Full wwPDB NMR Structure Validation Report (i)

Dec 24, 2024 – 05:01 PM EST

PDB ID	:	2LOW
BMRB ID	:	18227
Title	:	Solution structure of AR55 in 50% HFIP
Authors	:	Langelaan, D.N.; Rainey, J.K.
Deposited on	:	2012-01-27

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 (i) 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 (i)) were used in the production of this report:

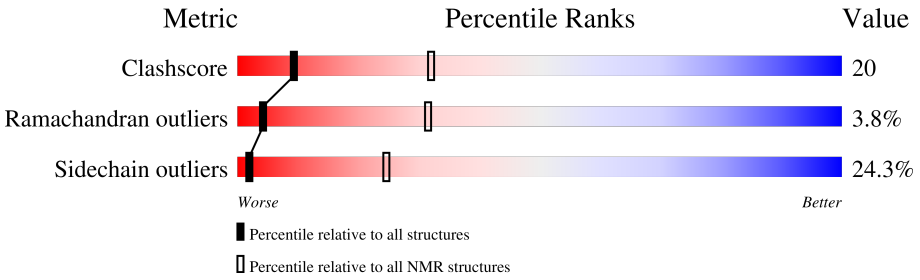
MolProbity	:	4.02b-467
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
wwPDB-RCI	:	v_1n_11_5_13_A (Berjanski et al., 2005)
PANAV	:	Wang et al. (2010)
wwPDB-ShiftChecker	:	v1.2
BMRB Restraints Analysis	:	v1.2
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.40

1 Overall quality at a glance

The following experimental techniques were used to determine the structure:
SOLUTION NMR

The overall completeness of chemical shifts assignment is 91%.

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



Metric	Whole archive (#Entries)	NMR archive (#Entries)
Clashscore	210492	14027
Ramachandran outliers	207382	12486
Sidechain outliers	206894	12463

The table below summarises the geometric issues observed across the polymeric chains and their fit to the experimental data. The red, orange, yellow and green segments indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria. A cyan segment indicates the fraction of residues that are not part of the well-defined cores, and a grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5%

Mol	Chain	Length	Quality of chain
1	A	64	33% 39% . 27%

2 Ensemble composition and analysis

This entry contains 40 models. Model 10 is the overall representative, medoid model (most similar to other models). The authors have identified model 1 as representative, based on the following criterion: *extended conformation*.

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

Well-defined (core) protein residues			
Well-defined core	**Residue range (total)**	**Backbone RMSD (Å)**	**Medoid model**
1	A:12-A:30 (19)	1.08	23
2	A:32-A:59 (28)	0.94	10

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

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

The models can be grouped into 6 clusters and 4 single-model clusters were found.

Cluster number	Models
1	1, 6, 10, 11, 14, 19, 24, 27, 34, 36
2	9, 16, 18, 21, 22, 23, 25, 30, 39
3	3, 4, 5, 8, 13, 17, 31
4	2, 12, 20, 26, 28, 29
5	15, 40
6	37, 38
Single-model clusters	7; 32; 33; 35

3 Entry composition (i)

There is only 1 type of molecule in this entry. The entry contains 988 atoms, of which 472 are hydrogens and 0 are deuteriums.

- Molecule 1 is a protein called Apelin receptor.

Mol	Chain	Residues	Atoms						Trace
			Total	C	H	N	O	S	
1	A	64	988	329	472	88	96	3	0

There are 9 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	56	LYS	-	expression tag	UNP P35414
A	57	LYS	-	expression tag	UNP P35414
A	58	GLY	-	expression tag	UNP P35414
A	59	HIS	-	expression tag	UNP P35414
A	60	HIS	-	expression tag	UNP P35414
A	61	HIS	-	expression tag	UNP P35414
A	62	HIS	-	expression tag	UNP P35414
A	63	HIS	-	expression tag	UNP P35414
A	64	HIS	-	expression tag	UNP P35414

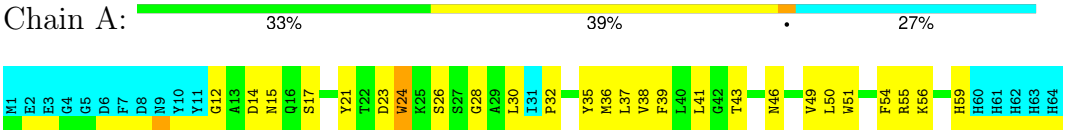
4 Residue-property plots

4.1 Average score per residue in the NMR ensemble

These plots are provided for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic is the same as shown in the summary in section 1 of this report. The second graphic shows the sequence where residues are colour-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. Stretches of 2 or more consecutive residues without any outliers are shown as green connectors. Residues which are classified as ill-defined in the NMR ensemble, are shown in cyan with an underline colour-coded according to the previous scheme. Residues which were present in the experimental sample, but not modelled in the final structure are shown in grey.

• Molecule 1: Apelin receptor

Chain A:



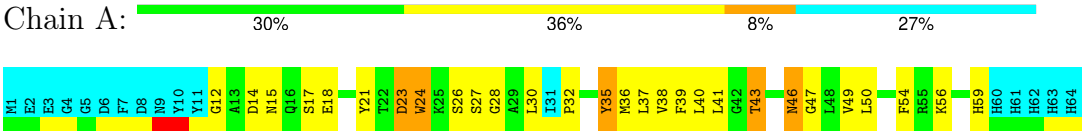
4.2 Scores per residue for each member of the ensemble

Colouring as in section 4.1 above.

4.2.1 Score per residue for model 1

• Molecule 1: Apelin receptor

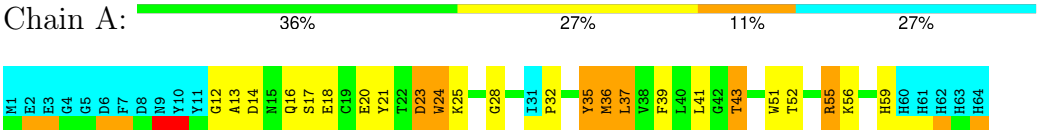
Chain A:



4.2.2 Score per residue for model 2

• Molecule 1: Apelin receptor

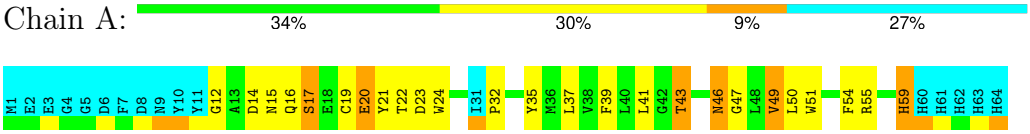
Chain A:



4.2.3 Score per residue for model 3

• Molecule 1: Apelin receptor

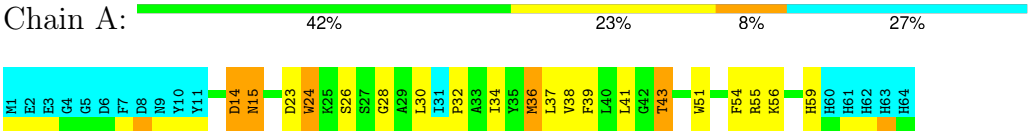
Chain A:



4.2.4 Score per residue for model 4

• Molecule 1: Apelin receptor

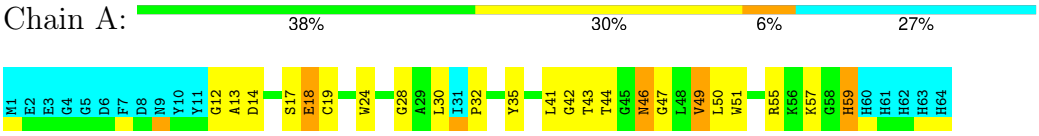
Chain A:



4.2.5 Score per residue for model 5

• Molecule 1: Apelin receptor

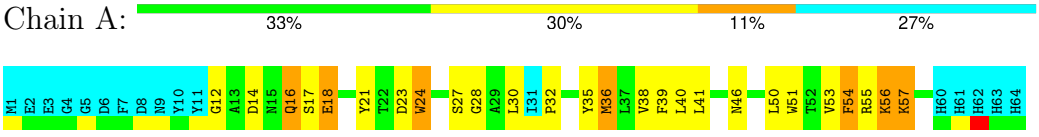
Chain A:



4.2.6 Score per residue for model 6

• Molecule 1: Apelin receptor

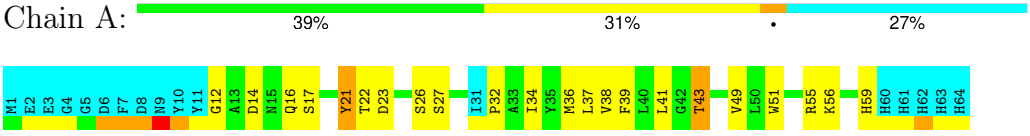
Chain A:



4.2.7 Score per residue for model 7

• Molecule 1: Apelin receptor

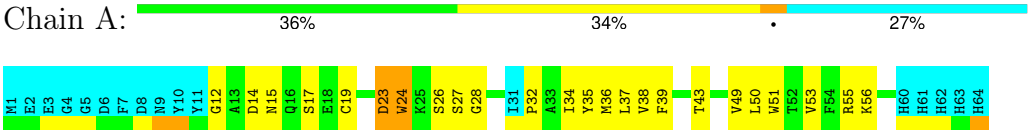
Chain A:



4.2.8 Score per residue for model 8

• Molecule 1: Apelin receptor

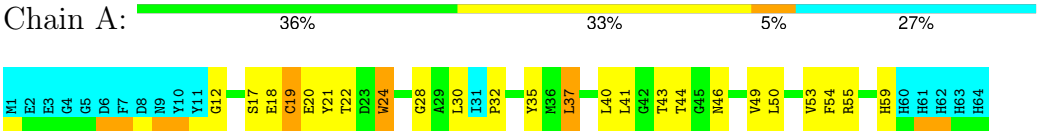
Chain A:



4.2.9 Score per residue for model 9

• Molecule 1: Apelin receptor

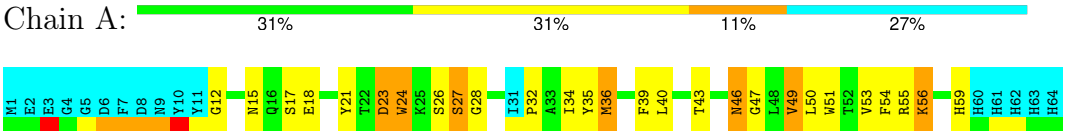
Chain A:



4.2.10 Score per residue for model 10 (medoid)

• Molecule 1: Apelin receptor

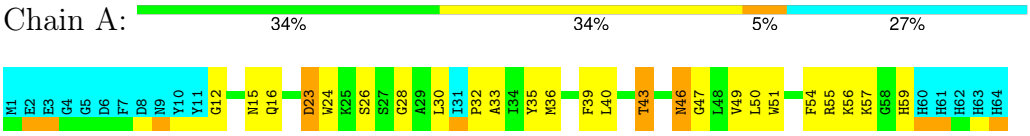
Chain A:



4.2.11 Score per residue for model 11

• Molecule 1: Apelin receptor

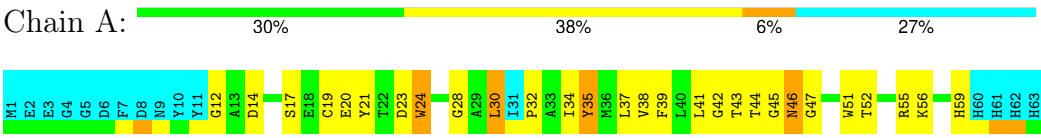
Chain A:



4.2.12 Score per residue for model 12

• Molecule 1: Apelin receptor

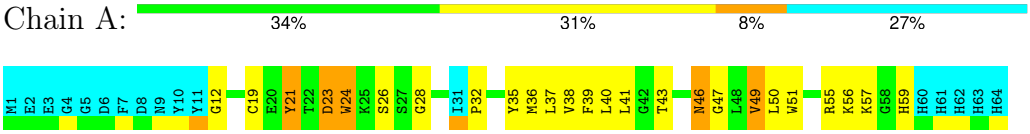
Chain A:



4.2.13 Score per residue for model 13

• Molecule 1: Apelin receptor

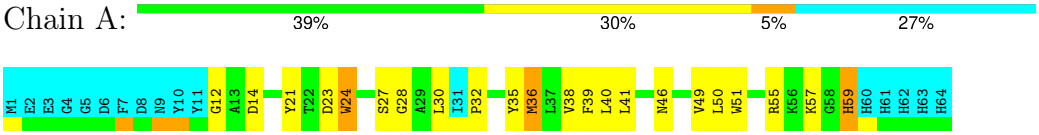
Chain A:



4.2.14 Score per residue for model 14

• Molecule 1: Apelin receptor

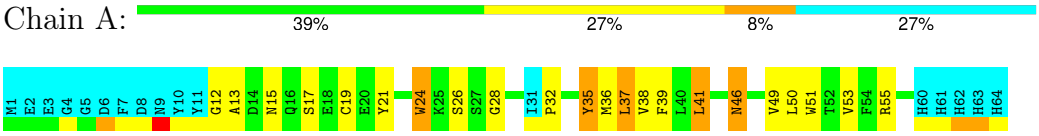
Chain A:



4.2.15 Score per residue for model 15

• Molecule 1: Apelin receptor

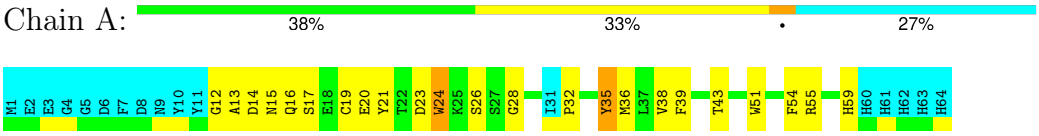
Chain A:



4.2.16 Score per residue for model 16

• Molecule 1: Apelin receptor

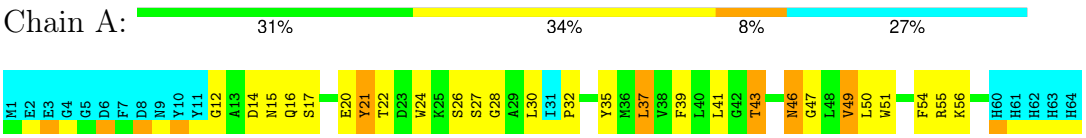
Chain A:



4.2.17 Score per residue for model 17

• Molecule 1: Apelin receptor

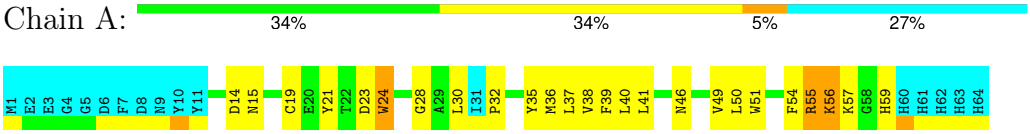
Chain A:



4.2.18 Score per residue for model 18

• Molecule 1: Apelin receptor

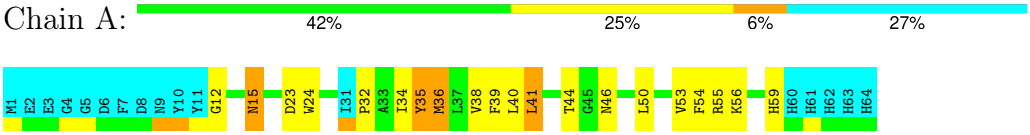
Chain A:



4.2.19 Score per residue for model 19

• Molecule 1: Apelin receptor

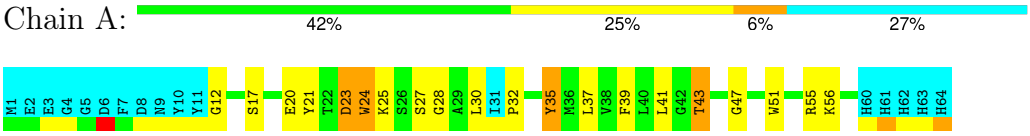
Chain A:



4.2.20 Score per residue for model 20

• Molecule 1: Apelin receptor

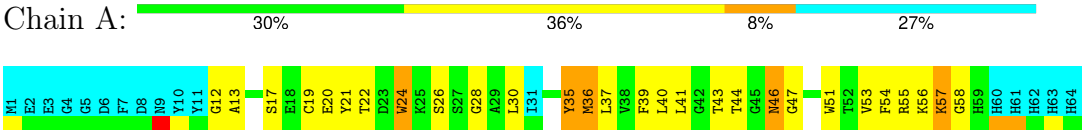
Chain A:



4.2.21 Score per residue for model 21

• Molecule 1: Apelin receptor

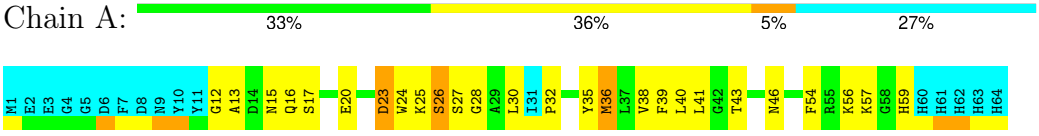
Chain A:



4.2.22 Score per residue for model 22

• Molecule 1: Apelin receptor

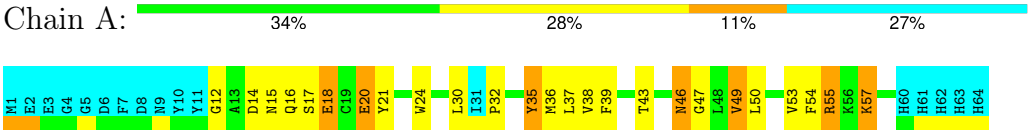
Chain A:



4.2.23 Score per residue for model 23

• Molecule 1: Apelin receptor

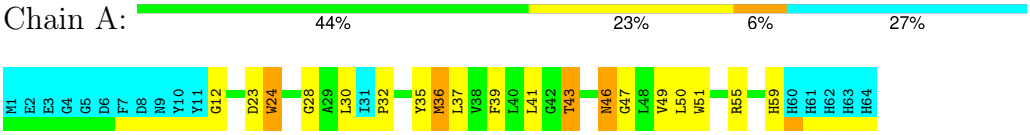
Chain A:



4.2.24 Score per residue for model 24

• Molecule 1: Apelin receptor

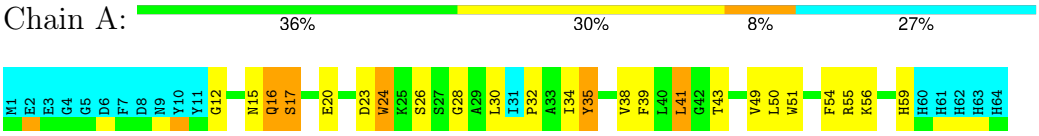
Chain A:



4.2.25 Score per residue for model 25

• Molecule 1: Apelin receptor

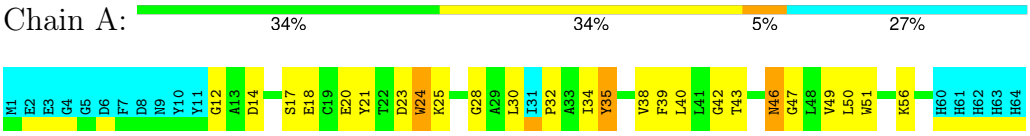
Chain A:



4.2.26 Score per residue for model 26

• Molecule 1: Apelin receptor

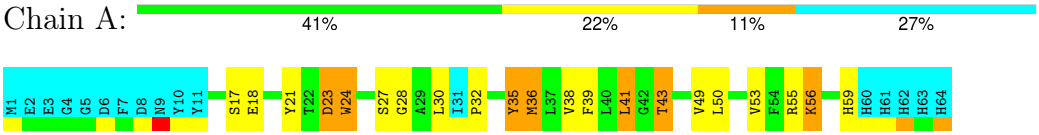
Chain A:



4.2.27 Score per residue for model 27

• Molecule 1: Apelin receptor

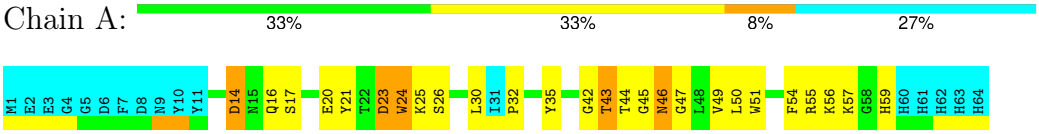
Chain A:



4.2.28 Score per residue for model 28

• Molecule 1: Apelin receptor

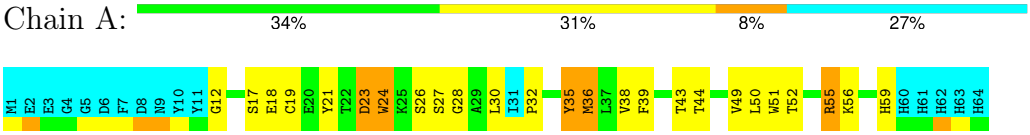
Chain A:



4.2.29 Score per residue for model 29

• Molecule 1: Apelin receptor

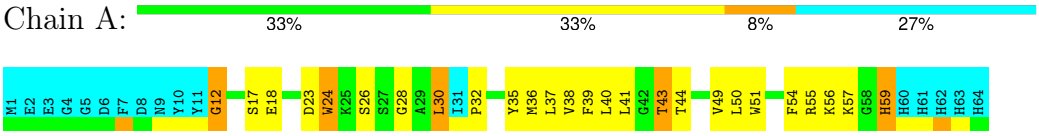
Chain A:



4.2.30 Score per residue for model 30

• Molecule 1: Apelin receptor

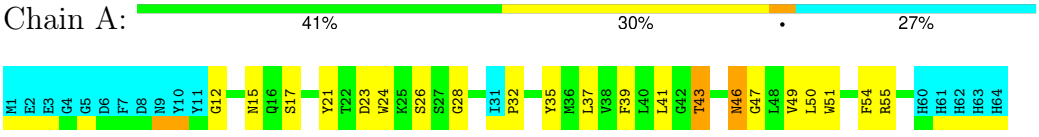
Chain A:



4.2.31 Score per residue for model 31

• Molecule 1: Apelin receptor

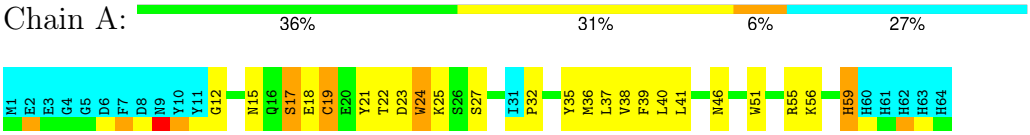
Chain A:



4.2.32 Score per residue for model 32

• Molecule 1: Apelin receptor

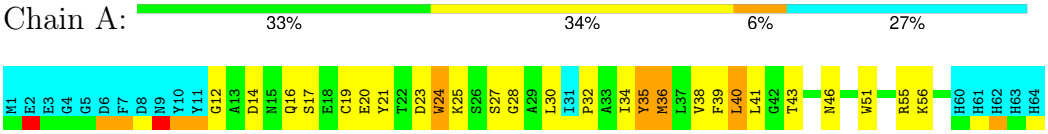
Chain A:



4.2.33 Score per residue for model 33

• Molecule 1: Apelin receptor

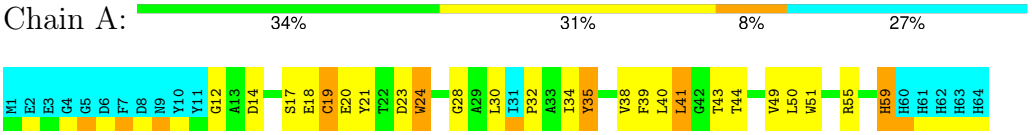
Chain A:



4.2.34 Score per residue for model 34

• Molecule 1: Apelin receptor

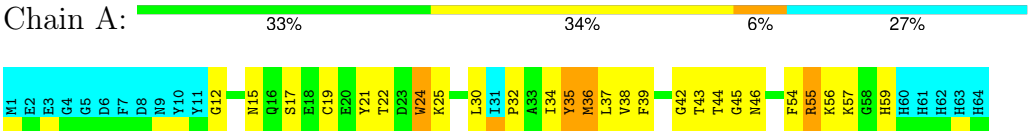
Chain A:



4.2.35 Score per residue for model 35

• Molecule 1: Apelin receptor

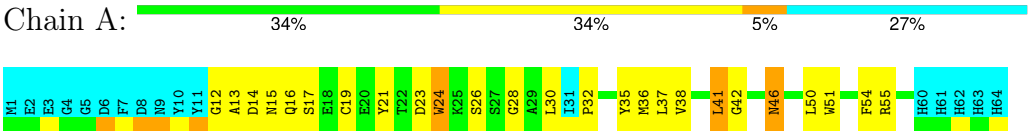
Chain A:



4.2.36 Score per residue for model 36

• Molecule 1: Apelin receptor

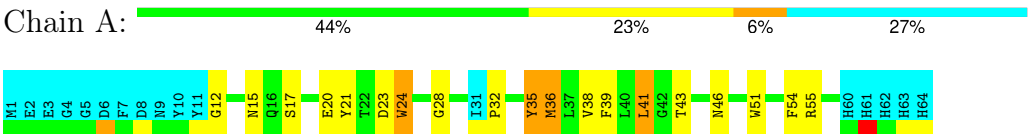
Chain A:



4.2.37 Score per residue for model 37

• Molecule 1: Apelin receptor

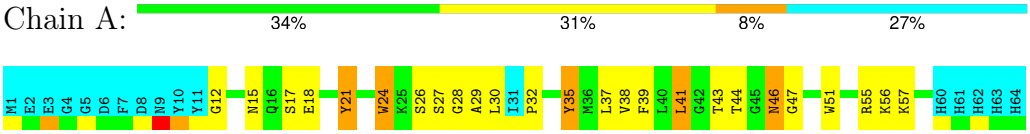
Chain A:



4.2.38 Score per residue for model 38

• Molecule 1: Apelin receptor

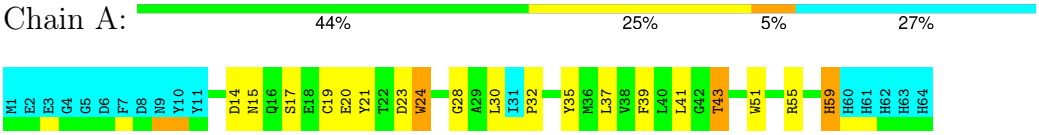
Chain A:



4.2.39 Score per residue for model 39

• Molecule 1: Apelin receptor

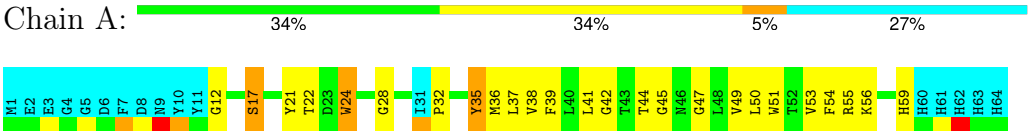
Chain A:



4.2.40 Score per residue for model 40

• Molecule 1: Apelin receptor

Chain A:



5 Refinement protocol and experimental data overview

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

Of the 100 calculated structures, 40 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	
X-PLOR NIH	refinement	

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

Chemical shift file(s)	working_cs.cif
Number of chemical shift lists	1
Total number of shifts	741
Number of shifts mapped to atoms	741
Number of unparsed shifts	0
Number of shifts with mapping errors	0
Number of shifts with mapping warnings	0
Assignment completeness (well-defined parts)	91%

6 Model quality

6.1 Standard geometry

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

There are no bond-length outliers.

There are no bond-angle outliers.

There are no chirality outliers.

There are no planarity outliers.

6.2 Too-close contacts

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	364	356	356	14±4
All	All	14560	14240	14240	574

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 20.

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

Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:41:LEU:HD12	1:A:41:LEU:O	0.79	1.77	38	6
1:A:37:LEU:O	1:A:41:LEU:HD12	0.71	1.85	1	16
1:A:43:THR:HG22	1:A:43:THR:O	0.66	1.91	26	3
1:A:38:VAL:HG12	1:A:38:VAL:O	0.64	1.93	23	9
1:A:51:TRP:CD1	1:A:55:ARG:NH2	0.64	2.66	34	19
1:A:59:HIS:CG	1:A:59:HIS:O	0.63	2.50	39	1
1:A:51:TRP:CZ2	1:A:55:ARG:NE	0.62	2.68	12	5
1:A:51:TRP:CH2	1:A:55:ARG:NE	0.62	2.68	20	9
1:A:24:TRP:CE3	1:A:25:LYS:N	0.62	2.68	33	8
1:A:41:LEU:C	1:A:41:LEU:HD12	0.62	2.15	37	2
1:A:38:VAL:O	1:A:38:VAL:HG12	0.62	1.93	16	14
1:A:46:ASN:ND2	1:A:47:GLY:N	0.61	2.48	31	14
1:A:40:LEU:C	1:A:40:LEU:HD12	0.61	2.16	30	1
1:A:41:LEU:HD12	1:A:41:LEU:C	0.61	2.15	27	5

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:46:ASN:HD22	1:A:46:ASN:N	0.58	1.95	15	2
1:A:51:TRP:CZ2	1:A:55:ARG:NH1	0.57	2.73	36	1
1:A:51:TRP:CH2	1:A:55:ARG:CZ	0.57	2.88	8	7
1:A:35:TYR:O	1:A:39:PHE:N	0.55	2.40	38	19
1:A:51:TRP:CE2	1:A:55:ARG:NE	0.54	2.75	5	16
1:A:50:LEU:O	1:A:54:PHE:CD1	0.54	2.60	36	5
1:A:36:MET:SD	1:A:36:MET:N	0.54	2.80	2	2
1:A:42:GLY:O	1:A:46:ASN:N	0.54	2.40	28	4
1:A:17:SER:O	1:A:21:TYR:N	0.54	2.41	37	16
1:A:51:TRP:O	1:A:55:ARG:NE	0.54	2.41	31	11
1:A:21:TYR:CD1	1:A:22:THR:N	0.53	2.77	17	2
1:A:23:ASP:O	1:A:27:SER:N	0.53	2.41	32	3
1:A:18:GLU:O	1:A:21:TYR:N	0.53	2.42	23	6
1:A:24:TRP:O	1:A:28:GLY:N	0.53	2.42	11	32
1:A:42:GLY:O	1:A:46:ASN:ND2	0.53	2.42	26	1
1:A:56:LYS:O	1:A:59:HIS:ND1	0.53	2.42	18	1
1:A:14:ASP:OD1	1:A:15:ASN:N	0.52	2.42	23	3
1:A:41:LEU:O	1:A:46:ASN:ND2	0.52	2.43	6	8
1:A:41:LEU:HD12	1:A:42:GLY:N	0.52	2.19	40	1
1:A:17:SER:O	1:A:20:GLU:N	0.52	2.43	34	10
1:A:51:TRP:CZ2	1:A:55:ARG:CZ	0.52	2.93	36	1
1:A:51:TRP:O	1:A:55:ARG:NH2	0.52	2.42	18	2
1:A:14:ASP:O	1:A:17:SER:N	0.51	2.42	33	6
1:A:14:ASP:OD1	1:A:14:ASP:N	0.51	2.44	28	3
1:A:39:PHE:O	1:A:43:THR:N	0.51	2.43	11	2
1:A:55:ARG:HE	1:A:55:ARG:N	0.51	2.03	23	2
1:A:42:GLY:O	1:A:44:THR:N	0.51	2.43	12	4
1:A:34:ILE:HD12	1:A:34:ILE:N	0.50	2.21	33	7
1:A:34:ILE:N	1:A:34:ILE:CD1	0.50	2.74	33	7
1:A:55:ARG:O	1:A:59:HIS:ND1	0.50	2.42	32	1
1:A:47:GLY:O	1:A:51:TRP:N	0.50	2.44	20	3
1:A:23:ASP:O	1:A:26:SER:N	0.50	2.45	10	7
1:A:59:HIS:O	1:A:59:HIS:CD2	0.50	2.64	39	1
1:A:56:LYS:O	1:A:59:HIS:CE1	0.50	2.65	18	1
1:A:53:VAL:O	1:A:57:LYS:N	0.50	2.45	23	2
1:A:36:MET:O	1:A:39:PHE:N	0.49	2.44	30	12
1:A:42:GLY:C	1:A:44:THR:N	0.49	2.66	12	4
1:A:55:ARG:HE	1:A:55:ARG:CA	0.49	2.19	23	2
1:A:46:ASN:N	1:A:46:ASN:ND2	0.48	2.62	15	1
1:A:38:VAL:O	1:A:38:VAL:CG1	0.48	2.62	16	16
1:A:36:MET:C	1:A:38:VAL:N	0.48	2.67	8	5

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:46:ASN:CG	1:A:47:GLY:N	0.48	2.68	38	13
1:A:43:THR:O	1:A:43:THR:CG2	0.48	2.62	34	3
1:A:20:GLU:CG	1:A:20:GLU:O	0.48	2.61	26	1
1:A:37:LEU:O	1:A:41:LEU:CB	0.48	2.62	36	1
1:A:28:GLY:O	1:A:32:PRO:CD	0.48	2.62	33	1
1:A:45:GLY:C	1:A:46:ASN:ND2	0.47	2.67	35	1
1:A:36:MET:O	1:A:38:VAL:N	0.47	2.47	30	3
1:A:37:LEU:O	1:A:41:LEU:CD2	0.47	2.62	40	1
1:A:51:TRP:CH2	1:A:55:ARG:NH2	0.47	2.83	2	4
1:A:20:GLU:O	1:A:24:TRP:N	0.47	2.48	33	4
1:A:17:SER:C	1:A:19:CYS:N	0.47	2.68	32	12
1:A:53:VAL:C	1:A:55:ARG:N	0.47	2.68	6	8
1:A:53:VAL:O	1:A:56:LYS:N	0.47	2.48	19	6
1:A:32:PRO:O	1:A:36:MET:SD	0.47	2.73	35	3
1:A:41:LEU:C	1:A:41:LEU:CD1	0.47	2.82	37	6
1:A:34:ILE:CD1	1:A:34:ILE:N	0.46	2.77	25	1
1:A:34:ILE:N	1:A:34:ILE:HD12	0.46	2.23	25	1
1:A:52:THR:O	1:A:56:LYS:N	0.46	2.48	12	3
1:A:59:HIS:CD2	1:A:59:HIS:C	0.46	2.89	18	1
1:A:15:ASN:C	1:A:15:ASN:ND2	0.46	2.68	19	1
1:A:21:TYR:CD1	1:A:21:TYR:C	0.46	2.89	32	14
1:A:39:PHE:CZ	1:A:43:THR:HG21	0.46	2.45	26	1
1:A:45:GLY:O	1:A:46:ASN:ND2	0.46	2.49	35	1
1:A:36:MET:N	1:A:36:MET:SD	0.46	2.88	24	5
1:A:28:GLY:O	1:A:32:PRO:CG	0.46	2.64	37	1
1:A:17:SER:O	1:A:19:CYS:N	0.45	2.50	34	7
1:A:21:TYR:C	1:A:21:TYR:CD1	0.45	2.89	9	4
1:A:42:GLY:O	1:A:45:GLY:N	0.45	2.49	12	2
1:A:53:VAL:O	1:A:55:ARG:N	0.45	2.49	6	6
1:A:20:GLU:CD	1:A:20:GLU:N	0.45	2.69	22	1
1:A:39:PHE:O	1:A:43:THR:CB	0.45	2.65	31	9
1:A:14:ASP:C	1:A:16:GLN:N	0.45	2.69	7	4
1:A:16:GLN:HE21	1:A:16:GLN:H	0.45	1.54	6	1
1:A:20:GLU:O	1:A:23:ASP:N	0.44	2.48	20	3
1:A:24:TRP:CD2	1:A:24:TRP:C	0.44	2.89	33	1
1:A:14:ASP:O	1:A:16:GLN:N	0.44	2.51	7	2
1:A:42:GLY:C	1:A:44:THR:H	0.43	2.15	35	3
1:A:17:SER:OG	1:A:18:GLU:N	0.43	2.51	30	2
1:A:27:SER:C	1:A:29:ALA:N	0.43	2.72	38	1
1:A:16:GLN:HE21	1:A:16:GLN:N	0.43	2.12	6	1
1:A:35:TYR:O	1:A:38:VAL:N	0.43	2.51	35	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:44:THR:CG2	1:A:45:GLY:N	0.43	2.82	40	1
1:A:49:VAL:HG12	1:A:50:LEU:N	0.43	2.28	3	23
1:A:55:ARG:CA	1:A:55:ARG:NE	0.43	2.82	23	1
1:A:40:LEU:C	1:A:40:LEU:CD1	0.43	2.87	30	1
1:A:16:GLN:O	1:A:20:GLU:OE1	0.43	2.37	22	1
1:A:39:PHE:O	1:A:43:THR:OG1	0.43	2.37	30	2
1:A:17:SER:O	1:A:21:TYR:CB	0.42	2.68	38	1
1:A:24:TRP:CD2	1:A:25:LYS:N	0.42	2.87	26	5
1:A:16:GLN:HE21	1:A:16:GLN:C	0.42	2.18	25	1
1:A:53:VAL:C	1:A:55:ARG:H	0.42	2.18	27	4
1:A:20:GLU:O	1:A:20:GLU:OE1	0.42	2.37	3	1
1:A:18:GLU:OE1	1:A:18:GLU:O	0.42	2.37	5	1
1:A:36:MET:C	1:A:38:VAL:H	0.42	2.18	8	2
1:A:40:LEU:O	1:A:44:THR:OG1	0.42	2.37	19	5
1:A:16:GLN:CG	1:A:17:SER:N	0.42	2.82	23	1
1:A:18:GLU:O	1:A:20:GLU:N	0.42	2.52	23	1
1:A:47:GLY:O	1:A:51:TRP:CB	0.42	2.68	28	2
1:A:13:ALA:O	1:A:16:GLN:OE1	0.42	2.38	36	1
1:A:18:GLU:C	1:A:20:GLU:N	0.41	2.74	23	1
1:A:24:TRP:O	1:A:28:GLY:CA	0.41	2.68	10	1
1:A:37:LEU:O	1:A:41:LEU:N	0.41	2.50	15	1
1:A:24:TRP:CE3	1:A:25:LYS:CA	0.41	3.03	33	3
1:A:49:VAL:O	1:A:51:TRP:N	0.41	2.54	34	2
1:A:36:MET:O	1:A:40:LEU:CD2	0.41	2.69	33	1
1:A:34:ILE:O	1:A:38:VAL:HG23	0.41	2.15	7	1
1:A:15:ASN:OD1	1:A:18:GLU:OE2	0.41	2.39	1	1
1:A:17:SER:C	1:A:19:CYS:H	0.41	2.19	3	2
1:A:24:TRP:O	1:A:26:SER:N	0.41	2.54	38	1
1:A:27:SER:C	1:A:29:ALA:H	0.41	2.19	38	1
1:A:59:HIS:O	1:A:59:HIS:ND1	0.40	2.54	5	1
1:A:49:VAL:C	1:A:51:TRP:N	0.40	2.74	10	2
1:A:19:CYS:O	1:A:23:ASP:OD2	0.40	2.40	32	1
1:A:57:LYS:CB	1:A:57:LYS:NZ	0.40	2.84	6	1
1:A:14:ASP:N	1:A:14:ASP:OD1	0.40	2.53	8	1
1:A:50:LEU:O	1:A:54:PHE:CG	0.40	2.74	36	1
1:A:24:TRP:C	1:A:26:SER:N	0.40	2.74	38	1
1:A:46:ASN:OD1	1:A:50:LEU:HD12	0.40	2.17	1	1
1:A:23:ASP:OD1	1:A:24:TRP:N	0.40	2.55	27	1

6.3 Torsion angles (i)

6.3.1 Protein backbone (i)

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	47/64 (73%)	37±2 (78±4%)	8±2 (18±4%)	2±1 (4±2%)	4	31
All	All	1880/2560 (73%)	1474 (78%)	335 (18%)	71 (4%)	4	31

All 10 unique Ramachandran outliers are listed below. They are sorted by the frequency of occurrence in the ensemble.

Mol	Chain	Res	Type	Models (Total)
1	A	12	GLY	34
1	A	30	LEU	14
1	A	49	VAL	7
1	A	18	GLU	6
1	A	43	THR	4
1	A	37	LEU	2
1	A	54	PHE	1
1	A	33	ALA	1
1	A	42	GLY	1
1	A	59	HIS	1

6.3.2 Protein sidechains (i)

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	38/53 (72%)	29±2 (76±5%)	9±2 (24±5%)	2	24
All	All	1520/2120 (72%)	1150 (76%)	370 (24%)	2	24

All 27 unique residues with a non-rotameric sidechain are listed below. They are sorted by the frequency of occurrence in the ensemble.

Mol	Chain	Res	Type	Models (Total)
1	A	35	TYR	38
1	A	24	TRP	34
1	A	23	ASP	29
1	A	43	THR	25
1	A	59	HIS	25
1	A	56	LYS	21
1	A	36	MET	21
1	A	46	ASN	18
1	A	15	ASN	17
1	A	54	PHE	16
1	A	30	LEU	15
1	A	26	SER	12
1	A	57	LYS	12
1	A	40	LEU	11
1	A	27	SER	10
1	A	41	LEU	10
1	A	19	CYS	8
1	A	14	ASP	7
1	A	37	LEU	7
1	A	16	GLN	6
1	A	21	TYR	6
1	A	22	THR	6
1	A	55	ARG	5
1	A	17	SER	5
1	A	20	GLU	3
1	A	34	ILE	2
1	A	18	GLU	1

6.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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

6.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

6.6 Ligand geometry

There are no ligands in this entry.

6.7 Other polymers

There are no such molecules in this entry.

6.8 Polymer linkage issues

There are no chain breaks in this entry.

7 Chemical shift validation

The completeness of assignment taking into account all chemical shift lists is 91% for the well-defined parts and 88% for the entire structure.

7.1 Chemical shift list 1

File name: working_cs.cif

Chemical shift list name: *assigned_chem_shift_list*

7.1.1 Bookkeeping

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

Total number of shifts	741
Number of shifts mapped to atoms	741
Number of unparsed shifts	0
Number of shifts with mapping errors	0
Number of shifts with mapping warnings	0
Number of shift outliers (ShiftChecker)	0

7.1.2 Chemical shift referencing

The following table shows the suggested chemical shift referencing corrections.

Nucleus	# values	Correction ± precision, *ppm*	Suggested action
$^{13}C_{\alpha}$	64	-1.19 ± 0.18	Should be checked
$^{13}C_{\beta}$	56	0.98 ± 0.19	Should be checked
$^{13}C'$	64	-0.80 ± 0.12	Should be applied
^{15}N	62	0.88 ± 0.20	Should be applied

7.1.3 Completeness of resonance assignments

The following table shows the completeness of the chemical shift assignments for the well-defined regions of the structure. The overall completeness is 91%, i.e. 567 atoms were assigned a chemical shift out of a possible 620. 0 out of 9 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

	Total	^{1}H	^{13}C	^{15}N
Backbone	236/239 (99%)	96/99 (97%)	94/94 (100%)	46/46 (100%)
Sidechain	281/312 (90%)	186/205 (91%)	90/98 (92%)	5/9 (56%)

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	Total	^{1}H	^{13}C	^{15}N
Aromatic	50/69 (72%)	27/34 (79%)	21/32 (66%)	2/3 (67%)
Overall	567/620 (91%)	309/338 (91%)	205/224 (92%)	53/58 (91%)

The following table shows the completeness of the chemical shift assignments for the full structure. The overall completeness is 88%, i.e. 741 atoms were assigned a chemical shift out of a possible 846. 0 out of 9 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

	Total	^{1}H	^{13}C	^{15}N
Backbone	320/326 (98%)	130/135 (96%)	128/128 (100%)	62/63 (98%)
Sidechain	347/388 (89%)	229/253 (91%)	112/125 (90%)	6/10 (60%)
Aromatic	74/132 (56%)	41/67 (61%)	31/57 (54%)	2/8 (25%)
Overall	741/846 (88%)	400/455 (88%)	271/310 (87%)	70/81 (86%)

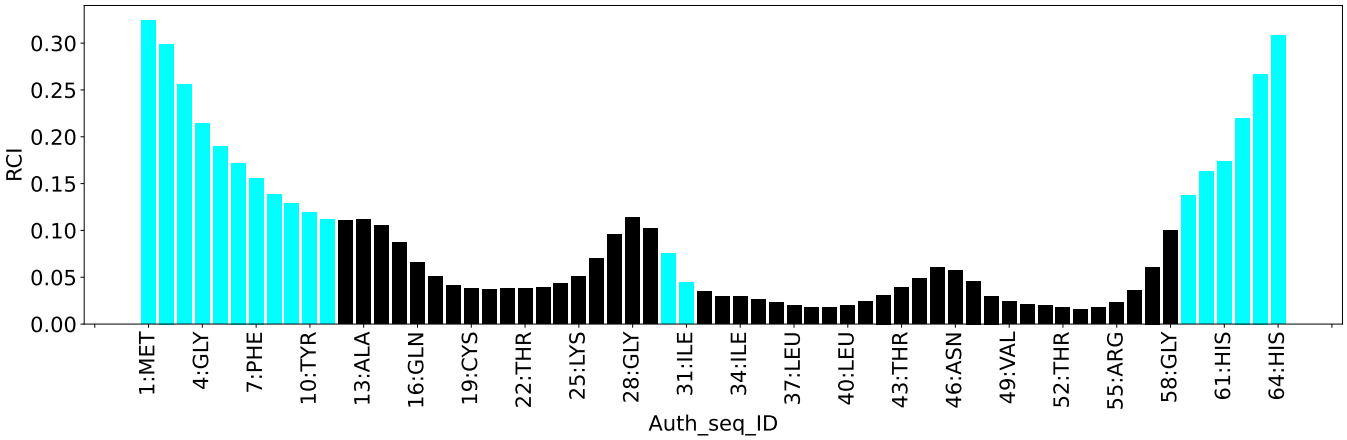
7.1.4 Statistically unusual chemical shifts (i)

There are no statistically unusual chemical shifts.

7.1.5 Random Coil Index (RCI) plots (i)

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

Random coil index (RCI) for chain A:



8 NMR restraints analysis

8.1 Conformationally restricting restraints

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

Description	Value
Total distance restraints	2439
Intra-residue (|i-j|=0)	1131
Sequential (|i-j|=1)	601
Medium range (|i-j|>1 and |i-j|<5)	700
Long range (|i-j|≥5)	7
Inter-chain	0
Hydrogen bond restraints	0
Disulfide bond restraints	0
Total dihedral-angle restraints	0
Number of unmapped restraints	0
Number of restraints per residue	38.1
Number of long range restraints per residue[1]	0.1

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

8.2 Residual restraint violations

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

8.2.1 Average number of distance violations per model

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

Bins (Å)	Average number of violations per model	Max (Å)
0.1-0.2 (Small)	10.1	0.2
0.2-0.5 (Medium)	11.7	0.5
>0.5 (Large)	4.2	1.5

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

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

9 Distance violation analysis (i)

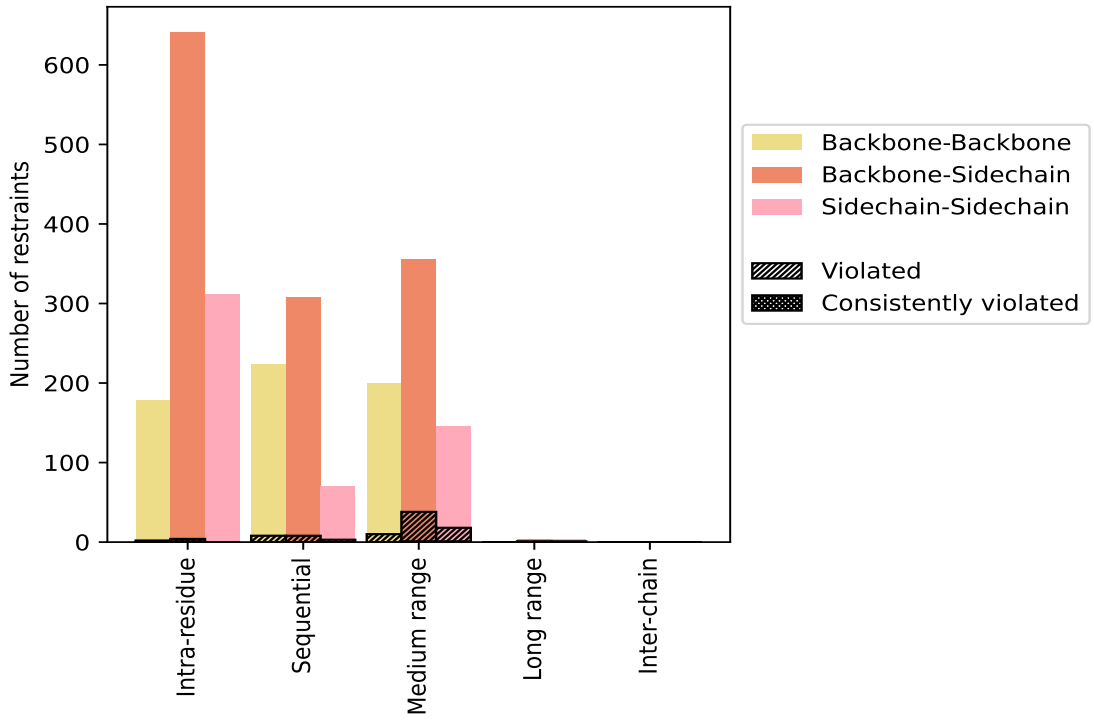
9.1 Summary of distance violations (i)

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

Restraints type	Count	%[1]	Violated[3]			Consistently Violated[4]		
			Count	%[2]	%[1]	Count	%[2]	%[1]
Intra-residue (|i-j|=0)	1131	46.4	6	0.5	0.2	1	0.1	0.0
Backbone-Backbone	178	7.3	2	1.1	0.1	0	0.0	0.0
Backbone-Sidechain	641	26.3	4	0.6	0.2	1	0.2	0.0
Sidechain-Sidechain	312	12.8	0	0.0	0.0	0	0.0	0.0
Sequential (|i-j|=1)	601	24.6	19	3.2	0.8	0	0.0	0.0
Backbone-Backbone	223	9.1	8	3.6	0.3	0	0.0	0.0
Backbone-Sidechain	308	12.6	8	2.6	0.3	0	0.0	0.0
Sidechain-Sidechain	70	2.9	3	4.3	0.1	0	0.0	0.0
Medium range (|i-j|>1 & |i-j|<5)	700	28.7	66	9.4	2.7	2	0.3	0.1
Backbone-Backbone	200	8.2	10	5.0	0.4	0	0.0	0.0
Backbone-Sidechain	355	14.6	38	10.7	1.6	1	0.3	0.0
Sidechain-Sidechain	145	5.9	18	12.4	0.7	1	0.7	0.0
Long range (|i-j|≥5)	7	0.3	2	28.6	0.1	0	0.0	0.0
Backbone-Backbone	0	0.0	0	0.0	0.0	0	0.0	0.0
Backbone-Sidechain	3	0.1	1	33.3	0.0	0	0.0	0.0
Sidechain-Sidechain	4	0.2	1	25.0	0.0	0	0.0	0.0
Inter-chain	0	0.0	0	0.0	0.0	0	0.0	0.0
Backbone-Backbone	0	0.0	0	0.0	0.0	0	0.0	0.0
Backbone-Sidechain	0	0.0	0	0.0	0.0	0	0.0	0.0
Sidechain-Sidechain	0	0.0	0	0.0	0.0	0	0.0	0.0
Hydrogen bond	0	0.0	0	0.0	0.0	0	0.0	0.0
Disulfide bond	0	0.0	0	0.0	0.0	0	0.0	0.0
Total	2439	100.0	93	3.8	3.8	3	0.1	0.1
Backbone-Backbone	601	24.6	20	3.3	0.8	0	0.0	0.0
Backbone-Sidechain	1307	53.6	51	3.9	2.1	2	0.2	0.1
Sidechain-Sidechain	531	21.8	22	4.1	0.9	1	0.2	0.0

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

9.1.1 Bar chart : Distribution of distance restraints and violations



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

9.2 Distance violation statistics for each model

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

Model ID	Number of violations						Mean (Å)	Max (Å)	SD[6] (Å)	Median (Å)
	IR[1]	SQ[2]	MR[3]	LR[4]	IC[5]	Total				
1	5	10	14	0	0	29	0.26	0.9	0.19	0.17
2	2	9	15	0	0	26	0.35	1.0	0.21	0.3
3	4	8	19	0	0	31	0.28	0.85	0.2	0.19
4	2	6	14	0	0	22	0.35	0.97	0.21	0.32
5	4	8	23	0	0	35	0.34	1.07	0.23	0.29
6	3	8	16	0	0	27	0.38	1.2	0.3	0.3
7	3	7	14	0	0	24	0.34	1.03	0.24	0.24
8	3	5	12	0	0	20	0.34	0.95	0.23	0.32
9	5	6	13	0	0	24	0.29	0.85	0.2	0.24
10	3	6	16	0	0	25	0.35	1.04	0.24	0.29

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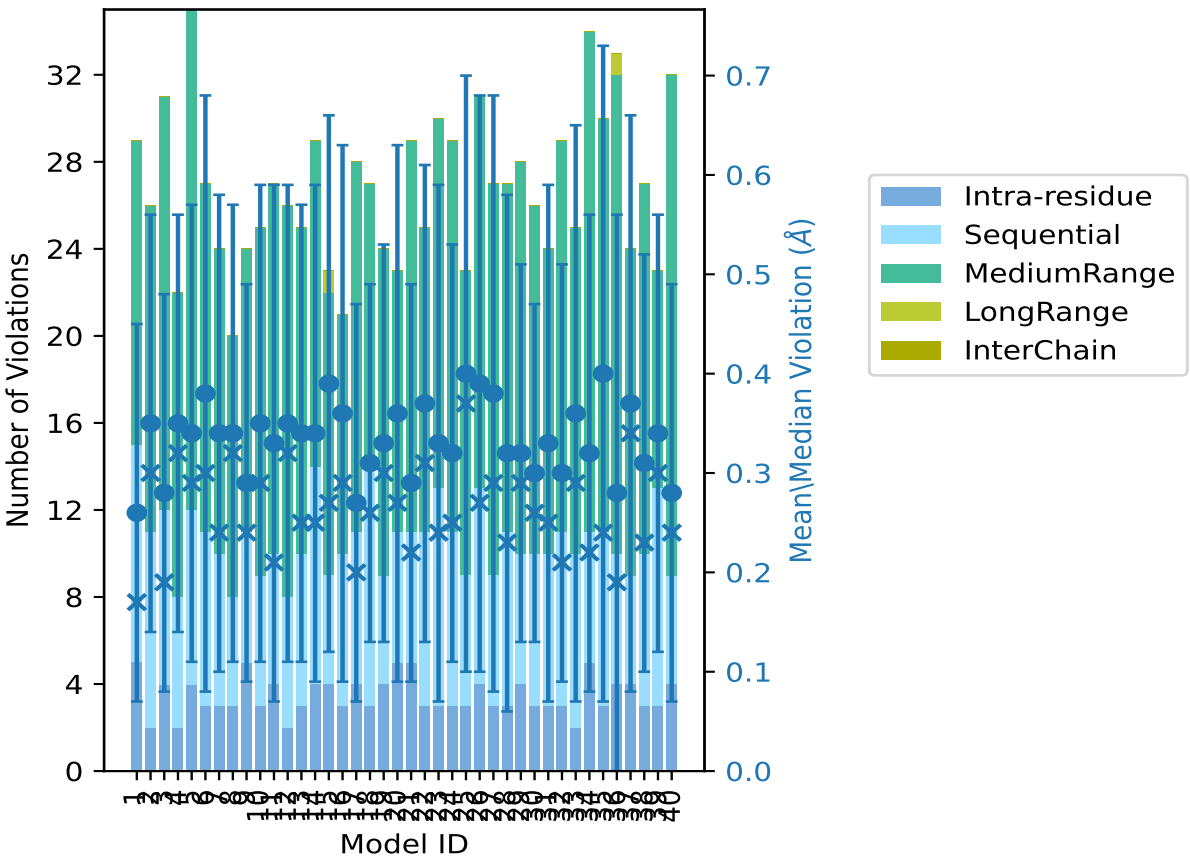
Model ID	Number of violations						Mean (Å)	Max (Å)	SD[6] (Å)	Median (Å)
	IR[1]	SQ[2]	MR[3]	LR[4]	IC[5]	Total				
11	4	6	17	0	0	27	0.33	1.21	0.26	0.21
12	2	6	18	0	0	26	0.35	1.2	0.24	0.32
13	3	7	15	0	0	25	0.34	0.9	0.23	0.25
14	4	10	15	0	0	29	0.34	1.19	0.25	0.25
15	4	5	13	1	0	23	0.39	1.0	0.27	0.27
16	3	7	11	0	0	21	0.36	1.26	0.27	0.29
17	4	7	17	0	0	28	0.27	0.85	0.2	0.2
18	3	11	13	0	0	27	0.31	0.87	0.18	0.26
19	4	5	15	0	0	24	0.33	0.85	0.2	0.3
20	5	6	12	0	0	23	0.36	1.07	0.27	0.27
21	5	6	18	0	0	29	0.29	1.18	0.2	0.22
22	3	8	14	0	0	25	0.37	1.06	0.24	0.31
23	3	10	17	0	0	30	0.33	1.41	0.26	0.24
24	3	8	18	0	0	29	0.32	0.84	0.21	0.25
25	3	6	14	0	0	23	0.4	1.5	0.3	0.37
26	4	9	18	0	0	31	0.39	1.19	0.29	0.27
27	3	6	18	0	0	27	0.38	1.21	0.3	0.29
28	3	8	16	0	0	27	0.32	1.23	0.26	0.23
29	4	6	18	0	0	28	0.32	0.95	0.19	0.29
30	3	7	16	0	0	26	0.3	0.83	0.17	0.26
31	3	7	14	0	0	24	0.33	1.23	0.26	0.25
32	3	8	18	0	0	29	0.3	0.85	0.21	0.21
33	2	8	15	0	0	25	0.36	1.48	0.29	0.29
34	5	6	23	0	0	34	0.32	1.12	0.24	0.22
35	3	8	19	0	0	30	0.4	1.34	0.33	0.24
36	4	6	22	1	0	33	0.28	1.3	0.28	0.19
37	4	5	15	0	0	24	0.37	1.41	0.29	0.34
38	3	7	17	0	0	27	0.31	0.89	0.21	0.23
39	3	10	10	0	0	23	0.34	0.93	0.22	0.3
40	4	5	23	0	0	32	0.28	1.2	0.21	0.24

[1]Intra-residue restraints, [2]Sequential restraints, [3]Medium range restraints, [4]Long range restraints, [5]Inter-chain restraints, [6]Standard deviation

9.2.1 Bar graph : Distance Violation statistics for each model



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

9.3 Distance violation statistics for the ensemble

Violation analysis may find that some restraints are violated in few models and some are violated in most of models. The following table provides this information as number of violated restraints for a given fraction of the ensemble. In total, 2346(IR:1125, SQ:582, MR:634, LR:5, IC:0) restraints are not violated in the ensemble.

Number of violated restraints						Fraction of the ensemble	
IR[1]	SQ[2]	MR[3]	LR[4]	IC[5]	Total	Count[6]	%
3	7	19	0	0	29	1	2.5
0	2	6	0	0	8	2	5.0
1	1	4	0	0	6	3	7.5
0	0	4	0	0	4	4	10.0
0	0	3	0	0	3	5	12.5
0	0	3	0	0	3	6	15.0

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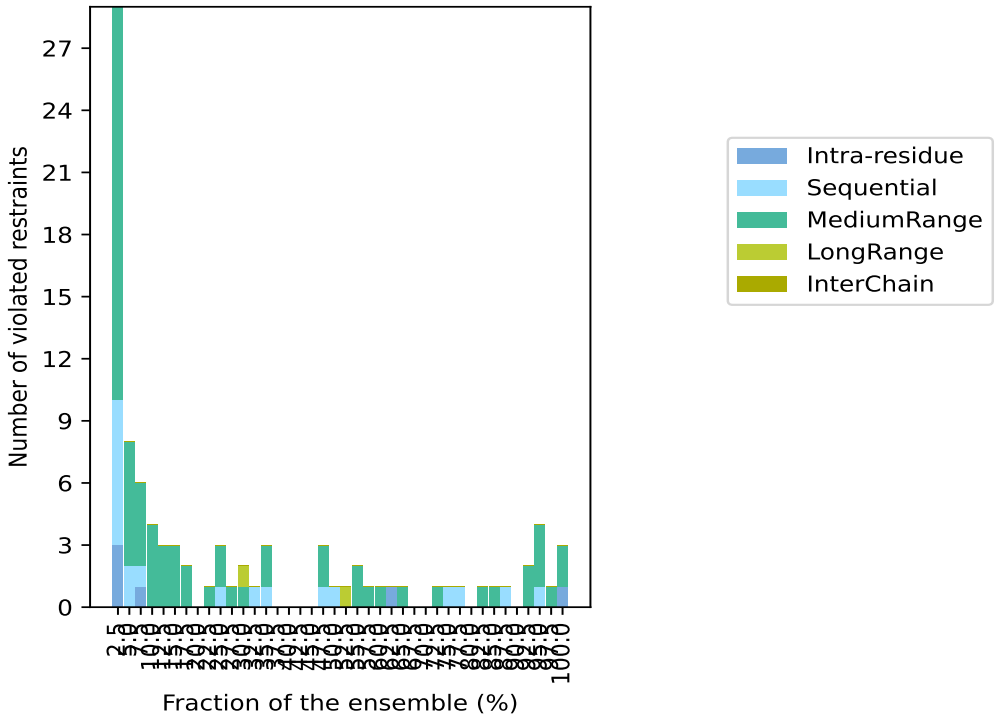
Number of violated restraints						Fraction of the ensemble	
IR[1]	SQ[2]	MR[3]	LR[4]	IC[5]	Total	Count[6]	%
0	0	2	0	0	2	7	17.5
0	0	0	0	0	0	8	20.0
0	0	1	0	0	1	9	22.5
0	1	2	0	0	3	10	25.0
0	0	1	0	0	1	11	27.5
0	0	1	1	0	2	12	30.0
0	1	0	0	0	1	13	32.5
0	1	2	0	0	3	14	35.0
0	0	0	0	0	0	15	37.5
0	0	0	0	0	0	16	40.0
0	0	0	0	0	0	17	42.5
0	0	0	0	0	0	18	45.0
0	1	2	0	0	3	19	47.5
0	1	0	0	0	1	20	50.0
0	0	0	1	0	1	21	52.5
0	0	2	0	0	2	22	55.0
0	0	1	0	0	1	23	57.5
0	0	1	0	0	1	24	60.0
1	0	0	0	0	1	25	62.5
0	0	1	0	0	1	26	65.0
0	0	0	0	0	0	27	67.5
0	0	0	0	0	0	28	70.0
0	0	1	0	0	1	29	72.5
0	1	0	0	0	1	30	75.0
0	1	0	0	0	1	31	77.5
0	0	0	0	0	0	32	80.0
0	0	1	0	0	1	33	82.5
0	0	1	0	0	1	34	85.0
0	1	0	0	0	1	35	87.5
0	0	0	0	0	0	36	90.0
0	0	2	0	0	2	37	92.5
0	1	3	0	0	4	38	95.0
0	0	1	0	0	1	39	97.5
1	0	2	0	0	3	40	100.0

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

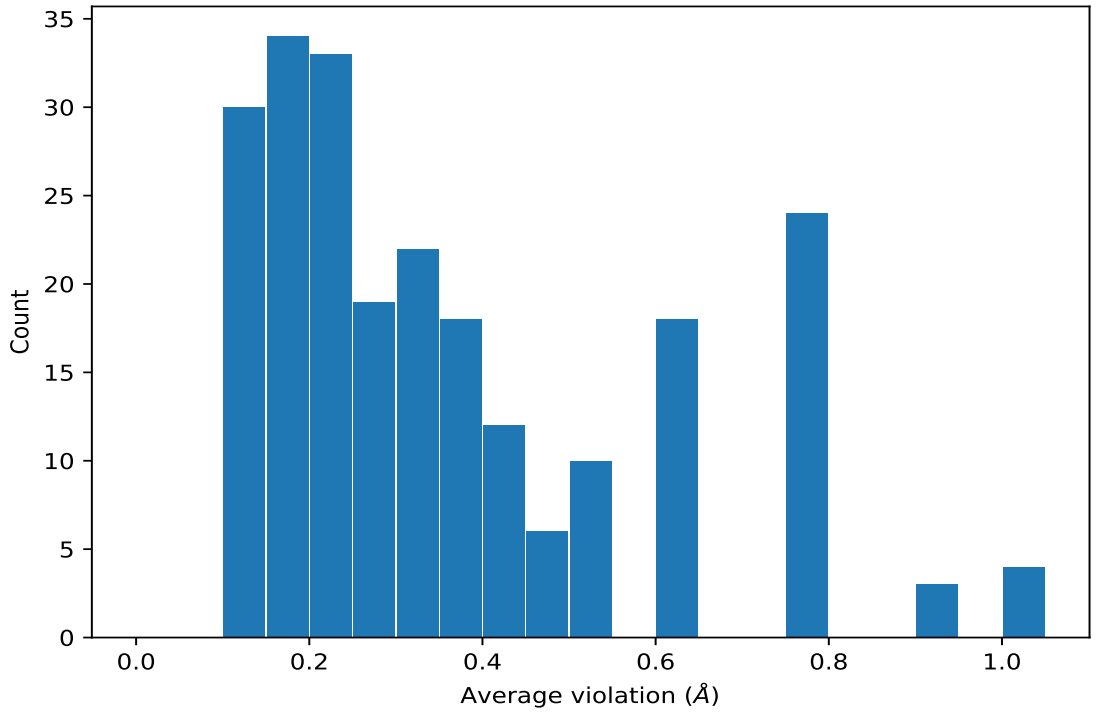
9.3.1 Bar graph : Distance violation statistics for the ensemble



9.4 Most violated distance restraints in the ensemble

9.4.1 Histogram : Distribution of mean distance violations

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



9.4.2 Table: Most violated distance restraints

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

Key	Atom-1	Atom-2	Models[1]	Mean (Å)	SD[1] (Å)	Median (Å)
(1,1782)	1:36:A:MET:HE3	1:35:A:TYR:HA	40	1.0	0.25	0.96
(1,1782)	1:36:A:MET:HE1	1:35:A:TYR:HA	40	1.0	0.25	0.96
(1,1782)	1:36:A:MET:HE2	1:35:A:TYR:HA	40	1.0	0.25	0.96
(1,1782)	1:36:A:MET:HE3	1:37:A:LEU:HA	40	1.0	0.25	0.96
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG2	40	0.49	0.1	0.49
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG3	40	0.49	0.1	0.49
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG2	40	0.49	0.1	0.49
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG3	40	0.49	0.1	0.49
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG2	40	0.49	0.1	0.49
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG3	40	0.49	0.1	0.49
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	40	0.38	0.03	0.38
(1,1986)	1:48:A:LEU:H	1:48:A:LEU:HG	40	0.38	0.03	0.38
(1,803)	1:40:A:LEU:HD11	1:44:A:THR:HG21	39	0.75	0.19	0.73
(1,803)	1:40:A:LEU:HD11	1:44:A:THR:HG22	39	0.75	0.19	0.73
(1,803)	1:40:A:LEU:HD11	1:44:A:THR:HG23	39	0.75	0.19	0.73
(1,803)	1:40:A:LEU:HD13	1:44:A:THR:HG21	39	0.75	0.19	0.73

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Key	Atom-1	Atom-2	Models[1]	Mean (Å)	SD[1] (Å)	Median (Å)
(1,803)	1:40:A:LEU:HD13	1:44:A:THR:HG22	39	0.75	0.19	0.73
(1,803)	1:40:A:LEU:HD13	1:44:A:THR:HG23	39	0.75	0.19	0.73
(1,803)	1:40:A:LEU:HD12	1:44:A:THR:HG21	39	0.75	0.19	0.73
(1,803)	1:40:A:LEU:HD12	1:44:A:THR:HG22	39	0.75	0.19	0.73
(1,803)	1:40:A:LEU:HD12	1:44:A:THR:HG23	39	0.75	0.19	0.73
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG21	39	0.75	0.19	0.73
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG22	39	0.75	0.19	0.73
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG23	39	0.75	0.19	0.73
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG21	39	0.75	0.19	0.73
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG22	39	0.75	0.19	0.73
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG23	39	0.75	0.19	0.73
(1,803)	1:49:A:VAL:HG11	1:52:A:THR:HG21	39	0.75	0.19	0.73
(1,803)	1:49:A:VAL:HG11	1:52:A:THR:HG22	39	0.75	0.19	0.73
(1,803)	1:49:A:VAL:HG11	1:52:A:THR:HG23	39	0.75	0.19	0.73
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	38	0.34	0.11	0.36
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	38	0.34	0.11	0.36
(1,83)	1:49:A:VAL:H	1:51:A:TRP:HB2	38	0.34	0.11	0.36
(1,83)	1:49:A:VAL:H	1:51:A:TRP:HB3	38	0.34	0.11	0.36
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG12	38	0.27	0.09	0.26
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG13	38	0.27	0.09	0.26
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG12	38	0.27	0.09	0.26
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG13	38	0.27	0.09	0.26
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	38	0.2	0.05	0.18
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	38	0.18	0.04	0.18
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	37	0.29	0.11	0.29
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	37	0.29	0.11	0.29
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	37	0.29	0.11	0.29
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB1	37	0.29	0.11	0.29
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB2	37	0.29	0.11	0.29
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB3	37	0.29	0.11	0.29
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	37	0.13	0.01	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	37	0.13	0.01	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	37	0.13	0.01	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	37	0.13	0.01	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	37	0.13	0.01	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	37	0.13	0.01	0.13
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	35	0.15	0.01	0.15
(1,1313)	1:38:A:VAL:HG22	1:34:A:ILE:HB	34	0.33	0.17	0.3
(1,1313)	1:38:A:VAL:HG21	1:34:A:ILE:HB	34	0.33	0.17	0.3
(1,1313)	1:38:A:VAL:HG23	1:34:A:ILE:HB	34	0.33	0.17	0.3
(1,955)	1:45:A:GLY:HA2	1:48:A:LEU:HG	33	0.35	0.16	0.33
(1,955)	1:34:A:ILE:HA	1:37:A:LEU:HG	33	0.35	0.16	0.33

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Key	Atom-1	Atom-2	Models[1]	Mean (Å)	SD[1] (Å)	Median (Å)
(1,1458)	1:22:A:THR:HG22	1:23:A:ASP:HA	31	0.42	0.09	0.44
(1,1458)	1:22:A:THR:HG23	1:23:A:ASP:HA	31	0.42	0.09	0.44
(1,1458)	1:22:A:THR:HG21	1:23:A:ASP:HA	31	0.42	0.09	0.44
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB2	30	0.38	0.19	0.36
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB3	30	0.38	0.19	0.36
(1,691)	1:15:A:ASN:HB2	1:16:A:GLN:HB2	30	0.38	0.19	0.36
(1,691)	1:15:A:ASN:HB2	1:16:A:GLN:HB3	30	0.38	0.19	0.36
(1,691)	1:46:A:ASN:HB3	1:49:A:VAL:HB	30	0.38	0.19	0.36
(1,444)	1:13:A:ALA:H	1:10:A:TYR:HB2	29	0.26	0.07	0.29
(1,444)	1:13:A:ALA:H	1:10:A:TYR:HB3	29	0.26	0.07	0.29
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	29	0.26	0.07	0.29
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	29	0.26	0.07	0.29
(1,915)	1:49:A:VAL:HG23	1:46:A:ASN:HA	26	0.24	0.1	0.24
(1,915)	1:49:A:VAL:HG12	1:52:A:THR:HB	26	0.24	0.1	0.24
(1,915)	1:49:A:VAL:HG21	1:46:A:ASN:HA	26	0.24	0.1	0.24
(1,915)	1:49:A:VAL:HG13	1:52:A:THR:HB	26	0.24	0.1	0.24
(1,915)	1:49:A:VAL:HG22	1:46:A:ASN:HA	26	0.24	0.1	0.24
(1,915)	1:49:A:VAL:HG11	1:52:A:THR:HB	26	0.24	0.1	0.24
(1,1858)	1:27:A:SER:H	1:27:A:SER:HA	25	0.12	0.02	0.12
(1,1858)	1:28:A:GLY:H	1:27:A:SER:HA	25	0.12	0.02	0.12
(1,14)	1:55:A:ARG:HH21	1:52:A:THR:HB	24	0.2	0.07	0.2
(1,14)	1:55:A:ARG:HH22	1:52:A:THR:HB	24	0.2	0.07	0.2
(1,14)	1:55:A:ARG:HH11	1:52:A:THR:HB	24	0.2	0.07	0.2
(1,14)	1:55:A:ARG:HH12	1:52:A:THR:HB	24	0.2	0.07	0.2
(1,1498)	1:31:A:ILE:HD11	1:33:A:ALA:HB1	23	0.61	0.35	0.5
(1,1498)	1:31:A:ILE:HD11	1:33:A:ALA:HB2	23	0.61	0.35	0.5
(1,1498)	1:31:A:ILE:HD11	1:33:A:ALA:HB3	23	0.61	0.35	0.5
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB1	23	0.61	0.35	0.5
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB2	23	0.61	0.35	0.5
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB3	23	0.61	0.35	0.5
(1,1498)	1:30:A:LEU:HD12	1:33:A:ALA:HB1	23	0.61	0.35	0.5
(1,1498)	1:30:A:LEU:HD12	1:33:A:ALA:HB2	23	0.61	0.35	0.5
(1,1498)	1:30:A:LEU:HD12	1:33:A:ALA:HB3	23	0.61	0.35	0.5
(1,1498)	1:31:A:ILE:HD13	1:33:A:ALA:HB1	23	0.61	0.35	0.5
(1,1498)	1:31:A:ILE:HD13	1:33:A:ALA:HB2	23	0.61	0.35	0.5
(1,1498)	1:31:A:ILE:HD13	1:33:A:ALA:HB3	23	0.61	0.35	0.5
(1,1498)	1:30:A:LEU:HD11	1:33:A:ALA:HB1	23	0.61	0.35	0.5
(1,1498)	1:30:A:LEU:HD11	1:33:A:ALA:HB2	23	0.61	0.35	0.5
(1,1498)	1:30:A:LEU:HD11	1:33:A:ALA:HB3	23	0.61	0.35	0.5
(1,1498)	1:30:A:LEU:HD22	1:33:A:ALA:HB1	23	0.61	0.35	0.5
(1,1498)	1:30:A:LEU:HD22	1:33:A:ALA:HB2	23	0.61	0.35	0.5
(1,1498)	1:30:A:LEU:HD22	1:33:A:ALA:HB3	23	0.61	0.35	0.5

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Key	Atom-1	Atom-2	Models[1]	Mean (Å)	SD[1] (Å)	Median (Å)
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD11	22	0.36	0.03	0.37
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD12	22	0.36	0.03	0.37
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD13	22	0.36	0.03	0.37
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB2	22	0.16	0.06	0.16
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB3	22	0.16	0.06	0.16
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH21	21	0.77	0.2	0.83
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH22	21	0.77	0.2	0.83
(1,1156)	1:52:A:THR:HG21	1:55:A:ARG:HH21	21	0.77	0.2	0.83
(1,1156)	1:52:A:THR:HG21	1:55:A:ARG:HH22	21	0.77	0.2	0.83
(1,1156)	1:52:A:THR:HG23	1:55:A:ARG:HH21	21	0.77	0.2	0.83
(1,1156)	1:52:A:THR:HG23	1:55:A:ARG:HH22	21	0.77	0.2	0.83
(1,1896)	1:36:A:MET:HE1	1:40:A:LEU:HB2	20	0.39	0.18	0.43
(1,1896)	1:36:A:MET:HE1	1:40:A:LEU:HB3	20	0.39	0.18	0.43
(1,1896)	1:36:A:MET:HE3	1:40:A:LEU:HB2	20	0.39	0.18	0.43
(1,1896)	1:36:A:MET:HE3	1:40:A:LEU:HB3	20	0.39	0.18	0.43
(1,1896)	1:36:A:MET:HE2	1:40:A:LEU:HB2	20	0.39	0.18	0.43
(1,1896)	1:36:A:MET:HE2	1:40:A:LEU:HB3	20	0.39	0.18	0.43
(1,480)	1:52:A:THR:HB	1:55:A:ARG:HE	19	0.39	0.1	0.39
(1,480)	1:51:A:TRP:HA	1:55:A:ARG:HE	19	0.39	0.1	0.39
(1,2384)	1:47:A:GLY:H	1:50:A:LEU:HG	19	0.34	0.08	0.33
(1,699)	1:16:A:GLN:HA	1:18:A:GLU:H	19	0.22	0.09	0.19
(1,699)	1:16:A:GLN:HA	1:19:A:CYS:H	19	0.22	0.09	0.19
(1,2203)	1:23:A:ASP:HB2	1:25:A:LYS:H	14	0.24	0.09	0.22
(1,2203)	1:23:A:ASP:HB2	1:20:A:GLU:H	14	0.24	0.09	0.22
(1,2203)	1:23:A:ASP:HB3	1:25:A:LYS:H	14	0.24	0.09	0.22
(1,2121)	1:22:A:THR:H	1:18:A:GLU:HA	14	0.2	0.07	0.18
(1,2121)	1:22:A:THR:H	1:20:A:GLU:HA	14	0.2	0.07	0.18
(1,180)	1:61:A:HIS:H	1:61:A:HIS:HA	14	0.13	0.01	0.13
(1,460)	1:19:A:CYS:H	1:19:A:CYS:HA	13	0.13	0.02	0.12
(1,920)	1:34:A:ILE:HB	1:35:A:TYR:HE1	12	0.52	0.2	0.51
(1,920)	1:34:A:ILE:HB	1:35:A:TYR:HE2	12	0.52	0.2	0.51
(1,920)	1:32:A:PRO:HG2	1:35:A:TYR:HE1	12	0.52	0.2	0.51
(1,920)	1:32:A:PRO:HG2	1:35:A:TYR:HE2	12	0.52	0.2	0.51
(1,920)	1:32:A:PRO:HG3	1:35:A:TYR:HE1	12	0.52	0.2	0.51
(1,920)	1:32:A:PRO:HG3	1:35:A:TYR:HE2	12	0.52	0.2	0.51
(1,920)	1:32:A:PRO:HB2	1:35:A:TYR:HE1	12	0.52	0.2	0.51
(1,920)	1:32:A:PRO:HB2	1:35:A:TYR:HE2	12	0.52	0.2	0.51
(1,920)	1:32:A:PRO:HB3	1:35:A:TYR:HE1	12	0.52	0.2	0.51
(1,920)	1:32:A:PRO:HB3	1:35:A:TYR:HE2	12	0.52	0.2	0.51
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD11	12	0.4	0.21	0.36
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD12	12	0.4	0.21	0.36
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD13	12	0.4	0.21	0.36

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Key	Atom-1	Atom-2	Models[1]	Mean (Å)	SD[1] (Å)	Median (Å)
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD21	12	0.4	0.21	0.36
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD22	12	0.4	0.21	0.36
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD23	12	0.4	0.21	0.36
(1,1961)	1:39:A:PHE:HA	1:34:A:ILE:HG21	12	0.4	0.21	0.36
(1,1961)	1:39:A:PHE:HA	1:34:A:ILE:HG22	12	0.4	0.21	0.36
(1,1961)	1:39:A:PHE:HA	1:34:A:ILE:HG23	12	0.4	0.21	0.36
(1,1181)	1:32:A:PRO:HA	1:34:A:ILE:H	11	0.15	0.04	0.14
(1,490)	1:48:A:LEU:H	1:46:A:ASN:HB2	10	0.18	0.07	0.16
(1,490)	1:48:A:LEU:H	1:46:A:ASN:HB3	10	0.18	0.07	0.16
(1,490)	1:49:A:VAL:H	1:46:A:ASN:HB2	10	0.18	0.07	0.16
(1,490)	1:49:A:VAL:H	1:46:A:ASN:HB3	10	0.18	0.07	0.16
(1,2398)	1:48:A:LEU:H	1:46:A:ASN:HB2	10	0.18	0.07	0.16
(1,2398)	1:48:A:LEU:H	1:46:A:ASN:HB3	10	0.18	0.07	0.16
(1,2398)	1:49:A:VAL:H	1:46:A:ASN:HB2	10	0.18	0.07	0.16
(1,2398)	1:49:A:VAL:H	1:46:A:ASN:HB3	10	0.18	0.07	0.16
(1,592)	1:62:A:HIS:H	1:61:A:HIS:HA	10	0.13	0.02	0.14
(1,592)	1:62:A:HIS:H	1:62:A:HIS:HA	10	0.13	0.02	0.14
(1,2148)	1:22:A:THR:H	1:18:A:GLU:HB2	9	0.32	0.1	0.35
(1,2148)	1:22:A:THR:H	1:18:A:GLU:HB3	9	0.32	0.1	0.35
(1,2148)	1:22:A:THR:H	1:20:A:GLU:HB2	9	0.32	0.1	0.35
(1,2148)	1:22:A:THR:H	1:20:A:GLU:HB3	9	0.32	0.1	0.35
(1,1869)	1:23:A:ASP:HB2	1:22:A:THR:HB	7	0.24	0.11	0.2
(1,1869)	1:23:A:ASP:HB3	1:22:A:THR:HB	7	0.24	0.11	0.2
(1,466)	1:46:A:ASN:HD21	1:44:A:THR:HB	7	0.13	0.03	0.11
(1,1311)	1:44:A:THR:HG23	1:40:A:LEU:HA	6	0.94	0.33	1.04
(1,1311)	1:44:A:THR:HG21	1:40:A:LEU:HA	6	0.94	0.33	1.04
(1,1311)	1:44:A:THR:HG22	1:40:A:LEU:HA	6	0.94	0.33	1.04
(1,247)	1:53:A:VAL:H	1:55:A:ARG:H	6	0.34	0.12	0.3
(1,247)	1:57:A:LYS:H	1:55:A:ARG:H	6	0.34	0.12	0.3
(1,491)	1:37:A:LEU:H	1:33:A:ALA:HB1	6	0.18	0.07	0.16
(1,491)	1:37:A:LEU:H	1:33:A:ALA:HB2	6	0.18	0.07	0.16
(1,491)	1:37:A:LEU:H	1:33:A:ALA:HB3	6	0.18	0.07	0.16
(1,1409)	1:13:A:ALA:HB2	1:10:A:TYR:HA	5	0.25	0.07	0.28
(1,1409)	1:13:A:ALA:HB3	1:11:A:TYR:HA	5	0.25	0.07	0.28
(1,1409)	1:13:A:ALA:HB3	1:10:A:TYR:HA	5	0.25	0.07	0.28
(1,2414)	1:33:A:ALA:H	1:31:A:ILE:HG21	5	0.18	0.1	0.16
(1,2414)	1:33:A:ALA:H	1:31:A:ILE:HG22	5	0.18	0.1	0.16
(1,2414)	1:33:A:ALA:H	1:31:A:ILE:HG23	5	0.18	0.1	0.16
(1,589)	1:33:A:ALA:H	1:31:A:ILE:HG21	5	0.16	0.07	0.16
(1,589)	1:33:A:ALA:H	1:31:A:ILE:HG22	5	0.16	0.07	0.16
(1,589)	1:33:A:ALA:H	1:31:A:ILE:HG23	5	0.16	0.07	0.16
(1,589)	1:33:A:ALA:H	1:30:A:LEU:HD11	5	0.16	0.07	0.16

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Key	Atom-1	Atom-2	Models[1]	Mean (Å)	SD[1] (Å)	Median (Å)
(1,589)	1:33:A:ALA:H	1:30:A:LEU:HD12	5	0.16	0.07	0.16
(1,589)	1:33:A:ALA:H	1:30:A:LEU:HD13	5	0.16	0.07	0.16
(1,589)	1:33:A:ALA:H	1:30:A:LEU:HD21	5	0.16	0.07	0.16
(1,589)	1:33:A:ALA:H	1:30:A:LEU:HD22	5	0.16	0.07	0.16
(1,589)	1:33:A:ALA:H	1:30:A:LEU:HD23	5	0.16	0.07	0.16
(1,2357)	1:30:A:LEU:H	1:27:A:SER:HA	4	0.2	0.15	0.12
(1,63)	1:53:A:VAL:H	1:56:A:LYS:HD2	4	0.2	0.03	0.18
(1,63)	1:53:A:VAL:H	1:56:A:LYS:HD3	4	0.2	0.03	0.18
(1,1759)	1:36:A:MET:HG3	1:33:A:ALA:HA	4	0.17	0.06	0.14
(1,21)	1:55:A:ARG:HB2	1:51:A:TRP:HE1	4	0.15	0.06	0.12
(1,21)	1:55:A:ARG:HB3	1:51:A:TRP:HE1	4	0.15	0.06	0.12
(1,2341)	1:54:A:PHE:H	1:55:A:ARG:HG2	3	0.27	0.06	0.27
(1,2341)	1:54:A:PHE:H	1:55:A:ARG:HG3	3	0.27	0.06	0.27
(1,970)	1:33:A:ALA:HA	1:37:A:LEU:HD11	3	0.22	0.04	0.23
(1,970)	1:33:A:ALA:HA	1:37:A:LEU:HD12	3	0.22	0.04	0.23
(1,970)	1:33:A:ALA:HA	1:37:A:LEU:HD13	3	0.22	0.04	0.23
(1,970)	1:33:A:ALA:HA	1:37:A:LEU:HD21	3	0.22	0.04	0.23
(1,970)	1:33:A:ALA:HA	1:37:A:LEU:HD22	3	0.22	0.04	0.23
(1,970)	1:33:A:ALA:HA	1:37:A:LEU:HD23	3	0.22	0.04	0.23
(1,970)	1:33:A:ALA:HA	1:31:A:ILE:HG21	3	0.22	0.04	0.23
(1,970)	1:33:A:ALA:HA	1:31:A:ILE:HG22	3	0.22	0.04	0.23
(1,970)	1:33:A:ALA:HA	1:31:A:ILE:HG23	3	0.22	0.04	0.23
(1,1095)	1:41:A:LEU:HG	1:37:A:LEU:HG	3	0.16	0.08	0.1
(1,1909)	1:29:A:ALA:HA	1:30:A:LEU:HB2	3	0.16	0.01	0.15
(1,1909)	1:29:A:ALA:HA	1:30:A:LEU:HB3	3	0.16	0.01	0.15
(1,434)	1:61:A:HIS:H	1:61:A:HIS:HB2	3	0.16	0.06	0.13
(1,434)	1:61:A:HIS:H	1:61:A:HIS:HB3	3	0.16	0.06	0.13
(1,500)	1:64:A:HIS:HA	1:63:A:HIS:H	3	0.12	0.01	0.11
(1,1455)	1:54:A:PHE:HD1	1:55:A:ARG:HG2	2	0.34	0.02	0.34
(1,1455)	1:54:A:PHE:HD1	1:55:A:ARG:HG3	2	0.34	0.02	0.34
(1,1455)	1:54:A:PHE:HD2	1:55:A:ARG:HG2	2	0.34	0.02	0.34
(1,1455)	1:54:A:PHE:HD2	1:55:A:ARG:HG3	2	0.34	0.02	0.34
(1,1455)	1:51:A:TRP:HD1	1:55:A:ARG:HG2	2	0.34	0.02	0.34
(1,1455)	1:51:A:TRP:HD1	1:55:A:ARG:HG3	2	0.34	0.02	0.34
(1,2377)	1:46:A:ASN:H	1:43:A:THR:HA	2	0.2	0.01	0.2
(1,550)	1:41:A:LEU:H	1:44:A:THR:H	2	0.18	0.02	0.18
(1,550)	1:41:A:LEU:H	1:37:A:LEU:H	2	0.18	0.02	0.18
(1,409)	1:36:A:MET:H	1:34:A:ILE:HG21	2	0.15	0.04	0.15
(1,409)	1:36:A:MET:H	1:34:A:ILE:HG22	2	0.15	0.04	0.15
(1,409)	1:36:A:MET:H	1:34:A:ILE:HG23	2	0.15	0.04	0.15
(1,664)	1:26:A:SER:HA	1:25:A:LYS:HB2	2	0.14	0.02	0.14
(1,664)	1:26:A:SER:HA	1:25:A:LYS:HB3	2	0.14	0.02	0.14

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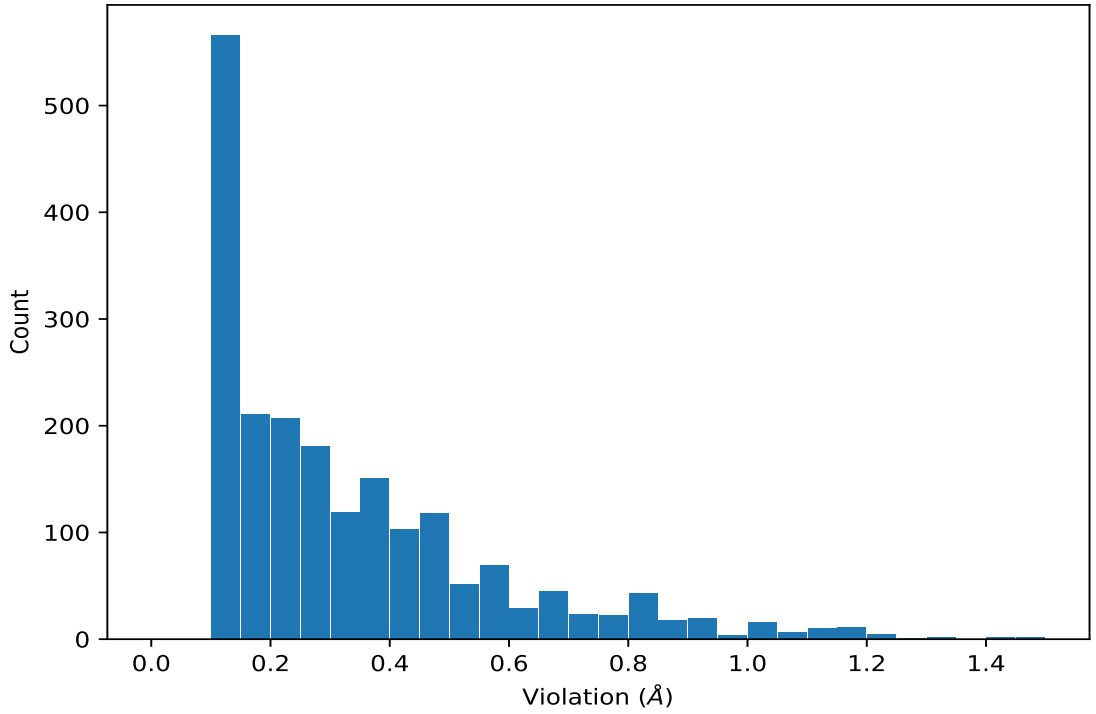
Key	Atom-1	Atom-2	Models[1]	Mean (Å)	SD[1] (Å)	Median (Å)
(1,664)	1:27:A:SER:HA	1:30:A:LEU:HG	2	0.14	0.02	0.14
(1,430)	1:15:A:ASN:H	1:16:A:GLN:HB2	2	0.12	0.0	0.12
(1,430)	1:15:A:ASN:H	1:16:A:GLN:HB3	2	0.12	0.0	0.12
(1,1664)	1:34:A:ILE:HB	1:35:A:TYR:HA	2	0.12	0.0	0.12
(1,1431)	1:38:A:VAL:H	1:34:A:ILE:HD11	2	0.11	0.0	0.11
(1,1431)	1:38:A:VAL:H	1:34:A:ILE:HD12	2	0.11	0.0	0.11
(1,1431)	1:38:A:VAL:H	1:34:A:ILE:HD13	2	0.11	0.0	0.11

[1]Number of violated models, [2]Standard deviation

9.5 All violated distance restraints

9.5.1 Histogram : Distribution of distance violations

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



9.5.2 Table : All distance violations

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

Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1782)	1:36:A:MET:HE2	1:35:A:TYR:HA	25	1.5
(1,1782)	1:36:A:MET:HE3	1:35:A:TYR:HA	33	1.48
(1,1782)	1:36:A:MET:HE3	1:35:A:TYR:HA	23	1.41
(1,1782)	1:36:A:MET:HE3	1:35:A:TYR:HA	37	1.41
(1,1782)	1:36:A:MET:HE2	1:35:A:TYR:HA	35	1.34
(1,1782)	1:36:A:MET:HE3	1:35:A:TYR:HA	36	1.3
(1,1782)	1:36:A:MET:HE3	1:35:A:TYR:HA	16	1.26
(1,1311)	1:44:A:THR:HG23	1:40:A:LEU:HA	28	1.23
(1,1156)	1:52:A:THR:HG23	1:55:A:ARG:HH21	31	1.23
(1,1156)	1:52:A:THR:HG23	1:55:A:ARG:HH22	31	1.23
(1,1782)	1:36:A:MET:HE2	1:35:A:TYR:HA	11	1.21
(1,1782)	1:36:A:MET:HE3	1:35:A:TYR:HA	27	1.21
(1,1782)	1:36:A:MET:HE2	1:35:A:TYR:HA	40	1.2
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB1	6	1.2
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB2	6	1.2
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB3	6	1.2
(1,1311)	1:44:A:THR:HG21	1:40:A:LEU:HA	12	1.2
(1,1782)	1:36:A:MET:HE1	1:35:A:TYR:HA	6	1.19
(1,1782)	1:36:A:MET:HE1	1:35:A:TYR:HA	14	1.19
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG21	26	1.19
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG22	26	1.19
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG23	26	1.19
(1,1782)	1:36:A:MET:HE3	1:35:A:TYR:HA	21	1.18
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB1	27	1.14
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB2	27	1.14
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB3	27	1.14
(1,1498)	1:30:A:LEU:HD12	1:33:A:ALA:HB1	34	1.12
(1,1498)	1:30:A:LEU:HD12	1:33:A:ALA:HB2	34	1.12
(1,1498)	1:30:A:LEU:HD12	1:33:A:ALA:HB3	34	1.12
(1,1498)	1:30:A:LEU:HD11	1:33:A:ALA:HB1	35	1.12
(1,1498)	1:30:A:LEU:HD11	1:33:A:ALA:HB2	35	1.12
(1,1498)	1:30:A:LEU:HD11	1:33:A:ALA:HB3	35	1.12
(1,1782)	1:36:A:MET:HE3	1:35:A:TYR:HA	26	1.11
(1,803)	1:40:A:LEU:HD13	1:44:A:THR:HG21	36	1.09
(1,803)	1:40:A:LEU:HD13	1:44:A:THR:HG22	36	1.09
(1,803)	1:40:A:LEU:HD13	1:44:A:THR:HG23	36	1.09
(1,1782)	1:36:A:MET:HE1	1:35:A:TYR:HA	20	1.07
(1,1311)	1:44:A:THR:HG21	1:40:A:LEU:HA	5	1.07
(1,1782)	1:36:A:MET:HE2	1:35:A:TYR:HA	22	1.06
(1,1782)	1:36:A:MET:HE1	1:35:A:TYR:HA	10	1.04
(1,1782)	1:36:A:MET:HE1	1:35:A:TYR:HA	7	1.03
(1,1498)	1:30:A:LEU:HD12	1:33:A:ALA:HB1	20	1.03
(1,1498)	1:30:A:LEU:HD12	1:33:A:ALA:HB2	20	1.03

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1498)	1:30:A:LEU:HD12	1:33:A:ALA:HB3	20	1.03
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB1	26	1.01
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB2	26	1.01
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB3	26	1.01
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG21	22	1.01
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG22	22	1.01
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG23	22	1.01
(1,1782)	1:36:A:MET:HE1	1:35:A:TYR:HA	2	1.0
(1,1311)	1:44:A:THR:HG21	1:40:A:LEU:HA	15	1.0
(1,803)	1:40:A:LEU:HD12	1:44:A:THR:HG21	35	1.0
(1,803)	1:40:A:LEU:HD12	1:44:A:THR:HG22	35	1.0
(1,803)	1:40:A:LEU:HD12	1:44:A:THR:HG23	35	1.0
(1,1782)	1:36:A:MET:HE3	1:35:A:TYR:HA	4	0.97
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG21	23	0.97
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG22	23	0.97
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG23	23	0.97
(1,1782)	1:36:A:MET:HE2	1:35:A:TYR:HA	29	0.95
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG21	8	0.95
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG22	8	0.95
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG23	8	0.95
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG21	6	0.94
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG22	6	0.94
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG23	6	0.94
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG21	27	0.94
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG22	27	0.94
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG23	27	0.94
(1,1782)	1:36:A:MET:HE1	1:35:A:TYR:HA	39	0.93
(1,1311)	1:44:A:THR:HG23	1:40:A:LEU:HA	35	0.93
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG21	10	0.91
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG22	10	0.91
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG23	10	0.91
(1,803)	1:40:A:LEU:HD11	1:44:A:THR:HG21	1	0.9
(1,803)	1:40:A:LEU:HD11	1:44:A:THR:HG22	1	0.9
(1,803)	1:40:A:LEU:HD11	1:44:A:THR:HG23	1	0.9
(1,691)	1:15:A:ASN:HB2	1:16:A:GLN:HB2	13	0.9
(1,691)	1:15:A:ASN:HB2	1:16:A:GLN:HB3	13	0.9
(1,1782)	1:36:A:MET:HE2	1:35:A:TYR:HA	8	0.89
(1,1782)	1:36:A:MET:HE2	1:35:A:TYR:HA	31	0.89
(1,1782)	1:36:A:MET:HE1	1:35:A:TYR:HA	38	0.89
(1,803)	1:40:A:LEU:HD11	1:44:A:THR:HG21	29	0.88
(1,803)	1:40:A:LEU:HD11	1:44:A:THR:HG22	29	0.88
(1,803)	1:40:A:LEU:HD11	1:44:A:THR:HG23	29	0.88

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1782)	1:36:A:MET:HE2	1:35:A:TYR:HA	18	0.87
(1,1782)	1:36:A:MET:HE2	1:35:A:TYR:HA	28	0.87
(1,1156)	1:52:A:THR:HG23	1:55:A:ARG:HH21	38	0.87
(1,1156)	1:52:A:THR:HG23	1:55:A:ARG:HH22	38	0.87
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH21	7	0.86
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH22	7	0.86
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH21	14	0.86
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH22	14	0.86
(1,920)	1:32:A:PRO:HB2	1:35:A:TYR:HE1	15	0.86
(1,920)	1:32:A:PRO:HB2	1:35:A:TYR:HE2	15	0.86
(1,920)	1:32:A:PRO:HB3	1:35:A:TYR:HE1	15	0.86
(1,920)	1:32:A:PRO:HB3	1:35:A:TYR:HE2	15	0.86
(1,1782)	1:36:A:MET:HE2	1:35:A:TYR:HA	9	0.85
(1,1782)	1:36:A:MET:HE1	1:35:A:TYR:HA	17	0.85
(1,1782)	1:36:A:MET:HE1	1:35:A:TYR:HA	19	0.85
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH21	3	0.85
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH22	3	0.85
(1,1156)	1:52:A:THR:HG21	1:55:A:ARG:HH21	11	0.85
(1,1156)	1:52:A:THR:HG21	1:55:A:ARG:HH22	11	0.85
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH21	32	0.85
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH22	32	0.85
(1,1498)	1:30:A:LEU:HD22	1:33:A:ALA:HB1	24	0.84
(1,1498)	1:30:A:LEU:HD22	1:33:A:ALA:HB2	24	0.84
(1,1498)	1:30:A:LEU:HD22	1:33:A:ALA:HB3	24	0.84
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH21	13	0.84
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH22	13	0.84
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH21	33	0.84
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH22	33	0.84
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH21	34	0.84
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH22	34	0.84
(1,1156)	1:52:A:THR:HG21	1:55:A:ARG:HH21	5	0.83
(1,1156)	1:52:A:THR:HG21	1:55:A:ARG:HH22	5	0.83
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH21	30	0.83
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH22	30	0.83
(1,691)	1:46:A:ASN:HB3	1:49:A:VAL:HB	15	0.83
(1,1782)	1:36:A:MET:HE3	1:35:A:TYR:HA	32	0.82
(1,1498)	1:30:A:LEU:HD12	1:33:A:ALA:HB1	5	0.82
(1,1498)	1:30:A:LEU:HD12	1:33:A:ALA:HB2	5	0.82
(1,1498)	1:30:A:LEU:HD12	1:33:A:ALA:HB3	5	0.82
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH21	17	0.82
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH22	17	0.82
(1,1156)	1:52:A:THR:HG23	1:55:A:ARG:HH21	39	0.82

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1156)	1:52:A:THR:HG23	1:55:A:ARG:HH22	39	0.82
(1,1782)	1:36:A:MET:HE2	1:35:A:TYR:HA	24	0.81
(1,1156)	1:52:A:THR:HG21	1:55:A:ARG:HH21	16	0.81
(1,1156)	1:52:A:THR:HG21	1:55:A:ARG:HH22	16	0.81
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH21	25	0.81
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH22	25	0.81
(1,1782)	1:36:A:MET:HE2	1:35:A:TYR:HA	12	0.8
(1,803)	1:40:A:LEU:HD12	1:44:A:THR:HG21	24	0.8
(1,803)	1:40:A:LEU:HD12	1:44:A:THR:HG22	24	0.8
(1,803)	1:40:A:LEU:HD12	1:44:A:THR:HG23	24	0.8
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG21	37	0.8
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG22	37	0.8
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG23	37	0.8
(1,1961)	1:39:A:PHE:HA	1:34:A:ILE:HG21	36	0.79
(1,1961)	1:39:A:PHE:HA	1:34:A:ILE:HG22	36	0.79
(1,1961)	1:39:A:PHE:HA	1:34:A:ILE:HG23	36	0.79
(1,1782)	1:36:A:MET:HE3	1:35:A:TYR:HA	3	0.79
(1,1782)	1:36:A:MET:HE2	1:35:A:TYR:HA	13	0.79
(1,803)	1:40:A:LEU:HD13	1:44:A:THR:HG21	3	0.78
(1,803)	1:40:A:LEU:HD13	1:44:A:THR:HG22	3	0.78
(1,803)	1:40:A:LEU:HD13	1:44:A:THR:HG23	3	0.78
(1,803)	1:40:A:LEU:HD12	1:44:A:THR:HG21	19	0.78
(1,803)	1:40:A:LEU:HD12	1:44:A:THR:HG22	19	0.78
(1,803)	1:40:A:LEU:HD12	1:44:A:THR:HG23	19	0.78
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG21	32	0.78
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG22	32	0.78
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG23	32	0.78
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG21	14	0.77
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG22	14	0.77
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG23	14	0.77
(1,920)	1:32:A:PRO:HB2	1:35:A:TYR:HE1	9	0.76
(1,920)	1:32:A:PRO:HB2	1:35:A:TYR:HE2	9	0.76
(1,920)	1:32:A:PRO:HB3	1:35:A:TYR:HE1	9	0.76
(1,920)	1:32:A:PRO:HB3	1:35:A:TYR:HE2	9	0.76
(1,1782)	1:36:A:MET:HE2	1:35:A:TYR:HA	5	0.75
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB1	11	0.73
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB2	11	0.73
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB3	11	0.73
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG21	16	0.73
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG22	16	0.73
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG23	16	0.73
(1,803)	1:40:A:LEU:HD12	1:44:A:THR:HG21	20	0.73

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,803)	1:40:A:LEU:HD12	1:44:A:THR:HG22	20	0.73
(1,803)	1:40:A:LEU:HD12	1:44:A:THR:HG23	20	0.73
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG21	28	0.73
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG22	28	0.73
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG23	28	0.73
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB2	26	0.73
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB3	26	0.73
(1,1313)	1:38:A:VAL:HG23	1:34:A:ILE:HB	26	0.72
(1,1313)	1:38:A:VAL:HG21	1:34:A:ILE:HB	35	0.72
(1,803)	1:49:A:VAL:HG11	1:52:A:THR:HG21	15	0.72
(1,803)	1:49:A:VAL:HG11	1:52:A:THR:HG22	15	0.72
(1,803)	1:49:A:VAL:HG11	1:52:A:THR:HG23	15	0.72
(1,955)	1:45:A:GLY:HA2	1:48:A:LEU:HG	35	0.71
(1,803)	1:40:A:LEU:HD11	1:44:A:THR:HG21	2	0.71
(1,803)	1:40:A:LEU:HD11	1:44:A:THR:HG22	2	0.71
(1,803)	1:40:A:LEU:HD11	1:44:A:THR:HG23	2	0.71
(1,1156)	1:52:A:THR:HG21	1:55:A:ARG:HH21	37	0.7
(1,1156)	1:52:A:THR:HG21	1:55:A:ARG:HH22	37	0.7
(1,920)	1:32:A:PRO:HG2	1:35:A:TYR:HE1	35	0.7
(1,920)	1:32:A:PRO:HG2	1:35:A:TYR:HE2	35	0.7
(1,920)	1:32:A:PRO:HG3	1:35:A:TYR:HE1	35	0.7
(1,920)	1:32:A:PRO:HG3	1:35:A:TYR:HE2	35	0.7
(1,803)	1:40:A:LEU:HD13	1:44:A:THR:HG21	4	0.7
(1,803)	1:40:A:LEU:HD13	1:44:A:THR:HG22	4	0.7
(1,803)	1:40:A:LEU:HD13	1:44:A:THR:HG23	4	0.7
(1,803)	1:49:A:VAL:HG11	1:52:A:THR:HG21	18	0.7
(1,803)	1:49:A:VAL:HG11	1:52:A:THR:HG22	18	0.7
(1,803)	1:49:A:VAL:HG11	1:52:A:THR:HG23	18	0.7
(1,803)	1:49:A:VAL:HG11	1:52:A:THR:HG21	33	0.69
(1,803)	1:49:A:VAL:HG11	1:52:A:THR:HG22	33	0.69
(1,803)	1:49:A:VAL:HG11	1:52:A:THR:HG23	33	0.69
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG21	38	0.69
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG22	38	0.69
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG23	38	0.69
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG21	39	0.69
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG22	39	0.69
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG23	39	0.69
(1,1782)	1:36:A:MET:HE2	1:35:A:TYR:HA	34	0.68
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG21	34	0.67
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG22	34	0.67
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG23	34	0.67
(1,1961)	1:39:A:PHE:HA	1:34:A:ILE:HG21	15	0.66

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1961)	1:39:A:PHE:HA	1:34:A:ILE:HG22	15	0.66
(1,1961)	1:39:A:PHE:HA	1:34:A:ILE:HG23	15	0.66
(1,1498)	1:30:A:LEU:HD11	1:33:A:ALA:HB1	36	0.66
(1,1498)	1:30:A:LEU:HD11	1:33:A:ALA:HB2	36	0.66
(1,1498)	1:30:A:LEU:HD11	1:33:A:ALA:HB3	36	0.66
(1,803)	1:49:A:VAL:HG11	1:52:A:THR:HG21	13	0.66
(1,803)	1:49:A:VAL:HG11	1:52:A:THR:HG22	13	0.66
(1,803)	1:49:A:VAL:HG11	1:52:A:THR:HG23	13	0.66
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG21	25	0.66
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG22	25	0.66
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG23	25	0.66
(1,1782)	1:36:A:MET:HE3	1:35:A:TYR:HA	1	0.65
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG2	7	0.65
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG3	7	0.65
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG2	35	0.65
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG3	35	0.65
(1,803)	1:49:A:VAL:HG11	1:52:A:THR:HG21	11	0.65
(1,803)	1:49:A:VAL:HG11	1:52:A:THR:HG22	11	0.65
(1,803)	1:49:A:VAL:HG11	1:52:A:THR:HG23	11	0.65
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD11	34	0.64
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD12	34	0.64
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD13	34	0.64
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD21	34	0.64
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD22	34	0.64
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD23	34	0.64
(1,1896)	1:36:A:MET:HE1	1:40:A:LEU:HB2	10	0.63
(1,1896)	1:36:A:MET:HE1	1:40:A:LEU:HB3	10	0.63
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG21	12	0.63
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG22	12	0.63
(1,803)	1:49:A:VAL:HG12	1:52:A:THR:HG23	12	0.63
(1,803)	1:40:A:LEU:HD13	1:44:A:THR:HG21	17	0.63
(1,803)	1:40:A:LEU:HD13	1:44:A:THR:HG22	17	0.63
(1,803)	1:40:A:LEU:HD13	1:44:A:THR:HG23	17	0.63
(1,920)	1:32:A:PRO:HG2	1:35:A:TYR:HE1	26	0.62
(1,920)	1:32:A:PRO:HG2	1:35:A:TYR:HE2	26	0.62
(1,920)	1:32:A:PRO:HG3	1:35:A:TYR:HE1	26	0.62
(1,920)	1:32:A:PRO:HG3	1:35:A:TYR:HE2	26	0.62
(1,803)	1:40:A:LEU:HD13	1:44:A:THR:HG21	7	0.62
(1,803)	1:40:A:LEU:HD13	1:44:A:THR:HG22	7	0.62
(1,803)	1:40:A:LEU:HD13	1:44:A:THR:HG23	7	0.62
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB2	25	0.62
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB3	25	0.62

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1896)	1:36:A:MET:HE3	1:40:A:LEU:HB2	40	0.61
(1,1896)	1:36:A:MET:HE3	1:40:A:LEU:HB3	40	0.61
(1,1313)	1:38:A:VAL:HG23	1:34:A:ILE:HB	10	0.61
(1,955)	1:45:A:GLY:HA2	1:48:A:LEU:HG	37	0.61
(1,920)	1:34:A:ILE:HB	1:35:A:TYR:HE1	25	0.61
(1,920)	1:34:A:ILE:HB	1:35:A:TYR:HE2	25	0.61
(1,1896)	1:36:A:MET:HE1	1:40:A:LEU:HB2	6	0.6
(1,1896)	1:36:A:MET:HE1	1:40:A:LEU:HB3	6	0.6
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG2	2	0.6
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG3	2	0.6
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG2	2	0.6
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG3	2	0.6
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG2	40	0.6
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG3	40	0.6
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG2	40	0.6
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG3	40	0.6
(1,955)	1:34:A:ILE:HA	1:37:A:LEU:HG	4	0.6
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD11	19	0.59
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD12	19	0.59
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD13	19	0.59
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD21	19	0.59
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD22	19	0.59
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD23	19	0.59
(1,1896)	1:36:A:MET:HE2	1:40:A:LEU:HB2	11	0.59
(1,1896)	1:36:A:MET:HE2	1:40:A:LEU:HB3	11	0.59
(1,1313)	1:38:A:VAL:HG21	1:34:A:ILE:HB	27	0.59
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG2	33	0.59
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG3	33	0.59
(1,955)	1:34:A:ILE:HA	1:37:A:LEU:HG	12	0.59
(1,1896)	1:36:A:MET:HE1	1:40:A:LEU:HB2	14	0.58
(1,1896)	1:36:A:MET:HE1	1:40:A:LEU:HB3	14	0.58
(1,1896)	1:36:A:MET:HE3	1:40:A:LEU:HB2	22	0.58
(1,1896)	1:36:A:MET:HE3	1:40:A:LEU:HB3	22	0.58
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG2	9	0.58
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG3	9	0.58
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG2	9	0.58
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG3	9	0.58
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG2	14	0.58
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG3	14	0.58
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG2	24	0.58
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG3	24	0.58
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG2	38	0.58

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG3	38	0.58
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG2	38	0.58
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG3	38	0.58
(1,480)	1:52:A:THR:HB	1:55:A:ARG:HE	26	0.58
(1,1896)	1:36:A:MET:HE3	1:40:A:LEU:HB2	27	0.57
(1,1896)	1:36:A:MET:HE3	1:40:A:LEU:HB3	27	0.57
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG2	10	0.57
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG3	10	0.57
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG2	22	0.57
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG3	22	0.57
(1,955)	1:45:A:GLY:HA2	1:48:A:LEU:HG	15	0.57
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB2	39	0.57
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB3	39	0.57
(1,1782)	1:36:A:MET:HE3	1:35:A:TYR:HA	30	0.56
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG2	28	0.56
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG3	28	0.56
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG2	28	0.56
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG3	28	0.56
(1,955)	1:45:A:GLY:HA2	1:48:A:LEU:HG	26	0.56
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG21	31	0.56
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG22	31	0.56
(1,803)	1:49:A:VAL:HG13	1:52:A:THR:HG23	31	0.56
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG2	6	0.55
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG3	6	0.55
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG2	15	0.55
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG3	15	0.55
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG2	15	0.55
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG3	15	0.55
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG2	20	0.55
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG3	20	0.55
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG2	20	0.55
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG3	20	0.55
(1,480)	1:51:A:TRP:HA	1:55:A:ARG:HE	20	0.55
(1,1313)	1:38:A:VAL:HG23	1:34:A:ILE:HB	22	0.54
(1,1156)	1:52:A:THR:HG23	1:55:A:ARG:HH21	23	0.54
(1,1156)	1:52:A:THR:HG23	1:55:A:ARG:HH22	23	0.54
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG2	34	0.54
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG3	34	0.54
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG2	34	0.54
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG3	34	0.54
(1,920)	1:34:A:ILE:HB	1:35:A:TYR:HE1	2	0.54
(1,920)	1:34:A:ILE:HB	1:35:A:TYR:HE2	2	0.54

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1896)	1:36:A:MET:HE3	1:40:A:LEU:HB2	33	0.53
(1,1896)	1:36:A:MET:HE3	1:40:A:LEU:HB3	33	0.53
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB1	19	0.53
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB2	19	0.53
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB3	19	0.53
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG2	27	0.53
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG3	27	0.53
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG2	27	0.53
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG3	27	0.53
(1,955)	1:45:A:GLY:HA2	1:48:A:LEU:HG	19	0.53
(1,1458)	1:22:A:THR:HG22	1:23:A:ASP:HA	2	0.52
(1,1458)	1:22:A:THR:HG21	1:23:A:ASP:HA	20	0.52
(1,1313)	1:38:A:VAL:HG21	1:34:A:ILE:HB	6	0.52
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB2	5	0.52
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB3	5	0.52
(1,1458)	1:22:A:THR:HG22	1:23:A:ASP:HA	16	0.51
(1,955)	1:34:A:ILE:HA	1:37:A:LEU:HG	2	0.51
(1,955)	1:45:A:GLY:HA2	1:48:A:LEU:HG	34	0.51
(1,1986)	1:48:A:LEU:H	1:48:A:LEU:HG	40	0.5
(1,1896)	1:36:A:MET:HE1	1:40:A:LEU:HB2	2	0.5
(1,1896)	1:36:A:MET:HE1	1:40:A:LEU:HB3	2	0.5
(1,1869)	1:23:A:ASP:HB2	1:22:A:THR:HB	7	0.5
(1,1869)	1:23:A:ASP:HB3	1:22:A:THR:HB	7	0.5
(1,1782)	1:36:A:MET:HE3	1:37:A:LEU:HA	15	0.5
(1,1498)	1:31:A:ILE:HD11	1:33:A:ALA:HB1	1	0.5
(1,1498)	1:31:A:ILE:HD11	1:33:A:ALA:HB2	1	0.5
(1,1498)	1:31:A:ILE:HD11	1:33:A:ALA:HB3	1	0.5
(1,1498)	1:31:A:ILE:HD13	1:33:A:ALA:HB1	14	0.5
(1,1498)	1:31:A:ILE:HD13	1:33:A:ALA:HB2	14	0.5
(1,1498)	1:31:A:ILE:HD13	1:33:A:ALA:HB3	14	0.5
(1,1458)	1:22:A:THR:HG22	1:23:A:ASP:HA	1	0.5
(1,1458)	1:22:A:THR:HG23	1:23:A:ASP:HA	4	0.5
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG2	11	0.5
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG3	11	0.5
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG2	30	0.5
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG3	30	0.5
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG2	30	0.5
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG3	30	0.5
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB2	21	0.5
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB3	21	0.5
(1,83)	1:49:A:VAL:H	1:51:A:TRP:HB2	31	0.5
(1,83)	1:49:A:VAL:H	1:51:A:TRP:HB3	31	0.5

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1896)	1:36:A:MET:HE1	1:40:A:LEU:HB2	7	0.49
(1,1896)	1:36:A:MET:HE1	1:40:A:LEU:HB3	7	0.49
(1,1458)	1:22:A:THR:HG21	1:23:A:ASP:HA	13	0.49
(1,1458)	1:22:A:THR:HG23	1:23:A:ASP:HA	28	0.49
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG2	8	0.49
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG3	8	0.49
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG2	8	0.49
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG3	8	0.49
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG2	39	0.49
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG3	39	0.49
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG2	39	0.49
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG3	39	0.49
(1,247)	1:57:A:LYS:H	1:55:A:ARG:H	5	0.49
(1,247)	1:53:A:VAL:H	1:55:A:ARG:H	24	0.49
(1,2384)	1:47:A:GLY:H	1:50:A:LEU:HG	34	0.48
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	27	0.48
(1,1458)	1:22:A:THR:HG21	1:23:A:ASP:HA	8	0.48
(1,1458)	1:22:A:THR:HG23	1:23:A:ASP:HA	27	0.48
(1,1458)	1:22:A:THR:HG22	1:23:A:ASP:HA	30	0.48
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH21	21	0.48
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH22	21	0.48
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG2	3	0.48
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG3	3	0.48
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG2	3	0.48
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG3	3	0.48
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG2	5	0.48
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG3	5	0.48
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG2	5	0.48
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG3	5	0.48
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG2	12	0.48
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG3	12	0.48
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG2	12	0.48
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG3	12	0.48
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG2	26	0.48
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG3	26	0.48
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG2	26	0.48
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG3	26	0.48
(1,920)	1:32:A:PRO:HB2	1:35:A:TYR:HE1	24	0.48
(1,920)	1:32:A:PRO:HB2	1:35:A:TYR:HE2	24	0.48
(1,920)	1:32:A:PRO:HB3	1:35:A:TYR:HE1	24	0.48
(1,920)	1:32:A:PRO:HB3	1:35:A:TYR:HE2	24	0.48
(1,2357)	1:30:A:LEU:H	1:27:A:SER:HA	32	0.47

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1458)	1:22:A:THR:HG22	1:23:A:ASP:HA	37	0.47
(1,1313)	1:38:A:VAL:HG22	1:34:A:ILE:HB	18	0.47
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG2	1	0.47
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG3	1	0.47
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG2	1	0.47
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG3	1	0.47
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG2	17	0.47
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG3	17	0.47
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG2	17	0.47
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG3	17	0.47
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG2	18	0.47
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG3	18	0.47
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG2	18	0.47
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG3	18	0.47
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG2	31	0.47
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG3	31	0.47
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG2	31	0.47
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG3	31	0.47
(1,699)	1:16:A:GLN:HA	1:18:A:GLU:H	29	0.47
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB2	18	0.47
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB3	18	0.47
(1,480)	1:51:A:TRP:HA	1:55:A:ARG:HE	12	0.47
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	11	0.47
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	11	0.47
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	13	0.47
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	13	0.47
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	25	0.47
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	25	0.47
(1,14)	1:55:A:ARG:HH21	1:52:A:THR:HB	31	0.47
(1,14)	1:55:A:ARG:HH22	1:52:A:THR:HB	31	0.47
(1,1498)	1:30:A:LEU:HD12	1:33:A:ALA:HB1	29	0.46
(1,1498)	1:30:A:LEU:HD12	1:33:A:ALA:HB2	29	0.46
(1,1498)	1:30:A:LEU:HD12	1:33:A:ALA:HB3	29	0.46
(1,1458)	1:22:A:THR:HG23	1:23:A:ASP:HA	15	0.46
(1,1458)	1:22:A:THR:HG22	1:23:A:ASP:HA	23	0.46
(1,1313)	1:38:A:VAL:HG23	1:34:A:ILE:HB	13	0.46
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG2	13	0.46
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG3	13	0.46
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG2	13	0.46
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG3	13	0.46
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG2	32	0.46
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG3	32	0.46

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG2	32	0.46
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG3	32	0.46
(1,915)	1:49:A:VAL:HG12	1:52:A:THR:HB	14	0.46
(1,915)	1:49:A:VAL:HG23	1:46:A:ASN:HA	20	0.46
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB2	32	0.46
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB3	32	0.46
(1,480)	1:51:A:TRP:HA	1:55:A:ARG:HE	24	0.46
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG12	4	0.46
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG13	4	0.46
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG12	10	0.46
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG13	10	0.46
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	37	0.46
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	37	0.46
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD11	29	0.45
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD12	29	0.45
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD13	29	0.45
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD21	29	0.45
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD22	29	0.45
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD23	29	0.45
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	4	0.45
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	4	0.45
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	4	0.45
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	28	0.45
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	28	0.45
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	28	0.45
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	33	0.45
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	33	0.45
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	33	0.45
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB2	16	0.45
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB3	16	0.45
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	6	0.45
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	6	0.45
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	9	0.45
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	9	0.45
(1,2384)	1:47:A:GLY:H	1:50:A:LEU:HG	22	0.44
(1,2148)	1:22:A:THR:H	1:20:A:GLU:HB2	37	0.44
(1,2148)	1:22:A:THR:H	1:20:A:GLU:HB3	37	0.44
(1,1458)	1:22:A:THR:HG21	1:23:A:ASP:HA	22	0.44
(1,1458)	1:22:A:THR:HG21	1:23:A:ASP:HA	24	0.44
(1,1458)	1:22:A:THR:HG21	1:23:A:ASP:HA	25	0.44
(1,1458)	1:22:A:THR:HG22	1:23:A:ASP:HA	26	0.44
(1,1458)	1:22:A:THR:HG23	1:23:A:ASP:HA	31	0.44

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB1	17	0.44
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB2	17	0.44
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB3	17	0.44
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	18	0.44
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	18	0.44
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	18	0.44
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	23	0.44
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	23	0.44
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	23	0.44
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	8	0.44
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	8	0.44
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	12	0.44
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	12	0.44
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	18	0.44
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	18	0.44
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	27	0.44
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	27	0.44
(1,2384)	1:47:A:GLY:H	1:50:A:LEU:HG	2	0.43
(1,2384)	1:47:A:GLY:H	1:50:A:LEU:HG	18	0.43
(1,2148)	1:22:A:THR:H	1:20:A:GLU:HB2	5	0.43
(1,2148)	1:22:A:THR:H	1:20:A:GLU:HB3	5	0.43
(1,1458)	1:22:A:THR:HG22	1:23:A:ASP:HA	10	0.43
(1,1458)	1:22:A:THR:HG23	1:23:A:ASP:HA	19	0.43
(1,1156)	1:52:A:THR:HG21	1:55:A:ARG:HH21	35	0.43
(1,1156)	1:52:A:THR:HG21	1:55:A:ARG:HH22	35	0.43
(1,955)	1:45:A:GLY:HA2	1:48:A:LEU:HG	6	0.43
(1,955)	1:34:A:ILE:HA	1:37:A:LEU:HG	30	0.43
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	22	0.43
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	22	0.43
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	22	0.43
(1,803)	1:40:A:LEU:HD11	1:44:A:THR:HG21	21	0.43
(1,803)	1:40:A:LEU:HD11	1:44:A:THR:HG22	21	0.43
(1,803)	1:40:A:LEU:HD11	1:44:A:THR:HG23	21	0.43
(1,480)	1:52:A:THR:HB	1:55:A:ARG:HE	15	0.43
(1,480)	1:52:A:THR:HB	1:55:A:ARG:HE	27	0.43
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG12	12	0.43
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG13	12	0.43
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	4	0.43
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	4	0.43
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	7	0.43
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	7	0.43
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	21	0.43

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	21	0.43
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	22	0.43
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	22	0.43
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	30	0.43
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	30	0.43
(1,2203)	1:23:A:ASP:HB2	1:25:A:LYS:H	32	0.42
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG2	37	0.42
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG3	37	0.42
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB1	9	0.42
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB2	9	0.42
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB3	9	0.42
(1,920)	1:34:A:ILE:HB	1:35:A:TYR:HE1	36	0.42
(1,920)	1:34:A:ILE:HB	1:35:A:TYR:HE2	36	0.42
(1,803)	1:40:A:LEU:HD12	1:44:A:THR:HG21	9	0.42
(1,803)	1:40:A:LEU:HD12	1:44:A:THR:HG22	9	0.42
(1,803)	1:40:A:LEU:HD12	1:44:A:THR:HG23	9	0.42
(1,2203)	1:23:A:ASP:HB3	1:25:A:LYS:H	5	0.41
(1,2148)	1:22:A:THR:H	1:20:A:GLU:HB2	29	0.41
(1,2148)	1:22:A:THR:H	1:20:A:GLU:HB3	29	0.41
(1,1458)	1:22:A:THR:HG23	1:23:A:ASP:HA	12	0.41
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG2	4	0.41
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG3	4	0.41
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG2	21	0.41
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG3	21	0.41
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG2	25	0.41
(1,1038)	1:32:A:PRO:HG2	1:36:A:MET:HG3	25	0.41
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG2	25	0.41
(1,1038)	1:32:A:PRO:HG3	1:36:A:MET:HG3	25	0.41
(1,955)	1:34:A:ILE:HA	1:37:A:LEU:HG	39	0.41
(1,915)	1:49:A:VAL:HG22	1:46:A:ASN:HA	26	0.41
(1,2384)	1:47:A:GLY:H	1:50:A:LEU:HG	27	0.4
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	13	0.4
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	14	0.4
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	22	0.4
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	28	0.4
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	33	0.4
(1,1458)	1:22:A:THR:HG21	1:23:A:ASP:HA	5	0.4
(1,1458)	1:22:A:THR:HG21	1:23:A:ASP:HA	14	0.4
(1,1458)	1:22:A:THR:HG22	1:23:A:ASP:HA	34	0.4
(1,1458)	1:22:A:THR:HG22	1:23:A:ASP:HA	38	0.4
(1,1313)	1:38:A:VAL:HG23	1:34:A:ILE:HB	14	0.4
(1,1313)	1:38:A:VAL:HG23	1:34:A:ILE:HB	25	0.4

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,920)	1:34:A:ILE:HB	1:35:A:TYR:HE1	20	0.4
(1,920)	1:34:A:ILE:HB	1:35:A:TYR:HE2	20	0.4
(1,691)	1:15:A:ASN:HB2	1:16:A:GLN:HB2	33	0.4
(1,691)	1:15:A:ASN:HB2	1:16:A:GLN:HB3	33	0.4
(1,480)	1:52:A:THR:HB	1:55:A:ARG:HE	1	0.4
(1,480)	1:52:A:THR:HB	1:55:A:ARG:HE	6	0.4
(1,480)	1:51:A:TRP:HA	1:55:A:ARG:HE	29	0.4
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG12	25	0.4
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG13	25	0.4
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	34	0.4
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	34	0.4
(1,2384)	1:47:A:GLY:H	1:50:A:LEU:HG	35	0.39
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	3	0.39
(1,1986)	1:48:A:LEU:H	1:48:A:LEU:HG	20	0.39
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	32	0.39
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD11	38	0.39
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD12	38	0.39
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD13	38	0.39
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD21	38	0.39
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD22	38	0.39
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD23	38	0.39
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD11	2	0.39
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD12	2	0.39
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD13	2	0.39
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD11	3	0.39
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD12	3	0.39
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD13	3	0.39
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD11	13	0.39
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD12	13	0.39
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD13	13	0.39
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB1	30	0.39
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB2	30	0.39
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB3	30	0.39
(1,480)	1:51:A:TRP:HA	1:55:A:ARG:HE	2	0.39
(1,480)	1:52:A:THR:HB	1:55:A:ARG:HE	40	0.39
(1,2414)	1:33:A:ALA:H	1:31:A:ILE:HG21	19	0.38
(1,2414)	1:33:A:ALA:H	1:31:A:ILE:HG22	19	0.38
(1,2414)	1:33:A:ALA:H	1:31:A:ILE:HG23	19	0.38
(1,2384)	1:47:A:GLY:H	1:50:A:LEU:HG	5	0.38
(1,2384)	1:47:A:GLY:H	1:50:A:LEU:HG	6	0.38
(1,2121)	1:22:A:THR:H	1:20:A:GLU:HA	37	0.38
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	4	0.38

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	7	0.38
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	10	0.38
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	11	0.38
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	12	0.38
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	18	0.38
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	19	0.38
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	21	0.38
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	24	0.38
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	25	0.38
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	36	0.38
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	37	0.38
(1,1313)	1:38:A:VAL:HG21	1:34:A:ILE:HB	40	0.38
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD11	17	0.38
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD12	17	0.38
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD13	17	0.38
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD11	21	0.38
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD12	21	0.38
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD13	21	0.38
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD11	22	0.38
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD12	22	0.38
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD13	22	0.38
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD11	31	0.38
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD12	31	0.38
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD13	31	0.38
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD11	39	0.38
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD12	39	0.38
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD13	39	0.38
(1,955)	1:45:A:GLY:HA2	1:48:A:LEU:HG	36	0.38
(1,915)	1:49:A:VAL:HG11	1:52:A:THR:HB	33	0.38
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB2	4	0.38
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB3	4	0.38
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB2	28	0.38
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB3	28	0.38
(1,480)	1:52:A:THR:HB	1:55:A:ARG:HE	19	0.38
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG12	19	0.38
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG13	19	0.38
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	1	0.37
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	5	0.37
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	6	0.37
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	8	0.37
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	16	0.37
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	23	0.37

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	29	0.37
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	30	0.37
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	34	0.37
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	35	0.37
(1,1896)	1:36:A:MET:HE3	1:40:A:LEU:HB2	30	0.37
(1,1896)	1:36:A:MET:HE3	1:40:A:LEU:HB3	30	0.37
(1,1498)	1:30:A:LEU:HD12	1:33:A:ALA:HB1	32	0.37
(1,1498)	1:30:A:LEU:HD12	1:33:A:ALA:HB2	32	0.37
(1,1498)	1:30:A:LEU:HD12	1:33:A:ALA:HB3	32	0.37
(1,1455)	1:51:A:TRP:HD1	1:55:A:ARG:HG2	23	0.37
(1,1455)	1:51:A:TRP:HD1	1:55:A:ARG:HG3	23	0.37
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD11	6	0.37
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD12	6	0.37
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD13	6	0.37
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD11	7	0.37
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD12	7	0.37
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD13	7	0.37
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD11	18	0.37
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD12	18	0.37
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD13	18	0.37
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD11	38	0.37
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD12	38	0.37
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD13	38	0.37
(1,955)	1:34:A:ILE:HA	1:37:A:LEU:HG	14	0.37
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB1	25	0.37
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB2	25	0.37
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB3	25	0.37
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB1	39	0.37
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB2	39	0.37
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB3	39	0.37
(1,803)	1:40:A:LEU:HD12	1:44:A:THR:HG21	5	0.37
(1,803)	1:40:A:LEU:HD12	1:44:A:THR:HG22	5	0.37
(1,803)	1:40:A:LEU:HD12	1:44:A:THR:HG23	5	0.37
(1,691)	1:15:A:ASN:HB2	1:16:A:GLN:HB2	6	0.37
(1,691)	1:15:A:ASN:HB2	1:16:A:GLN:HB3	6	0.37
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	8	0.37
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	8	0.37
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	14	0.37
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	14	0.37
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG12	8	0.37
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG13	8	0.37
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG12	16	0.37

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG13	16	0.37
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	19	0.37
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	19	0.37
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	39	0.37
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	39	0.37
(1,2148)	1:22:A:THR:H	1:20:A:GLU:HB2	26	0.36
(1,2148)	1:22:A:THR:H	1:20:A:GLU:HB3	26	0.36
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	2	0.36
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	9	0.36
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	17	0.36
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	26	0.36
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	31	0.36
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	38	0.36
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	39	0.36
(1,1498)	1:30:A:LEU:HD12	1:33:A:ALA:HB1	40	0.36
(1,1498)	1:30:A:LEU:HD12	1:33:A:ALA:HB2	40	0.36
(1,1498)	1:30:A:LEU:HD12	1:33:A:ALA:HB3	40	0.36
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD11	1	0.36
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD12	1	0.36
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD13	1	0.36
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD11	32	0.36
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD12	32	0.36
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD13	32	0.36
(1,955)	1:45:A:GLY:HA2	1:48:A:LEU:HG	10	0.36
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB1	12	0.36
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB2	12	0.36
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB3	12	0.36
(1,699)	1:16:A:GLN:HA	1:19:A:CYS:H	37	0.36
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB2	10	0.36
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB3	10	0.36
(1,480)	1:52:A:THR:HB	1:55:A:ARG:HE	8	0.36
(1,480)	1:52:A:THR:HB	1:55:A:ARG:HE	28	0.36
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG12	30	0.36
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG13	30	0.36
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	16	0.36
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	16	0.36
(1,2398)	1:49:A:VAL:H	1:46:A:ASN:HB2	5	0.35
(1,2398)	1:49:A:VAL:H	1:46:A:ASN:HB3	5	0.35
(1,2148)	1:22:A:THR:H	1:20:A:GLU:HB2	38	0.35
(1,2148)	1:22:A:THR:H	1:20:A:GLU:HB3	38	0.35
(1,1458)	1:22:A:THR:HG23	1:23:A:ASP:HA	29	0.35
(1,1458)	1:22:A:THR:HG23	1:23:A:ASP:HA	39	0.35

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1313)	1:38:A:VAL:HG22	1:34:A:ILE:HB	17	0.35
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD11	5	0.35
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD12	5	0.35
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD13	5	0.35
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD11	14	0.35
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD12	14	0.35
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD13	14	0.35
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD11	27	0.35
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD12	27	0.35
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD13	27	0.35
(1,920)	1:34:A:ILE:HB	1:35:A:TYR:HE1	33	0.35
(1,920)	1:34:A:ILE:HB	1:35:A:TYR:HE2	33	0.35
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB2	3	0.35
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB3	3	0.35
(1,490)	1:49:A:VAL:H	1:46:A:ASN:HB2	5	0.35
(1,490)	1:49:A:VAL:H	1:46:A:ASN:HB3	5	0.35
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	23	0.35
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	23	0.35
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	37	0.35
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	37	0.35
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	40	0.35
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	40	0.35
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG12	9	0.35
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG13	9	0.35
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG12	34	0.35
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG13	34	0.35
(1,2384)	1:47:A:GLY:H	1:50:A:LEU:HG	12	0.34
(1,2341)	1:54:A:PHE:H	1:55:A:ARG:HG2	23	0.34
(1,2341)	1:54:A:PHE:H	1:55:A:ARG:HG3	23	0.34
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD11	8	0.34
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD12	8	0.34
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD13	8	0.34
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD21	8	0.34
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD22	8	0.34
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD23	8	0.34
(1,1896)	1:36:A:MET:HE3	1:40:A:LEU:HB2	24	0.34
(1,1896)	1:36:A:MET:HE3	1:40:A:LEU:HB3	24	0.34
(1,1313)	1:38:A:VAL:HG21	1:34:A:ILE:HB	3	0.34
(1,955)	1:45:A:GLY:HA2	1:48:A:LEU:HG	29	0.34
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB1	29	0.34
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB2	29	0.34
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB3	29	0.34

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,480)	1:52:A:THR:HB	1:55:A:ARG:HE	10	0.34
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	26	0.34
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	26	0.34
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	15	0.34
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	15	0.34
(1,2384)	1:47:A:GLY:H	1:50:A:LEU:HG	4	0.33
(1,2384)	1:47:A:GLY:H	1:50:A:LEU:HG	37	0.33
(1,1313)	1:38:A:VAL:HG22	1:34:A:ILE:HB	32	0.33
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD11	40	0.33
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD12	40	0.33
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD13	40	0.33
(1,955)	1:45:A:GLY:HA2	1:48:A:LEU:HG	25	0.33
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB2	38	0.33
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB3	38	0.33
(1,480)	1:52:A:THR:HB	1:55:A:ARG:HE	22	0.33
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	2	0.33
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	2	0.33
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	14	0.33
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	14	0.33
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	33	0.33
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	33	0.33
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB1	30	0.32
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB2	30	0.32
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB3	30	0.32
(1,1455)	1:54:A:PHE:HD1	1:55:A:ARG:HG2	18	0.32
(1,1455)	1:54:A:PHE:HD1	1:55:A:ARG:HG3	18	0.32
(1,1455)	1:54:A:PHE:HD2	1:55:A:ARG:HG2	18	0.32
(1,1455)	1:54:A:PHE:HD2	1:55:A:ARG:HG3	18	0.32
(1,1409)	1:13:A:ALA:HB3	1:10:A:TYR:HA	27	0.32
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	20	0.32
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	20	0.32
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	20	0.32
(1,915)	1:49:A:VAL:HG12	1:52:A:THR:HB	2	0.32
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB2	9	0.32
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB3	9	0.32
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB2	37	0.32
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB3	37	0.32
(1,480)	1:52:A:THR:HB	1:55:A:ARG:HE	9	0.32
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG12	21	0.32
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG13	21	0.32
(1,247)	1:53:A:VAL:H	1:55:A:ARG:H	12	0.32
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	20	0.32

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,2384)	1:47:A:GLY:H	1:50:A:LEU:HG	13	0.31
(1,2148)	1:22:A:THR:H	1:20:A:GLU:HB2	21	0.31
(1,2148)	1:22:A:THR:H	1:20:A:GLU:HB3	21	0.31
(1,2080)	1:46:A:ASN:H	1:44:A:THR:HB	40	0.31
(1,1313)	1:38:A:VAL:HG21	1:34:A:ILE:HB	21	0.31
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG2	19	0.31
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG3	19	0.31
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG2	23	0.31
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG3	23	0.31
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD11	16	0.31
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD12	16	0.31
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD13	16	0.31
(1,915)	1:49:A:VAL:HG12	1:52:A:THR:HB	29	0.31
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB2	23	0.31
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB3	23	0.31
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	12	0.31
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	12	0.31
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	22	0.31
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	22	0.31
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG12	23	0.31
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG13	23	0.31
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG12	33	0.31
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG13	33	0.31
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	1	0.31
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	1	0.31
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	35	0.31
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	35	0.31
(1,14)	1:55:A:ARG:HH11	1:52:A:THR:HB	36	0.31
(1,14)	1:55:A:ARG:HH12	1:52:A:THR:HB	36	0.31
(1,2384)	1:47:A:GLY:H	1:50:A:LEU:HG	7	0.3
(1,2384)	1:47:A:GLY:H	1:50:A:LEU:HG	29	0.3
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB1	3	0.3
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB2	3	0.3
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB3	3	0.3
(1,1409)	1:13:A:ALA:HB2	1:10:A:TYR:HA	4	0.3
(1,1313)	1:38:A:VAL:HG22	1:34:A:ILE:HB	5	0.3
(1,1313)	1:38:A:VAL:HG22	1:34:A:ILE:HB	39	0.3
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG2	16	0.3
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG3	16	0.3
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD11	23	0.3
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD12	23	0.3
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD13	23	0.3

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,955)	1:45:A:GLY:HA2	1:48:A:LEU:HG	8	0.3
(1,955)	1:45:A:GLY:HA2	1:48:A:LEU:HG	21	0.3
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	6	0.3
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	6	0.3
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	6	0.3
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	26	0.3
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	26	0.3
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	26	0.3
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	35	0.3
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	35	0.3
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	35	0.3
(1,699)	1:16:A:GLN:HA	1:18:A:GLU:H	36	0.3
(1,491)	1:37:A:LEU:H	1:33:A:ALA:HB1	37	0.3
(1,491)	1:37:A:LEU:H	1:33:A:ALA:HB2	37	0.3
(1,491)	1:37:A:LEU:H	1:33:A:ALA:HB3	37	0.3
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	11	0.3
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	11	0.3
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	24	0.3
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	24	0.3
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	28	0.3
(1,2203)	1:23:A:ASP:HB3	1:25:A:LYS:H	16	0.29
(1,2203)	1:23:A:ASP:HB2	1:20:A:GLU:H	18	0.29
(1,1458)	1:22:A:THR:HG22	1:23:A:ASP:HA	33	0.29
(1,1313)	1:38:A:VAL:HG23	1:34:A:ILE:HB	8	0.29
(1,1313)	1:38:A:VAL:HG22	1:34:A:ILE:HB	31	0.29
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD11	29	0.29
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD12	29	0.29
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD13	29	0.29
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD11	30	0.29
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD12	30	0.29
(1,994)	1:35:A:TYR:HA	1:34:A:ILE:HD13	30	0.29
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	24	0.29
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	24	0.29
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	24	0.29
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	27	0.29
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	27	0.29
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	27	0.29
(1,699)	1:16:A:GLN:HA	1:19:A:CYS:H	10	0.29
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB2	35	0.29
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB3	35	0.29
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	2	0.29
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	2	0.29

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	6	0.29
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	6	0.29
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	9	0.29
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	9	0.29
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	17	0.29
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	17	0.29
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	34	0.29
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	34	0.29
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG12	5	0.29
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG13	5	0.29
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG12	28	0.29
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG13	28	0.29
(1,247)	1:53:A:VAL:H	1:55:A:ARG:H	2	0.29
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	10	0.29
(1,2384)	1:47:A:GLY:H	1:50:A:LEU:HG	8	0.28
(1,2384)	1:47:A:GLY:H	1:50:A:LEU:HG	25	0.28
(1,2148)	1:22:A:THR:H	1:20:A:GLU:HB2	3	0.28
(1,2148)	1:22:A:THR:H	1:20:A:GLU:HB3	3	0.28
(1,2121)	1:22:A:THR:H	1:20:A:GLU:HA	38	0.28
(1,1409)	1:13:A:ALA:HB3	1:11:A:TYR:HA	7	0.28
(1,1095)	1:41:A:LEU:HG	1:37:A:LEU:HG	40	0.28
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG2	29	0.28
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG3	29	0.28
(1,955)	1:34:A:ILE:HA	1:37:A:LEU:HG	22	0.28
(1,915)	1:49:A:VAL:HG12	1:52:A:THR:HB	12	0.28
(1,915)	1:49:A:VAL:HG13	1:52:A:THR:HB	28	0.28
(1,589)	1:33:A:ALA:H	1:30:A:LEU:HD11	19	0.28
(1,589)	1:33:A:ALA:H	1:30:A:LEU:HD12	19	0.28
(1,589)	1:33:A:ALA:H	1:30:A:LEU:HD13	19	0.28
(1,589)	1:33:A:ALA:H	1:30:A:LEU:HD21	19	0.28
(1,589)	1:33:A:ALA:H	1:30:A:LEU:HD22	19	0.28
(1,589)	1:33:A:ALA:H	1:30:A:LEU:HD23	19	0.28
(1,480)	1:52:A:THR:HB	1:55:A:ARG:HE	4	0.28
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG12	11	0.28
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG13	11	0.28
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG12	40	0.28
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG13	40	0.28
(1,247)	1:53:A:VAL:H	1:55:A:ARG:H	29	0.28
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	40	0.28
(1,2341)	1:54:A:PHE:H	1:55:A:ARG:HG2	18	0.27
(1,2341)	1:54:A:PHE:H	1:55:A:ARG:HG3	18	0.27
(1,2203)	1:23:A:ASP:HB3	1:25:A:LYS:H	25	0.27

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1759)	1:36:A:MET:HG3	1:33:A:ALA:HA	5	0.27
(1,970)	1:33:A:ALA:HA	1:37:A:LEU:HD11	26	0.27
(1,970)	1:33:A:ALA:HA	1:37:A:LEU:HD12	26	0.27
(1,970)	1:33:A:ALA:HA	1:37:A:LEU:HD13	26	0.27
(1,970)	1:33:A:ALA:HA	1:37:A:LEU:HD21	26	0.27
(1,970)	1:33:A:ALA:HA	1:37:A:LEU:HD22	26	0.27
(1,970)	1:33:A:ALA:HA	1:37:A:LEU:HD23	26	0.27
(1,955)	1:34:A:ILE:HA	1:37:A:LEU:HG	20	0.27
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB1	40	0.27
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB2	40	0.27
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB3	40	0.27
(1,915)	1:49:A:VAL:HG23	1:46:A:ASN:HA	40	0.27
(1,699)	1:16:A:GLN:HA	1:18:A:GLU:H	6	0.27
(1,532)	1:8:A:ASP:H	1:9:A:ASN:H	31	0.27
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	31	0.27
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	31	0.27
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG12	15	0.27
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG13	15	0.27
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	24	0.27
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	24	0.27
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	32	0.27
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	32	0.27
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	38	0.27
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	38	0.27
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	5	0.27
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	26	0.27
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	29	0.27
(1,2384)	1:47:A:GLY:H	1:50:A:LEU:HG	9	0.26
(1,2121)	1:22:A:THR:H	1:20:A:GLU:HA	22	0.26
(1,1986)	1:37:A:LEU:H	1:37:A:LEU:HG	15	0.26
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD11	16	0.26
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD12	16	0.26
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD13	16	0.26
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD21	16	0.26
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD22	16	0.26
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD23	16	0.26
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD11	30	0.26
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD12	30	0.26
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD13	30	0.26
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD21	30	0.26
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD22	30	0.26
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD23	30	0.26

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1458)	1:22:A:THR:HG22	1:23:A:ASP:HA	18	0.26
(1,1313)	1:38:A:VAL:HG22	1:34:A:ILE:HB	7	0.26
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	10	0.26
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH21	18	0.26
(1,1156)	1:52:A:THR:HG22	1:55:A:ARG:HH22	18	0.26
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB2	23	0.26
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB3	23	0.26
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB2	21	0.26
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB3	21	0.26
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	3	0.26
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	3	0.26
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	13	0.26
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	13	0.26
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG12	27	0.26
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG13	27	0.26
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	17	0.26
(1,1896)	1:36:A:MET:HE2	1:40:A:LEU:HB2	35	0.25
(1,1896)	1:36:A:MET:HE2	1:40:A:LEU:HB3	35	0.25
(1,1869)	1:23:A:ASP:HB2	1:22:A:THR:HB	6	0.25
(1,1869)	1:23:A:ASP:HB3	1:22:A:THR:HB	6	0.25
(1,1498)	1:30:A:LEU:HD12	1:33:A:ALA:HB1	13	0.25
(1,1498)	1:30:A:LEU:HD12	1:33:A:ALA:HB2	13	0.25
(1,1498)	1:30:A:LEU:HD12	1:33:A:ALA:HB3	13	0.25
(1,955)	1:34:A:ILE:HA	1:37:A:LEU:HG	18	0.25
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	3	0.25
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	3	0.25
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	3	0.25
(1,915)	1:49:A:VAL:HG21	1:46:A:ASN:HA	24	0.25
(1,915)	1:49:A:VAL:HG21	1:46:A:ASN:HA	34	0.25
(1,915)	1:49:A:VAL:HG23	1:46:A:ASN:HA	38	0.25
(1,699)	1:16:A:GLN:HA	1:19:A:CYS:H	40	0.25
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB2	30	0.25
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB3	30	0.25
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB2	34	0.25
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB3	34	0.25
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG12	14	0.25
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG13	14	0.25
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	24	0.25
(1,63)	1:53:A:VAL:H	1:56:A:LYS:HD2	24	0.25
(1,63)	1:53:A:VAL:H	1:56:A:LYS:HD3	24	0.25
(1,21)	1:55:A:ARG:HB2	1:51:A:TRP:HE1	36	0.25
(1,21)	1:55:A:ARG:HB3	1:51:A:TRP:HE1	36	0.25

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,2203)	1:23:A:ASP:HB2	1:20:A:GLU:H	34	0.24
(1,2121)	1:22:A:THR:H	1:20:A:GLU:HA	21	0.24
(1,1498)	1:30:A:LEU:HD11	1:33:A:ALA:HB1	23	0.24
(1,1498)	1:30:A:LEU:HD11	1:33:A:ALA:HB2	23	0.24
(1,1498)	1:30:A:LEU:HD11	1:33:A:ALA:HB3	23	0.24
(1,1311)	1:44:A:THR:HG22	1:40:A:LEU:HA	27	0.24
(1,1181)	1:32:A:PRO:HA	1:34:A:ILE:H	11	0.24
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	17	0.24
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	20	0.24
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	28	0.24
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	40	0.24
(1,920)	1:34:A:ILE:HB	1:35:A:TYR:HE1	12	0.24
(1,920)	1:34:A:ILE:HB	1:35:A:TYR:HE2	12	0.24
(1,915)	1:49:A:VAL:HG21	1:46:A:ASN:HA	10	0.24
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB2	35	0.24
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB3	35	0.24
(1,491)	1:37:A:LEU:H	1:33:A:ALA:HB1	33	0.24
(1,491)	1:37:A:LEU:H	1:33:A:ALA:HB2	33	0.24
(1,491)	1:37:A:LEU:H	1:33:A:ALA:HB3	33	0.24
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	10	0.24
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	10	0.24
(1,434)	1:61:A:HIS:H	1:61:A:HIS:HB2	22	0.24
(1,434)	1:61:A:HIS:H	1:61:A:HIS:HB3	22	0.24
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG12	2	0.24
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG13	2	0.24
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG12	32	0.24
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG13	32	0.24
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	5	0.24
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	5	0.24
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	23	0.24
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	23	0.24
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	35	0.24
(1,2203)	1:23:A:ASP:HB3	1:25:A:LYS:H	22	0.23
(1,2121)	1:22:A:THR:H	1:20:A:GLU:HA	15	0.23
(1,1896)	1:36:A:MET:HE3	1:40:A:LEU:HB2	4	0.23
(1,1896)	1:36:A:MET:HE3	1:40:A:LEU:HB3	4	0.23
(1,1869)	1:23:A:ASP:HB2	1:22:A:THR:HB	36	0.23
(1,1869)	1:23:A:ASP:HB3	1:22:A:THR:HB	36	0.23
(1,1313)	1:38:A:VAL:HG21	1:34:A:ILE:HB	2	0.23
(1,1313)	1:38:A:VAL:HG22	1:34:A:ILE:HB	4	0.23
(1,1313)	1:38:A:VAL:HG22	1:34:A:ILE:HB	11	0.23
(1,1313)	1:38:A:VAL:HG22	1:34:A:ILE:HB	23	0.23

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1313)	1:38:A:VAL:HG21	1:34:A:ILE:HB	28	0.23
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	5	0.23
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	29	0.23
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	35	0.23
(1,970)	1:33:A:ALA:HA	1:37:A:LEU:HD11	38	0.23
(1,970)	1:33:A:ALA:HA	1:37:A:LEU:HD12	38	0.23
(1,970)	1:33:A:ALA:HA	1:37:A:LEU:HD13	38	0.23
(1,970)	1:33:A:ALA:HA	1:37:A:LEU:HD21	38	0.23
(1,970)	1:33:A:ALA:HA	1:37:A:LEU:HD22	38	0.23
(1,970)	1:33:A:ALA:HA	1:37:A:LEU:HD23	38	0.23
(1,959)	1:57:A:LYS:HD2	1:57:A:LYS:HA	24	0.23
(1,959)	1:57:A:LYS:HD3	1:57:A:LYS:HA	24	0.23
(1,955)	1:45:A:GLY:HA2	1:48:A:LEU:HG	31	0.23
(1,955)	1:45:A:GLY:HA2	1:48:A:LEU:HG	33	0.23
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	10	0.23
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	10	0.23
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	10	0.23
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	19	0.23
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	19	0.23
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	19	0.23
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	34	0.23
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	34	0.23
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	34	0.23
(1,915)	1:49:A:VAL:HG23	1:46:A:ASN:HA	1	0.23
(1,915)	1:49:A:VAL:HG21	1:46:A:ASN:HA	7	0.23
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	19	0.23
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	19	0.23
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	33	0.23
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	33	0.23
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG12	1	0.23
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG13	1	0.23
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	23	0.23
(1,2409)	1:18:A:GLU:HG2	1:17:A:SER:H	26	0.22
(1,2409)	1:18:A:GLU:HG3	1:17:A:SER:H	26	0.22
(1,2398)	1:49:A:VAL:H	1:46:A:ASN:HB2	21	0.22
(1,2398)	1:49:A:VAL:H	1:46:A:ASN:HB3	21	0.22
(1,2121)	1:22:A:THR:H	1:18:A:GLU:HA	7	0.22
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD11	23	0.22
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD12	23	0.22
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD13	23	0.22
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD21	23	0.22
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD22	23	0.22

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD23	23	0.22
(1,1896)	1:36:A:MET:HE1	1:40:A:LEU:HB2	21	0.22
(1,1896)	1:36:A:MET:HE1	1:40:A:LEU:HB3	21	0.22
(1,1458)	1:22:A:THR:HG23	1:23:A:ASP:HA	3	0.22
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	23	0.22
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	26	0.22
(1,955)	1:34:A:ILE:HA	1:37:A:LEU:HG	32	0.22
(1,699)	1:16:A:GLN:HA	1:19:A:CYS:H	24	0.22
(1,691)	1:15:A:ASN:HB2	1:16:A:GLN:HB2	12	0.22
(1,691)	1:15:A:ASN:HB2	1:16:A:GLN:HB3	12	0.22
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB2	29	0.22
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB3	29	0.22
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB2	30	0.22
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB3	30	0.22
(1,490)	1:49:A:VAL:H	1:46:A:ASN:HB2	21	0.22
(1,490)	1:49:A:VAL:H	1:46:A:ASN:HB3	21	0.22
(1,444)	1:13:A:ALA:H	1:10:A:TYR:HB2	1	0.22
(1,444)	1:13:A:ALA:H	1:10:A:TYR:HB3	1	0.22
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG12	35	0.22
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG13	35	0.22
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	2	0.22
(1,14)	1:55:A:ARG:HH21	1:52:A:THR:HB	35	0.22
(1,14)	1:55:A:ARG:HH22	1:52:A:THR:HB	35	0.22
(1,2148)	1:22:A:THR:H	1:18:A:GLU:HB2	34	0.21
(1,2148)	1:22:A:THR:H	1:18:A:GLU:HB3	34	0.21
(1,1498)	1:30:A:LEU:HD11	1:33:A:ALA:HB1	21	0.21
(1,1498)	1:30:A:LEU:HD11	1:33:A:ALA:HB2	21	0.21
(1,1498)	1:30:A:LEU:HD11	1:33:A:ALA:HB3	21	0.21
(1,1000)	1:54:A:PHE:HB2	1:51:A:TRP:HE3	36	0.21
(1,1000)	1:54:A:PHE:HB3	1:51:A:TRP:HE3	36	0.21
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	5	0.21
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	5	0.21
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	5	0.21
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	31	0.21
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	31	0.21
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	31	0.21
(1,915)	1:49:A:VAL:HG22	1:46:A:ASN:HA	11	0.21
(1,915)	1:49:A:VAL:HG12	1:52:A:THR:HB	27	0.21
(1,699)	1:16:A:GLN:HA	1:19:A:CYS:H	28	0.21
(1,699)	1:16:A:GLN:HA	1:19:A:CYS:H	38	0.21
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB2	1	0.21
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB3	1	0.21

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB2	14	0.21
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB3	14	0.21
(1,550)	1:41:A:LEU:H	1:44:A:THR:H	9	0.21
(1,466)	1:46:A:ASN:HD21	1:44:A:THR:HB	40	0.21
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	36	0.21
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	36	0.21
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG12	17	0.21
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG13	17	0.21
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG12	39	0.21
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG13	39	0.21
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	18	0.21
(1,14)	1:55:A:ARG:HH21	1:52:A:THR:HB	3	0.21
(1,14)	1:55:A:ARG:HH22	1:52:A:THR:HB	3	0.21
(1,14)	1:55:A:ARG:HH21	1:52:A:THR:HB	7	0.21
(1,14)	1:55:A:ARG:HH22	1:52:A:THR:HB	7	0.21
(1,14)	1:55:A:ARG:HH21	1:52:A:THR:HB	11	0.21
(1,14)	1:55:A:ARG:HH22	1:52:A:THR:HB	11	0.21
(1,14)	1:55:A:ARG:HH21	1:52:A:THR:HB	14	0.21
(1,14)	1:55:A:ARG:HH22	1:52:A:THR:HB	14	0.21
(1,14)	1:55:A:ARG:HH21	1:52:A:THR:HB	32	0.21
(1,14)	1:55:A:ARG:HH22	1:52:A:THR:HB	32	0.21
(1,14)	1:55:A:ARG:HH21	1:52:A:THR:HB	33	0.21
(1,14)	1:55:A:ARG:HH22	1:52:A:THR:HB	33	0.21
(1,14)	1:55:A:ARG:HH21	1:52:A:THR:HB	34	0.21
(1,14)	1:55:A:ARG:HH22	1:52:A:THR:HB	34	0.21
(1,14)	1:55:A:ARG:HH21	1:52:A:THR:HB	38	0.21
(1,14)	1:55:A:ARG:HH22	1:52:A:THR:HB	38	0.21
(1,2384)	1:47:A:GLY:H	1:50:A:LEU:HG	11	0.2
(1,2377)	1:46:A:ASN:H	1:43:A:THR:HA	21	0.2
(1,2203)	1:23:A:ASP:HB3	1:25:A:LYS:H	4	0.2
(1,1896)	1:36:A:MET:HE3	1:40:A:LEU:HB2	13	0.2
(1,1896)	1:36:A:MET:HE3	1:40:A:LEU:HB3	13	0.2
(1,1869)	1:23:A:ASP:HB2	1:22:A:THR:HB	17	0.2
(1,1869)	1:23:A:ASP:HB3	1:22:A:THR:HB	17	0.2
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	15	0.2
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	18	0.2
(1,955)	1:45:A:GLY:HA2	1:48:A:LEU:HG	1	0.2
(1,955)	1:45:A:GLY:HA2	1:48:A:LEU:HG	7	0.2
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	7	0.2
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	7	0.2
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	7	0.2
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB1	21	0.2

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB2	21	0.2
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB3	21	0.2
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	36	0.2
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	36	0.2
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	36	0.2
(1,920)	1:34:A:ILE:HB	1:35:A:TYR:HE1	28	0.2
(1,920)	1:34:A:ILE:HB	1:35:A:TYR:HE2	28	0.2
(1,803)	1:40:A:LEU:HD11	1:44:A:THR:HG21	30	0.2
(1,803)	1:40:A:LEU:HD11	1:44:A:THR:HG22	30	0.2
(1,803)	1:40:A:LEU:HD11	1:44:A:THR:HG23	30	0.2
(1,491)	1:37:A:LEU:H	1:33:A:ALA:HB1	26	0.2
(1,491)	1:37:A:LEU:H	1:33:A:ALA:HB2	26	0.2
(1,491)	1:37:A:LEU:H	1:33:A:ALA:HB3	26	0.2
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG12	6	0.2
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG13	6	0.2
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG12	18	0.2
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG13	18	0.2
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG12	26	0.2
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG13	26	0.2
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG12	29	0.2
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG13	29	0.2
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	3	0.2
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	3	0.2
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	17	0.2
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	17	0.2
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	12	0.2
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	15	0.2
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	22	0.2
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	32	0.2
(1,14)	1:55:A:ARG:HH21	1:52:A:THR:HB	13	0.2
(1,14)	1:55:A:ARG:HH22	1:52:A:THR:HB	13	0.2
(1,14)	1:55:A:ARG:HH21	1:52:A:THR:HB	17	0.2
(1,14)	1:55:A:ARG:HH22	1:52:A:THR:HB	17	0.2
(1,14)	1:55:A:ARG:HH21	1:52:A:THR:HB	23	0.2
(1,14)	1:55:A:ARG:HH22	1:52:A:THR:HB	23	0.2
(1,14)	1:55:A:ARG:HH21	1:52:A:THR:HB	30	0.2
(1,14)	1:55:A:ARG:HH22	1:52:A:THR:HB	30	0.2
(1,14)	1:55:A:ARG:HH21	1:52:A:THR:HB	39	0.2
(1,14)	1:55:A:ARG:HH22	1:52:A:THR:HB	39	0.2
(1,2384)	1:47:A:GLY:H	1:50:A:LEU:HG	21	0.19
(1,2377)	1:46:A:ASN:H	1:43:A:THR:HA	36	0.19
(1,2341)	1:54:A:PHE:H	1:55:A:ARG:HG2	35	0.19

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,2341)	1:54:A:PHE:H	1:55:A:ARG:HG3	35	0.19
(1,2121)	1:22:A:THR:H	1:20:A:GLU:HA	3	0.19
(1,1869)	1:23:A:ASP:HB2	1:22:A:THR:HB	11	0.19
(1,1869)	1:23:A:ASP:HB3	1:22:A:THR:HB	11	0.19
(1,1313)	1:38:A:VAL:HG22	1:34:A:ILE:HB	9	0.19
(1,1313)	1:38:A:VAL:HG21	1:34:A:ILE:HB	16	0.19
(1,1181)	1:32:A:PRO:HA	1:34:A:ILE:H	5	0.19
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	2	0.19
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	12	0.19
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	24	0.19
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	34	0.19
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	39	0.19
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	11	0.19
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	11	0.19
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	11	0.19
(1,898)	1:50:A:LEU:HB2	1:51:A:TRP:HD1	36	0.19
(1,898)	1:50:A:LEU:HB3	1:51:A:TRP:HD1	36	0.19
(1,699)	1:16:A:GLN:HA	1:19:A:CYS:H	21	0.19
(1,699)	1:16:A:GLN:HA	1:19:A:CYS:H	23	0.19
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB2	34	0.19
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB3	34	0.19
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	35	0.19
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	35	0.19
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	35	0.19
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	35	0.19
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	35	0.19
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	35	0.19
(1,409)	1:36:A:MET:H	1:34:A:ILE:HG21	33	0.19
(1,409)	1:36:A:MET:H	1:34:A:ILE:HG22	33	0.19
(1,409)	1:36:A:MET:H	1:34:A:ILE:HG23	33	0.19
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	36	0.19
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	36	0.19
(1,63)	1:53:A:VAL:H	1:56:A:LYS:HD2	29	0.19
(1,63)	1:53:A:VAL:H	1:56:A:LYS:HD3	29	0.19
(1,14)	1:55:A:ARG:HH21	1:52:A:THR:HB	16	0.19
(1,14)	1:55:A:ARG:HH22	1:52:A:THR:HB	16	0.19
(1,14)	1:55:A:ARG:HH21	1:52:A:THR:HB	25	0.19
(1,14)	1:55:A:ARG:HH22	1:52:A:THR:HB	25	0.19
(1,2398)	1:48:A:LEU:H	1:46:A:ASN:HB2	23	0.18
(1,2398)	1:48:A:LEU:H	1:46:A:ASN:HB3	23	0.18
(1,2398)	1:48:A:LEU:H	1:46:A:ASN:HB2	28	0.18
(1,2398)	1:48:A:LEU:H	1:46:A:ASN:HB3	28	0.18

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,2203)	1:23:A:ASP:HB3	1:25:A:LYS:H	3	0.18
(1,2203)	1:23:A:ASP:HB3	1:25:A:LYS:H	23	0.18
(1,2203)	1:23:A:ASP:HB3	1:25:A:LYS:H	38	0.18
(1,2121)	1:22:A:THR:H	1:20:A:GLU:HA	6	0.18
(1,1909)	1:29:A:ALA:HA	1:30:A:LEU:HB2	14	0.18
(1,1909)	1:29:A:ALA:HA	1:30:A:LEU:HB3	14	0.18
(1,1896)	1:36:A:MET:HE1	1:40:A:LEU:HB2	26	0.18
(1,1896)	1:36:A:MET:HE1	1:40:A:LEU:HB3	26	0.18
(1,1869)	1:23:A:ASP:HB2	1:22:A:THR:HB	23	0.18
(1,1869)	1:23:A:ASP:HB3	1:22:A:THR:HB	23	0.18
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	3	0.18
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	16	0.18
(1,955)	1:45:A:GLY:HA2	1:48:A:LEU:HG	3	0.18
(1,955)	1:34:A:ILE:HA	1:37:A:LEU:HG	11	0.18
(1,955)	1:34:A:ILE:HA	1:37:A:LEU:HG	24	0.18
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB1	13	0.18
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB2	13	0.18
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB3	13	0.18
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB1	16	0.18
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB2	16	0.18
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB3	16	0.18
(1,915)	1:49:A:VAL:HG23	1:46:A:ASN:HA	3	0.18
(1,699)	1:16:A:GLN:HA	1:19:A:CYS:H	35	0.18
(1,490)	1:48:A:LEU:H	1:46:A:ASN:HB2	23	0.18
(1,490)	1:48:A:LEU:H	1:46:A:ASN:HB3	23	0.18
(1,490)	1:48:A:LEU:H	1:46:A:ASN:HB2	28	0.18
(1,490)	1:48:A:LEU:H	1:46:A:ASN:HB3	28	0.18
(1,427)	1:41:A:LEU:HB2	1:43:A:THR:H	36	0.18
(1,427)	1:41:A:LEU:HB3	1:43:A:THR:H	36	0.18
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG12	22	0.18
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG13	22	0.18
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG12	31	0.18
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG13	31	0.18
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	3	0.18
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	13	0.18
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	16	0.18
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	34	0.18
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	38	0.18
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	39	0.18
(1,63)	1:53:A:VAL:H	1:56:A:LYS:HD2	2	0.18
(1,63)	1:53:A:VAL:H	1:56:A:LYS:HD3	2	0.18
(1,2121)	1:22:A:THR:H	1:20:A:GLU:HA	29	0.17

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1896)	1:36:A:MET:HE1	1:40:A:LEU:HB2	1	0.17
(1,1896)	1:36:A:MET:HE1	1:40:A:LEU:HB3	1	0.17
(1,1890)	1:38:A:VAL:HA	1:41:A:LEU:HB2	40	0.17
(1,1890)	1:38:A:VAL:HA	1:41:A:LEU:HB3	40	0.17
(1,1696)	1:38:A:VAL:HA	1:41:A:LEU:HB2	40	0.17
(1,1696)	1:38:A:VAL:HA	1:41:A:LEU:HB3	40	0.17
(1,1409)	1:13:A:ALA:HB3	1:10:A:TYR:HA	30	0.17
(1,1313)	1:38:A:VAL:HG21	1:34:A:ILE:HB	38	0.17
(1,1181)	1:32:A:PRO:HA	1:34:A:ILE:H	32	0.17
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	13	0.17
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	14	0.17
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	22	0.17
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	25	0.17
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	30	0.17
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	32	0.17
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	33	0.17
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	38	0.17
(1,1098)	1:58:A:GLY:HA2	1:59:A:HIS:HD2	39	0.17
(1,1098)	1:58:A:GLY:HA3	1:59:A:HIS:HD2	39	0.17
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG2	36	0.17
(1,1038)	1:40:A:LEU:HG	1:36:A:MET:HG3	36	0.17
(1,970)	1:33:A:ALA:HA	1:31:A:ILE:HG21	37	0.17
(1,970)	1:33:A:ALA:HA	1:31:A:ILE:HG22	37	0.17
(1,970)	1:33:A:ALA:HA	1:31:A:ILE:HG23	37	0.17
(1,955)	1:34:A:ILE:HA	1:37:A:LEU:HG	5	0.17
(1,699)	1:16:A:GLN:HA	1:19:A:CYS:H	27	0.17
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB2	1	0.17
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB3	1	0.17
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB2	19	0.17
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB3	19	0.17
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB2	26	0.17
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB3	26	0.17
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB2	37	0.17
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB3	37	0.17
(1,444)	1:13:A:ALA:H	1:10:A:TYR:HB2	15	0.17
(1,444)	1:13:A:ALA:H	1:10:A:TYR:HB3	15	0.17
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	29	0.17
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	29	0.17
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG12	36	0.17
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG13	36	0.17
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG12	38	0.17
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG13	38	0.17

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	29	0.17
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	29	0.17
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	8	0.17
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	14	0.17
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	25	0.17
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	30	0.17
(1,14)	1:55:A:ARG:HH21	1:52:A:THR:HB	5	0.17
(1,14)	1:55:A:ARG:HH22	1:52:A:THR:HB	5	0.17
(1,2414)	1:33:A:ALA:H	1:31:A:ILE:HG21	34	0.16
(1,2414)	1:33:A:ALA:H	1:31:A:ILE:HG22	34	0.16
(1,2414)	1:33:A:ALA:H	1:31:A:ILE:HG23	34	0.16
(1,2414)	1:33:A:ALA:H	1:31:A:ILE:HG21	40	0.16
(1,2414)	1:33:A:ALA:H	1:31:A:ILE:HG22	40	0.16
(1,2414)	1:33:A:ALA:H	1:31:A:ILE:HG23	40	0.16
(1,2398)	1:48:A:LEU:H	1:46:A:ASN:HB2	3	0.16
(1,2398)	1:48:A:LEU:H	1:46:A:ASN:HB3	3	0.16
(1,2398)	1:48:A:LEU:H	1:46:A:ASN:HB2	13	0.16
(1,2398)	1:48:A:LEU:H	1:46:A:ASN:HB3	13	0.16
(1,2398)	1:48:A:LEU:H	1:46:A:ASN:HB2	26	0.16
(1,2398)	1:48:A:LEU:H	1:46:A:ASN:HB3	26	0.16
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	3	0.16
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	7	0.16
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	11	0.16
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	13	0.16
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	14	0.16
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	16	0.16
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	20	0.16
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	21	0.16
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	25	0.16
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	28	0.16
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	30	0.16
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	33	0.16
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	37	0.16
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	38	0.16
(1,1858)	1:27:A:SER:H	1:27:A:SER:HA	29	0.16
(1,1754)	1:53:A:VAL:HG22	1:56:A:LYS:HD2	5	0.16
(1,1754)	1:53:A:VAL:HG22	1:56:A:LYS:HD3	5	0.16
(1,1409)	1:13:A:ALA:HB3	1:11:A:TYR:HA	18	0.16
(1,1313)	1:38:A:VAL:HG21	1:34:A:ILE:HB	12	0.16
(1,1181)	1:32:A:PRO:HA	1:34:A:ILE:H	34	0.16
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	7	0.16
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	11	0.16

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	27	0.16
(1,955)	1:45:A:GLY:HA2	1:48:A:LEU:HG	17	0.16
(1,915)	1:49:A:VAL:HG12	1:52:A:THR:HB	6	0.16
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB2	11	0.16
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB3	11	0.16
(1,691)	1:15:A:ASN:HB2	1:16:A:GLN:HB2	24	0.16
(1,691)	1:15:A:ASN:HB2	1:16:A:GLN:HB3	24	0.16
(1,664)	1:26:A:SER:HA	1:25:A:LYS:HB2	32	0.16
(1,664)	1:26:A:SER:HA	1:25:A:LYS:HB3	32	0.16
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB2	32	0.16
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB3	32	0.16
(1,589)	1:33:A:ALA:H	1:31:A:ILE:HG21	34	0.16
(1,589)	1:33:A:ALA:H	1:31:A:ILE:HG22	34	0.16
(1,589)	1:33:A:ALA:H	1:31:A:ILE:HG23	34	0.16
(1,589)	1:33:A:ALA:H	1:31:A:ILE:HG21	40	0.16
(1,589)	1:33:A:ALA:H	1:31:A:ILE:HG22	40	0.16
(1,589)	1:33:A:ALA:H	1:31:A:ILE:HG23	40	0.16
(1,550)	1:41:A:LEU:H	1:37:A:LEU:H	36	0.16
(1,490)	1:48:A:LEU:H	1:46:A:ASN:HB2	3	0.16
(1,490)	1:48:A:LEU:H	1:46:A:ASN:HB3	3	0.16
(1,490)	1:48:A:LEU:H	1:46:A:ASN:HB2	13	0.16
(1,490)	1:48:A:LEU:H	1:46:A:ASN:HB3	13	0.16
(1,490)	1:48:A:LEU:H	1:46:A:ASN:HB2	26	0.16
(1,490)	1:48:A:LEU:H	1:46:A:ASN:HB3	26	0.16
(1,463)	1:58:A:GLY:H	1:59:A:HIS:HA	39	0.16
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG12	7	0.16
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG13	7	0.16
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG12	20	0.16
(1,412)	1:33:A:ALA:H	1:31:A:ILE:HG13	20	0.16
(1,247)	1:53:A:VAL:H	1:55:A:ARG:H	31	0.16
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	4	0.16
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	6	0.16
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	7	0.16
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	11	0.16
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	27	0.16
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	33	0.16
(1,63)	1:53:A:VAL:H	1:56:A:LYS:HD2	31	0.16
(1,63)	1:53:A:VAL:H	1:56:A:LYS:HD3	31	0.16
(1,14)	1:55:A:ARG:HH21	1:52:A:THR:HB	27	0.16
(1,14)	1:55:A:ARG:HH22	1:52:A:THR:HB	27	0.16
(1,2203)	1:23:A:ASP:HB3	1:25:A:LYS:H	11	0.15
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	1	0.15

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	4	0.15
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	9	0.15
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	22	0.15
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	23	0.15
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	26	0.15
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	32	0.15
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	34	0.15
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	39	0.15
(1,2121)	1:22:A:THR:H	1:18:A:GLU:HA	31	0.15
(1,2069)	1:3:A:GLU:H	1:3:A:GLU:HA	29	0.15
(1,1909)	1:29:A:ALA:HA	1:30:A:LEU:HB2	1	0.15
(1,1909)	1:29:A:ALA:HA	1:30:A:LEU:HB3	1	0.15
(1,1909)	1:29:A:ALA:HA	1:30:A:LEU:HB2	32	0.15
(1,1909)	1:29:A:ALA:HA	1:30:A:LEU:HB3	32	0.15
(1,1858)	1:27:A:SER:H	1:27:A:SER:HA	2	0.15
(1,1858)	1:27:A:SER:H	1:27:A:SER:HA	10	0.15
(1,1858)	1:27:A:SER:H	1:27:A:SER:HA	12	0.15
(1,1313)	1:38:A:VAL:HG22	1:34:A:ILE:HB	1	0.15
(1,1181)	1:32:A:PRO:HA	1:34:A:ILE:H	1	0.15
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	4	0.15
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	37	0.15
(1,915)	1:49:A:VAL:HG13	1:52:A:THR:HB	9	0.15
(1,915)	1:49:A:VAL:HG12	1:52:A:THR:HB	23	0.15
(1,737)	1:28:A:GLY:HA2	1:32:A:PRO:HG2	32	0.15
(1,737)	1:28:A:GLY:HA2	1:32:A:PRO:HG3	32	0.15
(1,737)	1:28:A:GLY:HA3	1:32:A:PRO:HG2	32	0.15
(1,737)	1:28:A:GLY:HA3	1:32:A:PRO:HG3	32	0.15
(1,699)	1:16:A:GLN:HA	1:19:A:CYS:H	30	0.15
(1,699)	1:16:A:GLN:HA	1:19:A:CYS:H	32	0.15
(1,695)	1:28:A:GLY:HA2	1:32:A:PRO:HG2	32	0.15
(1,695)	1:28:A:GLY:HA2	1:32:A:PRO:HG3	32	0.15
(1,695)	1:28:A:GLY:HA3	1:32:A:PRO:HG2	32	0.15
(1,695)	1:28:A:GLY:HA3	1:32:A:PRO:HG3	32	0.15
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB2	20	0.15
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB3	20	0.15
(1,592)	1:62:A:HIS:H	1:62:A:HIS:HA	21	0.15
(1,460)	1:19:A:CYS:H	1:19:A:CYS:HA	3	0.15
(1,460)	1:19:A:CYS:H	1:19:A:CYS:HA	13	0.15
(1,460)	1:19:A:CYS:H	1:19:A:CYS:HA	36	0.15
(1,460)	1:19:A:CYS:H	1:19:A:CYS:HA	40	0.15
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG12	3	0.15
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG13	3	0.15

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG12	13	0.15
(1,412)	1:33:A:ALA:H	1:34:A:ILE:HG13	13	0.15
(1,231)	1:30:A:LEU:HD11	1:27:A:SER:H	32	0.15
(1,231)	1:30:A:LEU:HD12	1:27:A:SER:H	32	0.15
(1,231)	1:30:A:LEU:HD13	1:27:A:SER:H	32	0.15
(1,231)	1:30:A:LEU:HD21	1:27:A:SER:H	32	0.15
(1,231)	1:30:A:LEU:HD22	1:27:A:SER:H	32	0.15
(1,231)	1:30:A:LEU:HD23	1:27:A:SER:H	32	0.15
(1,180)	1:61:A:HIS:H	1:61:A:HIS:HA	7	0.15
(1,180)	1:61:A:HIS:H	1:61:A:HIS:HA	34	0.15
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	10	0.15
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	10	0.15
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	40	0.15
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	40	0.15
(1,2398)	1:48:A:LEU:H	1:46:A:ASN:HB2	10	0.14
(1,2398)	1:48:A:LEU:H	1:46:A:ASN:HB3	10	0.14
(1,2203)	1:23:A:ASP:HB2	1:20:A:GLU:H	14	0.14
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	6	0.14
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	15	0.14
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	17	0.14
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	18	0.14
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	27	0.14
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	35	0.14
(1,1896)	1:36:A:MET:HE3	1:40:A:LEU:HB2	28	0.14
(1,1896)	1:36:A:MET:HE3	1:40:A:LEU:HB3	28	0.14
(1,1759)	1:36:A:MET:HG3	1:33:A:ALA:HA	17	0.14
(1,1458)	1:22:A:THR:HG22	1:23:A:ASP:HA	9	0.14
(1,1313)	1:38:A:VAL:HG22	1:34:A:ILE:HB	19	0.14
(1,1313)	1:38:A:VAL:HG23	1:34:A:ILE:HB	24	0.14
(1,1313)	1:38:A:VAL:HG21	1:34:A:ILE:HB	30	0.14
(1,1181)	1:32:A:PRO:HA	1:34:A:ILE:H	20	0.14
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	19	0.14
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	1	0.14
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	1	0.14
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	1	0.14
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	2	0.14
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	2	0.14
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	2	0.14
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	14	0.14
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	14	0.14
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	14	0.14
(1,915)	1:49:A:VAL:HG21	1:46:A:ASN:HA	25	0.14

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB2	5	0.14
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB3	5	0.14
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB2	11	0.14
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB3	11	0.14
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB2	39	0.14
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB3	39	0.14
(1,592)	1:62:A:HIS:H	1:62:A:HIS:HA	19	0.14
(1,592)	1:62:A:HIS:H	1:62:A:HIS:HA	20	0.14
(1,592)	1:62:A:HIS:H	1:62:A:HIS:HA	26	0.14
(1,592)	1:62:A:HIS:H	1:62:A:HIS:HA	34	0.14
(1,592)	1:62:A:HIS:H	1:62:A:HIS:HA	37	0.14
(1,500)	1:64:A:HIS:HA	1:63:A:HIS:H	22	0.14
(1,490)	1:48:A:LEU:H	1:46:A:ASN:HB2	10	0.14
(1,490)	1:48:A:LEU:H	1:46:A:ASN:HB3	10	0.14
(1,469)	1:51:A:TRP:HE1	1:55:A:ARG:HD2	36	0.14
(1,469)	1:51:A:TRP:HE1	1:55:A:ARG:HD3	36	0.14
(1,460)	1:19:A:CYS:H	1:19:A:CYS:HA	21	0.14
(1,444)	1:13:A:ALA:H	1:10:A:TYR:HB2	16	0.14
(1,444)	1:13:A:ALA:H	1:10:A:TYR:HB3	16	0.14
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	28	0.14
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	28	0.14
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	12	0.14
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	12	0.14
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	12	0.14
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	12	0.14
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	12	0.14
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	12	0.14
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	21	0.14
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	21	0.14
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	21	0.14
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	21	0.14
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	21	0.14
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	21	0.14
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	29	0.14
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	29	0.14
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	29	0.14
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	29	0.14
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	29	0.14
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	29	0.14
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	31	0.14
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	31	0.14
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	31	0.14

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	31	0.14
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	31	0.14
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	31	0.14
(1,180)	1:61:A:HIS:H	1:61:A:HIS:HA	5	0.14
(1,180)	1:61:A:HIS:H	1:61:A:HIS:HA	11	0.14
(1,180)	1:61:A:HIS:H	1:61:A:HIS:HA	18	0.14
(1,180)	1:61:A:HIS:H	1:61:A:HIS:HA	30	0.14
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	19	0.14
(1,27)	1:58:A:GLY:HA2	1:61:A:HIS:H	34	0.14
(1,27)	1:58:A:GLY:HA3	1:61:A:HIS:H	34	0.14
(1,21)	1:55:A:ARG:HB2	1:51:A:TRP:HE1	31	0.14
(1,21)	1:55:A:ARG:HB3	1:51:A:TRP:HE1	31	0.14
(1,14)	1:55:A:ARG:HH21	1:52:A:THR:HB	40	0.14
(1,14)	1:55:A:ARG:HH22	1:52:A:THR:HB	40	0.14
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	8	0.13
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	10	0.13
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	19	0.13
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	36	0.13
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	40	0.13
(1,2148)	1:22:A:THR:H	1:20:A:GLU:HB2	15	0.13
(1,2148)	1:22:A:THR:H	1:20:A:GLU:HB3	15	0.13
(1,2121)	1:22:A:THR:H	1:20:A:GLU:HA	5	0.13
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD11	10	0.13
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD12	10	0.13
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD13	10	0.13
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD21	10	0.13
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD22	10	0.13
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD23	10	0.13
(1,1858)	1:27:A:SER:H	1:27:A:SER:HA	1	0.13
(1,1858)	1:27:A:SER:H	1:27:A:SER:HA	6	0.13
(1,1858)	1:28:A:GLY:H	1:27:A:SER:HA	24	0.13
(1,1858)	1:27:A:SER:H	1:27:A:SER:HA	27	0.13
(1,1858)	1:28:A:GLY:H	1:27:A:SER:HA	35	0.13
(1,1858)	1:27:A:SER:H	1:27:A:SER:HA	40	0.13
(1,1759)	1:36:A:MET:HG3	1:33:A:ALA:HA	3	0.13
(1,1759)	1:36:A:MET:HG3	1:33:A:ALA:HA	18	0.13
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB1	4	0.13
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB2	4	0.13
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB3	4	0.13
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	6	0.13
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	8	0.13
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB1	8	0.13

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB2	8	0.13
(1,944)	1:30:A:LEU:HA	1:29:A:ALA:HB3	8	0.13
(1,915)	1:49:A:VAL:HG13	1:52:A:THR:HB	22	0.13
(1,699)	1:16:A:GLN:HA	1:18:A:GLU:H	2	0.13
(1,699)	1:16:A:GLN:HA	1:19:A:CYS:H	20	0.13
(1,691)	1:15:A:ASN:HB2	1:16:A:GLN:HB2	17	0.13
(1,691)	1:15:A:ASN:HB2	1:16:A:GLN:HB3	17	0.13
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB2	4	0.13
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB3	4	0.13
(1,592)	1:62:A:HIS:H	1:62:A:HIS:HA	23	0.13
(1,491)	1:37:A:LEU:H	1:33:A:ALA:HB1	35	0.13
(1,491)	1:37:A:LEU:H	1:33:A:ALA:HB2	35	0.13
(1,491)	1:37:A:LEU:H	1:33:A:ALA:HB3	35	0.13
(1,466)	1:46:A:ASN:HD21	1:44:A:THR:HB	12	0.13
(1,460)	1:19:A:CYS:H	1:19:A:CYS:HA	20	0.13
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	32	0.13
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	32	0.13
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB2	38	0.13
(1,444)	1:13:A:ALA:H	1:11:A:TYR:HB3	38	0.13
(1,434)	1:61:A:HIS:H	1:61:A:HIS:HB2	17	0.13
(1,434)	1:61:A:HIS:H	1:61:A:HIS:HB3	17	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	2	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	2	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	2	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	2	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	2	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	2	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	8	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	8	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	8	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	8	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	8	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	8	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	10	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	10	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	10	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	10	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	10	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	10	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	16	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	16	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	16	0.13

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	16	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	16	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	16	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	18	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	18	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	18	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	18	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	18	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	18	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	20	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	20	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	20	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	20	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	20	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	20	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	22	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	22	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	22	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	22	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	22	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	22	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	23	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	23	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	23	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	23	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	23	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	23	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	24	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	24	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	24	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	24	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	24	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	24	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	25	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	25	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	25	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	25	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	25	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	25	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	27	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	27	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	27	0.13

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	27	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	27	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	27	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	28	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	28	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	28	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	28	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	28	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	28	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	33	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	33	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	33	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	33	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	33	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	33	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	34	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	34	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	34	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	34	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	34	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	34	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	40	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	40	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	40	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	40	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	40	0.13
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	40	0.13
(1,180)	1:61:A:HIS:H	1:61:A:HIS:HA	8	0.13
(1,180)	1:61:A:HIS:H	1:61:A:HIS:HA	31	0.13
(1,180)	1:61:A:HIS:H	1:61:A:HIS:HA	35	0.13
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	37	0.13
(1,14)	1:55:A:ARG:HH21	1:52:A:THR:HB	10	0.13
(1,14)	1:55:A:ARG:HH22	1:52:A:THR:HB	10	0.13
(1,2357)	1:30:A:LEU:H	1:27:A:SER:HA	18	0.12
(1,2296)	1:42:A:GLY:H	1:41:A:LEU:HG	36	0.12
(1,2121)	1:22:A:THR:H	1:18:A:GLU:HA	34	0.12
(1,2048)	1:43:A:THR:H	1:40:A:LEU:HA	38	0.12
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD11	14	0.12
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD12	14	0.12
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD13	14	0.12
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD21	14	0.12
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD22	14	0.12

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1961)	1:39:A:PHE:HA	1:41:A:LEU:HD23	14	0.12
(1,1858)	1:27:A:SER:H	1:27:A:SER:HA	9	0.12
(1,1858)	1:28:A:GLY:H	1:27:A:SER:HA	14	0.12
(1,1858)	1:27:A:SER:H	1:27:A:SER:HA	19	0.12
(1,1858)	1:27:A:SER:H	1:27:A:SER:HA	20	0.12
(1,1858)	1:27:A:SER:H	1:27:A:SER:HA	37	0.12
(1,1858)	1:27:A:SER:H	1:27:A:SER:HA	39	0.12
(1,1664)	1:34:A:ILE:HB	1:35:A:TYR:HA	26	0.12
(1,1664)	1:34:A:ILE:HB	1:35:A:TYR:HA	35	0.12
(1,1236)	1:35:A:TYR:HB2	1:31:A:ILE:HD11	24	0.12
(1,1236)	1:35:A:TYR:HB2	1:31:A:ILE:HD12	24	0.12
(1,1236)	1:35:A:TYR:HB2	1:31:A:ILE:HD13	24	0.12
(1,1236)	1:35:A:TYR:HB3	1:31:A:ILE:HD11	24	0.12
(1,1236)	1:35:A:TYR:HB3	1:31:A:ILE:HD12	24	0.12
(1,1236)	1:35:A:TYR:HB3	1:31:A:ILE:HD13	24	0.12
(1,1181)	1:32:A:PRO:HA	1:34:A:ILE:H	14	0.12
(1,1181)	1:32:A:PRO:HA	1:34:A:ILE:H	27	0.12
(1,915)	1:49:A:VAL:HG23	1:46:A:ASN:HA	15	0.12
(1,915)	1:49:A:VAL:HG22	1:46:A:ASN:HA	19	0.12
(1,592)	1:62:A:HIS:H	1:62:A:HIS:HA	9	0.12
(1,491)	1:37:A:LEU:H	1:33:A:ALA:HB1	38	0.12
(1,491)	1:37:A:LEU:H	1:33:A:ALA:HB2	38	0.12
(1,491)	1:37:A:LEU:H	1:33:A:ALA:HB3	38	0.12
(1,480)	1:51:A:TRP:HA	1:55:A:ARG:HE	36	0.12
(1,466)	1:46:A:ASN:HD21	1:44:A:THR:HB	17	0.12
(1,460)	1:19:A:CYS:H	1:19:A:CYS:HA	1	0.12
(1,460)	1:19:A:CYS:H	1:19:A:CYS:HA	9	0.12
(1,430)	1:15:A:ASN:H	1:16:A:GLN:HB2	39	0.12
(1,430)	1:15:A:ASN:H	1:16:A:GLN:HB3	39	0.12
(1,430)	1:15:A:ASN:H	1:16:A:GLN:HB2	40	0.12
(1,430)	1:15:A:ASN:H	1:16:A:GLN:HB3	40	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	1	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	1	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	1	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	1	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	1	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	1	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	3	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	3	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	3	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	3	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	3	0.12

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	3	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	4	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	4	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	4	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	4	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	4	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	4	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	5	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	5	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	5	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	5	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	5	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	5	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	9	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	9	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	9	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	9	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	9	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	9	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	11	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	11	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	11	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	11	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	11	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	11	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	14	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	14	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	14	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	14	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	14	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	14	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	15	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	15	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	15	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	15	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	15	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	15	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	17	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	17	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	17	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	17	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	17	0.12

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	17	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	19	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	19	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	19	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	19	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	19	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	19	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	26	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	26	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	26	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	26	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	26	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	26	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	30	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	30	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	30	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	30	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	30	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	30	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	39	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	39	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	39	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	39	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	39	0.12
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	39	0.12
(1,180)	1:61:A:HIS:H	1:61:A:HIS:HA	1	0.12
(1,180)	1:61:A:HIS:H	1:61:A:HIS:HA	14	0.12
(1,180)	1:61:A:HIS:H	1:61:A:HIS:HA	15	0.12
(1,14)	1:55:A:ARG:HH21	1:52:A:THR:HB	9	0.12
(1,14)	1:55:A:ARG:HH22	1:52:A:THR:HB	9	0.12
(1,2414)	1:33:A:ALA:H	1:31:A:ILE:HG21	13	0.11
(1,2414)	1:33:A:ALA:H	1:31:A:ILE:HG22	13	0.11
(1,2414)	1:33:A:ALA:H	1:31:A:ILE:HG23	13	0.11
(1,2398)	1:48:A:LEU:H	1:46:A:ASN:HB2	12	0.11
(1,2398)	1:48:A:LEU:H	1:46:A:ASN:HB3	12	0.11
(1,2398)	1:48:A:LEU:H	1:46:A:ASN:HB2	17	0.11
(1,2398)	1:48:A:LEU:H	1:46:A:ASN:HB3	17	0.11
(1,2357)	1:30:A:LEU:H	1:27:A:SER:HA	17	0.11
(1,2357)	1:30:A:LEU:H	1:27:A:SER:HA	22	0.11
(1,2203)	1:23:A:ASP:HB2	1:20:A:GLU:H	7	0.11
(1,2155)	1:56:A:LYS:HA	1:56:A:LYS:H	5	0.11
(1,2121)	1:22:A:THR:H	1:18:A:GLU:HA	30	0.11

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,2121)	1:22:A:THR:H	1:20:A:GLU:HA	40	0.11
(1,1965)	1:46:A:ASN:HB2	1:44:A:THR:HA	35	0.11
(1,1965)	1:46:A:ASN:HB3	1:44:A:THR:HA	35	0.11
(1,1896)	1:36:A:MET:HE1	1:40:A:LEU:HB2	3	0.11
(1,1896)	1:36:A:MET:HE1	1:40:A:LEU:HB3	3	0.11
(1,1869)	1:23:A:ASP:HB2	1:22:A:THR:HB	1	0.11
(1,1869)	1:23:A:ASP:HB3	1:22:A:THR:HB	1	0.11
(1,1858)	1:27:A:SER:H	1:27:A:SER:HA	5	0.11
(1,1858)	1:27:A:SER:H	1:27:A:SER:HA	15	0.11
(1,1858)	1:27:A:SER:H	1:27:A:SER:HA	16	0.11
(1,1858)	1:27:A:SER:H	1:27:A:SER:HA	21	0.11
(1,1858)	1:28:A:GLY:H	1:27:A:SER:HA	26	0.11
(1,1858)	1:27:A:SER:H	1:27:A:SER:HA	34	0.11
(1,1858)	1:27:A:SER:H	1:27:A:SER:HA	36	0.11
(1,1431)	1:38:A:VAL:H	1:34:A:ILE:HD11	20	0.11
(1,1431)	1:38:A:VAL:H	1:34:A:ILE:HD12	20	0.11
(1,1431)	1:38:A:VAL:H	1:34:A:ILE:HD13	20	0.11
(1,1181)	1:32:A:PRO:HA	1:34:A:ILE:H	35	0.11
(1,1181)	1:32:A:PRO:HA	1:34:A:ILE:H	36	0.11
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	1	0.11
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	21	0.11
(1,1075)	1:53:A:VAL:HB	1:50:A:LEU:HA	36	0.11
(1,955)	1:34:A:ILE:HA	1:37:A:LEU:HG	27	0.11
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB1	37	0.11
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB2	37	0.11
(1,944)	1:27:A:SER:HA	1:29:A:ALA:HB3	37	0.11
(1,925)	1:35:A:TYR:HB2	1:32:A:PRO:HG2	24	0.11
(1,925)	1:35:A:TYR:HB2	1:32:A:PRO:HG3	24	0.11
(1,925)	1:35:A:TYR:HB3	1:32:A:PRO:HG2	24	0.11
(1,925)	1:35:A:TYR:HB3	1:32:A:PRO:HG3	24	0.11
(1,699)	1:16:A:GLN:HA	1:18:A:GLU:H	3	0.11
(1,699)	1:16:A:GLN:HA	1:19:A:CYS:H	12	0.11
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB2	31	0.11
(1,691)	1:15:A:ASN:HB3	1:16:A:GLN:HB3	31	0.11
(1,664)	1:27:A:SER:HA	1:30:A:LEU:HG	33	0.11
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB2	17	0.11
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB3	17	0.11
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB2	33	0.11
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB3	33	0.11
(1,592)	1:62:A:HIS:H	1:62:A:HIS:HA	38	0.11
(1,500)	1:64:A:HIS:HA	1:63:A:HIS:H	18	0.11
(1,500)	1:64:A:HIS:HA	1:63:A:HIS:H	24	0.11

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,490)	1:48:A:LEU:H	1:46:A:ASN:HB2	12	0.11
(1,490)	1:48:A:LEU:H	1:46:A:ASN:HB3	12	0.11
(1,490)	1:48:A:LEU:H	1:46:A:ASN:HB2	17	0.11
(1,490)	1:48:A:LEU:H	1:46:A:ASN:HB3	17	0.11
(1,475)	1:41:A:LEU:HB2	1:44:A:THR:H	36	0.11
(1,475)	1:41:A:LEU:HB3	1:44:A:THR:H	36	0.11
(1,466)	1:46:A:ASN:HD21	1:44:A:THR:HB	1	0.11
(1,466)	1:46:A:ASN:HD21	1:44:A:THR:HB	24	0.11
(1,466)	1:46:A:ASN:HD21	1:44:A:THR:HB	28	0.11
(1,466)	1:46:A:ASN:HD21	1:44:A:THR:HB	31	0.11
(1,460)	1:19:A:CYS:H	1:19:A:CYS:HA	14	0.11
(1,460)	1:19:A:CYS:H	1:19:A:CYS:HA	24	0.11
(1,460)	1:19:A:CYS:H	1:19:A:CYS:HA	28	0.11
(1,460)	1:19:A:CYS:H	1:19:A:CYS:HA	32	0.11
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	7	0.11
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	7	0.11
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	7	0.11
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	7	0.11
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	7	0.11
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	7	0.11
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	32	0.11
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	32	0.11
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	32	0.11
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	32	0.11
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	32	0.11
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	32	0.11
(1,409)	1:36:A:MET:H	1:34:A:ILE:HG21	2	0.11
(1,409)	1:36:A:MET:H	1:34:A:ILE:HG22	2	0.11
(1,409)	1:36:A:MET:H	1:34:A:ILE:HG23	2	0.11
(1,180)	1:61:A:HIS:H	1:61:A:HIS:HA	3	0.11
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	21	0.11
(1,21)	1:55:A:ARG:HB2	1:51:A:TRP:HE1	8	0.11
(1,21)	1:55:A:ARG:HB3	1:51:A:TRP:HE1	8	0.11
(1,2414)	1:33:A:ALA:H	1:31:A:ILE:HG21	5	0.1
(1,2414)	1:33:A:ALA:H	1:31:A:ILE:HG22	5	0.1
(1,2414)	1:33:A:ALA:H	1:31:A:ILE:HG23	5	0.1
(1,2116)	1:10:A:TYR:HA	1:11:A:TYR:H	33	0.1
(1,1858)	1:27:A:SER:H	1:27:A:SER:HA	11	0.1
(1,1858)	1:27:A:SER:H	1:27:A:SER:HA	25	0.1
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB1	28	0.1
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB2	28	0.1
(1,1498)	1:30:A:LEU:HD13	1:33:A:ALA:HB3	28	0.1

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1431)	1:38:A:VAL:H	1:34:A:ILE:HD11	28	0.1
(1,1431)	1:38:A:VAL:H	1:34:A:ILE:HD12	28	0.1
(1,1431)	1:38:A:VAL:H	1:34:A:ILE:HD13	28	0.1
(1,1313)	1:38:A:VAL:HG21	1:34:A:ILE:HB	34	0.1
(1,1181)	1:32:A:PRO:HA	1:34:A:ILE:H	6	0.1
(1,1174)	1:51:A:TRP:HD1	1:52:A:THR:HA	9	0.1
(1,1095)	1:41:A:LEU:HG	1:37:A:LEU:HG	27	0.1
(1,1095)	1:41:A:LEU:HG	1:37:A:LEU:HG	36	0.1
(1,915)	1:49:A:VAL:HG22	1:46:A:ASN:HA	17	0.1
(1,802)	1:52:A:THR:HG21	1:55:A:ARG:HE	36	0.1
(1,802)	1:52:A:THR:HG22	1:55:A:ARG:HE	36	0.1
(1,802)	1:52:A:THR:HG23	1:55:A:ARG:HE	36	0.1
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB2	6	0.1
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB3	6	0.1
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB2	18	0.1
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB3	18	0.1
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB2	36	0.1
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB3	36	0.1
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB2	40	0.1
(1,606)	1:33:A:ALA:H	1:30:A:LEU:HB3	40	0.1
(1,592)	1:62:A:HIS:H	1:61:A:HIS:HA	2	0.1
(1,589)	1:33:A:ALA:H	1:31:A:ILE:HG21	5	0.1
(1,589)	1:33:A:ALA:H	1:31:A:ILE:HG22	5	0.1
(1,589)	1:33:A:ALA:H	1:31:A:ILE:HG23	5	0.1
(1,589)	1:33:A:ALA:H	1:30:A:LEU:HD11	13	0.1
(1,589)	1:33:A:ALA:H	1:30:A:LEU:HD12	13	0.1
(1,589)	1:33:A:ALA:H	1:30:A:LEU:HD13	13	0.1
(1,589)	1:33:A:ALA:H	1:30:A:LEU:HD21	13	0.1
(1,589)	1:33:A:ALA:H	1:30:A:LEU:HD22	13	0.1
(1,589)	1:33:A:ALA:H	1:30:A:LEU:HD23	13	0.1
(1,573)	1:55:A:ARG:HB2	1:55:A:ARG:H	31	0.1
(1,573)	1:55:A:ARG:HB3	1:55:A:ARG:H	31	0.1
(1,491)	1:37:A:LEU:H	1:33:A:ALA:HB1	25	0.1
(1,491)	1:37:A:LEU:H	1:33:A:ALA:HB2	25	0.1
(1,491)	1:37:A:LEU:H	1:33:A:ALA:HB3	25	0.1
(1,460)	1:19:A:CYS:H	1:19:A:CYS:HA	17	0.1
(1,434)	1:61:A:HIS:H	1:61:A:HIS:HB2	26	0.1
(1,434)	1:61:A:HIS:H	1:61:A:HIS:HB3	26	0.1
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	6	0.1
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	6	0.1
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	6	0.1
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	6	0.1

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	6	0.1
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	6	0.1
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD11	38	0.1
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD12	38	0.1
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD13	38	0.1
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD21	38	0.1
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD22	38	0.1
(1,422)	1:51:A:TRP:HE1	1:48:A:LEU:HD23	38	0.1
(1,380)	1:59:A:HIS:H	1:56:A:LYS:HA	34	0.1
(1,180)	1:61:A:HIS:H	1:61:A:HIS:HA	29	0.1
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB2	28	0.1
(1,83)	1:48:A:LEU:H	1:51:A:TRP:HB3	28	0.1
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	1	0.1
(1,67)	1:51:A:TRP:HE1	1:52:A:THR:HA	9	0.1
(1,21)	1:55:A:ARG:HB2	1:51:A:TRP:HE1	40	0.1
(1,21)	1:55:A:ARG:HB3	1:51:A:TRP:HE1	40	0.1
(1,14)	1:55:A:ARG:HH21	1:52:A:THR:HB	37	0.1
(1,14)	1:55:A:ARG:HH22	1:52:A:THR:HB	37	0.1

10 Dihedral-angle violation analysis (i)

No dihedral-angle restraints found