



Full wwPDB NMR Structure Validation Report ⓘ

Apr 20, 2024 – 10:28 AM EDT

PDB ID : 3J07
EMDB ID : EMD-1776
BMRB ID : 16391
Title : Model of a 24mer alphaB-crystallin multimer
Authors : Jehle, S.; Vollmar, B.; Bardiaux, B.; Dove, K.K.; Rajagopal, P.; Gonen, T.;
Oschkinat, H.; Klevit, R.E.
Deposited on : 2011-04-27
Based on initial model : 2KLR

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:

EMDB validation analysis : **NOT EXECUTED**
MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : **NOT EXECUTED**
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.36.2

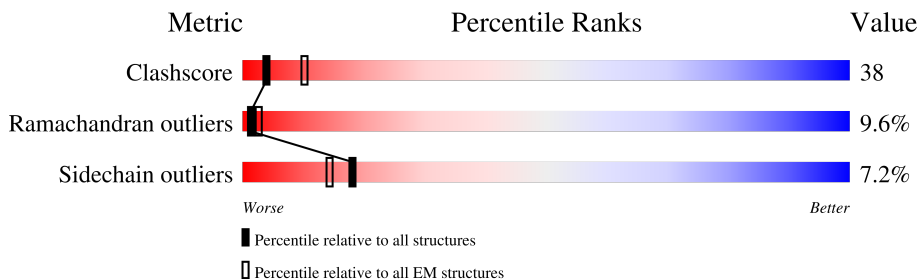
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:
SOLID-STATE NMR, SOLUTION SCATTERING, ELECTRON MICROSCOPY

The reported resolution of this entry is 20.00 Å.

The overall completeness of chemical shifts assignment was not calculated.

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



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

The table below summarises the geometric issues observed across the polymeric chains and their fit to the 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 | 175 | 45% 43% 12% |
| 1 | B | 175 | 46% 45% 9% |
| 1 | C | 175 | 43% 44% 11% . |
| 1 | D | 175 | 41% 46% 11% . |
| 1 | E | 175 | 47% 41% 13% |
| 1 | F | 175 | 42% 47% 10% . |
| 1 | G | 175 | 44% 43% 11% . |
| 1 | H | 175 | 45% 44% 10% . |

Continued on next page...

Continued from previous page...

| Mol | Chain | Length | Quality of chain | | |
|-----|-------|--------|------------------|-----|-----|
| 1 | I | 175 | 43% | 45% | 9% |
| 1 | J | 175 | 41% | 49% | 10% |
| 1 | K | 175 | 46% | 40% | 10% |
| 1 | L | 175 | 45% | 43% | 10% |
| 1 | M | 175 | 45% | 41% | 13% |
| 1 | N | 175 | 44% | 49% | 7% |
| 1 | O | 175 | 44% | 42% | 11% |
| 1 | P | 175 | 42% | 46% | 11% |
| 1 | Q | 175 | 47% | 41% | 10% |
| 1 | R | 175 | 47% | 42% | 11% |
| 1 | S | 175 | 45% | 43% | 10% |
| 1 | T | 175 | 46% | 44% | 10% |
| 1 | U | 175 | 43% | 45% | 11% |
| 1 | V | 175 | 43% | 46% | 10% |
| 1 | W | 175 | 42% | 45% | 11% |
| 1 | X | 175 | 43% | 43% | 11% |

2 Ensemble composition and analysis

This entry contains 1 models. Identification of well-defined residues and clustering analysis are not possible.

3 Entry composition [i](#)

There is only 1 type of molecule in this entry. The entry contains 42144 atoms, of which 8232 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Alpha-crystallin B chain.

| Mol | Chain | Residues | Atoms | | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|-----|---|---------|-------|
| | | | Total | C | H | N | O | S | | |
| 1 | A | 175 | 1756 | 916 | 343 | 236 | 259 | 2 | 0 | |
| 1 | B | 175 | 1756 | 916 | 343 | 236 | 259 | 2 | 0 | |
| 1 | C | 175 | 1756 | 916 | 343 | 236 | 259 | 2 | 0 | |
| 1 | D | 175 | 1756 | 916 | 343 | 236 | 259 | 2 | 0 | |
| 1 | E | 175 | 1756 | 916 | 343 | 236 | 259 | 2 | 0 | |
| 1 | F | 175 | 1756 | 916 | 343 | 236 | 259 | 2 | 0 | |
| 1 | G | 175 | 1756 | 916 | 343 | 236 | 259 | 2 | 0 | |
| 1 | H | 175 | 1756 | 916 | 343 | 236 | 259 | 2 | 0 | |
| 1 | I | 175 | 1756 | 916 | 343 | 236 | 259 | 2 | 0 | |
| 1 | J | 175 | 1756 | 916 | 343 | 236 | 259 | 2 | 0 | |
| 1 | K | 175 | 1756 | 916 | 343 | 236 | 259 | 2 | 0 | |
| 1 | L | 175 | 1756 | 916 | 343 | 236 | 259 | 2 | 0 | |
| 1 | M | 175 | 1756 | 916 | 343 | 236 | 259 | 2 | 0 | |
| 1 | N | 175 | 1756 | 916 | 343 | 236 | 259 | 2 | 0 | |
| 1 | O | 175 | 1756 | 916 | 343 | 236 | 259 | 2 | 0 | |
| 1 | P | 175 | 1756 | 916 | 343 | 236 | 259 | 2 | 0 | |
| 1 | Q | 175 | 1756 | 916 | 343 | 236 | 259 | 2 | 0 | |

Continued on next page...

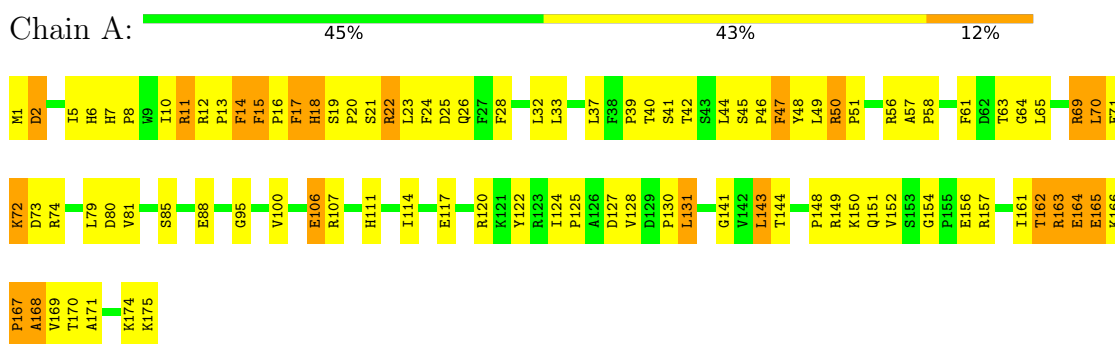
Continued from previous page...

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace | |
|-----|-------|----------|-------|-----|-----|-----|-----|---------|-------|--|
| 1 | R | 175 | Total | C | H | N | O | S | 0 | |
| | | | 1756 | 916 | 343 | 236 | 259 | 2 | | |
| 1 | S | 175 | Total | C | H | N | O | S | 0 | |
| | | | 1756 | 916 | 343 | 236 | 259 | 2 | | |
| 1 | T | 175 | Total | C | H | N | O | S | 0 | |
| | | | 1756 | 916 | 343 | 236 | 259 | 2 | | |
| 1 | U | 175 | Total | C | H | N | O | S | 0 | |
| | | | 1756 | 916 | 343 | 236 | 259 | 2 | | |
| 1 | V | 175 | Total | C | H | N | O | S | 0 | |
| | | | 1756 | 916 | 343 | 236 | 259 | 2 | | |
| 1 | W | 175 | Total | C | H | N | O | S | 0 | |
| | | | 1756 | 916 | 343 | 236 | 259 | 2 | | |
| 1 | X | 175 | Total | C | H | N | O | S | 0 | |
| | | | 1756 | 916 | 343 | 236 | 259 | 2 | | |

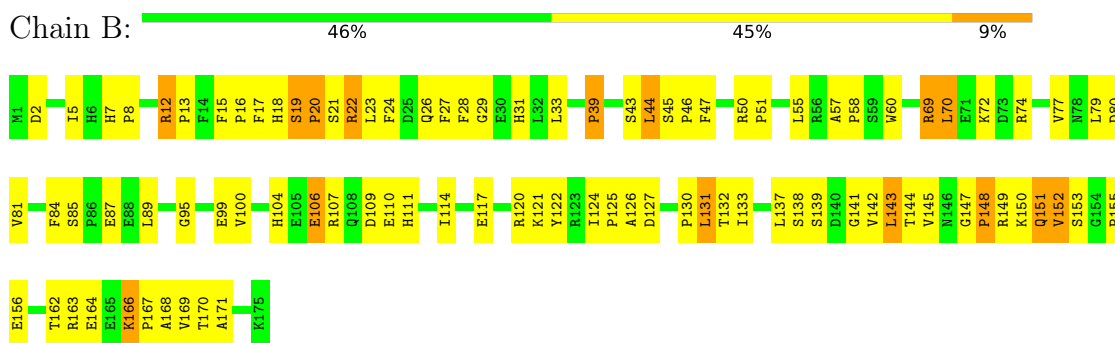
4 Residue-property plots [i](#)

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.

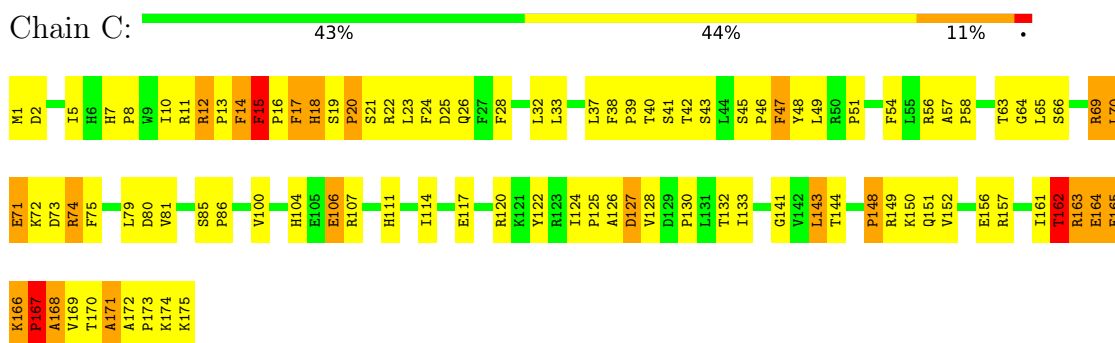
• Molecule 1: Alpha-crystallin B chain



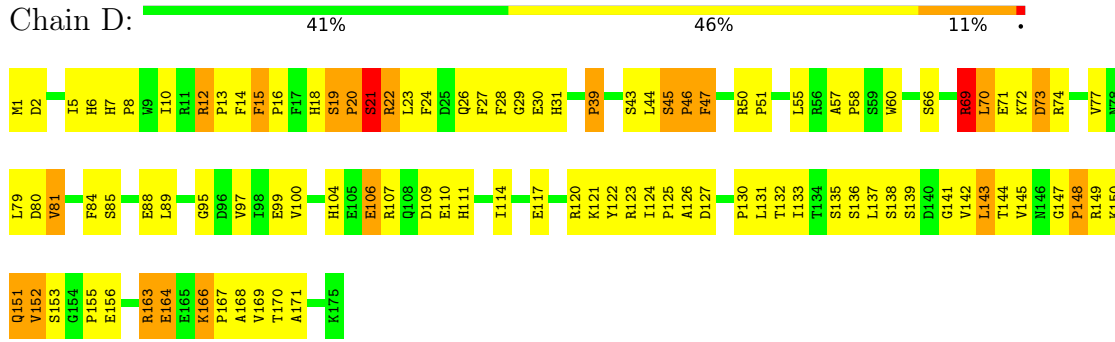
• Molecule 1: Alpha-crystallin B chain



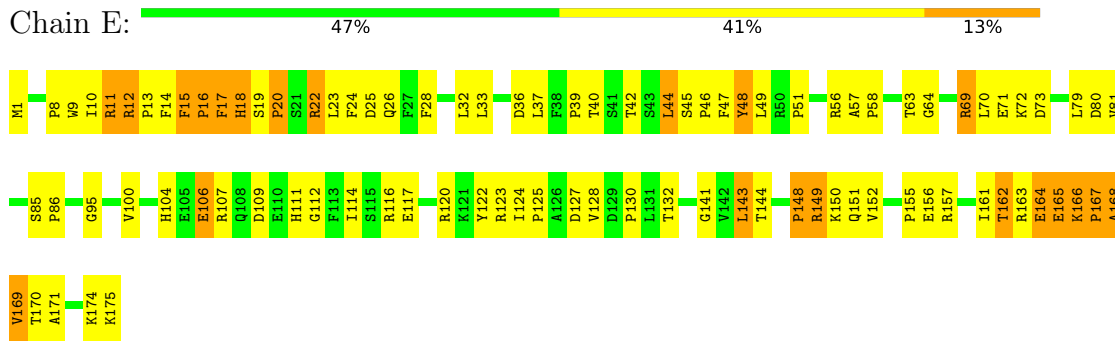
• Molecule 1: Alpha-crystallin B chain



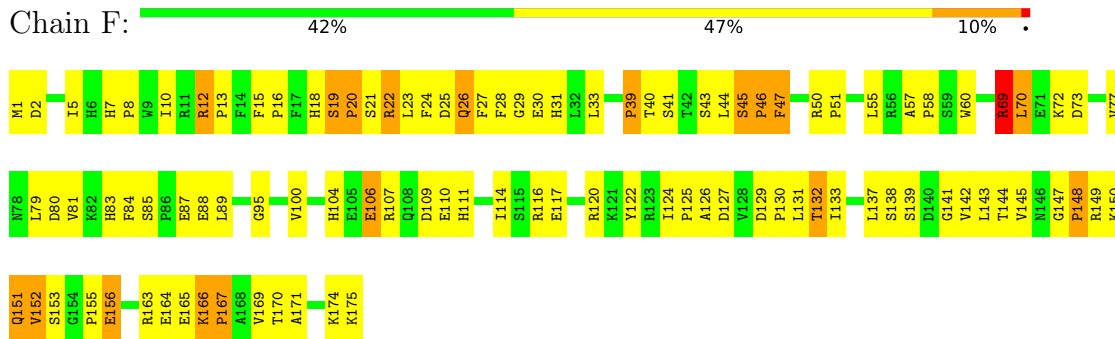
• Molecule 1: Alpha-crystallin B chain



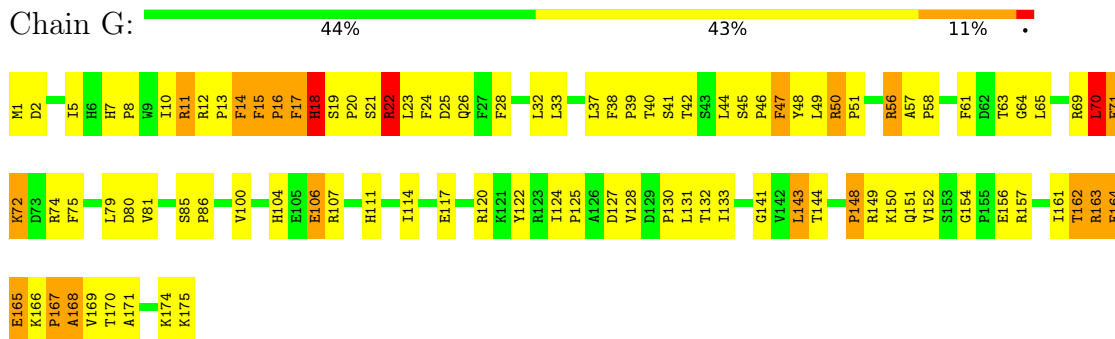
- Molecule 1: Alpha-crystallin B chain



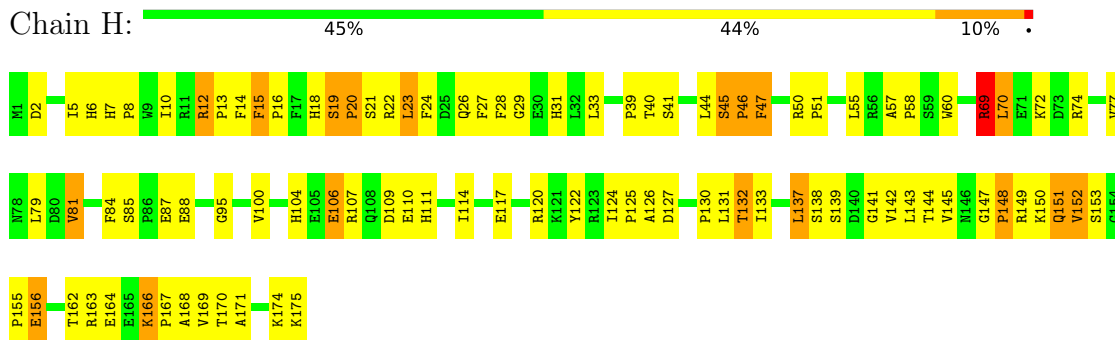
- Molecule 1: Alpha-crystallin B chain



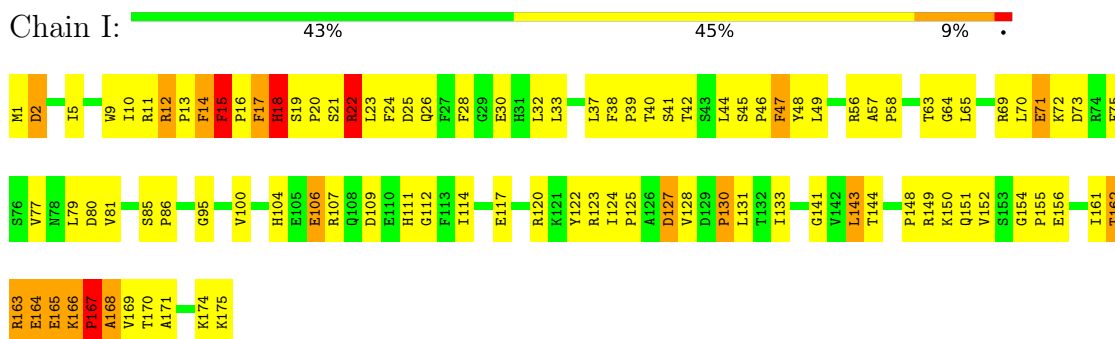
- Molecule 1: Alpha-crystallin B chain



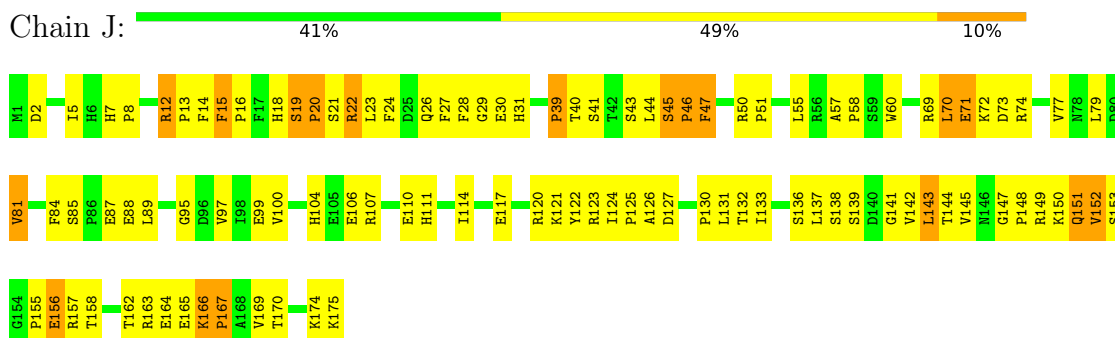
- Molecule 1: Alpha-crystallin B chain



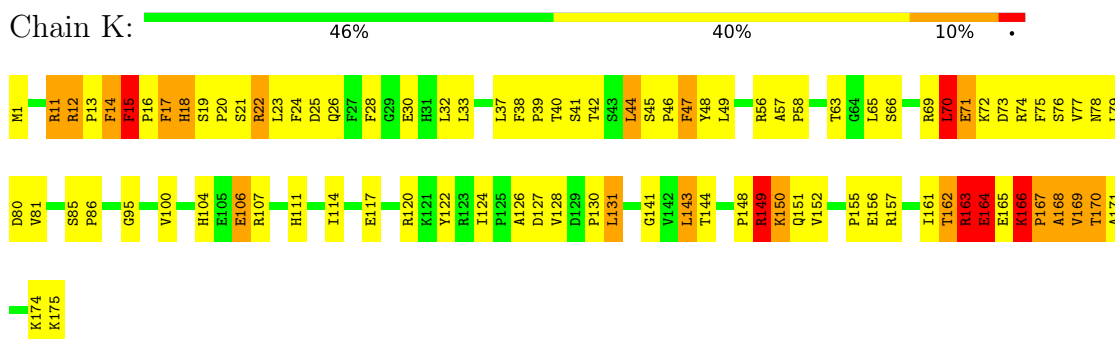
• Molecule 1: Alpha-crystallin B chain



• Molecule 1: Alpha-crystallin B chain

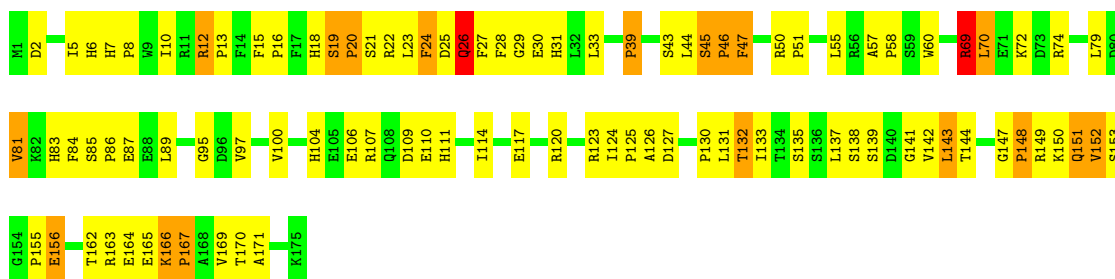


• Molecule 1: Alpha-crystallin B chain



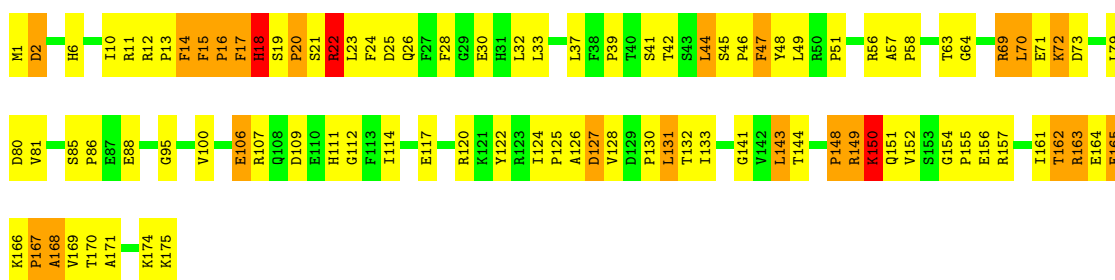
• Molecule 1: Alpha-crystallin B chain

Chain L: 



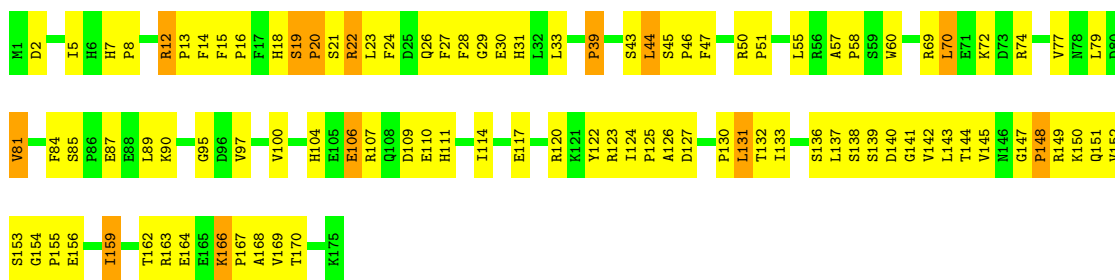
• Molecule 1: Alpha-crystallin B chain

Chain M: 



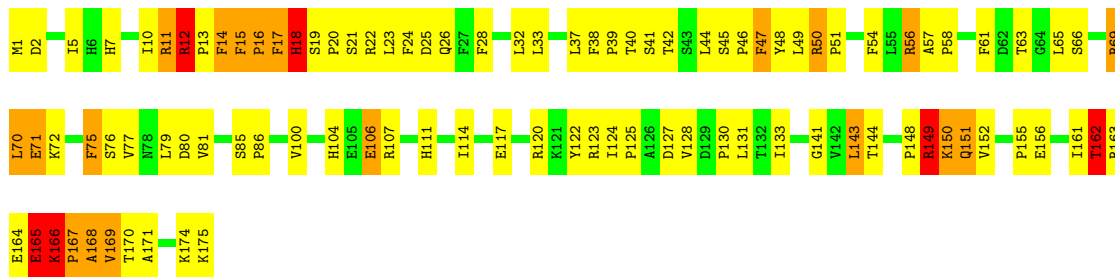
• Molecule 1: Alpha-crystallin B chain

Chain N: 

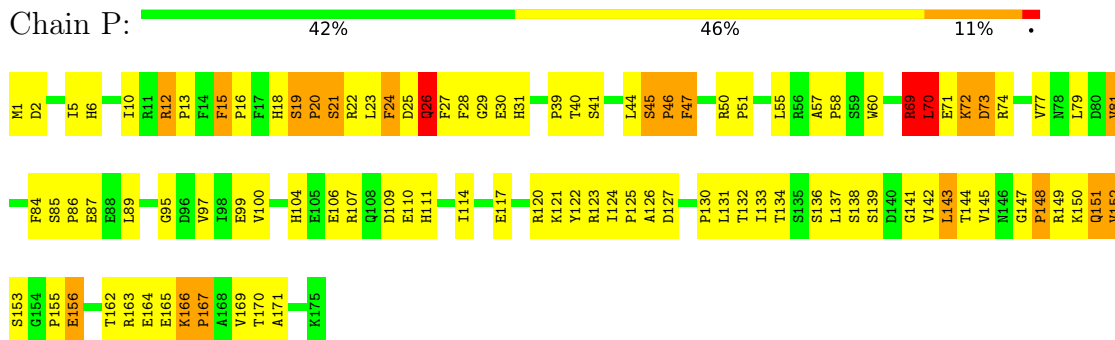


• Molecule 1: Alpha-crystallin B chain

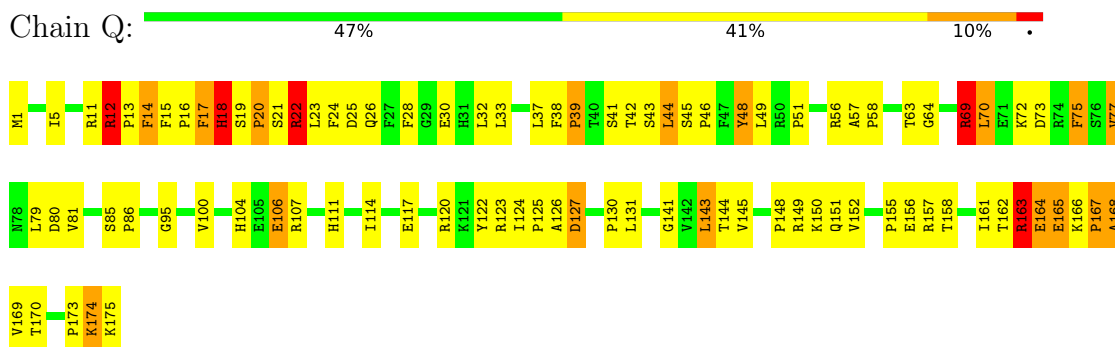
Chain O: 



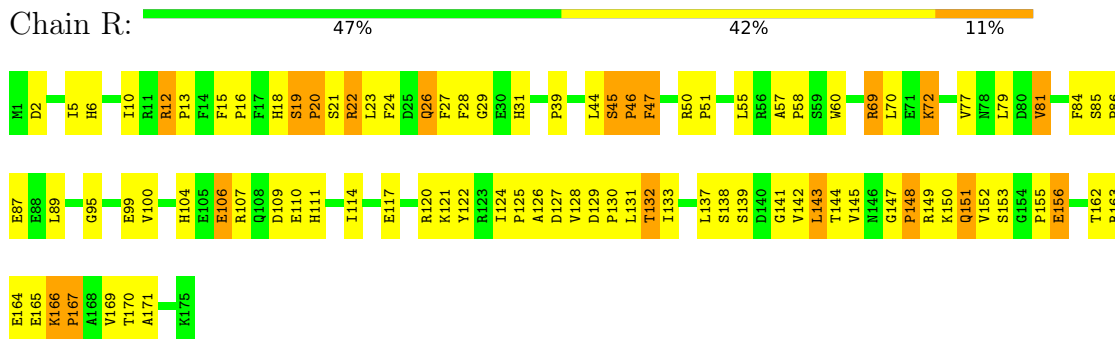
• Molecule 1: Alpha-crystallin B chain



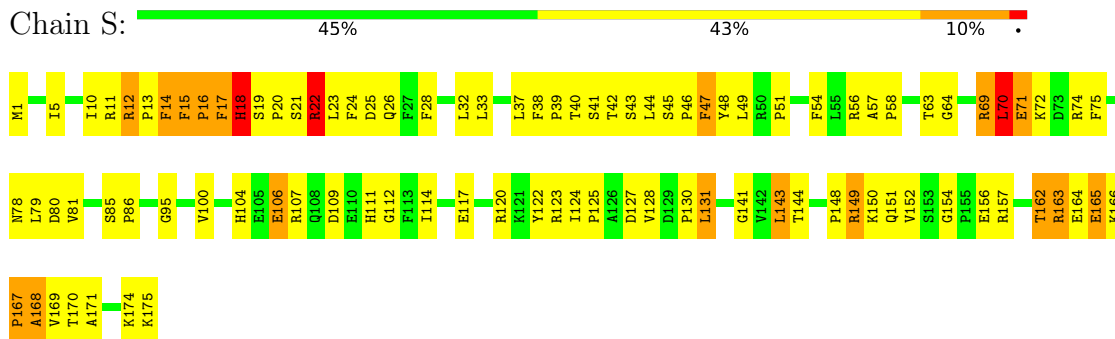
- Molecule 1: Alpha-crystallin B chain



- Molecule 1: Alpha-crystallin B chain



- Molecule 1: Alpha-crystallin B chain



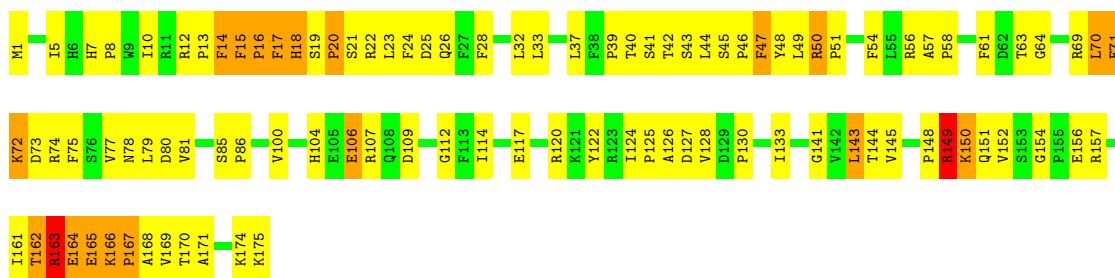
- Molecule 1: Alpha-crystallin B chain

Chain T:  46% 44% 10%



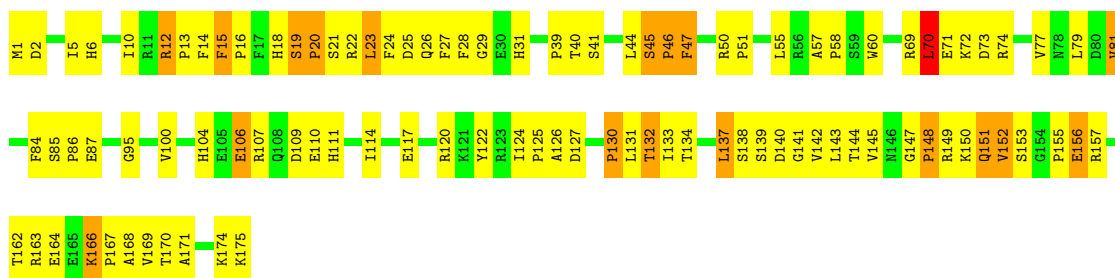
- Molecule 1: Alpha-crystallin B chain

Chain U:  43% 45% 11%



- Molecule 1: Alpha-crystallin B chain

Chain V:  43% 46% 10%



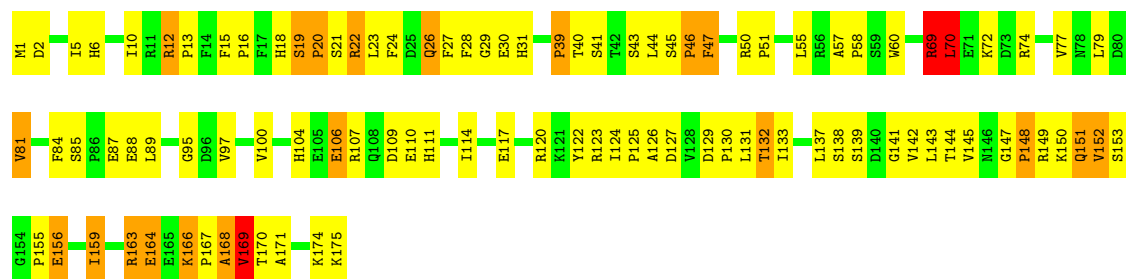
- Molecule 1: Alpha-crystallin B chain

Chain W:  42% 45% 11%



- Molecule 1: Alpha-crystallin B chain

Chain X:  43% 43% 11%



5 Refinement protocol and experimental data overview

The models were refined using the following method: *simulated annealing, molecular dynamics, torsion angle dynamics*.

Of the 200 calculated structures, 1 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 |
|---------------|--------------------|---------|
| X-PLOR NIH | structure solution | |
| ARIA | structure solution | 2.2 |
| ARIA | refinement | 2.2 |
| CNS | structure solution | 1.2 |
| CNS | refinement | 1.2 |
| SOLARIA | structure solution | 1 |

No chemical shift data was provided. Note: This is a solid-state NMR structure, where hydrogen atoms are typically not assigned a chemical shift value, which may lead to lower completeness of assignment measure.

6 Model quality [i](#)

6.1 Standard geometry [i](#)

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

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 | 1 | 4 |
| 1 | B | 0 | 4 |
| 1 | C | 0 | 2 |
| 1 | D | 0 | 4 |
| 1 | E | 0 | 3 |
| 1 | F | 0 | 4 |
| 1 | G | 1 | 5 |
| 1 | H | 1 | 3 |
| 1 | I | 1 | 3 |
| 1 | J | 0 | 4 |
| 1 | K | 2 | 3 |
| 1 | L | 0 | 3 |
| 1 | M | 0 | 3 |
| 1 | N | 0 | 4 |
| 1 | O | 0 | 5 |
| 1 | P | 0 | 3 |
| 1 | Q | 2 | 3 |
| 1 | R | 0 | 4 |
| 1 | S | 0 | 4 |
| 1 | T | 0 | 4 |
| 1 | U | 0 | 1 |
| 1 | V | 0 | 3 |
| 1 | W | 2 | 5 |
| 1 | X | 0 | 4 |
| All | All | 10 | 85 |

There are no bond-length outliers.

There are no bond-angle outliers.

All chiral outliers are listed below.

| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-------|
| 1 | A | 162 | THR | CB |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-------|
| 1 | G | 162 | THR | CB |
| 1 | H | 42 | THR | CB |
| 1 | I | 162 | THR | CB |
| 1 | K | 3 | ILE | CB |
| 1 | K | 162 | THR | CB |
| 1 | Q | 42 | THR | CB |
| 1 | Q | 162 | THR | CB |
| 1 | W | 3 | ILE | CB |
| 1 | W | 162 | THR | CB |

All planar outliers are listed below.

| Mol | Chain | Res | Type | Group |
|-----|-------|-----|------|-----------|
| 1 | A | 11 | ARG | Sidechain |
| 1 | A | 22 | ARG | Sidechain |
| 1 | A | 50 | ARG | Sidechain |
| 1 | A | 69 | ARG | Sidechain |
| 1 | B | 12 | ARG | Sidechain |
| 1 | B | 22 | ARG | Sidechain |
| 1 | B | 50 | ARG | Sidechain |
| 1 | B | 69 | ARG | Sidechain |
| 1 | C | 12 | ARG | Sidechain |
| 1 | C | 69 | ARG | Sidechain |
| 1 | D | 12 | ARG | Sidechain |
| 1 | D | 22 | ARG | Sidechain |
| 1 | D | 50 | ARG | Sidechain |
| 1 | D | 69 | ARG | Sidechain |
| 1 | E | 11 | ARG | Sidechain |
| 1 | E | 22 | ARG | Sidechain |
| 1 | E | 69 | ARG | Sidechain |
| 1 | F | 12 | ARG | Sidechain |
| 1 | F | 22 | ARG | Sidechain |
| 1 | F | 50 | ARG | Sidechain |
| 1 | F | 69 | ARG | Sidechain |
| 1 | G | 11 | ARG | Sidechain |
| 1 | G | 22 | ARG | Sidechain |
| 1 | G | 50 | ARG | Sidechain |
| 1 | G | 56 | ARG | Sidechain |
| 1 | G | 69 | ARG | Sidechain |
| 1 | H | 12 | ARG | Sidechain |
| 1 | H | 50 | ARG | Sidechain |
| 1 | H | 69 | ARG | Sidechain |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type | Group |
|-----|-------|-----|------|-----------|
| 1 | I | 12 | ARG | Sidechain |
| 1 | I | 22 | ARG | Sidechain |
| 1 | I | 69 | ARG | Sidechain |
| 1 | J | 12 | ARG | Sidechain |
| 1 | J | 22 | ARG | Sidechain |
| 1 | J | 50 | ARG | Sidechain |
| 1 | J | 69 | ARG | Sidechain |
| 1 | K | 11 | ARG | Sidechain |
| 1 | K | 12 | ARG | Sidechain |
| 1 | K | 22 | ARG | Sidechain |
| 1 | L | 12 | ARG | Sidechain |
| 1 | L | 50 | ARG | Sidechain |
| 1 | L | 69 | ARG | Sidechain |
| 1 | M | 11 | ARG | Sidechain |
| 1 | M | 22 | ARG | Sidechain |
| 1 | M | 69 | ARG | Sidechain |
| 1 | N | 12 | ARG | Sidechain |
| 1 | N | 22 | ARG | Sidechain |
| 1 | N | 50 | ARG | Sidechain |
| 1 | N | 69 | ARG | Sidechain |
| 1 | O | 11 | ARG | Sidechain |
| 1 | O | 12 | ARG | Sidechain |
| 1 | O | 50 | ARG | Sidechain |
| 1 | O | 56 | ARG | Sidechain |
| 1 | O | 69 | ARG | Sidechain |
| 1 | P | 12 | ARG | Sidechain |
| 1 | P | 50 | ARG | Sidechain |
| 1 | P | 69 | ARG | Sidechain |
| 1 | Q | 12 | ARG | Sidechain |
| 1 | Q | 22 | ARG | Sidechain |
| 1 | Q | 69 | ARG | Sidechain |
| 1 | R | 12 | ARG | Sidechain |
| 1 | R | 22 | ARG | Sidechain |
| 1 | R | 50 | ARG | Sidechain |
| 1 | R | 69 | ARG | Sidechain |
| 1 | S | 11 | ARG | Sidechain |
| 1 | S | 12 | ARG | Sidechain |
| 1 | S | 22 | ARG | Sidechain |
| 1 | S | 69 | ARG | Sidechain |
| 1 | T | 12 | ARG | Sidechain |
| 1 | T | 22 | ARG | Sidechain |
| 1 | T | 50 | ARG | Sidechain |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type | Group |
|-----|-------|-----|------|-----------|
| 1 | T | 69 | ARG | Sidechain |
| 1 | U | 50 | ARG | Sidechain |
| 1 | V | 12 | ARG | Sidechain |
| 1 | V | 50 | ARG | Sidechain |
| 1 | V | 69 | ARG | Sidechain |
| 1 | W | 11 | ARG | Sidechain |
| 1 | W | 12 | ARG | Sidechain |
| 1 | W | 22 | ARG | Sidechain |
| 1 | W | 50 | ARG | Sidechain |
| 1 | W | 69 | ARG | Sidechain |
| 1 | X | 12 | ARG | Sidechain |
| 1 | X | 22 | ARG | Sidechain |
| 1 | X | 50 | ARG | Sidechain |
| 1 | X | 69 | ARG | Sidechain |

6.2 Too-close contacts [i](#)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in each chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes averaged over the ensemble.

| Mol | Chain | Non-H | H(model) | H(added) | Clashes |
|-----|-------|-------|----------|----------|---------|
| 1 | A | 1413 | 343 | 1375 | 190 |
| 1 | B | 1413 | 343 | 1375 | 101 |
| 1 | C | 1413 | 343 | 1375 | 191 |
| 1 | D | 1413 | 343 | 1375 | 127 |
| 1 | E | 1413 | 343 | 1375 | 198 |
| 1 | F | 1413 | 343 | 1375 | 122 |
| 1 | G | 1413 | 343 | 1375 | 198 |
| 1 | H | 1413 | 343 | 1375 | 124 |
| 1 | I | 1413 | 343 | 1375 | 178 |
| 1 | J | 1413 | 343 | 1375 | 114 |
| 1 | K | 1413 | 343 | 1375 | 185 |
| 1 | L | 1413 | 343 | 1375 | 119 |
| 1 | M | 1413 | 343 | 1375 | 179 |
| 1 | N | 1413 | 343 | 1375 | 108 |
| 1 | O | 1413 | 343 | 1375 | 182 |
| 1 | P | 1413 | 343 | 1375 | 116 |
| 1 | Q | 1413 | 343 | 1375 | 193 |
| 1 | R | 1413 | 343 | 1375 | 117 |
| 1 | S | 1413 | 343 | 1375 | 193 |

Continued on next page...

Continued from previous page...

| Mol | Chain | Non-H | H(model) | H(added) | Clashes |
|-----|-------|-------|----------|----------|---------|
| 1 | T | 1413 | 343 | 1375 | 105 |
| 1 | U | 1413 | 343 | 1375 | 189 |
| 1 | V | 1413 | 343 | 1375 | 119 |
| 1 | W | 1413 | 343 | 1375 | 198 |
| 1 | X | 1413 | 343 | 1375 | 130 |
| All | All | 33912 | 8232 | 33000 | 2512 |

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 38.

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

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:B:26:GLN:HB2 | 1:C:163:ARG:HB3 | 1.09 | 1.23 |
| 1:T:26:GLN:HB2 | 1:U:163:ARG:HB3 | 1.04 | 1.27 |
| 1:J:26:GLN:HB3 | 1:K:163:ARG:HB3 | 1.03 | 1.25 |
| 1:W:15:PHE:HB3 | 1:W:16:PRO:HD3 | 0.98 | 1.36 |
| 1:C:15:PHE:HB3 | 1:C:16:PRO:CD | 0.96 | 1.90 |
| 1:I:15:PHE:HB3 | 1:I:16:PRO:HD3 | 0.95 | 1.36 |
| 1:S:79:LEU:HD13 | 1:S:100:VAL:HB | 0.94 | 1.40 |
| 1:K:79:LEU:HD13 | 1:K:100:VAL:HB | 0.94 | 1.40 |
| 1:M:163:ARG:HB3 | 1:R:26:GLN:HB2 | 0.93 | 1.39 |
| 1:A:79:LEU:HD13 | 1:A:100:VAL:HB | 0.91 | 1.39 |
| 1:N:79:LEU:HD13 | 1:N:100:VAL:HB | 0.90 | 1.42 |
| 1:T:150:LYS:HG3 | 1:U:152:VAL:HB | 0.90 | 1.40 |
| 1:W:79:LEU:HD13 | 1:W:100:VAL:HB | 0.89 | 1.45 |
| 1:H:137:LEU:HD22 | 1:H:143:LEU:HD23 | 0.89 | 1.42 |
| 1:O:79:LEU:HD13 | 1:O:100:VAL:HB | 0.89 | 1.45 |
| 1:S:163:ARG:HB3 | 1:X:26:GLN:HB2 | 0.88 | 1.44 |
| 1:E:79:LEU:HD13 | 1:E:100:VAL:HB | 0.88 | 1.45 |
| 1:I:79:LEU:HD13 | 1:I:100:VAL:HB | 0.88 | 1.45 |
| 1:E:16:PRO:HB3 | 1:Q:165:GLU:C | 0.87 | 1.89 |
| 1:H:131:LEU:HD23 | 1:I:156:GLU:HB2 | 0.87 | 1.46 |
| 1:L:79:LEU:HD13 | 1:L:100:VAL:HB | 0.87 | 1.46 |
| 1:U:79:LEU:HD13 | 1:U:100:VAL:HB | 0.87 | 1.45 |
| 1:Q:15:PHE:HB2 | 1:Q:16:PRO:HD3 | 0.87 | 1.45 |
| 1:M:79:LEU:HD13 | 1:M:100:VAL:HB | 0.86 | 1.45 |
| 1:X:79:LEU:HD13 | 1:X:100:VAL:HB | 0.86 | 1.46 |
| 1:C:79:LEU:HD13 | 1:C:100:VAL:HB | 0.86 | 1.45 |
| 1:D:79:LEU:HD13 | 1:D:100:VAL:HB | 0.86 | 1.48 |
| 1:G:79:LEU:HD13 | 1:G:100:VAL:HB | 0.86 | 1.45 |
| 1:V:79:LEU:HD13 | 1:V:100:VAL:HB | 0.86 | 1.47 |
| 1:E:16:PRO:HD2 | 1:Q:167:PRO:HB3 | 0.85 | 1.46 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:H:24:PHE:HB3 | 1:W:18:HIS:CG | 0.85 | 2.05 |
| 1:B:164:GLU:HG3 | 1:B:167:PRO:HD2 | 0.85 | 1.48 |
| 1:Q:79:LEU:HD13 | 1:Q:100:VAL:HB | 0.85 | 1.48 |
| 1:B:79:LEU:HD13 | 1:B:100:VAL:HB | 0.85 | 1.48 |
| 1:P:79:LEU:HD13 | 1:P:100:VAL:HB | 0.85 | 1.46 |
| 1:D:164:GLU:HG3 | 1:D:167:PRO:HD2 | 0.84 | 1.47 |
| 1:V:164:GLU:HG3 | 1:V:167:PRO:HD2 | 0.84 | 1.49 |
| 1:P:72:LYS:HB3 | 1:Q:45:SER:HA | 0.84 | 1.50 |
| 1:J:79:LEU:HD13 | 1:J:100:VAL:HB | 0.83 | 1.46 |
| 1:A:15:PHE:HB2 | 1:K:163:ARG:HA | 0.83 | 1.49 |
| 1:F:79:LEU:HD13 | 1:F:100:VAL:HB | 0.83 | 1.49 |
| 1:T:79:LEU:HD13 | 1:T:100:VAL:HB | 0.83 | 1.48 |
| 1:U:15:PHE:HB2 | 1:U:16:PRO:HD3 | 0.83 | 1.50 |
| 1:R:79:LEU:HD13 | 1:R:100:VAL:HB | 0.83 | 1.48 |
| 1:P:23:LEU:HD22 | 1:Q:162:THR:HB | 0.82 | 1.50 |
| 1:V:166:LYS:HB2 | 1:V:167:PRO:HD3 | 0.82 | 1.51 |
| 1:M:15:PHE:CD1 | 1:M:16:PRO:HD3 | 0.82 | 2.09 |
| 1:H:164:GLU:HG3 | 1:H:167:PRO:HD2 | 0.82 | 1.48 |
| 1:N:131:LEU:HD22 | 1:O:156:GLU:HB2 | 0.82 | 1.51 |
| 1:H:79:LEU:HD13 | 1:H:100:VAL:HB | 0.82 | 1.50 |
| 1:B:89:LEU:HD21 | 1:B:137:LEU:HD21 | 0.82 | 1.52 |
| 1:N:164:GLU:HG3 | 1:N:167:PRO:HD2 | 0.82 | 1.49 |
| 1:K:16:PRO:HA | 1:N:27:PHE:HB2 | 0.81 | 1.52 |
| 1:V:72:LYS:HB3 | 1:W:46:PRO:HD3 | 0.81 | 1.51 |
| 1:O:12:ARG:HB3 | 1:O:13:PRO:HD3 | 0.81 | 1.52 |
| 1:G:165:GLU:C | 1:M:16:PRO:HB3 | 0.81 | 1.95 |
| 1:H:24:PHE:HB2 | 1:W:19:SER:HB2 | 0.81 | 1.50 |
| 1:B:166:LYS:HB2 | 1:B:167:PRO:HD3 | 0.81 | 1.50 |
| 1:N:138:SER:C | 1:O:164:GLU:HB2 | 0.81 | 1.95 |
| 1:N:166:LYS:HB2 | 1:N:167:PRO:HD3 | 0.80 | 1.51 |
| 1:F:21:SER:HB2 | 1:O:14:PHE:HB3 | 0.80 | 1.54 |
| 1:H:166:LYS:HB2 | 1:H:167:PRO:HD3 | 0.80 | 1.51 |
| 1:L:79:LEU:HB2 | 1:L:143:LEU:HB3 | 0.80 | 1.54 |
| 1:C:15:PHE:HB3 | 1:C:16:PRO:HD3 | 0.80 | 1.50 |
| 1:T:131:LEU:HD23 | 1:U:156:GLU:HB2 | 0.80 | 1.53 |
| 1:E:15:PHE:HD1 | 1:E:16:PRO:HD3 | 0.80 | 1.37 |
| 1:A:15:PHE:CD2 | 1:A:16:PRO:HD3 | 0.79 | 2.11 |
| 1:E:15:PHE:HB2 | 1:Q:163:ARG:HA | 0.79 | 1.54 |
| 1:E:17:PHE:N | 1:Q:167:PRO:HG3 | 0.79 | 1.92 |
| 1:I:15:PHE:CB | 1:I:16:PRO:HD3 | 0.79 | 2.06 |
| 1:Q:15:PHE:HB3 | 1:U:163:ARG:HG2 | 0.79 | 1.53 |
| 1:A:156:GLU:HB2 | 1:F:131:LEU:HD23 | 0.79 | 1.54 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:G:167:PRO:HB3 | 1:M:16:PRO:HD2 | 0.79 | 1.53 |
| 1:A:14:PHE:HB3 | 1:J:21:SER:HB2 | 0.78 | 1.55 |
| 1:C:17:PHE:HB2 | 1:W:167:PRO:HG2 | 0.78 | 1.55 |
| 1:D:79:LEU:HB2 | 1:D:143:LEU:HB3 | 0.78 | 1.54 |
| 1:M:15:PHE:HD1 | 1:M:16:PRO:HD3 | 0.78 | 1.38 |
| 1:R:79:LEU:HB2 | 1:R:143:LEU:HB3 | 0.78 | 1.55 |
| 1:C:16:PRO:HG3 | 1:W:164:GLU:C | 0.78 | 1.99 |
| 1:E:15:PHE:CD1 | 1:E:16:PRO:HD3 | 0.78 | 2.14 |
| 1:K:16:PRO:HD2 | 1:O:167:PRO:HB3 | 0.78 | 1.56 |
| 1:B:79:LEU:HB2 | 1:B:143:LEU:HB3 | 0.77 | 1.55 |
| 1:D:27:PHE:HB3 | 1:E:163:ARG:CZ | 0.77 | 2.09 |
| 1:M:163:ARG:HA | 1:S:15:PHE:HB2 | 0.77 | 1.57 |
| 1:C:169:VAL:HG22 | 1:I:13:PRO:HB2 | 0.77 | 1.55 |
| 1:V:27:PHE:HB3 | 1:W:163:ARG:CZ | 0.77 | 2.09 |
| 1:D:26:GLN:H | 1:E:163:ARG:HG2 | 0.77 | 1.37 |
| 1:A:163:ARG:HB3 | 1:F:26:GLN:HB2 | 0.76 | 1.55 |
| 1:G:156:GLU:HB2 | 1:L:131:LEU:HD23 | 0.76 | 1.55 |
| 1:O:79:LEU:HB2 | 1:O:143:LEU:HB3 | 0.76 | 1.56 |
| 1:P:79:LEU:HB2 | 1:P:143:LEU:HB3 | 0.76 | 1.56 |
| 1:Q:12:ARG:HB3 | 1:Q:13:PRO:HD3 | 0.76 | 1.57 |
| 1:B:27:PHE:N | 1:C:163:ARG:HD2 | 0.76 | 1.95 |
| 1:M:156:GLU:HB2 | 1:R:131:LEU:HD23 | 0.76 | 1.56 |
| 1:P:131:LEU:HD23 | 1:Q:156:GLU:HB2 | 0.76 | 1.58 |
| 1:J:131:LEU:HD23 | 1:K:156:GLU:HB2 | 0.76 | 1.57 |
| 1:G:79:LEU:HB2 | 1:G:143:LEU:HB3 | 0.76 | 1.58 |
| 1:G:163:ARG:HB3 | 1:L:26:GLN:HB2 | 0.76 | 1.54 |
| 1:S:156:GLU:HB2 | 1:X:131:LEU:HD23 | 0.76 | 1.58 |
| 1:O:15:PHE:CD1 | 1:O:16:PRO:HD3 | 0.76 | 2.16 |
| 1:B:131:LEU:HD22 | 1:C:156:GLU:HB2 | 0.76 | 1.57 |
| 1:J:26:GLN:CB | 1:K:163:ARG:HB3 | 0.75 | 2.07 |
| 1:X:166:LYS:HB2 | 1:X:167:PRO:HD3 | 0.75 | 1.58 |
| 1:T:79:LEU:HB2 | 1:T:143:LEU:HB3 | 0.75 | 1.57 |
| 1:F:79:LEU:HB2 | 1:F:143:LEU:HB3 | 0.75 | 1.57 |
| 1:K:13:PRO:O | 1:O:167:PRO:HB2 | 0.75 | 1.81 |
| 1:U:79:LEU:HB2 | 1:U:143:LEU:HB3 | 0.75 | 1.56 |
| 1:V:131:LEU:HD23 | 1:W:156:GLU:HB2 | 0.75 | 1.59 |
| 1:W:79:LEU:HB2 | 1:W:143:LEU:HB3 | 0.75 | 1.58 |
| 1:C:16:PRO:HB2 | 1:W:165:GLU:HA | 0.74 | 1.58 |
| 1:E:18:HIS:HB3 | 1:Q:163:ARG:CZ | 0.74 | 2.12 |
| 1:M:165:GLU:C | 1:S:16:PRO:HB3 | 0.74 | 2.02 |
| 1:I:167:PRO:HB2 | 1:W:13:PRO:O | 0.74 | 1.82 |
| 1:R:21:SER:HB2 | 1:S:14:PHE:HB3 | 0.74 | 1.58 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|-----------------|----------|-------------|
| 1:A:16:PRO:HB3 | 1:K:165:GLU:C | 0.74 | 2.02 |
| 1:I:15:PHE:HB3 | 1:I:16:PRO:CD | 0.74 | 2.13 |
| 1:I:79:LEU:HB2 | 1:I:143:LEU:HB3 | 0.74 | 1.57 |
| 1:V:27:PHE:N | 1:W:163:ARG:HG2 | 0.74 | 1.96 |
| 1:C:79:LEU:HB2 | 1:C:143:LEU:HB3 | 0.74 | 1.58 |
| 1:D:72:LYS:HB3 | 1:E:45:SER:HA | 0.74 | 1.60 |
| 1:M:45:SER:HA | 1:R:72:LYS:HB2 | 0.74 | 1.60 |
| 1:B:19:SER:N | 1:B:20:PRO:HD3 | 0.74 | 1.98 |
| 1:B:21:SER:HB2 | 1:I:14:PHE:HB3 | 0.73 | 1.59 |
| 1:J:79:LEU:HB2 | 1:J:143:LEU:HB3 | 0.73 | 1.58 |
| 1:Q:79:LEU:HB2 | 1:Q:143:LEU:HB3 | 0.73 | 1.58 |
| 1:V:26:GLN:HB3 | 1:W:163:ARG:HB3 | 0.73 | 1.60 |
| 1:E:18:HIS:CE1 | 1:P:20:PRO:HB2 | 0.73 | 2.19 |
| 1:B:18:HIS:C | 1:B:20:PRO:HD3 | 0.73 | 2.02 |
| 1:N:138:SER:HB2 | 1:N:142:VAL:HB | 0.73 | 1.58 |
| 1:O:165:GLU:HB3 | 1:O:166:LYS:HD3 | 0.73 | 1.59 |
| 1:H:138:SER:HB2 | 1:H:142:VAL:HB | 0.73 | 1.59 |
| 1:D:131:LEU:HD23 | 1:E:156:GLU:HB2 | 0.72 | 1.61 |
| 1:P:27:PHE:N | 1:Q:163:ARG:HG2 | 0.72 | 1.99 |
| 1:G:163:ARG:HG2 | 1:L:27:PHE:N | 0.72 | 1.98 |
| 1:M:46:PRO:HD3 | 1:R:72:LYS:CB | 0.72 | 2.14 |
| 1:P:22:ARG:HG3 | 1:P:23:LEU:HD12 | 0.72 | 1.58 |
| 1:V:26:GLN:HB3 | 1:W:163:ARG:CB | 0.72 | 2.15 |
| 1:G:15:PHE:HB3 | 1:X:23:LEU:HB2 | 0.72 | 1.61 |
| 1:X:79:LEU:HB2 | 1:X:143:LEU:HB3 | 0.72 | 1.59 |
| 1:M:163:ARG:HD2 | 1:R:27:PHE:N | 0.72 | 1.99 |
| 1:E:163:ARG:HA | 1:U:15:PHE:HB2 | 0.72 | 1.62 |
| 1:J:27:PHE:N | 1:K:163:ARG:HD2 | 0.72 | 2.00 |
| 1:N:79:LEU:HB2 | 1:N:143:LEU:HB3 | 0.72 | 1.59 |
| 1:Q:165:GLU:O | 1:Q:166:LYS:HG2 | 0.72 | 1.84 |
| 1:G:16:PRO:HB3 | 1:S:165:GLU:C | 0.71 | 2.06 |
| 1:J:72:LYS:HB3 | 1:K:45:SER:HA | 0.71 | 1.61 |
| 1:D:166:LYS:HB2 | 1:D:167:PRO:HD3 | 0.71 | 1.60 |
| 1:E:15:PHE:O | 1:Q:163:ARG:HD2 | 0.71 | 1.85 |
| 1:H:26:GLN:HB2 | 1:I:163:ARG:HB3 | 0.71 | 1.61 |
| 1:M:165:GLU:O | 1:R:139:SER:HB2 | 0.71 | 1.85 |
| 1:C:19:SER:N | 1:C:20:PRO:HD3 | 0.71 | 1.99 |
| 1:E:164:GLU:H | 1:U:16:PRO:HG3 | 0.71 | 1.44 |
| 1:C:13:PRO:O | 1:W:167:PRO:HB2 | 0.71 | 1.85 |
| 1:Q:18:HIS:ND1 | 1:T:20:PRO:HB2 | 0.71 | 2.01 |
| 1:M:163:ARG:HB3 | 1:R:26:GLN:CB | 0.70 | 2.16 |
| 1:M:165:GLU:HG3 | 1:R:27:PHE:HD1 | 0.70 | 1.45 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|-----------------|------------------|----------|-------------|
| 1:A:17:PHE:CD2 | 1:K:167:PRO:HD2 | 0.70 | 2.22 |
| 1:C:167:PRO:HB2 | 1:I:13:PRO:O | 0.70 | 1.87 |
| 1:M:79:LEU:HB2 | 1:M:143:LEU:HB3 | 0.70 | 1.63 |
| 1:H:21:SER:HB2 | 1:W:14:PHE:HB3 | 0.70 | 1.63 |
| 1:P:27:PHE:HB3 | 1:Q:163:ARG:CZ | 0.70 | 2.17 |
| 1:S:12:ARG:HB2 | 1:S:13:PRO:HD3 | 0.70 | 1.64 |
| 1:A:164:GLU:H | 1:O:16:PRO:HG3 | 0.70 | 1.45 |
| 1:B:150:LYS:HG2 | 1:C:152:VAL:HB | 0.70 | 1.64 |
| 1:U:166:LYS:HB2 | 1:U:167:PRO:HD3 | 0.70 | 1.63 |
| 1:A:15:PHE:HB3 | 1:J:23:LEU:HB2 | 0.69 | 1.62 |
| 1:A:167:PRO:HB3 | 1:O:16:PRO:HD2 | 0.69 | 1.63 |
| 1:E:16:PRO:CD | 1:Q:167:PRO:HB3 | 0.69 | 2.16 |
| 1:H:79:LEU:HB2 | 1:H:143:LEU:HB3 | 0.69 | 1.64 |
| 1:K:17:PHE:CD2 | 1:O:167:PRO:HD2 | 0.69 | 2.21 |
| 1:A:162:THR:OG1 | 1:F:23:LEU:HD22 | 0.69 | 1.87 |
| 1:G:164:GLU:H | 1:M:16:PRO:HG3 | 0.69 | 1.46 |
| 1:U:12:ARG:HB2 | 1:U:13:PRO:HD3 | 0.69 | 1.62 |
| 1:A:19:SER:N | 1:A:20:PRO:HD3 | 0.69 | 2.02 |
| 1:D:72:LYS:NZ | 1:E:46:PRO:HD2 | 0.69 | 2.02 |
| 1:M:163:ARG:CB | 1:R:26:GLN:HB2 | 0.69 | 2.16 |
| 1:O:15:PHE:HD1 | 1:O:16:PRO:HD3 | 0.69 | 1.44 |
| 1:G:163:ARG:NE | 1:L:27:PHE:HB3 | 0.69 | 2.03 |
| 1:R:89:LEU:HD21 | 1:R:137:LEU:HD21 | 0.69 | 1.65 |
| 1:H:23:LEU:HD22 | 1:H:23:LEU:N | 0.69 | 2.01 |
| 1:U:19:SER:N | 1:U:20:PRO:HD3 | 0.69 | 2.02 |
| 1:C:15:PHE:CE1 | 1:V:23:LEU:HB2 | 0.69 | 2.22 |
| 1:M:164:GLU:H | 1:S:16:PRO:HG3 | 0.69 | 1.47 |
| 1:K:19:SER:N | 1:K:20:PRO:HD3 | 0.69 | 2.02 |
| 1:W:19:SER:N | 1:W:20:PRO:HD3 | 0.69 | 2.02 |
| 1:X:164:GLU:HG3 | 1:X:167:PRO:HD2 | 0.69 | 1.64 |
| 1:D:27:PHE:HD1 | 1:E:165:GLU:HG3 | 0.68 | 1.46 |
| 1:K:12:ARG:HB3 | 1:K:13:PRO:HD3 | 0.68 | 1.64 |
| 1:D:139:SER:N | 1:E:164:GLU:HB2 | 0.68 | 2.04 |
| 1:H:26:GLN:H | 1:I:163:ARG:HD3 | 0.68 | 1.47 |
| 1:J:27:PHE:HB3 | 1:K:163:ARG:CZ | 0.68 | 2.18 |
| 1:G:12:ARG:HB2 | 1:G:13:PRO:HD3 | 0.68 | 1.65 |
| 1:M:167:PRO:HD2 | 1:S:17:PHE:CD2 | 0.68 | 2.23 |
| 1:E:79:LEU:HB2 | 1:E:143:LEU:HB3 | 0.68 | 1.63 |
| 1:G:17:PHE:N | 1:S:167:PRO:HG3 | 0.68 | 2.03 |
| 1:H:26:GLN:HB2 | 1:I:163:ARG:CB | 0.68 | 2.18 |
| 1:L:21:SER:HB2 | 1:M:14:PHE:HB3 | 0.68 | 1.63 |
| 1:C:167:PRO:CB | 1:I:16:PRO:HD2 | 0.68 | 2.19 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|-----------------|-----------------|----------|-------------|
| 1:D:73:ASP:N | 1:E:46:PRO:HD3 | 0.68 | 2.04 |
| 1:B:72:LYS:HD2 | 1:C:45:SER:HA | 0.68 | 1.65 |
| 1:J:27:PHE:H | 1:K:163:ARG:HD2 | 0.68 | 1.48 |
| 1:Q:16:PRO:HB3 | 1:U:165:GLU:C | 0.68 | 2.08 |
| 1:S:19:SER:N | 1:S:20:PRO:HD3 | 0.68 | 2.03 |
| 1:S:165:GLU:O | 1:X:139:SER:HB2 | 0.68 | 1.89 |
| 1:K:15:PHE:HB3 | 1:K:16:PRO:HD3 | 0.68 | 1.66 |
| 1:T:23:LEU:O | 1:U:163:ARG:HG3 | 0.68 | 1.89 |
| 1:W:15:PHE:HB3 | 1:W:16:PRO:CD | 0.67 | 2.17 |
| 1:E:1:MET:HB2 | 1:Q:174:LYS:HG2 | 0.67 | 1.66 |
| 1:I:164:GLU:C | 1:W:16:PRO:HB3 | 0.67 | 2.10 |
| 1:K:15:PHE:CE1 | 1:O:162:THR:HB | 0.67 | 2.25 |
| 1:K:117:GLU:HB3 | 1:L:117:GLU:HB3 | 0.67 | 1.64 |
| 1:S:165:GLU:HG3 | 1:X:27:PHE:HD1 | 0.67 | 1.48 |
| 1:C:165:GLU:N | 1:I:16:PRO:HB3 | 0.67 | 2.03 |
| 1:G:164:GLU:HB2 | 1:L:138:SER:C | 0.67 | 2.10 |
| 1:T:27:PHE:N | 1:U:163:ARG:HD2 | 0.67 | 2.03 |
| 1:A:1:MET:HB3 | 1:C:175:LYS:OXT | 0.67 | 1.90 |
| 1:G:16:PRO:HD2 | 1:S:167:PRO:HB3 | 0.67 | 1.66 |
| 1:I:167:PRO:HG2 | 1:W:17:PHE:HB2 | 0.67 | 1.65 |
| 1:M:19:SER:N | 1:M:20:PRO:HD3 | 0.67 | 2.04 |
| 1:G:19:SER:N | 1:G:20:PRO:HD3 | 0.67 | 2.05 |
| 1:A:16:PRO:HD2 | 1:K:167:PRO:HB3 | 0.67 | 1.66 |
| 1:C:162:THR:HB | 1:I:15:PHE:CE1 | 0.67 | 2.25 |
| 1:E:124:ILE:HB | 1:E:127:ASP:HB2 | 0.67 | 1.67 |
| 1:N:26:GLN:HB2 | 1:O:163:ARG:HB3 | 0.67 | 1.66 |
| 1:G:162:THR:OG1 | 1:L:23:LEU:HG | 0.67 | 1.90 |
| 1:B:21:SER:HB3 | 1:I:18:HIS:CG | 0.66 | 2.25 |
| 1:E:167:PRO:HD2 | 1:U:17:PHE:CD2 | 0.66 | 2.25 |
| 1:H:22:ARG:N | 1:W:11:ARG:HB3 | 0.66 | 2.05 |
| 1:T:72:LYS:HA | 1:U:46:PRO:HD3 | 0.66 | 1.66 |
| 1:A:167:PRO:HG2 | 1:O:17:PHE:HB2 | 0.66 | 1.67 |
| 1:C:165:GLU:O | 1:C:166:LYS:HB2 | 0.66 | 1.91 |
| 1:A:117:GLU:HB3 | 1:B:117:GLU:HB3 | 0.66 | 1.66 |
| 1:V:137:LEU:HB3 | 1:W:164:GLU:OE1 | 0.66 | 1.89 |
| 1:C:18:HIS:HB2 | 1:V:21:SER:OG | 0.66 | 1.90 |
| 1:G:163:ARG:HB3 | 1:L:26:GLN:CB | 0.66 | 2.20 |
| 1:H:27:PHE:HB3 | 1:I:163:ARG:CZ | 0.66 | 2.21 |
| 1:J:23:LEU:HB3 | 1:K:163:ARG:HG2 | 0.66 | 1.67 |
| 1:R:23:LEU:HB2 | 1:S:15:PHE:HB3 | 0.66 | 1.66 |
| 1:N:72:LYS:HD2 | 1:O:45:SER:HA | 0.66 | 1.67 |
| 1:K:18:HIS:HB3 | 1:O:163:ARG:CZ | 0.66 | 2.21 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:I:166:LYS:HG2 | 1:W:54:PHE:CG | 0.66 | 2.26 |
| 1:E:19:SER:N | 1:E:20:PRO:HD3 | 0.65 | 2.05 |
| 1:G:15:PHE:CE1 | 1:X:23:LEU:HD23 | 0.65 | 2.26 |
| 1:T:139:SER:N | 1:U:164:GLU:HB2 | 0.65 | 2.06 |
| 1:M:167:PRO:HG3 | 1:S:17:PHE:N | 0.65 | 2.07 |
| 1:G:17:PHE:HB2 | 1:S:167:PRO:HG2 | 0.65 | 1.67 |
| 1:W:15:PHE:CB | 1:W:16:PRO:HD3 | 0.65 | 2.17 |
| 1:E:167:PRO:HB3 | 1:U:16:PRO:HD2 | 0.65 | 1.67 |
| 1:A:167:PRO:HG3 | 1:O:17:PHE:N | 0.65 | 2.06 |
| 1:U:166:LYS:HB2 | 1:U:167:PRO:CD | 0.65 | 2.22 |
| 1:L:23:LEU:HB2 | 1:M:15:PHE:HB3 | 0.65 | 1.69 |
| 1:M:12:ARG:HB2 | 1:M:13:PRO:HD3 | 0.65 | 1.67 |
| 1:A:15:PHE:HD2 | 1:A:16:PRO:HD3 | 0.65 | 1.50 |
| 1:D:27:PHE:HB3 | 1:E:163:ARG:NE | 0.65 | 2.07 |
| 1:G:132:THR:HG21 | 1:G:148:PRO:HG2 | 0.65 | 1.68 |
| 1:J:74:ARG:HG3 | 1:K:45:SER:O | 0.65 | 1.92 |
| 1:M:46:PRO:HD3 | 1:R:72:LYS:HB2 | 0.65 | 1.69 |
| 1:H:72:LYS:HB3 | 1:I:45:SER:HA | 0.65 | 1.69 |
| 1:E:165:GLU:C | 1:U:16:PRO:HB3 | 0.65 | 2.12 |
| 1:I:73:ASP:O | 1:I:149:ARG:HD3 | 0.65 | 1.92 |
| 1:S:163:ARG:HD3 | 1:X:26:GLN:N | 0.65 | 2.07 |
| 1:A:167:PRO:HB2 | 1:O:13:PRO:O | 0.64 | 1.92 |
| 1:C:13:PRO:O | 1:W:168:ALA:N | 0.64 | 2.30 |
| 1:G:163:ARG:HD3 | 1:L:23:LEU:O | 0.64 | 1.92 |
| 1:W:12:ARG:HB2 | 1:W:13:PRO:HD3 | 0.64 | 1.67 |
| 1:A:165:GLU:HG3 | 1:F:27:PHE:HD1 | 0.64 | 1.51 |
| 1:L:166:LYS:HB2 | 1:L:167:PRO:HD3 | 0.64 | 1.68 |
| 1:H:21:SER:HB3 | 1:W:18:HIS:HB2 | 0.64 | 1.69 |
| 1:J:166:LYS:HB2 | 1:J:167:PRO:HD3 | 0.64 | 1.68 |
| 1:O:19:SER:N | 1:O:20:PRO:HD3 | 0.64 | 2.06 |
| 1:B:26:GLN:HB2 | 1:C:163:ARG:CB | 0.64 | 2.12 |
| 1:H:72:LYS:HE3 | 1:I:48:TYR:CG | 0.64 | 2.26 |
| 1:L:89:LEU:HD21 | 1:L:137:LEU:HD21 | 0.64 | 1.69 |
| 1:A:165:GLU:C | 1:O:16:PRO:HB3 | 0.64 | 2.12 |
| 1:E:12:ARG:HB2 | 1:E:13:PRO:HD3 | 0.64 | 1.69 |
| 1:E:15:PHE:HB2 | 1:Q:163:ARG:CA | 0.64 | 2.22 |
| 1:D:27:PHE:CD1 | 1:E:165:GLU:HG3 | 0.64 | 2.28 |
| 1:F:166:LYS:HB2 | 1:F:167:PRO:HD3 | 0.64 | 1.70 |
| 1:P:137:LEU:O | 1:Q:164:GLU:HB3 | 0.64 | 1.93 |
| 1:K:11:ARG:HB3 | 1:N:22:ARG:N | 0.64 | 2.08 |
| 1:G:167:PRO:HD2 | 1:M:17:PHE:CD2 | 0.64 | 2.28 |
| 1:K:13:PRO:O | 1:O:168:ALA:N | 0.64 | 2.31 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|-----------------|----------|-------------|
| 1:R:166:LYS:HB2 | 1:R:167:PRO:HD3 | 0.64 | 1.69 |
| 1:I:19:SER:N | 1:I:20:PRO:HD3 | 0.64 | 2.08 |
| 1:K:45:SER:HB2 | 1:K:48:TYR:HB2 | 0.64 | 1.69 |
| 1:N:72:LYS:HA | 1:O:46:PRO:HD3 | 0.63 | 1.67 |
| 1:J:138:SER:C | 1:K:164:GLU:HB3 | 0.63 | 2.12 |
| 1:M:175:LYS:N | 1:Q:1:MET:N | 0.63 | 2.46 |
| 1:D:39:PRO:HB3 | 1:D:43:SER:HA | 0.63 | 1.69 |
| 1:G:167:PRO:HB3 | 1:M:16:PRO:CD | 0.63 | 2.23 |
| 1:K:15:PHE:HB3 | 1:K:16:PRO:CD | 0.63 | 2.23 |
| 1:M:167:PRO:HB3 | 1:S:16:PRO:HD2 | 0.63 | 1.68 |
| 1:G:45:SER:HA | 1:L:72:LYS:HD2 | 0.63 | 1.67 |
| 1:H:143:LEU:HD13 | 1:H:144:THR:N | 0.63 | 2.08 |
| 1:V:27:PHE:H | 1:W:163:ARG:HE | 0.63 | 1.36 |
| 1:C:164:GLU:C | 1:I:16:PRO:HB3 | 0.63 | 2.13 |
| 1:G:14:PHE:HB3 | 1:X:21:SER:HB2 | 0.63 | 1.70 |
| 1:P:166:LYS:HB2 | 1:P:167:PRO:HD3 | 0.63 | 1.70 |
| 1:A:12:ARG:HB2 | 1:A:13:PRO:HD3 | 0.63 | 1.70 |
| 1:I:165:GLU:N | 1:W:16:PRO:HB3 | 0.63 | 2.08 |
| 1:Q:14:PHE:HB3 | 1:T:21:SER:CB | 0.63 | 2.24 |
| 1:Q:19:SER:N | 1:Q:20:PRO:HD3 | 0.63 | 2.08 |
| 1:E:15:PHE:CD2 | 1:P:23:LEU:HD13 | 0.63 | 2.29 |
| 1:I:117:GLU:HB3 | 1:J:117:GLU:HB3 | 0.63 | 1.70 |
| 1:S:163:ARG:HD3 | 1:X:26:GLN:H | 0.63 | 1.53 |
| 1:E:19:SER:OG | 1:P:28:PHE:HB2 | 0.62 | 1.93 |
| 1:H:139:SER:HA | 1:I:164:GLU:HB3 | 0.62 | 1.70 |
| 1:M:1:MET:HB3 | 1:O:175:LYS:OXT | 0.62 | 1.94 |
| 1:P:139:SER:HB2 | 1:Q:164:GLU:O | 0.62 | 1.94 |
| 1:V:138:SER:O | 1:W:164:GLU:HB3 | 0.62 | 1.94 |
| 1:L:39:PRO:HB3 | 1:L:43:SER:HA | 0.62 | 1.69 |
| 1:C:12:ARG:HB3 | 1:C:13:PRO:HD3 | 0.62 | 1.71 |
| 1:E:167:PRO:CD | 1:U:16:PRO:HB2 | 0.62 | 2.25 |
| 1:H:21:SER:HB2 | 1:W:14:PHE:C | 0.62 | 2.14 |
| 1:N:84:PHE:HB3 | 1:N:139:SER:O | 0.62 | 1.95 |
| 1:A:165:GLU:N | 1:O:16:PRO:HB3 | 0.62 | 2.09 |
| 1:E:174:LYS:HG3 | 1:W:174:LYS:HD3 | 0.62 | 1.70 |
| 1:V:72:LYS:HE2 | 1:W:44:LEU:O | 0.62 | 1.94 |
| 1:E:13:PRO:O | 1:Q:167:PRO:HB2 | 0.62 | 1.95 |
| 1:E:18:HIS:CD2 | 1:P:21:SER:HB3 | 0.62 | 2.30 |
| 1:G:16:PRO:HG3 | 1:S:164:GLU:H | 0.62 | 1.53 |
| 1:C:167:PRO:HG2 | 1:I:17:PHE:HB2 | 0.62 | 1.71 |
| 1:K:12:ARG:NH2 | 1:N:87:GLU:HB2 | 0.62 | 2.10 |
| 1:M:165:GLU:HG3 | 1:R:27:PHE:CD1 | 0.62 | 2.30 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|-----------------|----------|-------------|
| 1:S:1:MET:HB2 | 1:U:175:LYS:C | 0.62 | 2.14 |
| 1:V:138:SER:HB2 | 1:V:142:VAL:HB | 0.62 | 1.71 |
| 1:V:22:ARG:HG3 | 1:V:23:LEU:CD1 | 0.62 | 2.24 |
| 1:I:12:ARG:O | 1:I:15:PHE:HB2 | 0.62 | 1.95 |
| 1:S:15:PHE:CD2 | 1:S:16:PRO:HD3 | 0.62 | 2.29 |
| 1:U:117:GLU:HB3 | 1:V:117:GLU:HB3 | 0.62 | 1.71 |
| 1:A:48:TYR:CG | 1:F:72:LYS:HE3 | 0.62 | 2.29 |
| 1:C:12:ARG:O | 1:C:15:PHE:HB2 | 0.62 | 1.95 |
| 1:K:14:PHE:HB3 | 1:N:21:SER:HB2 | 0.62 | 1.72 |
| 1:M:117:GLU:HB3 | 1:N:117:GLU:HB3 | 0.62 | 1.72 |
| 1:M:161:ILE:HG22 | 1:M:162:THR:H | 0.62 | 1.55 |
| 1:A:163:ARG:HD3 | 1:F:26:GLN:N | 0.61 | 2.09 |
| 1:C:164:GLU:N | 1:I:16:PRO:HG3 | 0.61 | 2.09 |
| 1:K:15:PHE:HB3 | 1:O:163:ARG:HA | 0.61 | 1.72 |
| 1:O:23:LEU:HG | 1:O:26:GLN:HB3 | 0.61 | 1.71 |
| 1:Q:73:ASP:O | 1:Q:149:ARG:HD3 | 0.61 | 1.94 |
| 1:S:117:GLU:HB3 | 1:T:117:GLU:HB3 | 0.61 | 1.70 |
| 1:A:16:PRO:HB3 | 1:K:165:GLU:CA | 0.61 | 2.26 |
| 1:C:17:PHE:CD2 | 1:W:167:PRO:HD2 | 0.61 | 2.30 |
| 1:D:2:ASP:HB3 | 1:D:5:ILE:HB | 0.61 | 1.73 |
| 1:H:23:LEU:HB2 | 1:W:15:PHE:CE1 | 0.61 | 2.29 |
| 1:A:45:SER:HA | 1:F:72:LYS:HB3 | 0.61 | 1.70 |
| 1:Q:14:PHE:HA | 1:U:168:ALA:HA | 0.61 | 1.72 |
| 1:T:164:GLU:HG3 | 1:T:167:PRO:HD2 | 0.61 | 1.71 |
| 1:A:165:GLU:O | 1:F:139:SER:HB2 | 0.61 | 1.95 |
| 1:C:163:ARG:HD3 | 1:I:16:PRO:HA | 0.61 | 1.73 |
| 1:C:169:VAL:HG12 | 1:C:170:THR:H | 0.61 | 1.54 |
| 1:M:23:LEU:HG | 1:M:26:GLN:HB3 | 0.61 | 1.73 |
| 1:N:100:VAL:HG12 | 1:N:120:ARG:HB2 | 0.61 | 1.71 |
| 1:N:143:LEU:HD13 | 1:N:144:THR:N | 0.61 | 2.11 |
| 1:Q:117:GLU:HB3 | 1:R:117:GLU:HB3 | 0.61 | 1.72 |
| 1:W:73:ASP:O | 1:W:149:ARG:HD3 | 0.61 | 1.95 |
| 1:D:24:PHE:HB3 | 1:U:18:HIS:CD2 | 0.61 | 2.31 |
| 1:E:163:ARG:HD3 | 1:U:15:PHE:HB3 | 0.61 | 1.71 |
| 1:E:168:ALA:N | 1:U:13:PRO:O | 0.61 | 2.34 |
| 1:V:72:LYS:HB3 | 1:W:45:SER:HA | 0.61 | 1.71 |
| 1:M:69:ARG:HG2 | 1:M:70:LEU:H | 0.61 | 1.56 |
| 1:Q:23:LEU:HG | 1:Q:26:GLN:HB3 | 0.61 | 1.73 |
| 1:U:161:ILE:HG22 | 1:U:162:THR:H | 0.61 | 1.55 |
| 1:A:152:VAL:HB | 1:F:150:LYS:HG2 | 0.61 | 1.71 |
| 1:G:1:MET:HB3 | 1:I:175:LYS:OXT | 0.61 | 1.95 |
| 1:G:171:ALA:HB2 | 1:M:10:ILE:HD13 | 0.61 | 1.71 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:I:72:LYS:HB3 | 1:I:149:ARG:CZ | 0.61 | 2.26 |
| 1:G:165:GLU:O | 1:G:166:LYS:HG2 | 0.61 | 1.95 |
| 1:K:107:ARG:HB2 | 1:K:114:ILE:HB | 0.61 | 1.72 |
| 1:O:117:GLU:HB3 | 1:P:117:GLU:HB3 | 0.61 | 1.72 |
| 1:A:10:ILE:O | 1:K:169:VAL:HG21 | 0.61 | 1.96 |
| 1:E:167:PRO:HB2 | 1:U:13:PRO:C | 0.61 | 2.17 |
| 1:K:17:PHE:HB2 | 1:O:167:PRO:HG2 | 0.61 | 1.72 |
| 1:M:167:PRO:HB2 | 1:S:13:PRO:O | 0.61 | 1.96 |
| 1:F:143:LEU:HD13 | 1:F:144:THR:N | 0.60 | 2.11 |
| 1:F:150:LYS:NZ | 1:F:151:GLN:HE21 | 0.60 | 1.94 |
| 1:G:23:LEU:HG | 1:G:26:GLN:HB3 | 0.60 | 1.71 |
| 1:E:174:LYS:HG2 | 1:U:1:MET:HB2 | 0.60 | 1.73 |
| 1:G:161:ILE:O | 1:G:162:THR:HB | 0.60 | 1.96 |
| 1:P:72:LYS:O | 1:Q:44:LEU:HB3 | 0.60 | 1.95 |
| 1:G:107:ARG:HB2 | 1:G:114:ILE:HB | 0.60 | 1.73 |
| 1:G:175:LYS:N | 1:K:1:MET:N | 0.60 | 2.49 |
| 1:I:23:LEU:HG | 1:I:26:GLN:HB3 | 0.60 | 1.73 |
| 1:P:107:ARG:HB2 | 1:P:114:ILE:HB | 0.60 | 1.73 |
| 1:Q:16:PRO:HG2 | 1:U:167:PRO:HB2 | 0.60 | 1.73 |
| 1:T:138:SER:C | 1:U:164:GLU:HB2 | 0.60 | 2.17 |
| 1:G:13:PRO:O | 1:S:168:ALA:N | 0.60 | 2.35 |
| 1:G:163:ARG:HA | 1:M:15:PHE:HB2 | 0.60 | 1.73 |
| 1:T:143:LEU:HD13 | 1:T:144:THR:N | 0.60 | 2.11 |
| 1:C:107:ARG:HB2 | 1:C:114:ILE:HB | 0.60 | 1.74 |
| 1:E:164:GLU:N | 1:U:16:PRO:HG3 | 0.60 | 2.11 |
| 1:F:107:ARG:HB2 | 1:F:114:ILE:HB | 0.60 | 1.74 |
| 1:I:165:GLU:CA | 1:W:16:PRO:HB3 | 0.60 | 2.27 |
| 1:Q:17:PHE:CD2 | 1:U:168:ALA:HB2 | 0.60 | 2.30 |
| 1:R:107:ARG:HB2 | 1:R:114:ILE:HB | 0.60 | 1.73 |
| 1:U:15:PHE:HB2 | 1:U:16:PRO:CD | 0.60 | 2.25 |
| 1:X:143:LEU:HD13 | 1:X:144:THR:N | 0.60 | 2.11 |
| 1:A:124:ILE:HB | 1:A:127:ASP:HB2 | 0.60 | 1.73 |
| 1:C:12:ARG:HH12 | 1:V:87:GLU:HB2 | 0.60 | 1.57 |
| 1:D:137:LEU:O | 1:E:164:GLU:HB3 | 0.60 | 1.97 |
| 1:G:18:HIS:CE1 | 1:X:20:PRO:HB2 | 0.60 | 2.30 |
| 1:H:84:PHE:HB3 | 1:H:139:SER:O | 0.60 | 1.96 |
| 1:Q:107:ARG:HB2 | 1:Q:114:ILE:HB | 0.60 | 1.74 |
| 1:S:23:LEU:HG | 1:S:26:GLN:HB3 | 0.60 | 1.74 |
| 1:D:26:GLN:N | 1:E:163:ARG:HG2 | 0.60 | 2.09 |
| 1:G:14:PHE:HB3 | 1:X:21:SER:CB | 0.60 | 2.26 |
| 1:J:107:ARG:HB2 | 1:J:114:ILE:HB | 0.60 | 1.74 |
| 1:S:107:ARG:HB2 | 1:S:114:ILE:HB | 0.60 | 1.74 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:X:107:ARG:HB2 | 1:X:114:ILE:HB | 0.60 | 1.73 |
| 1:X:120:ARG:HD3 | 1:X:122:TYR:HE1 | 0.60 | 1.57 |
| 1:A:163:ARG:HB3 | 1:F:26:GLN:CB | 0.60 | 2.27 |
| 1:C:23:LEU:HG | 1:C:26:GLN:HB3 | 0.60 | 1.74 |
| 1:Q:18:HIS:CE1 | 1:T:20:PRO:HB2 | 0.60 | 2.32 |
| 1:D:23:LEU:HB2 | 1:U:15:PHE:CD1 | 0.60 | 2.31 |
| 1:E:167:PRO:HB2 | 1:U:13:PRO:O | 0.60 | 1.97 |
| 1:K:19:SER:CB | 1:N:28:PHE:HB2 | 0.60 | 2.27 |
| 1:T:72:LYS:HB3 | 1:U:44:LEU:C | 0.60 | 2.18 |
| 1:B:107:ARG:HB2 | 1:B:114:ILE:HB | 0.59 | 1.74 |
| 1:C:1:MET:HB2 | 1:W:174:LYS:HD2 | 0.59 | 1.73 |
| 1:E:17:PHE:HB2 | 1:Q:167:PRO:HG2 | 0.59 | 1.73 |
| 1:G:18:HIS:ND1 | 1:X:20:PRO:HB2 | 0.59 | 2.12 |
| 1:L:150:LYS:NZ | 1:L:151:GLN:HE21 | 0.59 | 1.95 |
| 1:R:164:GLU:HG3 | 1:R:167:PRO:HD2 | 0.59 | 1.72 |
| 1:A:165:GLU:HG3 | 1:F:27:PHE:CD1 | 0.59 | 2.32 |
| 1:K:23:LEU:HG | 1:K:26:GLN:HB3 | 0.59 | 1.73 |
| 1:N:72:LYS:HB3 | 1:O:45:SER:HA | 0.59 | 1.74 |
| 1:T:130:PRO:O | 1:U:156:GLU:HB3 | 0.59 | 1.97 |
| 1:U:107:ARG:HB2 | 1:U:114:ILE:HB | 0.59 | 1.74 |
| 1:W:107:ARG:HB2 | 1:W:114:ILE:HB | 0.59 | 1.73 |
| 1:W:117:GLU:HB3 | 1:X:117:GLU:HB3 | 0.59 | 1.73 |
| 1:K:13:PRO:HB2 | 1:O:169:VAL:HG22 | 0.59 | 1.74 |
| 1:O:107:ARG:HB2 | 1:O:114:ILE:HB | 0.59 | 1.74 |
| 1:P:150:LYS:NZ | 1:P:151:GLN:HE21 | 0.59 | 1.95 |
| 1:V:124:ILE:HD12 | 1:V:127:ASP:HB2 | 0.59 | 1.75 |
| 1:I:107:ARG:HB2 | 1:I:114:ILE:HB | 0.59 | 1.74 |
| 1:M:107:ARG:HB2 | 1:M:114:ILE:HB | 0.59 | 1.73 |
| 1:V:143:LEU:HD13 | 1:V:144:THR:N | 0.59 | 2.12 |
| 1:G:163:ARG:CZ | 1:L:27:PHE:HB3 | 0.59 | 2.27 |
| 1:H:27:PHE:H | 1:I:163:ARG:CZ | 0.59 | 2.09 |
| 1:M:45:SER:HB2 | 1:M:48:TYR:HB2 | 0.59 | 1.73 |
| 1:P:57:ALA:HB3 | 1:P:58:PRO:HD3 | 0.59 | 1.75 |
| 1:G:117:GLU:HB3 | 1:H:117:GLU:HB3 | 0.59 | 1.73 |
| 1:I:168:ALA:N | 1:W:13:PRO:O | 0.59 | 2.36 |
| 1:B:57:ALA:HB3 | 1:B:58:PRO:HD3 | 0.59 | 1.75 |
| 1:H:27:PHE:N | 1:I:163:ARG:HG2 | 0.59 | 2.13 |
| 1:H:150:LYS:HG2 | 1:I:152:VAL:HB | 0.59 | 1.75 |
| 1:L:97:VAL:HG22 | 1:L:123:ARG:HD3 | 0.59 | 1.75 |
| 1:Q:69:ARG:HD3 | 1:Q:70:LEU:N | 0.59 | 2.11 |
| 1:J:164:GLU:HG3 | 1:J:167:PRO:HD2 | 0.59 | 1.72 |
| 1:K:15:PHE:CB | 1:K:16:PRO:CD | 0.59 | 2.81 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|-----------------|------------------|----------|-------------|
| 1:P:72:LYS:HE2 | 1:Q:46:PRO:HD2 | 0.59 | 1.75 |
| 1:E:17:PHE:HB2 | 1:Q:167:PRO:CG | 0.59 | 2.27 |
| 1:E:23:LEU:HG | 1:E:26:GLN:HB3 | 0.59 | 1.75 |
| 1:E:167:PRO:HG3 | 1:U:17:PHE:N | 0.59 | 2.12 |
| 1:H:22:ARG:HG3 | 1:H:23:LEU:CD2 | 0.59 | 2.28 |
| 1:H:107:ARG:HB2 | 1:H:114:ILE:HB | 0.59 | 1.74 |
| 1:Q:15:PHE:HB2 | 1:Q:16:PRO:CD | 0.59 | 2.26 |
| 1:C:117:GLU:HB3 | 1:D:117:GLU:HB3 | 0.59 | 1.73 |
| 1:E:107:ARG:HB2 | 1:E:114:ILE:HB | 0.59 | 1.73 |
| 1:G:167:PRO:HB2 | 1:M:13:PRO:C | 0.59 | 2.18 |
| 1:M:1:MET:HG2 | 1:O:175:LYS:HB3 | 0.59 | 1.73 |
| 1:N:57:ALA:HB3 | 1:N:58:PRO:HD3 | 0.59 | 1.75 |
| 1:Q:127:ASP:HA | 1:Q:149:ARG:HB2 | 0.59 | 1.75 |
| 1:T:57:ALA:HB3 | 1:T:58:PRO:HD3 | 0.59 | 1.75 |
| 1:U:23:LEU:HG | 1:U:26:GLN:HB3 | 0.59 | 1.75 |
| 1:V:107:ARG:HB2 | 1:V:114:ILE:HB | 0.59 | 1.74 |
| 1:W:45:SER:HB2 | 1:W:48:TYR:HB2 | 0.59 | 1.73 |
| 1:S:163:ARG:CB | 1:X:26:GLN:HB2 | 0.58 | 2.25 |
| 1:V:150:LYS:NZ | 1:V:151:GLN:HE21 | 0.58 | 1.96 |
| 1:B:130:PRO:O | 1:C:156:GLU:HB3 | 0.58 | 1.97 |
| 1:D:107:ARG:HB2 | 1:D:114:ILE:HB | 0.58 | 1.73 |
| 1:J:150:LYS:NZ | 1:J:151:GLN:HE21 | 0.58 | 1.96 |
| 1:K:165:GLU:HB3 | 1:K:166:LYS:HD3 | 0.58 | 1.74 |
| 1:Q:13:PRO:HB2 | 1:U:169:VAL:HG22 | 0.58 | 1.74 |
| 1:Q:16:PRO:HB3 | 1:U:165:GLU:O | 0.58 | 1.98 |
| 1:A:18:HIS:CE1 | 1:J:20:PRO:HB2 | 0.58 | 2.33 |
| 1:N:107:ARG:HB2 | 1:N:114:ILE:HB | 0.58 | 1.74 |
| 1:U:149:ARG:O | 1:U:150:LYS:HB2 | 0.58 | 1.98 |
| 1:I:163:ARG:HD2 | 1:W:15:PHE:CD1 | 0.58 | 2.33 |
| 1:Q:18:HIS:CD2 | 1:T:21:SER:HB3 | 0.58 | 2.33 |
| 1:A:163:ARG:CZ | 1:F:27:PHE:HB3 | 0.58 | 2.28 |
| 1:D:57:ALA:HB3 | 1:D:58:PRO:HD3 | 0.58 | 1.75 |
| 1:G:1:MET:HG2 | 1:I:175:LYS:HB3 | 0.58 | 1.74 |
| 1:G:169:VAL:HB | 1:M:13:PRO:HB2 | 0.58 | 1.75 |
| 1:H:20:PRO:HB2 | 1:W:18:HIS:ND1 | 0.58 | 2.13 |
| 1:P:164:GLU:HG3 | 1:P:167:PRO:HD2 | 0.58 | 1.73 |
| 1:Q:1:MET:HB3 | 1:U:174:LYS:HD2 | 0.58 | 1.73 |
| 1:B:27:PHE:H | 1:C:163:ARG:HD2 | 0.58 | 1.56 |
| 1:D:120:ARG:HD3 | 1:D:122:TYR:HE1 | 0.58 | 1.59 |
| 1:D:150:LYS:NZ | 1:D:151:GLN:HE21 | 0.58 | 1.96 |
| 1:F:57:ALA:HB3 | 1:F:58:PRO:HD3 | 0.58 | 1.75 |
| 1:G:152:VAL:HB | 1:L:150:LYS:HG2 | 0.58 | 1.74 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:Q:15:PHE:HB3 | 1:U:163:ARG:HA | 0.58 | 1.75 |
| 1:R:57:ALA:HB3 | 1:R:58:PRO:HD3 | 0.58 | 1.75 |
| 1:V:120:ARG:HD3 | 1:V:122:TYR:HE1 | 0.58 | 1.59 |
| 1:N:120:ARG:HD3 | 1:N:122:TYR:HE1 | 0.58 | 1.58 |
| 1:S:164:GLU:HB2 | 1:X:138:SER:C | 0.58 | 2.18 |
| 1:G:12:ARG:CB | 1:G:13:PRO:HD3 | 0.58 | 2.29 |
| 1:I:162:THR:HG23 | 1:I:164:GLU:OE1 | 0.58 | 1.99 |
| 1:L:28:PHE:HB2 | 1:M:19:SER:CB | 0.58 | 2.28 |
| 1:L:107:ARG:HB2 | 1:L:114:ILE:HB | 0.58 | 1.74 |
| 1:M:167:PRO:HG2 | 1:S:17:PHE:HB2 | 0.58 | 1.74 |
| 1:M:168:ALA:N | 1:S:13:PRO:O | 0.58 | 2.37 |
| 1:P:156:GLU:HB2 | 1:Q:131:LEU:HD22 | 0.58 | 1.76 |
| 1:Q:14:PHE:HB3 | 1:T:21:SER:HB2 | 0.58 | 1.76 |
| 1:Q:161:ILE:HG22 | 1:Q:162:THR:H | 0.58 | 1.58 |
| 1:R:124:ILE:HD12 | 1:R:127:ASP:HB2 | 0.58 | 1.75 |
| 1:T:107:ARG:HB2 | 1:T:114:ILE:HB | 0.58 | 1.74 |
| 1:W:23:LEU:HG | 1:W:26:GLN:HB3 | 0.58 | 1.76 |
| 1:A:57:ALA:HB3 | 1:A:58:PRO:HD3 | 0.58 | 1.76 |
| 1:A:107:ARG:HB2 | 1:A:114:ILE:HB | 0.58 | 1.73 |
| 1:F:23:LEU:HB2 | 1:O:15:PHE:HB3 | 0.58 | 1.76 |
| 1:R:20:PRO:HB2 | 1:S:18:HIS:ND1 | 0.58 | 2.13 |
| 1:R:167:PRO:O | 1:R:169:VAL:HG23 | 0.58 | 1.99 |
| 1:W:72:LYS:HB3 | 1:W:149:ARG:CZ | 0.58 | 2.29 |
| 1:X:15:PHE:N | 1:X:16:PRO:HD2 | 0.58 | 2.14 |
| 1:A:1:MET:HG2 | 1:C:175:LYS:HB3 | 0.58 | 1.76 |
| 1:A:167:PRO:HB3 | 1:O:16:PRO:CD | 0.58 | 2.27 |
| 1:E:167:PRO:HG2 | 1:U:17:PHE:HB2 | 0.58 | 1.74 |
| 1:G:15:PHE:HB2 | 1:S:163:ARG:HA | 0.58 | 1.74 |
| 1:G:16:PRO:CD | 1:S:167:PRO:HB3 | 0.58 | 2.29 |
| 1:H:120:ARG:HD3 | 1:H:122:TYR:HE1 | 0.58 | 1.58 |
| 1:P:18:HIS:O | 1:P:19:SER:HB2 | 0.58 | 1.99 |
| 1:S:45:SER:HB2 | 1:S:48:TYR:HB2 | 0.58 | 1.74 |
| 1:A:45:SER:HA | 1:F:72:LYS:HE2 | 0.57 | 1.74 |
| 1:E:45:SER:CB | 1:E:48:TYR:HB2 | 0.57 | 2.29 |
| 1:K:79:LEU:HB2 | 1:K:143:LEU:HB3 | 0.57 | 1.75 |
| 1:O:149:ARG:O | 1:O:150:LYS:HB2 | 0.57 | 1.97 |
| 1:Q:15:PHE:HE1 | 1:T:22:ARG:HG2 | 0.57 | 1.58 |
| 1:R:15:PHE:N | 1:R:16:PRO:HD2 | 0.57 | 2.14 |
| 1:B:21:SER:CB | 1:I:14:PHE:HB3 | 0.57 | 2.27 |
| 1:B:138:SER:O | 1:C:164:GLU:HB3 | 0.57 | 1.99 |
| 1:C:18:HIS:CD2 | 1:V:20:PRO:HB2 | 0.57 | 2.33 |
| 1:D:139:SER:HB2 | 1:E:165:GLU:O | 0.57 | 1.99 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:F:89:LEU:HD21 | 1:F:137:LEU:HD21 | 0.57 | 1.76 |
| 1:F:124:ILE:HD12 | 1:F:127:ASP:HB2 | 0.57 | 1.76 |
| 1:G:163:ARG:CB | 1:M:15:PHE:HB2 | 0.57 | 2.29 |
| 1:J:57:ALA:HB3 | 1:J:58:PRO:HD3 | 0.57 | 1.75 |
| 1:K:16:PRO:N | 1:O:167:PRO:HG3 | 0.57 | 2.14 |
| 1:S:156:GLU:HB3 | 1:X:130:PRO:O | 0.57 | 2.00 |
| 1:H:26:GLN:N | 1:I:163:ARG:HD3 | 0.57 | 2.14 |
| 1:I:167:PRO:CB | 1:W:16:PRO:HD2 | 0.57 | 2.30 |
| 1:Q:120:ARG:HD3 | 1:Q:122:TYR:HE1 | 0.57 | 1.59 |
| 1:E:57:ALA:HB3 | 1:E:58:PRO:HD3 | 0.57 | 1.76 |
| 1:I:169:VAL:HG22 | 1:W:13:PRO:HB2 | 0.57 | 1.77 |
| 1:J:120:ARG:HD3 | 1:J:122:TYR:HE1 | 0.57 | 1.59 |
| 1:P:143:LEU:HD13 | 1:P:144:THR:N | 0.57 | 2.14 |
| 1:V:79:LEU:HB2 | 1:V:143:LEU:HB3 | 0.57 | 1.76 |
| 1:X:150:LYS:NZ | 1:X:151:GLN:HE21 | 0.57 | 1.97 |
| 1:A:23:LEU:HG | 1:A:26:GLN:HB3 | 0.57 | 1.75 |
| 1:C:15:PHE:CD2 | 1:V:23:LEU:HD13 | 0.57 | 2.34 |
| 1:H:23:LEU:HD23 | 1:W:15:PHE:CG | 0.57 | 2.34 |
| 1:K:14:PHE:CG | 1:O:169:VAL:HG23 | 0.57 | 2.35 |
| 1:N:26:GLN:CB | 1:O:163:ARG:HB3 | 0.57 | 2.29 |
| 1:F:2:ASP:HB3 | 1:F:5:ILE:HB | 0.57 | 1.76 |
| 1:H:124:ILE:HD12 | 1:H:127:ASP:HB2 | 0.57 | 1.74 |
| 1:J:143:LEU:HD13 | 1:J:144:THR:N | 0.57 | 2.15 |
| 1:L:21:SER:HB3 | 1:M:18:HIS:CD2 | 0.57 | 2.34 |
| 1:L:57:ALA:HB3 | 1:L:58:PRO:HD3 | 0.57 | 1.75 |
| 1:M:85:SER:OG | 1:M:88:GLU:HB2 | 0.57 | 1.99 |
| 1:M:167:PRO:CD | 1:S:16:PRO:HB2 | 0.57 | 2.30 |
| 1:O:164:GLU:O | 1:O:165:GLU:O | 0.57 | 2.23 |
| 1:R:150:LYS:NZ | 1:R:151:GLN:HE21 | 0.57 | 1.97 |
| 1:S:100:VAL:HG12 | 1:S:120:ARG:HB2 | 0.57 | 1.77 |
| 1:U:57:ALA:HB3 | 1:U:58:PRO:HD3 | 0.57 | 1.77 |
| 1:A:15:PHE:CD1 | 1:J:23:LEU:HB2 | 0.57 | 2.35 |
| 1:G:156:GLU:HB3 | 1:L:130:PRO:O | 0.57 | 1.99 |
| 1:H:22:ARG:O | 1:H:23:LEU:HD13 | 0.57 | 1.99 |
| 1:T:2:ASP:HB3 | 1:T:5:ILE:HB | 0.57 | 1.76 |
| 1:A:156:GLU:HB3 | 1:F:130:PRO:O | 0.57 | 1.99 |
| 1:B:2:ASP:HB3 | 1:B:5:ILE:HB | 0.57 | 1.76 |
| 1:B:22:ARG:C | 1:B:23:LEU:HD22 | 0.57 | 2.20 |
| 1:D:20:PRO:HB2 | 1:U:18:HIS:CD2 | 0.57 | 2.35 |
| 1:D:72:LYS:O | 1:E:44:LEU:HB3 | 0.57 | 2.00 |
| 1:G:167:PRO:HG3 | 1:M:17:PHE:N | 0.57 | 2.14 |
| 1:H:24:PHE:HB3 | 1:W:18:HIS:CD2 | 0.57 | 2.35 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:J:130:PRO:O | 1:K:156:GLU:HB3 | 0.57 | 1.99 |
| 1:K:16:PRO:HD2 | 1:O:167:PRO:CB | 0.57 | 2.29 |
| 1:Q:18:HIS:HB3 | 1:U:163:ARG:CZ | 0.57 | 2.30 |
| 1:P:120:ARG:HD3 | 1:P:122:TYR:HE1 | 0.57 | 1.59 |
| 1:Q:57:ALA:HB3 | 1:Q:58:PRO:HD3 | 0.57 | 1.77 |
| 1:R:120:ARG:HD3 | 1:R:122:TYR:HE1 | 0.57 | 1.60 |
| 1:S:165:GLU:HG3 | 1:X:27:PHE:CD1 | 0.57 | 2.34 |
| 1:T:27:PHE:H | 1:U:163:ARG:HD2 | 0.57 | 1.57 |
| 1:U:169:VAL:HG12 | 1:U:170:THR:H | 0.57 | 1.59 |
| 1:V:57:ALA:HB3 | 1:V:58:PRO:HD3 | 0.57 | 1.75 |
| 1:H:57:ALA:HB3 | 1:H:58:PRO:HD3 | 0.57 | 1.75 |
| 1:P:26:GLN:CB | 1:Q:163:ARG:HB3 | 0.57 | 2.30 |
| 1:X:97:VAL:HG22 | 1:X:123:ARG:HD3 | 0.57 | 1.77 |
| 1:C:16:PRO:HA | 1:V:27:PHE:HB2 | 0.56 | 1.75 |
| 1:M:100:VAL:HG12 | 1:M:120:ARG:HB2 | 0.56 | 1.77 |
| 1:P:72:LYS:CE | 1:Q:46:PRO:HD2 | 0.56 | 2.30 |
| 1:S:152:VAL:HB | 1:X:150:LYS:HG2 | 0.56 | 1.75 |
| 1:V:137:LEU:HD22 | 1:V:143:LEU:HD23 | 0.56 | 1.77 |
| 1:X:18:HIS:O | 1:X:19:SER:HB2 | 0.56 | 2.00 |
| 1:A:85:SER:OG | 1:A:88:GLU:HB2 | 0.56 | 1.99 |
| 1:A:167:PRO:CB | 1:O:16:PRO:HD2 | 0.56 | 2.29 |
| 1:A:168:ALA:N | 1:O:13:PRO:O | 0.56 | 2.39 |
| 1:B:120:ARG:HD3 | 1:B:122:TYR:HE1 | 0.56 | 1.60 |
| 1:G:167:PRO:HB2 | 1:M:13:PRO:O | 0.56 | 2.00 |
| 1:M:163:ARG:CZ | 1:R:27:PHE:H | 0.56 | 2.12 |
| 1:O:57:ALA:HB3 | 1:O:58:PRO:HD3 | 0.56 | 1.77 |
| 1:V:72:LYS:CB | 1:W:46:PRO:HD3 | 0.56 | 2.28 |
| 1:V:84:PHE:HB3 | 1:V:139:SER:O | 0.56 | 2.00 |
| 1:C:17:PHE:CD2 | 1:W:168:ALA:HB2 | 0.56 | 2.35 |
| 1:D:138:SER:HB2 | 1:D:142:VAL:HB | 0.56 | 1.76 |
| 1:G:164:GLU:HB2 | 1:L:139:SER:N | 0.56 | 2.14 |
| 1:G:165:GLU:O | 1:L:139:SER:HB2 | 0.56 | 2.00 |
| 1:L:20:PRO:HB2 | 1:M:18:HIS:CE1 | 0.56 | 2.35 |
| 1:L:167:PRO:O | 1:L:169:VAL:HG23 | 0.56 | 2.01 |
| 1:O:124:ILE:HB | 1:O:127:ASP:HB2 | 0.56 | 1.76 |
| 1:Q:15:PHE:CE1 | 1:T:23:LEU:HG | 0.56 | 2.36 |
| 1:Q:100:VAL:HG12 | 1:Q:120:ARG:HB2 | 0.56 | 1.77 |
| 1:S:1:MET:H3 | 1:U:175:LYS:HG2 | 0.56 | 1.61 |
| 1:S:70:LEU:HD12 | 1:S:71:GLU:HG3 | 0.56 | 1.77 |
| 1:U:156:GLU:HG3 | 1:U:157:ARG:H | 0.56 | 1.59 |
| 1:A:131:LEU:HD23 | 1:F:156:GLU:HB2 | 0.56 | 1.77 |
| 1:E:165:GLU:CA | 1:U:16:PRO:HB3 | 0.56 | 2.30 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:M:132:THR:HG21 | 1:M:148:PRO:HG2 | 0.56 | 1.76 |
| 1:Q:45:SER:CB | 1:Q:48:TYR:HB2 | 0.56 | 2.30 |
| 1:T:69:ARG:HD3 | 1:T:70:LEU:N | 0.56 | 2.15 |
| 1:U:69:ARG:HG2 | 1:U:70:LEU:H | 0.56 | 1.61 |
| 1:X:51:PRO:HD2 | 1:X:60:TRP:O | 0.56 | 2.01 |
| 1:X:89:LEU:HD21 | 1:X:137:LEU:HD21 | 0.56 | 1.76 |
| 1:F:20:PRO:HB2 | 1:O:18:HIS:ND1 | 0.56 | 2.16 |
| 1:O:32:LEU:HD13 | 1:O:49:LEU:HD13 | 0.56 | 1.78 |
| 1:R:23:LEU:HB2 | 1:S:15:PHE:CD1 | 0.56 | 2.35 |
| 1:C:16:PRO:HG3 | 1:W:164:GLU:O | 0.56 | 2.00 |
| 1:C:69:ARG:HG2 | 1:C:70:LEU:H | 0.56 | 1.60 |
| 1:P:51:PRO:HD2 | 1:P:60:TRP:O | 0.56 | 2.01 |
| 1:A:167:PRO:CG | 1:O:17:PHE:HB2 | 0.56 | 2.31 |
| 1:B:81:VAL:HB | 1:B:141:GLY:O | 0.56 | 2.01 |
| 1:C:165:GLU:O | 1:C:166:LYS:CB | 0.56 | 2.53 |
| 1:E:11:ARG:O | 1:P:22:ARG:HG2 | 0.56 | 2.01 |
| 1:F:120:ARG:HD3 | 1:F:122:TYR:HE1 | 0.56 | 1.61 |
| 1:H:51:PRO:HD2 | 1:H:60:TRP:O | 0.56 | 2.01 |
| 1:M:163:ARG:HD2 | 1:R:27:PHE:H | 0.56 | 1.60 |
| 1:N:27:PHE:HB3 | 1:O:163:ARG:CZ | 0.56 | 2.29 |
| 1:B:124:ILE:HD12 | 1:B:127:ASP:HB2 | 0.56 | 1.77 |
| 1:E:14:PHE:CG | 1:Q:169:VAL:HG22 | 0.56 | 2.36 |
| 1:F:23:LEU:HB2 | 1:O:15:PHE:CD2 | 0.56 | 2.36 |
| 1:G:15:PHE:CB | 1:X:23:LEU:HB2 | 0.56 | 2.30 |
| 1:R:51:PRO:HD2 | 1:R:60:TRP:O | 0.56 | 2.01 |
| 1:V:72:LYS:HB2 | 1:W:44:LEU:O | 0.56 | 2.01 |
| 1:C:167:PRO:HB3 | 1:I:16:PRO:HD2 | 0.56 | 1.76 |
| 1:M:57:ALA:HB3 | 1:M:58:PRO:HD3 | 0.56 | 1.77 |
| 1:T:120:ARG:HD3 | 1:T:122:TYR:HE1 | 0.56 | 1.60 |
| 1:V:130:PRO:O | 1:W:156:GLU:HB3 | 0.56 | 2.01 |
| 1:X:57:ALA:HB3 | 1:X:58:PRO:HD3 | 0.56 | 1.75 |
| 1:A:100:VAL:HG12 | 1:A:120:ARG:HB2 | 0.56 | 1.77 |
| 1:A:167:PRO:HD2 | 1:O:17:PHE:CD2 | 0.56 | 2.36 |
| 1:B:19:SER:N | 1:B:20:PRO:CD | 0.56 | 2.67 |
| 1:B:150:LYS:HG3 | 1:B:151:GLN:HG3 | 0.56 | 1.76 |
| 1:E:16:PRO:HB3 | 1:Q:165:GLU:O | 0.56 | 2.00 |
| 1:F:51:PRO:HD2 | 1:F:60:TRP:O | 0.56 | 2.01 |
| 1:G:17:PHE:HB2 | 1:S:167:PRO:CG | 0.56 | 2.31 |
| 1:N:97:VAL:HG22 | 1:N:123:ARG:HD3 | 0.56 | 1.76 |
| 1:R:21:SER:CB | 1:S:14:PHE:HB3 | 0.56 | 2.29 |
| 1:T:27:PHE:HB3 | 1:U:163:ARG:CZ | 0.56 | 2.31 |
| 1:U:1:MET:H3 | 1:W:175:LYS:N | 0.56 | 1.99 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:D:138:SER:C | 1:E:164:GLU:HB2 | 0.55 | 2.21 |
| 1:E:10:ILE:O | 1:Q:169:VAL:HG11 | 0.55 | 2.01 |
| 1:G:17:PHE:CD2 | 1:S:167:PRO:HD2 | 0.55 | 2.36 |
| 1:G:143:LEU:HD13 | 1:G:144:THR:N | 0.55 | 2.17 |
| 1:N:150:LYS:HE3 | 1:O:152:VAL:HG23 | 0.55 | 1.77 |
| 1:S:163:ARG:CZ | 1:X:27:PHE:HB3 | 0.55 | 2.30 |
| 1:T:138:SER:HB2 | 1:T:142:VAL:HB | 0.55 | 1.77 |
| 1:C:57:ALA:HB3 | 1:C:58:PRO:HD3 | 0.55 | 1.77 |
| 1:C:100:VAL:HG12 | 1:C:120:ARG:HB2 | 0.55 | 1.77 |
| 1:E:117:GLU:HB3 | 1:F:117:GLU:HB3 | 0.55 | 1.76 |
| 1:F:27:PHE:HB2 | 1:O:16:PRO:HA | 0.55 | 1.78 |
| 1:G:13:PRO:O | 1:S:167:PRO:HB2 | 0.55 | 2.01 |
| 1:K:100:VAL:HG12 | 1:K:120:ARG:HB2 | 0.55 | 1.77 |
| 1:L:15:PHE:HA | 1:L:18:HIS:HB3 | 0.55 | 1.79 |
| 1:M:156:GLU:HB3 | 1:R:130:PRO:O | 0.55 | 2.00 |
| 1:Q:48:TYR:CE1 | 1:Q:63:THR:HB | 0.55 | 2.36 |
| 1:A:32:LEU:HD13 | 1:A:49:LEU:HD13 | 0.55 | 1.79 |
| 1:C:120:ARG:HD3 | 1:C:122:TYR:HE1 | 0.55 | 1.62 |
| 1:D:130:PRO:O | 1:E:156:GLU:HB3 | 0.55 | 2.00 |
| 1:G:13:PRO:C | 1:S:167:PRO:HB2 | 0.55 | 2.22 |
| 1:I:143:LEU:HD13 | 1:I:144:THR:N | 0.55 | 2.17 |
| 1:S:57:ALA:HB3 | 1:S:58:PRO:HD3 | 0.55 | 1.78 |
| 1:A:163:ARG:HG2 | 1:F:27:PHE:N | 0.55 | 2.17 |
| 1:C:16:PRO:N | 1:W:167:PRO:HG3 | 0.55 | 2.17 |
| 1:E:17:PHE:N | 1:Q:167:PRO:CG | 0.55 | 2.69 |
| 1:G:100:VAL:HG12 | 1:G:120:ARG:HB2 | 0.55 | 1.77 |
| 1:I:167:PRO:CG | 1:W:17:PHE:HB2 | 0.55 | 2.32 |
| 1:M:120:ARG:HD3 | 1:M:122:TYR:HE1 | 0.55 | 1.61 |
| 1:N:150:LYS:NZ | 1:N:151:GLN:HE21 | 0.55 | 2.00 |
| 1:O:28:PHE:O | 1:O:32:LEU:HG | 0.55 | 2.02 |
| 1:E:120:ARG:HD3 | 1:E:122:TYR:HE1 | 0.55 | 1.62 |
| 1:G:57:ALA:HB3 | 1:G:58:PRO:HD3 | 0.55 | 1.77 |
| 1:L:51:PRO:HD2 | 1:L:60:TRP:O | 0.55 | 2.01 |
| 1:M:163:ARG:HG2 | 1:R:23:LEU:HB3 | 0.55 | 1.77 |
| 1:B:27:PHE:HB3 | 1:C:163:ARG:CZ | 0.55 | 2.32 |
| 1:B:51:PRO:HD2 | 1:B:60:TRP:O | 0.55 | 2.02 |
| 1:G:156:GLU:HG3 | 1:G:157:ARG:H | 0.55 | 1.62 |
| 1:H:139:SER:CA | 1:I:164:GLU:HB3 | 0.55 | 2.31 |
| 1:J:167:PRO:O | 1:J:169:VAL:HG23 | 0.55 | 2.00 |
| 1:K:57:ALA:HB3 | 1:K:58:PRO:HD3 | 0.55 | 1.77 |
| 1:Q:156:GLU:HG3 | 1:Q:157:ARG:H | 0.55 | 1.61 |
| 1:V:51:PRO:HD2 | 1:V:60:TRP:O | 0.55 | 2.01 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:W:28:PHE:O | 1:W:32:LEU:HG | 0.55 | 2.02 |
| 1:W:57:ALA:HB3 | 1:W:58:PRO:HD3 | 0.55 | 1.76 |
| 1:A:19:SER:CB | 1:J:28:PHE:HB2 | 0.55 | 2.31 |
| 1:C:174:LYS:HE2 | 1:K:174:LYS:HG2 | 0.55 | 1.78 |
| 1:D:81:VAL:HB | 1:D:141:GLY:O | 0.55 | 2.02 |
| 1:I:15:PHE:CB | 1:I:16:PRO:CD | 0.55 | 2.80 |
| 1:M:163:ARG:HG2 | 1:S:15:PHE:HB3 | 0.55 | 1.77 |
| 1:Q:143:LEU:HD13 | 1:Q:144:THR:N | 0.55 | 2.17 |
| 1:F:18:HIS:O | 1:F:19:SER:HB2 | 0.55 | 2.02 |
| 1:J:51:PRO:HD2 | 1:J:60:TRP:O | 0.55 | 2.01 |
| 1:L:138:SER:HB2 | 1:L:142:VAL:HB | 0.55 | 1.79 |
| 1:N:51:PRO:HD2 | 1:N:60:TRP:O | 0.55 | 2.02 |
| 1:P:97:VAL:HG22 | 1:P:123:ARG:HD3 | 0.55 | 1.78 |
| 1:U:156:GLU:HG3 | 1:U:157:ARG:N | 0.55 | 2.17 |
| 1:D:27:PHE:H | 1:E:163:ARG:NE | 0.55 | 1.99 |
| 1:E:16:PRO:HD2 | 1:Q:167:PRO:CB | 0.55 | 2.28 |
| 1:O:143:LEU:HD13 | 1:O:144:THR:N | 0.55 | 2.17 |
| 1:A:163:ARG:HA | 1:O:15:PHE:HB2 | 0.55 | 1.79 |
| 1:C:15:PHE:CZ | 1:V:23:LEU:HD22 | 0.55 | 2.37 |
| 1:C:143:LEU:HD13 | 1:C:144:THR:N | 0.55 | 2.17 |
| 1:D:51:PRO:HD2 | 1:D:60:TRP:O | 0.55 | 2.02 |
| 1:D:100:VAL:HG12 | 1:D:120:ARG:HB2 | 0.55 | 1.79 |
| 1:E:174:LYS:HE2 | 1:W:174:LYS:HE2 | 0.55 | 1.79 |
| 1:R:20:PRO:HB2 | 1:S:18:HIS:CE1 | 0.55 | 2.36 |
| 1:S:15:PHE:HD2 | 1:S:16:PRO:HD3 | 0.55 | 1.60 |
| 1:S:163:ARG:HD2 | 1:X:23:LEU:O | 0.55 | 2.02 |
| 1:T:51:PRO:HD2 | 1:T:60:TRP:O | 0.55 | 2.02 |
| 1:U:46:PRO:HD2 | 1:U:48:TYR:CD1 | 0.55 | 2.38 |
| 1:U:100:VAL:HG12 | 1:U:120:ARG:HB2 | 0.55 | 1.78 |
| 1:F:20:PRO:HB2 | 1:O:18:HIS:CE1 | 0.54 | 2.37 |
| 1:F:24:PHE:HD2 | 1:O:18:HIS:CE1 | 0.54 | 2.19 |
| 1:I:46:PRO:HD2 | 1:I:48:TYR:CD1 | 0.54 | 2.37 |
| 1:J:72:LYS:HB3 | 1:K:46:PRO:HD3 | 0.54 | 1.77 |
| 1:U:12:ARG:CB | 1:U:13:PRO:HD3 | 0.54 | 2.32 |
| 1:A:14:PHE:CG | 1:K:169:VAL:HG12 | 0.54 | 2.37 |
| 1:A:28:PHE:O | 1:A:32:LEU:HG | 0.54 | 2.01 |
| 1:B:100:VAL:HG12 | 1:B:120:ARG:HB2 | 0.54 | 1.79 |
| 1:D:18:HIS:O | 1:D:19:SER:HB2 | 0.54 | 2.02 |
| 1:G:28:PHE:O | 1:G:32:LEU:HG | 0.54 | 2.02 |
| 1:H:72:LYS:HB3 | 1:I:45:SER:CA | 0.54 | 2.31 |
| 1:I:57:ALA:HB3 | 1:I:58:PRO:HD3 | 0.54 | 1.78 |
| 1:J:15:PHE:HA | 1:J:18:HIS:HB3 | 0.54 | 1.79 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:S:131:LEU:HD23 | 1:X:156:GLU:HB2 | 0.54 | 1.78 |
| 1:T:139:SER:HB2 | 1:U:165:GLU:O | 0.54 | 2.01 |
| 1:V:74:ARG:HG3 | 1:W:45:SER:O | 0.54 | 2.02 |
| 1:W:143:LEU:HD13 | 1:W:144:THR:N | 0.54 | 2.16 |
| 1:X:164:GLU:HG3 | 1:X:167:PRO:CD | 0.54 | 2.31 |
| 1:C:15:PHE:CE2 | 1:V:23:LEU:HD13 | 0.54 | 2.36 |
| 1:G:32:LEU:HD13 | 1:G:49:LEU:HD13 | 0.54 | 1.78 |
| 1:G:164:GLU:O | 1:L:139:SER:HB2 | 0.54 | 2.01 |
| 1:M:167:PRO:HG2 | 1:M:168:ALA:H | 0.54 | 1.61 |
| 1:R:2:ASP:HB3 | 1:R:5:ILE:HB | 0.54 | 1.80 |
| 1:T:151:GLN:HE22 | 1:U:150:LYS:HD2 | 0.54 | 1.62 |
| 1:U:32:LEU:HD13 | 1:U:49:LEU:HD13 | 0.54 | 1.78 |
| 1:V:2:ASP:HB3 | 1:V:5:ILE:HB | 0.54 | 1.79 |
| 1:A:16:PRO:HD2 | 1:K:167:PRO:CB | 0.54 | 2.32 |
| 1:A:156:GLU:HG3 | 1:A:157:ARG:N | 0.54 | 2.17 |
| 1:A:161:ILE:O | 1:A:162:THR:HB | 0.54 | 2.01 |
| 1:E:13:PRO:O | 1:Q:168:ALA:N | 0.54 | 2.41 |
| 1:G:16:PRO:HB3 | 1:S:165:GLU:N | 0.54 | 2.17 |
| 1:G:18:HIS:CE1 | 1:X:24:PHE:HD2 | 0.54 | 2.20 |
| 1:I:100:VAL:HG12 | 1:I:120:ARG:HB2 | 0.54 | 1.78 |
| 1:L:2:ASP:HB3 | 1:L:5:ILE:HB | 0.54 | 1.80 |
| 1:M:156:GLU:HG3 | 1:M:157:ARG:N | 0.54 | 2.17 |
| 1:M:164:GLU:HB2 | 1:R:138:SER:C | 0.54 | 2.22 |
| 1:N:137:LEU:HD13 | 1:N:143:LEU:HD23 | 0.54 | 1.80 |
| 1:Q:156:GLU:HG3 | 1:Q:157:ARG:N | 0.54 | 2.17 |
| 1:A:10:ILE:O | 1:K:169:VAL:HG11 | 0.54 | 2.02 |
| 1:A:174:LYS:HE3 | 1:Q:174:LYS:HG3 | 0.54 | 1.80 |
| 1:B:22:ARG:HG2 | 1:I:11:ARG:O | 0.54 | 2.02 |
| 1:C:156:GLU:HG3 | 1:C:157:ARG:H | 0.54 | 1.61 |
| 1:D:139:SER:HB2 | 1:E:164:GLU:O | 0.54 | 2.01 |
| 1:H:23:LEU:HG | 1:W:15:PHE:CZ | 0.54 | 2.37 |
| 1:S:45:SER:O | 1:X:74:ARG:HG2 | 0.54 | 2.02 |
| 1:W:161:ILE:HD13 | 1:W:161:ILE:H | 0.54 | 1.63 |
| 1:X:2:ASP:HB3 | 1:X:5:ILE:HB | 0.54 | 1.78 |
| 1:X:168:ALA:O | 1:X:169:VAL:HG12 | 0.54 | 2.01 |
| 1:A:164:GLU:HB2 | 1:F:139:SER:N | 0.54 | 2.18 |
| 1:D:97:VAL:HG22 | 1:D:123:ARG:HD3 | 0.54 | 1.79 |
| 1:S:79:LEU:HB2 | 1:S:143:LEU:HB3 | 0.54 | 1.78 |
| 1:U:143:LEU:HD13 | 1:U:144:THR:N | 0.54 | 2.17 |
| 1:B:21:SER:HB3 | 1:I:18:HIS:CD2 | 0.54 | 2.38 |
| 1:C:165:GLU:CA | 1:I:16:PRO:HB3 | 0.54 | 2.33 |
| 1:G:167:PRO:N | 1:M:16:PRO:HB2 | 0.54 | 2.17 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:H:72:LYS:HE2 | 1:I:45:SER:HA | 0.54 | 1.77 |
| 1:O:100:VAL:HG12 | 1:O:120:ARG:HB2 | 0.54 | 1.77 |
| 1:P:100:VAL:HG12 | 1:P:120:ARG:HB2 | 0.54 | 1.78 |
| 1:S:163:ARG:HB3 | 1:X:26:GLN:CB | 0.54 | 2.26 |
| 1:C:16:PRO:HB3 | 1:W:163:ARG:O | 0.54 | 2.02 |
| 1:G:120:ARG:HD3 | 1:G:122:TYR:HE1 | 0.54 | 1.63 |
| 1:I:1:MET:HB3 | 1:K:175:LYS:OXT | 0.54 | 2.03 |
| 1:M:163:ARG:CG | 1:R:23:LEU:HB3 | 0.54 | 2.32 |
| 1:P:23:LEU:CD2 | 1:Q:162:THR:HB | 0.54 | 2.30 |
| 1:Q:123:ARG:O | 1:Q:125:PRO:HD3 | 0.54 | 2.03 |
| 1:A:164:GLU:HB2 | 1:F:138:SER:C | 0.54 | 2.22 |
| 1:E:16:PRO:HG3 | 1:Q:164:GLU:H | 0.54 | 1.61 |
| 1:E:156:GLU:HG3 | 1:E:157:ARG:N | 0.54 | 2.18 |
| 1:K:17:PHE:HB2 | 1:O:167:PRO:CG | 0.54 | 2.33 |
| 1:M:71:GLU:C | 1:M:72:LYS:HD2 | 0.54 | 2.24 |
| 1:N:26:GLN:HB2 | 1:O:163:ARG:HD3 | 0.54 | 1.80 |
| 1:P:130:PRO:O | 1:Q:156:GLU:HB3 | 0.54 | 2.03 |
| 1:T:69:ARG:HD3 | 1:T:70:LEU:H | 0.54 | 1.61 |
| 1:U:72:LYS:HG2 | 1:U:127:ASP:OD1 | 0.54 | 2.02 |
| 1:V:156:GLU:HB2 | 1:W:131:LEU:HD22 | 0.54 | 1.79 |
| 1:X:95:GLY:HA2 | 1:X:130:PRO:HG3 | 0.54 | 1.79 |
| 1:G:161:ILE:HG22 | 1:G:162:THR:H | 0.54 | 1.62 |
| 1:G:165:GLU:HG3 | 1:L:27:PHE:CD1 | 0.54 | 2.38 |
| 1:J:100:VAL:HG12 | 1:J:120:ARG:HB2 | 0.54 | 1.79 |
| 1:K:45:SER:CB | 1:K:48:TYR:HB2 | 0.54 | 2.33 |
| 1:N:150:LYS:HG2 | 1:O:152:VAL:HB | 0.54 | 1.80 |
| 1:F:23:LEU:HD13 | 1:O:15:PHE:CE2 | 0.53 | 2.38 |
| 1:G:156:GLU:HG3 | 1:G:157:ARG:N | 0.53 | 2.18 |
| 1:I:1:MET:N | 1:K:175:LYS:N | 0.53 | 2.56 |
| 1:M:156:GLU:HG3 | 1:M:157:ARG:H | 0.53 | 1.62 |
| 1:N:81:VAL:HB | 1:N:141:GLY:O | 0.53 | 2.03 |
| 1:Q:17:PHE:HD2 | 1:U:168:ALA:HB2 | 0.53 | 1.63 |
| 1:R:18:HIS:O | 1:R:19:SER:HB2 | 0.53 | 2.02 |
| 1:R:100:VAL:HG12 | 1:R:120:ARG:HB2 | 0.53 | 1.80 |
| 1:X:100:VAL:HG12 | 1:X:120:ARG:HB2 | 0.53 | 1.78 |
| 1:A:163:ARG:CB | 1:O:15:PHE:HB2 | 0.53 | 2.32 |
| 1:C:167:PRO:HD3 | 1:I:16:PRO:HB2 | 0.53 | 1.80 |
| 1:G:11:ARG:HB3 | 1:X:22:ARG:N | 0.53 | 2.18 |
| 1:G:175:LYS:N | 1:K:1:MET:H3 | 0.53 | 2.02 |
| 1:J:72:LYS:CB | 1:K:46:PRO:HD3 | 0.53 | 2.33 |
| 1:L:21:SER:CB | 1:M:14:PHE:HB3 | 0.53 | 2.32 |
| 1:L:23:LEU:O | 1:L:25:ASP:N | 0.53 | 2.41 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:L:164:GLU:HG3 | 1:L:167:PRO:HD2 | 0.53 | 1.78 |
| 1:T:89:LEU:HD21 | 1:T:137:LEU:HD21 | 0.53 | 1.80 |
| 1:W:71:GLU:O | 1:W:72:LYS:HD3 | 0.53 | 2.03 |
| 1:A:48:TYR:CD2 | 1:F:72:LYS:HE3 | 0.53 | 2.38 |
| 1:C:28:PHE:O | 1:C:32:LEU:HG | 0.53 | 2.03 |
| 1:C:167:PRO:HG3 | 1:I:17:PHE:N | 0.53 | 2.18 |
| 1:M:128:VAL:HG13 | 1:M:133:ILE:HG13 | 0.53 | 1.80 |
| 1:T:164:GLU:HG3 | 1:T:167:PRO:CD | 0.53 | 2.34 |
| 1:V:24:PHE:HA | 1:W:163:ARG:CZ | 0.53 | 2.32 |
| 1:W:12:ARG:O | 1:W:15:PHE:HB2 | 0.53 | 2.02 |
| 1:W:156:GLU:HG3 | 1:W:157:ARG:N | 0.53 | 2.19 |
| 1:A:2:ASP:HB3 | 1:A:5:ILE:HD13 | 0.53 | 1.79 |
| 1:A:156:GLU:HG3 | 1:A:157:ARG:H | 0.53 | 1.61 |
| 1:E:100:VAL:HG12 | 1:E:120:ARG:HB2 | 0.53 | 1.78 |
| 1:F:21:SER:HB2 | 1:O:14:PHE:C | 0.53 | 2.23 |
| 1:H:26:GLN:HE22 | 1:H:137:LEU:H | 0.53 | 1.46 |
| 1:I:120:ARG:HD3 | 1:I:122:TYR:HE1 | 0.53 | 1.63 |
| 1:J:97:VAL:HG22 | 1:J:123:ARG:HD3 | 0.53 | 1.78 |
| 1:K:28:PHE:O | 1:K:32:LEU:HG | 0.53 | 2.03 |
| 1:K:156:GLU:HG3 | 1:K:157:ARG:N | 0.53 | 2.17 |
| 1:L:21:SER:HB2 | 1:M:14:PHE:C | 0.53 | 2.23 |
| 1:M:167:PRO:HB2 | 1:S:13:PRO:C | 0.53 | 2.23 |
| 1:T:100:VAL:HG12 | 1:T:120:ARG:HB2 | 0.53 | 1.79 |
| 1:W:100:VAL:HG12 | 1:W:120:ARG:HB2 | 0.53 | 1.78 |
| 1:A:120:ARG:HD3 | 1:A:122:TYR:HE1 | 0.53 | 1.62 |
| 1:A:164:GLU:HB3 | 1:F:137:LEU:O | 0.53 | 2.03 |
| 1:C:17:PHE:HB2 | 1:W:167:PRO:CG | 0.53 | 2.30 |
| 1:E:156:GLU:HG3 | 1:E:157:ARG:H | 0.53 | 1.63 |
| 1:F:84:PHE:HB3 | 1:F:139:SER:O | 0.53 | 2.04 |
| 1:K:18:HIS:CD2 | 1:N:24:PHE:HB2 | 0.53 | 2.39 |
| 1:N:2:ASP:HB3 | 1:N:5:ILE:HB | 0.53 | 1.80 |
| 1:T:124:ILE:HD12 | 1:T:127:ASP:HB2 | 0.53 | 1.78 |
| 1:X:81:VAL:HB | 1:X:141:GLY:O | 0.53 | 2.04 |
| 1:A:14:PHE:C | 1:J:21:SER:HB2 | 0.53 | 2.23 |
| 1:D:133:ILE:HD13 | 1:D:147:GLY:HA3 | 0.53 | 1.79 |
| 1:F:89:LEU:HD21 | 1:F:137:LEU:CD2 | 0.53 | 2.34 |
| 1:G:163:ARG:CA | 1:M:15:PHE:HB2 | 0.53 | 2.33 |
| 1:G:167:PRO:CB | 1:M:16:PRO:HD2 | 0.53 | 2.30 |
| 1:K:16:PRO:HG3 | 1:O:164:GLU:O | 0.53 | 2.04 |
| 1:K:167:PRO:CG | 1:K:168:ALA:H | 0.53 | 2.17 |
| 1:N:95:GLY:HA2 | 1:N:130:PRO:HG3 | 0.53 | 1.79 |
| 1:S:1:MET:HB2 | 1:U:175:LYS:OXT | 0.53 | 2.04 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:T:89:LEU:HD21 | 1:T:137:LEU:CD2 | 0.53 | 2.34 |
| 1:U:1:MET:N | 1:W:175:LYS:N | 0.53 | 2.56 |
| 1:X:85:SER:HB3 | 1:X:88:GLU:HB2 | 0.53 | 1.81 |
| 1:A:17:PHE:N | 1:K:167:PRO:HG3 | 0.53 | 2.18 |
| 1:A:175:LYS:N | 1:E:1:MET:H1 | 0.53 | 2.00 |
| 1:C:16:PRO:CD | 1:W:167:PRO:HG3 | 0.53 | 2.34 |
| 1:E:167:PRO:CG | 1:U:17:PHE:HB2 | 0.53 | 2.33 |
| 1:E:169:VAL:HG11 | 1:U:10:ILE:HA | 0.53 | 1.81 |
| 1:H:24:PHE:HA | 1:I:163:ARG:CZ | 0.53 | 2.33 |
| 1:K:120:ARG:HD3 | 1:K:122:TYR:HE1 | 0.53 | 1.63 |
| 1:V:137:LEU:CD2 | 1:V:143:LEU:HD23 | 0.53 | 2.32 |
| 1:E:12:ARG:NH2 | 1:P:87:GLU:HB2 | 0.53 | 2.19 |
| 1:E:167:PRO:HG2 | 1:E:168:ALA:H | 0.53 | 1.64 |
| 1:G:174:LYS:HE2 | 1:O:174:LYS:HG2 | 0.53 | 1.80 |
| 1:K:143:LEU:HD13 | 1:K:144:THR:N | 0.53 | 2.19 |
| 1:M:69:ARG:HG2 | 1:M:70:LEU:N | 0.53 | 2.18 |
| 1:Q:13:PRO:O | 1:Q:16:PRO:HD2 | 0.53 | 2.04 |
| 1:Q:72:LYS:HB3 | 1:Q:149:ARG:CZ | 0.53 | 2.33 |
| 1:S:45:SER:N | 1:X:72:LYS:HB3 | 0.53 | 2.18 |
| 1:W:19:SER:N | 1:W:20:PRO:CD | 0.53 | 2.72 |
| 1:W:32:LEU:HD13 | 1:W:49:LEU:HD13 | 0.53 | 1.80 |
| 1:A:16:PRO:C | 1:K:167:PRO:HD3 | 0.53 | 2.23 |
| 1:B:27:PHE:H | 1:C:163:ARG:CZ | 0.53 | 2.17 |
| 1:C:19:SER:OG | 1:V:28:PHE:HB2 | 0.53 | 2.02 |
| 1:E:143:LEU:HD13 | 1:E:144:THR:N | 0.53 | 2.19 |
| 1:E:163:ARG:CD | 1:U:15:PHE:HB3 | 0.53 | 2.33 |
| 1:G:70:LEU:HB3 | 1:G:71:GLU:OE2 | 0.53 | 2.04 |
| 1:I:12:ARG:HB3 | 1:I:13:PRO:HD3 | 0.53 | 1.81 |
| 1:M:125:PRO:O | 1:M:151:GLN:HG2 | 0.53 | 2.04 |
| 1:M:165:GLU:N | 1:S:16:PRO:HB3 | 0.53 | 2.19 |
| 1:P:29:GLY:HA2 | 1:Q:33:LEU:HD21 | 0.53 | 1.81 |
| 1:S:143:LEU:HD13 | 1:S:144:THR:N | 0.53 | 2.19 |
| 1:S:156:GLU:HG3 | 1:S:157:ARG:N | 0.53 | 2.18 |
| 1:U:18:HIS:ND1 | 1:U:19:SER:N | 0.53 | 2.55 |
| 1:X:84:PHE:HB3 | 1:X:139:SER:O | 0.53 | 2.04 |
| 1:A:73:ASP:O | 1:A:149:ARG:HD3 | 0.53 | 2.03 |
| 1:A:161:ILE:HG22 | 1:A:162:THR:H | 0.53 | 1.64 |
| 1:D:24:PHE:HA | 1:E:163:ARG:NE | 0.53 | 2.18 |
| 1:G:72:LYS:HG2 | 1:G:127:ASP:OD1 | 0.53 | 2.04 |
| 1:G:164:GLU:HB3 | 1:L:137:LEU:O | 0.53 | 2.03 |
| 1:G:167:PRO:CD | 1:M:16:PRO:HB2 | 0.53 | 2.34 |
| 1:L:143:LEU:HD13 | 1:L:144:THR:N | 0.53 | 2.19 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:M:143:LEU:HD13 | 1:M:144:THR:N | 0.53 | 2.19 |
| 1:R:81:VAL:HB | 1:R:141:GLY:O | 0.53 | 2.04 |
| 1:S:46:PRO:HD3 | 1:X:72:LYS:HA | 0.53 | 1.80 |
| 1:S:156:GLU:HG3 | 1:S:157:ARG:H | 0.53 | 1.63 |
| 1:T:137:LEU:O | 1:U:164:GLU:HB3 | 0.53 | 2.04 |
| 1:A:18:HIS:CE1 | 1:J:24:PHE:HB2 | 0.52 | 2.39 |
| 1:C:11:ARG:HB3 | 1:V:22:ARG:N | 0.52 | 2.20 |
| 1:C:156:GLU:HG3 | 1:C:157:ARG:N | 0.52 | 2.18 |
| 1:D:72:LYS:HZ2 | 1:E:46:PRO:HD2 | 0.52 | 1.64 |
| 1:L:87:GLU:HB2 | 1:M:12:ARG:NH2 | 0.52 | 2.18 |
| 1:S:28:PHE:O | 1:S:32:LEU:HG | 0.52 | 2.04 |
| 1:S:175:LYS:N | 1:W:1:MET:H1 | 0.52 | 2.03 |
| 1:V:72:LYS:HE3 | 1:W:48:TYR:CD1 | 0.52 | 2.39 |
| 1:A:13:PRO:O | 1:K:167:PRO:HB2 | 0.52 | 2.04 |
| 1:D:28:PHE:HB2 | 1:U:19:SER:CB | 0.52 | 2.33 |
| 1:D:31:HIS:CD2 | 1:U:56:ARG:HH12 | 0.52 | 2.21 |
| 1:F:100:VAL:HG12 | 1:F:120:ARG:HB2 | 0.52 | 1.79 |
| 1:G:45:SER:HA | 1:L:72:LYS:HB3 | 0.52 | 1.80 |
| 1:I:28:PHE:O | 1:I:32:LEU:HG | 0.52 | 2.04 |
| 1:J:2:ASP:HB3 | 1:J:5:ILE:HB | 0.52 | 1.80 |
| 1:K:18:HIS:CE1 | 1:N:20:PRO:HB2 | 0.52 | 2.39 |
| 1:L:20:PRO:HB2 | 1:M:18:HIS:ND1 | 0.52 | 2.18 |
| 1:M:167:PRO:HB3 | 1:S:16:PRO:CD | 0.52 | 2.34 |
| 1:O:1:MET:H3 | 1:Q:175:LYS:N | 0.52 | 2.02 |
| 1:A:19:SER:N | 1:A:20:PRO:CD | 0.52 | 2.72 |
| 1:E:167:PRO:HB3 | 1:U:16:PRO:CD | 0.52 | 2.34 |
| 1:G:15:PHE:CD2 | 1:G:16:PRO:HD3 | 0.52 | 2.39 |
| 1:H:2:ASP:HB3 | 1:H:5:ILE:HB | 0.52 | 1.81 |
| 1:I:71:GLU:O | 1:I:72:LYS:HD3 | 0.52 | 2.04 |
| 1:J:151:GLN:HE22 | 1:K:150:LYS:C | 0.52 | 2.08 |
| 1:N:15:PHE:HA | 1:N:18:HIS:HB3 | 0.52 | 1.80 |
| 1:R:27:PHE:HD2 | 1:S:18:HIS:O | 0.52 | 1.87 |
| 1:T:150:LYS:HE2 | 1:U:152:VAL:HG23 | 0.52 | 1.81 |
| 1:V:95:GLY:HA2 | 1:V:130:PRO:HG3 | 0.52 | 1.81 |
| 1:A:79:LEU:HB2 | 1:A:143:LEU:HB3 | 0.52 | 1.80 |
| 1:B:72:LYS:HB3 | 1:C:45:SER:HA | 0.52 | 1.80 |
| 1:G:12:ARG:NH2 | 1:X:87:GLU:HB3 | 0.52 | 2.20 |
| 1:G:18:HIS:CD2 | 1:X:21:SER:HB3 | 0.52 | 2.40 |
| 1:I:163:ARG:HB2 | 1:W:15:PHE:CE1 | 0.52 | 2.40 |
| 1:V:85:SER:OG | 1:V:104:HIS:HB2 | 0.52 | 2.05 |
| 1:X:126:ALA:O | 1:X:149:ARG:HB2 | 0.52 | 2.05 |
| 1:B:139:SER:HB2 | 1:C:164:GLU:O | 0.52 | 2.05 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:C:162:THR:HB | 1:I:15:PHE:CZ | 0.52 | 2.39 |
| 1:F:15:PHE:HA | 1:F:18:HIS:HB3 | 0.52 | 1.82 |
| 1:F:95:GLY:HA2 | 1:F:130:PRO:HG3 | 0.52 | 1.80 |
| 1:H:95:GLY:HA2 | 1:H:130:PRO:HG3 | 0.52 | 1.81 |
| 1:H:137:LEU:HD23 | 1:I:161:ILE:HG23 | 0.52 | 1.82 |
| 1:L:95:GLY:HA2 | 1:L:130:PRO:HG3 | 0.52 | 1.80 |
| 1:O:167:PRO:HG2 | 1:O:168:ALA:H | 0.52 | 1.64 |
| 1:P:74:ARG:HG3 | 1:Q:45:SER:O | 0.52 | 2.05 |
| 1:S:12:ARG:CB | 1:S:13:PRO:HD3 | 0.52 | 2.33 |
| 1:T:166:LYS:HB2 | 1:T:167:PRO:HD3 | 0.52 | 1.82 |
| 1:U:28:PHE:O | 1:U:32:LEU:HG | 0.52 | 2.03 |
| 1:U:120:ARG:HD3 | 1:U:122:TYR:HE1 | 0.52 | 1.65 |
| 1:V:100:VAL:HG12 | 1:V:120:ARG:HB2 | 0.52 | 1.81 |
| 1:C:19:SER:N | 1:C:20:PRO:CD | 0.52 | 2.72 |
| 1:D:84:PHE:HB3 | 1:D:139:SER:O | 0.52 | 2.04 |
| 1:G:80:ASP:H | 1:G:120:ARG:HD2 | 0.52 | 1.64 |
| 1:H:21:SER:HB3 | 1:W:18:HIS:CG | 0.52 | 2.40 |
| 1:K:71:GLU:O | 1:K:72:LYS:HD3 | 0.52 | 2.04 |
| 1:O:120:ARG:HD3 | 1:O:122:TYR:HE1 | 0.52 | 1.64 |
| 1:P:81:VAL:HB | 1:P:141:GLY:O | 0.52 | 2.04 |
| 1:P:167:PRO:O | 1:P:169:VAL:HG13 | 0.52 | 2.05 |
| 1:S:169:VAL:HG12 | 1:S:170:THR:H | 0.52 | 1.64 |
| 1:T:126:ALA:O | 1:T:149:ARG:HB2 | 0.52 | 2.03 |
| 1:A:120:ARG:HG2 | 1:B:114:ILE:HG12 | 0.52 | 1.82 |
| 1:I:80:ASP:H | 1:I:120:ARG:HD2 | 0.52 | 1.65 |
| 1:I:167:PRO:HG2 | 1:I:168:ALA:H | 0.52 | 1.65 |
| 1:J:72:LYS:O | 1:K:44:LEU:HB3 | 0.52 | 2.05 |
| 1:L:126:ALA:O | 1:L:149:ARG:HB2 | 0.52 | 2.05 |
| 1:L:164:GLU:HG3 | 1:L:167:PRO:CD | 0.52 | 2.35 |
| 1:M:167:PRO:CG | 1:S:17:PHE:N | 0.52 | 2.73 |
| 1:P:130:PRO:HB2 | 1:Q:155:PRO:HA | 0.52 | 1.81 |
| 1:Q:14:PHE:N | 1:U:169:VAL:HG23 | 0.52 | 2.20 |
| 1:V:15:PHE:HA | 1:V:18:HIS:HB3 | 0.52 | 1.81 |
| 1:X:89:LEU:HD21 | 1:X:137:LEU:CD2 | 0.52 | 2.35 |
| 1:B:72:LYS:CB | 1:C:46:PRO:HD3 | 0.52 | 2.34 |
| 1:B:95:GLY:HA2 | 1:B:130:PRO:HG3 | 0.52 | 1.82 |
| 1:F:126:ALA:O | 1:F:149:ARG:HB2 | 0.52 | 2.05 |
| 1:G:168:ALA:N | 1:M:13:PRO:O | 0.52 | 2.42 |
| 1:H:131:LEU:HG | 1:I:154:GLY:O | 0.52 | 2.05 |
| 1:I:169:VAL:HG12 | 1:I:170:THR:H | 0.52 | 1.64 |
| 1:K:167:PRO:HG2 | 1:K:168:ALA:H | 0.52 | 1.65 |
| 1:O:12:ARG:HB3 | 1:O:13:PRO:CD | 0.52 | 2.32 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:P:30:GLU:HB2 | 1:Q:165:GLU:OE2 | 0.52 | 2.04 |
| 1:W:120:ARG:HD3 | 1:W:122:TYR:HE1 | 0.52 | 1.63 |
| 1:X:15:PHE:HA | 1:X:18:HIS:HB3 | 0.52 | 1.80 |
| 1:D:24:PHE:HB3 | 1:U:18:HIS:CG | 0.52 | 2.40 |
| 1:I:167:PRO:HD2 | 1:W:17:PHE:CD2 | 0.52 | 2.39 |
| 1:J:95:GLY:HA2 | 1:J:130:PRO:HG3 | 0.52 | 1.82 |
| 1:O:71:GLU:O | 1:O:72:LYS:HD3 | 0.52 | 2.05 |
| 1:P:164:GLU:HG3 | 1:P:167:PRO:CD | 0.52 | 2.34 |
| 1:R:164:GLU:HG3 | 1:R:167:PRO:CD | 0.52 | 2.35 |
| 1:X:19:SER:N | 1:X:20:PRO:CD | 0.52 | 2.73 |
| 1:A:1:MET:H1 | 1:C:175:LYS:N | 0.52 | 2.03 |
| 1:A:143:LEU:HD13 | 1:A:144:THR:N | 0.52 | 2.20 |
| 1:A:165:GLU:CA | 1:O:16:PRO:HB3 | 0.52 | 2.34 |
| 1:B:85:SER:OG | 1:B:104:HIS:HB2 | 0.52 | 2.05 |
| 1:J:85:SER:HB3 | 1:J:88:GLU:HB2 | 0.52 | 1.81 |
| 1:J:164:GLU:HG3 | 1:J:167:PRO:CD | 0.52 | 2.34 |
| 1:M:169:VAL:HG12 | 1:M:170:THR:H | 0.52 | 1.65 |
| 1:N:18:HIS:O | 1:N:19:SER:HB2 | 0.52 | 2.04 |
| 1:N:72:LYS:HB3 | 1:O:45:SER:CA | 0.52 | 2.35 |
| 1:O:80:ASP:H | 1:O:120:ARG:HD2 | 0.52 | 1.65 |
| 1:O:123:ARG:O | 1:O:125:PRO:HD3 | 0.52 | 2.05 |
| 1:Q:77:VAL:HB | 1:Q:145:VAL:HG23 | 0.52 | 1.81 |
| 1:S:166:LYS:HE3 | 1:X:139:SER:HB3 | 0.52 | 1.82 |
| 1:B:55:LEU:HD13 | 1:B:58:PRO:HG2 | 0.51 | 1.81 |
| 1:B:138:SER:C | 1:C:164:GLU:HB3 | 0.51 | 2.26 |
| 1:C:167:PRO:O | 1:C:168:ALA:HB2 | 0.51 | 2.05 |
| 1:G:16:PRO:HB3 | 1:S:165:GLU:CA | 0.51 | 2.34 |
| 1:G:16:PRO:HB2 | 1:S:167:PRO:CD | 0.51 | 2.35 |
| 1:I:124:ILE:HB | 1:I:127:ASP:HB2 | 0.51 | 1.80 |
| 1:M:1:MET:H1 | 1:O:175:LYS:N | 0.51 | 2.03 |
| 1:T:18:HIS:O | 1:T:19:SER:HB2 | 0.51 | 2.05 |
| 1:A:15:PHE:CD1 | 1:J:23:LEU:HD23 | 0.51 | 2.40 |
| 1:D:72:LYS:HB3 | 1:D:72:LYS:HZ2 | 0.51 | 1.64 |
| 1:D:85:SER:HB3 | 1:D:88:GLU:HB2 | 0.51 | 1.81 |
| 1:J:18:HIS:O | 1:J:19:SER:HB2 | 0.51 | 2.05 |
| 1:L:23:LEU:HD23 | 1:M:15:PHE:CD2 | 0.51 | 2.40 |
| 1:P:27:PHE:H | 1:Q:163:ARG:NE | 0.51 | 2.03 |
| 1:A:13:PRO:C | 1:K:167:PRO:HB2 | 0.51 | 2.26 |
| 1:B:28:PHE:HB2 | 1:I:19:SER:CB | 0.51 | 2.34 |
| 1:E:165:GLU:O | 1:E:166:LYS:HB2 | 0.51 | 2.04 |
| 1:G:163:ARG:CZ | 1:M:18:HIS:HB3 | 0.51 | 2.35 |
| 1:L:85:SER:OG | 1:L:104:HIS:HB2 | 0.51 | 2.05 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|-----------------|----------|-------------|
| 1:M:164:GLU:HB3 | 1:R:137:LEU:O | 0.51 | 2.05 |
| 1:R:87:GLU:HB2 | 1:S:12:ARG:NH2 | 0.51 | 2.20 |
| 1:U:80:ASP:H | 1:U:120:ARG:HD2 | 0.51 | 1.65 |
| 1:A:18:HIS:CD2 | 1:J:24:PHE:HB2 | 0.51 | 2.40 |
| 1:B:133:ILE:HD13 | 1:B:147:GLY:HA3 | 0.51 | 1.82 |
| 1:C:71:GLU:O | 1:C:72:LYS:HD3 | 0.51 | 2.06 |
| 1:D:27:PHE:H | 1:E:163:ARG:HE | 0.51 | 1.49 |
| 1:R:138:SER:HB2 | 1:R:142:VAL:HB | 0.51 | 1.83 |
| 1:S:32:LEU:HD13 | 1:S:49:LEU:HD13 | 0.51 | 1.83 |
| 1:U:45:SER:HB2 | 1:U:48:TYR:HB2 | 0.51 | 1.81 |
| 1:C:54:PHE:CD2 | 1:W:166:LYS:HG3 | 0.51 | 2.40 |
| 1:F:39:PRO:HB3 | 1:F:43:SER:HA | 0.51 | 1.81 |
| 1:F:85:SER:HB3 | 1:F:88:GLU:HB2 | 0.51 | 1.82 |
| 1:G:1:MET:H1 | 1:I:175:LYS:N | 0.51 | 2.03 |
| 1:S:164:GLU:HB2 | 1:X:139:SER:N | 0.51 | 2.21 |
| 1:B:18:HIS:O | 1:B:19:SER:HB2 | 0.51 | 2.06 |
| 1:B:20:PRO:HB2 | 1:I:18:HIS:ND1 | 0.51 | 2.20 |
| 1:E:28:PHE:O | 1:E:32:LEU:HG | 0.51 | 2.05 |
| 1:E:149:ARG:O | 1:E:150:LYS:HB2 | 0.51 | 2.06 |
| 1:G:45:SER:HB2 | 1:G:48:TYR:HB2 | 0.51 | 1.83 |
| 1:H:126:ALA:O | 1:H:149:ARG:HB2 | 0.51 | 2.06 |
| 1:I:123:ARG:O | 1:I:125:PRO:HD3 | 0.51 | 2.06 |
| 1:J:22:ARG:HG3 | 1:J:23:LEU:CD2 | 0.51 | 2.34 |
| 1:J:71:GLU:O | 1:J:72:LYS:HG3 | 0.51 | 2.06 |
| 1:P:139:SER:HB2 | 1:Q:165:GLU:O | 0.51 | 2.06 |
| 1:R:85:SER:OG | 1:R:104:HIS:HB2 | 0.51 | 2.05 |
| 1:W:69:ARG:HG2 | 1:W:70:LEU:H | 0.51 | 1.65 |
| 1:M:152:VAL:HG23 | 1:R:150:LYS:HE3 | 0.51 | 1.83 |
| 1:N:126:ALA:O | 1:N:149:ARG:HB2 | 0.51 | 2.06 |
| 1:W:165:GLU:O | 1:W:166:LYS:HB2 | 0.51 | 2.05 |
| 1:A:45:SER:CA | 1:F:72:LYS:HB3 | 0.51 | 2.35 |
| 1:A:167:PRO:CD | 1:O:16:PRO:HB2 | 0.51 | 2.36 |
| 1:B:72:LYS:HB3 | 1:C:45:SER:CA | 0.51 | 2.35 |
| 1:C:16:PRO:HD2 | 1:W:167:PRO:HB3 | 0.51 | 1.82 |
| 1:E:73:ASP:O | 1:E:149:ARG:HD3 | 0.51 | 2.06 |
| 1:F:23:LEU:HD13 | 1:O:15:PHE:CD2 | 0.51 | 2.41 |
| 1:G:15:PHE:CG | 1:X:23:LEU:HB2 | 0.51 | 2.40 |
| 1:M:167:PRO:CG | 1:S:17:PHE:HB2 | 0.51 | 2.35 |
| 1:N:22:ARG:HG3 | 1:N:23:LEU:HD23 | 0.51 | 1.82 |
| 1:R:133:ILE:HD13 | 1:R:147:GLY:HA3 | 0.51 | 1.83 |
| 1:S:120:ARG:HD3 | 1:S:122:TYR:HE1 | 0.51 | 1.64 |
| 1:S:123:ARG:O | 1:S:125:PRO:HD3 | 0.51 | 2.05 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|-----------------|----------|-------------|
| 1:T:30:GLU:HB2 | 1:U:165:GLU:CD | 0.51 | 2.25 |
| 1:T:95:GLY:HA2 | 1:T:130:PRO:HG3 | 0.51 | 1.82 |
| 1:A:46:PRO:HD2 | 1:A:48:TYR:CD1 | 0.51 | 2.41 |
| 1:A:174:LYS:HG2 | 1:Q:174:LYS:NZ | 0.51 | 2.20 |
| 1:C:167:PRO:CD | 1:I:16:PRO:HB2 | 0.51 | 2.35 |
| 1:D:95:GLY:HA2 | 1:D:130:PRO:HG3 | 0.51 | 1.82 |
| 1:I:32:LEU:HD13 | 1:I:49:LEU:HD13 | 0.51 | 1.83 |
| 1:J:81:VAL:HB | 1:J:141:GLY:O | 0.51 | 2.05 |
| 1:J:139:SER:HB3 | 1:K:166:LYS:HE2 | 0.51 | 1.82 |
| 1:N:22:ARG:C | 1:N:23:LEU:HD22 | 0.51 | 2.26 |
| 1:R:95:GLY:HA2 | 1:R:130:PRO:HG3 | 0.51 | 1.83 |
| 1:S:46:PRO:HB3 | 1:X:148:PRO:HB3 | 0.51 | 1.82 |
| 1:S:46:PRO:HD2 | 1:S:48:TYR:CD1 | 0.51 | 2.41 |
| 1:T:72:LYS:HB3 | 1:U:45:SER:N | 0.51 | 2.20 |
| 1:B:126:ALA:O | 1:B:149:ARG:HB2 | 0.51 | 2.06 |
| 1:S:154:GLY:O | 1:X:131:LEU:HG | 0.51 | 2.05 |
| 1:V:27:PHE:H | 1:W:163:ARG:NE | 0.51 | 2.02 |
| 1:V:126:ALA:O | 1:V:149:ARG:HB2 | 0.51 | 2.05 |
| 1:X:39:PRO:HB3 | 1:X:43:SER:HA | 0.51 | 1.82 |
| 1:H:72:LYS:HE2 | 1:I:44:LEU:O | 0.50 | 2.06 |
| 1:I:1:MET:H1 | 1:K:175:LYS:N | 0.50 | 2.04 |
| 1:N:164:GLU:HG3 | 1:N:167:PRO:CD | 0.50 | 2.31 |
| 1:B:39:PRO:HG3 | 1:B:44:LEU:HB3 | 0.50 | 1.83 |
| 1:C:1:MET:HB2 | 1:W:174:LYS:CD | 0.50 | 2.36 |
| 1:C:18:HIS:C | 1:C:20:PRO:HD3 | 0.50 | 2.26 |
| 1:D:27:PHE:HB2 | 1:U:16:PRO:HA | 0.50 | 1.82 |
| 1:E:123:ARG:O | 1:E:125:PRO:HD3 | 0.50 | 2.06 |
| 1:L:24:PHE:HD2 | 1:M:18:HIS:CE1 | 0.50 | 2.24 |
| 1:P:26:GLN:HE22 | 1:P:136:SER:HB2 | 0.50 | 1.65 |
| 1:P:133:ILE:HD13 | 1:P:147:GLY:HA3 | 0.50 | 1.83 |
| 1:Q:18:HIS:CD2 | 1:T:24:PHE:N | 0.50 | 2.80 |
| 1:Q:124:ILE:HG23 | 1:R:111:HIS:HB2 | 0.50 | 1.82 |
| 1:R:24:PHE:HD2 | 1:S:18:HIS:CE1 | 0.50 | 2.24 |
| 1:W:80:ASP:H | 1:W:120:ARG:HD2 | 0.50 | 1.65 |
| 1:B:164:GLU:HG3 | 1:B:167:PRO:CD | 0.50 | 2.31 |
| 1:D:143:LEU:HD13 | 1:D:144:THR:N | 0.50 | 2.22 |
| 1:G:5:ILE:O | 1:G:8:PRO:HD2 | 0.50 | 2.06 |
| 1:G:15:PHE:CD1 | 1:X:23:LEU:HD23 | 0.50 | 2.42 |
| 1:H:20:PRO:HB2 | 1:W:18:HIS:CE1 | 0.50 | 2.40 |
| 1:I:95:GLY:HA2 | 1:I:130:PRO:HG3 | 0.50 | 1.82 |
| 1:I:163:ARG:HB2 | 1:W:15:PHE:CD1 | 0.50 | 2.42 |
| 1:K:69:ARG:HG2 | 1:K:70:LEU:H | 0.50 | 1.66 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:L:89:LEU:HD21 | 1:L:137:LEU:CD2 | 0.50 | 2.35 |
| 1:M:28:PHE:O | 1:M:32:LEU:HG | 0.50 | 2.05 |
| 1:S:70:LEU:HB3 | 1:S:71:GLU:OE2 | 0.50 | 2.05 |
| 1:A:44:LEU:HD12 | 1:F:73:ASP:HA | 0.50 | 1.83 |
| 1:C:56:ARG:HH12 | 1:V:31:HIS:CD2 | 0.50 | 2.24 |
| 1:E:16:PRO:HB2 | 1:Q:167:PRO:N | 0.50 | 2.21 |
| 1:F:55:LEU:HD13 | 1:F:58:PRO:HG2 | 0.50 | 1.82 |
| 1:H:139:SER:HB2 | 1:I:165:GLU:O | 0.50 | 2.06 |
| 1:M:165:GLU:CA | 1:S:16:PRO:HB3 | 0.50 | 2.35 |
| 1:N:27:PHE:H | 1:O:163:ARG:NE | 0.50 | 2.04 |
| 1:P:150:LYS:HG2 | 1:Q:152:VAL:HB | 0.50 | 1.83 |
| 1:R:15:PHE:HA | 1:R:18:HIS:HB3 | 0.50 | 1.82 |
| 1:W:156:GLU:HG3 | 1:W:157:ARG:H | 0.50 | 1.67 |
| 1:X:137:LEU:HD13 | 1:X:143:LEU:HD23 | 0.50 | 1.82 |
| 1:D:126:ALA:O | 1:D:149:ARG:HB2 | 0.50 | 2.07 |
| 1:I:168:ALA:HB2 | 1:W:17:PHE:CD2 | 0.50 | 2.41 |
| 1:K:18:HIS:HB2 | 1:N:21:SER:HB3 | 0.50 | 1.82 |
| 1:M:12:ARG:CB | 1:M:13:PRO:HD3 | 0.50 | 2.36 |
| 1:N:26:GLN:HB2 | 1:O:163:ARG:CB | 0.50 | 2.34 |
| 1:X:170:THR:HG22 | 1:X:171:ALA:H | 0.50 | 1.65 |
| 1:C:1:MET:HB3 | 1:E:175:LYS:OXT | 0.50 | 2.06 |
| 1:C:166:LYS:H | 1:C:167:PRO:HD3 | 0.50 | 1.65 |
| 1:C:169:VAL:HG22 | 1:I:13:PRO:CB | 0.50 | 2.32 |
| 1:D:169:VAL:HG12 | 1:D:170:THR:H | 0.50 | 1.67 |
| 1:F:87:GLU:HB3 | 1:O:12:ARG:NH1 | 0.50 | 2.22 |
| 1:G:165:GLU:O | 1:M:16:PRO:HB3 | 0.50 | 2.06 |
| 1:K:124:ILE:HB | 1:K:127:ASP:HB2 | 0.50 | 1.83 |
| 1:L:18:HIS:O | 1:L:19:SER:HB2 | 0.50 | 2.06 |
| 1:M:131:LEU:HD23 | 1:R:156:GLU:HB2 | 0.50 | 1.83 |
| 1:Q:15:PHE:HB3 | 1:U:163:ARG:CG | 0.50 | 2.34 |
| 1:Q:28:PHE:O | 1:Q:32:LEU:HG | 0.50 | 2.05 |
| 1:Q:56:ARG:HH12 | 1:T:31:HIS:CD2 | 0.50 | 2.23 |
| 1:S:81:VAL:HB | 1:S:141:GLY:O | 0.50 | 2.07 |
| 1:S:175:LYS:C | 1:W:1:MET:HB3 | 0.50 | 2.27 |
| 1:V:18:HIS:O | 1:V:19:SER:HB2 | 0.50 | 2.06 |
| 1:W:30:GLU:O | 1:W:34:GLU:HG3 | 0.50 | 2.06 |
| 1:C:81:VAL:HB | 1:C:141:GLY:O | 0.50 | 2.07 |
| 1:F:138:SER:HB2 | 1:F:142:VAL:HB | 0.50 | 1.84 |
| 1:K:16:PRO:CD | 1:O:167:PRO:HB3 | 0.50 | 2.35 |
| 1:K:19:SER:N | 1:K:20:PRO:CD | 0.50 | 2.74 |
| 1:N:139:SER:N | 1:O:164:GLU:HB2 | 0.50 | 2.20 |
| 1:P:95:GLY:HA2 | 1:P:130:PRO:HG3 | 0.50 | 1.82 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:S:19:SER:N | 1:S:20:PRO:CD | 0.50 | 2.74 |
| 1:U:81:VAL:HB | 1:U:141:GLY:O | 0.50 | 2.07 |
| 1:X:124:ILE:HD12 | 1:X:127:ASP:HB2 | 0.50 | 1.84 |
| 1:C:14:PHE:N | 1:W:169:VAL:CG2 | 0.50 | 2.74 |
| 1:D:27:PHE:N | 1:E:163:ARG:HG3 | 0.50 | 2.21 |
| 1:E:116:ARG:HD2 | 1:F:116:ARG:HD2 | 0.50 | 1.82 |
| 1:H:100:VAL:HG12 | 1:H:120:ARG:HB2 | 0.50 | 1.81 |
| 1:J:126:ALA:O | 1:J:149:ARG:HB2 | 0.50 | 2.06 |
| 1:M:163:ARG:NE | 1:S:15:PHE:O | 0.50 | 2.41 |
| 1:P:85:SER:OG | 1:P:104:HIS:HB2 | 0.50 | 2.06 |
| 1:T:55:LEU:HD13 | 1:T:58:PRO:HG2 | 0.50 | 1.83 |
| 1:U:19:SER:N | 1:U:20:PRO:CD | 0.50 | 2.74 |
| 1:X:55:LEU:HD13 | 1:X:58:PRO:HG2 | 0.50 | 1.84 |
| 1:H:72:LYS:CB | 1:I:46:PRO:HD3 | 0.50 | 2.37 |
| 1:K:161:ILE:HG22 | 1:K:162:THR:H | 0.50 | 1.66 |
| 1:O:69:ARG:HG2 | 1:O:70:LEU:N | 0.50 | 2.22 |
| 1:P:15:PHE:HA | 1:P:18:HIS:HB2 | 0.50 | 1.84 |
| 1:U:124:ILE:HB | 1:U:127:ASP:HB2 | 0.50 | 1.84 |
| 1:A:11:ARG:HB3 | 1:J:22:ARG:N | 0.49 | 2.22 |
| 1:A:164:GLU:O | 1:F:139:SER:HB2 | 0.49 | 2.07 |
| 1:D:30:GLU:HB2 | 1:E:165:GLU:OE2 | 0.49 | 2.06 |
| 1:F:137:LEU:HD13 | 1:F:143:LEU:HD23 | 0.49 | 1.83 |
| 1:G:154:GLY:O | 1:L:131:LEU:HG | 0.49 | 2.07 |
| 1:K:95:GLY:HA2 | 1:K:130:PRO:HG3 | 0.49 | 1.84 |
| 1:M:81:VAL:HB | 1:M:141:GLY:O | 0.49 | 2.07 |
| 1:M:169:VAL:HG11 | 1:S:10:ILE:HA | 0.49 | 1.82 |
| 1:N:26:GLN:H | 1:O:163:ARG:HE | 0.49 | 1.49 |
| 1:N:85:SER:OG | 1:N:104:HIS:HB2 | 0.49 | 2.06 |
| 1:N:133:ILE:HD13 | 1:N:147:GLY:HA3 | 0.49 | 1.83 |
| 1:P:18:HIS:O | 1:P:19:SER:CB | 0.49 | 2.59 |
| 1:S:43:SER:O | 1:X:72:LYS:HD3 | 0.49 | 2.05 |
| 1:V:22:ARG:HG3 | 1:V:23:LEU:HD11 | 0.49 | 1.82 |
| 1:V:164:GLU:HG3 | 1:V:167:PRO:CD | 0.49 | 2.31 |
| 1:W:72:LYS:HD2 | 1:W:127:ASP:OD2 | 0.49 | 2.07 |
| 1:W:165:GLU:HB3 | 1:W:166:LYS:HD3 | 0.49 | 1.84 |
| 1:D:55:LEU:HD13 | 1:D:58:PRO:HG2 | 0.49 | 1.83 |
| 1:G:15:PHE:N | 1:X:21:SER:OG | 0.49 | 2.45 |
| 1:I:72:LYS:HD2 | 1:I:127:ASP:OD2 | 0.49 | 2.07 |
| 1:J:72:LYS:HG2 | 1:K:46:PRO:HD3 | 0.49 | 1.84 |
| 1:K:17:PHE:CD2 | 1:O:168:ALA:HB2 | 0.49 | 2.41 |
| 1:K:156:GLU:HG3 | 1:K:157:ARG:H | 0.49 | 1.68 |
| 1:M:32:LEU:HD13 | 1:M:49:LEU:HD13 | 0.49 | 1.83 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:P:23:LEU:O | 1:Q:163:ARG:HD3 | 0.49 | 2.08 |
| 1:R:84:PHE:HB3 | 1:R:139:SER:O | 0.49 | 2.07 |
| 1:T:27:PHE:HD1 | 1:U:165:GLU:HA | 0.49 | 1.66 |
| 1:T:131:LEU:HG | 1:U:154:GLY:O | 0.49 | 2.07 |
| 1:T:137:LEU:HD13 | 1:T:143:LEU:HD23 | 0.49 | 1.84 |
| 1:A:18:HIS:NE2 | 1:J:24:PHE:HB2 | 0.49 | 2.22 |
| 1:A:167:PRO:HG3 | 1:O:16:PRO:C | 0.49 | 2.27 |
| 1:C:1:MET:H3 | 1:E:175:LYS:N | 0.49 | 2.04 |
| 1:C:10:ILE:HG22 | 1:C:10:ILE:O | 0.49 | 2.07 |
| 1:E:71:GLU:O | 1:E:72:LYS:HD3 | 0.49 | 2.08 |
| 1:E:81:VAL:HB | 1:E:141:GLY:O | 0.49 | 2.07 |
| 1:G:19:SER:N | 1:G:20:PRO:CD | 0.49 | 2.74 |
| 1:L:84:PHE:HB3 | 1:L:139:SER:O | 0.49 | 2.07 |
| 1:L:87:GLU:HB2 | 1:M:12:ARG:HH22 | 0.49 | 1.67 |
| 1:R:126:ALA:O | 1:R:149:ARG:HB2 | 0.49 | 2.07 |
| 1:A:16:PRO:HB2 | 1:K:167:PRO:CD | 0.49 | 2.37 |
| 1:A:46:PRO:HD3 | 1:F:72:LYS:CB | 0.49 | 2.38 |
| 1:C:18:HIS:CG | 1:V:20:PRO:HB2 | 0.49 | 2.43 |
| 1:C:164:GLU:O | 1:C:165:GLU:C | 0.49 | 2.51 |
| 1:E:48:TYR:HE1 | 1:E:63:THR:HG22 | 0.49 | 1.67 |
| 1:E:167:PRO:CB | 1:U:16:PRO:HD2 | 0.49 | 2.35 |
| 1:F:21:SER:HB3 | 1:O:18:HIS:CD2 | 0.49 | 2.43 |
| 1:I:81:VAL:HB | 1:I:141:GLY:O | 0.49 | 2.07 |
| 1:R:19:SER:N | 1:R:20:PRO:CD | 0.49 | 2.75 |
| 1:W:81:VAL:HB | 1:W:141:GLY:O | 0.49 | 2.08 |
| 1:W:124:ILE:HB | 1:W:127:ASP:HB2 | 0.49 | 1.84 |
| 1:A:71:GLU:C | 1:A:72:LYS:HD2 | 0.49 | 2.28 |
| 1:A:163:ARG:CB | 1:F:26:GLN:HB2 | 0.49 | 2.34 |
| 1:C:15:PHE:C | 1:W:163:ARG:HD2 | 0.49 | 2.27 |
| 1:G:16:PRO:C | 1:S:167:PRO:HG3 | 0.49 | 2.27 |
| 1:G:81:VAL:HB | 1:G:141:GLY:O | 0.49 | 2.07 |
| 1:H:21:SER:HB3 | 1:W:18:HIS:CB | 0.49 | 2.38 |
| 1:H:72:LYS:HE3 | 1:I:48:TYR:CD2 | 0.49 | 2.42 |
| 1:K:20:PRO:O | 1:K:24:PHE:HB2 | 0.49 | 2.07 |
| 1:M:167:PRO:CB | 1:S:16:PRO:HD2 | 0.49 | 2.37 |
| 1:O:2:ASP:HA | 1:Q:175:LYS:HD3 | 0.49 | 1.84 |
| 1:P:139:SER:N | 1:Q:164:GLU:HB2 | 0.49 | 2.22 |
| 1:Q:32:LEU:HD13 | 1:Q:49:LEU:HD22 | 0.49 | 1.85 |
| 1:S:40:THR:O | 1:S:42:THR:N | 0.49 | 2.46 |
| 1:T:19:SER:N | 1:T:20:PRO:CD | 0.49 | 2.76 |
| 1:A:20:PRO:O | 1:A:24:PHE:HB2 | 0.49 | 2.07 |
| 1:A:154:GLY:O | 1:F:131:LEU:HG | 0.49 | 2.07 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:C:32:LEU:HD13 | 1:C:49:LEU:HD13 | 0.49 | 1.83 |
| 1:F:87:GLU:HB3 | 1:O:12:ARG:HH12 | 0.49 | 1.67 |
| 1:I:163:ARG:HD2 | 1:W:15:PHE:HD1 | 0.49 | 1.67 |
| 1:J:23:LEU:HG | 1:K:162:THR:OG1 | 0.49 | 2.08 |
| 1:J:39:PRO:HB3 | 1:J:43:SER:HA | 0.49 | 1.84 |
| 1:J:89:LEU:HD21 | 1:J:137:LEU:CD2 | 0.49 | 2.37 |
| 1:J:139:SER:HB2 | 1:K:165:GLU:O | 0.49 | 2.07 |
| 1:P:12:ARG:HB3 | 1:P:13:PRO:HD3 | 0.49 | 1.85 |
| 1:P:55:LEU:HD13 | 1:P:58:PRO:HG2 | 0.49 | 1.85 |
| 1:R:21:SER:HB3 | 1:S:18:HIS:CD2 | 0.49 | 2.43 |
| 1:V:24:PHE:HA | 1:W:163:ARG:NE | 0.49 | 2.23 |
| 1:W:95:GLY:HA2 | 1:W:130:PRO:HG3 | 0.49 | 1.83 |
| 1:A:17:PHE:HB2 | 1:K:167:PRO:CG | 0.49 | 2.38 |
| 1:E:12:ARG:CB | 1:E:13:PRO:HD3 | 0.49 | 2.37 |
| 1:E:17:PHE:CD2 | 1:Q:167:PRO:HD2 | 0.49 | 2.43 |
| 1:M:164:GLU:HB2 | 1:R:138:SER:CA | 0.49 | 2.37 |
| 1:N:55:LEU:HD13 | 1:N:58:PRO:HG2 | 0.49 | 1.84 |
| 1:O:20:PRO:O | 1:O:24:PHE:HB2 | 0.49 | 2.08 |
| 1:O:81:VAL:HB | 1:O:141:GLY:O | 0.49 | 2.07 |
| 1:P:126:ALA:O | 1:P:149:ARG:HB2 | 0.49 | 2.08 |
| 1:V:81:VAL:HB | 1:V:141:GLY:O | 0.49 | 2.06 |
| 1:X:85:SER:OG | 1:X:104:HIS:HB2 | 0.49 | 2.08 |
| 1:A:56:ARG:HH12 | 1:J:31:HIS:CD2 | 0.49 | 2.24 |
| 1:A:175:LYS:O | 1:Q:174:LYS:HB3 | 0.49 | 2.08 |
| 1:C:13:PRO:HB2 | 1:W:169:VAL:HG22 | 0.49 | 1.82 |
| 1:D:12:ARG:HB3 | 1:D:13:PRO:HD3 | 0.49 | 1.85 |
| 1:G:149:ARG:O | 1:G:150:LYS:HB2 | 0.49 | 2.06 |
| 1:G:165:GLU:HG3 | 1:L:27:PHE:HD1 | 0.49 | 1.65 |
| 1:H:81:VAL:HB | 1:H:141:GLY:O | 0.49 | 2.08 |
| 1:J:85:SER:OG | 1:J:104:HIS:HB2 | 0.49 | 2.08 |
| 1:N:39:PRO:HG3 | 1:N:44:LEU:HB3 | 0.49 | 1.84 |
| 1:A:175:LYS:OXT | 1:E:1:MET:HB3 | 0.49 | 2.07 |
| 1:A:175:LYS:C | 1:E:1:MET:HB3 | 0.49 | 2.29 |
| 1:E:48:TYR:CE1 | 1:E:63:THR:HG22 | 0.49 | 2.43 |
| 1:E:85:SER:OG | 1:E:104:HIS:HB2 | 0.49 | 2.08 |
| 1:H:85:SER:OG | 1:H:104:HIS:HB2 | 0.49 | 2.08 |
| 1:K:120:ARG:HG2 | 1:L:114:ILE:HG12 | 0.49 | 1.85 |
| 1:N:89:LEU:HD12 | 1:N:90:LYS:N | 0.49 | 2.23 |
| 1:R:143:LEU:HD13 | 1:R:144:THR:N | 0.49 | 2.22 |
| 1:S:170:THR:HG22 | 1:S:171:ALA:H | 0.49 | 1.68 |
| 1:A:167:PRO:HB3 | 1:O:16:PRO:CG | 0.49 | 2.37 |
| 1:E:14:PHE:HB3 | 1:P:21:SER:HB2 | 0.49 | 1.84 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|-----------------|----------|-------------|
| 1:G:85:SER:OG | 1:G:104:HIS:HB2 | 0.49 | 2.08 |
| 1:I:167:PRO:HG3 | 1:W:16:PRO:C | 0.49 | 2.29 |
| 1:J:29:GLY:HA2 | 1:K:33:LEU:HD21 | 0.49 | 1.85 |
| 1:M:19:SER:N | 1:M:20:PRO:CD | 0.49 | 2.75 |
| 1:O:12:ARG:CB | 1:O:13:PRO:HD3 | 0.49 | 2.35 |
| 1:T:12:ARG:HB3 | 1:T:13:PRO:HD3 | 0.49 | 1.84 |
| 1:T:85:SER:OG | 1:T:104:HIS:HB2 | 0.49 | 2.08 |
| 1:T:85:SER:HB3 | 1:T:88:GLU:HB2 | 0.49 | 1.84 |
| 1:U:5:ILE:O | 1:U:8:PRO:HD2 | 0.49 | 2.08 |
| 1:C:149:ARG:O | 1:C:150:LYS:HB2 | 0.48 | 2.08 |
| 1:D:124:ILE:HD12 | 1:D:127:ASP:HB2 | 0.48 | 1.84 |
| 1:E:18:HIS:O | 1:P:27:PHE:HD2 | 0.48 | 1.89 |
| 1:H:15:PHE:HA | 1:H:18:HIS:HB3 | 0.48 | 1.86 |
| 1:H:28:PHE:HB2 | 1:W:19:SER:CB | 0.48 | 2.39 |
| 1:I:26:GLN:O | 1:I:30:GLU:HG3 | 0.48 | 2.08 |
| 1:M:154:GLY:O | 1:R:131:LEU:HG | 0.48 | 2.08 |
| 1:Q:26:GLN:O | 1:Q:30:GLU:HG3 | 0.48 | 2.08 |
| 1:A:17:PHE:HB2 | 1:K:167:PRO:HG2 | 0.48 | 1.83 |
| 1:A:174:LYS:HG2 | 1:Q:174:LYS:HZ2 | 0.48 | 1.67 |
| 1:B:143:LEU:HD13 | 1:B:144:THR:N | 0.48 | 2.22 |
| 1:C:15:PHE:O | 1:W:163:ARG:CZ | 0.48 | 2.61 |
| 1:E:12:ARG:HH22 | 1:P:87:GLU:HB2 | 0.48 | 1.68 |
| 1:F:19:SER:N | 1:F:20:PRO:CD | 0.48 | 2.76 |
| 1:H:21:SER:HB3 | 1:W:18:HIS:CD2 | 0.48 | 2.43 |
| 1:H:169:VAL:HG12 | 1:H:170:THR:H | 0.48 | 1.67 |
| 1:L:133:ILE:HD13 | 1:L:147:GLY:HA3 | 0.48 | 1.84 |
| 1:M:95:GLY:HA2 | 1:M:130:PRO:HG3 | 0.48 | 1.86 |
| 1:O:150:LYS:O | 1:O:151:GLN:HB3 | 0.48 | 2.08 |
| 1:P:89:LEU:HD21 | 1:P:137:LEU:CD2 | 0.48 | 2.37 |
| 1:R:55:LEU:HD13 | 1:R:58:PRO:HG2 | 0.48 | 1.84 |
| 1:S:48:TYR:CE2 | 1:X:72:LYS:HE2 | 0.48 | 2.43 |
| 1:S:149:ARG:O | 1:S:150:LYS:HB2 | 0.48 | 2.08 |
| 1:U:1:MET:HB3 | 1:W:175:LYS:OXT | 0.48 | 2.08 |
| 1:A:11:ARG:O | 1:J:22:ARG:HG2 | 0.48 | 2.08 |
| 1:E:161:ILE:HG22 | 1:E:162:THR:N | 0.48 | 2.23 |
| 1:G:45:SER:CA | 1:L:72:LYS:HB3 | 0.48 | 2.38 |
| 1:I:85:SER:OG | 1:I:104:HIS:HB2 | 0.48 | 2.08 |
| 1:J:19:SER:N | 1:J:20:PRO:CD | 0.48 | 2.75 |
| 1:M:167:PRO:CG | 1:M:168:ALA:H | 0.48 | 2.19 |
| 1:M:167:PRO:CG | 1:M:168:ALA:N | 0.48 | 2.76 |
| 1:O:45:SER:HB2 | 1:O:48:TYR:HB2 | 0.48 | 1.84 |
| 1:T:81:VAL:HB | 1:T:141:GLY:O | 0.48 | 2.09 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:U:40:THR:O | 1:U:42:THR:HG23 | 0.48 | 2.08 |
| 1:A:163:ARG:HD3 | 1:F:26:GLN:H | 0.48 | 1.64 |
| 1:E:14:PHE:C | 1:P:21:SER:HB2 | 0.48 | 2.29 |
| 1:G:163:ARG:NE | 1:M:18:HIS:HB3 | 0.48 | 2.23 |
| 1:I:40:THR:O | 1:I:42:THR:N | 0.48 | 2.46 |
| 1:J:23:LEU:CB | 1:K:163:ARG:HG2 | 0.48 | 2.37 |
| 1:O:7:HIS:HB3 | 1:O:11:ARG:NH2 | 0.48 | 2.23 |
| 1:O:19:SER:N | 1:O:20:PRO:CD | 0.48 | 2.76 |
| 1:O:40:THR:O | 1:O:42:THR:N | 0.48 | 2.47 |
| 1:Q:15:PHE:HE1 | 1:T:22:ARG:CG | 0.48 | 2.22 |
| 1:Q:167:PRO:HG2 | 1:Q:168:ALA:H | 0.48 | 1.67 |
| 1:R:12:ARG:HB3 | 1:R:13:PRO:HD3 | 0.48 | 1.85 |
| 1:S:164:GLU:HB3 | 1:X:137:LEU:O | 0.48 | 2.08 |
| 1:T:133:ILE:HD13 | 1:T:147:GLY:HA3 | 0.48 | 1.85 |
| 1:V:132:THR:HG21 | 1:V:148:PRO:HG2 | 0.48 | 1.84 |
| 1:X:69:ARG:HG3 | 1:X:70:LEU:H | 0.48 | 1.68 |
| 1:A:81:VAL:HB | 1:A:141:GLY:O | 0.48 | 2.07 |
| 1:A:169:VAL:HG11 | 1:O:10:ILE:HA | 0.48 | 1.86 |
| 1:A:171:ALA:HB2 | 1:O:10:ILE:HD13 | 0.48 | 1.85 |
| 1:C:120:ARG:HG2 | 1:D:114:ILE:HG12 | 0.48 | 1.84 |
| 1:G:10:ILE:HA | 1:S:169:VAL:HG11 | 0.48 | 1.85 |
| 1:H:12:ARG:HB3 | 1:H:13:PRO:HD3 | 0.48 | 1.85 |
| 1:I:20:PRO:O | 1:I:24:PHE:HB2 | 0.48 | 2.08 |
| 1:K:81:VAL:HB | 1:K:141:GLY:O | 0.48 | 2.08 |
| 1:N:26:GLN:H | 1:O:163:ARG:NE | 0.48 | 2.06 |
| 1:O:167:PRO:CG | 1:O:168:ALA:H | 0.48 | 2.21 |
| 1:Q:20:PRO:O | 1:Q:24:PHE:HB2 | 0.48 | 2.09 |
| 1:R:28:PHE:HB2 | 1:S:19:SER:CB | 0.48 | 2.38 |
| 1:U:49:LEU:O | 1:U:51:PRO:HD3 | 0.48 | 2.08 |
| 1:W:85:SER:OG | 1:W:104:HIS:HB2 | 0.48 | 2.08 |
| 1:A:44:LEU:HB3 | 1:F:72:LYS:O | 0.48 | 2.08 |
| 1:C:5:ILE:O | 1:C:8:PRO:HD2 | 0.48 | 2.07 |
| 1:G:20:PRO:O | 1:G:24:PHE:HB2 | 0.48 | 2.09 |
| 1:H:26:GLN:CB | 1:I:163:ARG:HB3 | 0.48 | 2.36 |
| 1:K:13:PRO:CB | 1:O:169:VAL:HG22 | 0.48 | 2.38 |
| 1:M:1:MET:HG2 | 1:O:175:LYS:HD2 | 0.48 | 1.86 |
| 1:M:49:LEU:O | 1:M:51:PRO:HD3 | 0.48 | 2.08 |
| 1:O:161:ILE:HG22 | 1:O:162:THR:N | 0.48 | 2.23 |
| 1:Q:19:SER:HB3 | 1:T:28:PHE:HB2 | 0.48 | 1.84 |
| 1:Q:167:PRO:CG | 1:Q:168:ALA:H | 0.48 | 2.22 |
| 1:S:163:ARG:HG2 | 1:X:27:PHE:N | 0.48 | 2.23 |
| 1:B:166:LYS:HB2 | 1:B:167:PRO:CD | 0.48 | 2.32 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|-----------------|----------|-------------|
| 1:C:1:MET:N | 1:E:175:LYS:N | 0.48 | 2.61 |
| 1:C:18:HIS:CE1 | 1:V:20:PRO:HG2 | 0.48 | 2.44 |
| 1:E:167:PRO:CG | 1:U:17:PHE:N | 0.48 | 2.77 |
| 1:F:12:ARG:HB3 | 1:F:13:PRO:HD3 | 0.48 | 1.85 |
| 1:H:87:GLU:HB3 | 1:W:12:ARG:NH2 | 0.48 | 2.23 |
| 1:N:148:PRO:HG3 | 1:O:46:PRO:O | 0.48 | 2.08 |
| 1:S:20:PRO:O | 1:S:24:PHE:HB2 | 0.48 | 2.08 |
| 1:S:71:GLU:O | 1:S:72:LYS:HD3 | 0.48 | 2.09 |
| 1:V:72:LYS:HE2 | 1:W:45:SER:HA | 0.48 | 1.85 |
| 1:X:138:SER:HB2 | 1:X:142:VAL:HB | 0.48 | 1.85 |
| 1:A:167:PRO:HG2 | 1:A:168:ALA:H | 0.48 | 1.69 |
| 1:B:72:LYS:HB3 | 1:C:45:SER:N | 0.48 | 2.24 |
| 1:G:40:THR:O | 1:G:42:THR:N | 0.48 | 2.46 |
| 1:H:137:LEU:HB3 | 1:I:164:GLU:HG3 | 0.48 | 1.86 |
| 1:K:16:PRO:CB | 1:O:165:GLU:N | 0.48 | 2.77 |
| 1:O:85:SER:OG | 1:O:104:HIS:HB2 | 0.48 | 2.09 |
| 1:Q:15:PHE:CB | 1:U:163:ARG:HG2 | 0.48 | 2.35 |
| 1:S:45:SER:CA | 1:X:72:LYS:HB3 | 0.48 | 2.39 |
| 1:U:85:SER:OG | 1:U:104:HIS:HB2 | 0.48 | 2.09 |
| 1:X:132:THR:HG21 | 1:X:148:PRO:HG2 | 0.48 | 1.85 |
| 1:C:40:THR:O | 1:C:42:THR:N | 0.48 | 2.46 |
| 1:C:167:PRO:HG3 | 1:I:16:PRO:C | 0.48 | 2.29 |
| 1:C:172:ALA:HB1 | 1:C:173:PRO:HD2 | 0.48 | 1.86 |
| 1:D:18:HIS:O | 1:D:19:SER:CB | 0.48 | 2.60 |
| 1:D:23:LEU:HD13 | 1:U:15:PHE:CE1 | 0.48 | 2.44 |
| 1:G:167:PRO:CG | 1:M:17:PHE:HB2 | 0.48 | 2.38 |
| 1:H:132:THR:HG21 | 1:H:148:PRO:HG2 | 0.48 | 1.84 |
| 1:M:20:PRO:O | 1:M:24:PHE:HB2 | 0.48 | 2.09 |
| 1:S:124:ILE:HB | 1:S:127:ASP:HB2 | 0.48 | 1.86 |
| 1:V:12:ARG:HB3 | 1:V:13:PRO:HD3 | 0.48 | 1.85 |
| 1:X:133:ILE:HD13 | 1:X:147:GLY:HA3 | 0.48 | 1.86 |
| 1:A:69:ARG:HG2 | 1:A:70:LEU:N | 0.48 | 2.23 |
| 1:C:18:HIS:ND1 | 1:C:19:SER:N | 0.48 | 2.58 |
| 1:C:80:ASP:H | 1:C:120:ARG:HD2 | 0.48 | 1.68 |
| 1:D:23:LEU:HD13 | 1:U:15:PHE:CZ | 0.48 | 2.43 |
| 1:D:74:ARG:HG3 | 1:E:45:SER:O | 0.48 | 2.09 |
| 1:E:164:GLU:O | 1:E:165:GLU:O | 0.48 | 2.32 |
| 1:F:28:PHE:HB2 | 1:O:19:SER:CB | 0.48 | 2.39 |
| 1:J:55:LEU:HD13 | 1:J:58:PRO:HG2 | 0.48 | 1.85 |
| 1:K:15:PHE:HD1 | 1:O:163:ARG:HB2 | 0.48 | 1.67 |
| 1:K:32:LEU:HD13 | 1:K:49:LEU:HD13 | 0.48 | 1.85 |
| 1:M:163:ARG:CZ | 1:R:27:PHE:HB3 | 0.48 | 2.38 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:M:166:LYS:HG3 | 1:S:54:PHE:CG | 0.48 | 2.43 |
| 1:R:26:GLN:HE22 | 1:R:137:LEU:H | 0.48 | 1.52 |
| 1:T:29:GLY:HA2 | 1:U:33:LEU:HD21 | 0.48 | 1.85 |
| 1:V:166:LYS:HB2 | 1:V:167:PRO:CD | 0.48 | 2.33 |
| 1:A:165:GLU:OE2 | 1:F:30:GLU:HB2 | 0.47 | 2.09 |
| 1:E:15:PHE:HB2 | 1:Q:163:ARG:CB | 0.47 | 2.38 |
| 1:J:84:PHE:HB3 | 1:J:139:SER:O | 0.47 | 2.09 |
| 1:K:16:PRO:CD | 1:O:167:PRO:HG3 | 0.47 | 2.39 |
| 1:Q:33:LEU:O | 1:Q:37:LEU:HG | 0.47 | 2.09 |
| 1:Q:81:VAL:HB | 1:Q:141:GLY:O | 0.47 | 2.09 |
| 1:S:95:GLY:HA2 | 1:S:130:PRO:HG3 | 0.47 | 1.84 |
| 1:U:69:ARG:HG2 | 1:U:70:LEU:N | 0.47 | 2.24 |
| 1:U:166:LYS:CB | 1:U:167:PRO:CD | 0.47 | 2.91 |
| 1:A:1:MET:HG2 | 1:C:175:LYS:HD2 | 0.47 | 1.85 |
| 1:A:95:GLY:HA2 | 1:A:130:PRO:HG3 | 0.47 | 1.84 |
| 1:C:10:ILE:HA | 1:W:169:VAL:HG11 | 0.47 | 1.85 |
| 1:K:170:THR:HG22 | 1:K:171:ALA:H | 0.47 | 1.70 |
| 1:L:55:LEU:HD13 | 1:L:58:PRO:HG2 | 0.47 | 1.85 |
| 1:M:12:ARG:HA | 1:M:15:PHE:CE2 | 0.47 | 2.45 |
| 1:V:27:PHE:CD1 | 1:W:165:GLU:HG3 | 0.47 | 2.44 |
| 1:V:55:LEU:HD13 | 1:V:58:PRO:HG2 | 0.47 | 1.85 |
| 1:C:170:THR:O | 1:C:171:ALA:HB3 | 0.47 | 2.08 |
| 1:E:167:PRO:CG | 1:E:168:ALA:N | 0.47 | 2.77 |
| 1:F:77:VAL:HB | 1:F:145:VAL:HG23 | 0.47 | 1.86 |
| 1:G:16:PRO:HA | 1:X:27:PHE:HB2 | 0.47 | 1.84 |
| 1:G:46:PRO:HD3 | 1:L:72:LYS:CB | 0.47 | 2.39 |
| 1:H:22:ARG:C | 1:H:23:LEU:HD13 | 0.47 | 2.30 |
| 1:K:40:THR:O | 1:K:42:THR:N | 0.47 | 2.47 |
| 1:M:80:ASP:H | 1:M:120:ARG:HD2 | 0.47 | 1.69 |
| 1:V:72:LYS:O | 1:W:44:LEU:HB3 | 0.47 | 2.10 |
| 1:V:133:ILE:HD13 | 1:V:147:GLY:HA3 | 0.47 | 1.86 |
| 1:W:69:ARG:HG2 | 1:W:70:LEU:N | 0.47 | 2.24 |
| 1:A:5:ILE:O | 1:A:8:PRO:HD2 | 0.47 | 2.09 |
| 1:A:15:PHE:CB | 1:J:23:LEU:HB2 | 0.47 | 2.36 |
| 1:C:85:SER:OG | 1:C:104:HIS:HB2 | 0.47 | 2.09 |
| 1:D:15:PHE:HA | 1:D:18:HIS:HB2 | 0.47 | 1.86 |
| 1:D:72:LYS:HE3 | 1:E:48:TYR:CE1 | 0.47 | 2.44 |
| 1:E:170:THR:HG22 | 1:E:171:ALA:H | 0.47 | 1.70 |
| 1:G:16:PRO:HD2 | 1:S:167:PRO:CB | 0.47 | 2.36 |
| 1:I:149:ARG:O | 1:I:150:LYS:HB2 | 0.47 | 2.10 |
| 1:K:16:PRO:HB2 | 1:O:165:GLU:CA | 0.47 | 2.39 |
| 1:K:26:GLN:O | 1:K:30:GLU:HG3 | 0.47 | 2.08 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:M:45:SER:CB | 1:M:48:TYR:HB2 | 0.47 | 2.40 |
| 1:M:150:LYS:O | 1:M:151:GLN:HB3 | 0.47 | 2.09 |
| 1:N:19:SER:N | 1:N:20:PRO:CD | 0.47 | 2.78 |
| 1:N:27:PHE:N | 1:O:163:ARG:HG2 | 0.47 | 2.24 |
| 1:S:85:SER:OG | 1:S:104:HIS:HB2 | 0.47 | 2.08 |
| 1:T:138:SER:CB | 1:T:142:VAL:HB | 0.47 | 2.39 |
| 1:V:169:VAL:HG12 | 1:V:170:THR:H | 0.47 | 1.69 |
| 1:E:124:ILE:HG23 | 1:F:111:HIS:HB2 | 0.47 | 1.85 |
| 1:F:85:SER:OG | 1:F:104:HIS:HB2 | 0.47 | 2.09 |
| 1:G:49:LEU:O | 1:G:51:PRO:HD3 | 0.47 | 2.10 |
| 1:G:72:LYS:HB3 | 1:G:149:ARG:CZ | 0.47 | 2.39 |
| 1:H:33:LEU:HA | 1:I:37:LEU:HD13 | 0.47 | 1.85 |
| 1:J:12:ARG:N | 1:J:13:PRO:HD2 | 0.47 | 2.25 |
| 1:P:138:SER:HB2 | 1:P:142:VAL:HB | 0.47 | 1.86 |
| 1:Q:16:PRO:HB2 | 1:U:167:PRO:N | 0.47 | 2.24 |
| 1:Q:95:GLY:HA2 | 1:Q:130:PRO:HG3 | 0.47 | 1.85 |
| 1:R:169:VAL:HG12 | 1:R:170:THR:N | 0.47 | 2.25 |
| 1:S:46:PRO:HD3 | 1:X:72:LYS:CA | 0.47 | 2.40 |
| 1:T:84:PHE:HB3 | 1:T:139:SER:O | 0.47 | 2.08 |
| 1:A:16:PRO:CD | 1:K:167:PRO:HB3 | 0.47 | 2.37 |
| 1:A:40:THR:O | 1:A:42:THR:HG23 | 0.47 | 2.09 |
| 1:D:125:PRO:HG2 | 1:D:153:SER:HA | 0.47 | 1.87 |
| 1:D:148:PRO:HG3 | 1:E:46:PRO:HB2 | 0.47 | 1.85 |
| 1:E:18:HIS:ND1 | 1:P:20:PRO:HB2 | 0.47 | 2.23 |
| 1:P:84:PHE:HB3 | 1:P:139:SER:O | 0.47 | 2.10 |
| 1:P:138:SER:CB | 1:P:142:VAL:HB | 0.47 | 2.40 |
| 1:S:46:PRO:HD3 | 1:X:72:LYS:CB | 0.47 | 2.40 |
| 1:S:80:ASP:H | 1:S:120:ARG:HD2 | 0.47 | 1.69 |
| 1:T:30:GLU:HB2 | 1:U:165:GLU:OE2 | 0.47 | 2.09 |
| 1:W:149:ARG:O | 1:W:150:LYS:HB2 | 0.47 | 2.10 |
| 1:A:163:ARG:CA | 1:O:15:PHE:HB2 | 0.47 | 2.40 |
| 1:A:174:LYS:HD3 | 1:O:1:MET:HB2 | 0.47 | 1.87 |
| 1:F:46:PRO:O | 1:F:47:PHE:HB2 | 0.47 | 2.09 |
| 1:F:133:ILE:HD13 | 1:F:147:GLY:HA3 | 0.47 | 1.87 |
| 1:H:152:VAL:HG11 | 1:I:151:GLN:OE1 | 0.47 | 2.10 |
| 1:J:169:VAL:HG12 | 1:J:170:THR:N | 0.47 | 2.25 |
| 1:L:69:ARG:HE | 1:L:70:LEU:H | 0.47 | 1.51 |
| 1:L:81:VAL:HB | 1:L:141:GLY:O | 0.47 | 2.09 |
| 1:M:26:GLN:O | 1:M:30:GLU:HG3 | 0.47 | 2.09 |
| 1:Q:13:PRO:CB | 1:U:169:VAL:HG22 | 0.47 | 2.40 |
| 1:Q:80:ASP:H | 1:Q:120:ARG:HD2 | 0.47 | 1.69 |
| 1:S:167:PRO:HG2 | 1:S:168:ALA:H | 0.47 | 1.68 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:A:15:PHE:CE1 | 1:J:23:LEU:HD23 | 0.47 | 2.45 |
| 1:C:69:ARG:HG2 | 1:C:70:LEU:N | 0.47 | 2.24 |
| 1:D:85:SER:OG | 1:D:104:HIS:HB2 | 0.47 | 2.08 |
| 1:E:80:ASP:H | 1:E:120:ARG:HD2 | 0.47 | 1.69 |
| 1:F:2:ASP:OD1 | 1:K:175:LYS:HD2 | 0.47 | 2.10 |
| 1:H:21:SER:CB | 1:W:14:PHE:HB3 | 0.47 | 2.35 |
| 1:Q:85:SER:OG | 1:Q:104:HIS:HB2 | 0.47 | 2.09 |
| 1:S:167:PRO:CG | 1:S:168:ALA:N | 0.47 | 2.78 |
| 1:D:26:GLN:HB2 | 1:E:163:ARG:CG | 0.47 | 2.40 |
| 1:D:164:GLU:HG3 | 1:D:167:PRO:CD | 0.47 | 2.31 |
| 1:E:19:SER:N | 1:E:20:PRO:CD | 0.47 | 2.76 |
| 1:F:81:VAL:HB | 1:F:141:GLY:O | 0.47 | 2.09 |
| 1:F:81:VAL:HG12 | 1:F:83:HIS:O | 0.47 | 2.09 |
| 1:H:151:GLN:OE1 | 1:H:152:VAL:HG23 | 0.47 | 2.10 |
| 1:L:31:HIS:CD2 | 1:M:56:ARG:HH12 | 0.47 | 2.28 |
| 1:M:175:LYS:N | 1:Q:1:MET:H3 | 0.47 | 2.07 |
| 1:P:2:ASP:HB3 | 1:P:5:ILE:HB | 0.47 | 1.85 |
| 1:T:72:LYS:HD3 | 1:U:43:SER:O | 0.47 | 2.10 |
| 1:A:164:GLU:HB2 | 1:F:138:SER:CA | 0.47 | 2.40 |
| 1:I:167:PRO:CG | 1:I:168:ALA:N | 0.47 | 2.77 |
| 1:L:138:SER:CB | 1:L:142:VAL:HB | 0.47 | 2.40 |
| 1:M:85:SER:N | 1:M:86:PRO:HD3 | 0.47 | 2.24 |
| 1:N:124:ILE:HD12 | 1:N:127:ASP:HB2 | 0.47 | 1.86 |
| 1:R:89:LEU:HD21 | 1:R:137:LEU:CD2 | 0.47 | 2.37 |
| 1:S:1:MET:H1 | 1:U:174:LYS:HA | 0.47 | 1.69 |
| 1:V:22:ARG:C | 1:V:23:LEU:HG | 0.47 | 2.29 |
| 1:X:125:PRO:HG2 | 1:X:153:SER:HA | 0.47 | 1.87 |
| 1:C:18:HIS:CD2 | 1:V:24:PHE:HB3 | 0.46 | 2.45 |
| 1:D:24:PHE:CG | 1:D:24:PHE:O | 0.46 | 2.69 |
| 1:G:16:PRO:CG | 1:S:167:PRO:HB3 | 0.46 | 2.40 |
| 1:H:164:GLU:HG3 | 1:H:167:PRO:CD | 0.46 | 2.31 |
| 1:I:161:ILE:HG22 | 1:I:162:THR:N | 0.46 | 2.25 |
| 1:K:33:LEU:O | 1:K:37:LEU:HG | 0.46 | 2.10 |
| 1:L:125:PRO:HG2 | 1:L:153:SER:HA | 0.46 | 1.86 |
| 1:L:169:VAL:HG12 | 1:L:170:THR:N | 0.46 | 2.25 |
| 1:N:74:ARG:HG2 | 1:O:45:SER:O | 0.46 | 2.10 |
| 1:P:125:PRO:HG2 | 1:P:153:SER:HA | 0.46 | 1.87 |
| 1:Q:14:PHE:N | 1:U:169:VAL:CG2 | 0.46 | 2.78 |
| 1:R:31:HIS:CD2 | 1:S:56:ARG:HH12 | 0.46 | 2.28 |
| 1:T:169:VAL:HG22 | 1:T:170:THR:H | 0.46 | 1.69 |
| 1:U:166:LYS:CB | 1:U:167:PRO:HD3 | 0.46 | 2.38 |
| 1:W:49:LEU:O | 1:W:51:PRO:HD3 | 0.46 | 2.10 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:D:20:PRO:HB2 | 1:U:18:HIS:CE1 | 0.46 | 2.45 |
| 1:D:138:SER:CB | 1:D:142:VAL:HB | 0.46 | 2.40 |
| 1:I:167:PRO:HG3 | 1:W:17:PHE:N | 0.46 | 2.24 |
| 1:J:133:ILE:HD13 | 1:J:147:GLY:HA3 | 0.46 | 1.86 |
| 1:K:69:ARG:HG2 | 1:K:70:LEU:N | 0.46 | 2.25 |
| 1:M:163:ARG:HG2 | 1:R:23:LEU:CB | 0.46 | 2.40 |
| 1:N:12:ARG:N | 1:N:13:PRO:HD2 | 0.46 | 2.25 |
| 1:N:169:VAL:HG12 | 1:N:170:THR:H | 0.46 | 1.70 |
| 1:O:49:LEU:O | 1:O:51:PRO:HD3 | 0.46 | 2.09 |
| 1:S:151:GLN:OE1 | 1:X:152:VAL:HG11 | 0.46 | 2.11 |
| 1:S:164:GLU:HB2 | 1:X:138:SER:CA | 0.46 | 2.41 |
| 1:T:139:SER:HB2 | 1:U:164:GLU:O | 0.46 | 2.10 |
| 1:B:12:ARG:N | 1:B:13:PRO:HD2 | 0.46 | 2.25 |
| 1:C:167:PRO:O | 1:C:168:ALA:CB | 0.46 | 2.64 |
| 1:D:22:ARG:O | 1:D:23:LEU:HD12 | 0.46 | 2.10 |
| 1:E:14:PHE:HB2 | 1:Q:169:VAL:CG1 | 0.46 | 2.40 |
| 1:G:12:ARG:HA | 1:G:15:PHE:CE1 | 0.46 | 2.46 |
| 1:G:168:ALA:O | 1:M:13:PRO:HB2 | 0.46 | 2.11 |
| 1:H:133:ILE:HD13 | 1:H:147:GLY:HA3 | 0.46 | 1.86 |
| 1:K:13:PRO:C | 1:O:169:VAL:HG22 | 0.46 | 2.31 |
| 1:K:16:PRO:C | 1:O:167:PRO:HD3 | 0.46 | 2.31 |
| 1:K:85:SER:OG | 1:K:104:HIS:HB2 | 0.46 | 2.10 |
| 1:N:72:LYS:HD3 | 1:O:48:TYR:CE2 | 0.46 | 2.46 |
| 1:N:89:LEU:HD23 | 1:N:137:LEU:CD2 | 0.46 | 2.40 |
| 1:V:139:SER:HA | 1:W:164:GLU:CB | 0.46 | 2.41 |
| 1:V:148:PRO:HB3 | 1:W:46:PRO:HB3 | 0.46 | 1.86 |
| 1:A:169:VAL:HG12 | 1:A:170:THR:H | 0.46 | 1.70 |
| 1:C:161:ILE:HG22 | 1:C:162:THR:N | 0.46 | 2.25 |
| 1:D:72:LYS:NZ | 1:E:45:SER:HB2 | 0.46 | 2.26 |
| 1:G:10:ILE:HD13 | 1:S:171:ALA:HB2 | 0.46 | 1.88 |
| 1:H:166:LYS:HB2 | 1:H:167:PRO:CD | 0.46 | 2.32 |
| 1:I:169:VAL:HG23 | 1:W:14:PHE:CG | 0.46 | 2.45 |
| 1:J:30:GLU:HB2 | 1:K:165:GLU:OE2 | 0.46 | 2.11 |
| 1:Q:167:PRO:CG | 1:Q:168:ALA:N | 0.46 | 2.78 |
| 1:A:124:ILE:HG23 | 1:B:111:HIS:HB2 | 0.46 | 1.86 |
| 1:C:16:PRO:CA | 1:V:27:PHE:HB2 | 0.46 | 2.40 |
| 1:C:174:LYS:CE | 1:K:174:LYS:HG2 | 0.46 | 2.40 |
| 1:D:43:SER:O | 1:D:44:LEU:HB2 | 0.46 | 2.10 |
| 1:E:16:PRO:HB2 | 1:Q:167:PRO:CD | 0.46 | 2.41 |
| 1:G:15:PHE:HB2 | 1:S:163:ARG:CA | 0.46 | 2.41 |
| 1:I:124:ILE:HG13 | 1:I:128:VAL:HG23 | 0.46 | 1.88 |
| 1:K:14:PHE:N | 1:O:169:VAL:CG2 | 0.46 | 2.79 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:L:132:THR:HG21 | 1:L:148:PRO:HG2 | 0.46 | 1.87 |
| 1:L:165:GLU:HG3 | 1:L:165:GLU:O | 0.46 | 2.11 |
| 1:O:1:MET:N | 1:Q:175:LYS:N | 0.46 | 2.63 |
| 1:O:1:MET:HB3 | 1:Q:175:LYS:OXT | 0.46 | 2.11 |
| 1:P:151:GLN:NE2 | 1:Q:151:GLN:HA | 0.46 | 2.26 |
| 1:Q:18:HIS:HB3 | 1:U:163:ARG:NE | 0.46 | 2.24 |
| 1:T:27:PHE:H | 1:U:163:ARG:CZ | 0.46 | 2.23 |
| 1:V:130:PRO:HB2 | 1:W:155:PRO:HA | 0.46 | 1.86 |
| 1:B:152:VAL:HG11 | 1:C:151:GLN:OE1 | 0.46 | 2.11 |
| 1:E:33:LEU:O | 1:E:37:LEU:HG | 0.46 | 2.10 |
| 1:E:42:THR:C | 1:E:44:LEU:H | 0.46 | 2.14 |
| 1:G:167:PRO:HB3 | 1:M:16:PRO:CG | 0.46 | 2.41 |
| 1:H:55:LEU:HD13 | 1:H:58:PRO:HG2 | 0.46 | 1.85 |
| 1:K:14:PHE:C | 1:N:21:SER:HB2 | 0.46 | 2.31 |
| 1:M:149:ARG:O | 1:M:150:LYS:HB2 | 0.46 | 2.09 |
| 1:N:72:LYS:CA | 1:O:46:PRO:HD3 | 0.46 | 2.40 |
| 1:P:44:LEU:O | 1:P:45:SER:HB2 | 0.46 | 2.11 |
| 1:U:150:LYS:O | 1:U:151:GLN:HB3 | 0.46 | 2.10 |
| 1:B:74:ARG:HG2 | 1:C:45:SER:O | 0.46 | 2.11 |
| 1:D:21:SER:HB2 | 1:U:15:PHE:N | 0.46 | 2.26 |
| 1:D:29:GLY:HA2 | 1:E:33:LEU:HD21 | 0.46 | 1.87 |
| 1:E:9:TRP:O | 1:E:12:ARG:HB2 | 0.46 | 2.11 |
| 1:E:45:SER:HB2 | 1:E:48:TYR:HB2 | 0.46 | 1.86 |
| 1:F:151:GLN:OE1 | 1:F:152:VAL:HG23 | 0.46 | 2.11 |
| 1:G:165:GLU:C | 1:M:16:PRO:CB | 0.46 | 2.78 |
| 1:K:16:PRO:CA | 1:N:27:PHE:HB2 | 0.46 | 2.35 |
| 1:Q:18:HIS:HB3 | 1:U:163:ARG:HE | 0.46 | 1.71 |
| 1:Q:45:SER:OG | 1:Q:48:TYR:HB2 | 0.46 | 2.10 |
| 1:T:74:ARG:HG2 | 1:U:45:SER:O | 0.46 | 2.11 |
| 1:X:46:PRO:O | 1:X:47:PHE:HB2 | 0.46 | 2.11 |
| 1:A:167:PRO:CG | 1:A:168:ALA:H | 0.46 | 2.24 |
| 1:C:111:HIS:HB2 | 1:D:124:ILE:HG23 | 0.46 | 1.87 |
| 1:C:125:PRO:O | 1:C:151:GLN:HB3 | 0.46 | 2.10 |
| 1:G:167:PRO:CG | 1:G:168:ALA:H | 0.46 | 2.23 |
| 1:H:27:PHE:H | 1:I:163:ARG:CD | 0.46 | 2.23 |
| 1:H:150:LYS:NZ | 1:I:152:VAL:HG23 | 0.46 | 2.26 |
| 1:L:22:ARG:O | 1:L:23:LEU:HD22 | 0.46 | 2.11 |
| 1:M:164:GLU:O | 1:M:165:GLU:O | 0.46 | 2.34 |
| 1:V:151:GLN:HE22 | 1:W:150:LYS:C | 0.46 | 2.13 |
| 1:A:125:PRO:O | 1:A:151:GLN:HB3 | 0.46 | 2.11 |
| 1:B:22:ARG:O | 1:B:23:LEU:HD22 | 0.46 | 2.11 |
| 1:C:72:LYS:HD2 | 1:C:127:ASP:OD2 | 0.46 | 2.11 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:D:23:LEU:HD22 | 1:U:15:PHE:CE2 | 0.46 | 2.46 |
| 1:D:89:LEU:HD21 | 1:D:137:LEU:CD2 | 0.46 | 2.40 |
| 1:E:163:ARG:HD2 | 1:U:15:PHE:C | 0.46 | 2.31 |
| 1:H:74:ARG:HG2 | 1:I:45:SER:O | 0.46 | 2.11 |
| 1:J:130:PRO:HB2 | 1:K:155:PRO:HA | 0.46 | 1.86 |
| 1:K:18:HIS:C | 1:K:20:PRO:HD3 | 0.46 | 2.30 |
| 1:O:72:LYS:HD2 | 1:O:127:ASP:OD2 | 0.46 | 2.11 |
| 1:O:169:VAL:HG12 | 1:O:170:THR:H | 0.46 | 1.71 |
| 1:Q:85:SER:N | 1:Q:86:PRO:HD3 | 0.46 | 2.26 |
| 1:R:23:LEU:HD13 | 1:S:15:PHE:CE1 | 0.46 | 2.46 |
| 1:U:42:THR:C | 1:U:44:LEU:H | 0.46 | 2.14 |
| 1:C:85:SER:N | 1:C:86:PRO:HD3 | 0.46 | 2.26 |
| 1:D:44:LEU:O | 1:D:45:SER:HB2 | 0.46 | 2.10 |
| 1:E:120:ARG:HG2 | 1:F:114:ILE:HG12 | 0.46 | 1.88 |
| 1:E:167:PRO:CG | 1:E:168:ALA:H | 0.46 | 2.20 |
| 1:J:125:PRO:HG2 | 1:J:153:SER:HA | 0.46 | 1.87 |
| 1:L:19:SER:N | 1:L:20:PRO:CD | 0.46 | 2.78 |
| 1:L:22:ARG:HG3 | 1:L:23:LEU:CD2 | 0.46 | 2.41 |
| 1:Q:120:ARG:HG2 | 1:R:114:ILE:HG12 | 0.46 | 1.86 |
| 1:T:33:LEU:HA | 1:U:37:LEU:HD13 | 0.46 | 1.87 |
| 1:T:132:THR:HG21 | 1:T:148:PRO:HG2 | 0.46 | 1.87 |
| 1:A:167:PRO:CG | 1:A:168:ALA:N | 0.45 | 2.78 |
| 1:C:33:LEU:O | 1:C:37:LEU:HG | 0.45 | 2.12 |
| 1:D:163:ARG:O | 1:D:163:ARG:HD3 | 0.45 | 2.11 |
| 1:E:163:ARG:CZ | 1:U:18:HIS:HB3 | 0.45 | 2.41 |
| 1:G:18:HIS:O | 1:X:27:PHE:HD2 | 0.45 | 1.93 |
| 1:G:19:SER:CB | 1:X:28:PHE:HB2 | 0.45 | 2.41 |
| 1:H:14:PHE:O | 1:H:18:HIS:HB2 | 0.45 | 2.11 |
| 1:J:23:LEU:C | 1:K:163:ARG:HG2 | 0.45 | 2.30 |
| 1:K:72:LYS:HD2 | 1:K:127:ASP:OD2 | 0.45 | 2.10 |
| 1:Q:11:ARG:O | 1:T:22:ARG:HG2 | 0.45 | 2.11 |
| 1:R:24:PHE:CE2 | 1:S:19:SER:HA | 0.45 | 2.46 |
| 1:A:18:HIS:HB3 | 1:K:163:ARG:CZ | 0.45 | 2.42 |
| 1:B:29:GLY:HA2 | 1:C:33:LEU:HD21 | 0.45 | 1.89 |
| 1:B:162:THR:O | 1:B:163:ARG:HB3 | 0.45 | 2.12 |
| 1:E:164:GLU:C | 1:U:16:PRO:HB3 | 0.45 | 2.32 |
| 1:H:162:THR:O | 1:H:163:ARG:HB3 | 0.45 | 2.11 |
| 1:I:167:PRO:O | 1:I:168:ALA:HB3 | 0.45 | 2.11 |
| 1:I:169:VAL:HG22 | 1:W:13:PRO:CB | 0.45 | 2.40 |
| 1:J:165:GLU:HG3 | 1:J:165:GLU:O | 0.45 | 2.12 |
| 1:L:124:ILE:HD12 | 1:L:127:ASP:HB2 | 0.45 | 1.86 |
| 1:N:33:LEU:HA | 1:O:37:LEU:HD13 | 0.45 | 1.86 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:N:130:PRO:O | 1:O:156:GLU:HB3 | 0.45 | 2.11 |
| 1:O:120:ARG:HG2 | 1:P:114:ILE:HG12 | 0.45 | 1.88 |
| 1:Q:124:ILE:CG2 | 1:R:111:HIS:HB2 | 0.45 | 2.41 |
| 1:Q:167:PRO:O | 1:Q:168:ALA:HB3 | 0.45 | 2.10 |
| 1:S:120:ARG:HG2 | 1:T:114:ILE:HG12 | 0.45 | 1.87 |
| 1:S:163:ARG:HD2 | 1:X:23:LEU:C | 0.45 | 2.31 |
| 1:A:151:GLN:OE1 | 1:F:152:VAL:HG11 | 0.45 | 2.10 |
| 1:E:171:ALA:HB2 | 1:U:10:ILE:HD13 | 0.45 | 1.88 |
| 1:G:15:PHE:CD1 | 1:X:23:LEU:HB2 | 0.45 | 2.46 |
| 1:G:114:ILE:HG12 | 1:H:120:ARG:HG2 | 0.45 | 1.88 |
| 1:G:165:GLU:C | 1:G:166:LYS:HG2 | 0.45 | 2.30 |
| 1:I:163:ARG:O | 1:I:165:GLU:N | 0.45 | 2.49 |
| 1:J:124:ILE:HD12 | 1:J:127:ASP:HB2 | 0.45 | 1.87 |
| 1:K:80:ASP:H | 1:K:120:ARG:HD2 | 0.45 | 1.71 |
| 1:N:22:ARG:HG3 | 1:N:23:LEU:CD2 | 0.45 | 2.42 |
| 1:O:85:SER:N | 1:O:86:PRO:HD3 | 0.45 | 2.27 |
| 1:S:45:SER:HA | 1:X:72:LYS:HB3 | 0.45 | 1.87 |
| 1:T:72:LYS:CA | 1:U:46:PRO:HD3 | 0.45 | 2.40 |
| 1:U:170:THR:HG22 | 1:U:171:ALA:H | 0.45 | 1.70 |
| 1:X:163:ARG:O | 1:X:163:ARG:HD3 | 0.45 | 2.12 |
| 1:A:17:PHE:N | 1:K:167:PRO:CG | 0.45 | 2.80 |
| 1:A:163:ARG:HD2 | 1:F:23:LEU:O | 0.45 | 2.11 |
| 1:C:169:VAL:CG2 | 1:I:14:PHE:N | 0.45 | 2.79 |
| 1:D:22:ARG:C | 1:D:23:LEU:HD12 | 0.45 | 2.32 |
| 1:D:166:LYS:CB | 1:D:167:PRO:HD3 | 0.45 | 2.39 |
| 1:G:125:PRO:O | 1:G:151:GLN:HB3 | 0.45 | 2.12 |
| 1:G:161:ILE:HG22 | 1:G:162:THR:N | 0.45 | 2.26 |
| 1:H:27:PHE:HD2 | 1:W:18:HIS:O | 0.45 | 1.94 |
| 1:J:138:SER:HB2 | 1:J:142:VAL:HB | 0.45 | 1.88 |
| 1:P:72:LYS:NZ | 1:Q:45:SER:HB2 | 0.45 | 2.26 |
| 1:Q:19:SER:CB | 1:T:28:PHE:HB2 | 0.45 | 2.41 |
| 1:R:162:THR:O | 1:R:163:ARG:HB3 | 0.45 | 2.11 |
| 1:T:129:ASP:O | 1:T:132:THR:HG22 | 0.45 | 2.12 |
| 1:U:18:HIS:C | 1:U:20:PRO:HD3 | 0.45 | 2.31 |
| 1:U:125:PRO:O | 1:U:151:GLN:HG2 | 0.45 | 2.12 |
| 1:F:21:SER:OG | 1:F:22:ARG:N | 0.45 | 2.48 |
| 1:F:132:THR:HG21 | 1:F:148:PRO:HG2 | 0.45 | 1.87 |
| 1:G:46:PRO:HD2 | 1:G:48:TYR:CD1 | 0.45 | 2.46 |
| 1:G:151:GLN:OE1 | 1:L:152:VAL:HG11 | 0.45 | 2.11 |
| 1:H:18:HIS:O | 1:H:19:SER:HB2 | 0.45 | 2.11 |
| 1:N:29:GLY:CA | 1:O:33:LEU:HD21 | 0.45 | 2.41 |
| 1:P:26:GLN:NE2 | 1:P:136:SER:HB2 | 0.45 | 2.27 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|-----------------|------------------|----------|-------------|
| 1:P:139:SER:HB3 | 1:Q:166:LYS:NZ | 0.45 | 2.26 |
| 1:T:15:PHE:HA | 1:T:18:HIS:HB3 | 0.45 | 1.88 |
| 1:U:15:PHE:CB | 1:U:16:PRO:HD3 | 0.45 | 2.33 |
| 1:W:15:PHE:CB | 1:W:16:PRO:CD | 0.45 | 2.90 |
| 1:B:31:HIS:CD2 | 1:I:56:ARG:HH12 | 0.45 | 2.28 |
| 1:B:148:PRO:HG3 | 1:C:46:PRO:O | 0.45 | 2.12 |
| 1:C:16:PRO:HB3 | 1:W:163:ARG:HG3 | 0.45 | 1.87 |
| 1:D:46:PRO:O | 1:D:47:PHE:HB2 | 0.45 | 2.12 |
| 1:E:18:HIS:CD2 | 1:P:24:PHE:N | 0.45 | 2.84 |
| 1:F:20:PRO:O | 1:O:11:ARG:HG3 | 0.45 | 2.12 |
| 1:G:167:PRO:O | 1:G:168:ALA:HB3 | 0.45 | 2.12 |
| 1:I:33:LEU:O | 1:I:37:LEU:HG | 0.45 | 2.12 |
| 1:J:162:THR:O | 1:J:163:ARG:HB3 | 0.45 | 2.11 |
| 1:K:14:PHE:O | 1:N:21:SER:HB2 | 0.45 | 2.12 |
| 1:L:12:ARG:HB3 | 1:L:13:PRO:HD3 | 0.45 | 1.88 |
| 1:L:162:THR:O | 1:L:163:ARG:HB3 | 0.45 | 2.11 |
| 1:P:69:ARG:HE | 1:P:70:LEU:H | 0.45 | 1.53 |
| 1:P:148:PRO:HB3 | 1:Q:46:PRO:HB3 | 0.45 | 1.89 |
| 1:R:165:GLU:HG3 | 1:R:165:GLU:O | 0.45 | 2.11 |
| 1:T:163:ARG:O | 1:T:163:ARG:HD3 | 0.45 | 2.12 |
| 1:U:120:ARG:HG2 | 1:V:114:ILE:HG12 | 0.45 | 1.89 |
| 1:V:14:PHE:O | 1:V:18:HIS:HB2 | 0.45 | 2.11 |
| 1:V:27:PHE:HB3 | 1:W:163:ARG:NE | 0.45 | 2.24 |
| 1:W:111:HIS:HB2 | 1:X:124:ILE:HG23 | 0.45 | 1.89 |
| 1:W:120:ARG:HG2 | 1:X:114:ILE:HG12 | 0.45 | 1.88 |
| 1:B:21:SER:OG | 1:B:22:ARG:N | 0.45 | 2.50 |
| 1:B:79:LEU:HD12 | 1:B:143:LEU:HG | 0.45 | 1.89 |
| 1:D:20:PRO:HB2 | 1:U:18:HIS:NE2 | 0.45 | 2.27 |
| 1:E:16:PRO:CB | 1:Q:165:GLU:C | 0.45 | 2.75 |
| 1:F:125:PRO:HG2 | 1:F:153:SER:HA | 0.45 | 1.89 |
| 1:G:17:PHE:N | 1:S:167:PRO:CG | 0.45 | 2.78 |
| 1:H:125:PRO:HG2 | 1:H:153:SER:HA | 0.45 | 1.89 |
| 1:I:19:SER:N | 1:I:20:PRO:CD | 0.45 | 2.78 |
| 1:L:151:GLN:OE1 | 1:L:152:VAL:HG23 | 0.45 | 2.12 |
| 1:Q:149:ARG:O | 1:Q:150:LYS:HB3 | 0.45 | 2.12 |
| 1:S:33:LEU:O | 1:S:37:LEU:HG | 0.45 | 2.12 |
| 1:X:151:GLN:OE1 | 1:X:152:VAL:HG23 | 0.45 | 2.12 |
| 1:A:49:LEU:O | 1:A:51:PRO:HD3 | 0.45 | 2.12 |
| 1:A:174:LYS:C | 1:E:1:MET:H1 | 0.45 | 2.15 |
| 1:J:23:LEU:HB3 | 1:K:163:ARG:CG | 0.45 | 2.40 |
| 1:J:174:LYS:HG2 | 1:J:175:LYS:H | 0.45 | 1.72 |
| 1:M:42:THR:C | 1:M:44:LEU:H | 0.45 | 2.15 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:M:124:ILE:HD12 | 1:M:127:ASP:HB3 | 0.45 | 1.88 |
| 1:Q:19:SER:N | 1:Q:20:PRO:CD | 0.45 | 2.79 |
| 1:Q:42:THR:C | 1:Q:44:LEU:H | 0.45 | 2.15 |
| 1:R:138:SER:CB | 1:R:142:VAL:HB | 0.45 | 2.42 |
| 1:S:175:LYS:N | 1:W:1:MET:N | 0.45 | 2.64 |
| 1:T:72:LYS:HE2 | 1:U:48:TYR:CE2 | 0.45 | 2.46 |
| 1:U:124:ILE:CG2 | 1:V:111:HIS:HB2 | 0.45 | 2.42 |
| 1:C:71:GLU:O | 1:C:71:GLU:HG2 | 0.45 | 2.12 |
| 1:H:69:ARG:HE | 1:H:70:LEU:H | 0.45 | 1.53 |
| 1:M:151:GLN:HA | 1:R:151:GLN:NE2 | 0.45 | 2.27 |
| 1:N:162:THR:O | 1:N:163:ARG:HB3 | 0.45 | 2.11 |
| 1:N:166:LYS:HB2 | 1:N:167:PRO:CD | 0.45 | 2.33 |
| 1:P:46:PRO:O | 1:P:47:PHE:HB2 | 0.45 | 2.12 |
| 1:Q:69:ARG:HG2 | 1:Q:126:ALA:CB | 0.45 | 2.42 |
| 1:V:26:GLN:C | 1:W:163:ARG:HG2 | 0.45 | 2.31 |
| 1:B:15:PHE:HA | 1:B:18:HIS:HB2 | 0.45 | 1.88 |
| 1:D:72:LYS:HB3 | 1:E:46:PRO:HD2 | 0.45 | 1.88 |
| 1:E:32:LEU:HD13 | 1:E:49:LEU:HD22 | 0.45 | 1.88 |
| 1:K:16:PRO:HG3 | 1:O:164:GLU:C | 0.45 | 2.32 |
| 1:K:38:PHE:O | 1:K:40:THR:N | 0.45 | 2.50 |
| 1:K:162:THR:OG1 | 1:K:163:ARG:N | 0.45 | 2.50 |
| 1:M:111:HIS:HB2 | 1:N:124:ILE:HG23 | 0.45 | 1.88 |
| 1:N:23:LEU:O | 1:O:163:ARG:HD2 | 0.45 | 2.12 |
| 1:O:1:MET:C | 1:Q:175:LYS:HB3 | 0.45 | 2.32 |
| 1:P:150:LYS:HE3 | 1:Q:152:VAL:HG23 | 0.45 | 1.89 |
| 1:Q:69:ARG:HD3 | 1:Q:70:LEU:H | 0.45 | 1.71 |
| 1:V:72:LYS:HE3 | 1:W:48:TYR:CG | 0.45 | 2.47 |
| 1:V:150:LYS:HZ1 | 1:V:151:GLN:HE21 | 0.45 | 1.53 |
| 1:A:1:MET:H3 | 1:C:175:LYS:HB3 | 0.44 | 1.71 |
| 1:D:130:PRO:HB2 | 1:E:155:PRO:HA | 0.44 | 1.89 |
| 1:D:150:LYS:HE3 | 1:E:152:VAL:HG23 | 0.44 | 1.89 |
| 1:D:150:LYS:HZ2 | 1:D:151:GLN:HE21 | 0.44 | 1.55 |
| 1:D:151:GLN:HE22 | 1:E:150:LYS:C | 0.44 | 2.14 |
| 1:F:69:ARG:HE | 1:F:70:LEU:H | 0.44 | 1.55 |
| 1:G:48:TYR:CZ | 1:L:72:LYS:HD3 | 0.44 | 2.47 |
| 1:K:15:PHE:CE1 | 1:N:23:LEU:HG | 0.44 | 2.47 |
| 1:K:167:PRO:O | 1:K:168:ALA:HB3 | 0.44 | 2.12 |
| 1:L:137:LEU:HD13 | 1:L:143:LEU:HD23 | 0.44 | 1.90 |
| 1:P:165:GLU:O | 1:P:165:GLU:HG3 | 0.44 | 2.12 |
| 1:S:124:ILE:HG23 | 1:T:111:HIS:HB2 | 0.44 | 1.88 |
| 1:S:163:ARG:CD | 1:X:27:PHE:H | 0.44 | 2.25 |
| 1:V:150:LYS:HG2 | 1:W:152:VAL:HB | 0.44 | 1.88 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:W:124:ILE:HG23 | 1:X:111:HIS:HB2 | 0.44 | 1.88 |
| 1:A:1:MET:N | 1:C:175:LYS:HB3 | 0.44 | 2.27 |
| 1:A:33:LEU:HD21 | 1:F:29:GLY:HA2 | 0.44 | 1.90 |
| 1:B:169:VAL:HG22 | 1:B:170:THR:N | 0.44 | 2.27 |
| 1:D:21:SER:CB | 1:U:14:PHE:HB3 | 0.44 | 2.43 |
| 1:D:77:VAL:HB | 1:D:145:VAL:HG23 | 0.44 | 1.89 |
| 1:G:1:MET:HG2 | 1:I:175:LYS:HD2 | 0.44 | 1.87 |
| 1:I:124:ILE:HG23 | 1:J:111:HIS:HB2 | 0.44 | 1.88 |
| 1:I:167:PRO:HG3 | 1:W:16:PRO:CA | 0.44 | 2.43 |
| 1:K:56:ARG:HH12 | 1:N:31:HIS:CD2 | 0.44 | 2.30 |
| 1:M:163:ARG:CG | 1:R:26:GLN:HB2 | 0.44 | 2.42 |
| 1:P:72:LYS:HD2 | 1:Q:48:TYR:CZ | 0.44 | 2.47 |
| 1:P:162:THR:O | 1:P:163:ARG:HB3 | 0.44 | 2.11 |
| 1:R:23:LEU:CB | 1:S:15:PHE:HB3 | 0.44 | 2.42 |
| 1:R:125:PRO:HG2 | 1:R:153:SER:HA | 0.44 | 1.90 |
| 1:V:79:LEU:HD12 | 1:V:143:LEU:HD12 | 0.44 | 1.88 |
| 1:X:12:ARG:HB3 | 1:X:13:PRO:HD3 | 0.44 | 1.88 |
| 1:A:170:THR:HG22 | 1:A:171:ALA:H | 0.44 | 1.73 |
| 1:C:45:SER:HB2 | 1:C:48:TYR:HB2 | 0.44 | 1.88 |
| 1:E:13:PRO:C | 1:Q:167:PRO:HB2 | 0.44 | 2.33 |
| 1:E:167:PRO:CG | 1:U:16:PRO:HB2 | 0.44 | 2.43 |
| 1:F:169:VAL:HG22 | 1:F:170:THR:N | 0.44 | 2.27 |
| 1:G:163:ARG:HG2 | 1:L:27:PHE:H | 0.44 | 1.72 |
| 1:H:85:SER:HB3 | 1:H:88:GLU:HB2 | 0.44 | 1.89 |
| 1:J:150:LYS:HE3 | 1:K:152:VAL:HG23 | 0.44 | 1.88 |
| 1:K:16:PRO:HB3 | 1:O:165:GLU:N | 0.44 | 2.27 |
| 1:K:19:SER:HA | 1:N:24:PHE:CE2 | 0.44 | 2.47 |
| 1:P:77:VAL:HB | 1:P:145:VAL:HG23 | 0.44 | 1.88 |
| 1:R:79:LEU:HD12 | 1:R:143:LEU:HG | 0.44 | 1.88 |
| 1:U:165:GLU:O | 1:U:167:PRO:HD2 | 0.44 | 2.12 |
| 1:A:12:ARG:HA | 1:A:15:PHE:CE1 | 0.44 | 2.48 |
| 1:B:23:LEU:O | 1:C:163:ARG:NE | 0.44 | 2.50 |
| 1:C:46:PRO:HD2 | 1:C:48:TYR:CD1 | 0.44 | 2.47 |
| 1:C:175:LYS:OXT | 1:K:174:LYS:HB3 | 0.44 | 2.12 |
| 1:G:163:ARG:NE | 1:M:15:PHE:O | 0.44 | 2.46 |
| 1:H:24:PHE:HB2 | 1:W:19:SER:CB | 0.44 | 2.34 |
| 1:H:130:PRO:O | 1:I:156:GLU:HB3 | 0.44 | 2.12 |
| 1:K:111:HIS:HB2 | 1:L:124:ILE:HG23 | 0.44 | 1.90 |
| 1:M:120:ARG:HG2 | 1:N:114:ILE:HG12 | 0.44 | 1.88 |
| 1:M:165:GLU:HA | 1:S:16:PRO:O | 0.44 | 2.13 |
| 1:M:167:PRO:HD3 | 1:S:16:PRO:C | 0.44 | 2.33 |
| 1:O:124:ILE:CG2 | 1:P:111:HIS:HB2 | 0.44 | 2.43 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:P:89:LEU:HD21 | 1:P:137:LEU:HD22 | 0.44 | 1.89 |
| 1:S:85:SER:N | 1:S:86:PRO:HD3 | 0.44 | 2.27 |
| 1:V:162:THR:O | 1:V:163:ARG:HB3 | 0.44 | 2.11 |
| 1:A:161:ILE:HG22 | 1:A:162:THR:N | 0.44 | 2.26 |
| 1:C:16:PRO:HD2 | 1:W:167:PRO:CB | 0.44 | 2.41 |
| 1:D:26:GLN:NE2 | 1:D:137:LEU:H | 0.44 | 2.10 |
| 1:E:17:PHE:H | 1:Q:167:PRO:HG3 | 0.44 | 1.64 |
| 1:F:138:SER:CB | 1:F:142:VAL:HB | 0.44 | 2.42 |
| 1:G:33:LEU:O | 1:G:37:LEU:HG | 0.44 | 2.12 |
| 1:G:45:SER:N | 1:L:72:LYS:HB3 | 0.44 | 2.28 |
| 1:G:132:THR:OG1 | 1:G:148:PRO:HD2 | 0.44 | 2.12 |
| 1:M:170:THR:HG22 | 1:M:171:ALA:H | 0.44 | 1.71 |
| 1:N:159:ILE:HD13 | 1:N:159:ILE:N | 0.44 | 2.28 |
| 1:O:167:PRO:CG | 1:O:168:ALA:N | 0.44 | 2.81 |
| 1:R:46:PRO:O | 1:R:47:PHE:HB2 | 0.44 | 2.13 |
| 1:T:14:PHE:O | 1:T:18:HIS:HB2 | 0.44 | 2.11 |
| 1:W:33:LEU:O | 1:W:37:LEU:HG | 0.44 | 2.13 |
| 1:A:174:LYS:HZ2 | 1:Q:174:LYS:HD2 | 0.44 | 1.72 |
| 1:C:5:ILE:C | 1:C:8:PRO:HD2 | 0.44 | 2.33 |
| 1:C:7:HIS:HB2 | 1:C:8:PRO:HD3 | 0.44 | 1.89 |
| 1:C:14:PHE:CG | 1:W:169:VAL:HG23 | 0.44 | 2.47 |
| 1:N:130:PRO:HB2 | 1:O:155:PRO:HA | 0.44 | 1.89 |
| 1:R:23:LEU:HD13 | 1:S:15:PHE:CD1 | 0.44 | 2.46 |
| 1:V:134:THR:HG22 | 1:W:158:THR:O | 0.44 | 2.13 |
| 1:A:124:ILE:HG13 | 1:A:128:VAL:HG23 | 0.44 | 1.89 |
| 1:A:162:THR:OG1 | 1:A:163:ARG:N | 0.44 | 2.51 |
| 1:B:77:VAL:HB | 1:B:145:VAL:HG23 | 0.44 | 1.90 |
| 1:B:137:LEU:HD13 | 1:B:143:LEU:CD2 | 0.44 | 2.43 |
| 1:C:72:LYS:HB3 | 1:C:149:ARG:CZ | 0.44 | 2.42 |
| 1:F:24:PHE:CE2 | 1:O:19:SER:HA | 0.44 | 2.48 |
| 1:G:120:ARG:HG2 | 1:H:114:ILE:HG12 | 0.44 | 1.89 |
| 1:I:111:HIS:HB2 | 1:J:124:ILE:HG23 | 0.44 | 1.89 |
| 1:N:72:LYS:HD3 | 1:O:48:TYR:CZ | 0.44 | 2.48 |
| 1:P:15:PHE:N | 1:P:16:PRO:CD | 0.44 | 2.81 |
| 1:S:167:PRO:CG | 1:S:168:ALA:H | 0.44 | 2.24 |
| 1:U:69:ARG:HG3 | 1:U:126:ALA:CB | 0.44 | 2.43 |
| 1:U:85:SER:N | 1:U:86:PRO:HD3 | 0.44 | 2.27 |
| 1:W:20:PRO:O | 1:W:24:PHE:HB2 | 0.44 | 2.13 |
| 1:W:71:GLU:O | 1:W:71:GLU:HG2 | 0.44 | 2.12 |
| 1:B:15:PHE:N | 1:B:16:PRO:CD | 0.44 | 2.81 |
| 1:E:124:ILE:HG13 | 1:E:128:VAL:HG23 | 0.44 | 1.88 |
| 1:E:169:VAL:HG23 | 1:U:14:PHE:CG | 0.44 | 2.48 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:G:162:THR:OG1 | 1:G:163:ARG:N | 0.44 | 2.50 |
| 1:H:130:PRO:HB2 | 1:I:155:PRO:HA | 0.44 | 1.88 |
| 1:I:167:PRO:CG | 1:I:168:ALA:H | 0.44 | 2.24 |
| 1:J:137:LEU:HD23 | 1:K:164:GLU:OE2 | 0.44 | 2.13 |
| 1:K:14:PHE:HB3 | 1:N:21:SER:CB | 0.44 | 2.39 |
| 1:L:135:SER:OG | 1:L:143:LEU:HD11 | 0.44 | 2.13 |
| 1:P:23:LEU:O | 1:P:25:ASP:N | 0.44 | 2.51 |
| 1:P:26:GLN:HB3 | 1:Q:163:ARG:HB3 | 0.44 | 1.88 |
| 1:V:70:LEU:HD12 | 1:V:71:GLU:HG2 | 0.44 | 1.89 |
| 1:A:16:PRO:HB3 | 1:K:165:GLU:N | 0.44 | 2.27 |
| 1:A:124:ILE:CG2 | 1:B:111:HIS:HB2 | 0.44 | 2.43 |
| 1:B:72:LYS:HE3 | 1:C:43:SER:O | 0.44 | 2.12 |
| 1:C:14:PHE:O | 1:C:15:PHE:C | 0.44 | 2.55 |
| 1:C:163:ARG:N | 1:I:15:PHE:CD1 | 0.44 | 2.85 |
| 1:D:131:LEU:HA | 1:E:156:GLU:HB2 | 0.44 | 1.89 |
| 1:G:124:ILE:CG2 | 1:H:111:HIS:HB2 | 0.44 | 2.43 |
| 1:J:14:PHE:O | 1:J:18:HIS:HB2 | 0.44 | 2.13 |
| 1:J:46:PRO:O | 1:J:47:PHE:HB2 | 0.44 | 2.13 |
| 1:O:124:ILE:HG23 | 1:P:111:HIS:HB2 | 0.44 | 1.90 |
| 1:O:167:PRO:O | 1:O:168:ALA:HB3 | 0.44 | 2.13 |
| 1:P:10:ILE:O | 1:P:13:PRO:HD2 | 0.44 | 2.13 |
| 1:P:124:ILE:HD12 | 1:P:127:ASP:HB2 | 0.44 | 1.89 |
| 1:S:167:PRO:O | 1:S:168:ALA:HB3 | 0.44 | 2.13 |
| 1:A:167:PRO:O | 1:A:168:ALA:HB3 | 0.43 | 2.12 |
| 1:F:129:ASP:O | 1:F:132:THR:HG22 | 0.43 | 2.13 |
| 1:G:163:ARG:O | 1:L:26:GLN:HB3 | 0.43 | 2.13 |
| 1:G:165:GLU:OE2 | 1:L:30:GLU:HB2 | 0.43 | 2.13 |
| 1:K:71:GLU:O | 1:K:71:GLU:HG2 | 0.43 | 2.13 |
| 1:K:78:ASN:HA | 1:K:144:THR:HA | 0.43 | 1.88 |
| 1:O:50:ARG:HG2 | 1:O:61:PHE:CE2 | 0.43 | 2.48 |
| 1:O:71:GLU:O | 1:O:71:GLU:HG2 | 0.43 | 2.13 |
| 1:O:111:HIS:HB2 | 1:P:124:ILE:HG23 | 0.43 | 1.90 |
| 1:Q:18:HIS:NE2 | 1:T:24:PHE:HB2 | 0.43 | 2.28 |
| 1:C:1:MET:HB3 | 1:E:175:LYS:C | 0.43 | 2.33 |
| 1:D:10:ILE:O | 1:D:13:PRO:HD2 | 0.43 | 2.13 |
| 1:G:63:THR:OG1 | 1:G:64:GLY:N | 0.43 | 2.52 |
| 1:I:174:LYS:HG2 | 1:S:174:LYS:HE2 | 0.43 | 1.89 |
| 1:M:124:ILE:CG2 | 1:N:111:HIS:HB2 | 0.43 | 2.43 |
| 1:S:49:LEU:O | 1:S:51:PRO:HD3 | 0.43 | 2.13 |
| 1:S:114:ILE:HG12 | 1:T:120:ARG:HG2 | 0.43 | 1.91 |
| 1:X:159:ILE:O | 1:X:159:ILE:HG12 | 0.43 | 2.13 |
| 1:A:163:ARG:CZ | 1:F:27:PHE:H | 0.43 | 2.26 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:C:124:ILE:HB | 1:C:127:ASP:HB2 | 0.43 | 1.90 |
| 1:D:23:LEU:HB2 | 1:U:15:PHE:CG | 0.43 | 2.49 |
| 1:E:56:ARG:HH12 | 1:P:31:HIS:CD2 | 0.43 | 2.30 |
| 1:G:19:SER:HA | 1:X:24:PHE:CE2 | 0.43 | 2.48 |
| 1:M:164:GLU:HB2 | 1:R:138:SER:HA | 0.43 | 1.90 |
| 1:N:159:ILE:O | 1:N:159:ILE:HG12 | 0.43 | 2.13 |
| 1:P:131:LEU:HA | 1:Q:156:GLU:HB2 | 0.43 | 1.89 |
| 1:Q:165:GLU:C | 1:Q:166:LYS:HG2 | 0.43 | 2.32 |
| 1:S:63:THR:OG1 | 1:S:64:GLY:N | 0.43 | 2.51 |
| 1:S:165:GLU:OE2 | 1:X:30:GLU:HB2 | 0.43 | 2.12 |
| 1:T:165:GLU:HG3 | 1:T:165:GLU:O | 0.43 | 2.13 |
| 1:A:33:LEU:O | 1:A:37:LEU:HG | 0.43 | 2.13 |
| 1:A:80:ASP:H | 1:A:120:ARG:HD2 | 0.43 | 1.74 |
| 1:C:167:PRO:HB3 | 1:I:16:PRO:CD | 0.43 | 2.43 |
| 1:E:10:ILE:O | 1:Q:169:VAL:HG21 | 0.43 | 2.13 |
| 1:E:163:ARG:HA | 1:U:15:PHE:CB | 0.43 | 2.39 |
| 1:H:23:LEU:N | 1:H:23:LEU:CD2 | 0.43 | 2.72 |
| 1:H:77:VAL:HB | 1:H:145:VAL:HG23 | 0.43 | 1.90 |
| 1:I:9:TRP:O | 1:I:13:PRO:HD3 | 0.43 | 2.13 |
| 1:J:72:LYS:CG | 1:K:46:PRO:HD3 | 0.43 | 2.43 |
| 1:N:30:GLU:HB3 | 1:O:165:GLU:OE2 | 0.43 | 2.13 |
| 1:P:1:MET:HB2 | 1:S:5:ILE:HD11 | 0.43 | 1.91 |
| 1:P:27:PHE:CD1 | 1:Q:165:GLU:HG3 | 0.43 | 2.48 |
| 1:P:152:VAL:HG11 | 1:Q:151:GLN:OE1 | 0.43 | 2.14 |
| 1:U:74:ARG:H | 1:U:74:ARG:HD2 | 0.43 | 1.73 |
| 1:C:124:ILE:HG23 | 1:D:111:HIS:HB2 | 0.43 | 1.89 |
| 1:C:128:VAL:HA | 1:C:133:ILE:HG13 | 0.43 | 1.90 |
| 1:E:72:LYS:HD2 | 1:E:127:ASP:OD2 | 0.43 | 2.13 |
| 1:G:124:ILE:HG23 | 1:H:111:HIS:HB2 | 0.43 | 1.90 |
| 1:J:26:GLN:HB3 | 1:K:163:ARG:O | 0.43 | 2.13 |
| 1:K:124:ILE:HG23 | 1:L:111:HIS:HB2 | 0.43 | 1.89 |
| 1:K:167:PRO:CG | 1:K:168:ALA:N | 0.43 | 2.81 |
| 1:M:167:PRO:O | 1:M:168:ALA:HB3 | 0.43 | 2.14 |
| 1:N:72:LYS:HD3 | 1:O:48:TYR:CD2 | 0.43 | 2.48 |
| 1:O:33:LEU:O | 1:O:37:LEU:HG | 0.43 | 2.14 |
| 1:S:33:LEU:HD21 | 1:X:29:GLY:HA2 | 0.43 | 1.89 |
| 1:S:69:ARG:HH11 | 1:S:72:LYS:HB2 | 0.43 | 1.73 |
| 1:D:99:GLU:HG2 | 1:D:121:LYS:HA | 0.43 | 1.90 |
| 1:G:48:TYR:CE2 | 1:L:72:LYS:HD3 | 0.43 | 2.49 |
| 1:I:120:ARG:HG2 | 1:J:114:ILE:HG12 | 0.43 | 1.88 |
| 1:I:124:ILE:CG2 | 1:J:111:HIS:HB2 | 0.43 | 2.44 |
| 1:J:26:GLN:NE2 | 1:J:136:SER:HA | 0.43 | 2.29 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:K:18:HIS:CD2 | 1:N:21:SER:HB3 | 0.43 | 2.47 |
| 1:M:167:PRO:HG3 | 1:S:16:PRO:N | 0.43 | 2.28 |
| 1:R:22:ARG:C | 1:R:23:LEU:HD12 | 0.43 | 2.34 |
| 1:R:77:VAL:HB | 1:R:145:VAL:HG23 | 0.43 | 1.91 |
| 1:S:15:PHE:O | 1:S:17:PHE:N | 0.43 | 2.51 |
| 1:S:124:ILE:CG2 | 1:T:111:HIS:HB2 | 0.43 | 2.44 |
| 1:V:138:SER:C | 1:W:164:GLU:HB3 | 0.43 | 2.34 |
| 1:V:150:LYS:HE3 | 1:W:152:VAL:HG23 | 0.43 | 1.89 |
| 1:X:159:ILE:HD13 | 1:X:159:ILE:N | 0.43 | 2.28 |
| 1:A:16:PRO:N | 1:K:167:PRO:HG3 | 0.43 | 2.28 |
| 1:A:151:GLN:HA | 1:F:151:GLN:NE2 | 0.43 | 2.27 |
| 1:B:87:GLU:HB2 | 1:I:12:ARG:NH1 | 0.43 | 2.29 |
| 1:B:150:LYS:HE3 | 1:C:152:VAL:HG23 | 0.43 | 1.91 |
| 1:C:169:VAL:HG21 | 1:I:10:ILE:O | 0.43 | 2.14 |
| 1:D:15:PHE:N | 1:D:16:PRO:CD | 0.43 | 2.81 |
| 1:E:14:PHE:CD1 | 1:Q:169:VAL:HG22 | 0.43 | 2.48 |
| 1:H:72:LYS:HE2 | 1:I:45:SER:CA | 0.43 | 2.44 |
| 1:H:151:GLN:NE2 | 1:I:151:GLN:HA | 0.43 | 2.28 |
| 1:I:38:PHE:O | 1:I:40:THR:N | 0.43 | 2.51 |
| 1:J:156:GLU:HB2 | 1:K:131:LEU:HD23 | 0.43 | 1.89 |
| 1:K:12:ARG:O | 1:K:15:PHE:CD2 | 0.43 | 2.71 |
| 1:K:17:PHE:HD2 | 1:O:167:PRO:HD2 | 0.43 | 1.68 |
| 1:M:114:ILE:HG12 | 1:N:120:ARG:HG2 | 0.43 | 1.89 |
| 1:S:15:PHE:CB | 1:S:16:PRO:HD3 | 0.43 | 2.44 |
| 1:S:164:GLU:O | 1:X:139:SER:HB2 | 0.43 | 2.14 |
| 1:V:23:LEU:O | 1:W:163:ARG:HD3 | 0.43 | 2.13 |
| 1:X:138:SER:CB | 1:X:142:VAL:HB | 0.43 | 2.44 |
| 1:B:24:PHE:O | 1:B:24:PHE:HD1 | 0.43 | 1.97 |
| 1:B:170:THR:HG22 | 1:B:171:ALA:H | 0.43 | 1.73 |
| 1:C:69:ARG:HG3 | 1:C:126:ALA:CB | 0.43 | 2.43 |
| 1:D:24:PHE:HA | 1:E:163:ARG:CZ | 0.43 | 2.43 |
| 1:G:124:ILE:HG13 | 1:G:128:VAL:HG23 | 0.43 | 1.90 |
| 1:H:23:LEU:HD23 | 1:W:15:PHE:CD1 | 0.43 | 2.49 |
| 1:I:71:GLU:O | 1:I:71:GLU:HG2 | 0.43 | 2.14 |
| 1:K:12:ARG:O | 1:K:15:PHE:HD2 | 0.43 | 1.96 |
| 1:M:63:THR:OG1 | 1:M:64:GLY:N | 0.43 | 2.52 |
| 1:M:167:PRO:CG | 1:S:16:PRO:HB2 | 0.43 | 2.43 |
| 1:N:125:PRO:HG2 | 1:N:153:SER:HA | 0.43 | 1.89 |
| 1:O:1:MET:HB3 | 1:Q:175:LYS:C | 0.43 | 2.34 |
| 1:R:21:SER:OG | 1:R:22:ARG:N | 0.43 | 2.52 |
| 1:R:85:SER:N | 1:R:86:PRO:HD3 | 0.43 | 2.29 |
| 1:S:151:GLN:HG3 | 1:X:152:VAL:HB | 0.43 | 1.90 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:A:95:GLY:O | 1:A:130:PRO:HD3 | 0.43 | 2.13 |
| 1:H:22:ARG:HG3 | 1:H:23:LEU:HD21 | 0.43 | 1.89 |
| 1:H:150:LYS:NZ | 1:H:151:GLN:HE21 | 0.43 | 2.12 |
| 1:K:73:ASP:O | 1:K:149:ARG:HD3 | 0.43 | 2.14 |
| 1:L:7:HIS:HB2 | 1:L:8:PRO:HD3 | 0.43 | 1.91 |
| 1:M:152:VAL:HB | 1:R:150:LYS:HG2 | 0.43 | 1.90 |
| 1:Q:49:LEU:O | 1:Q:51:PRO:HD3 | 0.43 | 2.14 |
| 1:S:38:PHE:O | 1:S:40:THR:N | 0.43 | 2.51 |
| 1:U:50:ARG:HG2 | 1:U:61:PHE:CE2 | 0.43 | 2.48 |
| 1:U:77:VAL:HB | 1:U:145:VAL:HG23 | 0.43 | 1.89 |
| 1:W:8:PRO:O | 1:W:12:ARG:HG3 | 0.43 | 2.14 |
| 1:A:12:ARG:NH2 | 1:J:87:GLU:HB3 | 0.43 | 2.29 |
| 1:C:18:HIS:HB3 | 1:V:24:PHE:CB | 0.43 | 2.44 |
| 1:D:1:MET:HB2 | 1:O:5:ILE:HD11 | 0.43 | 1.91 |
| 1:D:150:LYS:HG2 | 1:E:152:VAL:HB | 0.43 | 1.91 |
| 1:E:95:GLY:O | 1:E:130:PRO:HD3 | 0.43 | 2.14 |
| 1:F:1:MET:HB2 | 1:I:5:ILE:HD11 | 0.43 | 1.90 |
| 1:I:95:GLY:O | 1:I:130:PRO:HD3 | 0.43 | 2.14 |
| 1:K:161:ILE:O | 1:K:162:THR:HB | 0.43 | 2.14 |
| 1:L:46:PRO:O | 1:L:47:PHE:HB2 | 0.43 | 2.13 |
| 1:M:174:LYS:HB3 | 1:U:175:LYS:OXT | 0.43 | 2.13 |
| 1:O:38:PHE:O | 1:O:40:THR:N | 0.43 | 2.52 |
| 1:T:46:PRO:O | 1:T:47:PHE:HB2 | 0.43 | 2.13 |
| 1:T:72:LYS:HE2 | 1:U:48:TYR:CD2 | 0.43 | 2.48 |
| 1:W:164:GLU:O | 1:W:165:GLU:O | 0.43 | 2.37 |
| 1:W:167:PRO:O | 1:W:168:ALA:HB3 | 0.43 | 2.14 |
| 1:A:16:PRO:CB | 1:K:165:GLU:C | 0.42 | 2.83 |
| 1:C:1:MET:C | 1:E:175:LYS:HB3 | 0.42 | 2.33 |
| 1:C:49:LEU:O | 1:C:51:PRO:HD3 | 0.42 | 2.14 |
| 1:C:124:ILE:HG13 | 1:C:128:VAL:HG23 | 0.42 | 1.90 |
| 1:C:124:ILE:CG2 | 1:D:111:HIS:HB2 | 0.42 | 2.44 |
| 1:H:46:PRO:O | 1:H:47:PHE:HB2 | 0.42 | 2.13 |
| 1:K:63:THR:OG1 | 1:K:65:LEU:HD13 | 0.42 | 2.14 |
| 1:N:72:LYS:HB3 | 1:O:45:SER:N | 0.42 | 2.29 |
| 1:O:128:VAL:HA | 1:O:133:ILE:HG13 | 0.42 | 1.91 |
| 1:P:148:PRO:HG3 | 1:Q:46:PRO:HB3 | 0.42 | 1.89 |
| 1:Q:16:PRO:CG | 1:U:167:PRO:HB2 | 0.42 | 2.43 |
| 1:Q:75:PHE:HB2 | 1:Q:149:ARG:CZ | 0.42 | 2.43 |
| 1:S:95:GLY:O | 1:S:130:PRO:HD3 | 0.42 | 2.13 |
| 1:V:46:PRO:O | 1:V:47:PHE:HB2 | 0.42 | 2.13 |
| 1:A:15:PHE:HB3 | 1:J:23:LEU:CB | 0.42 | 2.40 |
| 1:B:24:PHE:N | 1:I:18:HIS:CD2 | 0.42 | 2.87 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:B:125:PRO:HG2 | 1:B:153:SER:HA | 0.42 | 1.91 |
| 1:D:6:HIS:CE1 | 1:Q:173:PRO:HB3 | 0.42 | 2.49 |
| 1:H:72:LYS:HB3 | 1:I:45:SER:N | 0.42 | 2.29 |
| 1:H:137:LEU:HG | 1:I:164:GLU:OE2 | 0.42 | 2.14 |
| 1:J:137:LEU:HD13 | 1:J:143:LEU:HD23 | 0.42 | 1.90 |
| 1:N:15:PHE:N | 1:N:16:PRO:CD | 0.42 | 2.83 |
| 1:N:77:VAL:HB | 1:N:145:VAL:HG23 | 0.42 | 1.91 |
| 1:O:32:LEU:HB3 | 1:O:49:LEU:HD22 | 0.42 | 1.89 |
| 1:P:72:LYS:CA | 1:Q:46:PRO:HD3 | 0.42 | 2.44 |
| 1:P:138:SER:HA | 1:Q:164:GLU:HB2 | 0.42 | 1.90 |
| 1:Q:16:PRO:CB | 1:U:167:PRO:HD2 | 0.42 | 2.43 |
| 1:R:21:SER:HB2 | 1:S:14:PHE:C | 0.42 | 2.34 |
| 1:T:44:LEU:O | 1:T:45:SER:CB | 0.42 | 2.67 |
| 1:W:132:THR:HG23 | 1:W:133:ILE:HD12 | 0.42 | 1.91 |
| 1:A:111:HIS:HB2 | 1:B:124:ILE:HG23 | 0.42 | 1.89 |
| 1:E:8:PRO:O | 1:E:12:ARG:HG3 | 0.42 | 2.14 |
| 1:E:167:PRO:HG3 | 1:U:16:PRO:N | 0.42 | 2.29 |
| 1:G:42:THR:C | 1:G:44:LEU:H | 0.42 | 2.18 |
| 1:I:128:VAL:HA | 1:I:133:ILE:HG13 | 0.42 | 1.90 |
| 1:O:42:THR:C | 1:O:44:LEU:H | 0.42 | 2.17 |
| 1:Q:14:PHE:C | 1:T:21:SER:HB2 | 0.42 | 2.34 |
| 1:Q:111:HIS:HB2 | 1:R:124:ILE:HG23 | 0.42 | 1.90 |
| 1:Q:127:ASP:HA | 1:Q:149:ARG:CB | 0.42 | 2.43 |
| 1:T:10:ILE:O | 1:T:13:PRO:HD2 | 0.42 | 2.14 |
| 1:T:77:VAL:HB | 1:T:145:VAL:HG23 | 0.42 | 1.91 |
| 1:U:71:GLU:O | 1:U:71:GLU:HG2 | 0.42 | 2.14 |
| 1:W:63:THR:OG1 | 1:W:65:LEU:HD13 | 0.42 | 2.14 |
| 1:W:124:ILE:CG2 | 1:X:111:HIS:HB2 | 0.42 | 2.44 |
| 1:A:7:HIS:HB2 | 1:A:8:PRO:HD3 | 0.42 | 1.91 |
| 1:A:163:ARG:HG3 | 1:O:15:PHE:C | 0.42 | 2.35 |
| 1:C:163:ARG:CZ | 1:I:18:HIS:HB3 | 0.42 | 2.45 |
| 1:D:27:PHE:N | 1:E:163:ARG:CG | 0.42 | 2.82 |
| 1:D:73:ASP:H | 1:E:46:PRO:HD3 | 0.42 | 1.68 |
| 1:H:44:LEU:O | 1:H:45:SER:CB | 0.42 | 2.67 |
| 1:K:124:ILE:CG2 | 1:L:111:HIS:HB2 | 0.42 | 2.45 |
| 1:L:27:PHE:HD2 | 1:M:18:HIS:O | 0.42 | 1.97 |
| 1:L:79:LEU:HD12 | 1:L:143:LEU:HG | 0.42 | 1.90 |
| 1:M:46:PRO:HD3 | 1:R:72:LYS:HB3 | 0.42 | 1.88 |
| 1:P:73:ASP:N | 1:Q:46:PRO:HD3 | 0.42 | 2.29 |
| 1:P:138:SER:C | 1:Q:164:GLU:HB2 | 0.42 | 2.34 |
| 1:R:22:ARG:HH11 | 1:S:12:ARG:HG2 | 0.42 | 1.74 |
| 1:S:78:ASN:HA | 1:S:144:THR:HA | 0.42 | 1.90 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:V:44:LEU:O | 1:V:45:SER:CB | 0.42 | 2.67 |
| 1:W:42:THR:C | 1:W:44:LEU:H | 0.42 | 2.16 |
| 1:X:169:VAL:HG22 | 1:X:170:THR:H | 0.42 | 1.74 |
| 1:A:45:SER:CA | 1:F:72:LYS:HE2 | 0.42 | 2.43 |
| 1:B:84:PHE:HB3 | 1:B:139:SER:O | 0.42 | 2.14 |
| 1:D:152:VAL:HG11 | 1:E:151:GLN:OE1 | 0.42 | 2.14 |
| 1:E:20:PRO:O | 1:E:24:PHE:HB2 | 0.42 | 2.15 |
| 1:E:166:LYS:HG3 | 1:U:54:PHE:CD2 | 0.42 | 2.49 |
| 1:E:167:PRO:O | 1:E:168:ALA:HB3 | 0.42 | 2.15 |
| 1:G:1:MET:CG | 1:I:175:LYS:HB3 | 0.42 | 2.45 |
| 1:G:15:PHE:HD1 | 1:X:23:LEU:H | 0.42 | 1.57 |
| 1:G:166:LYS:NZ | 1:L:139:SER:HB3 | 0.42 | 2.30 |
| 1:G:175:LYS:HD2 | 1:R:2:ASP:OD1 | 0.42 | 2.14 |
| 1:H:29:GLY:CA | 1:I:33:LEU:HD21 | 0.42 | 2.44 |
| 1:J:21:SER:OG | 1:J:22:ARG:N | 0.42 | 2.53 |
| 1:J:44:LEU:O | 1:J:45:SER:CB | 0.42 | 2.67 |
| 1:N:137:LEU:HD23 | 1:O:164:GLU:OE2 | 0.42 | 2.15 |
| 1:Q:22:ARG:HB2 | 1:T:17:PHE:HA | 0.42 | 1.90 |
| 1:W:129:ASP:H | 1:W:133:ILE:HD13 | 0.42 | 1.75 |
| 1:X:129:ASP:O | 1:X:132:THR:HG22 | 0.42 | 2.14 |
| 1:C:54:PHE:CG | 1:W:166:LYS:HG3 | 0.42 | 2.50 |
| 1:D:44:LEU:O | 1:D:45:SER:CB | 0.42 | 2.67 |
| 1:F:7:HIS:HB2 | 1:F:8:PRO:HD3 | 0.42 | 1.92 |
| 1:F:43:SER:O | 1:F:44:LEU:HB2 | 0.42 | 2.14 |
| 1:G:16:PRO:HB2 | 1:S:167:PRO:CG | 0.42 | 2.44 |
| 1:G:50:ARG:HG2 | 1:G:61:PHE:CE2 | 0.42 | 2.49 |
| 1:G:71:GLU:C | 1:G:72:LYS:HD2 | 0.42 | 2.34 |
| 1:P:22:ARG:HG3 | 1:P:23:LEU:CD1 | 0.42 | 2.39 |
| 1:S:151:GLN:HA | 1:X:151:GLN:NE2 | 0.42 | 2.30 |
| 1:S:163:ARG:HB2 | 1:X:23:LEU:HB3 | 0.42 | 1.91 |
| 1:S:165:GLU:CD | 1:X:30:GLU:HB2 | 0.42 | 2.34 |
| 1:W:114:ILE:HG12 | 1:X:120:ARG:HG2 | 0.42 | 1.90 |
| 1:A:46:PRO:HB3 | 1:F:148:PRO:HB3 | 0.42 | 1.92 |
| 1:A:63:THR:OG1 | 1:A:64:GLY:N | 0.42 | 2.52 |
| 1:C:63:THR:OG1 | 1:C:65:LEU:HD13 | 0.42 | 2.15 |
| 1:C:111:HIS:HB2 | 1:D:124:ILE:CG2 | 0.42 | 2.45 |
| 1:E:124:ILE:CG2 | 1:F:111:HIS:HB2 | 0.42 | 2.43 |
| 1:G:1:MET:N | 1:I:175:LYS:HB3 | 0.42 | 2.30 |
| 1:G:167:PRO:HG2 | 1:M:17:PHE:HB2 | 0.42 | 1.92 |
| 1:J:7:HIS:HB2 | 1:J:8:PRO:HD3 | 0.42 | 1.91 |
| 1:M:33:LEU:HD21 | 1:R:29:GLY:HA2 | 0.42 | 1.92 |
| 1:N:14:PHE:O | 1:N:18:HIS:HB2 | 0.42 | 2.15 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:S:163:ARG:HB2 | 1:X:23:LEU:CB | 0.42 | 2.44 |
| 1:W:63:THR:OG1 | 1:W:64:GLY:N | 0.42 | 2.53 |
| 1:X:10:ILE:O | 1:X:13:PRO:HD2 | 0.42 | 2.15 |
| 1:X:166:LYS:HB2 | 1:X:167:PRO:CD | 0.42 | 2.39 |
| 1:B:33:LEU:HA | 1:C:37:LEU:HD13 | 0.42 | 1.90 |
| 1:C:18:HIS:CG | 1:V:24:PHE:HB3 | 0.42 | 2.50 |
| 1:E:49:LEU:O | 1:E:51:PRO:HD3 | 0.42 | 2.14 |
| 1:E:165:GLU:N | 1:U:16:PRO:HB3 | 0.42 | 2.30 |
| 1:G:5:ILE:C | 1:G:8:PRO:HD2 | 0.42 | 2.35 |
| 1:G:151:GLN:HA | 1:L:151:GLN:NE2 | 0.42 | 2.29 |
| 1:G:151:GLN:HG3 | 1:L:152:VAL:HB | 0.42 | 1.90 |
| 1:I:109:ASP:HB2 | 1:I:112:GLY:O | 0.42 | 2.15 |
| 1:N:150:LYS:HG2 | 1:O:152:VAL:N | 0.42 | 2.30 |
| 1:P:85:SER:N | 1:P:86:PRO:HD3 | 0.42 | 2.30 |
| 1:R:44:LEU:O | 1:R:45:SER:CB | 0.42 | 2.68 |
| 1:U:114:ILE:HG12 | 1:V:120:ARG:HG2 | 0.42 | 1.92 |
| 1:W:45:SER:CB | 1:W:48:TYR:HB2 | 0.42 | 2.44 |
| 1:A:5:ILE:C | 1:A:8:PRO:HD2 | 0.42 | 2.35 |
| 1:A:167:PRO:CG | 1:O:17:PHE:N | 0.42 | 2.81 |
| 1:B:72:LYS:HD3 | 1:C:48:TYR:CZ | 0.42 | 2.50 |
| 1:B:138:SER:HB2 | 1:B:142:VAL:HB | 0.42 | 1.92 |
| 1:C:38:PHE:O | 1:C:40:THR:N | 0.42 | 2.53 |
| 1:E:12:ARG:C | 1:E:14:PHE:H | 0.42 | 2.18 |
| 1:E:109:ASP:HB2 | 1:E:112:GLY:O | 0.42 | 2.15 |
| 1:G:38:PHE:O | 1:G:40:THR:N | 0.42 | 2.53 |
| 1:H:19:SER:N | 1:H:20:PRO:CD | 0.42 | 2.83 |
| 1:I:162:THR:HG22 | 1:W:15:PHE:CD2 | 0.42 | 2.49 |
| 1:J:15:PHE:N | 1:J:16:PRO:CD | 0.42 | 2.83 |
| 1:J:77:VAL:HB | 1:J:145:VAL:HG23 | 0.42 | 1.92 |
| 1:K:15:PHE:HE1 | 1:N:23:LEU:HG | 0.42 | 1.73 |
| 1:M:1:MET:O | 1:M:6:HIS:HB2 | 0.42 | 2.15 |
| 1:M:69:ARG:HG3 | 1:M:126:ALA:CB | 0.42 | 2.45 |
| 1:M:73:ASP:O | 1:M:149:ARG:HD3 | 0.42 | 2.15 |
| 1:M:165:GLU:C | 1:S:16:PRO:CB | 0.42 | 2.84 |
| 1:M:167:PRO:HG3 | 1:S:16:PRO:C | 0.42 | 2.35 |
| 1:N:7:HIS:HB2 | 1:N:8:PRO:HD3 | 0.42 | 1.91 |
| 1:Q:13:PRO:HB2 | 1:U:168:ALA:O | 0.42 | 2.15 |
| 1:R:16:PRO:O | 1:S:22:ARG:HD2 | 0.42 | 2.15 |
| 1:T:139:SER:HA | 1:U:164:GLU:HG3 | 0.42 | 1.91 |
| 1:U:63:THR:OG1 | 1:U:64:GLY:N | 0.42 | 2.51 |
| 1:A:46:PRO:HD3 | 1:F:72:LYS:HB3 | 0.42 | 1.91 |
| 1:A:169:VAL:HG23 | 1:O:14:PHE:CG | 0.42 | 2.49 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:B:7:HIS:HB2 | 1:B:8:PRO:HD3 | 0.42 | 1.92 |
| 1:B:16:PRO:O | 1:I:22:ARG:HD2 | 0.42 | 2.15 |
| 1:C:16:PRO:HD3 | 1:W:163:ARG:HA | 0.42 | 1.91 |
| 1:F:10:ILE:O | 1:F:13:PRO:HD2 | 0.42 | 2.15 |
| 1:F:174:LYS:HG2 | 1:F:175:LYS:H | 0.42 | 1.75 |
| 1:G:14:PHE:CB | 1:S:169:VAL:HG23 | 0.42 | 2.44 |
| 1:G:15:PHE:HB2 | 1:S:163:ARG:CB | 0.42 | 2.45 |
| 1:G:131:LEU:CD2 | 1:L:156:GLU:HB2 | 0.42 | 2.45 |
| 1:H:40:THR:O | 1:H:41:SER:HB2 | 0.42 | 2.15 |
| 1:K:18:HIS:NE2 | 1:N:24:PHE:HB2 | 0.42 | 2.30 |
| 1:K:74:ARG:H | 1:K:74:ARG:HD2 | 0.42 | 1.75 |
| 1:K:161:ILE:HG22 | 1:K:162:THR:N | 0.42 | 2.28 |
| 1:Q:16:PRO:HG2 | 1:U:167:PRO:CB | 0.42 | 2.42 |
| 1:S:125:PRO:O | 1:S:151:GLN:HB3 | 0.42 | 2.15 |
| 1:U:124:ILE:HG23 | 1:V:111:HIS:HB2 | 0.42 | 1.92 |
| 1:V:19:SER:N | 1:V:20:PRO:CD | 0.42 | 2.83 |
| 1:V:29:GLY:CA | 1:W:33:LEU:HD21 | 0.42 | 2.45 |
| 1:V:152:VAL:HG11 | 1:W:151:GLN:OE1 | 0.42 | 2.14 |
| 1:W:109:ASP:HB2 | 1:W:112:GLY:O | 0.42 | 2.15 |
| 1:W:167:PRO:HG2 | 1:W:168:ALA:H | 0.42 | 1.75 |
| 1:A:1:MET:O | 1:A:6:HIS:HB2 | 0.41 | 2.15 |
| 1:F:44:LEU:O | 1:F:45:SER:CB | 0.41 | 2.68 |
| 1:H:28:PHE:HB2 | 1:W:19:SER:HB3 | 0.41 | 1.91 |
| 1:I:111:HIS:HB2 | 1:J:124:ILE:CG2 | 0.41 | 2.45 |
| 1:K:114:ILE:HG12 | 1:L:120:ARG:HG2 | 0.41 | 1.91 |
| 1:M:33:LEU:O | 1:M:37:LEU:HG | 0.41 | 2.15 |
| 1:M:44:LEU:HB3 | 1:R:72:LYS:O | 0.41 | 2.14 |
| 1:M:46:PRO:HB3 | 1:R:148:PRO:HB3 | 0.41 | 1.91 |
| 1:M:79:LEU:HD12 | 1:M:143:LEU:HD12 | 0.41 | 1.92 |
| 1:M:167:PRO:HG3 | 1:S:16:PRO:CA | 0.41 | 2.45 |
| 1:Q:5:ILE:HD11 | 1:X:1:MET:HB2 | 0.41 | 1.92 |
| 1:Q:63:THR:OG1 | 1:Q:64:GLY:N | 0.41 | 2.53 |
| 1:R:10:ILE:O | 1:R:13:PRO:HD2 | 0.41 | 2.15 |
| 1:T:148:PRO:HB3 | 1:U:46:PRO:HB3 | 0.41 | 1.91 |
| 1:V:125:PRO:HG2 | 1:V:153:SER:HA | 0.41 | 1.91 |
| 1:A:18:HIS:CD2 | 1:J:21:SER:HB3 | 0.41 | 2.50 |
| 1:A:37:LEU:HD13 | 1:F:33:LEU:HA | 0.41 | 1.92 |
| 1:A:106:GLU:CD | 1:A:107:ARG:HG3 | 0.41 | 2.36 |
| 1:B:29:GLY:CA | 1:C:33:LEU:HD21 | 0.41 | 2.46 |
| 1:C:166:LYS:CB | 1:C:166:LYS:HZ2 | 0.41 | 2.28 |
| 1:E:16:PRO:CG | 1:Q:167:PRO:HB3 | 0.41 | 2.45 |
| 1:E:132:THR:CG2 | 1:E:148:PRO:HD2 | 0.41 | 2.46 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:F:31:HIS:CD2 | 1:O:56:ARG:HH12 | 0.41 | 2.33 |
| 1:G:5:ILE:HD11 | 1:V:1:MET:HB2 | 0.41 | 1.92 |
| 1:I:63:THR:OG1 | 1:I:64:GLY:N | 0.41 | 2.53 |
| 1:I:106:GLU:CD | 1:I:107:ARG:HG3 | 0.41 | 2.36 |
| 1:I:125:PRO:O | 1:I:151:GLN:HB3 | 0.41 | 2.15 |
| 1:I:170:THR:HG22 | 1:I:171:ALA:H | 0.41 | 1.74 |
| 1:K:42:THR:C | 1:K:44:LEU:H | 0.41 | 2.18 |
| 1:L:15:PHE:N | 1:L:16:PRO:CD | 0.41 | 2.83 |
| 1:O:106:GLU:CD | 1:O:107:ARG:HG3 | 0.41 | 2.36 |
| 1:P:44:LEU:O | 1:P:45:SER:CB | 0.41 | 2.67 |
| 1:S:72:LYS:HD2 | 1:S:127:ASP:OD2 | 0.41 | 2.15 |
| 1:T:170:THR:HG22 | 1:T:171:ALA:N | 0.41 | 2.30 |
| 1:U:20:PRO:O | 1:U:24:PHE:HB2 | 0.41 | 2.15 |
| 1:U:33:LEU:O | 1:U:37:LEU:HG | 0.41 | 2.15 |
| 1:V:79:LEU:CD1 | 1:V:100:VAL:HB | 0.41 | 2.34 |
| 1:A:50:ARG:HG2 | 1:A:61:PHE:CE2 | 0.41 | 2.50 |
| 1:C:20:PRO:O | 1:C:24:PHE:HB2 | 0.41 | 2.15 |
| 1:D:27:PHE:H | 1:E:163:ARG:CG | 0.41 | 2.29 |
| 1:F:31:HIS:HD2 | 1:O:56:ARG:HH12 | 0.41 | 1.56 |
| 1:G:163:ARG:CD | 1:L:23:LEU:O | 0.41 | 2.67 |
| 1:J:99:GLU:HG2 | 1:J:121:LYS:HA | 0.41 | 1.91 |
| 1:K:16:PRO:O | 1:O:167:PRO:HD3 | 0.41 | 2.15 |
| 1:K:69:ARG:HG3 | 1:K:126:ALA:CB | 0.41 | 2.45 |
| 1:K:70:LEU:HD12 | 1:K:71:GLU:OE1 | 0.41 | 2.15 |
| 1:L:44:LEU:O | 1:L:45:SER:CB | 0.41 | 2.68 |
| 1:M:109:ASP:HB2 | 1:M:112:GLY:O | 0.41 | 2.15 |
| 1:O:170:THR:HG22 | 1:O:171:ALA:H | 0.41 | 1.75 |
| 1:S:1:MET:N | 1:U:175:LYS:HG2 | 0.41 | 2.29 |
| 1:V:10:ILE:O | 1:V:13:PRO:HD2 | 0.41 | 2.14 |
| 1:W:95:GLY:O | 1:W:130:PRO:HD3 | 0.41 | 2.14 |
| 1:W:164:GLU:O | 1:W:165:GLU:C | 0.41 | 2.59 |
| 1:X:77:VAL:HB | 1:X:145:VAL:HG23 | 0.41 | 1.93 |
| 1:A:164:GLU:HB2 | 1:F:138:SER:HA | 0.41 | 1.91 |
| 1:B:39:PRO:HB3 | 1:B:43:SER:O | 0.41 | 2.16 |
| 1:C:106:GLU:CD | 1:C:107:ARG:HG3 | 0.41 | 2.36 |
| 1:C:114:ILE:HG12 | 1:D:120:ARG:HE | 0.41 | 1.76 |
| 1:D:7:HIS:HB2 | 1:D:8:PRO:HD3 | 0.41 | 1.91 |
| 1:D:14:PHE:O | 1:D:18:HIS:HB2 | 0.41 | 2.15 |
| 1:D:23:LEU:HB2 | 1:U:15:PHE:CE1 | 0.41 | 2.51 |
| 1:D:136:SER:OG | 1:D:144:THR:HB | 0.41 | 2.16 |
| 1:E:16:PRO:C | 1:Q:167:PRO:HG3 | 0.41 | 2.35 |
| 1:F:27:PHE:HD2 | 1:O:18:HIS:O | 0.41 | 1.99 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:F:80:ASP:H | 1:F:120:ARG:HD2 | 0.41 | 1.76 |
| 1:F:170:THR:HG22 | 1:F:171:ALA:H | 0.41 | 1.74 |
| 1:F:170:THR:HG22 | 1:F:171:ALA:N | 0.41 | 2.31 |
| 1:G:15:PHE:C | 1:G:17:PHE:H | 0.41 | 2.18 |
| 1:G:37:LEU:HD13 | 1:L:33:LEU:HA | 0.41 | 1.92 |
| 1:G:63:THR:OG1 | 1:G:65:LEU:HD13 | 0.41 | 2.16 |
| 1:G:106:GLU:CD | 1:G:107:ARG:HG3 | 0.41 | 2.36 |
| 1:J:27:PHE:CD1 | 1:K:165:GLU:HG3 | 0.41 | 2.51 |
| 1:K:95:GLY:O | 1:K:130:PRO:HD3 | 0.41 | 2.15 |
| 1:P:99:GLU:HG2 | 1:P:121:LYS:HA | 0.41 | 1.91 |
| 1:P:134:THR:HG22 | 1:Q:158:THR:O | 0.41 | 2.15 |
| 1:Q:15:PHE:CD2 | 1:U:162:THR:HB | 0.41 | 2.50 |
| 1:Q:38:PHE:CD1 | 1:Q:39:PRO:HD2 | 0.41 | 2.51 |
| 1:Q:131:LEU:O | 1:Q:131:LEU:HD13 | 0.41 | 2.14 |
| 1:S:42:THR:C | 1:S:44:LEU:H | 0.41 | 2.19 |
| 1:U:128:VAL:HA | 1:U:133:ILE:HG12 | 0.41 | 1.91 |
| 1:W:32:LEU:HB3 | 1:W:49:LEU:HD22 | 0.41 | 1.92 |
| 1:W:70:LEU:HD12 | 1:W:71:GLU:OE1 | 0.41 | 2.15 |
| 1:W:106:GLU:CD | 1:W:107:ARG:HG3 | 0.41 | 2.36 |
| 1:W:125:PRO:O | 1:W:151:GLN:HB3 | 0.41 | 2.15 |
| 1:A:11:ARG:HG2 | 1:J:20:PRO:O | 0.41 | 2.16 |
| 1:A:151:GLN:HG3 | 1:F:152:VAL:HB | 0.41 | 1.92 |
| 1:B:170:THR:HG22 | 1:B:171:ALA:N | 0.41 | 2.31 |
| 1:C:14:PHE:CB | 1:W:169:VAL:HG23 | 0.41 | 2.45 |
| 1:C:63:THR:OG1 | 1:C:64:GLY:N | 0.41 | 2.53 |
| 1:E:12:ARG:HA | 1:E:15:PHE:CE2 | 0.41 | 2.50 |
| 1:E:40:THR:O | 1:E:42:THR:HG23 | 0.41 | 2.16 |
| 1:F:165:GLU:HG3 | 1:F:165:GLU:O | 0.41 | 2.16 |
| 1:G:33:LEU:HD21 | 1:L:29:GLY:CA | 0.41 | 2.46 |
| 1:G:111:HIS:HB2 | 1:H:124:ILE:HG23 | 0.41 | 1.92 |
| 1:G:169:VAL:HB | 1:M:13:PRO:CB | 0.41 | 2.44 |
| 1:I:2:ASP:HA | 1:K:175:LYS:HD3 | 0.41 | 1.93 |
| 1:J:152:VAL:HG11 | 1:K:151:GLN:OE1 | 0.41 | 2.15 |
| 1:K:106:GLU:CD | 1:K:107:ARG:HG3 | 0.41 | 2.36 |
| 1:M:1:MET:O | 1:M:2:ASP:C | 0.41 | 2.59 |
| 1:M:45:SER:CA | 1:R:72:LYS:HE3 | 0.41 | 2.45 |
| 1:M:106:GLU:CD | 1:M:107:ARG:HG3 | 0.41 | 2.36 |
| 1:Q:125:PRO:O | 1:Q:151:GLN:HB3 | 0.41 | 2.15 |
| 1:R:137:LEU:HD13 | 1:R:143:LEU:HD23 | 0.41 | 1.92 |
| 1:U:5:ILE:C | 1:U:8:PRO:HD2 | 0.41 | 2.35 |
| 1:U:15:PHE:CB | 1:U:16:PRO:CD | 0.41 | 2.95 |
| 1:U:73:ASP:O | 1:U:149:ARG:HD3 | 0.41 | 2.15 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:U:109:ASP:HB2 | 1:U:112:GLY:O | 0.41 | 2.16 |
| 1:V:131:LEU:HA | 1:W:156:GLU:HB2 | 0.41 | 1.92 |
| 1:V:151:GLN:NE2 | 1:W:151:GLN:HA | 0.41 | 2.31 |
| 1:A:13:PRO:O | 1:K:168:ALA:N | 0.41 | 2.53 |
| 1:C:13:PRO:CB | 1:W:169:VAL:HG22 | 0.41 | 2.46 |
| 1:D:106:GLU:CD | 1:D:107:ARG:HG3 | 0.41 | 2.36 |
| 1:H:10:ILE:O | 1:H:13:PRO:HD2 | 0.41 | 2.15 |
| 1:H:169:VAL:HG12 | 1:H:170:THR:N | 0.41 | 2.31 |
| 1:K:15:PHE:CD1 | 1:O:163:ARG:N | 0.41 | 2.89 |
| 1:L:10:ILE:O | 1:L:13:PRO:HD2 | 0.41 | 2.15 |
| 1:L:23:LEU:HD23 | 1:M:15:PHE:CE2 | 0.41 | 2.51 |
| 1:L:81:VAL:HG12 | 1:L:83:HIS:O | 0.41 | 2.15 |
| 1:N:29:GLY:HA2 | 1:O:33:LEU:HD21 | 0.41 | 1.91 |
| 1:N:106:GLU:CD | 1:N:107:ARG:HG3 | 0.41 | 2.36 |
| 1:N:169:VAL:HG12 | 1:N:170:THR:N | 0.41 | 2.30 |
| 1:P:23:LEU:O | 1:Q:163:ARG:CD | 0.41 | 2.69 |
| 1:Q:127:ASP:HB3 | 1:Q:149:ARG:CZ | 0.41 | 2.46 |
| 1:R:44:LEU:O | 1:R:45:SER:HB3 | 0.41 | 2.16 |
| 1:S:1:MET:H3 | 1:U:175:LYS:N | 0.41 | 2.13 |
| 1:S:69:ARG:HG3 | 1:S:70:LEU:N | 0.41 | 2.30 |
| 1:V:27:PHE:HD1 | 1:W:165:GLU:HG3 | 0.41 | 1.74 |
| 1:W:50:ARG:HG2 | 1:W:61:PHE:CE2 | 0.41 | 2.51 |
| 1:A:15:PHE:CG | 1:J:23:LEU:HB2 | 0.41 | 2.49 |
| 1:C:19:SER:CB | 1:V:28:PHE:HB2 | 0.41 | 2.46 |
| 1:E:71:GLU:O | 1:E:71:GLU:HG2 | 0.41 | 2.15 |
| 1:E:80:ASP:N | 1:E:120:ARG:HD2 | 0.41 | 2.31 |
| 1:F:15:PHE:N | 1:F:16:PRO:CD | 0.41 | 2.84 |
| 1:F:40:THR:O | 1:F:41:SER:HB2 | 0.41 | 2.15 |
| 1:J:89:LEU:HD21 | 1:J:137:LEU:HD21 | 0.41 | 1.92 |
| 1:J:150:LYS:HG2 | 1:K:152:VAL:HB | 0.41 | 1.92 |
| 1:K:17:PHE:CE2 | 1:O:168:ALA:HB2 | 0.41 | 2.51 |
| 1:L:85:SER:N | 1:L:86:PRO:HD3 | 0.41 | 2.29 |
| 1:L:170:THR:HG22 | 1:L:171:ALA:N | 0.41 | 2.31 |
| 1:N:26:GLN:NE2 | 1:N:136:SER:HA | 0.41 | 2.30 |
| 1:P:27:PHE:H | 1:Q:163:ARG:HG2 | 0.41 | 1.73 |
| 1:T:22:ARG:O | 1:T:23:LEU:HD23 | 0.41 | 2.15 |
| 1:V:26:GLN:HB3 | 1:W:163:ARG:CG | 0.41 | 2.45 |
| 1:A:44:LEU:O | 1:F:72:LYS:CE | 0.41 | 2.69 |
| 1:B:17:PHE:HA | 1:I:22:ARG:HB2 | 0.41 | 1.93 |
| 1:C:15:PHE:CB | 1:C:16:PRO:CD | 0.41 | 2.76 |
| 1:D:80:ASP:H | 1:D:120:ARG:HD2 | 0.41 | 1.76 |
| 1:F:106:GLU:CD | 1:F:107:ARG:HG3 | 0.41 | 2.36 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:H:31:HIS:CD2 | 1:W:56:ARG:HH12 | 0.41 | 2.33 |
| 1:H:79:LEU:CD1 | 1:H:100:VAL:HB | 0.41 | 2.36 |
| 1:I:169:VAL:HG11 | 1:W:10:ILE:HA | 0.41 | 1.92 |
| 1:J:40:THR:O | 1:J:41:SER:HB2 | 0.41 | 2.15 |
| 1:M:165:GLU:C | 1:M:166:LYS:HD3 | 0.41 | 2.36 |
| 1:O:111:HIS:HB2 | 1:P:124:ILE:CG2 | 0.41 | 2.45 |
| 1:P:27:PHE:CE1 | 1:Q:165:GLU:HG3 | 0.41 | 2.51 |
| 1:R:124:ILE:HG13 | 1:R:128:VAL:HG23 | 0.41 | 1.92 |
| 1:R:129:ASP:O | 1:R:132:THR:HG22 | 0.41 | 2.16 |
| 1:T:15:PHE:N | 1:T:16:PRO:CD | 0.41 | 2.84 |
| 1:T:40:THR:O | 1:T:41:SER:HB2 | 0.41 | 2.16 |
| 1:T:174:LYS:HG2 | 1:T:175:LYS:H | 0.41 | 1.75 |
| 1:W:69:ARG:HG3 | 1:W:126:ALA:CB | 0.41 | 2.46 |
| 1:W:165:GLU:C | 1:W:166:LYS:HD3 | 0.41 | 2.35 |
| 1:A:1:MET:O | 1:A:2:ASP:C | 0.41 | 2.59 |
| 1:A:166:LYS:HG2 | 1:O:54:PHE:CG | 0.41 | 2.50 |
| 1:C:13:PRO:HD2 | 1:W:169:VAL:HG21 | 0.41 | 1.93 |
| 1:C:32:LEU:HB3 | 1:C:49:LEU:HD22 | 0.41 | 1.92 |
| 1:D:21:SER:CB | 1:U:15:PHE:HA | 0.41 | 2.46 |
| 1:D:28:PHE:HB2 | 1:U:19:SER:OG | 0.41 | 2.16 |
| 1:D:74:ARG:NE | 1:E:36:ASP:HA | 0.41 | 2.31 |
| 1:D:169:VAL:HG12 | 1:D:170:THR:N | 0.41 | 2.31 |
| 1:D:170:THR:HG22 | 1:D:171:ALA:N | 0.41 | 2.31 |
| 1:E:111:HIS:HB2 | 1:F:124:ILE:HG23 | 0.41 | 1.93 |
| 1:G:13:PRO:HD2 | 1:S:169:VAL:CG2 | 0.41 | 2.46 |
| 1:G:15:PHE:HD2 | 1:G:16:PRO:HD3 | 0.41 | 1.76 |
| 1:G:22:ARG:HD3 | 1:G:23:LEU:HB2 | 0.41 | 1.93 |
| 1:G:32:LEU:HB3 | 1:G:49:LEU:HD22 | 0.41 | 1.93 |
| 1:G:33:LEU:HD21 | 1:L:29:GLY:HA2 | 0.41 | 1.91 |
| 1:G:85:SER:N | 1:G:86:PRO:CD | 0.41 | 2.84 |
| 1:H:7:HIS:HB2 | 1:H:8:PRO:HD3 | 0.41 | 1.91 |
| 1:H:152:VAL:HB | 1:I:151:GLN:HG3 | 0.41 | 1.92 |
| 1:H:156:GLU:HB2 | 1:I:131:LEU:HD23 | 0.41 | 1.92 |
| 1:I:164:GLU:O | 1:I:165:GLU:O | 0.41 | 2.38 |
| 1:J:29:GLY:CA | 1:K:33:LEU:HD21 | 0.41 | 2.46 |
| 1:J:157:ARG:HG3 | 1:J:158:THR:H | 0.41 | 1.75 |
| 1:N:39:PRO:HB3 | 1:N:43:SER:O | 0.41 | 2.16 |
| 1:O:124:ILE:HG13 | 1:O:128:VAL:HG23 | 0.41 | 1.92 |
| 1:P:6:HIS:O | 1:P:10:ILE:HG13 | 0.41 | 2.16 |
| 1:Q:12:ARG:HB3 | 1:Q:13:PRO:CD | 0.41 | 2.38 |
| 1:Q:106:GLU:CD | 1:Q:107:ARG:HG3 | 0.41 | 2.36 |
| 1:Q:111:HIS:HB2 | 1:R:124:ILE:CG2 | 0.41 | 2.46 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:R:99:GLU:HG2 | 1:R:121:LYS:HA | 0.41 | 1.93 |
| 1:S:156:GLU:HB2 | 1:X:131:LEU:HA | 0.41 | 1.92 |
| 1:T:106:GLU:CD | 1:T:107:ARG:HG3 | 0.41 | 2.36 |
| 1:T:125:PRO:HG2 | 1:T:153:SER:HA | 0.41 | 1.92 |
| 1:U:32:LEU:HB3 | 1:U:49:LEU:HD22 | 0.41 | 1.92 |
| 1:V:6:HIS:O | 1:V:10:ILE:HG13 | 0.41 | 2.16 |
| 1:V:15:PHE:N | 1:V:16:PRO:CD | 0.41 | 2.83 |
| 1:V:77:VAL:HB | 1:V:145:VAL:HG23 | 0.41 | 1.93 |
| 1:V:174:LYS:HG2 | 1:V:175:LYS:H | 0.41 | 1.75 |
| 1:W:169:VAL:HG12 | 1:W:170:THR:H | 0.41 | 1.76 |
| 1:X:6:HIS:O | 1:X:10:ILE:HG13 | 0.41 | 2.16 |
| 1:A:12:ARG:CB | 1:A:13:PRO:HD3 | 0.41 | 2.45 |
| 1:A:167:PRO:CG | 1:O:16:PRO:HB2 | 0.41 | 2.45 |
| 1:B:23:LEU:HG | 1:I:15:PHE:CE1 | 0.41 | 2.51 |
| 1:B:24:PHE:HD2 | 1:I:18:HIS:CE1 | 0.41 | 2.34 |
| 1:B:72:LYS:HB3 | 1:C:46:PRO:HD3 | 0.41 | 1.93 |
| 1:B:99:GLU:HG2 | 1:B:121:LYS:HA | 0.41 | 1.93 |
| 1:B:139:SER:CB | 1:C:166:LYS:HB3 | 0.41 | 2.46 |
| 1:E:106:GLU:CD | 1:E:107:ARG:HG3 | 0.41 | 2.36 |
| 1:E:167:PRO:HD3 | 1:U:16:PRO:C | 0.41 | 2.36 |
| 1:G:7:HIS:HB2 | 1:G:8:PRO:HD3 | 0.41 | 1.92 |
| 1:G:46:PRO:HD3 | 1:L:72:LYS:HA | 0.41 | 1.93 |
| 1:G:48:TYR:CE1 | 1:L:72:LYS:HD3 | 0.41 | 2.51 |
| 1:G:124:ILE:HB | 1:G:127:ASP:HB2 | 0.41 | 1.93 |
| 1:G:128:VAL:HA | 1:G:133:ILE:HG13 | 0.41 | 1.91 |
| 1:G:164:GLU:HB2 | 1:L:138:SER:CA | 0.41 | 2.46 |
| 1:I:143:LEU:HD13 | 1:I:144:THR:H | 0.41 | 1.75 |
| 1:J:151:GLN:O | 1:J:152:VAL:HB | 0.41 | 2.16 |
| 1:K:17:PHE:HB2 | 1:O:167:PRO:CD | 0.41 | 2.46 |
| 1:K:124:ILE:HG13 | 1:K:128:VAL:HG23 | 0.41 | 1.92 |
| 1:L:22:ARG:C | 1:L:23:LEU:HD22 | 0.41 | 2.36 |
| 1:M:163:ARG:CD | 1:R:27:PHE:H | 0.41 | 2.28 |
| 1:M:164:GLU:O | 1:R:139:SER:HB2 | 0.41 | 2.16 |
| 1:M:167:PRO:HB3 | 1:S:16:PRO:CG | 0.41 | 2.46 |
| 1:R:6:HIS:O | 1:R:10:ILE:HG13 | 0.41 | 2.16 |
| 1:V:169:VAL:HG12 | 1:V:170:THR:N | 0.41 | 2.31 |
| 1:A:16:PRO:HB2 | 1:K:167:PRO:N | 0.40 | 2.31 |
| 1:B:80:ASP:H | 1:B:120:ARG:HD2 | 0.40 | 1.75 |
| 1:C:2:ASP:HA | 1:E:175:LYS:HD3 | 0.40 | 1.93 |
| 1:E:79:LEU:HD12 | 1:E:143:LEU:HD12 | 0.40 | 1.93 |
| 1:E:85:SER:N | 1:E:86:PRO:CD | 0.40 | 2.84 |
| 1:H:15:PHE:N | 1:H:16:PRO:CD | 0.40 | 2.83 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:H:170:THR:HG22 | 1:H:171:ALA:N | 0.40 | 2.31 |
| 1:I:167:PRO:CG | 1:W:16:PRO:HB2 | 0.40 | 2.47 |
| 1:J:151:GLN:NE2 | 1:K:151:GLN:HA | 0.40 | 2.31 |
| 1:K:15:PHE:HA | 1:N:21:SER:OG | 0.40 | 2.16 |
| 1:L:6:HIS:O | 1:L:10:ILE:HG13 | 0.40 | 2.16 |
| 1:L:26:GLN:HE22 | 1:L:137:LEU:H | 0.40 | 1.59 |
| 1:P:40:THR:O | 1:P:41:SER:HB2 | 0.40 | 2.15 |
| 1:P:170:THR:HG22 | 1:P:171:ALA:N | 0.40 | 2.31 |
| 1:R:170:THR:HG22 | 1:R:171:ALA:N | 0.40 | 2.31 |
| 1:S:44:LEU:C | 1:X:72:LYS:HB3 | 0.40 | 2.36 |
| 1:S:124:ILE:HG13 | 1:S:128:VAL:HG23 | 0.40 | 1.91 |
| 1:S:152:VAL:HG23 | 1:X:150:LYS:HE3 | 0.40 | 1.93 |
| 1:U:106:GLU:CD | 1:U:107:ARG:HG3 | 0.40 | 2.36 |
| 1:W:166:LYS:N | 1:W:167:PRO:HD3 | 0.40 | 2.31 |
| 1:X:43:SER:O | 1:X:44:LEU:HB2 | 0.40 | 2.16 |
| 1:X:106:GLU:CD | 1:X:107:ARG:HG3 | 0.40 | 2.36 |
| 1:C:18:HIS:ND1 | 1:C:20:PRO:HD3 | 0.40 | 2.31 |
| 1:D:6:HIS:O | 1:D:10:ILE:HG13 | 0.40 | 2.16 |
| 1:E:11:ARG:HG2 | 1:P:20:PRO:O | 0.40 | 2.16 |
| 1:E:114:ILE:HG12 | 1:F:120:ARG:HG2 | 0.40 | 1.92 |
| 1:G:15:PHE:O | 1:G:17:PHE:N | 0.40 | 2.54 |
| 1:G:45:SER:O | 1:L:74:ARG:HG2 | 0.40 | 2.16 |
| 1:G:163:ARG:HB2 | 1:L:23:LEU:HB3 | 0.40 | 1.92 |
| 1:H:6:HIS:O | 1:H:10:ILE:HG13 | 0.40 | 2.16 |
| 1:H:72:LYS:CE | 1:I:44:LEU:O | 0.40 | 2.69 |
| 1:I:42:THR:C | 1:I:44:LEU:H | 0.40 | 2.20 |
| 1:L:166:LYS:CB | 1:L:167:PRO:HD3 | 0.40 | 2.44 |
| 1:M:22:ARG:HD3 | 1:M:23:LEU:HB2 | 0.40 | 1.92 |
| 1:R:106:GLU:CD | 1:R:107:ARG:HG3 | 0.40 | 2.36 |
| 1:R:137:LEU:HD13 | 1:R:143:LEU:CD2 | 0.40 | 2.46 |
| 1:S:106:GLU:CD | 1:S:107:ARG:HG3 | 0.40 | 2.36 |
| 1:T:174:LYS:HG2 | 1:T:175:LYS:N | 0.40 | 2.31 |
| 1:U:7:HIS:HB2 | 1:U:8:PRO:HD3 | 0.40 | 1.92 |
| 1:V:40:THR:O | 1:V:41:SER:HB2 | 0.40 | 2.16 |
| 1:V:85:SER:N | 1:V:86:PRO:CD | 0.40 | 2.84 |
| 1:W:10:ILE:O | 1:W:10:ILE:HG22 | 0.40 | 2.16 |
| 1:W:75:PHE:HB2 | 1:W:149:ARG:CZ | 0.40 | 2.46 |
| 1:X:95:GLY:O | 1:X:130:PRO:HD3 | 0.40 | 2.16 |
| 1:X:174:LYS:HG2 | 1:X:175:LYS:H | 0.40 | 1.76 |
| 1:A:114:ILE:HG12 | 1:B:120:ARG:HG2 | 0.40 | 1.94 |
| 1:B:27:PHE:HD2 | 1:I:18:HIS:O | 0.40 | 1.99 |
| 1:B:72:LYS:HD3 | 1:C:48:TYR:CE1 | 0.40 | 2.51 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|------------------|------------------|----------|-------------|
| 1:C:18:HIS:CG | 1:C:19:SER:H | 0.40 | 2.34 |
| 1:C:171:ALA:HB2 | 1:I:10:ILE:HD13 | 0.40 | 1.94 |
| 1:D:135:SER:OG | 1:D:143:LEU:HD11 | 0.40 | 2.17 |
| 1:E:169:VAL:CG2 | 1:U:13:PRO:HD2 | 0.40 | 2.46 |
| 1:H:174:LYS:HG2 | 1:H:175:LYS:H | 0.40 | 1.75 |
| 1:I:85:SER:N | 1:I:86:PRO:CD | 0.40 | 2.84 |
| 1:I:164:GLU:N | 1:W:16:PRO:HG3 | 0.40 | 2.32 |
| 1:J:27:PHE:H | 1:K:163:ARG:CZ | 0.40 | 2.28 |
| 1:O:125:PRO:O | 1:O:151:GLN:HG2 | 0.40 | 2.15 |
| 1:S:162:THR:OG1 | 1:X:23:LEU:HG | 0.40 | 2.17 |
| 1:T:131:LEU:HA | 1:U:156:GLU:HB2 | 0.40 | 1.94 |
| 1:U:161:ILE:HG22 | 1:U:162:THR:N | 0.40 | 2.27 |
| 1:V:106:GLU:CD | 1:V:107:ARG:HG3 | 0.40 | 2.36 |
| 1:X:40:THR:O | 1:X:41:SER:HB2 | 0.40 | 2.15 |
| 1:A:174:LYS:HB3 | 1:Q:174:LYS:HG3 | 0.40 | 1.94 |
| 1:B:24:PHE:O | 1:B:24:PHE:CD1 | 0.40 | 2.74 |
| 1:C:132:THR:CG2 | 1:C:148:PRO:HD2 | 0.40 | 2.46 |
| 1:D:148:PRO:HD3 | 1:E:47:PHE:CE2 | 0.40 | 2.51 |
| 1:E:166:LYS:HG3 | 1:U:54:PHE:CG | 0.40 | 2.51 |
| 1:E:167:PRO:HB3 | 1:U:16:PRO:CG | 0.40 | 2.47 |
| 1:G:15:PHE:HB3 | 1:X:23:LEU:CB | 0.40 | 2.41 |
| 1:G:56:ARG:HH12 | 1:X:31:HIS:HD2 | 0.40 | 1.58 |
| 1:G:165:GLU:CA | 1:M:16:PRO:HB3 | 0.40 | 2.47 |
| 1:G:167:PRO:HG2 | 1:G:168:ALA:H | 0.40 | 1.75 |
| 1:H:106:GLU:CD | 1:H:107:ARG:HG3 | 0.40 | 2.36 |
| 1:I:63:THR:OG1 | 1:I:65:LEU:HD13 | 0.40 | 2.16 |
| 1:K:85:SER:N | 1:K:86:PRO:CD | 0.40 | 2.84 |
| 1:M:48:TYR:CZ | 1:R:72:LYS:HD2 | 0.40 | 2.51 |
| 1:M:155:PRO:HA | 1:R:130:PRO:HB2 | 0.40 | 1.93 |
| 1:N:95:GLY:CA | 1:N:130:PRO:HG3 | 0.40 | 2.47 |
| 1:S:109:ASP:HB2 | 1:S:112:GLY:O | 0.40 | 2.16 |
| 1:S:175:LYS:OXT | 1:W:1:MET:HB3 | 0.40 | 2.17 |
| 1:U:78:ASN:OD1 | 1:U:144:THR:HG23 | 0.40 | 2.17 |
| 1:V:170:THR:HG22 | 1:V:171:ALA:N | 0.40 | 2.31 |
| 1:A:63:THR:OG1 | 1:A:65:LEU:HD13 | 0.40 | 2.17 |
| 1:B:106:GLU:CD | 1:B:107:ARG:HG3 | 0.40 | 2.36 |
| 1:C:73:ASP:O | 1:C:74:ARG:C | 0.40 | 2.60 |
| 1:C:85:SER:N | 1:C:86:PRO:CD | 0.40 | 2.85 |
| 1:G:131:LEU:HD23 | 1:L:156:GLU:HB2 | 0.40 | 1.93 |
| 1:N:154:GLY:HA3 | 1:O:131:LEU:HD11 | 0.40 | 1.94 |
| 1:P:137:LEU:HG | 1:P:138:SER:N | 0.40 | 2.32 |
| 1:P:138:SER:CA | 1:Q:164:GLU:HB2 | 0.40 | 2.46 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) |
|-----------------|------------------|----------|-------------|
| 1:Q:42:THR:HG22 | 1:Q:43:SER:H | 0.40 | 1.77 |
| 1:R:85:SER:N | 1:R:86:PRO:CD | 0.40 | 2.85 |
| 1:S:111:HIS:HB2 | 1:T:124:ILE:HG23 | 0.40 | 1.93 |
| 1:V:19:SER:HB3 | 1:V:20:PRO:HD3 | 0.40 | 1.92 |

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 | 173/175 (99%) | 115 (66%) | 45 (26%) | 13 (8%) | 2 | 15 |
| 1 | B | 173/175 (99%) | 122 (71%) | 36 (21%) | 15 (9%) | 1 | 12 |
| 1 | C | 173/175 (99%) | 119 (69%) | 36 (21%) | 18 (10%) | 1 | 9 |
| 1 | D | 173/175 (99%) | 121 (70%) | 31 (18%) | 21 (12%) | 1 | 7 |
| 1 | E | 173/175 (99%) | 120 (69%) | 40 (23%) | 13 (8%) | 2 | 15 |
| 1 | F | 173/175 (99%) | 121 (70%) | 36 (21%) | 16 (9%) | 1 | 11 |
| 1 | G | 173/175 (99%) | 115 (66%) | 44 (25%) | 14 (8%) | 2 | 14 |
| 1 | H | 173/175 (99%) | 118 (68%) | 39 (23%) | 16 (9%) | 1 | 11 |
| 1 | I | 173/175 (99%) | 120 (69%) | 35 (20%) | 18 (10%) | 1 | 9 |
| 1 | J | 173/175 (99%) | 124 (72%) | 32 (18%) | 17 (10%) | 1 | 10 |
| 1 | K | 173/175 (99%) | 117 (68%) | 38 (22%) | 18 (10%) | 1 | 9 |
| 1 | L | 173/175 (99%) | 120 (69%) | 35 (20%) | 18 (10%) | 1 | 9 |
| 1 | M | 173/175 (99%) | 116 (67%) | 42 (24%) | 15 (9%) | 1 | 12 |
| 1 | N | 173/175 (99%) | 120 (69%) | 37 (21%) | 16 (9%) | 1 | 11 |
| 1 | O | 173/175 (99%) | 119 (69%) | 32 (18%) | 22 (13%) | 1 | 6 |
| 1 | P | 173/175 (99%) | 120 (69%) | 32 (18%) | 21 (12%) | 1 | 7 |
| 1 | Q | 173/175 (99%) | 116 (67%) | 42 (24%) | 15 (9%) | 1 | 12 |
| 1 | R | 173/175 (99%) | 121 (70%) | 36 (21%) | 16 (9%) | 1 | 11 |
| 1 | S | 173/175 (99%) | 122 (71%) | 37 (21%) | 14 (8%) | 2 | 14 |
| 1 | T | 173/175 (99%) | 119 (69%) | 36 (21%) | 18 (10%) | 1 | 9 |

Continued on next page...

Continued from previous page...

| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles | |
|-----|-------|-----------------|------------|-----------|-----------|-------------|----|
| 1 | U | 173/175 (99%) | 116 (67%) | 41 (24%) | 16 (9%) | 1 | 11 |
| 1 | V | 173/175 (99%) | 118 (68%) | 39 (23%) | 16 (9%) | 1 | 11 |
| 1 | W | 173/175 (99%) | 117 (68%) | 42 (24%) | 14 (8%) | 2 | 14 |
| 1 | X | 173/175 (99%) | 120 (69%) | 34 (20%) | 19 (11%) | 1 | 8 |
| All | All | 4152/4200 (99%) | 2856 (69%) | 897 (22%) | 399 (10%) | 1 | 10 |

All 399 Ramachandran outliers are listed below. They are sorted by the frequency of occurrence in the ensemble.

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | A | 2 | ASP |
| 1 | A | 18 | HIS |
| 1 | A | 21 | SER |
| 1 | A | 39 | PRO |
| 1 | A | 41 | SER |
| 1 | A | 47 | PHE |
| 1 | A | 70 | LEU |
| 1 | A | 74 | ARG |
| 1 | A | 148 | PRO |
| 1 | A | 163 | ARG |
| 1 | A | 165 | GLU |
| 1 | A | 167 | PRO |
| 1 | A | 168 | ALA |
| 1 | B | 19 | SER |
| 1 | B | 20 | PRO |
| 1 | B | 39 | PRO |
| 1 | B | 45 | SER |
| 1 | B | 46 | PRO |
| 1 | B | 47 | PHE |
| 1 | B | 70 | LEU |
| 1 | B | 110 | GLU |
| 1 | B | 132 | THR |
| 1 | B | 148 | PRO |
| 1 | B | 152 | VAL |
| 1 | B | 155 | PRO |
| 1 | B | 156 | GLU |
| 1 | B | 166 | LYS |
| 1 | B | 168 | ALA |
| 1 | C | 15 | PHE |
| 1 | C | 18 | HIS |
| 1 | C | 20 | PRO |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | C | 21 | SER |
| 1 | C | 39 | PRO |
| 1 | C | 41 | SER |
| 1 | C | 47 | PHE |
| 1 | C | 66 | SER |
| 1 | C | 70 | LEU |
| 1 | C | 74 | ARG |
| 1 | C | 130 | PRO |
| 1 | C | 148 | PRO |
| 1 | C | 162 | THR |
| 1 | C | 165 | GLU |
| 1 | C | 166 | LYS |
| 1 | C | 167 | PRO |
| 1 | C | 168 | ALA |
| 1 | C | 171 | ALA |
| 1 | D | 19 | SER |
| 1 | D | 20 | PRO |
| 1 | D | 21 | SER |
| 1 | D | 39 | PRO |
| 1 | D | 45 | SER |
| 1 | D | 46 | PRO |
| 1 | D | 47 | PHE |
| 1 | D | 66 | SER |
| 1 | D | 69 | ARG |
| 1 | D | 70 | LEU |
| 1 | D | 71 | GLU |
| 1 | D | 81 | VAL |
| 1 | D | 110 | GLU |
| 1 | D | 132 | THR |
| 1 | D | 148 | PRO |
| 1 | D | 152 | VAL |
| 1 | D | 155 | PRO |
| 1 | D | 156 | GLU |
| 1 | D | 164 | GLU |
| 1 | D | 166 | LYS |
| 1 | D | 168 | ALA |
| 1 | E | 12 | ARG |
| 1 | E | 16 | PRO |
| 1 | E | 18 | HIS |
| 1 | E | 20 | PRO |
| 1 | E | 39 | PRO |
| 1 | E | 44 | LEU |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | E | 64 | GLY |
| 1 | E | 70 | LEU |
| 1 | E | 148 | PRO |
| 1 | E | 165 | GLU |
| 1 | E | 166 | LYS |
| 1 | E | 167 | PRO |
| 1 | E | 168 | ALA |
| 1 | F | 19 | SER |
| 1 | F | 20 | PRO |
| 1 | F | 39 | PRO |
| 1 | F | 45 | SER |
| 1 | F | 46 | PRO |
| 1 | F | 47 | PHE |
| 1 | F | 70 | LEU |
| 1 | F | 110 | GLU |
| 1 | F | 132 | THR |
| 1 | F | 148 | PRO |
| 1 | F | 152 | VAL |
| 1 | F | 155 | PRO |
| 1 | F | 156 | GLU |
| 1 | F | 164 | GLU |
| 1 | F | 166 | LYS |
| 1 | F | 167 | PRO |
| 1 | G | 2 | ASP |
| 1 | G | 16 | PRO |
| 1 | G | 18 | HIS |
| 1 | G | 21 | SER |
| 1 | G | 39 | PRO |
| 1 | G | 41 | SER |
| 1 | G | 47 | PHE |
| 1 | G | 70 | LEU |
| 1 | G | 130 | PRO |
| 1 | G | 148 | PRO |
| 1 | G | 163 | ARG |
| 1 | G | 165 | GLU |
| 1 | G | 167 | PRO |
| 1 | G | 168 | ALA |
| 1 | H | 19 | SER |
| 1 | H | 20 | PRO |
| 1 | H | 39 | PRO |
| 1 | H | 45 | SER |
| 1 | H | 46 | PRO |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | H | 47 | PHE |
| 1 | H | 70 | LEU |
| 1 | H | 81 | VAL |
| 1 | H | 110 | GLU |
| 1 | H | 132 | THR |
| 1 | H | 148 | PRO |
| 1 | H | 152 | VAL |
| 1 | H | 155 | PRO |
| 1 | H | 156 | GLU |
| 1 | H | 166 | LYS |
| 1 | H | 168 | ALA |
| 1 | I | 2 | ASP |
| 1 | I | 15 | PHE |
| 1 | I | 18 | HIS |
| 1 | I | 21 | SER |
| 1 | I | 39 | PRO |
| 1 | I | 41 | SER |
| 1 | I | 47 | PHE |
| 1 | I | 70 | LEU |
| 1 | I | 77 | VAL |
| 1 | I | 130 | PRO |
| 1 | I | 148 | PRO |
| 1 | I | 162 | THR |
| 1 | I | 163 | ARG |
| 1 | I | 164 | GLU |
| 1 | I | 165 | GLU |
| 1 | I | 166 | LYS |
| 1 | I | 167 | PRO |
| 1 | I | 168 | ALA |
| 1 | J | 19 | SER |
| 1 | J | 20 | PRO |
| 1 | J | 39 | PRO |
| 1 | J | 45 | SER |
| 1 | J | 46 | PRO |
| 1 | J | 47 | PHE |
| 1 | J | 70 | LEU |
| 1 | J | 71 | GLU |
| 1 | J | 81 | VAL |
| 1 | J | 110 | GLU |
| 1 | J | 132 | THR |
| 1 | J | 148 | PRO |
| 1 | J | 152 | VAL |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | J | 155 | PRO |
| 1 | J | 156 | GLU |
| 1 | J | 166 | LYS |
| 1 | J | 167 | PRO |
| 1 | K | 15 | PHE |
| 1 | K | 18 | HIS |
| 1 | K | 21 | SER |
| 1 | K | 39 | PRO |
| 1 | K | 41 | SER |
| 1 | K | 44 | LEU |
| 1 | K | 47 | PHE |
| 1 | K | 66 | SER |
| 1 | K | 70 | LEU |
| 1 | K | 76 | SER |
| 1 | K | 77 | VAL |
| 1 | K | 148 | PRO |
| 1 | K | 149 | ARG |
| 1 | K | 163 | ARG |
| 1 | K | 164 | GLU |
| 1 | K | 166 | LYS |
| 1 | K | 167 | PRO |
| 1 | K | 168 | ALA |
| 1 | L | 19 | SER |
| 1 | L | 20 | PRO |
| 1 | L | 24 | PHE |
| 1 | L | 26 | GLN |
| 1 | L | 39 | PRO |
| 1 | L | 45 | SER |
| 1 | L | 46 | PRO |
| 1 | L | 47 | PHE |
| 1 | L | 70 | LEU |
| 1 | L | 81 | VAL |
| 1 | L | 110 | GLU |
| 1 | L | 132 | THR |
| 1 | L | 148 | PRO |
| 1 | L | 152 | VAL |
| 1 | L | 155 | PRO |
| 1 | L | 156 | GLU |
| 1 | L | 166 | LYS |
| 1 | L | 167 | PRO |
| 1 | M | 2 | ASP |
| 1 | M | 16 | PRO |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | M | 18 | HIS |
| 1 | M | 20 | PRO |
| 1 | M | 21 | SER |
| 1 | M | 39 | PRO |
| 1 | M | 41 | SER |
| 1 | M | 44 | LEU |
| 1 | M | 47 | PHE |
| 1 | M | 70 | LEU |
| 1 | M | 148 | PRO |
| 1 | M | 150 | LYS |
| 1 | M | 165 | GLU |
| 1 | M | 167 | PRO |
| 1 | M | 168 | ALA |
| 1 | N | 19 | SER |
| 1 | N | 20 | PRO |
| 1 | N | 39 | PRO |
| 1 | N | 45 | SER |
| 1 | N | 46 | PRO |
| 1 | N | 47 | PHE |
| 1 | N | 70 | LEU |
| 1 | N | 81 | VAL |
| 1 | N | 110 | GLU |
| 1 | N | 132 | THR |
| 1 | N | 148 | PRO |
| 1 | N | 152 | VAL |
| 1 | N | 155 | PRO |
| 1 | N | 156 | GLU |
| 1 | N | 166 | LYS |
| 1 | N | 168 | ALA |
| 1 | O | 16 | PRO |
| 1 | O | 18 | HIS |
| 1 | O | 21 | SER |
| 1 | O | 39 | PRO |
| 1 | O | 41 | SER |
| 1 | O | 47 | PHE |
| 1 | O | 65 | LEU |
| 1 | O | 66 | SER |
| 1 | O | 70 | LEU |
| 1 | O | 75 | PHE |
| 1 | O | 76 | SER |
| 1 | O | 77 | VAL |
| 1 | O | 130 | PRO |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | O | 148 | PRO |
| 1 | O | 149 | ARG |
| 1 | O | 150 | LYS |
| 1 | O | 151 | GLN |
| 1 | O | 162 | THR |
| 1 | O | 165 | GLU |
| 1 | O | 166 | LYS |
| 1 | O | 167 | PRO |
| 1 | O | 168 | ALA |
| 1 | P | 19 | SER |
| 1 | P | 20 | PRO |
| 1 | P | 21 | SER |
| 1 | P | 24 | PHE |
| 1 | P | 26 | GLN |
| 1 | P | 39 | PRO |
| 1 | P | 45 | SER |
| 1 | P | 46 | PRO |
| 1 | P | 47 | PHE |
| 1 | P | 69 | ARG |
| 1 | P | 70 | LEU |
| 1 | P | 71 | GLU |
| 1 | P | 81 | VAL |
| 1 | P | 110 | GLU |
| 1 | P | 132 | THR |
| 1 | P | 148 | PRO |
| 1 | P | 152 | VAL |
| 1 | P | 155 | PRO |
| 1 | P | 156 | GLU |
| 1 | P | 166 | LYS |
| 1 | P | 167 | PRO |
| 1 | Q | 12 | ARG |
| 1 | Q | 18 | HIS |
| 1 | Q | 20 | PRO |
| 1 | Q | 21 | SER |
| 1 | Q | 39 | PRO |
| 1 | Q | 41 | SER |
| 1 | Q | 44 | LEU |
| 1 | Q | 70 | LEU |
| 1 | Q | 75 | PHE |
| 1 | Q | 77 | VAL |
| 1 | Q | 148 | PRO |
| 1 | Q | 163 | ARG |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | Q | 165 | GLU |
| 1 | Q | 167 | PRO |
| 1 | Q | 168 | ALA |
| 1 | R | 19 | SER |
| 1 | R | 20 | PRO |
| 1 | R | 39 | PRO |
| 1 | R | 45 | SER |
| 1 | R | 46 | PRO |
| 1 | R | 47 | PHE |
| 1 | R | 70 | LEU |
| 1 | R | 81 | VAL |
| 1 | R | 110 | GLU |
| 1 | R | 132 | THR |
| 1 | R | 148 | PRO |
| 1 | R | 152 | VAL |
| 1 | R | 155 | PRO |
| 1 | R | 156 | GLU |
| 1 | R | 166 | LYS |
| 1 | R | 167 | PRO |
| 1 | S | 16 | PRO |
| 1 | S | 18 | HIS |
| 1 | S | 21 | SER |
| 1 | S | 39 | PRO |
| 1 | S | 41 | SER |
| 1 | S | 47 | PHE |
| 1 | S | 70 | LEU |
| 1 | S | 74 | ARG |
| 1 | S | 148 | PRO |
| 1 | S | 162 | THR |
| 1 | S | 163 | ARG |
| 1 | S | 165 | GLU |
| 1 | S | 167 | PRO |
| 1 | S | 168 | ALA |
| 1 | T | 19 | SER |
| 1 | T | 20 | PRO |
| 1 | T | 24 | PHE |
| 1 | T | 39 | PRO |
| 1 | T | 45 | SER |
| 1 | T | 46 | PRO |
| 1 | T | 47 | PHE |
| 1 | T | 70 | LEU |
| 1 | T | 81 | VAL |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | T | 110 | GLU |
| 1 | T | 132 | THR |
| 1 | T | 148 | PRO |
| 1 | T | 152 | VAL |
| 1 | T | 155 | PRO |
| 1 | T | 156 | GLU |
| 1 | T | 164 | GLU |
| 1 | T | 166 | LYS |
| 1 | T | 167 | PRO |
| 1 | U | 16 | PRO |
| 1 | U | 18 | HIS |
| 1 | U | 20 | PRO |
| 1 | U | 21 | SER |
| 1 | U | 39 | PRO |
| 1 | U | 41 | SER |
| 1 | U | 47 | PHE |
| 1 | U | 70 | LEU |
| 1 | U | 130 | PRO |
| 1 | U | 148 | PRO |
| 1 | U | 149 | ARG |
| 1 | U | 150 | LYS |
| 1 | U | 163 | ARG |
| 1 | U | 165 | GLU |
| 1 | U | 166 | LYS |
| 1 | U | 167 | PRO |
| 1 | V | 19 | SER |
| 1 | V | 20 | PRO |
| 1 | V | 39 | PRO |
| 1 | V | 45 | SER |
| 1 | V | 46 | PRO |
| 1 | V | 47 | PHE |
| 1 | V | 70 | LEU |
| 1 | V | 81 | VAL |
| 1 | V | 110 | GLU |
| 1 | V | 132 | THR |
| 1 | V | 148 | PRO |
| 1 | V | 152 | VAL |
| 1 | V | 155 | PRO |
| 1 | V | 156 | GLU |
| 1 | V | 166 | LYS |
| 1 | V | 168 | ALA |
| 1 | W | 20 | PRO |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | W | 21 | SER |
| 1 | W | 39 | PRO |
| 1 | W | 41 | SER |
| 1 | W | 44 | LEU |
| 1 | W | 66 | SER |
| 1 | W | 70 | LEU |
| 1 | W | 76 | SER |
| 1 | W | 77 | VAL |
| 1 | W | 148 | PRO |
| 1 | W | 162 | THR |
| 1 | W | 163 | ARG |
| 1 | W | 165 | GLU |
| 1 | W | 167 | PRO |
| 1 | X | 19 | SER |
| 1 | X | 20 | PRO |
| 1 | X | 39 | PRO |
| 1 | X | 45 | SER |
| 1 | X | 46 | PRO |
| 1 | X | 47 | PHE |
| 1 | X | 69 | ARG |
| 1 | X | 70 | LEU |
| 1 | X | 81 | VAL |
| 1 | X | 110 | GLU |
| 1 | X | 132 | THR |
| 1 | X | 148 | PRO |
| 1 | X | 152 | VAL |
| 1 | X | 155 | PRO |
| 1 | X | 156 | GLU |
| 1 | X | 164 | GLU |
| 1 | X | 166 | LYS |
| 1 | X | 168 | ALA |
| 1 | X | 169 | VAL |

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 | 161/161 (100%) | 148 (92%) | 13 (8%) | 15 63 |

Continued on next page...

Continued from previous page...

| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles | |
|-----|-------|------------------|------------|----------|-------------|----|
| 1 | B | 161/161 (100%) | 153 (95%) | 8 (5%) | 28 | 77 |
| 1 | C | 161/161 (100%) | 146 (91%) | 15 (9%) | 12 | 59 |
| 1 | D | 161/161 (100%) | 151 (94%) | 10 (6%) | 22 | 71 |
| 1 | E | 161/161 (100%) | 149 (93%) | 12 (7%) | 17 | 65 |
| 1 | F | 161/161 (100%) | 154 (96%) | 7 (4%) | 33 | 81 |
| 1 | G | 161/161 (100%) | 144 (89%) | 17 (11%) | 10 | 55 |
| 1 | H | 161/161 (100%) | 154 (96%) | 7 (4%) | 33 | 81 |
| 1 | I | 161/161 (100%) | 148 (92%) | 13 (8%) | 15 | 63 |
| 1 | J | 161/161 (100%) | 155 (96%) | 6 (4%) | 37 | 85 |
| 1 | K | 161/161 (100%) | 141 (88%) | 20 (12%) | 8 | 50 |
| 1 | L | 161/161 (100%) | 155 (96%) | 6 (4%) | 37 | 85 |
| 1 | M | 161/161 (100%) | 145 (90%) | 16 (10%) | 11 | 57 |
| 1 | N | 161/161 (100%) | 154 (96%) | 7 (4%) | 33 | 81 |
| 1 | O | 161/161 (100%) | 143 (89%) | 18 (11%) | 9 | 53 |
| 1 | P | 161/161 (100%) | 151 (94%) | 10 (6%) | 22 | 71 |
| 1 | Q | 161/161 (100%) | 147 (91%) | 14 (9%) | 14 | 60 |
| 1 | R | 161/161 (100%) | 154 (96%) | 7 (4%) | 33 | 81 |
| 1 | S | 161/161 (100%) | 147 (91%) | 14 (9%) | 14 | 60 |
| 1 | T | 161/161 (100%) | 157 (98%) | 4 (2%) | 50 | 91 |
| 1 | U | 161/161 (100%) | 146 (91%) | 15 (9%) | 12 | 59 |
| 1 | V | 161/161 (100%) | 149 (93%) | 12 (7%) | 17 | 65 |
| 1 | W | 161/161 (100%) | 143 (89%) | 18 (11%) | 9 | 53 |
| 1 | X | 161/161 (100%) | 152 (94%) | 9 (6%) | 25 | 74 |
| All | All | 3864/3864 (100%) | 3586 (93%) | 278 (7%) | 18 | 66 |

All 278 residues with a non-rotameric sidechain are listed below. They are sorted by the frequency of occurrence in the ensemble.

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | A | 14 | PHE |
| 1 | A | 15 | PHE |
| 1 | A | 17 | PHE |
| 1 | A | 22 | ARG |
| 1 | A | 25 | ASP |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | A | 47 | PHE |
| 1 | A | 72 | LYS |
| 1 | A | 106 | GLU |
| 1 | A | 131 | LEU |
| 1 | A | 143 | LEU |
| 1 | A | 150 | LYS |
| 1 | A | 162 | THR |
| 1 | A | 164 | GLU |
| 1 | B | 44 | LEU |
| 1 | B | 69 | ARG |
| 1 | B | 70 | LEU |
| 1 | B | 106 | GLU |
| 1 | B | 109 | ASP |
| 1 | B | 131 | LEU |
| 1 | B | 143 | LEU |
| 1 | B | 151 | GLN |
| 1 | C | 14 | PHE |
| 1 | C | 15 | PHE |
| 1 | C | 17 | PHE |
| 1 | C | 22 | ARG |
| 1 | C | 25 | ASP |
| 1 | C | 47 | PHE |
| 1 | C | 71 | GLU |
| 1 | C | 75 | PHE |
| 1 | C | 106 | GLU |
| 1 | C | 127 | ASP |
| 1 | C | 143 | LEU |
| 1 | C | 162 | THR |
| 1 | C | 163 | ARG |
| 1 | C | 164 | GLU |
| 1 | C | 167 | PRO |
| 1 | D | 15 | PHE |
| 1 | D | 21 | SER |
| 1 | D | 69 | ARG |
| 1 | D | 70 | LEU |
| 1 | D | 73 | ASP |
| 1 | D | 106 | GLU |
| 1 | D | 109 | ASP |
| 1 | D | 143 | LEU |
| 1 | D | 151 | GLN |
| 1 | D | 163 | ARG |
| 1 | E | 15 | PHE |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | E | 17 | PHE |
| 1 | E | 22 | ARG |
| 1 | E | 25 | ASP |
| 1 | E | 48 | TYR |
| 1 | E | 69 | ARG |
| 1 | E | 106 | GLU |
| 1 | E | 143 | LEU |
| 1 | E | 149 | ARG |
| 1 | E | 162 | THR |
| 1 | E | 164 | GLU |
| 1 | E | 169 | VAL |
| 1 | F | 25 | ASP |
| 1 | F | 26 | GLN |
| 1 | F | 69 | ARG |
| 1 | F | 106 | GLU |
| 1 | F | 109 | ASP |
| 1 | F | 151 | GLN |
| 1 | F | 163 | ARG |
| 1 | G | 14 | PHE |
| 1 | G | 15 | PHE |
| 1 | G | 17 | PHE |
| 1 | G | 18 | HIS |
| 1 | G | 22 | ARG |
| 1 | G | 25 | ASP |
| 1 | G | 47 | PHE |
| 1 | G | 70 | LEU |
| 1 | G | 71 | GLU |
| 1 | G | 72 | LYS |
| 1 | G | 74 | ARG |
| 1 | G | 75 | PHE |
| 1 | G | 106 | GLU |
| 1 | G | 143 | LEU |
| 1 | G | 162 | THR |
| 1 | G | 164 | GLU |
| 1 | G | 170 | THR |
| 1 | H | 15 | PHE |
| 1 | H | 23 | LEU |
| 1 | H | 69 | ARG |
| 1 | H | 106 | GLU |
| 1 | H | 109 | ASP |
| 1 | H | 137 | LEU |
| 1 | H | 151 | GLN |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | I | 14 | PHE |
| 1 | I | 15 | PHE |
| 1 | I | 17 | PHE |
| 1 | I | 18 | HIS |
| 1 | I | 22 | ARG |
| 1 | I | 25 | ASP |
| 1 | I | 47 | PHE |
| 1 | I | 71 | GLU |
| 1 | I | 75 | PHE |
| 1 | I | 106 | GLU |
| 1 | I | 127 | ASP |
| 1 | I | 143 | LEU |
| 1 | I | 167 | PRO |
| 1 | J | 15 | PHE |
| 1 | J | 70 | LEU |
| 1 | J | 73 | ASP |
| 1 | J | 106 | GLU |
| 1 | J | 143 | LEU |
| 1 | J | 151 | GLN |
| 1 | K | 14 | PHE |
| 1 | K | 15 | PHE |
| 1 | K | 17 | PHE |
| 1 | K | 22 | ARG |
| 1 | K | 25 | ASP |
| 1 | K | 47 | PHE |
| 1 | K | 70 | LEU |
| 1 | K | 71 | GLU |
| 1 | K | 75 | PHE |
| 1 | K | 106 | GLU |
| 1 | K | 131 | LEU |
| 1 | K | 143 | LEU |
| 1 | K | 149 | ARG |
| 1 | K | 150 | LYS |
| 1 | K | 162 | THR |
| 1 | K | 163 | ARG |
| 1 | K | 164 | GLU |
| 1 | K | 166 | LYS |
| 1 | K | 169 | VAL |
| 1 | K | 170 | THR |
| 1 | L | 26 | GLN |
| 1 | L | 69 | ARG |
| 1 | L | 106 | GLU |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | L | 109 | ASP |
| 1 | L | 143 | LEU |
| 1 | L | 151 | GLN |
| 1 | M | 14 | PHE |
| 1 | M | 15 | PHE |
| 1 | M | 17 | PHE |
| 1 | M | 18 | HIS |
| 1 | M | 22 | ARG |
| 1 | M | 25 | ASP |
| 1 | M | 47 | PHE |
| 1 | M | 72 | LYS |
| 1 | M | 106 | GLU |
| 1 | M | 127 | ASP |
| 1 | M | 131 | LEU |
| 1 | M | 143 | LEU |
| 1 | M | 149 | ARG |
| 1 | M | 150 | LYS |
| 1 | M | 162 | THR |
| 1 | M | 163 | ARG |
| 1 | N | 44 | LEU |
| 1 | N | 70 | LEU |
| 1 | N | 106 | GLU |
| 1 | N | 109 | ASP |
| 1 | N | 131 | LEU |
| 1 | N | 140 | ASP |
| 1 | N | 159 | ILE |
| 1 | O | 12 | ARG |
| 1 | O | 14 | PHE |
| 1 | O | 15 | PHE |
| 1 | O | 17 | PHE |
| 1 | O | 18 | HIS |
| 1 | O | 22 | ARG |
| 1 | O | 25 | ASP |
| 1 | O | 47 | PHE |
| 1 | O | 63 | THR |
| 1 | O | 71 | GLU |
| 1 | O | 75 | PHE |
| 1 | O | 106 | GLU |
| 1 | O | 143 | LEU |
| 1 | O | 149 | ARG |
| 1 | O | 162 | THR |
| 1 | O | 165 | GLU |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | O | 166 | LYS |
| 1 | O | 169 | VAL |
| 1 | P | 15 | PHE |
| 1 | P | 26 | GLN |
| 1 | P | 69 | ARG |
| 1 | P | 70 | LEU |
| 1 | P | 72 | LYS |
| 1 | P | 73 | ASP |
| 1 | P | 106 | GLU |
| 1 | P | 109 | ASP |
| 1 | P | 143 | LEU |
| 1 | P | 151 | GLN |
| 1 | Q | 14 | PHE |
| 1 | Q | 17 | PHE |
| 1 | Q | 18 | HIS |
| 1 | Q | 22 | ARG |
| 1 | Q | 25 | ASP |
| 1 | Q | 48 | TYR |
| 1 | Q | 69 | ARG |
| 1 | Q | 106 | GLU |
| 1 | Q | 127 | ASP |
| 1 | Q | 143 | LEU |
| 1 | Q | 163 | ARG |
| 1 | Q | 164 | GLU |
| 1 | Q | 170 | THR |
| 1 | Q | 174 | LYS |
| 1 | R | 26 | GLN |
| 1 | R | 69 | ARG |
| 1 | R | 72 | LYS |
| 1 | R | 106 | GLU |
| 1 | R | 109 | ASP |
| 1 | R | 143 | LEU |
| 1 | R | 151 | GLN |
| 1 | S | 14 | PHE |
| 1 | S | 15 | PHE |
| 1 | S | 17 | PHE |
| 1 | S | 18 | HIS |
| 1 | S | 22 | ARG |
| 1 | S | 25 | ASP |
| 1 | S | 47 | PHE |
| 1 | S | 70 | LEU |
| 1 | S | 71 | GLU |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | S | 75 | PHE |
| 1 | S | 106 | GLU |
| 1 | S | 131 | LEU |
| 1 | S | 143 | LEU |
| 1 | S | 149 | ARG |
| 1 | T | 69 | ARG |
| 1 | T | 106 | GLU |
| 1 | T | 109 | ASP |
| 1 | T | 163 | ARG |
| 1 | U | 14 | PHE |
| 1 | U | 15 | PHE |
| 1 | U | 17 | PHE |
| 1 | U | 22 | ARG |
| 1 | U | 25 | ASP |
| 1 | U | 47 | PHE |
| 1 | U | 71 | GLU |
| 1 | U | 72 | LYS |
| 1 | U | 75 | PHE |
| 1 | U | 106 | GLU |
| 1 | U | 143 | LEU |
| 1 | U | 149 | ARG |
| 1 | U | 162 | THR |
| 1 | U | 163 | ARG |
| 1 | U | 164 | GLU |
| 1 | V | 15 | PHE |
| 1 | V | 23 | LEU |
| 1 | V | 25 | ASP |
| 1 | V | 70 | LEU |
| 1 | V | 73 | ASP |
| 1 | V | 106 | GLU |
| 1 | V | 109 | ASP |
| 1 | V | 130 | PRO |
| 1 | V | 137 | LEU |
| 1 | V | 140 | ASP |
| 1 | V | 151 | GLN |
| 1 | V | 157 | ARG |
| 1 | W | 14 | PHE |
| 1 | W | 15 | PHE |
| 1 | W | 17 | PHE |
| 1 | W | 18 | HIS |
| 1 | W | 22 | ARG |
| 1 | W | 25 | ASP |

Continued on next page...

Continued from previous page...

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | W | 47 | PHE |
| 1 | W | 70 | LEU |
| 1 | W | 71 | GLU |
| 1 | W | 75 | PHE |
| 1 | W | 106 | GLU |
| 1 | W | 127 | ASP |
| 1 | W | 143 | LEU |
| 1 | W | 161 | ILE |
| 1 | W | 163 | ARG |
| 1 | W | 164 | GLU |
| 1 | W | 167 | PRO |
| 1 | W | 169 | VAL |
| 1 | X | 26 | GLN |
| 1 | X | 69 | ARG |
| 1 | X | 70 | LEU |
| 1 | X | 106 | GLU |
| 1 | X | 109 | ASP |
| 1 | X | 151 | GLN |
| 1 | X | 159 | ILE |
| 1 | X | 163 | ARG |
| 1 | X | 169 | VAL |

6.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

6.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

6.6 Ligand geometry [i](#)

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

No chemical shift data were provided