283:A:LYS:CA | 1:283:A:LYS:C | 1:284:A:GLY:N | 9 | 1.66 |
| (1,109) | 1:151:A:VAL:C | 1:152:A:ILE:N | 1:152:A:ILE:CA | 1:152:A:ILE:C | 1 | 1.66 |
| (1,84) | 1:83:A:ALA:C | 1:84:A:LEU:N | 1:84:A:LEU:CA | 1:84:A:LEU:C | 4 | 1.66 |
| (1,13) | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 1:18:A:PRO:N | 19 | 1.66 |
| (1,138) | 1:180:A:LYS:N | 1:180:A:LYS:CA | 1:180:A:LYS:C | 1:181:A:LEU:N | 4 | 1.65 |
| (1,123) | 1:163:A:ALA:C | 1:164:A:ARG:N | 1:164:A:ARG:CA | 1:164:A:ARG:C | 19 | 1.65 |
| (1,106) | 1:150:A:LEU:N | 1:150:A:LEU:CA | 1:150:A:LEU:C | 1:151:A:VAL:N | 16 | 1.65 |
| (1,12) | 1:16:A:MET:C | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 9 | 1.65 |
| (1,57) | 1:59:A:SER:N | 1:59:A:SER:CA | 1:59:A:SER:C | 1:60:A:HIS:N | 12 | 1.64 |
| (1,46) | 1:50:A:LEU:C | 1:51:A:SER:N | 1:51:A:SER:CA | 1:51:A:SER:C | 6 | 1.63 |
| (1,20) | 1:23:A:GLU:C | 1:24:A:ALA:N | 1:24:A:ALA:CA | 1:24:A:ALA:C | 12 | 1.62 |
| (1,105) | 1:149:A:ILE:C | 1:150:A:LEU:N | 1:150:A:LEU:CA | 1:150:A:LEU:C | 4 | 1.6 |
| (1,12) | 1:16:A:MET:C | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 15 | 1.6 |
| (1,16) | 1:21:A:ARG:C | 1:22:A:GLN:N | 1:22:A:GLN:CA | 1:22:A:GLN:C | 4 | 1.59 |
| (1,123) | 1:163:A:ALA:C | 1:164:A:ARG:N | 1:164:A:ARG:CA | 1:164:A:ARG:C | 17 | 1.56 |
| (1,183) | 1:293:A:ILE:N | 1:293:A:ILE:CA | 1:293:A:ILE:C | 1:294:A:PHE:N | 18 | 1.55 |
| (1,12) | 1:16:A:MET:C | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 2 | 1.55 |
| (1,12) | 1:16:A:MET:C | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 8 | 1.55 |
| (1,169) | 1:278:A:GLU:N | 1:278:A:GLU:CA | 1:278:A:GLU:C | 1:279:A:VAL:N | 13 | 1.54 |
| (1,61) | 1:61:A:TYR:N | 1:61:A:TYR:CA | 1:61:A:TYR:C | 1:62:A:ILE:N | 8 | 1.54 |
| (1,52) | 1:53:A:SER:C | 1:54:A:GLU:N | 1:54:A:GLU:CA | 1:54:A:GLU:C | 19 | 1.52 |
| (1,20) | 1:23:A:GLU:C | 1:24:A:ALA:N | 1:24:A:ALA:CA | 1:24:A:ALA:C | 3 | 1.52 |
| (1,20) | 1:23:A:GLU:C | 1:24:A:ALA:N | 1:24:A:ALA:CA | 1:24:A:ALA:C | 9 | 1.51 |
| (1,108) | 1:151:A:VAL:N | 1:151:A:VAL:CA | 1:151:A:VAL:C | 1:152:A:ILE:N | 19 | 1.5 |
| (1,12) | 1:16:A:MET:C | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 6 | 1.5 |
| (1,109) | 1:151:A:VAL:C | 1:152:A:ILE:N | 1:152:A:ILE:CA | 1:152:A:ILE:C | 2 | 1.49 |
| (1,65) | 1:63:A:ILE:N | 1:63:A:ILE:CA | 1:63:A:ILE:C | 1:64:A:ASN:N | 13 | 1.49 |
| (1,46) | 1:50:A:LEU:C | 1:51:A:SER:N | 1:51:A:SER:CA | 1:51:A:SER:C | 11 | 1.48 |
| (1,169) | 1:278:A:GLU:N | 1:278:A:GLU:CA | 1:278:A:GLU:C | 1:279:A:VAL:N | 10 | 1.46 |
| (1,115) | 1:159:A:GLN:C | 1:160:A:TRP:N | 1:160:A:TRP:CA | 1:160:A:TRP:C | 16 | 1.46 |
| (1,94) | 1:127:A:TYR:N | 1:127:A:TYR:CA | 1:127:A:TYR:C | 1:128:A:VAL:N | 13 | 1.46 |
| (1,94) | 1:127:A:TYR:N | 1:127:A:TYR:CA | 1:127:A:TYR:C | 1:128:A:VAL:N | 14 | 1.45 |
| (1,46) | 1:50:A:LEU:C | 1:51:A:SER:N | 1:51:A:SER:CA | 1:51:A:SER:C | 13 | 1.45 |
| (1,138) | 1:180:A:LYS:N | 1:180:A:LYS:CA | 1:180:A:LYS:C | 1:181:A:LEU:N | 7 | 1.44 |
| (1,115) | 1:159:A:GLN:C | 1:160:A:TRP:N | 1:160:A:TRP:CA | 1:160:A:TRP:C | 17 | 1.44 |

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| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---------|---------------|----------------|----------------|---------------|----------|---------------|
| (1,46) | 1:50:A:LEU:C | 1:51:A:SER:N | 1:51:A:SER:CA | 1:51:A:SER:C | 19 | 1.44 |
| (1,113) | 1:153:A:ILE:C | 1:154:A:GLU:N | 1:154:A:GLU:CA | 1:154:A:GLU:C | 10 | 1.43 |
| (1,20) | 1:23:A:GLU:C | 1:24:A:ALA:N | 1:24:A:ALA:CA | 1:24:A:ALA:C | 15 | 1.43 |
| (1,171) | 1:283:A:LYS:N | 1:283:A:LYS:CA | 1:283:A:LYS:C | 1:284:A:GLY:N | 17 | 1.42 |
| (1,153) | 1:265:A:LYS:N | 1:265:A:LYS:CA | 1:265:A:LYS:C | 1:266:A:VAL:N | 17 | 1.42 |
| (1,138) | 1:180:A:LYS:N | 1:180:A:LYS:CA | 1:180:A:LYS:C | 1:181:A:LEU:N | 19 | 1.42 |
| (1,15) | 1:21:A:ARG:N | 1:21:A:ARG:CA | 1:21:A:ARG:C | 1:22:A:GLN:N | 8 | 1.42 |
| (1,132) | 1:173:A:ILE:N | 1:173:A:ILE:CA | 1:173:A:ILE:C | 1:174:A:PRO:N | 20 | 1.41 |
| (1,106) | 1:150:A:LEU:N | 1:150:A:LEU:CA | 1:150:A:LEU:C | 1:151:A:VAL:N | 18 | 1.41 |
| (1,5) | 1:13:A:ALA:N | 1:13:A:ALA:CA | 1:13:A:ALA:C | 1:14:A:TRP:N | 5 | 1.41 |
| (1,162) | 1:274:A:GLN:C | 1:275:A:TRP:N | 1:275:A:TRP:CA | 1:275:A:TRP:C | 8 | 1.39 |
| (1,39) | 1:40:A:ASP:N | 1:40:A:ASP:CA | 1:40:A:ASP:C | 1:41:A:SER:N | 11 | 1.39 |
| (1,173) | 1:284:A:GLY:N | 1:284:A:GLY:CA | 1:284:A:GLY:C | 1:285:A:LEU:N | 20 | 1.38 |
| (1,169) | 1:278:A:GLU:N | 1:278:A:GLU:CA | 1:278:A:GLU:C | 1:279:A:VAL:N | 18 | 1.38 |
| (1,100) | 1:130:A:THR:N | 1:130:A:THR:CA | 1:130:A:THR:C | 1:131:A:LEU:N | 3 | 1.38 |
| (1,156) | 1:266:A:VAL:C | 1:267:A:THR:N | 1:267:A:THR:CA | 1:267:A:THR:C | 20 | 1.37 |
| (1,123) | 1:163:A:ALA:C | 1:164:A:ARG:N | 1:164:A:ARG:CA | 1:164:A:ARG:C | 20 | 1.36 |
| (1,145) | 1:241:A:LYS:N | 1:241:A:LYS:CA | 1:241:A:LYS:C | 1:242:A:ALA:N | 6 | 1.35 |
| (1,27) | 1:27:A:ARG:N | 1:27:A:ARG:CA | 1:27:A:ARG:C | 1:28:A:LEU:N | 10 | 1.34 |
| (1,4) | 1:12:A:SER:C | 1:13:A:ALA:N | 1:13:A:ALA:CA | 1:13:A:ALA:C | 10 | 1.34 |
| (1,106) | 1:150:A:LEU:N | 1:150:A:LEU:CA | 1:150:A:LEU:C | 1:151:A:VAL:N | 7 | 1.33 |
| (1,62) | 1:61:A:TYR:C | 1:62:A:ILE:N | 1:62:A:ILE:CA | 1:62:A:ILE:C | 8 | 1.33 |
| (1,49) | 1:52:A:VAL:N | 1:52:A:VAL:CA | 1:52:A:VAL:C | 1:53:A:SER:N | 15 | 1.33 |
| (1,169) | 1:278:A:GLU:N | 1:278:A:GLU:CA | 1:278:A:GLU:C | 1:279:A:VAL:N | 17 | 1.32 |
| (1,97) | 1:128:A:VAL:C | 1:129:A:ARG:N | 1:129:A:ARG:CA | 1:129:A:ARG:C | 5 | 1.32 |
| (1,82) | 1:82:A:PRO:C | 1:83:A:ALA:N | 1:83:A:ALA:CA | 1:83:A:ALA:C | 3 | 1.32 |
| (1,19) | 1:23:A:GLU:N | 1:23:A:GLU:CA | 1:23:A:GLU:C | 1:24:A:ALA:N | 6 | 1.31 |
| (1,49) | 1:52:A:VAL:N | 1:52:A:VAL:CA | 1:52:A:VAL:C | 1:53:A:SER:N | 1 | 1.3 |
| (1,46) | 1:50:A:LEU:C | 1:51:A:SER:N | 1:51:A:SER:CA | 1:51:A:SER:C | 7 | 1.3 |
| (1,140) | 1:238:A:VAL:C | 1:239:A:PHE:N | 1:239:A:PHE:CA | 1:239:A:PHE:C | 17 | 1.29 |
| (1,114) | 1:154:A:GLU:N | 1:154:A:GLU:CA | 1:154:A:GLU:C | 1:155:A:LYS:N | 16 | 1.29 |
| (1,112) | 1:153:A:ILE:N | 1:153:A:ILE:CA | 1:153:A:ILE:C | 1:154:A:GLU:N | 6 | 1.29 |
| (1,138) | 1:180:A:LYS:N | 1:180:A:LYS:CA | 1:180:A:LYS:C | 1:181:A:LEU:N | 9 | 1.28 |
| (1,7) | 1:14:A:TRP:N | 1:14:A:TRP:CA | 1:14:A:TRP:C | 1:15:A:TYR:N | 19 | 1.28 |
| (1,19) | 1:23:A:GLU:N | 1:23:A:GLU:CA | 1:23:A:GLU:C | 1:24:A:ALA:N | 1 | 1.27 |
| (1,19) | 1:23:A:GLU:N | 1:23:A:GLU:CA | 1:23:A:GLU:C | 1:24:A:ALA:N | 18 | 1.27 |
| (1,110) | 1:152:A:ILE:N | 1:152:A:ILE:CA | 1:152:A:ILE:C | 1:153:A:ILE:N | 10 | 1.25 |
| (1,44) | 1:49:A:VAL:C | 1:50:A:LEU:N | 1:50:A:LEU:CA | 1:50:A:LEU:C | 12 | 1.25 |
| (1,178) | 1:290:A:HIS:C | 1:291:A:VAL:N | 1:291:A:VAL:CA | 1:291:A:VAL:C | 9 | 1.24 |
| (1,54) | 1:56:A:SER:C | 1:57:A:ARG:N | 1:57:A:ARG:CA | 1:57:A:ARG:C | 1 | 1.24 |
| (1,94) | 1:127:A:TYR:N | 1:127:A:TYR:CA | 1:127:A:TYR:C | 1:128:A:VAL:N | 4 | 1.23 |
| (1,12) | 1:16:A:MET:C | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 7 | 1.23 |
| (1,97) | 1:128:A:VAL:C | 1:129:A:ARG:N | 1:129:A:ARG:CA | 1:129:A:ARG:C | 11 | 1.22 |
| (1,51) | 1:53:A:SER:N | 1:53:A:SER:CA | 1:53:A:SER:C | 1:54:A:GLU:N | 2 | 1.22 |
| (1,39) | 1:40:A:ASP:N | 1:40:A:ASP:CA | 1:40:A:ASP:C | 1:41:A:SER:N | 5 | 1.22 |
| (1,135) | 1:177:A:TYR:C | 1:178:A:VAL:N | 1:178:A:VAL:CA | 1:178:A:VAL:C | 13 | 1.21 |
| (1,123) | 1:163:A:ALA:C | 1:164:A:ARG:N | 1:164:A:ARG:CA | 1:164:A:ARG:C | 14 | 1.21 |
| (1,178) | 1:290:A:HIS:C | 1:291:A:VAL:N | 1:291:A:VAL:CA | 1:291:A:VAL:C | 11 | 1.2 |
| (1,105) | 1:149:A:ILE:C | 1:150:A:LEU:N | 1:150:A:LEU:CA | 1:150:A:LEU:C | 10 | 1.19 |
| (1,29) | 1:28:A:LEU:N | 1:28:A:LEU:CA | 1:28:A:LEU:C | 1:29:A:GLN:N | 3 | 1.19 |
| (1,57) | 1:59:A:SER:N | 1:59:A:SER:CA | 1:59:A:SER:C | 1:60:A:HIS:N | 15 | 1.18 |

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| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---------|---------------|----------------|----------------|---------------|----------|---------------|
| (1,142) | 1:239:A:PHE:C | 1:240:A:ALA:N | 1:240:A:ALA:CA | 1:240:A:ALA:C | 15 | 1.16 |
| (1,106) | 1:150:A:LEU:N | 1:150:A:LEU:CA | 1:150:A:LEU:C | 1:151:A:VAL:N | 6 | 1.16 |
| (1,62) | 1:61:A:TYR:C | 1:62:A:ILE:N | 1:62:A:ILE:CA | 1:62:A:ILE:C | 1 | 1.15 |
| (1,4) | 1:12:A:SER:C | 1:13:A:ALA:N | 1:13:A:ALA:CA | 1:13:A:ALA:C | 9 | 1.15 |
| (1,142) | 1:239:A:PHE:C | 1:240:A:ALA:N | 1:240:A:ALA:CA | 1:240:A:ALA:C | 11 | 1.14 |
| (1,123) | 1:163:A:ALA:C | 1:164:A:ARG:N | 1:164:A:ARG:CA | 1:164:A:ARG:C | 3 | 1.14 |
| (1,13) | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 1:18:A:PRO:N | 8 | 1.14 |
| (1,135) | 1:177:A:TYR:C | 1:178:A:VAL:N | 1:178:A:VAL:CA | 1:178:A:VAL:C | 8 | 1.13 |
| (1,29) | 1:28:A:LEU:N | 1:28:A:LEU:CA | 1:28:A:LEU:C | 1:29:A:GLN:N | 8 | 1.13 |
| (1,105) | 1:149:A:ILE:C | 1:150:A:LEU:N | 1:150:A:LEU:CA | 1:150:A:LEU:C | 17 | 1.12 |
| (1,62) | 1:61:A:TYR:C | 1:62:A:ILE:N | 1:62:A:ILE:CA | 1:62:A:ILE:C | 19 | 1.11 |
| (1,13) | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 1:18:A:PRO:N | 4 | 1.09 |
| (1,4) | 1:12:A:SER:C | 1:13:A:ALA:N | 1:13:A:ALA:CA | 1:13:A:ALA:C | 2 | 1.09 |
| (1,142) | 1:239:A:PHE:C | 1:240:A:ALA:N | 1:240:A:ALA:CA | 1:240:A:ALA:C | 3 | 1.08 |
| (1,108) | 1:151:A:VAL:N | 1:151:A:VAL:CA | 1:151:A:VAL:C | 1:152:A:ILE:N | 11 | 1.08 |
| (1,82) | 1:82:A:PRO:C | 1:83:A:ALA:N | 1:83:A:ALA:CA | 1:83:A:ALA:C | 1 | 1.08 |
| (1,23) | 1:25:A:GLN:N | 1:25:A:GLN:CA | 1:25:A:GLN:C | 1:26:A:THR:N | 14 | 1.08 |
| (1,108) | 1:151:A:VAL:N | 1:151:A:VAL:CA | 1:151:A:VAL:C | 1:152:A:ILE:N | 3 | 1.07 |
| (1,65) | 1:63:A:ILE:N | 1:63:A:ILE:CA | 1:63:A:ILE:C | 1:64:A:ASN:N | 3 | 1.07 |
| (1,49) | 1:52:A:VAL:N | 1:52:A:VAL:CA | 1:52:A:VAL:C | 1:53:A:SER:N | 19 | 1.07 |
| (1,139) | 1:238:A:VAL:N | 1:238:A:VAL:CA | 1:238:A:VAL:C | 1:239:A:PHE:N | 19 | 1.06 |
| (1,169) | 1:278:A:GLU:N | 1:278:A:GLU:CA | 1:278:A:GLU:C | 1:279:A:VAL:N | 15 | 1.05 |
| (1,94) | 1:127:A:TYR:N | 1:127:A:TYR:CA | 1:127:A:TYR:C | 1:128:A:VAL:N | 15 | 1.05 |
| (1,7) | 1:14:A:TRP:N | 1:14:A:TRP:CA | 1:14:A:TRP:C | 1:15:A:TYR:N | 7 | 1.05 |
| (1,7) | 1:14:A:TRP:N | 1:14:A:TRP:CA | 1:14:A:TRP:C | 1:15:A:TYR:N | 14 | 1.04 |
| (1,171) | 1:283:A:LYS:N | 1:283:A:LYS:CA | 1:283:A:LYS:C | 1:284:A:GLY:N | 1 | 1.03 |
| (1,142) | 1:239:A:PHE:C | 1:240:A:ALA:N | 1:240:A:ALA:CA | 1:240:A:ALA:C | 6 | 1.03 |
| (1,137) | 1:178:A:VAL:C | 1:179:A:GLU:N | 1:179:A:GLU:CA | 1:179:A:GLU:C | 17 | 1.03 |
| (1,138) | 1:180:A:LYS:N | 1:180:A:LYS:CA | 1:180:A:LYS:C | 1:181:A:LEU:N | 10 | 1.02 |
| (1,12) | 1:16:A:MET:C | 1:17:A:GLY:N | 1:17:A:GLY:CA | 1:17:A:GLY:C | 14 | 1.02 |
| (1,171) | 1:283:A:LYS:N | 1:283:A:LYS:CA | 1:283:A:LYS:C | 1:284:A:GLY:N | 11 | 1.0 |