Full wwPDB NMR Structure Validation Report (i)

Jun 3, 2023 – 07:19 AM EDT

PDB ID	:	2HUG
BMRB ID	:	7241
Title	:	3D Solution Structure of the Chromo-2 Domain of cpSRP43 complexed with cpSRP54 peptide
Authors	:	Kathir, K.M.; Vaithiyalingam, S.; Henry, R.; Thallapuranam, S.K.K.
Deposited on	:	2006-07-26

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:

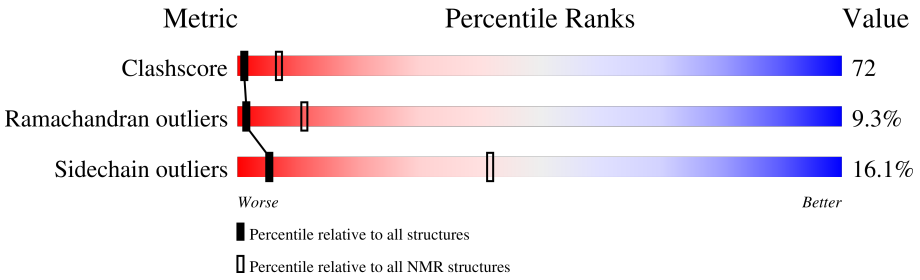
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
wwPDB-RCI	:	v_1n_11_5_13_A (Berjanski et al., 2005)
PANAV	:	Wang et al. (2010)
wwPDB-ShiftChecker	:	v1.2
BMRB Restraints Analysis	:	v1.2
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal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

1 Overall quality at a glance (i)

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

The overall completeness of chemical shifts assignment is 69%.

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



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

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

Mol	Chain	Length	Quality of chain
1	A	57	21% 49% 18% 12%
2	B	14	100%

2 Ensemble composition and analysis (i)

This entry contains 20 models. Model 13 is the overall representative, medoid model (most similar to other models). The authors have identified model ? as representative, based on the following criterion: *lowest energy*.

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

Well-defined (core) protein residues			
Well-defined core	**Residue range (total)**	**Backbone RMSD (Å)**	**Medoid model**
1	A:5-A:54 (50)	0.41	13

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 3 clusters and 1 single-model cluster was found.

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

3 Entry composition

There are 2 unique types of molecules in this entry. The entry contains 1112 atoms, of which 544 are hydrogens and 0 are deuteriums.

- Molecule 1 is a protein called Signal recognition particle 43 kDa protein, chloroplast.

Mol	Chain	Residues	Atoms						Trace
			Total	C	H	N	O	S	
1	A	57	891	291	429	74	96	1	0

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	1	GLY	-	expression tag	UNP O22265
A	2	SER	-	expression tag	UNP O22265

- Molecule 2 is a protein called Signal recognition particle 54 kDa protein, chloroplast.

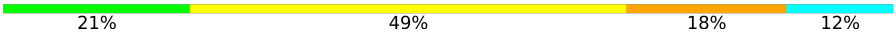
Mol	Chain	Residues	Atoms					Trace
			Total	C	H	N	O	
2	B	14	221	62	115	25	19	0

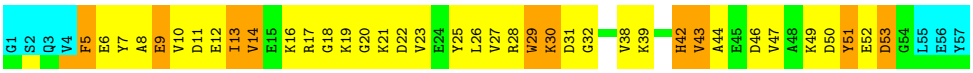
4 Residue-property plots

4.1 Average score per residue in the NMR ensemble

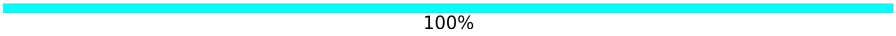
These plots are provided for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic is the same as shown in the summary in section 1 of this report. The second graphic shows the sequence where residues are colour-coded according to the number of geometric quality criteria for 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.

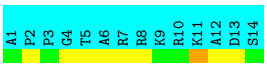
• Molecule 1: Signal recognition particle 43 kDa protein, chloroplast

Chain A: 



• Molecule 2: Signal recognition particle 54 kDa protein, chloroplast

Chain B: 

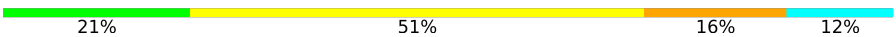


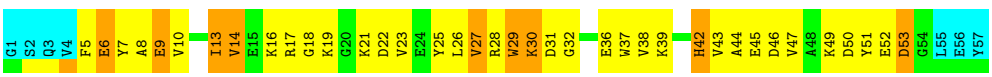
4.2 Scores per residue for each member of the ensemble

Colouring as in section 4.1 above.

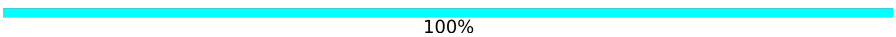
4.2.1 Score per residue for model 1

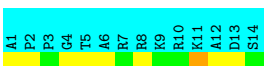
• Molecule 1: Signal recognition particle 43 kDa protein, chloroplast

Chain A: 



• Molecule 2: Signal recognition particle 54 kDa protein, chloroplast

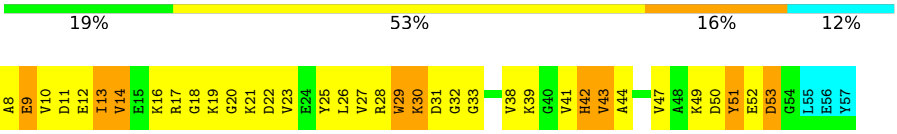
Chain B: 



4.2.2 Score per residue for model 2

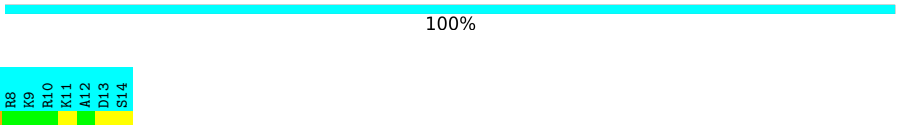
• Molecule 1: Signal recognition particle 43 kDa protein, chloroplast

Chain A:



• Molecule 2: Signal recognition particle 54 kDa protein, chloroplast

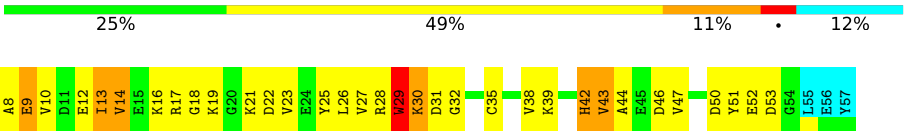
Chain B:



4.2.3 Score per residue for model 3

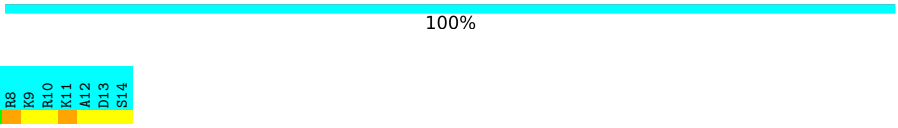
• Molecule 1: Signal recognition particle 43 kDa protein, chloroplast

Chain A:



• Molecule 2: Signal recognition particle 54 kDa protein, chloroplast

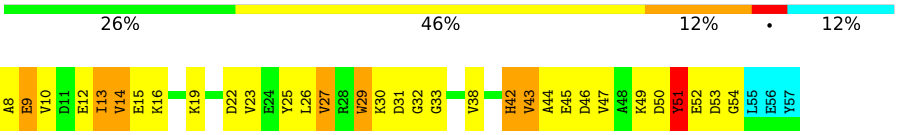
Chain B:



4.2.4 Score per residue for model 4

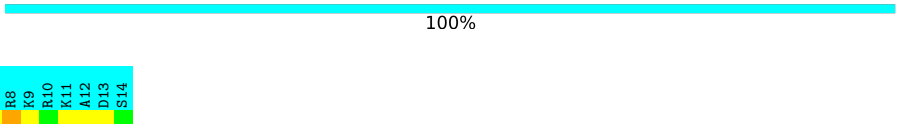
• Molecule 1: Signal recognition particle 43 kDa protein, chloroplast

Chain A:



• Molecule 2: Signal recognition particle 54 kDa protein, chloroplast

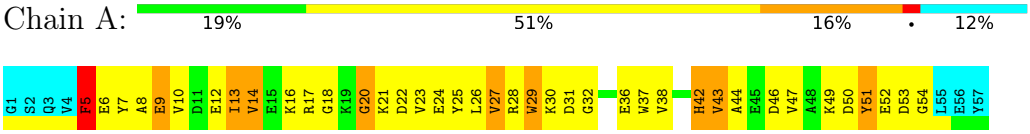
Chain B:



4.2.5 Score per residue for model 5

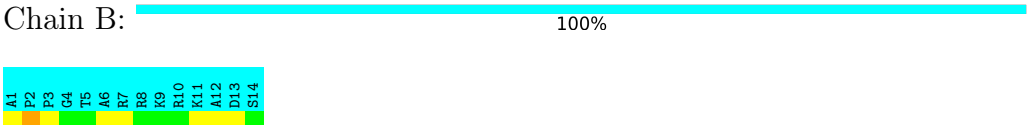
• Molecule 1: Signal recognition particle 43 kDa protein, chloroplast

Chain A:



• Molecule 2: Signal recognition particle 54 kDa protein, chloroplast

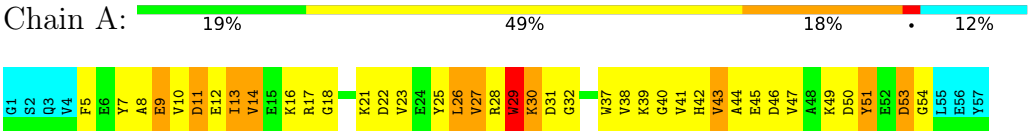
Chain B:



4.2.6 Score per residue for model 6

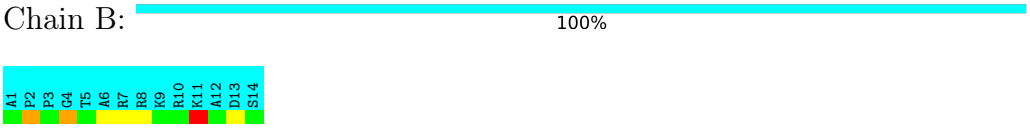
• Molecule 1: Signal recognition particle 43 kDa protein, chloroplast

Chain A:



• Molecule 2: Signal recognition particle 54 kDa protein, chloroplast

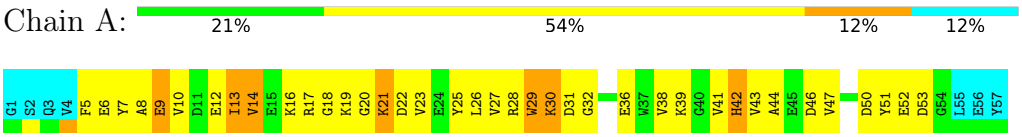
Chain B:



4.2.7 Score per residue for model 7

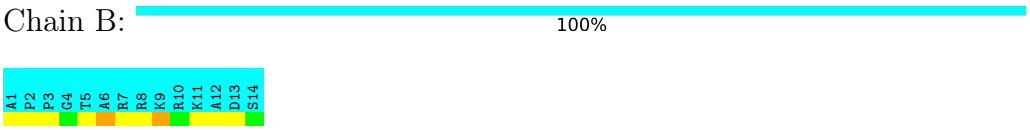
• Molecule 1: Signal recognition particle 43 kDa protein, chloroplast

Chain A:



• Molecule 2: Signal recognition particle 54 kDa protein, chloroplast

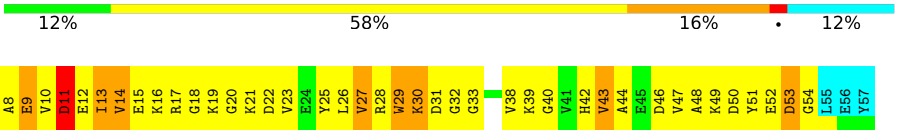
Chain B:



4.2.8 Score per residue for model 8

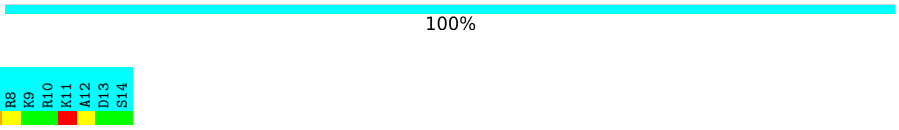
• Molecule 1: Signal recognition particle 43 kDa protein, chloroplast

Chain A:



• Molecule 2: Signal recognition particle 54 kDa protein, chloroplast

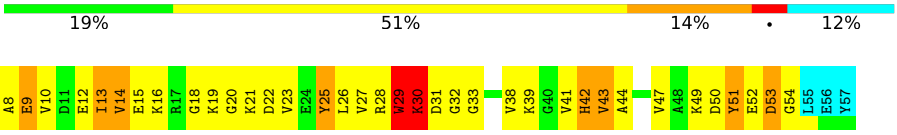
Chain B:



4.2.9 Score per residue for model 9

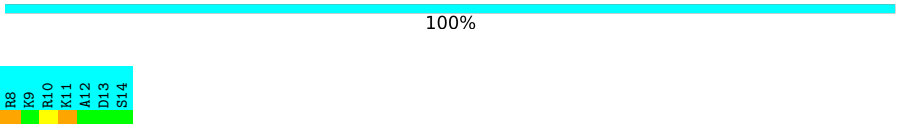
• Molecule 1: Signal recognition particle 43 kDa protein, chloroplast

Chain A:



• Molecule 2: Signal recognition particle 54 kDa protein, chloroplast

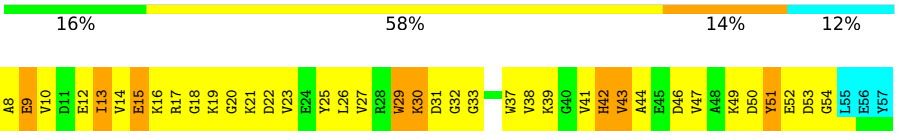
Chain B:



4.2.10 Score per residue for model 10

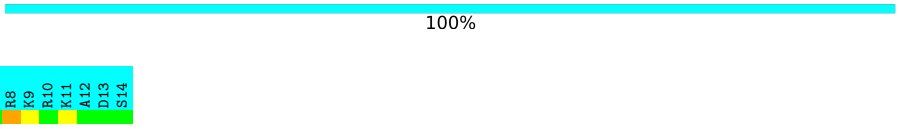
• Molecule 1: Signal recognition particle 43 kDa protein, chloroplast

Chain A:



• Molecule 2: Signal recognition particle 54 kDa protein, chloroplast

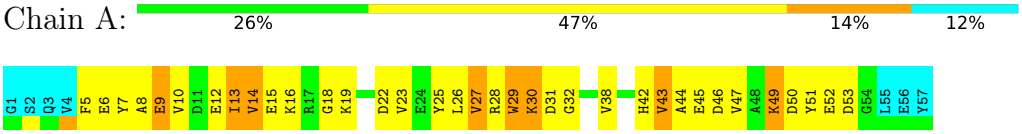
Chain B:



4.2.11 Score per residue for model 11

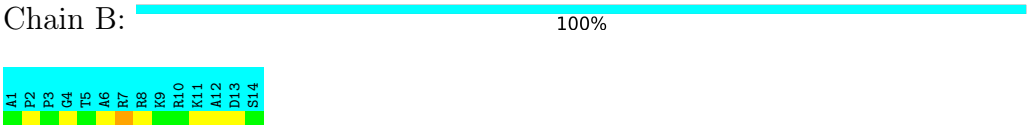
• Molecule 1: Signal recognition particle 43 kDa protein, chloroplast

Chain A:



• Molecule 2: Signal recognition particle 54 kDa protein, chloroplast

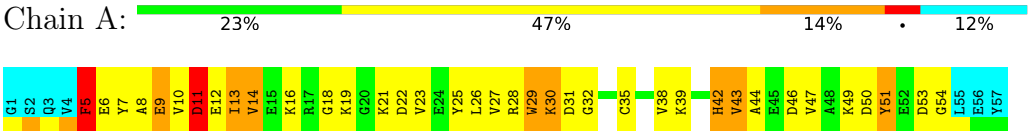
Chain B:



4.2.12 Score per residue for model 12

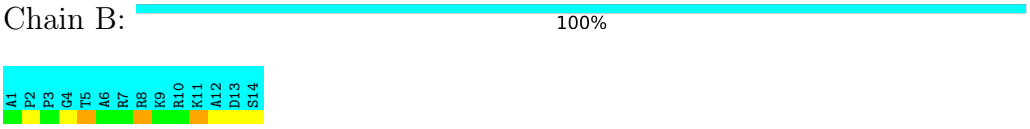
• Molecule 1: Signal recognition particle 43 kDa protein, chloroplast

Chain A:



• Molecule 2: Signal recognition particle 54 kDa protein, chloroplast

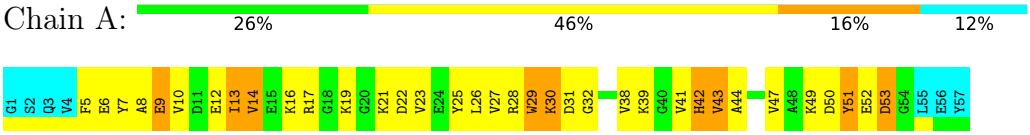
Chain B:



4.2.13 Score per residue for model 13 (medoid)

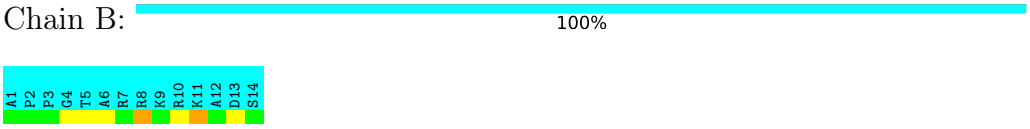
• Molecule 1: Signal recognition particle 43 kDa protein, chloroplast

Chain A:



• Molecule 2: Signal recognition particle 54 kDa protein, chloroplast

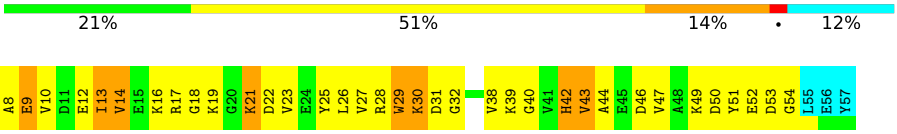
Chain B:



4.2.14 Score per residue for model 14

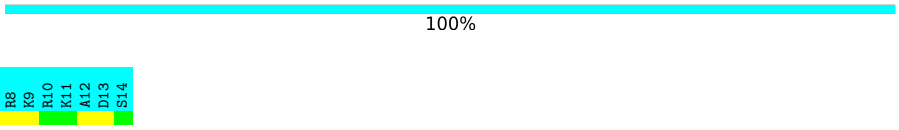
• Molecule 1: Signal recognition particle 43 kDa protein, chloroplast

Chain A:



• Molecule 2: Signal recognition particle 54 kDa protein, chloroplast

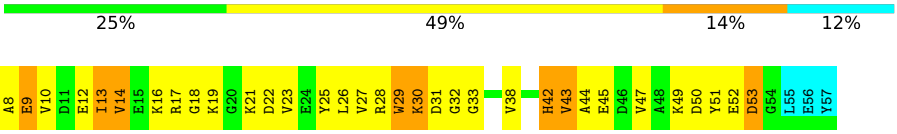
Chain B:



4.2.15 Score per residue for model 15

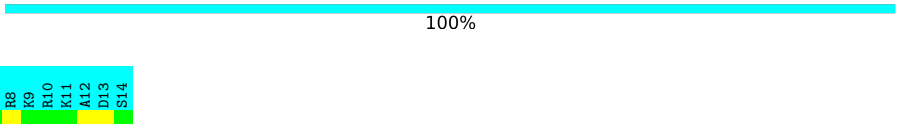
• Molecule 1: Signal recognition particle 43 kDa protein, chloroplast

Chain A:



• Molecule 2: Signal recognition particle 54 kDa protein, chloroplast

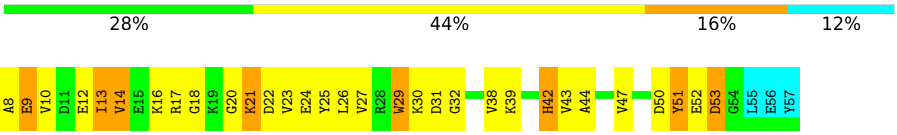
Chain B:



4.2.16 Score per residue for model 16

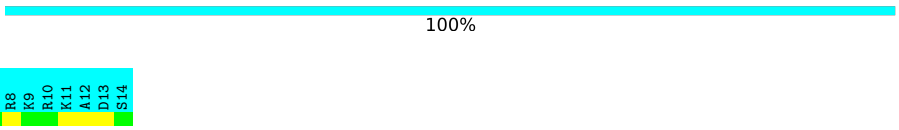
• Molecule 1: Signal recognition particle 43 kDa protein, chloroplast

Chain A:



• Molecule 2: Signal recognition particle 54 kDa protein, chloroplast

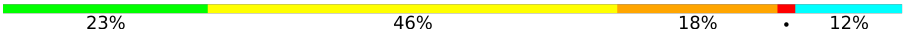
Chain B:



4.2.17 Score per residue for model 17

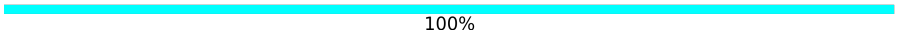
• Molecule 1: Signal recognition particle 43 kDa protein, chloroplast

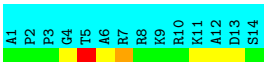
Chain A:



• Molecule 2: Signal recognition particle 54 kDa protein, chloroplast

Chain B:

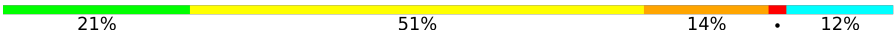


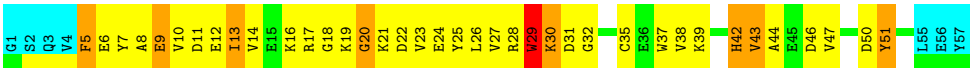


4.2.18 Score per residue for model 18

• Molecule 1: Signal recognition particle 43 kDa protein, chloroplast

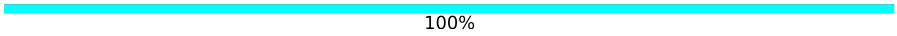
Chain A:

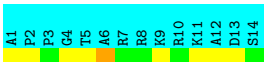




• Molecule 2: Signal recognition particle 54 kDa protein, chloroplast

Chain B:

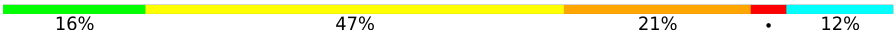




4.2.19 Score per residue for model 19

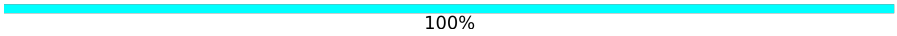
• Molecule 1: Signal recognition particle 43 kDa protein, chloroplast

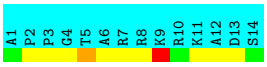
Chain A:



• Molecule 2: Signal recognition particle 54 kDa protein, chloroplast

Chain B:

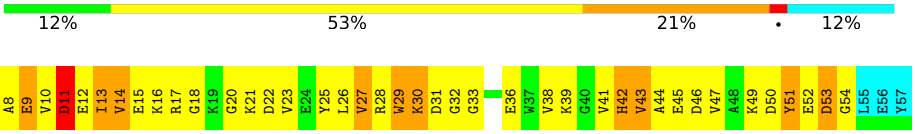




4.2.20 Score per residue for model 20

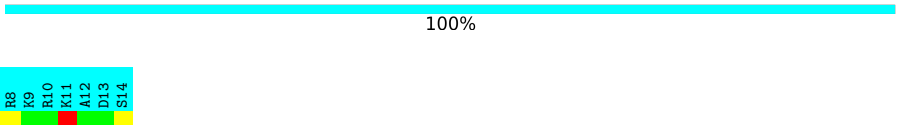
• Molecule 1: Signal recognition particle 43 kDa protein, chloroplast

Chain A:



• Molecule 2: Signal recognition particle 54 kDa protein, chloroplast

Chain B:



5 Refinement protocol and experimental data overview

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

Of the 200 calculated structures, 20 were deposited, based on the following criterion: *?*.

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

Software name	Classification	Version
ARIA/CNS	refinement	

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

Chemical shift file(s)	working_cs.cif
Number of chemical shift lists	1
Total number of shifts	514
Number of shifts mapped to atoms	514
Number of unparsed shifts	0
Number of shifts with mapping errors	0
Number of shifts with mapping warnings	0
Assignment completeness (well-defined parts)	69%

6 Model quality (i)

6.1 Standard geometry (i)

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#Z>5	RMSZ	#Z>5
1	A	4.17±4.93	1±1/415 (0.2± 0.3%)	2.51±2.34	2±3/559 (0.4± 0.5%)
All	All	6.46	20/8300 (0.2%)	3.43	48/11180 (0.4%)

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

Mol	Chain	Chirality	Planarity
1	A	0.0±0.0	0.5±0.7
All	All	0	10

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

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)	Models	
								Worst	Total
1	A	9	GLU	CG-CD	354.11	6.83	1.51	19	1
1	A	11	ASP	CB-CG	179.67	5.29	1.51	20	4
1	A	5	PHE	CE2-CZ	139.62	4.02	1.37	19	7
1	A	5	PHE	CE1-CZ	90.01	3.08	1.37	19	7
1	A	51	TYR	CE2-CZ	-5.34	1.31	1.38	4	1

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

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})	Models	
								Worst	Total
1	A	5	PHE	CB-CG-CD2	-91.32	56.88	120.80	4	7
1	A	5	PHE	CB-CG-CD1	81.04	177.53	120.80	8	6
1	A	11	ASP	CB-CG-OD1	-78.90	47.29	118.30	20	4
1	A	11	ASP	CB-CG-OD2	-78.25	47.88	118.30	6	4
1	A	5	PHE	CD1-CE1-CZ	-57.21	51.45	120.10	19	7

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})	Models	
								Worst	Total
1	A	5	PHE	CE1-CZ-CE2	-55.73	19.69	120.00	8	7
1	A	5	PHE	CZ-CE2-CD2	-49.00	61.30	120.10	19	7
1	A	9	GLU	CB-CG-CD	-39.19	8.38	114.20	19	1
1	A	11	ASP	CA-CB-CG	-19.74	69.97	113.40	20	4
1	A	9	GLU	CG-CD-OE2	-17.14	84.03	118.30	19	1

There are no chirality outliers.

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

Mol	Chain	Res	Type	Group	Models (Total)
1	A	5	PHE	Sidechain	6
1	A	11	ASP	Sidechain	2
1	A	25	TYR	Sidechain	1
1	A	9	GLU	Sidechain	1

6.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes
1	A	406	376	375	57±7
2	B	0	0	0	0±0
All	All	8120	7520	7500	1132

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 72.

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

Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:5:PHE:CD1	1:A:5:PHE:CZ	1.63	1.82	17	6
1:A:5:PHE:CZ	1:A:5:PHE:CE1	1.37	2.10	17	5
1:A:5:PHE:CE1	1:A:5:PHE:N	1.13	2.16	19	2
1:A:9:GLU:CD	1:A:27:VAL:HG11	1.12	1.64	19	1
1:A:9:GLU:CD	1:A:27:VAL:CG1	1.05	2.25	19	1
1:A:5:PHE:CE1	1:A:5:PHE:CE2	1.04	2.39	19	3

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:5:PHE:CE2	1:A:5:PHE:CE1	1.03	2.39	14	4
1:A:5:PHE:CZ	1:A:5:PHE:HD1	0.95	1.74	17	3
1:A:14:VAL:CG2	1:A:26:LEU:HD13	0.90	1.96	9	14
1:A:47:VAL:HG12	1:A:51:TYR:CE2	0.81	2.09	19	8
1:A:10:VAL:HG12	1:A:30:LYS:CB	0.81	2.05	2	16
1:A:26:LEU:HD13	1:A:37:TRP:CD1	0.79	2.10	19	3
1:A:14:VAL:HG21	1:A:26:LEU:HD13	0.79	1.55	6	5
1:A:10:VAL:HG23	1:A:27:VAL:CG2	0.79	2.07	20	1
1:A:19:LYS:NZ	1:A:43:VAL:HG23	0.79	1.93	19	1
1:A:13:ILE:HG22	1:A:26:LEU:O	0.78	1.78	15	20
1:A:6:GLU:H	1:A:23:VAL:HG11	0.77	1.39	4	14
1:A:17:ARG:C	1:A:23:VAL:HG23	0.77	2.00	18	16
1:A:19:LYS:HE3	1:A:43:VAL:HG13	0.74	1.58	18	1
1:A:47:VAL:HG12	1:A:51:TYR:CD2	0.73	2.19	5	7
1:A:5:PHE:CZ	1:A:5:PHE:CG	0.72	2.78	19	6
1:A:10:VAL:HG21	1:A:29:TRP:CD1	0.71	2.19	18	13
1:A:18:GLY:N	1:A:23:VAL:HG23	0.70	2.01	1	13
1:A:26:LEU:HD12	1:A:36:GLU:O	0.69	1.87	1	3
1:A:5:PHE:N	1:A:5:PHE:CD1	0.69	2.52	19	1
1:A:9:GLU:HA	1:A:27:VAL:HB	0.69	1.64	20	15
1:A:25:TYR:O	1:A:38:VAL:HG23	0.69	1.88	13	13
1:A:8:ALA:HB3	1:A:38:VAL:HG11	0.69	1.64	4	12
1:A:14:VAL:HG22	1:A:26:LEU:CB	0.68	2.17	4	1
1:A:10:VAL:HG23	1:A:27:VAL:HG23	0.68	1.64	20	1
1:A:26:LEU:HD12	1:A:36:GLU:C	0.68	2.08	19	3
1:A:8:ALA:HB3	1:A:38:VAL:CG1	0.68	2.18	6	6
1:A:21:LYS:HE2	1:A:47:VAL:HG11	0.67	1.65	5	1
1:A:10:VAL:HG12	1:A:30:LYS:HB3	0.66	1.67	13	14
1:A:19:LYS:NZ	1:A:43:VAL:HG13	0.65	2.06	14	2
1:A:14:VAL:HG23	1:A:26:LEU:HD23	0.65	1.67	1	3
1:A:14:VAL:HG23	1:A:26:LEU:HD13	0.65	1.67	20	5
1:A:9:GLU:HB2	1:A:13:ILE:HG22	0.64	1.70	20	11
1:A:9:GLU:HB3	1:A:13:ILE:HG22	0.64	1.68	19	9
1:A:8:ALA:O	1:A:9:GLU:OE2	0.64	2.16	19	1
1:A:11:ASP:CG	1:A:29:TRP:O	0.63	2.31	12	1
1:A:27:VAL:HG12	1:A:38:VAL:HG23	0.62	1.70	20	1
1:A:13:ILE:H	1:A:13:ILE:HD13	0.61	1.55	6	19
1:A:8:ALA:HB3	1:A:38:VAL:HG21	0.61	1.71	20	4
1:A:47:VAL:CG1	1:A:51:TYR:CE2	0.61	2.82	5	7
1:A:13:ILE:HD13	1:A:13:ILE:N	0.61	2.10	6	18
1:A:9:GLU:CD	1:A:27:VAL:HG13	0.61	2.11	19	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:5:PHE:CD1	1:A:5:PHE:N	0.60	2.69	14	3
1:A:11:ASP:OD2	1:A:29:TRP:O	0.60	2.19	12	1
1:A:11:ASP:HB2	1:A:30:LYS:CA	0.59	2.27	20	1
1:A:5:PHE:CE2	1:A:5:PHE:HE1	0.59	2.10	8	1
1:A:11:ASP:HB2	1:A:30:LYS:HA	0.59	1.72	20	1
1:A:23:VAL:HG21	1:A:25:TYR:HE1	0.59	1.58	9	9
1:A:23:VAL:HG21	1:A:25:TYR:CE1	0.59	2.33	9	7
1:A:10:VAL:HG12	1:A:30:LYS:HB2	0.59	1.74	2	8
1:A:16:LYS:HB3	1:A:25:TYR:CE2	0.58	2.33	9	12
1:A:14:VAL:CG2	1:A:26:LEU:HD23	0.58	2.29	1	1
1:A:22:ASP:OD2	1:A:43:VAL:HG22	0.58	1.99	2	2
1:A:8:ALA:O	1:A:38:VAL:HG21	0.58	1.99	13	7
1:A:44:ALA:HB1	1:A:47:VAL:HG23	0.58	1.76	19	7
1:A:14:VAL:HG22	1:A:26:LEU:HB2	0.57	1.76	4	1
1:A:47:VAL:O	1:A:51:TYR:HB2	0.57	1.98	17	5
1:A:43:VAL:HG12	1:A:43:VAL:O	0.56	2.00	14	3
1:A:16:LYS:CB	1:A:25:TYR:CZ	0.56	2.89	10	17
1:A:8:ALA:CB	1:A:38:VAL:HG11	0.56	2.30	4	3
1:A:26:LEU:HD11	1:A:35:CYS:SG	0.56	2.40	3	1
1:A:10:VAL:HG23	1:A:27:VAL:HG21	0.55	1.79	20	1
1:A:26:LEU:CD1	1:A:37:TRP:CD1	0.55	2.90	5	3
1:A:47:VAL:CG1	1:A:51:TYR:CE1	0.55	2.90	10	5
1:A:16:LYS:CB	1:A:25:TYR:CE2	0.54	2.90	9	1
1:A:9:GLU:CB	1:A:13:ILE:HG22	0.54	2.32	20	16
1:A:16:LYS:HB2	1:A:25:TYR:OH	0.54	2.03	2	6
1:A:47:VAL:CG1	1:A:51:TYR:CZ	0.54	2.91	3	11
1:A:47:VAL:O	1:A:51:TYR:N	0.54	2.41	4	17
1:A:9:GLU:CB	1:A:13:ILE:CG2	0.54	2.86	7	11
1:A:19:LYS:HZ2	1:A:43:VAL:HG23	0.53	1.62	19	1
1:A:38:VAL:HG12	1:A:39:LYS:N	0.53	2.18	7	15
1:A:14:VAL:CG2	1:A:26:LEU:HD22	0.53	2.33	14	1
1:A:13:ILE:HD13	1:A:13:ILE:H	0.53	1.63	5	1
1:A:44:ALA:HB1	1:A:47:VAL:CG2	0.53	2.33	19	5
1:A:43:VAL:HG22	1:A:43:VAL:O	0.53	2.03	5	4
1:A:6:GLU:N	1:A:23:VAL:HG11	0.52	2.15	4	2
1:A:8:ALA:O	1:A:27:VAL:HG11	0.52	2.04	6	3
1:A:47:VAL:HG13	1:A:51:TYR:CE1	0.52	2.39	1	12
1:A:11:ASP:HB2	1:A:28:ARG:O	0.52	2.04	8	2
1:A:19:LYS:HZ3	1:A:43:VAL:HG23	0.52	1.61	19	1
1:A:23:VAL:CG2	1:A:25:TYR:CE1	0.52	2.93	9	3
1:A:7:TYR:N	1:A:7:TYR:CD1	0.52	2.75	19	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:6:GLU:O	1:A:25:TYR:CD1	0.52	2.63	12	8
1:A:47:VAL:O	1:A:51:TYR:CD2	0.52	2.63	17	3
1:A:47:VAL:O	1:A:51:TYR:CG	0.51	2.64	10	19
1:A:10:VAL:HG12	1:A:30:LYS:CG	0.51	2.35	9	2
1:A:47:VAL:O	1:A:51:TYR:CB	0.51	2.59	10	20
1:A:19:LYS:HZ2	1:A:43:VAL:HG13	0.50	1.65	10	2
1:A:9:GLU:CG	1:A:12:GLU:N	0.50	2.75	20	11
1:A:27:VAL:CG1	1:A:38:VAL:CG2	0.50	2.89	14	16
1:A:42:HIS:O	1:A:44:ALA:N	0.50	2.45	5	20
1:A:16:LYS:HB2	1:A:25:TYR:CZ	0.50	2.42	13	12
1:A:48:ALA:HA	1:A:51:TYR:HB2	0.50	1.82	17	1
1:A:7:TYR:CD2	1:A:7:TYR:O	0.49	2.66	6	10
1:A:7:TYR:CD1	1:A:9:GLU:OE2	0.49	2.66	5	3
1:A:16:LYS:HB3	1:A:25:TYR:CZ	0.48	2.43	1	10
1:A:47:VAL:O	1:A:51:TYR:CD1	0.48	2.66	7	9
1:A:7:TYR:O	1:A:7:TYR:CD1	0.48	2.66	14	8
1:A:9:GLU:HB3	1:A:13:ILE:CG2	0.48	2.38	2	13
1:A:5:PHE:N	1:A:19:LYS:O	0.48	2.46	13	14
1:A:12:GLU:O	1:A:27:VAL:HA	0.48	2.09	3	16
1:A:29:TRP:O	1:A:32:GLY:N	0.48	2.46	13	20
1:A:5:PHE:CD1	1:A:18:GLY:O	0.48	2.67	20	2
1:A:14:VAL:CG2	1:A:26:LEU:CD2	0.47	2.92	1	2
1:A:19:LYS:HB3	1:A:48:ALA:HB2	0.47	1.86	8	1
1:A:22:ASP:N	1:A:42:HIS:O	0.47	2.48	5	7
1:A:7:TYR:CD1	1:A:7:TYR:O	0.47	2.67	5	1
1:A:9:GLU:HG2	1:A:12:GLU:N	0.47	2.25	20	7
1:A:5:PHE:CD1	1:A:25:TYR:OH	0.47	2.68	11	7
1:A:38:VAL:CG1	1:A:39:LYS:N	0.47	2.78	18	14
1:A:7:TYR:HB3	1:A:25:TYR:CE2	0.47	2.45	1	6
1:A:21:LYS:O	1:A:42:HIS:CB	0.47	2.63	13	14
1:A:29:TRP:CZ2	1:A:31:ASP:OD2	0.47	2.67	4	1
1:A:45:GLU:O	1:A:49:LYS:CB	0.47	2.63	17	4
1:A:43:VAL:HG13	1:A:43:VAL:O	0.47	2.10	8	2
1:A:15:GLU:O	1:A:25:TYR:HA	0.46	2.09	4	6
1:A:29:TRP:CE2	1:A:31:ASP:O	0.46	2.68	16	1
1:A:27:VAL:O	1:A:27:VAL:HG22	0.46	2.09	20	1
1:A:6:GLU:O	1:A:23:VAL:CG1	0.46	2.63	8	9
1:A:13:ILE:N	1:A:13:ILE:CD1	0.46	2.78	6	2
1:A:7:TYR:HB3	1:A:25:TYR:CD2	0.46	2.46	1	2
1:A:8:ALA:CB	1:A:38:VAL:HG21	0.46	2.40	20	1
1:A:27:VAL:CG1	1:A:38:VAL:HG23	0.46	2.41	18	5

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:46:ASP:O	1:A:50:ASP:CB	0.46	2.64	6	13
1:A:6:GLU:CB	1:A:20:GLY:O	0.46	2.64	18	9
1:A:29:TRP:CE3	1:A:32:GLY:HA3	0.46	2.45	4	2
1:A:7:TYR:HA	1:A:25:TYR:CD2	0.46	2.45	16	11
1:A:29:TRP:CZ2	1:A:31:ASP:O	0.46	2.68	16	1
1:A:22:ASP:HB2	1:A:42:HIS:O	0.46	2.11	17	8
1:A:26:LEU:HG	1:A:27:VAL:N	0.46	2.26	14	4
1:A:14:VAL:HG23	1:A:15:GLU:N	0.46	2.26	4	1
1:A:14:VAL:HG23	1:A:26:LEU:HD22	0.46	1.86	14	1
1:A:22:ASP:CA	1:A:42:HIS:O	0.45	2.64	19	11
1:A:25:TYR:O	1:A:38:VAL:N	0.45	2.47	14	10
1:A:22:ASP:OD1	1:A:43:VAL:N	0.45	2.49	12	6
1:A:7:TYR:HA	1:A:25:TYR:CG	0.45	2.47	11	12
1:A:13:ILE:HG21	1:A:25:TYR:HD2	0.45	1.71	19	10
1:A:8:ALA:O	1:A:27:VAL:CG1	0.45	2.64	6	5
1:A:29:TRP:O	1:A:31:ASP:N	0.45	2.50	18	20
1:A:10:VAL:HB	1:A:29:TRP:HA	0.45	1.87	4	5
1:A:48:ALA:CA	1:A:51:TYR:HB2	0.45	2.42	17	1
1:A:22:ASP:OD2	1:A:43:VAL:N	0.45	2.50	14	5
1:A:14:VAL:HG23	1:A:26:LEU:CD2	0.45	2.41	14	1
1:A:9:GLU:HB2	1:A:13:ILE:CG2	0.45	2.41	9	3
1:A:21:LYS:O	1:A:42:HIS:HB2	0.45	2.12	2	6
1:A:22:ASP:OD1	1:A:41:VAL:CA	0.44	2.65	7	4
1:A:27:VAL:O	1:A:27:VAL:CG2	0.44	2.65	6	12
1:A:52:GLU:CG	1:A:53:ASP:N	0.44	2.80	13	8
1:A:5:PHE:CD1	1:A:5:PHE:O	0.44	2.70	2	1
1:A:29:TRP:CE3	1:A:32:GLY:CA	0.44	3.01	4	1
1:A:25:TYR:O	1:A:38:VAL:CG2	0.44	2.66	9	8
1:A:7:TYR:O	1:A:7:TYR:CG	0.44	2.71	11	3
1:A:16:LYS:HA	1:A:25:TYR:CE1	0.44	2.48	6	2
1:A:21:LYS:NZ	1:A:51:TYR:OH	0.44	2.46	10	1
1:A:26:LEU:C	1:A:26:LEU:HD23	0.44	2.33	6	3
1:A:49:LYS:O	1:A:53:ASP:CB	0.44	2.66	19	9
1:A:49:LYS:O	1:A:54:GLY:N	0.44	2.51	8	10
1:A:41:VAL:O	1:A:43:VAL:N	0.44	2.51	20	3
1:A:6:GLU:CG	1:A:20:GLY:O	0.44	2.66	16	1
1:A:23:VAL:HG22	1:A:24:GLU:N	0.43	2.27	16	2
1:A:5:PHE:HB2	1:A:23:VAL:HG21	0.43	1.91	5	1
1:A:23:VAL:HG11	1:A:25:TYR:CE1	0.43	2.49	6	1
1:A:27:VAL:CG2	1:A:27:VAL:O	0.43	2.66	19	1
1:A:14:VAL:N	1:A:26:LEU:HB3	0.43	2.28	20	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:28:ARG:O	1:A:30:LYS:N	0.43	2.51	12	11
1:A:11:ASP:OD2	1:A:29:TRP:C	0.43	2.50	12	1
1:A:44:ALA:O	1:A:47:VAL:N	0.43	2.52	10	3
1:A:22:ASP:OD2	1:A:43:VAL:CG2	0.42	2.67	14	1
1:A:6:GLU:O	1:A:25:TYR:CE1	0.42	2.72	13	1
1:A:10:VAL:CG2	1:A:27:VAL:HG23	0.42	2.39	20	1
1:A:5:PHE:CD2	1:A:5:PHE:N	0.42	2.86	14	2
1:A:14:VAL:CG1	1:A:26:LEU:HD13	0.42	2.44	4	1
1:A:21:LYS:HA	1:A:21:LYS:CE	0.42	2.45	16	1
1:A:12:GLU:O	1:A:26:LEU:HD23	0.42	2.14	20	1
1:A:27:VAL:N	1:A:36:GLU:O	0.42	2.49	5	1
1:A:5:PHE:CE1	1:A:18:GLY:O	0.42	2.72	16	2
1:A:47:VAL:HG13	1:A:51:TYR:CZ	0.42	2.50	1	2
1:A:52:GLU:HG3	1:A:53:ASP:N	0.42	2.30	13	8
1:A:46:ASP:O	1:A:50:ASP:N	0.42	2.52	12	4
1:A:50:ASP:OD1	1:A:50:ASP:C	0.42	2.58	19	1
1:A:9:GLU:OE2	1:A:27:VAL:HG11	0.42	2.06	19	1
1:A:6:GLU:OE2	1:A:21:LYS:CD	0.41	2.68	20	1
1:A:11:ASP:HB2	1:A:30:LYS:CB	0.41	2.45	18	2
1:A:22:ASP:CB	1:A:42:HIS:O	0.41	2.67	6	1
1:A:15:GLU:OE1	1:A:37:TRP:NE1	0.41	2.54	10	1
1:A:6:GLU:OE1	1:A:8:ALA:N	0.41	2.52	20	1
1:A:28:ARG:O	1:A:29:TRP:C	0.41	2.59	2	7
1:A:10:VAL:HG11	1:A:29:TRP:HD1	0.41	1.76	9	1
1:A:9:GLU:HG3	1:A:12:GLU:CA	0.41	2.45	20	2
1:A:25:TYR:O	1:A:38:VAL:CB	0.41	2.68	18	1
1:A:10:VAL:HG21	1:A:29:TRP:HD1	0.41	1.76	20	1
1:A:15:GLU:OE1	1:A:37:TRP:CD1	0.41	2.74	10	1
1:A:28:ARG:NH1	1:A:35:CYS:CB	0.41	2.84	18	1
1:A:9:GLU:HA	1:A:27:VAL:CG1	0.41	2.45	5	2
1:A:10:VAL:CG1	1:A:30:LYS:HG2	0.41	2.46	20	1
1:A:47:VAL:HA	1:A:50:ASP:OD2	0.41	2.16	19	1
1:A:28:ARG:CZ	1:A:35:CYS:SG	0.41	3.09	12	1
1:A:23:VAL:O	1:A:40:GLY:HA2	0.40	2.15	6	1
1:A:26:LEU:HD23	1:A:26:LEU:C	0.40	2.36	8	2
1:A:9:GLU:HG3	1:A:13:ILE:HG23	0.40	1.93	19	1
1:A:22:ASP:O	1:A:40:GLY:O	0.40	2.40	14	2
1:A:21:LYS:O	1:A:42:HIS:HB3	0.40	2.16	10	1
1:A:22:ASP:OD1	1:A:43:VAL:CG2	0.40	2.70	12	1
1:A:19:LYS:HZ3	1:A:43:VAL:HG13	0.40	1.75	14	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	50/57 (88%)	33±2 (66±3%)	12±2 (25±3%)	5±1 (9±1%)	1 11
2	B	0	-	-	-	-
All	All	1000/1420 (70%)	658 (66%)	249 (25%)	93 (9%)	1 11

All 7 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	29	TRP	20
1	A	30	LYS	20
1	A	43	VAL	20
1	A	14	VAL	19
1	A	33	GLY	8
1	A	5	PHE	3
1	A	20	GLY	3

6.3.2 Protein sidechains (i)

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	41/47 (87%)	34±2 (84±4%)	7±2 (16±4%)	5 42
2	B	0	-	-	-
All	All	820/1140 (72%)	688 (84%)	132 (16%)	5 42

All 21 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	9	GLU	20

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Mol	Chain	Res	Type	Models (Total)
1	A	13	ILE	20
1	A	42	HIS	17
1	A	53	ASP	13
1	A	51	TYR	13
1	A	5	PHE	10
1	A	27	VAL	8
1	A	50	ASP	6
1	A	29	TRP	4
1	A	45	GLU	4
1	A	21	LYS	3
1	A	11	ASP	3
1	A	6	GLU	2
1	A	24	GLU	2
1	A	26	LEU	1
1	A	36	GLU	1
1	A	30	LYS	1
1	A	41	VAL	1
1	A	15	GLU	1
1	A	49	LYS	1
1	A	7	TYR	1

6.3.3 RNA

There are no RNA molecules in this entry.

6.4 Non-standard residues in protein, DNA, RNA chains

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

6.5 Carbohydrates

There are no monosaccharides in this entry.

6.6 Ligand geometry

There are no ligands in this entry.

6.7 Other polymers (i)

There are no such molecules in this entry.

6.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

7 Chemical shift validation

The completeness of assignment taking into account all chemical shift lists is 69% for the well-defined parts and 54% for the entire structure.

7.1 Chemical shift list 1

File name: working_cs.cif

Chemical shift list name: *assigned_chem_shift_list_1*

7.1.1 Bookkeeping

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	514
Number of shifts mapped to atoms	514
Number of unparsed shifts	0
Number of shifts with mapping errors	0
Number of shifts with mapping warnings	0
Number of shift outliers (ShiftChecker)	4

7.1.2 Chemical shift referencing

The following table shows the suggested chemical shift referencing corrections.

Nucleus	# values	Correction ± precision, *ppm*	Suggested action
$^{13}C_{\alpha}$	57	2.64 ± 0.23	Should be applied
$^{13}C_{\beta}$	50	2.68 ± 0.21	Should be applied
$^{13}C'$	0	—	None (insufficient data)
^{15}N	57	-0.04 ± 0.76	None needed (< 0.5 ppm)

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 69%, i.e. 456 atoms were assigned a chemical shift out of a possible 665. 0 out of 9 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

	Total	^{1}H	^{13}C	^{15}N
Backbone	205/256 (80%)	105/106 (99%)	50/100 (50%)	50/50 (100%)
Sidechain	251/340 (74%)	166/215 (77%)	85/113 (75%)	0/12 (0%)

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	Total	^{1}H	^{13}C	^{15}N
Aromatic	0/69 (0%)	0/33 (0%)	0/32 (0%)	0/4 (0%)
Overall	456/665 (69%)	271/354 (77%)	135/245 (55%)	50/66 (76%)

The following table shows the completeness of the chemical shift assignments for the full structure. The overall completeness is 54%, i.e. 513 atoms were assigned a chemical shift out of a possible 946. 0 out of 11 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

	Total	^{1}H	^{13}C	^{15}N
Backbone	232/359 (65%)	118/148 (80%)	57/142 (40%)	57/69 (83%)
Sidechain	281/509 (55%)	187/323 (58%)	94/162 (58%)	0/24 (0%)
Aromatic	0/78 (0%)	0/37 (0%)	0/37 (0%)	0/4 (0%)
Overall	513/946 (54%)	305/508 (60%)	151/341 (44%)	57/97 (59%)

7.1.4 Statistically unusual chemical shifts (i)

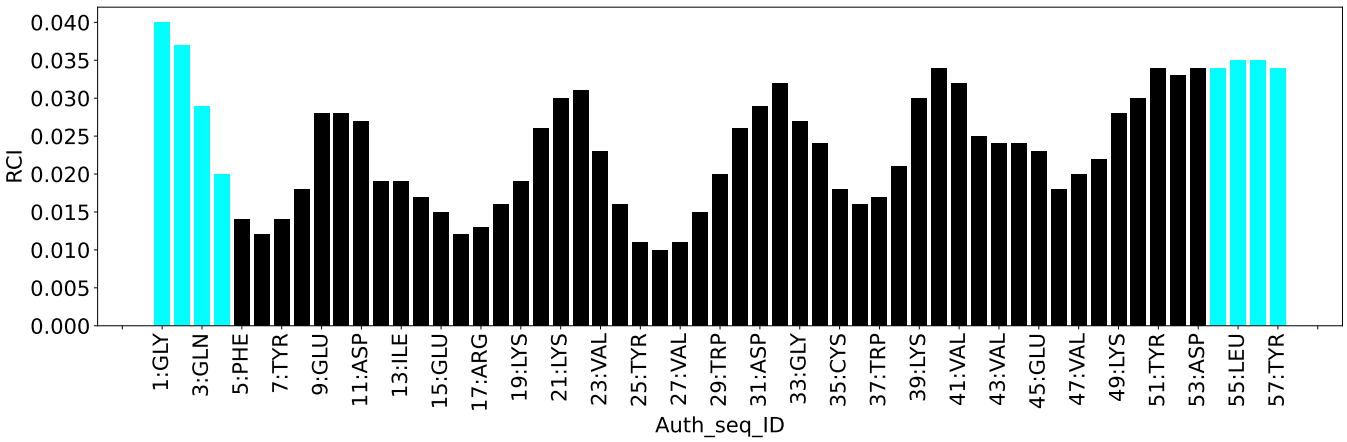
The following table lists the statistically unusual chemical shifts. These are statistical measures, and large deviations from the mean do not necessarily imply incorrect assignments. Molecules containing paramagnetic centres or hemes are expected to give rise to anomalous chemical shifts.

List Id	Chain	Res	Type	Atom	Shift, *ppm*	Expected range, *ppm*	Z-score
1	A	1	GLY	H1	7.09	7.45 – 9.60	-6.7
1	A	13	ILE	HD11	-0.99	-0.72 – 2.09	-6.0
1	A	13	ILE	HD12	-0.99	-0.72 – 2.09	-6.0
1	A	13	ILE	HD13	-0.99	-0.72 – 2.09	-6.0

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:


RCI
0.040
0.035
0.030
0.025
0.020
0.015
0.010
0.005
0.000
1:GLY
3:GLN
5:PHE
7:TYR
9:GLU
11:ASP
13:ILE
15:GLU
17:ARG
19:LYS
21:LYS
23:VAL
25:TYR
27:VAL
29:TRP
31:ASP
33:GLY
35:CYS
37:TRP
39:LYS
41:VAL
43:VAL
45:GLU
47:VAL
49:LYS
51:TYR
53:ASP
55:LEU
57:TYR
Auth_seq_ID

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	3576
Intra-residue (|i-j|=0)	1208
Sequential (|i-j|=1)	1226
Medium range (|i-j|>1 and |i-j|<5)	493
Long range (|i-j|≥5)	580
Inter-chain	69
Hydrogen bond restraints	0
Disulfide bond restraints	0
Total dihedral-angle restraints	0
Number of unmapped restraints	1
Number of restraints per residue	50.4
Number of long range restraints per residue[1]	8.2

[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)	37.0	0.2
0.2-0.5 (Medium)	19.9	0.5
>0.5 (Large)	38.1	2.76

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)

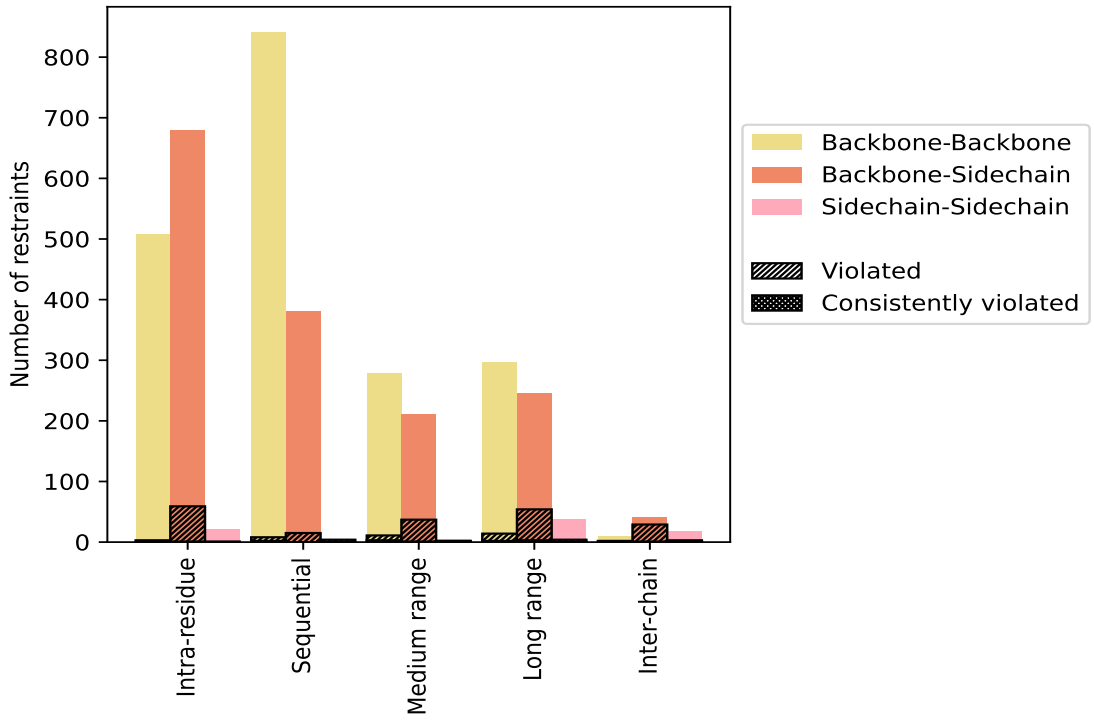
9.1 Summary of distance violations (i)

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)	1208	33.8	63	5.2	1.8	1	0.1	0.0
Backbone-Backbone	508	14.2	3	0.6	0.1	0	0.0	0.0
Backbone-Sidechain	679	19.0	59	8.7	1.6	1	0.1	0.0
Sidechain-Sidechain	21	0.6	1	4.8	0.0	0	0.0	0.0
Sequential (|i-j|=1)	1226	34.3	27	2.2	0.8	3	0.2	0.1
Backbone-Backbone	841	23.5	8	1.0	0.2	2	0.2	0.1
Backbone-Sidechain	380	10.6	15	3.9	0.4	0	0.0	0.0
Sidechain-Sidechain	5	0.1	4	80.0	0.1	1	20.0	0.0
Medium range (|i-j|>1 & |i-j|<5)	493	13.8	50	10.1	1.4	4	0.8	0.1
Backbone-Backbone	278	7.8	11	4.0	0.3	3	1.1	0.1
Backbone-Sidechain	211	5.9	37	17.5	1.0	1	0.5	0.0
Sidechain-Sidechain	4	0.1	2	50.0	0.1	0	0.0	0.0
Long range (|i-j|≥5)	580	16.2	72	12.4	2.0	6	1.0	0.2
Backbone-Backbone	297	8.3	14	4.7	0.4	2	0.7	0.1
Backbone-Sidechain	245	6.9	54	22.0	1.5	3	1.2	0.1
Sidechain-Sidechain	38	1.1	4	10.5	0.1	1	2.6	0.0
Inter-chain	69	1.9	34	49.3	1.0	2	2.9	0.1
Backbone-Backbone	10	0.3	2	20.0	0.1	0	0.0	0.0
Backbone-Sidechain	41	1.1	29	70.7	0.8	1	2.4	0.0
Sidechain-Sidechain	18	0.5	3	16.7	0.1	1	5.6	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	3576	100.0	246	6.9	6.9	16	0.4	0.4
Backbone-Backbone	1934	54.1	38	2.0	1.1	7	0.4	0.2
Backbone-Sidechain	1556	43.5	194	12.5	5.4	6	0.4	0.2
Sidechain-Sidechain	86	2.4	14	16.3	0.4	3	3.5	0.1

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

9.1.1 Bar chart : Distribution of distance restraints and violations



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	18	10	21	18	29	96	0.56	1.63	0.43	0.35
2	11	12	30	25	27	105	0.51	1.88	0.44	0.27
3	20	12	19	25	25	101	0.49	1.76	0.42	0.3
4	23	12	18	28	25	106	0.61	2.16	0.5	0.36
5	17	10	15	23	21	86	0.45	1.78	0.48	0.18
6	11	6	12	23	20	72	0.39	1.33	0.31	0.22
7	15	16	26	15	18	90	0.49	1.42	0.35	0.38
8	22	9	12	26	29	98	0.6	1.52	0.45	0.44
9	19	11	25	17	24	96	0.55	1.85	0.43	0.32
10	12	11	24	24	19	90	0.42	2.3	0.44	0.19
11	10	10	15	18	23	76	0.49	1.46	0.42	0.25

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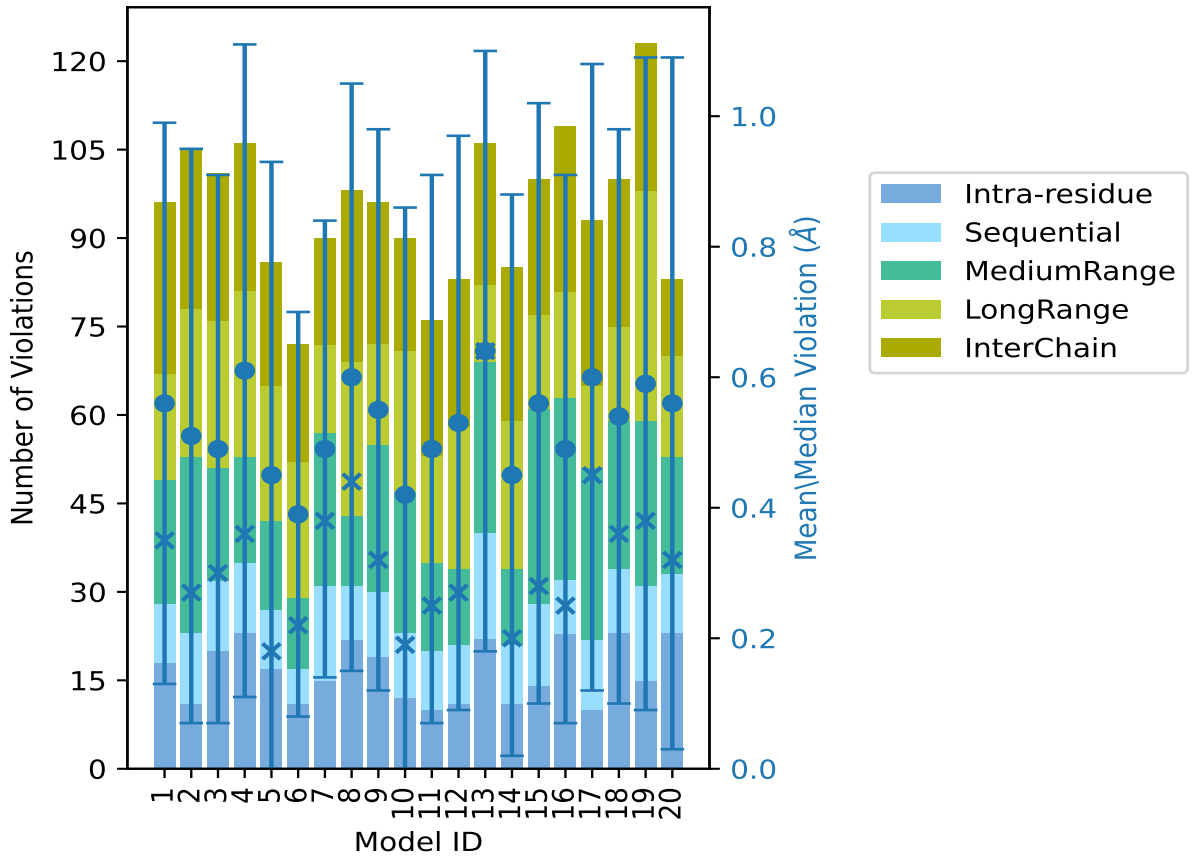
Model ID	Number of violations						Mean (Å)	Max (Å)	SD[6] (Å)	Median (Å)
	IR[1]	SQ[2]	MR[3]	LR[4]	IC[5]	Total				
12	11	10	13	24	25	83	0.53	1.67	0.44	0.27
13	22	18	29	13	24	106	0.64	2.33	0.46	0.64
14	11	10	13	25	26	85	0.45	2.04	0.43	0.2
15	14	14	33	16	23	100	0.56	1.99	0.46	0.28
16	23	9	31	18	28	109	0.49	1.91	0.42	0.25
17	10	12	29	14	28	93	0.6	2.76	0.48	0.45
18	23	11	25	16	25	100	0.54	2.06	0.44	0.36
19	15	16	28	39	25	123	0.59	2.1	0.5	0.38
20	23	10	20	17	13	83	0.56	2.21	0.53	0.32

[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

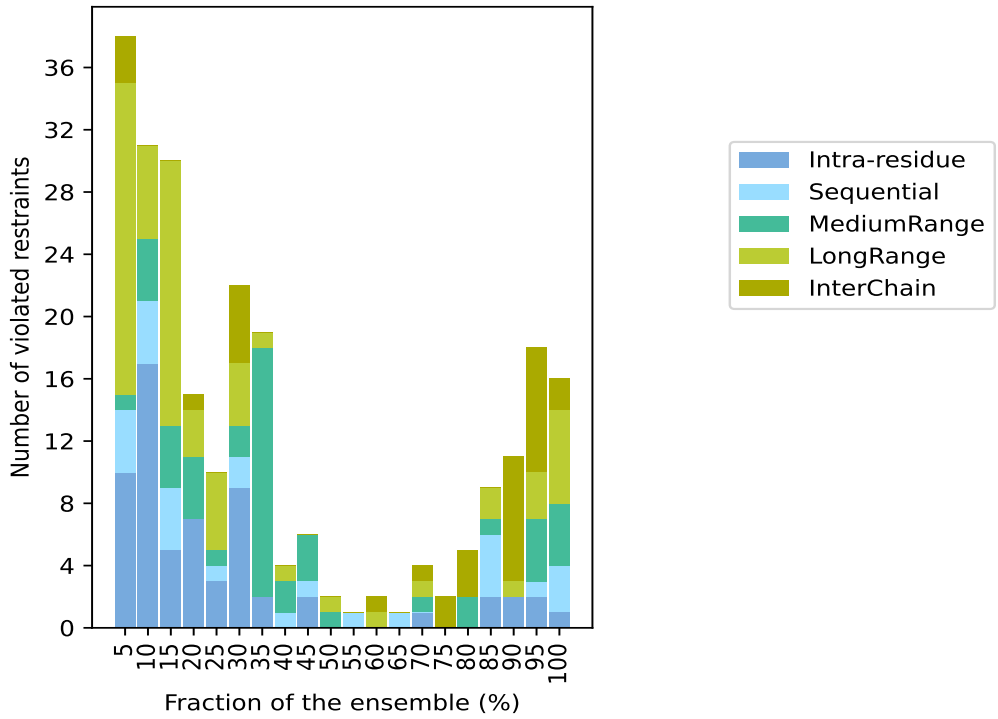
9.3 Distance violation statistics for the ensemble (i)

Violation analysis may find that some restraints are violated in few models and some are violated in most of models. The following table provides this information as number of violated restraints for a given fraction of the ensemble. In total, 3330(IR:1145, SQ:1199, MR:443, LR:508, IC:35) 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]	%
10	4	1	20	3	38	1	5.0
17	4	4	6	0	31	2	10.0
5	4	4	17	0	30	3	15.0
7	0	4	3	1	15	4	20.0
3	1	1	5	0	10	5	25.0
9	2	2	4	5	22	6	30.0
2	0	16	1	0	19	7	35.0
0	1	2	1	0	4	8	40.0
2	1	3	0	0	6	9	45.0
0	0	1	1	0	2	10	50.0
0	1	0	0	0	1	11	55.0
0	0	0	1	1	2	12	60.0
0	1	0	0	0	1	13	65.0
1	0	1	1	1	4	14	70.0
0	0	0	0	2	2	15	75.0
0	0	2	0	3	5	16	80.0
2	4	1	2	0	9	17	85.0
2	0	0	1	8	11	18	90.0
2	1	4	3	8	18	19	95.0
1	3	4	6	2	16	20	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

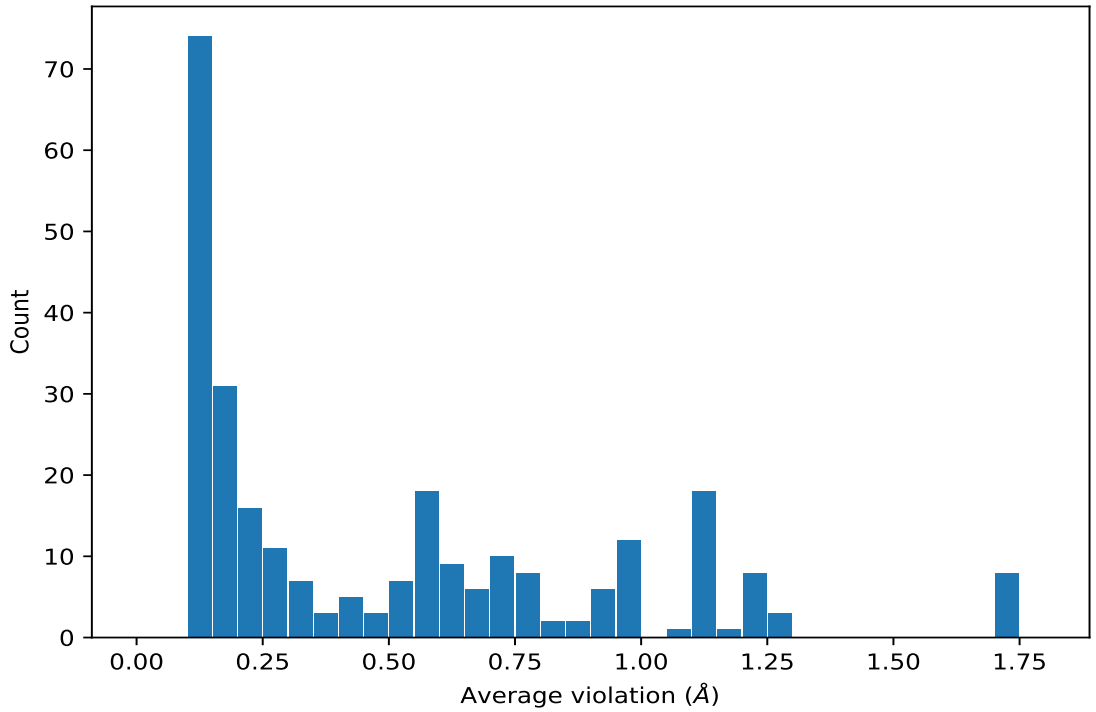
9.3.1 Bar graph : Distance violation statistics for the ensemble



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

Key	Atom-1	Atom-2	Models[1]	Mean (Å)	SD[1] (Å)	Median (Å)
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB2	20	1.74	0.52	1.82
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB3	20	1.74	0.52	1.82
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB2	20	1.74	0.52	1.82
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB3	20	1.74	0.52	1.82
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB2	20	1.74	0.52	1.82
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB3	20	1.74	0.52	1.82
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB2	20	1.74	0.52	1.82
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB3	20	1.74	0.52	1.82
(1,2689)	1:A:25:TYR:HA	1:A:37:TRP:HB2	20	1.28	0.17	1.27
(2,134)	1:A:14:VAL:HA	1:A:12:GLU:HB2	20	1.26	0.1	1.23
(1,3404)	2:B:5:THR:HG1	1:A:10:VAL:H	20	1.12	0.36	1.02
(1,3404)	2:B:5:THR:HG21	1:A:10:VAL:H	20	1.12	0.36	1.02
(1,3404)	2:B:5:THR:HG22	1:A:10:VAL:H	20	1.12	0.36	1.02
(1,3404)	2:B:5:THR:HG23	1:A:10:VAL:H	20	1.12	0.36	1.02
(1,2955)	1:A:19:LYS:HB2	1:A:42:HIS:HA	20	0.55	0.27	0.4
(1,2955)	1:A:19:LYS:HB3	1:A:42:HIS:HA	20	0.55	0.27	0.4

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Key	Atom-1	Atom-2	Models[1]	Mean (Å)	SD[1] (Å)	Median (Å)
(1,2742)	1:A:29:TRP:HB2	1:A:28:ARG:HB2	20	0.42	0.22	0.51
(1,2839)	1:A:10:VAL:HA	1:A:12:GLU:H	20	0.26	0.02	0.26
(1,2996)	1:A:23:VAL:H	1:A:17:ARG:H	20	0.24	0.02	0.24
(1,2234)	1:A:43:VAL:HA	1:A:46:ASP:H	20	0.22	0.02	0.23
(1,2490)	1:A:23:VAL:H	1:A:22:ASP:HA	20	0.22	0.02	0.22
(1,2831)	1:A:9:GLU:HG2	1:A:26:LEU:HG	20	0.21	0.04	0.22
(1,2831)	1:A:9:GLU:HG3	1:A:26:LEU:HG	20	0.21	0.04	0.22
(1,3137)	1:A:39:LYS:HA	1:A:25:TYR:H	20	0.2	0.05	0.2
(1,1118)	1:A:19:LYS:HA	1:A:19:LYS:HB2	20	0.19	0.01	0.2
(1,2031)	1:A:13:ILE:HB	1:A:25:TYR:H	20	0.18	0.03	0.19
(1,3055)	1:A:28:ARG:HA	1:A:30:LYS:H	20	0.18	0.02	0.18
(1,1935)	1:A:43:VAL:HA	1:A:42:HIS:HA	20	0.16	0.02	0.16
(1,504)	1:A:44:ALA:HA	2:B:12:ALA:HB2	19	1.22	0.25	1.21
(1,797)	1:A:44:ALA:HA	2:B:12:ALA:HB2	19	1.22	0.25	1.21
(2,11)	1:A:44:ALA:H	2:B:12:ALA:HB2	19	1.13	0.2	1.13
(2,26)	1:A:44:ALA:H	2:B:12:ALA:HB2	19	1.13	0.2	1.13
(2,41)	1:A:44:ALA:H	2:B:12:ALA:HB2	19	1.13	0.2	1.13
(2,55)	1:A:44:ALA:H	2:B:12:ALA:HB2	19	1.13	0.2	1.13
(2,67)	1:A:44:ALA:H	2:B:12:ALA:HB2	19	1.13	0.2	1.13
(1,3398)	2:B:5:THR:HG1	1:A:9:GLU:HA	19	0.73	0.38	0.64
(1,3398)	2:B:5:THR:HG21	1:A:9:GLU:HA	19	0.73	0.38	0.64
(1,3398)	2:B:5:THR:HG22	1:A:9:GLU:HA	19	0.73	0.38	0.64
(1,3398)	2:B:5:THR:HG23	1:A:9:GLU:HA	19	0.73	0.38	0.64
(1,2104)	1:A:24:GLU:H	1:A:24:GLU:HB2	19	0.35	0.04	0.36
(1,2709)	1:A:13:ILE:H	1:A:12:GLU:HB2	19	0.26	0.09	0.3
(1,2024)	1:A:7:TYR:HB2	1:A:7:TYR:H	19	0.21	0.02	0.21
(1,2844)	1:A:10:VAL:HA	1:A:29:TRP:HA	19	0.19	0.04	0.21
(1,2890)	1:A:13:ILE:HD11	1:A:27:VAL:HB	19	0.18	0.06	0.15
(1,2890)	1:A:13:ILE:HD12	1:A:27:VAL:HB	19	0.18	0.06	0.15
(1,2890)	1:A:13:ILE:HD13	1:A:27:VAL:HB	19	0.18	0.06	0.15
(1,161)	1:A:48:ALA:H	1:A:51:TYR:HA	19	0.18	0.02	0.18
(1,449)	1:A:48:ALA:H	1:A:51:TYR:HA	19	0.18	0.02	0.18
(1,1034)	1:A:48:ALA:H	1:A:51:TYR:HA	19	0.18	0.02	0.18
(1,1319)	1:A:48:ALA:H	1:A:51:TYR:HA	19	0.18	0.02	0.18
(1,2672)	1:A:16:LYS:HA	1:A:25:TYR:HA	19	0.14	0.02	0.15
(1,1154)	1:A:9:GLU:HA	2:B:6:ALA:HB2	18	1.1	0.39	1.18
(2,5)	1:A:45:GLU:H	2:B:12:ALA:HB2	18	0.94	0.17	0.91
(2,22)	1:A:45:GLU:H	2:B:12:ALA:HB2	18	0.94	0.17	0.91
(2,35)	1:A:45:GLU:H	2:B:12:ALA:HB2	18	0.94	0.17	0.91
(2,52)	1:A:45:GLU:H	2:B:12:ALA:HB2	18	0.94	0.17	0.91
(2,65)	1:A:45:GLU:H	2:B:12:ALA:HB2	18	0.94	0.17	0.91
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG2	18	0.57	0.3	0.46

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Key	Atom-1	Atom-2	Models[1]	Mean (Å)	SD[1] (Å)	Median (Å)
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG3	18	0.57	0.3	0.46
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG2	18	0.57	0.3	0.46
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG3	18	0.57	0.3	0.46
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG2	18	0.57	0.3	0.46
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG3	18	0.57	0.3	0.46
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG2	18	0.57	0.3	0.46
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG3	18	0.57	0.3	0.46
(1,2889)	1:A:13:ILE:HA	1:A:27:VAL:HB	18	0.19	0.06	0.16
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD11	18	0.17	0.05	0.15
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD12	18	0.17	0.05	0.15
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD13	18	0.17	0.05	0.15
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD21	18	0.17	0.05	0.15
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD22	18	0.17	0.05	0.15
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD23	18	0.17	0.05	0.15
(1,1349)	1:A:52:GLU:H	1:A:52:GLU:HB2	18	0.14	0.02	0.14
(1,1633)	1:A:52:GLU:H	1:A:52:GLU:HB2	18	0.14	0.02	0.14
(1,561)	1:A:4:VAL:HA	1:A:5:PHE:HB2	17	0.98	0.04	0.99
(1,2236)	1:A:4:VAL:HA	1:A:5:PHE:HB2	17	0.88	0.04	0.89
(1,852)	1:A:4:VAL:HA	1:A:5:PHE:HB2	17	0.68	0.04	0.69
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD2	17	0.25	0.06	0.27
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD3	17	0.25	0.06	0.27
(1,1987)	1:A:9:GLU:H	1:A:12:GLU:H	17	0.21	0.04	0.22
(1,1512)	1:A:19:LYS:H	1:A:19:LYS:HB2	17	0.16	0.02	0.16
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB2	17	0.15	0.05	0.13
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB3	17	0.15	0.05	0.13
(1,881)	1:A:21:LYS:H	1:A:20:GLY:HA3	17	0.14	0.01	0.14
(1,2719)	1:A:56:GLU:HA	1:A:56:GLU:HB2	17	0.11	0.0	0.11
(1,576)	1:A:29:TRP:HA	2:B:6:ALA:HB3	16	0.96	0.32	1.02
(1,1152)	1:A:29:TRP:HA	2:B:6:ALA:HB3	16	0.96	0.32	1.02
(1,1441)	1:A:46:ASP:HA	1:A:50:ASP:HB2	16	0.8	0.82	0.16
(1,281)	1:A:29:TRP:HA	2:B:6:ALA:HB3	16	0.76	0.32	0.82
(1,3154)	1:A:41:VAL:HB	1:A:43:VAL:H	16	0.13	0.02	0.12
(1,865)	1:A:29:TRP:HA	2:B:6:ALA:HB3	15	0.61	0.29	0.66
(1,1438)	1:A:29:TRP:HA	2:B:6:ALA:HB3	15	0.61	0.29	0.66
(1,1998)	1:A:3:GLN:HA	1:A:3:GLN:HB2	14	0.2	0.01	0.2
(1,3388)	2:B:8:ARG:H	1:A:6:GLU:H	14	0.16	0.04	0.16
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB2	14	0.15	0.02	0.16
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB3	14	0.15	0.02	0.16
(1,2811)	1:A:8:ALA:HB1	1:A:40:GLY:H	14	0.13	0.02	0.13
(1,2811)	1:A:8:ALA:HB2	1:A:40:GLY:H	14	0.13	0.02	0.13
(1,2811)	1:A:8:ALA:HB3	1:A:40:GLY:H	14	0.13	0.02	0.13
(2,101)	1:A:26:LEU:H	1:A:27:VAL:HB	13	0.18	0.04	0.19

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Key	Atom-1	Atom-2	Models[1]	Mean (Å)	SD[1] (Å)	Median (Å)
(1,2035)	1:A:21:LYS:HA	1:A:6:GLU:HB2	12	1.22	0.1	1.23
(1,1316)	1:A:47:VAL:H	2:B:12:ALA:HB2	12	0.6	0.5	0.38
(1,1030)	1:A:45:GLU:H	1:A:44:ALA:HA	11	0.12	0.0	0.12
(1,2847)	1:A:10:VAL:HG11	1:A:26:LEU:HA	10	0.14	0.02	0.14
(1,2847)	1:A:10:VAL:HG12	1:A:26:LEU:HA	10	0.14	0.02	0.14
(1,2847)	1:A:10:VAL:HG13	1:A:26:LEU:HA	10	0.14	0.02	0.14
(1,2847)	1:A:10:VAL:HG21	1:A:26:LEU:HA	10	0.14	0.02	0.14
(1,2847)	1:A:10:VAL:HG22	1:A:26:LEU:HA	10	0.14	0.02	0.14
(1,2847)	1:A:10:VAL:HG23	1:A:26:LEU:HA	10	0.14	0.02	0.14
(1,2749)	1:A:19:LYS:HB2	1:A:23:VAL:H	10	0.14	0.02	0.13
(1,526)	1:A:52:GLU:HA	1:A:55:LEU:HB2	9	0.92	0.2	1.03
(1,819)	1:A:52:GLU:HA	1:A:55:LEU:HB2	9	0.72	0.2	0.83
(1,1392)	1:A:52:GLU:HA	1:A:55:LEU:HB2	9	0.52	0.2	0.63
(1,1100)	1:A:34:ASP:HA	1:A:35:CYS:HB2	9	0.46	0.02	0.46
(1,412)	1:A:35:CYS:H	1:A:35:CYS:HB2	9	0.24	0.07	0.2
(1,997)	1:A:35:CYS:H	1:A:35:CYS:HB2	9	0.24	0.07	0.2
(1,1816)	1:A:12:GLU:H	1:A:28:ARG:HB2	8	0.63	0.13	0.62
(1,3115)	1:A:37:TRP:HD1	1:A:36:GLU:HB2	8	0.61	0.21	0.6
(2,98)	1:A:30:LYS:HA	1:A:28:ARG:HB2	8	0.37	0.05	0.38
(2,95)	1:A:7:TYR:HA	1:A:9:GLU:HA	8	0.18	0.04	0.18
(1,1037)	1:A:47:VAL:H	1:A:50:ASP:HB2	7	1.19	0.07	1.21
(1,164)	1:A:47:VAL:H	1:A:50:ASP:HB2	7	0.99	0.07	1.01
(1,748)	1:A:47:VAL:H	1:A:50:ASP:HB2	7	0.99	0.07	1.01
(1,1322)	1:A:47:VAL:H	1:A:50:ASP:HB2	7	0.99	0.07	1.01
(1,2787)	1:A:5:PHE:HB2	1:A:5:PHE:HD1	7	0.96	0.31	1.12
(1,2787)	1:A:5:PHE:HB2	1:A:5:PHE:HD2	7	0.96	0.31	1.12
(1,2787)	1:A:5:PHE:HB3	1:A:5:PHE:HD1	7	0.96	0.31	1.12
(1,2787)	1:A:5:PHE:HB3	1:A:5:PHE:HD2	7	0.96	0.31	1.12
(2,78)	1:A:51:TYR:HB2	1:A:53:ASP:HB2	7	0.79	0.5	1.13
(1,1605)	1:A:47:VAL:H	1:A:50:ASP:HB2	7	0.79	0.07	0.81
(1,1121)	1:A:38:VAL:HA	1:A:36:GLU:HB2	7	0.71	0.46	0.76
(2,15)	1:A:38:VAL:HA	1:A:36:GLU:HB2	7	0.71	0.46	0.76
(2,46)	1:A:38:VAL:HA	1:A:36:GLU:HB2	7	0.71	0.46	0.76
(2,84)	1:A:38:VAL:HA	1:A:36:GLU:HB2	7	0.71	0.46	0.76
(2,123)	1:A:38:VAL:HA	1:A:36:GLU:HB2	7	0.71	0.46	0.76
(1,451)	1:A:47:VAL:H	1:A:50:ASP:HB2	7	0.59	0.07	0.61
(1,2382)	1:A:47:VAL:H	1:A:50:ASP:HB2	7	0.59	0.07	0.61
(1,2468)	1:A:47:VAL:H	1:A:50:ASP:HB2	7	0.59	0.07	0.61
(1,233)	1:A:52:GLU:HA	1:A:55:LEU:HB2	7	0.4	0.14	0.44
(1,2448)	1:A:52:GLU:HA	1:A:55:LEU:HB2	7	0.4	0.14	0.44
(1,825)	2:B:12:ALA:H	2:B:12:ALA:HB3	7	0.18	0.08	0.15
(1,270)	1:A:5:PHE:HB2	1:A:18:GLY:HA2	7	0.16	0.02	0.15

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Key	Atom-1	Atom-2	Models[1]	Mean (Å)	SD[1] (Å)	Median (Å)
(1,2205)	1:A:46:ASP:HA	1:A:50:ASP:HB2	6	1.15	0.02	1.16
(1,911)	1:A:3:GLN:H	1:A:3:GLN:HB2	6	0.96	0.35	1.2
(1,1483)	1:A:3:GLN:H	1:A:3:GLN:HB2	6	0.96	0.35	1.2
(1,38)	1:A:3:GLN:H	1:A:3:GLN:HB2	6	0.86	0.35	1.1
(1,158)	1:A:47:VAL:H	2:B:12:ALA:HB2	6	0.83	0.33	0.97
(1,326)	1:A:3:GLN:H	1:A:3:GLN:HB2	6	0.75	0.35	1.0
(1,622)	1:A:3:GLN:H	1:A:3:GLN:HB2	6	0.75	0.35	1.0
(1,1196)	1:A:3:GLN:H	1:A:3:GLN:HB2	6	0.75	0.35	1.0
(1,446)	1:A:47:VAL:H	2:B:12:ALA:HB2	6	0.63	0.33	0.76
(1,1031)	1:A:47:VAL:H	2:B:12:ALA:HB2	6	0.63	0.33	0.76
(1,2037)	1:A:51:TYR:HB2	1:A:50:ASP:HB2	6	0.3	0.06	0.33
(1,2753)	1:A:51:TYR:HB2	1:A:50:ASP:HB2	6	0.3	0.06	0.33
(1,2400)	1:A:50:ASP:H	1:A:50:ASP:HB2	6	0.24	0.02	0.24
(1,3410)	2:B:13:ASP:HB2	1:A:22:ASP:H	6	0.22	0.05	0.24
(1,3410)	2:B:13:ASP:HB3	1:A:22:ASP:H	6	0.22	0.05	0.24
(1,3241)	1:A:50:ASP:HB2	1:A:52:GLU:H	6	0.19	0.01	0.2
(1,3241)	1:A:50:ASP:HB3	1:A:52:GLU:H	6	0.19	0.01	0.2
(1,3036)	1:A:26:LEU:HG	1:A:15:GLU:H	6	0.15	0.04	0.14
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD11	6	0.13	0.01	0.14
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD12	6	0.13	0.01	0.14
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD13	6	0.13	0.01	0.14
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD21	6	0.13	0.01	0.14
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD22	6	0.13	0.01	0.14
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD23	6	0.13	0.01	0.14
(1,2761)	1:A:2:SER:HB2	1:A:51:TYR:H	6	0.13	0.03	0.12
(1,2761)	1:A:2:SER:HB3	1:A:51:TYR:H	6	0.13	0.03	0.12
(1,2040)	1:A:6:GLU:H	1:A:17:ARG:H	6	0.12	0.01	0.12
(2,128)	1:A:6:GLU:H	1:A:17:ARG:H	6	0.12	0.01	0.12
(1,1684)	1:A:23:VAL:HA	1:A:23:VAL:HB	6	0.12	0.01	0.12
(1,1792)	1:A:20:GLY:H	1:A:20:GLY:HA2	6	0.12	0.0	0.12
(1,1755)	1:A:3:GLN:H	1:A:3:GLN:HB2	5	0.67	0.26	0.8
(1,2273)	1:A:3:GLN:H	1:A:3:GLN:HB2	5	0.67	0.26	0.8
(1,2485)	1:A:3:GLN:H	1:A:3:GLN:HB2	5	0.67	0.26	0.8
(1,2595)	1:A:29:TRP:H	1:A:11:ASP:HB2	5	0.67	0.07	0.64
(1,1864)	1:A:29:TRP:H	1:A:11:ASP:HB2	5	0.47	0.07	0.44
(1,2946)	1:A:19:LYS:HA	1:A:21:LYS:H	5	0.2	0.01	0.21
(1,2846)	1:A:10:VAL:HA	1:A:29:TRP:HD1	5	0.15	0.03	0.13
(1,2799)	1:A:6:GLU:HG2	1:A:7:TYR:HA	5	0.14	0.01	0.15
(1,2799)	1:A:6:GLU:HG3	1:A:7:TYR:HA	5	0.14	0.01	0.15
(1,3255)	1:A:51:TYR:HD1	1:A:21:LYS:HB2	5	0.13	0.02	0.13
(1,3255)	1:A:51:TYR:HD1	1:A:21:LYS:HB3	5	0.13	0.02	0.13
(1,3255)	1:A:51:TYR:HD2	1:A:21:LYS:HB2	5	0.13	0.02	0.13

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Key	Atom-1	Atom-2	Models[1]	Mean (Å)	SD[1] (Å)	Median (Å)
(1,3255)	1:A:51:TYR:HD2	1:A:21:LYS:HB3	5	0.13	0.02	0.13
(1,2887)	1:A:13:ILE:HB	1:A:25:TYR:H	5	0.12	0.01	0.12
(1,1846)	1:A:36:GLU:H	1:A:34:ASP:HB2	4	1.1	0.22	1.18
(1,2577)	1:A:36:GLU:H	1:A:34:ASP:HB2	4	1.1	0.22	1.18
(1,3366)	2:B:11:LYS:HG2	2:B:11:LYS:H	4	0.78	0.28	0.74
(1,3366)	2:B:11:LYS:HG3	2:B:11:LYS:H	4	0.78	0.28	0.74
(1,2066)	1:A:3:GLN:H	1:A:3:GLN:HB2	4	0.7	0.0	0.7
(1,743)	1:A:47:VAL:H	2:B:12:ALA:HB2	4	0.56	0.1	0.57
(1,2920)	1:A:16:LYS:H	1:A:26:LEU:HB2	4	0.16	0.02	0.15
(1,2920)	1:A:16:LYS:H	1:A:26:LEU:HB3	4	0.16	0.02	0.15
(1,195)	1:A:53:ASP:H	1:A:53:ASP:HB2	4	0.15	0.02	0.16
(1,780)	1:A:53:ASP:H	1:A:53:ASP:HB2	4	0.15	0.02	0.16
(1,10)	1:A:22:ASP:H	1:A:22:ASP:HB2	4	0.13	0.03	0.12
(1,296)	1:A:22:ASP:H	1:A:22:ASP:HB2	4	0.13	0.03	0.12
(1,882)	1:A:22:ASP:H	1:A:22:ASP:HB2	4	0.13	0.03	0.12
(1,2736)	1:A:2:SER:HA	1:A:4:VAL:H	4	0.13	0.02	0.12
(1,2523)	1:A:19:LYS:H	1:A:23:VAL:HB	4	0.13	0.01	0.13
(1,2036)	1:A:10:VAL:HA	1:A:27:VAL:HA	4	0.12	0.01	0.12
(1,2752)	1:A:10:VAL:HA	1:A:27:VAL:HA	4	0.12	0.01	0.12
(1,1500)	1:A:16:LYS:H	1:A:17:ARG:HB2	3	1.25	0.02	1.25
(1,1214)	1:A:16:LYS:H	1:A:17:ARG:HB2	3	1.15	0.02	1.15
(1,929)	1:A:16:LYS:H	1:A:17:ARG:HB2	3	1.05	0.02	1.05
(1,230)	1:A:30:LYS:HA	1:A:11:ASP:HB2	3	0.63	0.01	0.63
(1,523)	1:A:30:LYS:HA	1:A:11:ASP:HB2	3	0.63	0.01	0.63
(1,816)	1:A:30:LYS:HA	1:A:11:ASP:HB2	3	0.63	0.01	0.63
(1,590)	1:A:17:ARG:H	1:A:17:ARG:HB2	3	0.56	0.01	0.55
(1,1728)	1:A:17:ARG:H	1:A:17:ARG:HB2	3	0.56	0.01	0.55
(1,2046)	1:A:17:ARG:H	1:A:17:ARG:HB2	3	0.56	0.01	0.55
(1,294)	1:A:17:ARG:H	1:A:17:ARG:HB2	3	0.46	0.01	0.45
(1,1102)	1:A:30:LYS:HA	1:A:11:ASP:HB2	3	0.43	0.01	0.43
(1,1389)	1:A:30:LYS:HA	1:A:11:ASP:HB2	3	0.43	0.01	0.43
(1,578)	1:A:19:LYS:HA	1:A:22:ASP:HB2	3	0.39	0.11	0.44
(1,867)	1:A:19:LYS:HA	1:A:22:ASP:HB2	3	0.39	0.11	0.44
(1,1815)	1:A:11:ASP:H	1:A:28:ARG:HB2	3	0.25	0.12	0.19
(1,2696)	1:A:30:LYS:HA	1:A:11:ASP:HB2	3	0.23	0.01	0.23
(1,1538)	1:A:37:TRP:H	1:A:26:LEU:HG	3	0.17	0.03	0.18
(1,3350)	2:B:9:LYS:HA	2:B:10:ARG:H	3	0.16	0.04	0.17
(1,1395)	1:A:20:GLY:H	1:A:23:VAL:HB	3	0.13	0.02	0.12
(1,1965)	1:A:30:LYS:HA	1:A:11:ASP:HB2	3	0.13	0.01	0.13
(1,2444)	1:A:30:LYS:HA	1:A:11:ASP:HB2	3	0.13	0.01	0.13
(1,3199)	1:A:46:ASP:HB2	1:A:49:LYS:H	3	0.13	0.01	0.13
(1,3199)	1:A:46:ASP:HB3	1:A:49:LYS:H	3	0.13	0.01	0.13

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Key	Atom-1	Atom-2	Models[1]	Mean (Å)	SD[1] (Å)	Median (Å)
(1,1975)	1:A:29:TRP:H	1:A:10:VAL:HB	3	0.12	0.0	0.12
(1,2311)	1:A:20:GLY:H	1:A:20:GLY:HA3	3	0.11	0.0	0.11
(1,255)	1:A:9:GLU:HA	1:A:30:LYS:H	3	0.11	0.0	0.11
(1,547)	1:A:9:GLU:HA	1:A:30:LYS:H	3	0.11	0.0	0.11
(1,839)	1:A:9:GLU:HA	1:A:30:LYS:H	3	0.11	0.0	0.11
(1,1128)	1:A:9:GLU:HA	1:A:30:LYS:H	3	0.11	0.0	0.11
(1,1413)	1:A:9:GLU:HA	1:A:30:LYS:H	3	0.11	0.0	0.11
(2,85)	1:A:9:GLU:HA	1:A:30:LYS:H	3	0.11	0.0	0.11
(1,248)	1:A:2:SER:HA	1:A:56:GLU:HB2	2	1.23	0.03	1.23
(1,540)	1:A:2:SER:HA	1:A:56:GLU:HB2	2	1.23	0.03	1.23
(1,832)	1:A:2:SER:HA	1:A:56:GLU:HB2	2	1.23	0.03	1.23
(1,1120)	1:A:2:SER:HA	1:A:56:GLU:HB2	2	1.23	0.03	1.23
(1,1407)	1:A:2:SER:HA	1:A:56:GLU:HB2	2	1.23	0.03	1.23
(1,3372)	2:B:11:LYS:HD2	2:B:12:ALA:H	2	1.13	1.02	1.13
(1,3372)	2:B:11:LYS:HD3	2:B:12:ALA:H	2	1.13	1.02	1.13
(1,3371)	2:B:11:LYS:HG2	2:B:12:ALA:H	2	1.12	0.72	1.12
(1,3371)	2:B:11:LYS:HG3	2:B:12:ALA:H	2	1.12	0.72	1.12
(1,1077)	1:A:56:GLU:H	1:A:56:GLU:HB2	2	0.53	0.0	0.53
(1,1916)	1:A:56:GLU:H	1:A:56:GLU:HB2	2	0.53	0.0	0.53
(1,12)	1:A:30:LYS:H	1:A:30:LYS:HB2	2	0.5	0.03	0.5
(1,298)	1:A:30:LYS:H	1:A:30:LYS:HB2	2	0.5	0.03	0.5
(1,594)	1:A:30:LYS:H	1:A:30:LYS:HB2	2	0.5	0.03	0.5
(1,884)	1:A:30:LYS:H	1:A:30:LYS:HB2	2	0.5	0.03	0.5
(1,205)	1:A:56:GLU:H	1:A:56:GLU:HB2	2	0.33	0.0	0.33
(1,495)	1:A:56:GLU:H	1:A:56:GLU:HB2	2	0.33	0.0	0.33
(1,789)	1:A:56:GLU:H	1:A:56:GLU:HB2	2	0.33	0.0	0.33
(1,1363)	1:A:56:GLU:H	1:A:56:GLU:HB2	2	0.33	0.0	0.33
(1,1647)	1:A:56:GLU:H	1:A:56:GLU:HB2	2	0.33	0.0	0.33
(1,2197)	1:A:56:GLU:H	1:A:56:GLU:HB2	2	0.33	0.0	0.33
(1,1169)	1:A:30:LYS:H	1:A:30:LYS:HB2	2	0.3	0.02	0.3
(1,1456)	1:A:30:LYS:H	1:A:30:LYS:HB2	2	0.3	0.02	0.3
(1,1731)	1:A:30:LYS:H	1:A:30:LYS:HB2	2	0.3	0.02	0.3
(1,2050)	1:A:30:LYS:H	1:A:30:LYS:HB2	2	0.3	0.02	0.3
(1,3348)	2:B:9:LYS:HG2	2:B:9:LYS:H	2	0.15	0.01	0.15
(1,3348)	2:B:9:LYS:HG3	2:B:9:LYS:H	2	0.15	0.01	0.15
(1,1391)	1:A:48:ALA:HA	1:A:51:TYR:HB2	2	0.15	0.04	0.15
(1,1676)	1:A:48:ALA:HA	1:A:51:TYR:HB2	2	0.15	0.04	0.15
(1,2215)	1:A:48:ALA:HA	1:A:51:TYR:HB2	2	0.15	0.04	0.15
(1,2699)	1:A:48:ALA:HA	1:A:51:TYR:HB2	2	0.15	0.04	0.15
(1,2754)	1:A:1:GLY:HA2	1:A:2:SER:H	2	0.14	0.02	0.14
(1,2754)	1:A:1:GLY:HA3	1:A:2:SER:H	2	0.14	0.02	0.14
(1,3343)	2:B:8:ARG:H	2:B:9:LYS:H	2	0.13	0.01	0.13

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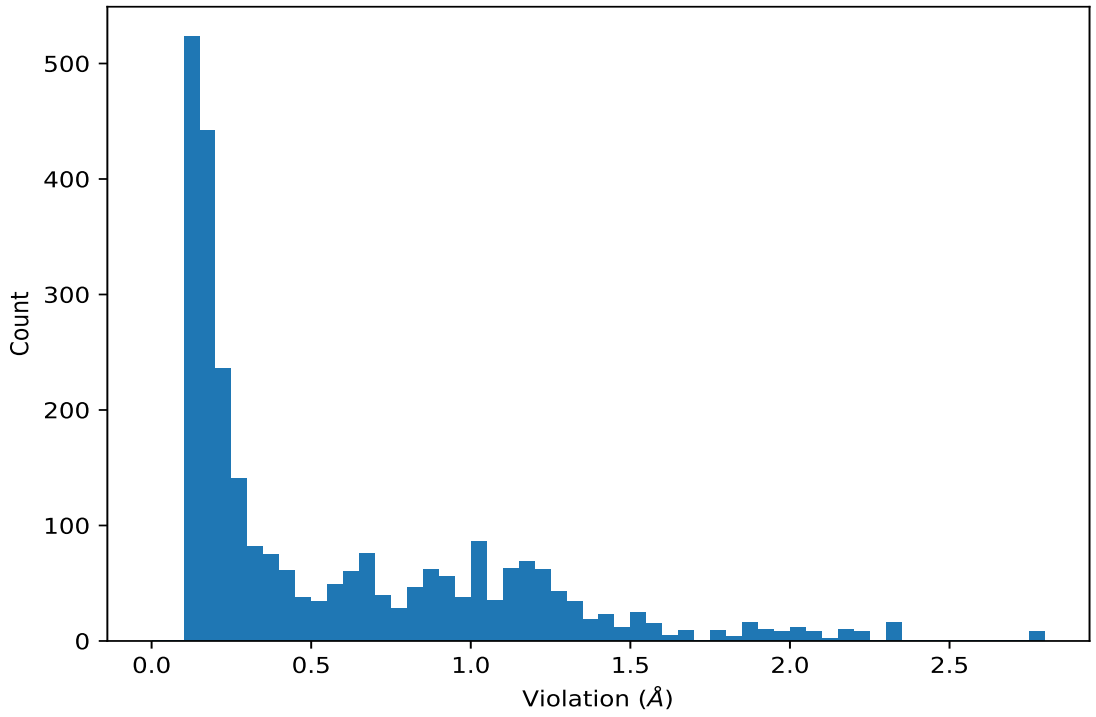
Key	Atom-1	Atom-2	Models[1]	Mean (Å)	SD[1] (Å)	Median (Å)
(1,2744)	1:A:6:GLU:HB2	1:A:23:VAL:H	2	0.11	0.0	0.11

[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)
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB2	17	2.76
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB3	17	2.76
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB2	17	2.76

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB3	17	2.76
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB2	17	2.76
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB3	17	2.76
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB2	17	2.76
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB3	17	2.76
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB2	13	2.33
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB3	13	2.33
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB2	13	2.33
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB3	13	2.33
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB2	13	2.33
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB3	13	2.33
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB2	13	2.33
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB3	13	2.33
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB2	10	2.3
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB3	10	2.3
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB2	10	2.3
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB3	10	2.3
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB2	10	2.3
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB3	10	2.3
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB2	10	2.3
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB3	10	2.3
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB2	20	2.21
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB3	20	2.21
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB2	20	2.21
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB3	20	2.21
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB2	20	2.21
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB3	20	2.21
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB2	20	2.21
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB3	20	2.21
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB2	4	2.16
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB3	4	2.16
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB2	4	2.16
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB3	4	2.16
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB2	4	2.16
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB3	4	2.16
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB2	4	2.16
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB3	4	2.16
(1,3372)	2:B:11:LYS:HD2	2:B:12:ALA:H	20	2.15
(1,3372)	2:B:11:LYS:HD3	2:B:12:ALA:H	20	2.15
(1,3354)	2:B:9:LYS:HD2	2:B:10:ARG:H	19	2.1
(1,3354)	2:B:9:LYS:HD3	2:B:10:ARG:H	19	2.1
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB2	18	2.06

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB3	18	2.06
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB2	18	2.06
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB3	18	2.06
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB2	18	2.06
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB3	18	2.06
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB2	18	2.06
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB3	18	2.06
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB2	14	2.04
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB3	14	2.04
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB2	14	2.04
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB3	14	2.04
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB2	14	2.04
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB3	14	2.04
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB2	14	2.04
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB3	14	2.04
(1,3404)	2:B:5:THR:HG1	1:A:10:VAL:H	4	2.02
(1,3404)	2:B:5:THR:HG21	1:A:10:VAL:H	4	2.02
(1,3404)	2:B:5:THR:HG22	1:A:10:VAL:H	4	2.02
(1,3404)	2:B:5:THR:HG23	1:A:10:VAL:H	4	2.02
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB2	15	1.99
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB3	15	1.99
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB2	15	1.99
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB3	15	1.99
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB2	15	1.99
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB3	15	1.99
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB2	15	1.99
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB3	15	1.99
(1,3367)	2:B:11:LYS:HD2	2:B:11:LYS:H	20	1.92
(1,3367)	2:B:11:LYS:HD3	2:B:11:LYS:H	20	1.92
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB2	16	1.91
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB3	16	1.91
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB2	16	1.91
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB3	16	1.91
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB2	16	1.91
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB3	16	1.91
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB2	16	1.91
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB3	16	1.91
(1,3404)	2:B:5:THR:HG1	1:A:10:VAL:H	17	1.88
(1,3404)	2:B:5:THR:HG21	1:A:10:VAL:H	17	1.88
(1,3404)	2:B:5:THR:HG22	1:A:10:VAL:H	17	1.88
(1,3404)	2:B:5:THR:HG23	1:A:10:VAL:H	17	1.88
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB2	2	1.88

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB3	2	1.88
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB2	2	1.88
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB3	2	1.88
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB2	2	1.88
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB3	2	1.88
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB2	2	1.88
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB3	2	1.88
(1,1441)	1:A:46:ASP:HA	1:A:50:ASP:HB2	2	1.87
(1,1441)	1:A:46:ASP:HA	1:A:50:ASP:HB2	13	1.87
(1,1441)	1:A:46:ASP:HA	1:A:50:ASP:HB2	19	1.87
(1,1441)	1:A:46:ASP:HA	1:A:50:ASP:HB2	9	1.85
(1,3371)	2:B:11:LYS:HG2	2:B:12:ALA:H	20	1.84
(1,3371)	2:B:11:LYS:HG3	2:B:12:ALA:H	20	1.84
(1,1441)	1:A:46:ASP:HA	1:A:50:ASP:HB2	16	1.82
(1,1441)	1:A:46:ASP:HA	1:A:50:ASP:HB2	15	1.81
(1,1154)	1:A:9:GLU:HA	2:B:6:ALA:HB2	5	1.78
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB2	3	1.76
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB3	3	1.76
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB2	3	1.76
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB3	3	1.76
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB2	3	1.76
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB3	3	1.76
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB2	3	1.76
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB3	3	1.76
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB2	12	1.67
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB3	12	1.67
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB2	12	1.67
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB3	12	1.67
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB2	12	1.67
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB3	12	1.67
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB2	12	1.67
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB3	12	1.67
(1,1154)	1:A:9:GLU:HA	2:B:6:ALA:HB2	19	1.67
(1,3398)	2:B:5:THR:HG1	1:A:9:GLU:HA	4	1.64
(1,3398)	2:B:5:THR:HG21	1:A:9:GLU:HA	4	1.64
(1,3398)	2:B:5:THR:HG22	1:A:9:GLU:HA	4	1.64
(1,3398)	2:B:5:THR:HG23	1:A:9:GLU:HA	4	1.64
(1,1154)	1:A:9:GLU:HA	2:B:6:ALA:HB2	1	1.63
(1,797)	1:A:44:ALA:HA	2:B:12:ALA:HB2	5	1.57
(1,504)	1:A:44:ALA:HA	2:B:12:ALA:HB2	5	1.57
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB2	19	1.57
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB3	19	1.57

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB2	19	1.57
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB3	19	1.57
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB2	19	1.57
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB3	19	1.57
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB2	19	1.57
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB3	19	1.57
(1,3398)	2:B:5:THR:HG1	1:A:9:GLU:HA	17	1.56
(1,3398)	2:B:5:THR:HG21	1:A:9:GLU:HA	17	1.56
(1,3398)	2:B:5:THR:HG22	1:A:9:GLU:HA	17	1.56
(1,3398)	2:B:5:THR:HG23	1:A:9:GLU:HA	17	1.56
(1,2689)	1:A:25:TYR:HA	1:A:37:TRP:HB2	9	1.56
(1,3404)	2:B:5:THR:HG1	1:A:10:VAL:H	12	1.54
(1,3404)	2:B:5:THR:HG21	1:A:10:VAL:H	12	1.54
(1,3404)	2:B:5:THR:HG22	1:A:10:VAL:H	12	1.54
(1,3404)	2:B:5:THR:HG23	1:A:10:VAL:H	12	1.54
(1,797)	1:A:44:ALA:HA	2:B:12:ALA:HB2	19	1.53
(1,504)	1:A:44:ALA:HA	2:B:12:ALA:HB2	19	1.53
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB2	1	1.53
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB3	1	1.53
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB2	1	1.53
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB3	1	1.53
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB2	1	1.53
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB3	1	1.53
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB2	1	1.53
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB3	1	1.53
(1,2689)	1:A:25:TYR:HA	1:A:37:TRP:HB2	5	1.53
(2,67)	1:A:44:ALA:H	2:B:12:ALA:HB2	19	1.52
(2,55)	1:A:44:ALA:H	2:B:12:ALA:HB2	19	1.52
(2,41)	1:A:44:ALA:H	2:B:12:ALA:HB2	19	1.52
(2,26)	1:A:44:ALA:H	2:B:12:ALA:HB2	19	1.52
(2,11)	1:A:44:ALA:H	2:B:12:ALA:HB2	19	1.52
(1,3404)	2:B:5:THR:HG1	1:A:10:VAL:H	8	1.52
(1,3404)	2:B:5:THR:HG21	1:A:10:VAL:H	8	1.52
(1,3404)	2:B:5:THR:HG22	1:A:10:VAL:H	8	1.52
(1,3404)	2:B:5:THR:HG23	1:A:10:VAL:H	8	1.52
(1,2689)	1:A:25:TYR:HA	1:A:37:TRP:HB2	1	1.52
(1,576)	1:A:29:TRP:HA	2:B:6:ALA:HB3	20	1.49
(1,2689)	1:A:25:TYR:HA	1:A:37:TRP:HB2	19	1.49
(1,1152)	1:A:29:TRP:HA	2:B:6:ALA:HB3	20	1.49
(2,67)	1:A:44:ALA:H	2:B:12:ALA:HB2	4	1.47
(2,55)	1:A:44:ALA:H	2:B:12:ALA:HB2	4	1.47
(2,41)	1:A:44:ALA:H	2:B:12:ALA:HB2	4	1.47

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,26)	1:A:44:ALA:H	2:B:12:ALA:HB2	4	1.47
(2,11)	1:A:44:ALA:H	2:B:12:ALA:HB2	4	1.47
(1,576)	1:A:29:TRP:HA	2:B:6:ALA:HB3	13	1.46
(1,2689)	1:A:25:TYR:HA	1:A:37:TRP:HB2	11	1.46
(1,1152)	1:A:29:TRP:HA	2:B:6:ALA:HB3	13	1.46
(2,134)	1:A:14:VAL:HA	1:A:12:GLU:HB2	2	1.45
(2,134)	1:A:14:VAL:HA	1:A:12:GLU:HB2	3	1.43
(2,134)	1:A:14:VAL:HA	1:A:12:GLU:HB2	7	1.42
(1,809)	1:A:25:TYR:HA	1:A:7:TYR:HB2	19	1.42
(1,516)	1:A:25:TYR:HA	1:A:7:TYR:HB2	19	1.42
(1,2439)	1:A:25:TYR:HA	1:A:7:TYR:HB2	19	1.42
(1,223)	1:A:25:TYR:HA	1:A:7:TYR:HB2	19	1.42
(1,1667)	1:A:25:TYR:HA	1:A:7:TYR:HB2	19	1.42
(1,1382)	1:A:25:TYR:HA	1:A:7:TYR:HB2	19	1.42
(1,797)	1:A:44:ALA:HA	2:B:12:ALA:HB2	4	1.41
(1,797)	1:A:44:ALA:HA	2:B:12:ALA:HB2	8	1.41
(1,504)	1:A:44:ALA:HA	2:B:12:ALA:HB2	4	1.41
(1,504)	1:A:44:ALA:HA	2:B:12:ALA:HB2	8	1.41
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB2	9	1.41
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB3	9	1.41
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB2	9	1.41
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB3	9	1.41
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB2	9	1.41
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB3	9	1.41
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB2	9	1.41
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB3	9	1.41
(1,2689)	1:A:25:TYR:HA	1:A:37:TRP:HB2	12	1.41
(1,797)	1:A:44:ALA:HA	2:B:12:ALA:HB2	11	1.4
(1,504)	1:A:44:ALA:HA	2:B:12:ALA:HB2	11	1.4
(1,797)	1:A:44:ALA:HA	2:B:12:ALA:HB2	18	1.39
(1,504)	1:A:44:ALA:HA	2:B:12:ALA:HB2	18	1.39
(2,78)	1:A:51:TYR:HB2	1:A:53:ASP:HB2	16	1.38
(1,797)	1:A:44:ALA:HA	2:B:12:ALA:HB2	14	1.38
(1,504)	1:A:44:ALA:HA	2:B:12:ALA:HB2	14	1.38
(2,134)	1:A:14:VAL:HA	1:A:12:GLU:HB2	14	1.37
(1,2787)	1:A:5:PHE:HB2	1:A:5:PHE:HD1	8	1.36
(1,2787)	1:A:5:PHE:HB2	1:A:5:PHE:HD2	8	1.36
(1,2787)	1:A:5:PHE:HB3	1:A:5:PHE:HD1	8	1.36
(1,2787)	1:A:5:PHE:HB3	1:A:5:PHE:HD2	8	1.36
(1,2689)	1:A:25:TYR:HA	1:A:37:TRP:HB2	8	1.36
(1,1316)	1:A:47:VAL:H	2:B:12:ALA:HB2	17	1.36
(2,67)	1:A:44:ALA:H	2:B:12:ALA:HB2	5	1.35

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,55)	1:A:44:ALA:H	2:B:12:ALA:HB2	5	1.35
(2,41)	1:A:44:ALA:H	2:B:12:ALA:HB2	5	1.35
(2,26)	1:A:44:ALA:H	2:B:12:ALA:HB2	5	1.35
(2,11)	1:A:44:ALA:H	2:B:12:ALA:HB2	5	1.35
(1,1154)	1:A:9:GLU:HA	2:B:6:ALA:HB2	9	1.35
(1,1154)	1:A:9:GLU:HA	2:B:6:ALA:HB2	12	1.35
(1,797)	1:A:44:ALA:HA	2:B:12:ALA:HB2	12	1.34
(1,504)	1:A:44:ALA:HA	2:B:12:ALA:HB2	12	1.34
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB2	8	1.34
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB3	8	1.34
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB2	8	1.34
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB3	8	1.34
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB2	8	1.34
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB3	8	1.34
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB2	8	1.34
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB3	8	1.34
(1,1154)	1:A:9:GLU:HA	2:B:6:ALA:HB2	8	1.34
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG2	4	1.33
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG3	4	1.33
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG2	4	1.33
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG3	4	1.33
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG2	4	1.33
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG3	4	1.33
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG2	4	1.33
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG3	4	1.33
(1,2689)	1:A:25:TYR:HA	1:A:37:TRP:HB2	6	1.33
(1,2035)	1:A:21:LYS:HA	1:A:6:GLU:HB2	12	1.33
(1,1316)	1:A:47:VAL:H	2:B:12:ALA:HB2	1	1.33
(1,1154)	1:A:9:GLU:HA	2:B:6:ALA:HB2	18	1.33
(2,134)	1:A:14:VAL:HA	1:A:12:GLU:HB2	13	1.32
(2,134)	1:A:14:VAL:HA	1:A:12:GLU:HB2	18	1.32
(2,134)	1:A:14:VAL:HA	1:A:12:GLU:HB2	17	1.31
(1,3404)	2:B:5:THR:HG1	1:A:10:VAL:H	1	1.31
(1,3404)	2:B:5:THR:HG21	1:A:10:VAL:H	1	1.31
(1,3404)	2:B:5:THR:HG22	1:A:10:VAL:H	1	1.31
(1,3404)	2:B:5:THR:HG23	1:A:10:VAL:H	1	1.31
(1,797)	1:A:44:ALA:HA	2:B:12:ALA:HB2	10	1.3
(1,504)	1:A:44:ALA:HA	2:B:12:ALA:HB2	10	1.3
(1,2035)	1:A:21:LYS:HA	1:A:6:GLU:HB2	5	1.3
(1,2035)	1:A:21:LYS:HA	1:A:6:GLU:HB2	10	1.3
(2,67)	1:A:44:ALA:H	2:B:12:ALA:HB2	2	1.29
(2,55)	1:A:44:ALA:H	2:B:12:ALA:HB2	2	1.29

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,41)	1:A:44:ALA:H	2:B:12:ALA:HB2	2	1.29
(2,26)	1:A:44:ALA:H	2:B:12:ALA:HB2	2	1.29
(2,11)	1:A:44:ALA:H	2:B:12:ALA:HB2	2	1.29
(1,281)	1:A:29:TRP:HA	2:B:6:ALA:HB3	20	1.29
(1,2689)	1:A:25:TYR:HA	1:A:37:TRP:HB2	2	1.29
(1,2577)	1:A:36:GLU:H	1:A:34:ASP:HB2	7	1.29
(1,2035)	1:A:21:LYS:HA	1:A:6:GLU:HB2	2	1.29
(1,1846)	1:A:36:GLU:H	1:A:34:ASP:HB2	7	1.29
(2,67)	1:A:44:ALA:H	2:B:12:ALA:HB2	10	1.28
(2,55)	1:A:44:ALA:H	2:B:12:ALA:HB2	10	1.28
(2,41)	1:A:44:ALA:H	2:B:12:ALA:HB2	10	1.28
(2,26)	1:A:44:ALA:H	2:B:12:ALA:HB2	10	1.28
(2,11)	1:A:44:ALA:H	2:B:12:ALA:HB2	10	1.28
(1,1500)	1:A:16:LYS:H	1:A:17:ARG:HB2	4	1.28
(1,1154)	1:A:9:GLU:HA	2:B:6:ALA:HB2	20	1.28
(2,65)	1:A:45:GLU:H	2:B:12:ALA:HB2	5	1.27
(2,52)	1:A:45:GLU:H	2:B:12:ALA:HB2	5	1.27
(2,5)	1:A:45:GLU:H	2:B:12:ALA:HB2	5	1.27
(2,35)	1:A:45:GLU:H	2:B:12:ALA:HB2	5	1.27
(2,22)	1:A:45:GLU:H	2:B:12:ALA:HB2	5	1.27
(1,2689)	1:A:25:TYR:HA	1:A:37:TRP:HB2	15	1.27
(1,2689)	1:A:25:TYR:HA	1:A:37:TRP:HB2	20	1.27
(1,2035)	1:A:21:LYS:HA	1:A:6:GLU:HB2	18	1.27
(1,1037)	1:A:47:VAL:H	1:A:50:ASP:HB2	15	1.27
(2,65)	1:A:45:GLU:H	2:B:12:ALA:HB2	8	1.26
(2,52)	1:A:45:GLU:H	2:B:12:ALA:HB2	8	1.26
(2,5)	1:A:45:GLU:H	2:B:12:ALA:HB2	8	1.26
(2,35)	1:A:45:GLU:H	2:B:12:ALA:HB2	8	1.26
(2,22)	1:A:45:GLU:H	2:B:12:ALA:HB2	8	1.26
(2,134)	1:A:14:VAL:HA	1:A:12:GLU:HB2	19	1.26
(1,832)	1:A:2:SER:HA	1:A:56:GLU:HB2	4	1.26
(1,540)	1:A:2:SER:HA	1:A:56:GLU:HB2	4	1.26
(1,281)	1:A:29:TRP:HA	2:B:6:ALA:HB3	13	1.26
(1,248)	1:A:2:SER:HA	1:A:56:GLU:HB2	4	1.26
(1,1407)	1:A:2:SER:HA	1:A:56:GLU:HB2	4	1.26
(1,1120)	1:A:2:SER:HA	1:A:56:GLU:HB2	4	1.26
(2,134)	1:A:14:VAL:HA	1:A:12:GLU:HB2	9	1.25
(1,2689)	1:A:25:TYR:HA	1:A:37:TRP:HB2	14	1.25
(1,2035)	1:A:21:LYS:HA	1:A:6:GLU:HB2	7	1.25
(1,1500)	1:A:16:LYS:H	1:A:17:ARG:HB2	13	1.25
(1,1037)	1:A:47:VAL:H	1:A:50:ASP:HB2	2	1.25
(2,84)	1:A:38:VAL:HA	1:A:36:GLU:HB2	20	1.24

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,46)	1:A:38:VAL:HA	1:A:36:GLU:HB2	20	1.24
(2,15)	1:A:38:VAL:HA	1:A:36:GLU:HB2	20	1.24
(2,134)	1:A:14:VAL:HA	1:A:12:GLU:HB2	10	1.24
(2,123)	1:A:38:VAL:HA	1:A:36:GLU:HB2	20	1.24
(1,1121)	1:A:38:VAL:HA	1:A:36:GLU:HB2	20	1.24
(1,1037)	1:A:47:VAL:H	1:A:50:ASP:HB2	13	1.24
(2,134)	1:A:14:VAL:HA	1:A:12:GLU:HB2	11	1.23
(2,134)	1:A:14:VAL:HA	1:A:12:GLU:HB2	15	1.23
(1,576)	1:A:29:TRP:HA	2:B:6:ALA:HB3	3	1.23
(1,576)	1:A:29:TRP:HA	2:B:6:ALA:HB3	17	1.23
(1,1500)	1:A:16:LYS:H	1:A:17:ARG:HB2	7	1.23
(1,1152)	1:A:29:TRP:HA	2:B:6:ALA:HB3	3	1.23
(1,1152)	1:A:29:TRP:HA	2:B:6:ALA:HB3	17	1.23
(2,84)	1:A:38:VAL:HA	1:A:36:GLU:HB2	13	1.22
(2,46)	1:A:38:VAL:HA	1:A:36:GLU:HB2	13	1.22
(2,15)	1:A:38:VAL:HA	1:A:36:GLU:HB2	13	1.22
(2,123)	1:A:38:VAL:HA	1:A:36:GLU:HB2	13	1.22
(1,3404)	2:B:5:THR:HG1	1:A:10:VAL:H	19	1.22
(1,3404)	2:B:5:THR:HG21	1:A:10:VAL:H	19	1.22
(1,3404)	2:B:5:THR:HG22	1:A:10:VAL:H	19	1.22
(1,3404)	2:B:5:THR:HG23	1:A:10:VAL:H	19	1.22
(1,2035)	1:A:21:LYS:HA	1:A:6:GLU:HB2	4	1.22
(1,2035)	1:A:21:LYS:HA	1:A:6:GLU:HB2	9	1.22
(1,1121)	1:A:38:VAL:HA	1:A:36:GLU:HB2	13	1.22
(2,78)	1:A:51:TYR:HB2	1:A:53:ASP:HB2	5	1.21
(2,134)	1:A:14:VAL:HA	1:A:12:GLU:HB2	16	1.21
(1,911)	1:A:3:GLN:H	1:A:3:GLN:HB2	13	1.21
(1,832)	1:A:2:SER:HA	1:A:56:GLU:HB2	3	1.21
(1,797)	1:A:44:ALA:HA	2:B:12:ALA:HB2	2	1.21
(1,540)	1:A:2:SER:HA	1:A:56:GLU:HB2	3	1.21
(1,504)	1:A:44:ALA:HA	2:B:12:ALA:HB2	2	1.21
(1,2787)	1:A:5:PHE:HB2	1:A:5:PHE:HD1	4	1.21
(1,2787)	1:A:5:PHE:HB2	1:A:5:PHE:HD2	4	1.21
(1,2787)	1:A:5:PHE:HB3	1:A:5:PHE:HD1	4	1.21
(1,2787)	1:A:5:PHE:HB3	1:A:5:PHE:HD2	4	1.21
(1,248)	1:A:2:SER:HA	1:A:56:GLU:HB2	3	1.21
(1,1483)	1:A:3:GLN:H	1:A:3:GLN:HB2	13	1.21
(1,1407)	1:A:2:SER:HA	1:A:56:GLU:HB2	3	1.21
(1,1316)	1:A:47:VAL:H	2:B:12:ALA:HB2	15	1.21
(1,1154)	1:A:9:GLU:HA	2:B:6:ALA:HB2	4	1.21
(1,1120)	1:A:2:SER:HA	1:A:56:GLU:HB2	3	1.21
(1,1037)	1:A:47:VAL:H	1:A:50:ASP:HB2	9	1.21

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,134)	1:A:14:VAL:HA	1:A:12:GLU:HB2	8	1.2
(1,911)	1:A:3:GLN:H	1:A:3:GLN:HB2	1	1.2
(1,911)	1:A:3:GLN:H	1:A:3:GLN:HB2	8	1.2
(1,911)	1:A:3:GLN:H	1:A:3:GLN:HB2	18	1.2
(1,797)	1:A:44:ALA:HA	2:B:12:ALA:HB2	3	1.2
(1,797)	1:A:44:ALA:HA	2:B:12:ALA:HB2	9	1.2
(1,797)	1:A:44:ALA:HA	2:B:12:ALA:HB2	15	1.2
(1,504)	1:A:44:ALA:HA	2:B:12:ALA:HB2	3	1.2
(1,504)	1:A:44:ALA:HA	2:B:12:ALA:HB2	9	1.2
(1,504)	1:A:44:ALA:HA	2:B:12:ALA:HB2	15	1.2
(1,3366)	2:B:11:LYS:HG2	2:B:11:LYS:H	20	1.2
(1,3366)	2:B:11:LYS:HG3	2:B:11:LYS:H	20	1.2
(1,2689)	1:A:25:TYR:HA	1:A:37:TRP:HB2	18	1.2
(1,2577)	1:A:36:GLU:H	1:A:34:ASP:HB2	15	1.2
(1,1846)	1:A:36:GLU:H	1:A:34:ASP:HB2	15	1.2
(1,1483)	1:A:3:GLN:H	1:A:3:GLN:HB2	1	1.2
(1,1483)	1:A:3:GLN:H	1:A:3:GLN:HB2	8	1.2
(1,1483)	1:A:3:GLN:H	1:A:3:GLN:HB2	18	1.2
(1,1037)	1:A:47:VAL:H	1:A:50:ASP:HB2	16	1.2
(2,67)	1:A:44:ALA:H	2:B:12:ALA:HB2	14	1.19
(2,55)	1:A:44:ALA:H	2:B:12:ALA:HB2	14	1.19
(2,41)	1:A:44:ALA:H	2:B:12:ALA:HB2	14	1.19
(2,26)	1:A:44:ALA:H	2:B:12:ALA:HB2	14	1.19
(2,134)	1:A:14:VAL:HA	1:A:12:GLU:HB2	6	1.19
(2,134)	1:A:14:VAL:HA	1:A:12:GLU:HB2	20	1.19
(2,11)	1:A:44:ALA:H	2:B:12:ALA:HB2	14	1.19
(1,526)	1:A:52:GLU:HA	1:A:55:LEU:HB2	17	1.19
(2,67)	1:A:44:ALA:H	2:B:12:ALA:HB2	18	1.18
(2,65)	1:A:45:GLU:H	2:B:12:ALA:HB2	11	1.18
(2,55)	1:A:44:ALA:H	2:B:12:ALA:HB2	18	1.18
(2,52)	1:A:45:GLU:H	2:B:12:ALA:HB2	11	1.18
(2,5)	1:A:45:GLU:H	2:B:12:ALA:HB2	11	1.18
(2,41)	1:A:44:ALA:H	2:B:12:ALA:HB2	18	1.18
(2,35)	1:A:45:GLU:H	2:B:12:ALA:HB2	11	1.18
(2,26)	1:A:44:ALA:H	2:B:12:ALA:HB2	18	1.18
(2,22)	1:A:45:GLU:H	2:B:12:ALA:HB2	11	1.18
(2,11)	1:A:44:ALA:H	2:B:12:ALA:HB2	18	1.18
(1,3404)	2:B:5:THR:HG1	1:A:10:VAL:H	18	1.18
(1,3404)	2:B:5:THR:HG21	1:A:10:VAL:H	18	1.18
(1,3404)	2:B:5:THR:HG22	1:A:10:VAL:H	18	1.18
(1,3404)	2:B:5:THR:HG23	1:A:10:VAL:H	18	1.18
(1,2035)	1:A:21:LYS:HA	1:A:6:GLU:HB2	8	1.18

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1214)	1:A:16:LYS:H	1:A:17:ARG:HB2	4	1.18
(2,134)	1:A:14:VAL:HA	1:A:12:GLU:HB2	4	1.17
(1,3404)	2:B:5:THR:HG1	1:A:10:VAL:H	11	1.17
(1,3404)	2:B:5:THR:HG21	1:A:10:VAL:H	11	1.17
(1,3404)	2:B:5:THR:HG22	1:A:10:VAL:H	11	1.17
(1,3404)	2:B:5:THR:HG23	1:A:10:VAL:H	11	1.17
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG2	17	1.17
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG3	17	1.17
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG2	17	1.17
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG3	17	1.17
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG2	17	1.17
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG3	17	1.17
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG2	17	1.17
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG3	17	1.17
(1,2577)	1:A:36:GLU:H	1:A:34:ASP:HB2	9	1.17
(1,2205)	1:A:46:ASP:HA	1:A:50:ASP:HB2	2	1.17
(1,2205)	1:A:46:ASP:HA	1:A:50:ASP:HB2	13	1.17
(1,2205)	1:A:46:ASP:HA	1:A:50:ASP:HB2	19	1.17
(1,1846)	1:A:36:GLU:H	1:A:34:ASP:HB2	9	1.17
(2,67)	1:A:44:ALA:H	2:B:12:ALA:HB2	8	1.16
(2,55)	1:A:44:ALA:H	2:B:12:ALA:HB2	8	1.16
(2,41)	1:A:44:ALA:H	2:B:12:ALA:HB2	8	1.16
(2,26)	1:A:44:ALA:H	2:B:12:ALA:HB2	8	1.16
(2,11)	1:A:44:ALA:H	2:B:12:ALA:HB2	8	1.16
(1,576)	1:A:29:TRP:HA	2:B:6:ALA:HB3	16	1.16
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB2	11	1.16
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB3	11	1.16
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB2	11	1.16
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB3	11	1.16
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB2	11	1.16
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB3	11	1.16
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB2	11	1.16
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB3	11	1.16
(1,2787)	1:A:5:PHE:HB2	1:A:5:PHE:HD1	17	1.16
(1,2787)	1:A:5:PHE:HB2	1:A:5:PHE:HD2	17	1.16
(1,2787)	1:A:5:PHE:HB3	1:A:5:PHE:HD1	17	1.16
(1,2787)	1:A:5:PHE:HB3	1:A:5:PHE:HD2	17	1.16
(1,2689)	1:A:25:TYR:HA	1:A:37:TRP:HB2	17	1.16
(1,158)	1:A:47:VAL:H	2:B:12:ALA:HB2	17	1.16
(1,1152)	1:A:29:TRP:HA	2:B:6:ALA:HB3	16	1.16
(2,78)	1:A:51:TYR:HB2	1:A:53:ASP:HB2	10	1.15
(1,2689)	1:A:25:TYR:HA	1:A:37:TRP:HB2	7	1.15

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,2205)	1:A:46:ASP:HA	1:A:50:ASP:HB2	9	1.15
(1,2035)	1:A:21:LYS:HA	1:A:6:GLU:HB2	11	1.15
(1,1214)	1:A:16:LYS:H	1:A:17:ARG:HB2	13	1.15
(1,1154)	1:A:9:GLU:HA	2:B:6:ALA:HB2	3	1.15
(2,67)	1:A:44:ALA:H	2:B:12:ALA:HB2	12	1.14
(2,55)	1:A:44:ALA:H	2:B:12:ALA:HB2	12	1.14
(2,41)	1:A:44:ALA:H	2:B:12:ALA:HB2	12	1.14
(2,26)	1:A:44:ALA:H	2:B:12:ALA:HB2	12	1.14
(2,11)	1:A:44:ALA:H	2:B:12:ALA:HB2	12	1.14
(1,2689)	1:A:25:TYR:HA	1:A:37:TRP:HB2	4	1.14
(2,78)	1:A:51:TYR:HB2	1:A:53:ASP:HB2	4	1.13
(2,67)	1:A:44:ALA:H	2:B:12:ALA:HB2	3	1.13
(2,55)	1:A:44:ALA:H	2:B:12:ALA:HB2	3	1.13
(2,41)	1:A:44:ALA:H	2:B:12:ALA:HB2	3	1.13
(2,26)	1:A:44:ALA:H	2:B:12:ALA:HB2	3	1.13
(2,134)	1:A:14:VAL:HA	1:A:12:GLU:HB2	1	1.13
(2,134)	1:A:14:VAL:HA	1:A:12:GLU:HB2	12	1.13
(2,11)	1:A:44:ALA:H	2:B:12:ALA:HB2	3	1.13
(1,158)	1:A:47:VAL:H	2:B:12:ALA:HB2	1	1.13
(1,1214)	1:A:16:LYS:H	1:A:17:ARG:HB2	7	1.13
(2,67)	1:A:44:ALA:H	2:B:12:ALA:HB2	11	1.12
(2,55)	1:A:44:ALA:H	2:B:12:ALA:HB2	11	1.12
(2,41)	1:A:44:ALA:H	2:B:12:ALA:HB2	11	1.12
(2,26)	1:A:44:ALA:H	2:B:12:ALA:HB2	11	1.12
(2,11)	1:A:44:ALA:H	2:B:12:ALA:HB2	11	1.12
(1,576)	1:A:29:TRP:HA	2:B:6:ALA:HB3	1	1.12
(1,2787)	1:A:5:PHE:HB2	1:A:5:PHE:HD1	12	1.12
(1,2787)	1:A:5:PHE:HB2	1:A:5:PHE:HD2	12	1.12
(1,2787)	1:A:5:PHE:HB3	1:A:5:PHE:HD1	12	1.12
(1,2787)	1:A:5:PHE:HB3	1:A:5:PHE:HD2	12	1.12
(1,2205)	1:A:46:ASP:HA	1:A:50:ASP:HB2	16	1.12
(1,1316)	1:A:47:VAL:H	2:B:12:ALA:HB2	16	1.12
(1,1152)	1:A:29:TRP:HA	2:B:6:ALA:HB3	1	1.12
(2,67)	1:A:44:ALA:H	2:B:12:ALA:HB2	9	1.11
(2,67)	1:A:44:ALA:H	2:B:12:ALA:HB2	15	1.11
(2,55)	1:A:44:ALA:H	2:B:12:ALA:HB2	9	1.11
(2,55)	1:A:44:ALA:H	2:B:12:ALA:HB2	15	1.11
(2,41)	1:A:44:ALA:H	2:B:12:ALA:HB2	9	1.11
(2,41)	1:A:44:ALA:H	2:B:12:ALA:HB2	15	1.11
(2,26)	1:A:44:ALA:H	2:B:12:ALA:HB2	9	1.11
(2,26)	1:A:44:ALA:H	2:B:12:ALA:HB2	15	1.11
(2,11)	1:A:44:ALA:H	2:B:12:ALA:HB2	9	1.11

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,11)	1:A:44:ALA:H	2:B:12:ALA:HB2	15	1.11
(1,38)	1:A:3:GLN:H	1:A:3:GLN:HB2	13	1.11
(1,3404)	2:B:5:THR:HG1	1:A:10:VAL:H	16	1.11
(1,3404)	2:B:5:THR:HG21	1:A:10:VAL:H	16	1.11
(1,3404)	2:B:5:THR:HG22	1:A:10:VAL:H	16	1.11
(1,3404)	2:B:5:THR:HG23	1:A:10:VAL:H	16	1.11
(1,2205)	1:A:46:ASP:HA	1:A:50:ASP:HB2	15	1.11
(1,1037)	1:A:47:VAL:H	1:A:50:ASP:HB2	19	1.11
(2,84)	1:A:38:VAL:HA	1:A:36:GLU:HB2	15	1.1
(2,65)	1:A:45:GLU:H	2:B:12:ALA:HB2	15	1.1
(2,52)	1:A:45:GLU:H	2:B:12:ALA:HB2	15	1.1
(2,5)	1:A:45:GLU:H	2:B:12:ALA:HB2	15	1.1
(2,46)	1:A:38:VAL:HA	1:A:36:GLU:HB2	15	1.1
(2,35)	1:A:45:GLU:H	2:B:12:ALA:HB2	15	1.1
(2,22)	1:A:45:GLU:H	2:B:12:ALA:HB2	15	1.1
(2,15)	1:A:38:VAL:HA	1:A:36:GLU:HB2	15	1.1
(2,123)	1:A:38:VAL:HA	1:A:36:GLU:HB2	15	1.1
(1,576)	1:A:29:TRP:HA	2:B:6:ALA:HB3	9	1.1
(1,526)	1:A:52:GLU:HA	1:A:55:LEU:HB2	4	1.1
(1,38)	1:A:3:GLN:H	1:A:3:GLN:HB2	1	1.1
(1,38)	1:A:3:GLN:H	1:A:3:GLN:HB2	8	1.1
(1,38)	1:A:3:GLN:H	1:A:3:GLN:HB2	18	1.1
(1,2035)	1:A:21:LYS:HA	1:A:6:GLU:HB2	19	1.1
(1,1152)	1:A:29:TRP:HA	2:B:6:ALA:HB3	9	1.1
(1,1121)	1:A:38:VAL:HA	1:A:36:GLU:HB2	15	1.1
(1,865)	1:A:29:TRP:HA	2:B:6:ALA:HB3	20	1.09
(1,797)	1:A:44:ALA:HA	2:B:12:ALA:HB2	16	1.09
(1,504)	1:A:44:ALA:HA	2:B:12:ALA:HB2	16	1.09
(1,2955)	1:A:19:LYS:HB2	1:A:42:HIS:HA	20	1.09
(1,2955)	1:A:19:LYS:HB3	1:A:42:HIS:HA	20	1.09
(1,1438)	1:A:29:TRP:HA	2:B:6:ALA:HB3	20	1.09
(1,929)	1:A:16:LYS:H	1:A:17:ARG:HB2	4	1.08
(1,823)	1:A:13:ILE:H	1:A:7:TYR:HB2	19	1.08
(1,531)	1:A:13:ILE:H	1:A:7:TYR:HB2	19	1.08
(1,238)	1:A:13:ILE:H	1:A:7:TYR:HB2	19	1.08
(1,1681)	1:A:13:ILE:H	1:A:7:TYR:HB2	19	1.08
(1,1398)	1:A:13:ILE:H	1:A:7:TYR:HB2	19	1.08
(2,67)	1:A:44:ALA:H	2:B:12:ALA:HB2	16	1.07
(2,55)	1:A:44:ALA:H	2:B:12:ALA:HB2	16	1.07
(2,41)	1:A:44:ALA:H	2:B:12:ALA:HB2	16	1.07
(2,26)	1:A:44:ALA:H	2:B:12:ALA:HB2	16	1.07
(2,134)	1:A:14:VAL:HA	1:A:12:GLU:HB2	5	1.07

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,11)	1:A:44:ALA:H	2:B:12:ALA:HB2	16	1.07
(1,748)	1:A:47:VAL:H	1:A:50:ASP:HB2	15	1.07
(1,526)	1:A:52:GLU:HA	1:A:55:LEU:HB2	18	1.07
(1,2689)	1:A:25:TYR:HA	1:A:37:TRP:HB2	3	1.07
(1,2689)	1:A:25:TYR:HA	1:A:37:TRP:HB2	16	1.07
(1,164)	1:A:47:VAL:H	1:A:50:ASP:HB2	15	1.07
(1,1322)	1:A:47:VAL:H	1:A:50:ASP:HB2	15	1.07
(1,865)	1:A:29:TRP:HA	2:B:6:ALA:HB3	13	1.06
(1,576)	1:A:29:TRP:HA	2:B:6:ALA:HB3	8	1.06
(1,1438)	1:A:29:TRP:HA	2:B:6:ALA:HB3	13	1.06
(1,1152)	1:A:29:TRP:HA	2:B:6:ALA:HB3	8	1.06
(1,929)	1:A:16:LYS:H	1:A:17:ARG:HB2	13	1.05
(1,797)	1:A:44:ALA:HA	2:B:12:ALA:HB2	17	1.05
(1,748)	1:A:47:VAL:H	1:A:50:ASP:HB2	2	1.05
(1,504)	1:A:44:ALA:HA	2:B:12:ALA:HB2	17	1.05
(1,164)	1:A:47:VAL:H	1:A:50:ASP:HB2	2	1.05
(1,1322)	1:A:47:VAL:H	1:A:50:ASP:HB2	2	1.05
(1,1037)	1:A:47:VAL:H	1:A:50:ASP:HB2	17	1.05
(1,748)	1:A:47:VAL:H	1:A:50:ASP:HB2	13	1.04
(1,526)	1:A:52:GLU:HA	1:A:55:LEU:HB2	2	1.04
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB2	7	1.04
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB3	7	1.04
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB2	7	1.04
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB3	7	1.04
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB2	7	1.04
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB3	7	1.04
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB2	7	1.04
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB3	7	1.04
(1,2689)	1:A:25:TYR:HA	1:A:37:TRP:HB2	10	1.04
(1,164)	1:A:47:VAL:H	1:A:50:ASP:HB2	13	1.04
(1,1322)	1:A:47:VAL:H	1:A:50:ASP:HB2	13	1.04
(1,929)	1:A:16:LYS:H	1:A:17:ARG:HB2	7	1.03
(1,561)	1:A:4:VAL:HA	1:A:5:PHE:HB2	9	1.03
(1,561)	1:A:4:VAL:HA	1:A:5:PHE:HB2	15	1.03
(1,561)	1:A:4:VAL:HA	1:A:5:PHE:HB2	17	1.03
(1,526)	1:A:52:GLU:HA	1:A:55:LEU:HB2	7	1.03
(1,3404)	2:B:5:THR:HG1	1:A:10:VAL:H	14	1.03
(1,3404)	2:B:5:THR:HG21	1:A:10:VAL:H	14	1.03
(1,3404)	2:B:5:THR:HG22	1:A:10:VAL:H	14	1.03
(1,3404)	2:B:5:THR:HG23	1:A:10:VAL:H	14	1.03
(1,281)	1:A:29:TRP:HA	2:B:6:ALA:HB3	3	1.03
(1,281)	1:A:29:TRP:HA	2:B:6:ALA:HB3	17	1.03

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,67)	1:A:44:ALA:H	2:B:12:ALA:HB2	17	1.02
(2,65)	1:A:45:GLU:H	2:B:12:ALA:HB2	14	1.02
(2,65)	1:A:45:GLU:H	2:B:12:ALA:HB2	18	1.02
(2,55)	1:A:44:ALA:H	2:B:12:ALA:HB2	17	1.02
(2,52)	1:A:45:GLU:H	2:B:12:ALA:HB2	14	1.02
(2,52)	1:A:45:GLU:H	2:B:12:ALA:HB2	18	1.02
(2,5)	1:A:45:GLU:H	2:B:12:ALA:HB2	14	1.02
(2,5)	1:A:45:GLU:H	2:B:12:ALA:HB2	18	1.02
(2,41)	1:A:44:ALA:H	2:B:12:ALA:HB2	17	1.02
(2,35)	1:A:45:GLU:H	2:B:12:ALA:HB2	14	1.02
(2,35)	1:A:45:GLU:H	2:B:12:ALA:HB2	18	1.02
(2,26)	1:A:44:ALA:H	2:B:12:ALA:HB2	17	1.02
(2,22)	1:A:45:GLU:H	2:B:12:ALA:HB2	14	1.02
(2,22)	1:A:45:GLU:H	2:B:12:ALA:HB2	18	1.02
(2,11)	1:A:44:ALA:H	2:B:12:ALA:HB2	17	1.02
(1,561)	1:A:4:VAL:HA	1:A:5:PHE:HB2	2	1.02
(1,2955)	1:A:19:LYS:HB2	1:A:42:HIS:HA	8	1.02
(1,2955)	1:A:19:LYS:HB3	1:A:42:HIS:HA	8	1.02
(1,2955)	1:A:19:LYS:HB2	1:A:42:HIS:HA	16	1.02
(1,2955)	1:A:19:LYS:HB3	1:A:42:HIS:HA	16	1.02
(1,2689)	1:A:25:TYR:HA	1:A:37:TRP:HB2	13	1.02
(1,797)	1:A:44:ALA:HA	2:B:12:ALA:HB2	1	1.01
(1,748)	1:A:47:VAL:H	1:A:50:ASP:HB2	9	1.01
(1,622)	1:A:3:GLN:H	1:A:3:GLN:HB2	13	1.01
(1,561)	1:A:4:VAL:HA	1:A:5:PHE:HB2	8	1.01
(1,504)	1:A:44:ALA:HA	2:B:12:ALA:HB2	1	1.01
(1,3398)	2:B:5:THR:HG1	1:A:9:GLU:HA	20	1.01
(1,3398)	2:B:5:THR:HG21	1:A:9:GLU:HA	20	1.01
(1,3398)	2:B:5:THR:HG22	1:A:9:GLU:HA	20	1.01
(1,3398)	2:B:5:THR:HG23	1:A:9:GLU:HA	20	1.01
(1,326)	1:A:3:GLN:H	1:A:3:GLN:HB2	13	1.01
(1,164)	1:A:47:VAL:H	1:A:50:ASP:HB2	9	1.01
(1,158)	1:A:47:VAL:H	2:B:12:ALA:HB2	15	1.01
(1,1322)	1:A:47:VAL:H	1:A:50:ASP:HB2	9	1.01
(1,1196)	1:A:3:GLN:H	1:A:3:GLN:HB2	13	1.01
(2,67)	1:A:44:ALA:H	2:B:12:ALA:HB2	1	1.0
(2,55)	1:A:44:ALA:H	2:B:12:ALA:HB2	1	1.0
(2,41)	1:A:44:ALA:H	2:B:12:ALA:HB2	1	1.0
(2,26)	1:A:44:ALA:H	2:B:12:ALA:HB2	1	1.0
(2,11)	1:A:44:ALA:H	2:B:12:ALA:HB2	1	1.0
(1,748)	1:A:47:VAL:H	1:A:50:ASP:HB2	16	1.0
(1,622)	1:A:3:GLN:H	1:A:3:GLN:HB2	1	1.0

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,622)	1:A:3:GLN:H	1:A:3:GLN:HB2	8	1.0
(1,622)	1:A:3:GLN:H	1:A:3:GLN:HB2	18	1.0
(1,561)	1:A:4:VAL:HA	1:A:5:PHE:HB2	11	1.0
(1,561)	1:A:4:VAL:HA	1:A:5:PHE:HB2	12	1.0
(1,3404)	2:B:5:THR:HG1	1:A:10:VAL:H	2	1.0
(1,3404)	2:B:5:THR:HG21	1:A:10:VAL:H	2	1.0
(1,3404)	2:B:5:THR:HG22	1:A:10:VAL:H	2	1.0
(1,3404)	2:B:5:THR:HG23	1:A:10:VAL:H	2	1.0
(1,3398)	2:B:5:THR:HG1	1:A:9:GLU:HA	8	1.0
(1,3398)	2:B:5:THR:HG21	1:A:9:GLU:HA	8	1.0
(1,3398)	2:B:5:THR:HG22	1:A:9:GLU:HA	8	1.0
(1,3398)	2:B:5:THR:HG23	1:A:9:GLU:HA	8	1.0
(1,326)	1:A:3:GLN:H	1:A:3:GLN:HB2	1	1.0
(1,326)	1:A:3:GLN:H	1:A:3:GLN:HB2	8	1.0
(1,326)	1:A:3:GLN:H	1:A:3:GLN:HB2	18	1.0
(1,164)	1:A:47:VAL:H	1:A:50:ASP:HB2	16	1.0
(1,1322)	1:A:47:VAL:H	1:A:50:ASP:HB2	16	1.0
(1,1196)	1:A:3:GLN:H	1:A:3:GLN:HB2	1	1.0
(1,1196)	1:A:3:GLN:H	1:A:3:GLN:HB2	8	1.0
(1,1196)	1:A:3:GLN:H	1:A:3:GLN:HB2	18	1.0
(1,819)	1:A:52:GLU:HA	1:A:55:LEU:HB2	17	0.99
(1,561)	1:A:4:VAL:HA	1:A:5:PHE:HB2	4	0.99
(1,561)	1:A:4:VAL:HA	1:A:5:PHE:HB2	7	0.99
(1,3398)	2:B:5:THR:HG1	1:A:9:GLU:HA	12	0.99
(1,3398)	2:B:5:THR:HG21	1:A:9:GLU:HA	12	0.99
(1,3398)	2:B:5:THR:HG22	1:A:9:GLU:HA	12	0.99
(1,3398)	2:B:5:THR:HG23	1:A:9:GLU:HA	12	0.99
(1,576)	1:A:29:TRP:HA	2:B:6:ALA:HB3	12	0.98
(1,561)	1:A:4:VAL:HA	1:A:5:PHE:HB2	3	0.98
(1,2955)	1:A:19:LYS:HB2	1:A:42:HIS:HA	6	0.98
(1,2955)	1:A:19:LYS:HB3	1:A:42:HIS:HA	6	0.98
(1,2035)	1:A:21:LYS:HA	1:A:6:GLU:HB2	20	0.98
(1,1154)	1:A:9:GLU:HA	2:B:6:ALA:HB2	14	0.98
(1,1152)	1:A:29:TRP:HA	2:B:6:ALA:HB3	12	0.98
(1,797)	1:A:44:ALA:HA	2:B:12:ALA:HB2	6	0.97
(1,797)	1:A:44:ALA:HA	2:B:12:ALA:HB2	13	0.97
(1,561)	1:A:4:VAL:HA	1:A:5:PHE:HB2	1	0.97
(1,561)	1:A:4:VAL:HA	1:A:5:PHE:HB2	5	0.97
(1,561)	1:A:4:VAL:HA	1:A:5:PHE:HB2	10	0.97
(1,561)	1:A:4:VAL:HA	1:A:5:PHE:HB2	14	0.97
(1,504)	1:A:44:ALA:HA	2:B:12:ALA:HB2	6	0.97
(1,504)	1:A:44:ALA:HA	2:B:12:ALA:HB2	13	0.97

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,446)	1:A:47:VAL:H	2:B:12:ALA:HB2	17	0.96
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB2	6	0.96
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB3	6	0.96
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB2	6	0.96
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB3	6	0.96
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB2	6	0.96
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB3	6	0.96
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB2	6	0.96
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB3	6	0.96
(1,281)	1:A:29:TRP:HA	2:B:6:ALA:HB3	16	0.96
(1,1031)	1:A:47:VAL:H	2:B:12:ALA:HB2	17	0.96
(1,561)	1:A:4:VAL:HA	1:A:5:PHE:HB2	13	0.95
(1,3404)	2:B:5:THR:HG1	1:A:10:VAL:H	20	0.95
(1,3404)	2:B:5:THR:HG21	1:A:10:VAL:H	20	0.95
(1,3404)	2:B:5:THR:HG22	1:A:10:VAL:H	20	0.95
(1,3404)	2:B:5:THR:HG23	1:A:10:VAL:H	20	0.95
(1,576)	1:A:29:TRP:HA	2:B:6:ALA:HB3	7	0.94
(1,1152)	1:A:29:TRP:HA	2:B:6:ALA:HB3	7	0.94
(1,446)	1:A:47:VAL:H	2:B:12:ALA:HB2	1	0.93
(1,3404)	2:B:5:THR:HG1	1:A:10:VAL:H	6	0.93
(1,3404)	2:B:5:THR:HG21	1:A:10:VAL:H	6	0.93
(1,3404)	2:B:5:THR:HG22	1:A:10:VAL:H	6	0.93
(1,3404)	2:B:5:THR:HG23	1:A:10:VAL:H	6	0.93
(1,2236)	1:A:4:VAL:HA	1:A:5:PHE:HB2	9	0.93
(1,2236)	1:A:4:VAL:HA	1:A:5:PHE:HB2	15	0.93
(1,2236)	1:A:4:VAL:HA	1:A:5:PHE:HB2	17	0.93
(1,1154)	1:A:9:GLU:HA	2:B:6:ALA:HB2	7	0.93
(1,1031)	1:A:47:VAL:H	2:B:12:ALA:HB2	1	0.93
(2,65)	1:A:45:GLU:H	2:B:12:ALA:HB2	3	0.92
(2,65)	1:A:45:GLU:H	2:B:12:ALA:HB2	4	0.92
(2,52)	1:A:45:GLU:H	2:B:12:ALA:HB2	3	0.92
(2,52)	1:A:45:GLU:H	2:B:12:ALA:HB2	4	0.92
(2,5)	1:A:45:GLU:H	2:B:12:ALA:HB2	3	0.92
(2,5)	1:A:45:GLU:H	2:B:12:ALA:HB2	4	0.92
(2,35)	1:A:45:GLU:H	2:B:12:ALA:HB2	3	0.92
(2,35)	1:A:45:GLU:H	2:B:12:ALA:HB2	4	0.92
(2,22)	1:A:45:GLU:H	2:B:12:ALA:HB2	3	0.92
(2,22)	1:A:45:GLU:H	2:B:12:ALA:HB2	4	0.92
(1,561)	1:A:4:VAL:HA	1:A:5:PHE:HB2	18	0.92
(1,3404)	2:B:5:THR:HG1	1:A:10:VAL:H	10	0.92
(1,3404)	2:B:5:THR:HG21	1:A:10:VAL:H	10	0.92
(1,3404)	2:B:5:THR:HG22	1:A:10:VAL:H	10	0.92

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,3404)	2:B:5:THR:HG23	1:A:10:VAL:H	10	0.92
(1,281)	1:A:29:TRP:HA	2:B:6:ALA:HB3	1	0.92
(1,2236)	1:A:4:VAL:HA	1:A:5:PHE:HB2	2	0.92
(1,158)	1:A:47:VAL:H	2:B:12:ALA:HB2	16	0.92
(2,65)	1:A:45:GLU:H	2:B:12:ALA:HB2	10	0.91
(2,65)	1:A:45:GLU:H	2:B:12:ALA:HB2	12	0.91
(2,52)	1:A:45:GLU:H	2:B:12:ALA:HB2	10	0.91
(2,52)	1:A:45:GLU:H	2:B:12:ALA:HB2	12	0.91
(2,5)	1:A:45:GLU:H	2:B:12:ALA:HB2	10	0.91
(2,5)	1:A:45:GLU:H	2:B:12:ALA:HB2	12	0.91
(2,35)	1:A:45:GLU:H	2:B:12:ALA:HB2	10	0.91
(2,35)	1:A:45:GLU:H	2:B:12:ALA:HB2	12	0.91
(2,22)	1:A:45:GLU:H	2:B:12:ALA:HB2	10	0.91
(2,22)	1:A:45:GLU:H	2:B:12:ALA:HB2	12	0.91
(1,748)	1:A:47:VAL:H	1:A:50:ASP:HB2	19	0.91
(1,3349)	2:B:9:LYS:HD2	2:B:9:LYS:H	19	0.91
(1,3349)	2:B:9:LYS:HD3	2:B:9:LYS:H	19	0.91
(1,2236)	1:A:4:VAL:HA	1:A:5:PHE:HB2	8	0.91
(1,164)	1:A:47:VAL:H	1:A:50:ASP:HB2	19	0.91
(1,1322)	1:A:47:VAL:H	1:A:50:ASP:HB2	19	0.91
(2,65)	1:A:45:GLU:H	2:B:12:ALA:HB2	17	0.9
(2,52)	1:A:45:GLU:H	2:B:12:ALA:HB2	17	0.9
(2,5)	1:A:45:GLU:H	2:B:12:ALA:HB2	17	0.9
(2,35)	1:A:45:GLU:H	2:B:12:ALA:HB2	17	0.9
(2,22)	1:A:45:GLU:H	2:B:12:ALA:HB2	17	0.9
(1,819)	1:A:52:GLU:HA	1:A:55:LEU:HB2	4	0.9
(1,281)	1:A:29:TRP:HA	2:B:6:ALA:HB3	9	0.9
(1,2236)	1:A:4:VAL:HA	1:A:5:PHE:HB2	11	0.9
(1,2236)	1:A:4:VAL:HA	1:A:5:PHE:HB2	12	0.9
(1,1816)	1:A:12:GLU:H	1:A:28:ARG:HB2	3	0.9
(1,561)	1:A:4:VAL:HA	1:A:5:PHE:HB2	19	0.89
(1,3398)	2:B:5:THR:HG1	1:A:9:GLU:HA	18	0.89
(1,3398)	2:B:5:THR:HG21	1:A:9:GLU:HA	18	0.89
(1,3398)	2:B:5:THR:HG22	1:A:9:GLU:HA	18	0.89
(1,3398)	2:B:5:THR:HG23	1:A:9:GLU:HA	18	0.89
(1,2236)	1:A:4:VAL:HA	1:A:5:PHE:HB2	4	0.89
(1,2236)	1:A:4:VAL:HA	1:A:5:PHE:HB2	7	0.89
(2,67)	1:A:44:ALA:H	2:B:12:ALA:HB2	13	0.88
(2,55)	1:A:44:ALA:H	2:B:12:ALA:HB2	13	0.88
(2,41)	1:A:44:ALA:H	2:B:12:ALA:HB2	13	0.88
(2,26)	1:A:44:ALA:H	2:B:12:ALA:HB2	13	0.88
(2,11)	1:A:44:ALA:H	2:B:12:ALA:HB2	13	0.88

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,3404)	2:B:5:THR:HG1	1:A:10:VAL:H	3	0.88
(1,3404)	2:B:5:THR:HG21	1:A:10:VAL:H	3	0.88
(1,3404)	2:B:5:THR:HG22	1:A:10:VAL:H	3	0.88
(1,3404)	2:B:5:THR:HG23	1:A:10:VAL:H	3	0.88
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG2	12	0.88
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG3	12	0.88
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG2	12	0.88
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG3	12	0.88
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG2	12	0.88
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG3	12	0.88
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG2	12	0.88
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG3	12	0.88
(1,2236)	1:A:4:VAL:HA	1:A:5:PHE:HB2	3	0.88
(1,819)	1:A:52:GLU:HA	1:A:55:LEU:HB2	18	0.87
(1,3404)	2:B:5:THR:HG1	1:A:10:VAL:H	9	0.87
(1,3404)	2:B:5:THR:HG21	1:A:10:VAL:H	9	0.87
(1,3404)	2:B:5:THR:HG22	1:A:10:VAL:H	9	0.87
(1,3404)	2:B:5:THR:HG23	1:A:10:VAL:H	9	0.87
(1,2742)	1:A:29:TRP:HB2	1:A:28:ARG:HB2	4	0.87
(1,2236)	1:A:4:VAL:HA	1:A:5:PHE:HB2	1	0.87
(1,2236)	1:A:4:VAL:HA	1:A:5:PHE:HB2	5	0.87
(1,2236)	1:A:4:VAL:HA	1:A:5:PHE:HB2	10	0.87
(1,2236)	1:A:4:VAL:HA	1:A:5:PHE:HB2	14	0.87
(1,1605)	1:A:47:VAL:H	1:A:50:ASP:HB2	15	0.87
(2,65)	1:A:45:GLU:H	2:B:12:ALA:HB2	1	0.86
(2,52)	1:A:45:GLU:H	2:B:12:ALA:HB2	1	0.86
(2,5)	1:A:45:GLU:H	2:B:12:ALA:HB2	1	0.86
(2,35)	1:A:45:GLU:H	2:B:12:ALA:HB2	1	0.86
(2,22)	1:A:45:GLU:H	2:B:12:ALA:HB2	1	0.86
(1,281)	1:A:29:TRP:HA	2:B:6:ALA:HB3	8	0.86
(2,65)	1:A:45:GLU:H	2:B:12:ALA:HB2	2	0.85
(2,65)	1:A:45:GLU:H	2:B:12:ALA:HB2	16	0.85
(2,52)	1:A:45:GLU:H	2:B:12:ALA:HB2	2	0.85
(2,52)	1:A:45:GLU:H	2:B:12:ALA:HB2	16	0.85
(2,5)	1:A:45:GLU:H	2:B:12:ALA:HB2	2	0.85
(2,5)	1:A:45:GLU:H	2:B:12:ALA:HB2	16	0.85
(2,35)	1:A:45:GLU:H	2:B:12:ALA:HB2	2	0.85
(2,35)	1:A:45:GLU:H	2:B:12:ALA:HB2	16	0.85
(2,22)	1:A:45:GLU:H	2:B:12:ALA:HB2	2	0.85
(2,22)	1:A:45:GLU:H	2:B:12:ALA:HB2	16	0.85
(1,748)	1:A:47:VAL:H	1:A:50:ASP:HB2	17	0.85
(1,3404)	2:B:5:THR:HG1	1:A:10:VAL:H	13	0.85

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,3404)	2:B:5:THR:HG21	1:A:10:VAL:H	13	0.85
(1,3404)	2:B:5:THR:HG22	1:A:10:VAL:H	13	0.85
(1,3404)	2:B:5:THR:HG23	1:A:10:VAL:H	13	0.85
(1,3115)	1:A:37:TRP:HD1	1:A:36:GLU:HB2	19	0.85
(1,2236)	1:A:4:VAL:HA	1:A:5:PHE:HB2	13	0.85
(1,164)	1:A:47:VAL:H	1:A:50:ASP:HB2	17	0.85
(1,1605)	1:A:47:VAL:H	1:A:50:ASP:HB2	2	0.85
(1,1322)	1:A:47:VAL:H	1:A:50:ASP:HB2	17	0.85
(2,67)	1:A:44:ALA:H	2:B:12:ALA:HB2	6	0.84
(2,65)	1:A:45:GLU:H	2:B:12:ALA:HB2	9	0.84
(2,55)	1:A:44:ALA:H	2:B:12:ALA:HB2	6	0.84
(2,52)	1:A:45:GLU:H	2:B:12:ALA:HB2	9	0.84
(2,5)	1:A:45:GLU:H	2:B:12:ALA:HB2	9	0.84
(2,41)	1:A:44:ALA:H	2:B:12:ALA:HB2	6	0.84
(2,35)	1:A:45:GLU:H	2:B:12:ALA:HB2	9	0.84
(2,26)	1:A:44:ALA:H	2:B:12:ALA:HB2	6	0.84
(2,22)	1:A:45:GLU:H	2:B:12:ALA:HB2	9	0.84
(2,11)	1:A:44:ALA:H	2:B:12:ALA:HB2	6	0.84
(1,819)	1:A:52:GLU:HA	1:A:55:LEU:HB2	2	0.84
(1,3398)	2:B:5:THR:HG1	1:A:9:GLU:HA	13	0.84
(1,3398)	2:B:5:THR:HG21	1:A:9:GLU:HA	13	0.84
(1,3398)	2:B:5:THR:HG22	1:A:9:GLU:HA	13	0.84
(1,3398)	2:B:5:THR:HG23	1:A:9:GLU:HA	13	0.84
(1,3366)	2:B:11:LYS:HG2	2:B:11:LYS:H	12	0.84
(1,3366)	2:B:11:LYS:HG3	2:B:11:LYS:H	12	0.84
(1,1605)	1:A:47:VAL:H	1:A:50:ASP:HB2	13	0.84
(1,1154)	1:A:9:GLU:HA	2:B:6:ALA:HB2	17	0.84
(1,865)	1:A:29:TRP:HA	2:B:6:ALA:HB3	3	0.83
(1,865)	1:A:29:TRP:HA	2:B:6:ALA:HB3	17	0.83
(1,819)	1:A:52:GLU:HA	1:A:55:LEU:HB2	7	0.83
(1,526)	1:A:52:GLU:HA	1:A:55:LEU:HB2	19	0.83
(1,3115)	1:A:37:TRP:HD1	1:A:36:GLU:HB2	18	0.83
(1,1438)	1:A:29:TRP:HA	2:B:6:ALA:HB3	3	0.83
(1,1438)	1:A:29:TRP:HA	2:B:6:ALA:HB3	17	0.83
(1,3115)	1:A:37:TRP:HD1	1:A:36:GLU:HB2	1	0.82
(1,2955)	1:A:19:LYS:HB2	1:A:42:HIS:HA	19	0.82
(1,2955)	1:A:19:LYS:HB3	1:A:42:HIS:HA	19	0.82
(1,2236)	1:A:4:VAL:HA	1:A:5:PHE:HB2	18	0.82
(1,446)	1:A:47:VAL:H	2:B:12:ALA:HB2	15	0.81
(1,2485)	1:A:3:GLN:H	1:A:3:GLN:HB2	13	0.81
(1,2273)	1:A:3:GLN:H	1:A:3:GLN:HB2	13	0.81
(1,1755)	1:A:3:GLN:H	1:A:3:GLN:HB2	13	0.81

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1605)	1:A:47:VAL:H	1:A:50:ASP:HB2	9	0.81
(1,1031)	1:A:47:VAL:H	2:B:12:ALA:HB2	15	0.81
(1,2485)	1:A:3:GLN:H	1:A:3:GLN:HB2	1	0.8
(1,2485)	1:A:3:GLN:H	1:A:3:GLN:HB2	8	0.8
(1,2485)	1:A:3:GLN:H	1:A:3:GLN:HB2	18	0.8
(1,2273)	1:A:3:GLN:H	1:A:3:GLN:HB2	1	0.8
(1,2273)	1:A:3:GLN:H	1:A:3:GLN:HB2	8	0.8
(1,2273)	1:A:3:GLN:H	1:A:3:GLN:HB2	18	0.8
(1,1755)	1:A:3:GLN:H	1:A:3:GLN:HB2	1	0.8
(1,1755)	1:A:3:GLN:H	1:A:3:GLN:HB2	8	0.8
(1,1755)	1:A:3:GLN:H	1:A:3:GLN:HB2	18	0.8
(1,1605)	1:A:47:VAL:H	1:A:50:ASP:HB2	16	0.8
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG2	8	0.79
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG3	8	0.79
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG2	8	0.79
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG3	8	0.79
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG2	8	0.79
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG3	8	0.79
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG2	8	0.79
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG3	8	0.79
(1,2236)	1:A:4:VAL:HA	1:A:5:PHE:HB2	19	0.79
(1,1392)	1:A:52:GLU:HA	1:A:55:LEU:HB2	17	0.79
(1,281)	1:A:29:TRP:HA	2:B:6:ALA:HB3	12	0.78
(1,2595)	1:A:29:TRP:H	1:A:11:ASP:HB2	1	0.78
(1,576)	1:A:29:TRP:HA	2:B:6:ALA:HB3	4	0.77
(1,1154)	1:A:9:GLU:HA	2:B:6:ALA:HB2	2	0.77
(1,1152)	1:A:29:TRP:HA	2:B:6:ALA:HB3	4	0.77
(2,84)	1:A:38:VAL:HA	1:A:36:GLU:HB2	7	0.76
(2,46)	1:A:38:VAL:HA	1:A:36:GLU:HB2	7	0.76
(2,15)	1:A:38:VAL:HA	1:A:36:GLU:HB2	7	0.76
(2,123)	1:A:38:VAL:HA	1:A:36:GLU:HB2	7	0.76
(1,865)	1:A:29:TRP:HA	2:B:6:ALA:HB3	16	0.76
(1,526)	1:A:52:GLU:HA	1:A:55:LEU:HB2	10	0.76
(1,1438)	1:A:29:TRP:HA	2:B:6:ALA:HB3	16	0.76
(1,1121)	1:A:38:VAL:HA	1:A:36:GLU:HB2	7	0.76
(2,65)	1:A:45:GLU:H	2:B:12:ALA:HB2	19	0.75
(2,52)	1:A:45:GLU:H	2:B:12:ALA:HB2	19	0.75
(2,5)	1:A:45:GLU:H	2:B:12:ALA:HB2	19	0.75
(2,35)	1:A:45:GLU:H	2:B:12:ALA:HB2	19	0.75
(2,22)	1:A:45:GLU:H	2:B:12:ALA:HB2	19	0.75
(1,3404)	2:B:5:THR:HG1	1:A:10:VAL:H	15	0.74
(1,3404)	2:B:5:THR:HG21	1:A:10:VAL:H	15	0.74

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,3404)	2:B:5:THR:HG22	1:A:10:VAL:H	15	0.74
(1,3404)	2:B:5:THR:HG23	1:A:10:VAL:H	15	0.74
(1,281)	1:A:29:TRP:HA	2:B:6:ALA:HB3	7	0.74
(1,852)	1:A:4:VAL:HA	1:A:5:PHE:HB2	9	0.73
(1,852)	1:A:4:VAL:HA	1:A:5:PHE:HB2	15	0.73
(1,852)	1:A:4:VAL:HA	1:A:5:PHE:HB2	17	0.73
(1,3398)	2:B:5:THR:HG1	1:A:9:GLU:HA	10	0.73
(1,3398)	2:B:5:THR:HG21	1:A:9:GLU:HA	10	0.73
(1,3398)	2:B:5:THR:HG22	1:A:9:GLU:HA	10	0.73
(1,3398)	2:B:5:THR:HG23	1:A:9:GLU:HA	10	0.73
(1,2595)	1:A:29:TRP:H	1:A:11:ASP:HB2	14	0.73
(1,865)	1:A:29:TRP:HA	2:B:6:ALA:HB3	1	0.72
(1,852)	1:A:4:VAL:HA	1:A:5:PHE:HB2	2	0.72
(1,576)	1:A:29:TRP:HA	2:B:6:ALA:HB3	14	0.72
(1,446)	1:A:47:VAL:H	2:B:12:ALA:HB2	16	0.72
(1,2955)	1:A:19:LYS:HB2	1:A:42:HIS:HA	15	0.72
(1,2955)	1:A:19:LYS:HB3	1:A:42:HIS:HA	15	0.72
(1,2577)	1:A:36:GLU:H	1:A:34:ASP:HB2	1	0.72
(1,1846)	1:A:36:GLU:H	1:A:34:ASP:HB2	1	0.72
(1,1438)	1:A:29:TRP:HA	2:B:6:ALA:HB3	1	0.72
(1,1154)	1:A:9:GLU:HA	2:B:6:ALA:HB2	6	0.72
(1,1152)	1:A:29:TRP:HA	2:B:6:ALA:HB3	14	0.72
(1,1031)	1:A:47:VAL:H	2:B:12:ALA:HB2	16	0.72
(1,852)	1:A:4:VAL:HA	1:A:5:PHE:HB2	8	0.71
(1,2066)	1:A:3:GLN:H	1:A:3:GLN:HB2	13	0.71
(1,1816)	1:A:12:GLU:H	1:A:28:ARG:HB2	13	0.71
(1,1605)	1:A:47:VAL:H	1:A:50:ASP:HB2	19	0.71
(1,865)	1:A:29:TRP:HA	2:B:6:ALA:HB3	9	0.7
(1,852)	1:A:4:VAL:HA	1:A:5:PHE:HB2	11	0.7
(1,852)	1:A:4:VAL:HA	1:A:5:PHE:HB2	12	0.7
(1,2742)	1:A:29:TRP:HB2	1:A:28:ARG:HB2	12	0.7
(1,2066)	1:A:3:GLN:H	1:A:3:GLN:HB2	1	0.7
(1,2066)	1:A:3:GLN:H	1:A:3:GLN:HB2	8	0.7
(1,2066)	1:A:3:GLN:H	1:A:3:GLN:HB2	18	0.7
(1,1765)	1:A:53:ASP:H	1:A:52:GLU:HG2	19	0.7
(1,1438)	1:A:29:TRP:HA	2:B:6:ALA:HB3	9	0.7
(1,1392)	1:A:52:GLU:HA	1:A:55:LEU:HB2	4	0.7
(2,65)	1:A:45:GLU:H	2:B:12:ALA:HB2	13	0.69
(2,52)	1:A:45:GLU:H	2:B:12:ALA:HB2	13	0.69
(2,5)	1:A:45:GLU:H	2:B:12:ALA:HB2	13	0.69
(2,35)	1:A:45:GLU:H	2:B:12:ALA:HB2	13	0.69
(2,22)	1:A:45:GLU:H	2:B:12:ALA:HB2	13	0.69

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,852)	1:A:4:VAL:HA	1:A:5:PHE:HB2	4	0.69
(1,852)	1:A:4:VAL:HA	1:A:5:PHE:HB2	7	0.69
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG2	14	0.69
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG3	14	0.69
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG2	14	0.69
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG3	14	0.69
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG2	14	0.69
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG3	14	0.69
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG2	14	0.69
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG3	14	0.69
(1,3398)	2:B:5:THR:HG1	1:A:9:GLU:HA	11	0.69
(1,3398)	2:B:5:THR:HG21	1:A:9:GLU:HA	11	0.69
(1,3398)	2:B:5:THR:HG22	1:A:9:GLU:HA	11	0.69
(1,3398)	2:B:5:THR:HG23	1:A:9:GLU:HA	11	0.69
(1,2787)	1:A:5:PHE:HB2	1:A:5:PHE:HD1	3	0.69
(1,2787)	1:A:5:PHE:HB2	1:A:5:PHE:HD2	3	0.69
(1,2787)	1:A:5:PHE:HB3	1:A:5:PHE:HD1	3	0.69
(1,2787)	1:A:5:PHE:HB3	1:A:5:PHE:HD2	3	0.69
(1,1154)	1:A:9:GLU:HA	2:B:6:ALA:HB2	11	0.69
(2,67)	1:A:44:ALA:H	2:B:12:ALA:HB2	7	0.68
(2,55)	1:A:44:ALA:H	2:B:12:ALA:HB2	7	0.68
(2,41)	1:A:44:ALA:H	2:B:12:ALA:HB2	7	0.68
(2,26)	1:A:44:ALA:H	2:B:12:ALA:HB2	7	0.68
(2,11)	1:A:44:ALA:H	2:B:12:ALA:HB2	7	0.68
(1,852)	1:A:4:VAL:HA	1:A:5:PHE:HB2	3	0.68
(1,526)	1:A:52:GLU:HA	1:A:55:LEU:HB2	11	0.68
(1,3404)	2:B:5:THR:HG1	1:A:10:VAL:H	5	0.68
(1,3404)	2:B:5:THR:HG21	1:A:10:VAL:H	5	0.68
(1,3404)	2:B:5:THR:HG22	1:A:10:VAL:H	5	0.68
(1,3404)	2:B:5:THR:HG23	1:A:10:VAL:H	5	0.68
(1,3404)	2:B:5:THR:HG1	1:A:10:VAL:H	7	0.68
(1,3404)	2:B:5:THR:HG21	1:A:10:VAL:H	7	0.68
(1,3404)	2:B:5:THR:HG22	1:A:10:VAL:H	7	0.68
(1,3404)	2:B:5:THR:HG23	1:A:10:VAL:H	7	0.68
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB2	5	0.68
(1,3389)	2:B:5:THR:HG1	1:A:7:TYR:HB3	5	0.68
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB2	5	0.68
(1,3389)	2:B:5:THR:HG21	1:A:7:TYR:HB3	5	0.68
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB2	5	0.68
(1,3389)	2:B:5:THR:HG22	1:A:7:TYR:HB3	5	0.68
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB2	5	0.68
(1,3389)	2:B:5:THR:HG23	1:A:7:TYR:HB3	5	0.68

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,65)	1:A:45:GLU:H	2:B:12:ALA:HB2	6	0.67
(2,52)	1:A:45:GLU:H	2:B:12:ALA:HB2	6	0.67
(2,5)	1:A:45:GLU:H	2:B:12:ALA:HB2	6	0.67
(2,35)	1:A:45:GLU:H	2:B:12:ALA:HB2	6	0.67
(2,22)	1:A:45:GLU:H	2:B:12:ALA:HB2	6	0.67
(1,852)	1:A:4:VAL:HA	1:A:5:PHE:HB2	1	0.67
(1,852)	1:A:4:VAL:HA	1:A:5:PHE:HB2	5	0.67
(1,852)	1:A:4:VAL:HA	1:A:5:PHE:HB2	10	0.67
(1,852)	1:A:4:VAL:HA	1:A:5:PHE:HB2	14	0.67
(1,451)	1:A:47:VAL:H	1:A:50:ASP:HB2	15	0.67
(1,2468)	1:A:47:VAL:H	1:A:50:ASP:HB2	15	0.67
(1,2382)	1:A:47:VAL:H	1:A:50:ASP:HB2	15	0.67
(1,1816)	1:A:12:GLU:H	1:A:28:ARG:HB2	4	0.67
(1,1392)	1:A:52:GLU:HA	1:A:55:LEU:HB2	18	0.67
(1,865)	1:A:29:TRP:HA	2:B:6:ALA:HB3	8	0.66
(1,743)	1:A:47:VAL:H	2:B:12:ALA:HB2	17	0.66
(1,576)	1:A:29:TRP:HA	2:B:6:ALA:HB3	2	0.66
(1,2742)	1:A:29:TRP:HB2	1:A:28:ARG:HB2	7	0.66
(1,1438)	1:A:29:TRP:HA	2:B:6:ALA:HB3	8	0.66
(1,1316)	1:A:47:VAL:H	2:B:12:ALA:HB2	8	0.66
(1,1152)	1:A:29:TRP:HA	2:B:6:ALA:HB3	2	0.66
(1,852)	1:A:4:VAL:HA	1:A:5:PHE:HB2	13	0.65
(1,451)	1:A:47:VAL:H	1:A:50:ASP:HB2	2	0.65
(1,3366)	2:B:11:LYS:HG2	2:B:11:LYS:H	6	0.65
(1,3366)	2:B:11:LYS:HG3	2:B:11:LYS:H	6	0.65
(1,2742)	1:A:29:TRP:HB2	1:A:28:ARG:HB2	11	0.65
(1,2468)	1:A:47:VAL:H	1:A:50:ASP:HB2	2	0.65
(1,2382)	1:A:47:VAL:H	1:A:50:ASP:HB2	2	0.65
(1,1605)	1:A:47:VAL:H	1:A:50:ASP:HB2	17	0.65
(1,816)	1:A:30:LYS:HA	1:A:11:ASP:HB2	8	0.64
(1,576)	1:A:29:TRP:HA	2:B:6:ALA:HB3	18	0.64
(1,523)	1:A:30:LYS:HA	1:A:11:ASP:HB2	8	0.64
(1,451)	1:A:47:VAL:H	1:A:50:ASP:HB2	13	0.64
(1,3398)	2:B:5:THR:HG1	1:A:9:GLU:HA	9	0.64
(1,3398)	2:B:5:THR:HG21	1:A:9:GLU:HA	9	0.64
(1,3398)	2:B:5:THR:HG22	1:A:9:GLU:HA	9	0.64
(1,3398)	2:B:5:THR:HG23	1:A:9:GLU:HA	9	0.64
(1,3115)	1:A:37:TRP:HD1	1:A:36:GLU:HB2	7	0.64
(1,2742)	1:A:29:TRP:HB2	1:A:28:ARG:HB2	20	0.64
(1,2595)	1:A:29:TRP:H	1:A:11:ASP:HB2	2	0.64
(1,2468)	1:A:47:VAL:H	1:A:50:ASP:HB2	13	0.64
(1,2382)	1:A:47:VAL:H	1:A:50:ASP:HB2	13	0.64

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,230)	1:A:30:LYS:HA	1:A:11:ASP:HB2	8	0.64
(1,1392)	1:A:52:GLU:HA	1:A:55:LEU:HB2	2	0.64
(1,1152)	1:A:29:TRP:HA	2:B:6:ALA:HB3	18	0.64
(1,819)	1:A:52:GLU:HA	1:A:55:LEU:HB2	19	0.63
(1,816)	1:A:30:LYS:HA	1:A:11:ASP:HB2	6	0.63
(1,743)	1:A:47:VAL:H	2:B:12:ALA:HB2	1	0.63
(1,523)	1:A:30:LYS:HA	1:A:11:ASP:HB2	6	0.63
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG2	20	0.63
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG3	20	0.63
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG2	20	0.63
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG3	20	0.63
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG2	20	0.63
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG3	20	0.63
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG2	20	0.63
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG3	20	0.63
(1,230)	1:A:30:LYS:HA	1:A:11:ASP:HB2	6	0.63
(1,1816)	1:A:12:GLU:H	1:A:28:ARG:HB2	7	0.63
(1,1392)	1:A:52:GLU:HA	1:A:55:LEU:HB2	7	0.63
(1,852)	1:A:4:VAL:HA	1:A:5:PHE:HB2	18	0.62
(1,2595)	1:A:29:TRP:H	1:A:11:ASP:HB2	18	0.62
(1,816)	1:A:30:LYS:HA	1:A:11:ASP:HB2	12	0.61
(1,523)	1:A:30:LYS:HA	1:A:11:ASP:HB2	12	0.61
(1,451)	1:A:47:VAL:H	1:A:50:ASP:HB2	9	0.61
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG2	10	0.61
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG3	10	0.61
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG2	10	0.61
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG3	10	0.61
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG2	10	0.61
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG3	10	0.61
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG2	10	0.61
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG3	10	0.61
(1,3398)	2:B:5:THR:HG1	1:A:9:GLU:HA	14	0.61
(1,3398)	2:B:5:THR:HG21	1:A:9:GLU:HA	14	0.61
(1,3398)	2:B:5:THR:HG22	1:A:9:GLU:HA	14	0.61
(1,3398)	2:B:5:THR:HG23	1:A:9:GLU:HA	14	0.61
(1,2787)	1:A:5:PHE:HB2	1:A:5:PHE:HD1	19	0.61
(1,2787)	1:A:5:PHE:HB2	1:A:5:PHE:HD2	19	0.61
(1,2787)	1:A:5:PHE:HB3	1:A:5:PHE:HD1	19	0.61
(1,2787)	1:A:5:PHE:HB3	1:A:5:PHE:HD2	19	0.61
(1,2742)	1:A:29:TRP:HB2	1:A:28:ARG:HB2	13	0.61
(1,2468)	1:A:47:VAL:H	1:A:50:ASP:HB2	9	0.61
(1,2382)	1:A:47:VAL:H	1:A:50:ASP:HB2	9	0.61

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,230)	1:A:30:LYS:HA	1:A:11:ASP:HB2	12	0.61
(1,1816)	1:A:12:GLU:H	1:A:28:ARG:HB2	8	0.61
(1,451)	1:A:47:VAL:H	1:A:50:ASP:HB2	16	0.6
(1,2468)	1:A:47:VAL:H	1:A:50:ASP:HB2	16	0.6
(1,2382)	1:A:47:VAL:H	1:A:50:ASP:HB2	16	0.6
(1,852)	1:A:4:VAL:HA	1:A:5:PHE:HB2	19	0.59
(1,526)	1:A:52:GLU:HA	1:A:55:LEU:HB2	3	0.59
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG2	1	0.59
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG3	1	0.59
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG2	1	0.59
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG3	1	0.59
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG2	1	0.59
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG3	1	0.59
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG2	1	0.59
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG3	1	0.59
(1,2448)	1:A:52:GLU:HA	1:A:55:LEU:HB2	17	0.59
(1,233)	1:A:52:GLU:HA	1:A:55:LEU:HB2	17	0.59
(2,88)	1:A:12:GLU:HA	1:A:7:TYR:HB2	19	0.58
(2,76)	1:A:12:GLU:HA	1:A:7:TYR:HB2	19	0.58
(2,50)	1:A:12:GLU:HA	1:A:7:TYR:HB2	19	0.58
(2,32)	1:A:12:GLU:HA	1:A:7:TYR:HB2	19	0.58
(2,19)	1:A:12:GLU:HA	1:A:7:TYR:HB2	19	0.58
(1,865)	1:A:29:TRP:HA	2:B:6:ALA:HB3	12	0.58
(1,2595)	1:A:29:TRP:H	1:A:11:ASP:HB2	20	0.58
(1,1864)	1:A:29:TRP:H	1:A:11:ASP:HB2	1	0.58
(1,1438)	1:A:29:TRP:HA	2:B:6:ALA:HB3	12	0.58
(1,590)	1:A:17:ARG:H	1:A:17:ARG:HB2	7	0.57
(1,281)	1:A:29:TRP:HA	2:B:6:ALA:HB3	4	0.57
(1,2046)	1:A:17:ARG:H	1:A:17:ARG:HB2	7	0.57
(1,1728)	1:A:17:ARG:H	1:A:17:ARG:HB2	7	0.57
(1,911)	1:A:3:GLN:H	1:A:3:GLN:HB2	16	0.56
(1,819)	1:A:52:GLU:HA	1:A:55:LEU:HB2	10	0.56
(1,3398)	2:B:5:THR:HG1	1:A:9:GLU:HA	16	0.56
(1,3398)	2:B:5:THR:HG21	1:A:9:GLU:HA	16	0.56
(1,3398)	2:B:5:THR:HG22	1:A:9:GLU:HA	16	0.56
(1,3398)	2:B:5:THR:HG23	1:A:9:GLU:HA	16	0.56
(1,1816)	1:A:12:GLU:H	1:A:28:ARG:HB2	20	0.56
(1,1483)	1:A:3:GLN:H	1:A:3:GLN:HB2	16	0.56
(1,590)	1:A:17:ARG:H	1:A:17:ARG:HB2	4	0.55
(1,590)	1:A:17:ARG:H	1:A:17:ARG:HB2	13	0.55
(1,3398)	2:B:5:THR:HG1	1:A:9:GLU:HA	6	0.55
(1,3398)	2:B:5:THR:HG21	1:A:9:GLU:HA	6	0.55

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,3398)	2:B:5:THR:HG22	1:A:9:GLU:HA	6	0.55
(1,3398)	2:B:5:THR:HG23	1:A:9:GLU:HA	6	0.55
(1,3115)	1:A:37:TRP:HD1	1:A:36:GLU:HB2	20	0.55
(1,2787)	1:A:5:PHE:HB2	1:A:5:PHE:HD1	14	0.55
(1,2787)	1:A:5:PHE:HB2	1:A:5:PHE:HD2	14	0.55
(1,2787)	1:A:5:PHE:HB3	1:A:5:PHE:HD1	14	0.55
(1,2787)	1:A:5:PHE:HB3	1:A:5:PHE:HD2	14	0.55
(1,2046)	1:A:17:ARG:H	1:A:17:ARG:HB2	4	0.55
(1,2046)	1:A:17:ARG:H	1:A:17:ARG:HB2	13	0.55
(1,1728)	1:A:17:ARG:H	1:A:17:ARG:HB2	4	0.55
(1,1728)	1:A:17:ARG:H	1:A:17:ARG:HB2	13	0.55
(1,1441)	1:A:46:ASP:HA	1:A:50:ASP:HB2	17	0.55
(1,865)	1:A:29:TRP:HA	2:B:6:ALA:HB3	7	0.54
(1,1438)	1:A:29:TRP:HA	2:B:6:ALA:HB3	7	0.54
(1,1916)	1:A:56:GLU:H	1:A:56:GLU:HB2	3	0.53
(1,1916)	1:A:56:GLU:H	1:A:56:GLU:HB2	4	0.53
(1,1864)	1:A:29:TRP:H	1:A:11:ASP:HB2	14	0.53
(1,1077)	1:A:56:GLU:H	1:A:56:GLU:HB2	3	0.53
(1,1077)	1:A:56:GLU:H	1:A:56:GLU:HB2	4	0.53
(1,884)	1:A:30:LYS:H	1:A:30:LYS:HB2	20	0.52
(1,594)	1:A:30:LYS:H	1:A:30:LYS:HB2	20	0.52
(1,576)	1:A:29:TRP:HA	2:B:6:ALA:HB3	19	0.52
(1,3398)	2:B:5:THR:HG1	1:A:9:GLU:HA	2	0.52
(1,3398)	2:B:5:THR:HG21	1:A:9:GLU:HA	2	0.52
(1,3398)	2:B:5:THR:HG22	1:A:9:GLU:HA	2	0.52
(1,3398)	2:B:5:THR:HG23	1:A:9:GLU:HA	2	0.52
(1,3115)	1:A:37:TRP:HD1	1:A:36:GLU:HB2	15	0.52
(1,298)	1:A:30:LYS:H	1:A:30:LYS:HB2	20	0.52
(1,281)	1:A:29:TRP:HA	2:B:6:ALA:HB3	14	0.52
(1,2742)	1:A:29:TRP:HB2	1:A:28:ARG:HB2	16	0.52
(1,1316)	1:A:47:VAL:H	2:B:12:ALA:HB2	2	0.52
(1,12)	1:A:30:LYS:H	1:A:30:LYS:HB2	20	0.52
(1,1152)	1:A:29:TRP:HA	2:B:6:ALA:HB3	19	0.52
(1,743)	1:A:47:VAL:H	2:B:12:ALA:HB2	15	0.51
(1,451)	1:A:47:VAL:H	1:A:50:ASP:HB2	19	0.51
(1,2742)	1:A:29:TRP:HB2	1:A:28:ARG:HB2	3	0.51
(1,2742)	1:A:29:TRP:HB2	1:A:28:ARG:HB2	5	0.51
(1,2742)	1:A:29:TRP:HB2	1:A:28:ARG:HB2	8	0.51
(1,2742)	1:A:29:TRP:HB2	1:A:28:ARG:HB2	15	0.51
(1,2468)	1:A:47:VAL:H	1:A:50:ASP:HB2	19	0.51
(1,2382)	1:A:47:VAL:H	1:A:50:ASP:HB2	19	0.51
(1,1816)	1:A:12:GLU:H	1:A:28:ARG:HB2	11	0.51

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,867)	1:A:19:LYS:HA	1:A:22:ASP:HB2	20	0.5
(1,578)	1:A:19:LYS:HA	1:A:22:ASP:HB2	20	0.5
(1,2448)	1:A:52:GLU:HA	1:A:55:LEU:HB2	4	0.5
(1,233)	1:A:52:GLU:HA	1:A:55:LEU:HB2	4	0.5
(1,797)	1:A:44:ALA:HA	2:B:12:ALA:HB2	7	0.49
(1,504)	1:A:44:ALA:HA	2:B:12:ALA:HB2	7	0.49
(1,1100)	1:A:34:ASP:HA	1:A:35:CYS:HB2	20	0.49
(1,819)	1:A:52:GLU:HA	1:A:55:LEU:HB2	11	0.48
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG2	19	0.48
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG3	19	0.48
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG2	19	0.48
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG3	19	0.48
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG2	19	0.48
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG3	19	0.48
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG2	19	0.48
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG3	19	0.48
(1,3115)	1:A:37:TRP:HD1	1:A:36:GLU:HB2	13	0.48
(1,1100)	1:A:34:ASP:HA	1:A:35:CYS:HB2	19	0.48
(1,884)	1:A:30:LYS:H	1:A:30:LYS:HB2	9	0.47
(1,594)	1:A:30:LYS:H	1:A:30:LYS:HB2	9	0.47
(1,298)	1:A:30:LYS:H	1:A:30:LYS:HB2	9	0.47
(1,294)	1:A:17:ARG:H	1:A:17:ARG:HB2	7	0.47
(1,2448)	1:A:52:GLU:HA	1:A:55:LEU:HB2	18	0.47
(1,233)	1:A:52:GLU:HA	1:A:55:LEU:HB2	18	0.47
(1,12)	1:A:30:LYS:H	1:A:30:LYS:HB2	9	0.47
(1,1154)	1:A:9:GLU:HA	2:B:6:ALA:HB2	16	0.47
(1,1100)	1:A:34:ASP:HA	1:A:35:CYS:HB2	7	0.47
(1,1100)	1:A:34:ASP:HA	1:A:35:CYS:HB2	11	0.47
(1,38)	1:A:3:GLN:H	1:A:3:GLN:HB2	16	0.46
(1,3398)	2:B:5:THR:HG1	1:A:9:GLU:HA	15	0.46
(1,3398)	2:B:5:THR:HG21	1:A:9:GLU:HA	15	0.46
(1,3398)	2:B:5:THR:HG22	1:A:9:GLU:HA	15	0.46
(1,3398)	2:B:5:THR:HG23	1:A:9:GLU:HA	15	0.46
(1,281)	1:A:29:TRP:HA	2:B:6:ALA:HB3	2	0.46
(1,158)	1:A:47:VAL:H	2:B:12:ALA:HB2	8	0.46
(1,1100)	1:A:34:ASP:HA	1:A:35:CYS:HB2	10	0.46
(1,1100)	1:A:34:ASP:HA	1:A:35:CYS:HB2	15	0.46
(1,451)	1:A:47:VAL:H	1:A:50:ASP:HB2	17	0.45
(1,294)	1:A:17:ARG:H	1:A:17:ARG:HB2	4	0.45
(1,294)	1:A:17:ARG:H	1:A:17:ARG:HB2	13	0.45
(1,2468)	1:A:47:VAL:H	1:A:50:ASP:HB2	17	0.45
(1,2382)	1:A:47:VAL:H	1:A:50:ASP:HB2	17	0.45

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,867)	1:A:19:LYS:HA	1:A:22:ASP:HB2	16	0.44
(1,578)	1:A:19:LYS:HA	1:A:22:ASP:HB2	16	0.44
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG2	11	0.44
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG3	11	0.44
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG2	11	0.44
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG3	11	0.44
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG2	11	0.44
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG3	11	0.44
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG2	11	0.44
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG3	11	0.44
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG2	16	0.44
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG3	16	0.44
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG2	16	0.44
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG3	16	0.44
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG2	16	0.44
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG3	16	0.44
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG2	16	0.44
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG3	16	0.44
(1,2955)	1:A:19:LYS:HB2	1:A:42:HIS:HA	11	0.44
(1,2955)	1:A:19:LYS:HB3	1:A:42:HIS:HA	11	0.44
(1,281)	1:A:29:TRP:HA	2:B:6:ALA:HB3	18	0.44
(1,2448)	1:A:52:GLU:HA	1:A:55:LEU:HB2	2	0.44
(1,233)	1:A:52:GLU:HA	1:A:55:LEU:HB2	2	0.44
(1,1864)	1:A:29:TRP:H	1:A:11:ASP:HB2	2	0.44
(1,1816)	1:A:12:GLU:H	1:A:28:ARG:HB2	12	0.44
(1,1389)	1:A:30:LYS:HA	1:A:11:ASP:HB2	8	0.44
(1,1102)	1:A:30:LYS:HA	1:A:11:ASP:HB2	8	0.44
(1,1100)	1:A:34:ASP:HA	1:A:35:CYS:HB2	2	0.44
(1,1100)	1:A:34:ASP:HA	1:A:35:CYS:HB2	6	0.44
(2,98)	1:A:30:LYS:HA	1:A:28:ARG:HB2	8	0.43
(1,3366)	2:B:11:LYS:HG2	2:B:11:LYS:H	8	0.43
(1,3366)	2:B:11:LYS:HG3	2:B:11:LYS:H	8	0.43
(1,3346)	2:B:9:LYS:HA	2:B:9:LYS:H	14	0.43
(1,2448)	1:A:52:GLU:HA	1:A:55:LEU:HB2	7	0.43
(1,233)	1:A:52:GLU:HA	1:A:55:LEU:HB2	7	0.43
(1,1392)	1:A:52:GLU:HA	1:A:55:LEU:HB2	19	0.43
(1,1389)	1:A:30:LYS:HA	1:A:11:ASP:HB2	6	0.43
(1,1102)	1:A:30:LYS:HA	1:A:11:ASP:HB2	6	0.43
(1,1100)	1:A:34:ASP:HA	1:A:35:CYS:HB2	18	0.43
(2,98)	1:A:30:LYS:HA	1:A:28:ARG:HB2	3	0.42
(1,743)	1:A:47:VAL:H	2:B:12:ALA:HB2	16	0.42
(1,1864)	1:A:29:TRP:H	1:A:11:ASP:HB2	18	0.42

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1815)	1:A:11:ASP:H	1:A:28:ARG:HB2	3	0.42
(2,98)	1:A:30:LYS:HA	1:A:28:ARG:HB2	4	0.41
(1,3371)	2:B:11:LYS:HG2	2:B:12:ALA:H	12	0.41
(1,3371)	2:B:11:LYS:HG3	2:B:12:ALA:H	12	0.41
(1,2955)	1:A:19:LYS:HB2	1:A:42:HIS:HA	5	0.41
(1,2955)	1:A:19:LYS:HB3	1:A:42:HIS:HA	5	0.41
(1,2709)	1:A:13:ILE:H	1:A:12:GLU:HB2	18	0.41
(1,2104)	1:A:24:GLU:H	1:A:24:GLU:HB2	6	0.41
(1,1389)	1:A:30:LYS:HA	1:A:11:ASP:HB2	12	0.41
(1,1102)	1:A:30:LYS:HA	1:A:11:ASP:HB2	12	0.41
(2,98)	1:A:30:LYS:HA	1:A:28:ARG:HB2	13	0.4
(2,78)	1:A:51:TYR:HB2	1:A:53:ASP:HB2	17	0.4
(1,2955)	1:A:19:LYS:HB2	1:A:42:HIS:HA	2	0.4
(1,2955)	1:A:19:LYS:HB3	1:A:42:HIS:HA	2	0.4
(1,2955)	1:A:19:LYS:HB2	1:A:42:HIS:HA	18	0.4
(1,2955)	1:A:19:LYS:HB3	1:A:42:HIS:HA	18	0.4
(1,2104)	1:A:24:GLU:H	1:A:24:GLU:HB2	4	0.4
(1,2104)	1:A:24:GLU:H	1:A:24:GLU:HB2	19	0.4
(1,1154)	1:A:9:GLU:HA	2:B:6:ALA:HB2	13	0.4
(1,819)	1:A:52:GLU:HA	1:A:55:LEU:HB2	3	0.39
(1,2955)	1:A:19:LYS:HB2	1:A:42:HIS:HA	10	0.39
(1,2955)	1:A:19:LYS:HB3	1:A:42:HIS:HA	10	0.39
(1,2955)	1:A:19:LYS:HB2	1:A:42:HIS:HA	12	0.39
(1,2955)	1:A:19:LYS:HB3	1:A:42:HIS:HA	12	0.39
(1,2955)	1:A:19:LYS:HB2	1:A:42:HIS:HA	14	0.39
(1,2955)	1:A:19:LYS:HB3	1:A:42:HIS:HA	14	0.39
(1,2104)	1:A:24:GLU:H	1:A:24:GLU:HB2	16	0.39
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG2	3	0.38
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG3	3	0.38
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG2	3	0.38
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG3	3	0.38
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG2	3	0.38
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG3	3	0.38
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG2	3	0.38
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG3	3	0.38
(1,3398)	2:B:5:THR:HG1	1:A:9:GLU:HA	1	0.38
(1,3398)	2:B:5:THR:HG21	1:A:9:GLU:HA	1	0.38
(1,3398)	2:B:5:THR:HG22	1:A:9:GLU:HA	1	0.38
(1,3398)	2:B:5:THR:HG23	1:A:9:GLU:HA	1	0.38
(1,3398)	2:B:5:THR:HG1	1:A:9:GLU:HA	19	0.38
(1,3398)	2:B:5:THR:HG21	1:A:9:GLU:HA	19	0.38
(1,3398)	2:B:5:THR:HG22	1:A:9:GLU:HA	19	0.38

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,3398)	2:B:5:THR:HG23	1:A:9:GLU:HA	19	0.38
(1,2955)	1:A:19:LYS:HB2	1:A:42:HIS:HA	3	0.38
(1,2955)	1:A:19:LYS:HB3	1:A:42:HIS:HA	3	0.38
(1,2955)	1:A:19:LYS:HB2	1:A:42:HIS:HA	17	0.38
(1,2955)	1:A:19:LYS:HB3	1:A:42:HIS:HA	17	0.38
(1,2709)	1:A:13:ILE:H	1:A:12:GLU:HB2	7	0.38
(1,2104)	1:A:24:GLU:H	1:A:24:GLU:HB2	20	0.38
(1,1864)	1:A:29:TRP:H	1:A:11:ASP:HB2	20	0.38
(1,865)	1:A:29:TRP:HA	2:B:6:ALA:HB3	4	0.37
(1,825)	2:B:12:ALA:H	2:B:12:ALA:HB3	8	0.37
(1,311)	1:A:52:GLU:H	1:A:52:GLU:HG2	19	0.37
(1,2955)	1:A:19:LYS:HB2	1:A:42:HIS:HA	7	0.37
(1,2955)	1:A:19:LYS:HB3	1:A:42:HIS:HA	7	0.37
(1,2955)	1:A:19:LYS:HB2	1:A:42:HIS:HA	9	0.37
(1,2955)	1:A:19:LYS:HB3	1:A:42:HIS:HA	9	0.37
(1,2104)	1:A:24:GLU:H	1:A:24:GLU:HB2	3	0.37
(1,2104)	1:A:24:GLU:H	1:A:24:GLU:HB2	17	0.37
(1,1438)	1:A:29:TRP:HA	2:B:6:ALA:HB3	4	0.37
(2,98)	1:A:30:LYS:HA	1:A:28:ARG:HB2	7	0.36
(2,84)	1:A:38:VAL:HA	1:A:36:GLU:HB2	18	0.36
(2,46)	1:A:38:VAL:HA	1:A:36:GLU:HB2	18	0.36
(2,15)	1:A:38:VAL:HA	1:A:36:GLU:HB2	18	0.36
(2,123)	1:A:38:VAL:HA	1:A:36:GLU:HB2	18	0.36
(1,911)	1:A:3:GLN:H	1:A:3:GLN:HB2	5	0.36
(1,622)	1:A:3:GLN:H	1:A:3:GLN:HB2	16	0.36
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG2	9	0.36
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG3	9	0.36
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG2	9	0.36
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG3	9	0.36
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG2	9	0.36
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG3	9	0.36
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG2	9	0.36
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG3	9	0.36
(1,326)	1:A:3:GLN:H	1:A:3:GLN:HB2	16	0.36
(1,2955)	1:A:19:LYS:HB2	1:A:42:HIS:HA	4	0.36
(1,2955)	1:A:19:LYS:HB3	1:A:42:HIS:HA	4	0.36
(1,2753)	1:A:51:TYR:HB2	1:A:50:ASP:HB2	13	0.36
(1,2709)	1:A:13:ILE:H	1:A:12:GLU:HB2	13	0.36
(1,2104)	1:A:24:GLU:H	1:A:24:GLU:HB2	2	0.36
(1,2104)	1:A:24:GLU:H	1:A:24:GLU:HB2	7	0.36
(1,2104)	1:A:24:GLU:H	1:A:24:GLU:HB2	9	0.36
(1,2104)	1:A:24:GLU:H	1:A:24:GLU:HB2	10	0.36

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,2104)	1:A:24:GLU:H	1:A:24:GLU:HB2	13	0.36
(1,2104)	1:A:24:GLU:H	1:A:24:GLU:HB2	14	0.36
(1,2037)	1:A:51:TYR:HB2	1:A:50:ASP:HB2	13	0.36
(1,1483)	1:A:3:GLN:H	1:A:3:GLN:HB2	5	0.36
(1,1392)	1:A:52:GLU:HA	1:A:55:LEU:HB2	10	0.36
(1,1196)	1:A:3:GLN:H	1:A:3:GLN:HB2	16	0.36
(1,1121)	1:A:38:VAL:HA	1:A:36:GLU:HB2	18	0.36
(1,2955)	1:A:19:LYS:HB2	1:A:42:HIS:HA	1	0.35
(1,2955)	1:A:19:LYS:HB3	1:A:42:HIS:HA	1	0.35
(1,2104)	1:A:24:GLU:H	1:A:24:GLU:HB2	1	0.35
(2,98)	1:A:30:LYS:HA	1:A:28:ARG:HB2	11	0.34
(1,2955)	1:A:19:LYS:HB2	1:A:42:HIS:HA	13	0.34
(1,2955)	1:A:19:LYS:HB3	1:A:42:HIS:HA	13	0.34
(1,2753)	1:A:51:TYR:HB2	1:A:50:ASP:HB2	15	0.34
(1,2709)	1:A:13:ILE:H	1:A:12:GLU:HB2	17	0.34
(1,2104)	1:A:24:GLU:H	1:A:24:GLU:HB2	8	0.34
(1,2037)	1:A:51:TYR:HB2	1:A:50:ASP:HB2	15	0.34
(1,997)	1:A:35:CYS:H	1:A:35:CYS:HB2	18	0.33
(1,789)	1:A:56:GLU:H	1:A:56:GLU:HB2	3	0.33
(1,789)	1:A:56:GLU:H	1:A:56:GLU:HB2	4	0.33
(1,495)	1:A:56:GLU:H	1:A:56:GLU:HB2	3	0.33
(1,495)	1:A:56:GLU:H	1:A:56:GLU:HB2	4	0.33
(1,412)	1:A:35:CYS:H	1:A:35:CYS:HB2	18	0.33
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG2	15	0.33
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG3	15	0.33
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG2	15	0.33
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG3	15	0.33
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG2	15	0.33
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG3	15	0.33
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG2	15	0.33
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG3	15	0.33
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD2	13	0.33
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD3	13	0.33
(1,2753)	1:A:51:TYR:HB2	1:A:50:ASP:HB2	2	0.33
(1,2753)	1:A:51:TYR:HB2	1:A:50:ASP:HB2	9	0.33
(1,2709)	1:A:13:ILE:H	1:A:12:GLU:HB2	4	0.33
(1,2709)	1:A:13:ILE:H	1:A:12:GLU:HB2	11	0.33
(1,2197)	1:A:56:GLU:H	1:A:56:GLU:HB2	3	0.33
(1,2197)	1:A:56:GLU:H	1:A:56:GLU:HB2	4	0.33
(1,205)	1:A:56:GLU:H	1:A:56:GLU:HB2	3	0.33
(1,205)	1:A:56:GLU:H	1:A:56:GLU:HB2	4	0.33
(1,2037)	1:A:51:TYR:HB2	1:A:50:ASP:HB2	2	0.33

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,2037)	1:A:51:TYR:HB2	1:A:50:ASP:HB2	9	0.33
(1,1647)	1:A:56:GLU:H	1:A:56:GLU:HB2	3	0.33
(1,1647)	1:A:56:GLU:H	1:A:56:GLU:HB2	4	0.33
(1,1363)	1:A:56:GLU:H	1:A:56:GLU:HB2	3	0.33
(1,1363)	1:A:56:GLU:H	1:A:56:GLU:HB2	4	0.33
(2,98)	1:A:30:LYS:HA	1:A:28:ARG:HB2	20	0.32
(1,997)	1:A:35:CYS:H	1:A:35:CYS:HB2	6	0.32
(1,865)	1:A:29:TRP:HA	2:B:6:ALA:HB3	14	0.32
(1,576)	1:A:29:TRP:HA	2:B:6:ALA:HB3	5	0.32
(1,412)	1:A:35:CYS:H	1:A:35:CYS:HB2	6	0.32
(1,281)	1:A:29:TRP:HA	2:B:6:ALA:HB3	19	0.32
(1,2709)	1:A:13:ILE:H	1:A:12:GLU:HB2	2	0.32
(1,2115)	1:A:11:ASP:H	1:A:28:ARG:HB2	3	0.32
(1,2050)	1:A:30:LYS:H	1:A:30:LYS:HB2	20	0.32
(1,2019)	1:A:10:VAL:HA	1:A:27:VAL:HB	20	0.32
(1,1731)	1:A:30:LYS:H	1:A:30:LYS:HB2	20	0.32
(1,158)	1:A:47:VAL:H	2:B:12:ALA:HB2	2	0.32
(1,1456)	1:A:30:LYS:H	1:A:30:LYS:HB2	20	0.32
(1,1438)	1:A:29:TRP:HA	2:B:6:ALA:HB3	14	0.32
(1,1169)	1:A:30:LYS:H	1:A:30:LYS:HB2	20	0.32
(1,1152)	1:A:29:TRP:HA	2:B:6:ALA:HB3	5	0.32
(1,997)	1:A:35:CYS:H	1:A:35:CYS:HB2	2	0.31
(1,412)	1:A:35:CYS:H	1:A:35:CYS:HB2	2	0.31
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG2	6	0.31
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG3	6	0.31
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG2	6	0.31
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG3	6	0.31
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG2	6	0.31
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG3	6	0.31
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG2	6	0.31
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG3	6	0.31
(1,2890)	1:A:13:ILE:HD11	1:A:27:VAL:HB	20	0.31
(1,2890)	1:A:13:ILE:HD12	1:A:27:VAL:HB	20	0.31
(1,2890)	1:A:13:ILE:HD13	1:A:27:VAL:HB	20	0.31
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD2	4	0.31
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD3	4	0.31
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD2	9	0.31
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD3	9	0.31
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD2	12	0.31
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD3	12	0.31
(1,2104)	1:A:24:GLU:H	1:A:24:GLU:HB2	11	0.31
(1,2996)	1:A:23:VAL:H	1:A:17:ARG:H	6	0.3

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,2889)	1:A:13:ILE:HA	1:A:27:VAL:HB	6	0.3
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD2	3	0.3
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD3	3	0.3
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD2	10	0.3
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD3	10	0.3
(1,2709)	1:A:13:ILE:H	1:A:12:GLU:HB2	3	0.3
(1,2709)	1:A:13:ILE:H	1:A:12:GLU:HB2	8	0.3
(1,2709)	1:A:13:ILE:H	1:A:12:GLU:HB2	20	0.3
(1,997)	1:A:35:CYS:H	1:A:35:CYS:HB2	11	0.29
(1,412)	1:A:35:CYS:H	1:A:35:CYS:HB2	11	0.29
(1,3410)	2:B:13:ASP:HB2	1:A:22:ASP:H	19	0.29
(1,3410)	2:B:13:ASP:HB3	1:A:22:ASP:H	19	0.29
(1,3137)	1:A:39:LYS:HA	1:A:25:TYR:H	18	0.29
(1,2889)	1:A:13:ILE:HA	1:A:27:VAL:HB	8	0.29
(1,2839)	1:A:10:VAL:HA	1:A:12:GLU:H	15	0.29
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG2	13	0.28
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG3	13	0.28
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG2	13	0.28
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG3	13	0.28
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG2	13	0.28
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG3	13	0.28
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG2	13	0.28
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG3	13	0.28
(1,2996)	1:A:23:VAL:H	1:A:17:ARG:H	9	0.28
(1,2889)	1:A:13:ILE:HA	1:A:27:VAL:HB	4	0.28
(1,2839)	1:A:10:VAL:HA	1:A:12:GLU:H	3	0.28
(1,2839)	1:A:10:VAL:HA	1:A:12:GLU:H	4	0.28
(1,2839)	1:A:10:VAL:HA	1:A:12:GLU:H	7	0.28
(1,2839)	1:A:10:VAL:HA	1:A:12:GLU:H	10	0.28
(1,2839)	1:A:10:VAL:HA	1:A:12:GLU:H	14	0.28
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD2	14	0.28
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD3	14	0.28
(1,2753)	1:A:51:TYR:HB2	1:A:50:ASP:HB2	19	0.28
(1,2104)	1:A:24:GLU:H	1:A:24:GLU:HB2	5	0.28
(1,2104)	1:A:24:GLU:H	1:A:24:GLU:HB2	12	0.28
(1,2037)	1:A:51:TYR:HB2	1:A:50:ASP:HB2	19	0.28
(1,1392)	1:A:52:GLU:HA	1:A:55:LEU:HB2	11	0.28
(2,98)	1:A:30:LYS:HA	1:A:28:ARG:HB2	12	0.27
(1,607)	1:A:52:GLU:H	1:A:52:GLU:HG2	19	0.27
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD11	8	0.27
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD12	8	0.27
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD13	8	0.27

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD21	8	0.27
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD22	8	0.27
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD23	8	0.27
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD11	9	0.27
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD12	9	0.27
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD13	9	0.27
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD21	9	0.27
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD22	9	0.27
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD23	9	0.27
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG2	2	0.27
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG3	2	0.27
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG2	2	0.27
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG3	2	0.27
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG2	2	0.27
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG3	2	0.27
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG2	2	0.27
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG3	2	0.27
(1,3137)	1:A:39:LYS:HA	1:A:25:TYR:H	14	0.27
(1,2996)	1:A:23:VAL:H	1:A:17:ARG:H	1	0.27
(1,2839)	1:A:10:VAL:HA	1:A:12:GLU:H	13	0.27
(1,2831)	1:A:9:GLU:HG2	1:A:26:LEU:HG	16	0.27
(1,2831)	1:A:9:GLU:HG3	1:A:26:LEU:HG	16	0.27
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB2	11	0.27
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB3	11	0.27
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD2	7	0.27
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD3	7	0.27
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD2	15	0.27
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD3	15	0.27
(1,2709)	1:A:13:ILE:H	1:A:12:GLU:HB2	12	0.27
(1,2400)	1:A:50:ASP:H	1:A:50:ASP:HB2	19	0.27
(1,24)	1:A:52:GLU:H	1:A:52:GLU:HG2	19	0.27
(1,2104)	1:A:24:GLU:H	1:A:24:GLU:HB2	18	0.27
(1,2050)	1:A:30:LYS:H	1:A:30:LYS:HB2	9	0.27
(1,1731)	1:A:30:LYS:H	1:A:30:LYS:HB2	9	0.27
(1,1456)	1:A:30:LYS:H	1:A:30:LYS:HB2	9	0.27
(1,1169)	1:A:30:LYS:H	1:A:30:LYS:HB2	9	0.27
(1,865)	1:A:29:TRP:HA	2:B:6:ALA:HB3	2	0.26
(1,446)	1:A:47:VAL:H	2:B:12:ALA:HB2	8	0.26
(1,38)	1:A:3:GLN:H	1:A:3:GLN:HB2	5	0.26
(1,3410)	2:B:13:ASP:HB2	1:A:22:ASP:H	5	0.26
(1,3410)	2:B:13:ASP:HB3	1:A:22:ASP:H	5	0.26
(1,3137)	1:A:39:LYS:HA	1:A:25:TYR:H	17	0.26

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,2996)	1:A:23:VAL:H	1:A:17:ARG:H	4	0.26
(1,2996)	1:A:23:VAL:H	1:A:17:ARG:H	12	0.26
(1,2901)	1:A:14:VAL:HB	1:A:26:LEU:HG	4	0.26
(1,2890)	1:A:13:ILE:HD11	1:A:27:VAL:HB	8	0.26
(1,2890)	1:A:13:ILE:HD12	1:A:27:VAL:HB	8	0.26
(1,2890)	1:A:13:ILE:HD13	1:A:27:VAL:HB	8	0.26
(1,2890)	1:A:13:ILE:HD11	1:A:27:VAL:HB	11	0.26
(1,2890)	1:A:13:ILE:HD12	1:A:27:VAL:HB	11	0.26
(1,2890)	1:A:13:ILE:HD13	1:A:27:VAL:HB	11	0.26
(1,2890)	1:A:13:ILE:HD11	1:A:27:VAL:HB	12	0.26
(1,2890)	1:A:13:ILE:HD12	1:A:27:VAL:HB	12	0.26
(1,2890)	1:A:13:ILE:HD13	1:A:27:VAL:HB	12	0.26
(1,2839)	1:A:10:VAL:HA	1:A:12:GLU:H	2	0.26
(1,2839)	1:A:10:VAL:HA	1:A:12:GLU:H	8	0.26
(1,2839)	1:A:10:VAL:HA	1:A:12:GLU:H	12	0.26
(1,2839)	1:A:10:VAL:HA	1:A:12:GLU:H	16	0.26
(1,2839)	1:A:10:VAL:HA	1:A:12:GLU:H	17	0.26
(1,2831)	1:A:9:GLU:HG2	1:A:26:LEU:HG	3	0.26
(1,2831)	1:A:9:GLU:HG3	1:A:26:LEU:HG	3	0.26
(1,2831)	1:A:9:GLU:HG2	1:A:26:LEU:HG	9	0.26
(1,2831)	1:A:9:GLU:HG3	1:A:26:LEU:HG	9	0.26
(1,2831)	1:A:9:GLU:HG2	1:A:26:LEU:HG	10	0.26
(1,2831)	1:A:9:GLU:HG3	1:A:26:LEU:HG	10	0.26
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB2	4	0.26
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB3	4	0.26
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD2	2	0.26
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD3	2	0.26
(1,2742)	1:A:29:TRP:HB2	1:A:28:ARG:HB2	10	0.26
(1,2400)	1:A:50:ASP:H	1:A:50:ASP:HB2	16	0.26
(1,2234)	1:A:43:VAL:HA	1:A:46:ASP:H	4	0.26
(1,1987)	1:A:9:GLU:H	1:A:12:GLU:H	9	0.26
(1,1438)	1:A:29:TRP:HA	2:B:6:ALA:HB3	2	0.26
(1,1031)	1:A:47:VAL:H	2:B:12:ALA:HB2	8	0.26
(2,95)	1:A:7:TYR:HA	1:A:9:GLU:HA	1	0.25
(1,3398)	2:B:5:THR:HG1	1:A:9:GLU:HA	7	0.25
(1,3398)	2:B:5:THR:HG21	1:A:9:GLU:HA	7	0.25
(1,3398)	2:B:5:THR:HG22	1:A:9:GLU:HA	7	0.25
(1,3398)	2:B:5:THR:HG23	1:A:9:GLU:HA	7	0.25
(1,3388)	2:B:8:ARG:H	1:A:6:GLU:H	5	0.25
(1,3137)	1:A:39:LYS:HA	1:A:25:TYR:H	7	0.25
(1,2996)	1:A:23:VAL:H	1:A:17:ARG:H	16	0.25
(1,2889)	1:A:13:ILE:HA	1:A:27:VAL:HB	11	0.25

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,2844)	1:A:10:VAL:HA	1:A:29:TRP:HA	2	0.25
(1,2839)	1:A:10:VAL:HA	1:A:12:GLU:H	1	0.25
(1,2839)	1:A:10:VAL:HA	1:A:12:GLU:H	5	0.25
(1,2839)	1:A:10:VAL:HA	1:A:12:GLU:H	11	0.25
(1,2839)	1:A:10:VAL:HA	1:A:12:GLU:H	19	0.25
(1,2831)	1:A:9:GLU:HG2	1:A:26:LEU:HG	6	0.25
(1,2831)	1:A:9:GLU:HG3	1:A:26:LEU:HG	6	0.25
(1,2831)	1:A:9:GLU:HG2	1:A:26:LEU:HG	11	0.25
(1,2831)	1:A:9:GLU:HG3	1:A:26:LEU:HG	11	0.25
(1,2831)	1:A:9:GLU:HG2	1:A:26:LEU:HG	12	0.25
(1,2831)	1:A:9:GLU:HG3	1:A:26:LEU:HG	12	0.25
(1,2831)	1:A:9:GLU:HG2	1:A:26:LEU:HG	20	0.25
(1,2831)	1:A:9:GLU:HG3	1:A:26:LEU:HG	20	0.25
(1,2789)	1:A:5:PHE:HE1	1:A:3:GLN:HB2	14	0.25
(1,2789)	1:A:5:PHE:HE1	1:A:3:GLN:HB3	14	0.25
(1,2789)	1:A:5:PHE:HE2	1:A:3:GLN:HB2	14	0.25
(1,2789)	1:A:5:PHE:HE2	1:A:3:GLN:HB3	14	0.25
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD2	1	0.25
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD3	1	0.25
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD2	17	0.25
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD3	17	0.25
(1,2742)	1:A:29:TRP:HB2	1:A:28:ARG:HB2	17	0.25
(1,1987)	1:A:9:GLU:H	1:A:12:GLU:H	13	0.25
(2,101)	1:A:26:LEU:H	1:A:27:VAL:HB	19	0.24
(1,867)	1:A:19:LYS:HA	1:A:22:ASP:HB2	15	0.24
(1,865)	1:A:29:TRP:HA	2:B:6:ALA:HB3	18	0.24
(1,578)	1:A:19:LYS:HA	1:A:22:ASP:HB2	15	0.24
(1,3410)	2:B:13:ASP:HB2	1:A:22:ASP:H	14	0.24
(1,3410)	2:B:13:ASP:HB3	1:A:22:ASP:H	14	0.24
(1,3410)	2:B:13:ASP:HB2	1:A:22:ASP:H	18	0.24
(1,3410)	2:B:13:ASP:HB3	1:A:22:ASP:H	18	0.24
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD11	6	0.24
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD12	6	0.24
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD13	6	0.24
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD21	6	0.24
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD22	6	0.24
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD23	6	0.24
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD11	12	0.24
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD12	12	0.24
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD13	12	0.24
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD21	12	0.24
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD22	12	0.24

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD23	12	0.24
(1,3388)	2:B:8:ARG:H	1:A:6:GLU:H	11	0.24
(1,3137)	1:A:39:LYS:HA	1:A:25:TYR:H	3	0.24
(1,2996)	1:A:23:VAL:H	1:A:17:ARG:H	8	0.24
(1,2996)	1:A:23:VAL:H	1:A:17:ARG:H	11	0.24
(1,2996)	1:A:23:VAL:H	1:A:17:ARG:H	13	0.24
(1,2996)	1:A:23:VAL:H	1:A:17:ARG:H	14	0.24
(1,2996)	1:A:23:VAL:H	1:A:17:ARG:H	20	0.24
(1,2890)	1:A:13:ILE:HD11	1:A:27:VAL:HB	9	0.24
(1,2890)	1:A:13:ILE:HD12	1:A:27:VAL:HB	9	0.24
(1,2890)	1:A:13:ILE:HD13	1:A:27:VAL:HB	9	0.24
(1,2844)	1:A:10:VAL:HA	1:A:29:TRP:HA	1	0.24
(1,2844)	1:A:10:VAL:HA	1:A:29:TRP:HA	3	0.24
(1,2844)	1:A:10:VAL:HA	1:A:29:TRP:HA	14	0.24
(1,2839)	1:A:10:VAL:HA	1:A:12:GLU:H	6	0.24
(1,2839)	1:A:10:VAL:HA	1:A:12:GLU:H	9	0.24
(1,2839)	1:A:10:VAL:HA	1:A:12:GLU:H	18	0.24
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD2	11	0.24
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD3	11	0.24
(1,2709)	1:A:13:ILE:H	1:A:12:GLU:HB2	9	0.24
(1,2696)	1:A:30:LYS:HA	1:A:11:ASP:HB2	8	0.24
(1,2490)	1:A:23:VAL:H	1:A:22:ASP:HA	8	0.24
(1,2490)	1:A:23:VAL:H	1:A:22:ASP:HA	19	0.24
(1,2400)	1:A:50:ASP:H	1:A:50:ASP:HB2	9	0.24
(1,2234)	1:A:43:VAL:HA	1:A:46:ASP:H	9	0.24
(1,2234)	1:A:43:VAL:HA	1:A:46:ASP:H	10	0.24
(1,1987)	1:A:9:GLU:H	1:A:12:GLU:H	11	0.24
(1,1987)	1:A:9:GLU:H	1:A:12:GLU:H	12	0.24
(1,1987)	1:A:9:GLU:H	1:A:12:GLU:H	17	0.24
(1,1438)	1:A:29:TRP:HA	2:B:6:ALA:HB3	18	0.24
(1,1316)	1:A:47:VAL:H	2:B:12:ALA:HB2	3	0.24
(2,95)	1:A:7:TYR:HA	1:A:9:GLU:HA	5	0.23
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD11	11	0.23
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD12	11	0.23
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD13	11	0.23
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD21	11	0.23
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD22	11	0.23
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD23	11	0.23
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD11	20	0.23
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD12	20	0.23
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD13	20	0.23
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD21	20	0.23

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD22	20	0.23
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD23	20	0.23
(1,3137)	1:A:39:LYS:HA	1:A:25:TYR:H	2	0.23
(1,2996)	1:A:23:VAL:H	1:A:17:ARG:H	5	0.23
(1,2996)	1:A:23:VAL:H	1:A:17:ARG:H	7	0.23
(1,2996)	1:A:23:VAL:H	1:A:17:ARG:H	18	0.23
(1,2996)	1:A:23:VAL:H	1:A:17:ARG:H	19	0.23
(1,2890)	1:A:13:ILE:HD11	1:A:27:VAL:HB	4	0.23
(1,2890)	1:A:13:ILE:HD12	1:A:27:VAL:HB	4	0.23
(1,2890)	1:A:13:ILE:HD13	1:A:27:VAL:HB	4	0.23
(1,2889)	1:A:13:ILE:HA	1:A:27:VAL:HB	5	0.23
(1,2831)	1:A:9:GLU:HG2	1:A:26:LEU:HG	15	0.23
(1,2831)	1:A:9:GLU:HG3	1:A:26:LEU:HG	15	0.23
(1,2742)	1:A:29:TRP:HB2	1:A:28:ARG:HB2	19	0.23
(1,2696)	1:A:30:LYS:HA	1:A:11:ASP:HB2	6	0.23
(1,2490)	1:A:23:VAL:H	1:A:22:ASP:HA	1	0.23
(1,2490)	1:A:23:VAL:H	1:A:22:ASP:HA	11	0.23
(1,2490)	1:A:23:VAL:H	1:A:22:ASP:HA	12	0.23
(1,2490)	1:A:23:VAL:H	1:A:22:ASP:HA	14	0.23
(1,2490)	1:A:23:VAL:H	1:A:22:ASP:HA	17	0.23
(1,2490)	1:A:23:VAL:H	1:A:22:ASP:HA	18	0.23
(1,2448)	1:A:52:GLU:HA	1:A:55:LEU:HB2	19	0.23
(1,2400)	1:A:50:ASP:H	1:A:50:ASP:HB2	2	0.23
(1,2400)	1:A:50:ASP:H	1:A:50:ASP:HB2	13	0.23
(1,2400)	1:A:50:ASP:H	1:A:50:ASP:HB2	15	0.23
(1,233)	1:A:52:GLU:HA	1:A:55:LEU:HB2	19	0.23
(1,2234)	1:A:43:VAL:HA	1:A:46:ASP:H	2	0.23
(1,2234)	1:A:43:VAL:HA	1:A:46:ASP:H	11	0.23
(1,2234)	1:A:43:VAL:HA	1:A:46:ASP:H	12	0.23
(1,2234)	1:A:43:VAL:HA	1:A:46:ASP:H	13	0.23
(1,2234)	1:A:43:VAL:HA	1:A:46:ASP:H	14	0.23
(1,2234)	1:A:43:VAL:HA	1:A:46:ASP:H	16	0.23
(1,2234)	1:A:43:VAL:HA	1:A:46:ASP:H	18	0.23
(1,2234)	1:A:43:VAL:HA	1:A:46:ASP:H	19	0.23
(1,2031)	1:A:13:ILE:HB	1:A:25:TYR:H	5	0.23
(1,2024)	1:A:7:TYR:HB2	1:A:7:TYR:H	17	0.23
(1,1987)	1:A:9:GLU:H	1:A:12:GLU:H	7	0.23
(1,1987)	1:A:9:GLU:H	1:A:12:GLU:H	18	0.23
(2,101)	1:A:26:LEU:H	1:A:27:VAL:HB	9	0.22
(1,3137)	1:A:39:LYS:HA	1:A:25:TYR:H	11	0.22
(1,3055)	1:A:28:ARG:HA	1:A:30:LYS:H	5	0.22
(1,3036)	1:A:26:LEU:HG	1:A:15:GLU:H	4	0.22

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,2996)	1:A:23:VAL:H	1:A:17:ARG:H	2	0.22
(1,2996)	1:A:23:VAL:H	1:A:17:ARG:H	10	0.22
(1,2996)	1:A:23:VAL:H	1:A:17:ARG:H	15	0.22
(1,2946)	1:A:19:LYS:HA	1:A:21:LYS:H	20	0.22
(1,2890)	1:A:13:ILE:HD11	1:A:27:VAL:HB	6	0.22
(1,2890)	1:A:13:ILE:HD12	1:A:27:VAL:HB	6	0.22
(1,2890)	1:A:13:ILE:HD13	1:A:27:VAL:HB	6	0.22
(1,2846)	1:A:10:VAL:HA	1:A:29:TRP:HD1	8	0.22
(1,2844)	1:A:10:VAL:HA	1:A:29:TRP:HA	7	0.22
(1,2844)	1:A:10:VAL:HA	1:A:29:TRP:HA	10	0.22
(1,2844)	1:A:10:VAL:HA	1:A:29:TRP:HA	13	0.22
(1,2844)	1:A:10:VAL:HA	1:A:29:TRP:HA	17	0.22
(1,2831)	1:A:9:GLU:HG2	1:A:26:LEU:HG	4	0.22
(1,2831)	1:A:9:GLU:HG3	1:A:26:LEU:HG	4	0.22
(1,2831)	1:A:9:GLU:HG2	1:A:26:LEU:HG	8	0.22
(1,2831)	1:A:9:GLU:HG3	1:A:26:LEU:HG	8	0.22
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB2	8	0.22
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB3	8	0.22
(1,2490)	1:A:23:VAL:H	1:A:22:ASP:HA	2	0.22
(1,2490)	1:A:23:VAL:H	1:A:22:ASP:HA	7	0.22
(1,2490)	1:A:23:VAL:H	1:A:22:ASP:HA	16	0.22
(1,2234)	1:A:43:VAL:HA	1:A:46:ASP:H	3	0.22
(1,2031)	1:A:13:ILE:HB	1:A:25:TYR:H	4	0.22
(1,2031)	1:A:13:ILE:HB	1:A:25:TYR:H	8	0.22
(1,2024)	1:A:7:TYR:HB2	1:A:7:TYR:H	4	0.22
(1,2024)	1:A:7:TYR:HB2	1:A:7:TYR:H	9	0.22
(1,2024)	1:A:7:TYR:HB2	1:A:7:TYR:H	13	0.22
(1,2024)	1:A:7:TYR:HB2	1:A:7:TYR:H	20	0.22
(1,1987)	1:A:9:GLU:H	1:A:12:GLU:H	4	0.22
(1,1987)	1:A:9:GLU:H	1:A:12:GLU:H	8	0.22
(2,101)	1:A:26:LEU:H	1:A:27:VAL:HB	18	0.21
(1,825)	2:B:12:ALA:H	2:B:12:ALA:HB3	15	0.21
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG2	18	0.21
(1,3399)	2:B:5:THR:HG1	1:A:9:GLU:HG3	18	0.21
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG2	18	0.21
(1,3399)	2:B:5:THR:HG21	1:A:9:GLU:HG3	18	0.21
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG2	18	0.21
(1,3399)	2:B:5:THR:HG22	1:A:9:GLU:HG3	18	0.21
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG2	18	0.21
(1,3399)	2:B:5:THR:HG23	1:A:9:GLU:HG3	18	0.21
(1,3388)	2:B:8:ARG:H	1:A:6:GLU:H	19	0.21
(1,3137)	1:A:39:LYS:HA	1:A:25:TYR:H	1	0.21

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,3137)	1:A:39:LYS:HA	1:A:25:TYR:H	16	0.21
(1,3055)	1:A:28:ARG:HA	1:A:30:LYS:H	10	0.21
(1,2996)	1:A:23:VAL:H	1:A:17:ARG:H	17	0.21
(1,2946)	1:A:19:LYS:HA	1:A:21:LYS:H	16	0.21
(1,2946)	1:A:19:LYS:HA	1:A:21:LYS:H	19	0.21
(1,2889)	1:A:13:ILE:HA	1:A:27:VAL:HB	1	0.21
(1,2844)	1:A:10:VAL:HA	1:A:29:TRP:HA	18	0.21
(1,2844)	1:A:10:VAL:HA	1:A:29:TRP:HA	19	0.21
(1,2709)	1:A:13:ILE:H	1:A:12:GLU:HB2	1	0.21
(1,2709)	1:A:13:ILE:H	1:A:12:GLU:HB2	15	0.21
(1,270)	1:A:5:PHE:HB2	1:A:18:GLY:HA2	19	0.21
(1,2696)	1:A:30:LYS:HA	1:A:11:ASP:HB2	12	0.21
(1,2490)	1:A:23:VAL:H	1:A:22:ASP:HA	3	0.21
(1,2490)	1:A:23:VAL:H	1:A:22:ASP:HA	5	0.21
(1,2490)	1:A:23:VAL:H	1:A:22:ASP:HA	9	0.21
(1,2490)	1:A:23:VAL:H	1:A:22:ASP:HA	10	0.21
(1,2234)	1:A:43:VAL:HA	1:A:46:ASP:H	5	0.21
(1,2234)	1:A:43:VAL:HA	1:A:46:ASP:H	17	0.21
(1,2031)	1:A:13:ILE:HB	1:A:25:TYR:H	1	0.21
(1,2031)	1:A:13:ILE:HB	1:A:25:TYR:H	11	0.21
(1,2024)	1:A:7:TYR:HB2	1:A:7:TYR:H	6	0.21
(1,2024)	1:A:7:TYR:HB2	1:A:7:TYR:H	7	0.21
(1,2024)	1:A:7:TYR:HB2	1:A:7:TYR:H	10	0.21
(1,2024)	1:A:7:TYR:HB2	1:A:7:TYR:H	11	0.21
(1,2024)	1:A:7:TYR:HB2	1:A:7:TYR:H	12	0.21
(1,2024)	1:A:7:TYR:HB2	1:A:7:TYR:H	15	0.21
(1,2024)	1:A:7:TYR:HB2	1:A:7:TYR:H	16	0.21
(2,95)	1:A:7:TYR:HA	1:A:9:GLU:HA	10	0.2
(2,101)	1:A:26:LEU:H	1:A:27:VAL:HB	12	0.2
(2,101)	1:A:26:LEU:H	1:A:27:VAL:HB	16	0.2
(1,997)	1:A:35:CYS:H	1:A:35:CYS:HB2	19	0.2
(1,449)	1:A:48:ALA:H	1:A:51:TYR:HA	3	0.2
(1,449)	1:A:48:ALA:H	1:A:51:TYR:HA	7	0.2
(1,412)	1:A:35:CYS:H	1:A:35:CYS:HB2	19	0.2
(1,3350)	2:B:9:LYS:HA	2:B:10:ARG:H	20	0.2
(1,3241)	1:A:50:ASP:HB2	1:A:52:GLU:H	2	0.2
(1,3241)	1:A:50:ASP:HB3	1:A:52:GLU:H	2	0.2
(1,3241)	1:A:50:ASP:HB2	1:A:52:GLU:H	13	0.2
(1,3241)	1:A:50:ASP:HB3	1:A:52:GLU:H	13	0.2
(1,3241)	1:A:50:ASP:HB2	1:A:52:GLU:H	15	0.2
(1,3241)	1:A:50:ASP:HB3	1:A:52:GLU:H	15	0.2
(1,3137)	1:A:39:LYS:HA	1:A:25:TYR:H	8	0.2

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,3055)	1:A:28:ARG:HA	1:A:30:LYS:H	14	0.2
(1,3055)	1:A:28:ARG:HA	1:A:30:LYS:H	18	0.2
(1,2831)	1:A:9:GLU:HG2	1:A:26:LEU:HG	2	0.2
(1,2831)	1:A:9:GLU:HG3	1:A:26:LEU:HG	2	0.2
(1,2742)	1:A:29:TRP:HB2	1:A:28:ARG:HB2	1	0.2
(1,2742)	1:A:29:TRP:HB2	1:A:28:ARG:HB2	2	0.2
(1,2490)	1:A:23:VAL:H	1:A:22:ASP:HA	4	0.2
(1,2490)	1:A:23:VAL:H	1:A:22:ASP:HA	13	0.2
(1,2490)	1:A:23:VAL:H	1:A:22:ASP:HA	20	0.2
(1,2234)	1:A:43:VAL:HA	1:A:46:ASP:H	7	0.2
(1,2234)	1:A:43:VAL:HA	1:A:46:ASP:H	8	0.2
(1,2031)	1:A:13:ILE:HB	1:A:25:TYR:H	15	0.2
(1,2031)	1:A:13:ILE:HB	1:A:25:TYR:H	16	0.2
(1,2024)	1:A:7:TYR:HB2	1:A:7:TYR:H	2	0.2
(1,2024)	1:A:7:TYR:HB2	1:A:7:TYR:H	3	0.2
(1,2024)	1:A:7:TYR:HB2	1:A:7:TYR:H	14	0.2
(1,2024)	1:A:7:TYR:HB2	1:A:7:TYR:H	18	0.2
(1,1998)	1:A:3:GLN:HA	1:A:3:GLN:HB2	2	0.2
(1,1998)	1:A:3:GLN:HA	1:A:3:GLN:HB2	3	0.2
(1,1998)	1:A:3:GLN:HA	1:A:3:GLN:HB2	4	0.2
(1,1998)	1:A:3:GLN:HA	1:A:3:GLN:HB2	7	0.2
(1,1998)	1:A:3:GLN:HA	1:A:3:GLN:HB2	9	0.2
(1,1998)	1:A:3:GLN:HA	1:A:3:GLN:HB2	10	0.2
(1,1998)	1:A:3:GLN:HA	1:A:3:GLN:HB2	11	0.2
(1,1998)	1:A:3:GLN:HA	1:A:3:GLN:HB2	14	0.2
(1,1998)	1:A:3:GLN:HA	1:A:3:GLN:HB2	15	0.2
(1,1998)	1:A:3:GLN:HA	1:A:3:GLN:HB2	17	0.2
(1,1998)	1:A:3:GLN:HA	1:A:3:GLN:HB2	19	0.2
(1,1987)	1:A:9:GLU:H	1:A:12:GLU:H	6	0.2
(1,1987)	1:A:9:GLU:H	1:A:12:GLU:H	15	0.2
(1,161)	1:A:48:ALA:H	1:A:51:TYR:HA	3	0.2
(1,161)	1:A:48:ALA:H	1:A:51:TYR:HA	7	0.2
(1,1512)	1:A:19:LYS:H	1:A:19:LYS:HB2	17	0.2
(1,1319)	1:A:48:ALA:H	1:A:51:TYR:HA	3	0.2
(1,1319)	1:A:48:ALA:H	1:A:51:TYR:HA	7	0.2
(1,1118)	1:A:19:LYS:HA	1:A:19:LYS:HB2	1	0.2
(1,1118)	1:A:19:LYS:HA	1:A:19:LYS:HB2	2	0.2
(1,1118)	1:A:19:LYS:HA	1:A:19:LYS:HB2	3	0.2
(1,1118)	1:A:19:LYS:HA	1:A:19:LYS:HB2	4	0.2
(1,1118)	1:A:19:LYS:HA	1:A:19:LYS:HB2	7	0.2
(1,1118)	1:A:19:LYS:HA	1:A:19:LYS:HB2	9	0.2
(1,1118)	1:A:19:LYS:HA	1:A:19:LYS:HB2	10	0.2

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1118)	1:A:19:LYS:HA	1:A:19:LYS:HB2	11	0.2
(1,1118)	1:A:19:LYS:HA	1:A:19:LYS:HB2	12	0.2
(1,1118)	1:A:19:LYS:HA	1:A:19:LYS:HB2	13	0.2
(1,1118)	1:A:19:LYS:HA	1:A:19:LYS:HB2	14	0.2
(1,1118)	1:A:19:LYS:HA	1:A:19:LYS:HB2	17	0.2
(1,1034)	1:A:48:ALA:H	1:A:51:TYR:HA	3	0.2
(1,1034)	1:A:48:ALA:H	1:A:51:TYR:HA	7	0.2
(2,95)	1:A:7:TYR:HA	1:A:9:GLU:HA	14	0.19
(2,101)	1:A:26:LEU:H	1:A:27:VAL:HB	15	0.19
(2,101)	1:A:26:LEU:H	1:A:27:VAL:HB	17	0.19
(1,997)	1:A:35:CYS:H	1:A:35:CYS:HB2	20	0.19
(1,449)	1:A:48:ALA:H	1:A:51:TYR:HA	1	0.19
(1,449)	1:A:48:ALA:H	1:A:51:TYR:HA	4	0.19
(1,449)	1:A:48:ALA:H	1:A:51:TYR:HA	10	0.19
(1,449)	1:A:48:ALA:H	1:A:51:TYR:HA	11	0.19
(1,449)	1:A:48:ALA:H	1:A:51:TYR:HA	14	0.19
(1,449)	1:A:48:ALA:H	1:A:51:TYR:HA	15	0.19
(1,412)	1:A:35:CYS:H	1:A:35:CYS:HB2	20	0.19
(1,3410)	2:B:13:ASP:HB2	1:A:22:ASP:H	12	0.19
(1,3410)	2:B:13:ASP:HB3	1:A:22:ASP:H	12	0.19
(1,3347)	2:B:9:LYS:HB2	2:B:9:LYS:H	5	0.19
(1,3347)	2:B:9:LYS:HB3	2:B:9:LYS:H	5	0.19
(1,3241)	1:A:50:ASP:HB2	1:A:52:GLU:H	9	0.19
(1,3241)	1:A:50:ASP:HB3	1:A:52:GLU:H	9	0.19
(1,3241)	1:A:50:ASP:HB2	1:A:52:GLU:H	19	0.19
(1,3241)	1:A:50:ASP:HB3	1:A:52:GLU:H	19	0.19
(1,3137)	1:A:39:LYS:HA	1:A:25:TYR:H	6	0.19
(1,3137)	1:A:39:LYS:HA	1:A:25:TYR:H	10	0.19
(1,3137)	1:A:39:LYS:HA	1:A:25:TYR:H	13	0.19
(1,3055)	1:A:28:ARG:HA	1:A:30:LYS:H	2	0.19
(1,3055)	1:A:28:ARG:HA	1:A:30:LYS:H	16	0.19
(1,2996)	1:A:23:VAL:H	1:A:17:ARG:H	3	0.19
(1,2946)	1:A:19:LYS:HA	1:A:21:LYS:H	18	0.19
(1,2889)	1:A:13:ILE:HA	1:A:27:VAL:HB	19	0.19
(1,2844)	1:A:10:VAL:HA	1:A:29:TRP:HA	6	0.19
(1,2839)	1:A:10:VAL:HA	1:A:12:GLU:H	20	0.19
(1,2831)	1:A:9:GLU:HG2	1:A:26:LEU:HG	7	0.19
(1,2831)	1:A:9:GLU:HG3	1:A:26:LEU:HG	7	0.19
(1,2831)	1:A:9:GLU:HG2	1:A:26:LEU:HG	17	0.19
(1,2831)	1:A:9:GLU:HG3	1:A:26:LEU:HG	17	0.19
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD2	19	0.19
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD3	19	0.19

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,2699)	1:A:48:ALA:HA	1:A:51:TYR:HB2	17	0.19
(1,2490)	1:A:23:VAL:H	1:A:22:ASP:HA	6	0.19
(1,2490)	1:A:23:VAL:H	1:A:22:ASP:HA	15	0.19
(1,2234)	1:A:43:VAL:HA	1:A:46:ASP:H	1	0.19
(1,2234)	1:A:43:VAL:HA	1:A:46:ASP:H	15	0.19
(1,2234)	1:A:43:VAL:HA	1:A:46:ASP:H	20	0.19
(1,2215)	1:A:48:ALA:HA	1:A:51:TYR:HB2	17	0.19
(1,2031)	1:A:13:ILE:HB	1:A:25:TYR:H	13	0.19
(1,2031)	1:A:13:ILE:HB	1:A:25:TYR:H	14	0.19
(1,2031)	1:A:13:ILE:HB	1:A:25:TYR:H	17	0.19
(1,2031)	1:A:13:ILE:HB	1:A:25:TYR:H	19	0.19
(1,2024)	1:A:7:TYR:HB2	1:A:7:TYR:H	8	0.19
(1,1998)	1:A:3:GLN:HA	1:A:3:GLN:HB2	6	0.19
(1,1987)	1:A:9:GLU:H	1:A:12:GLU:H	2	0.19
(1,1935)	1:A:43:VAL:HA	1:A:42:HIS:HA	6	0.19
(1,1815)	1:A:11:ASP:H	1:A:28:ARG:HB2	4	0.19
(1,1676)	1:A:48:ALA:HA	1:A:51:TYR:HB2	17	0.19
(1,161)	1:A:48:ALA:H	1:A:51:TYR:HA	1	0.19
(1,161)	1:A:48:ALA:H	1:A:51:TYR:HA	4	0.19
(1,161)	1:A:48:ALA:H	1:A:51:TYR:HA	10	0.19
(1,161)	1:A:48:ALA:H	1:A:51:TYR:HA	11	0.19
(1,161)	1:A:48:ALA:H	1:A:51:TYR:HA	14	0.19
(1,161)	1:A:48:ALA:H	1:A:51:TYR:HA	15	0.19
(1,1538)	1:A:37:TRP:H	1:A:26:LEU:HG	5	0.19
(1,1512)	1:A:19:LYS:H	1:A:19:LYS:HB2	3	0.19
(1,1392)	1:A:52:GLU:HA	1:A:55:LEU:HB2	3	0.19
(1,1391)	1:A:48:ALA:HA	1:A:51:TYR:HB2	17	0.19
(1,1319)	1:A:48:ALA:H	1:A:51:TYR:HA	1	0.19
(1,1319)	1:A:48:ALA:H	1:A:51:TYR:HA	4	0.19
(1,1319)	1:A:48:ALA:H	1:A:51:TYR:HA	10	0.19
(1,1319)	1:A:48:ALA:H	1:A:51:TYR:HA	11	0.19
(1,1319)	1:A:48:ALA:H	1:A:51:TYR:HA	14	0.19
(1,1319)	1:A:48:ALA:H	1:A:51:TYR:HA	15	0.19
(1,1118)	1:A:19:LYS:HA	1:A:19:LYS:HB2	6	0.19
(1,1118)	1:A:19:LYS:HA	1:A:19:LYS:HB2	15	0.19
(1,1034)	1:A:48:ALA:H	1:A:51:TYR:HA	1	0.19
(1,1034)	1:A:48:ALA:H	1:A:51:TYR:HA	4	0.19
(1,1034)	1:A:48:ALA:H	1:A:51:TYR:HA	10	0.19
(1,1034)	1:A:48:ALA:H	1:A:51:TYR:HA	11	0.19
(1,1034)	1:A:48:ALA:H	1:A:51:TYR:HA	14	0.19
(1,1034)	1:A:48:ALA:H	1:A:51:TYR:HA	15	0.19
(1,997)	1:A:35:CYS:H	1:A:35:CYS:HB2	15	0.18

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,882)	1:A:22:ASP:H	1:A:22:ASP:HB2	20	0.18
(1,780)	1:A:53:ASP:H	1:A:53:ASP:HB2	16	0.18
(1,449)	1:A:48:ALA:H	1:A:51:TYR:HA	2	0.18
(1,449)	1:A:48:ALA:H	1:A:51:TYR:HA	8	0.18
(1,449)	1:A:48:ALA:H	1:A:51:TYR:HA	9	0.18
(1,449)	1:A:48:ALA:H	1:A:51:TYR:HA	13	0.18
(1,412)	1:A:35:CYS:H	1:A:35:CYS:HB2	15	0.18
(1,3241)	1:A:50:ASP:HB2	1:A:52:GLU:H	16	0.18
(1,3241)	1:A:50:ASP:HB3	1:A:52:GLU:H	16	0.18
(1,3154)	1:A:41:VAL:HB	1:A:43:VAL:H	11	0.18
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB2	19	0.18
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB3	19	0.18
(1,3137)	1:A:39:LYS:HA	1:A:25:TYR:H	5	0.18
(1,3137)	1:A:39:LYS:HA	1:A:25:TYR:H	19	0.18
(1,3115)	1:A:37:TRP:HD1	1:A:36:GLU:HB2	5	0.18
(1,3055)	1:A:28:ARG:HA	1:A:30:LYS:H	1	0.18
(1,3055)	1:A:28:ARG:HA	1:A:30:LYS:H	3	0.18
(1,3055)	1:A:28:ARG:HA	1:A:30:LYS:H	4	0.18
(1,3055)	1:A:28:ARG:HA	1:A:30:LYS:H	13	0.18
(1,3055)	1:A:28:ARG:HA	1:A:30:LYS:H	15	0.18
(1,3055)	1:A:28:ARG:HA	1:A:30:LYS:H	19	0.18
(1,296)	1:A:22:ASP:H	1:A:22:ASP:HB2	20	0.18
(1,2946)	1:A:19:LYS:HA	1:A:21:LYS:H	5	0.18
(1,2920)	1:A:16:LYS:H	1:A:26:LEU:HB2	4	0.18
(1,2920)	1:A:16:LYS:H	1:A:26:LEU:HB3	4	0.18
(1,2889)	1:A:13:ILE:HA	1:A:27:VAL:HB	9	0.18
(1,2844)	1:A:10:VAL:HA	1:A:29:TRP:HA	12	0.18
(1,2831)	1:A:9:GLU:HG2	1:A:26:LEU:HG	1	0.18
(1,2831)	1:A:9:GLU:HG3	1:A:26:LEU:HG	1	0.18
(1,2831)	1:A:9:GLU:HG2	1:A:26:LEU:HG	13	0.18
(1,2831)	1:A:9:GLU:HG3	1:A:26:LEU:HG	13	0.18
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB2	9	0.18
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB3	9	0.18
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD2	8	0.18
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD3	8	0.18
(1,2749)	1:A:19:LYS:HB2	1:A:23:VAL:H	20	0.18
(1,2709)	1:A:13:ILE:H	1:A:12:GLU:HB2	14	0.18
(1,2234)	1:A:43:VAL:HA	1:A:46:ASP:H	6	0.18
(1,2031)	1:A:13:ILE:HB	1:A:25:TYR:H	18	0.18
(1,1998)	1:A:3:GLN:HA	1:A:3:GLN:HB2	12	0.18
(1,1998)	1:A:3:GLN:HA	1:A:3:GLN:HB2	20	0.18
(1,1987)	1:A:9:GLU:H	1:A:12:GLU:H	20	0.18

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,195)	1:A:53:ASP:H	1:A:53:ASP:HB2	16	0.18
(1,1935)	1:A:43:VAL:HA	1:A:42:HIS:HA	20	0.18
(1,161)	1:A:48:ALA:H	1:A:51:TYR:HA	2	0.18
(1,161)	1:A:48:ALA:H	1:A:51:TYR:HA	8	0.18
(1,161)	1:A:48:ALA:H	1:A:51:TYR:HA	9	0.18
(1,161)	1:A:48:ALA:H	1:A:51:TYR:HA	13	0.18
(1,1538)	1:A:37:TRP:H	1:A:26:LEU:HG	1	0.18
(1,1512)	1:A:19:LYS:H	1:A:19:LYS:HB2	2	0.18
(1,1512)	1:A:19:LYS:H	1:A:19:LYS:HB2	14	0.18
(1,1319)	1:A:48:ALA:H	1:A:51:TYR:HA	2	0.18
(1,1319)	1:A:48:ALA:H	1:A:51:TYR:HA	8	0.18
(1,1319)	1:A:48:ALA:H	1:A:51:TYR:HA	9	0.18
(1,1319)	1:A:48:ALA:H	1:A:51:TYR:HA	13	0.18
(1,1316)	1:A:47:VAL:H	2:B:12:ALA:HB2	11	0.18
(1,1118)	1:A:19:LYS:HA	1:A:19:LYS:HB2	5	0.18
(1,1118)	1:A:19:LYS:HA	1:A:19:LYS:HB2	8	0.18
(1,1118)	1:A:19:LYS:HA	1:A:19:LYS:HB2	16	0.18
(1,1118)	1:A:19:LYS:HA	1:A:19:LYS:HB2	18	0.18
(1,1118)	1:A:19:LYS:HA	1:A:19:LYS:HB2	20	0.18
(1,1034)	1:A:48:ALA:H	1:A:51:TYR:HA	2	0.18
(1,1034)	1:A:48:ALA:H	1:A:51:TYR:HA	8	0.18
(1,1034)	1:A:48:ALA:H	1:A:51:TYR:HA	9	0.18
(1,1034)	1:A:48:ALA:H	1:A:51:TYR:HA	13	0.18
(1,10)	1:A:22:ASP:H	1:A:22:ASP:HB2	20	0.18
(2,95)	1:A:7:TYR:HA	1:A:9:GLU:HA	16	0.17
(2,101)	1:A:26:LEU:H	1:A:27:VAL:HB	7	0.17
(1,881)	1:A:21:LYS:H	1:A:20:GLY:HA3	3	0.17
(1,825)	2:B:12:ALA:H	2:B:12:ALA:HB3	19	0.17
(1,780)	1:A:53:ASP:H	1:A:53:ASP:HB2	4	0.17
(1,533)	2:B:12:ALA:H	2:B:12:ALA:HB3	8	0.17
(1,3388)	2:B:8:ARG:H	1:A:6:GLU:H	13	0.17
(1,3350)	2:B:9:LYS:HA	2:B:10:ARG:H	7	0.17
(1,3154)	1:A:41:VAL:HB	1:A:43:VAL:H	4	0.17
(1,3154)	1:A:41:VAL:HB	1:A:43:VAL:H	9	0.17
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB2	3	0.17
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB3	3	0.17
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB2	10	0.17
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB3	10	0.17
(1,3055)	1:A:28:ARG:HA	1:A:30:LYS:H	6	0.17
(1,3055)	1:A:28:ARG:HA	1:A:30:LYS:H	7	0.17
(1,3055)	1:A:28:ARG:HA	1:A:30:LYS:H	8	0.17
(1,3055)	1:A:28:ARG:HA	1:A:30:LYS:H	17	0.17

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,3055)	1:A:28:ARG:HA	1:A:30:LYS:H	20	0.17
(1,3036)	1:A:26:LEU:HG	1:A:15:GLU:H	9	0.17
(1,2844)	1:A:10:VAL:HA	1:A:29:TRP:HA	8	0.17
(1,2811)	1:A:8:ALA:HB1	1:A:40:GLY:H	19	0.17
(1,2811)	1:A:8:ALA:HB2	1:A:40:GLY:H	19	0.17
(1,2811)	1:A:8:ALA:HB3	1:A:40:GLY:H	19	0.17
(1,2811)	1:A:8:ALA:HB1	1:A:40:GLY:H	20	0.17
(1,2811)	1:A:8:ALA:HB2	1:A:40:GLY:H	20	0.17
(1,2811)	1:A:8:ALA:HB3	1:A:40:GLY:H	20	0.17
(1,2761)	1:A:2:SER:HB2	1:A:51:TYR:H	17	0.17
(1,2761)	1:A:2:SER:HB3	1:A:51:TYR:H	17	0.17
(1,2753)	1:A:51:TYR:HB2	1:A:50:ASP:HB2	16	0.17
(1,2749)	1:A:19:LYS:HB2	1:A:23:VAL:H	8	0.17
(1,2742)	1:A:29:TRP:HB2	1:A:28:ARG:HB2	14	0.17
(1,2736)	1:A:2:SER:HA	1:A:4:VAL:H	9	0.17
(1,2037)	1:A:51:TYR:HB2	1:A:50:ASP:HB2	16	0.17
(1,2031)	1:A:13:ILE:HB	1:A:25:TYR:H	2	0.17
(1,2031)	1:A:13:ILE:HB	1:A:25:TYR:H	3	0.17
(1,2031)	1:A:13:ILE:HB	1:A:25:TYR:H	7	0.17
(1,2031)	1:A:13:ILE:HB	1:A:25:TYR:H	10	0.17
(1,2031)	1:A:13:ILE:HB	1:A:25:TYR:H	20	0.17
(1,2024)	1:A:7:TYR:HB2	1:A:7:TYR:H	1	0.17
(1,1987)	1:A:9:GLU:H	1:A:12:GLU:H	16	0.17
(1,195)	1:A:53:ASP:H	1:A:53:ASP:HB2	4	0.17
(1,1935)	1:A:43:VAL:HA	1:A:42:HIS:HA	3	0.17
(1,1935)	1:A:43:VAL:HA	1:A:42:HIS:HA	15	0.17
(1,1935)	1:A:43:VAL:HA	1:A:42:HIS:HA	16	0.17
(1,1935)	1:A:43:VAL:HA	1:A:42:HIS:HA	19	0.17
(1,1633)	1:A:52:GLU:H	1:A:52:GLU:HB2	9	0.17
(1,1633)	1:A:52:GLU:H	1:A:52:GLU:HB2	13	0.17
(1,1633)	1:A:52:GLU:H	1:A:52:GLU:HB2	15	0.17
(1,1512)	1:A:19:LYS:H	1:A:19:LYS:HB2	1	0.17
(1,1512)	1:A:19:LYS:H	1:A:19:LYS:HB2	7	0.17
(1,1512)	1:A:19:LYS:H	1:A:19:LYS:HB2	8	0.17
(1,1512)	1:A:19:LYS:H	1:A:19:LYS:HB2	10	0.17
(1,1441)	1:A:46:ASP:HA	1:A:50:ASP:HB2	10	0.17
(1,1349)	1:A:52:GLU:H	1:A:52:GLU:HB2	9	0.17
(1,1349)	1:A:52:GLU:H	1:A:52:GLU:HB2	13	0.17
(1,1349)	1:A:52:GLU:H	1:A:52:GLU:HB2	15	0.17
(2,101)	1:A:26:LEU:H	1:A:27:VAL:HB	2	0.16
(2,101)	1:A:26:LEU:H	1:A:27:VAL:HB	3	0.16
(1,997)	1:A:35:CYS:H	1:A:35:CYS:HB2	7	0.16

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,997)	1:A:35:CYS:H	1:A:35:CYS:HB2	10	0.16
(1,881)	1:A:21:LYS:H	1:A:20:GLY:HA3	14	0.16
(1,622)	1:A:3:GLN:H	1:A:3:GLN:HB2	5	0.16
(1,449)	1:A:48:ALA:H	1:A:51:TYR:HA	6	0.16
(1,449)	1:A:48:ALA:H	1:A:51:TYR:HA	16	0.16
(1,449)	1:A:48:ALA:H	1:A:51:TYR:HA	20	0.16
(1,412)	1:A:35:CYS:H	1:A:35:CYS:HB2	7	0.16
(1,412)	1:A:35:CYS:H	1:A:35:CYS:HB2	10	0.16
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD11	18	0.16
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD12	18	0.16
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD13	18	0.16
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD21	18	0.16
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD22	18	0.16
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD23	18	0.16
(1,3400)	2:B:5:THR:HA	1:A:9:GLU:HA	20	0.16
(1,3388)	2:B:8:ARG:H	1:A:6:GLU:H	6	0.16
(1,3388)	2:B:8:ARG:H	1:A:6:GLU:H	7	0.16
(1,3388)	2:B:8:ARG:H	1:A:6:GLU:H	10	0.16
(1,3348)	2:B:9:LYS:HG2	2:B:9:LYS:H	19	0.16
(1,3348)	2:B:9:LYS:HG3	2:B:9:LYS:H	19	0.16
(1,326)	1:A:3:GLN:H	1:A:3:GLN:HB2	5	0.16
(1,3255)	1:A:51:TYR:HD1	1:A:21:LYS:HB2	10	0.16
(1,3255)	1:A:51:TYR:HD1	1:A:21:LYS:HB3	10	0.16
(1,3255)	1:A:51:TYR:HD2	1:A:21:LYS:HB2	10	0.16
(1,3255)	1:A:51:TYR:HD2	1:A:21:LYS:HB3	10	0.16
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB2	7	0.16
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB3	7	0.16
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB2	12	0.16
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB3	12	0.16
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB2	17	0.16
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB3	17	0.16
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB2	20	0.16
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB3	20	0.16
(1,3055)	1:A:28:ARG:HA	1:A:30:LYS:H	9	0.16
(1,3055)	1:A:28:ARG:HA	1:A:30:LYS:H	12	0.16
(1,2920)	1:A:16:LYS:H	1:A:26:LEU:HB2	11	0.16
(1,2920)	1:A:16:LYS:H	1:A:26:LEU:HB3	11	0.16
(1,2890)	1:A:13:ILE:HD11	1:A:27:VAL:HB	7	0.16
(1,2890)	1:A:13:ILE:HD12	1:A:27:VAL:HB	7	0.16
(1,2890)	1:A:13:ILE:HD13	1:A:27:VAL:HB	7	0.16
(1,2889)	1:A:13:ILE:HA	1:A:27:VAL:HB	14	0.16
(1,2889)	1:A:13:ILE:HA	1:A:27:VAL:HB	15	0.16

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,2847)	1:A:10:VAL:HG11	1:A:26:LEU:HA	1	0.16
(1,2847)	1:A:10:VAL:HG12	1:A:26:LEU:HA	1	0.16
(1,2847)	1:A:10:VAL:HG13	1:A:26:LEU:HA	1	0.16
(1,2847)	1:A:10:VAL:HG21	1:A:26:LEU:HA	1	0.16
(1,2847)	1:A:10:VAL:HG22	1:A:26:LEU:HA	1	0.16
(1,2847)	1:A:10:VAL:HG23	1:A:26:LEU:HA	1	0.16
(1,2847)	1:A:10:VAL:HG11	1:A:26:LEU:HA	19	0.16
(1,2847)	1:A:10:VAL:HG12	1:A:26:LEU:HA	19	0.16
(1,2847)	1:A:10:VAL:HG13	1:A:26:LEU:HA	19	0.16
(1,2847)	1:A:10:VAL:HG21	1:A:26:LEU:HA	19	0.16
(1,2847)	1:A:10:VAL:HG22	1:A:26:LEU:HA	19	0.16
(1,2847)	1:A:10:VAL:HG23	1:A:26:LEU:HA	19	0.16
(1,2844)	1:A:10:VAL:HA	1:A:29:TRP:HA	9	0.16
(1,2844)	1:A:10:VAL:HA	1:A:29:TRP:HA	11	0.16
(1,2844)	1:A:10:VAL:HA	1:A:29:TRP:HA	20	0.16
(1,2811)	1:A:8:ALA:HB1	1:A:40:GLY:H	6	0.16
(1,2811)	1:A:8:ALA:HB2	1:A:40:GLY:H	6	0.16
(1,2811)	1:A:8:ALA:HB3	1:A:40:GLY:H	6	0.16
(1,2799)	1:A:6:GLU:HG2	1:A:7:TYR:HA	3	0.16
(1,2799)	1:A:6:GLU:HG3	1:A:7:TYR:HA	3	0.16
(1,2761)	1:A:2:SER:HB2	1:A:51:TYR:H	19	0.16
(1,2761)	1:A:2:SER:HB3	1:A:51:TYR:H	19	0.16
(1,2709)	1:A:13:ILE:H	1:A:12:GLU:HB2	10	0.16
(1,270)	1:A:5:PHE:HB2	1:A:18:GLY:HA2	4	0.16
(1,270)	1:A:5:PHE:HB2	1:A:18:GLY:HA2	12	0.16
(1,2672)	1:A:16:LYS:HA	1:A:25:TYR:HA	8	0.16
(1,2672)	1:A:16:LYS:HA	1:A:25:TYR:HA	11	0.16
(1,2672)	1:A:16:LYS:HA	1:A:25:TYR:HA	17	0.16
(1,2672)	1:A:16:LYS:HA	1:A:25:TYR:HA	18	0.16
(1,2485)	1:A:3:GLN:H	1:A:3:GLN:HB2	16	0.16
(1,2448)	1:A:52:GLU:HA	1:A:55:LEU:HB2	10	0.16
(1,233)	1:A:52:GLU:HA	1:A:55:LEU:HB2	10	0.16
(1,2273)	1:A:3:GLN:H	1:A:3:GLN:HB2	16	0.16
(1,2031)	1:A:13:ILE:HB	1:A:25:TYR:H	12	0.16
(1,2024)	1:A:7:TYR:HB2	1:A:7:TYR:H	5	0.16
(1,1987)	1:A:9:GLU:H	1:A:12:GLU:H	10	0.16
(1,1935)	1:A:43:VAL:HA	1:A:42:HIS:HA	2	0.16
(1,1935)	1:A:43:VAL:HA	1:A:42:HIS:HA	5	0.16
(1,1935)	1:A:43:VAL:HA	1:A:42:HIS:HA	7	0.16
(1,1935)	1:A:43:VAL:HA	1:A:42:HIS:HA	8	0.16
(1,1935)	1:A:43:VAL:HA	1:A:42:HIS:HA	17	0.16
(1,1935)	1:A:43:VAL:HA	1:A:42:HIS:HA	18	0.16

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1755)	1:A:3:GLN:H	1:A:3:GLN:HB2	16	0.16
(1,1633)	1:A:52:GLU:H	1:A:52:GLU:HB2	2	0.16
(1,161)	1:A:48:ALA:H	1:A:51:TYR:HA	6	0.16
(1,161)	1:A:48:ALA:H	1:A:51:TYR:HA	16	0.16
(1,161)	1:A:48:ALA:H	1:A:51:TYR:HA	20	0.16
(1,1512)	1:A:19:LYS:H	1:A:19:LYS:HB2	9	0.16
(1,1512)	1:A:19:LYS:H	1:A:19:LYS:HB2	11	0.16
(1,1512)	1:A:19:LYS:H	1:A:19:LYS:HB2	12	0.16
(1,1512)	1:A:19:LYS:H	1:A:19:LYS:HB2	15	0.16
(1,1395)	1:A:20:GLY:H	1:A:23:VAL:HB	17	0.16
(1,1349)	1:A:52:GLU:H	1:A:52:GLU:HB2	2	0.16
(1,1319)	1:A:48:ALA:H	1:A:51:TYR:HA	6	0.16
(1,1319)	1:A:48:ALA:H	1:A:51:TYR:HA	16	0.16
(1,1319)	1:A:48:ALA:H	1:A:51:TYR:HA	20	0.16
(1,1196)	1:A:3:GLN:H	1:A:3:GLN:HB2	5	0.16
(1,1118)	1:A:19:LYS:HA	1:A:19:LYS:HB2	19	0.16
(1,1034)	1:A:48:ALA:H	1:A:51:TYR:HA	6	0.16
(1,1034)	1:A:48:ALA:H	1:A:51:TYR:HA	16	0.16
(1,1034)	1:A:48:ALA:H	1:A:51:TYR:HA	20	0.16
(2,95)	1:A:7:TYR:HA	1:A:9:GLU:HA	3	0.15
(2,95)	1:A:7:TYR:HA	1:A:9:GLU:HA	15	0.15
(2,84)	1:A:38:VAL:HA	1:A:36:GLU:HB2	10	0.15
(2,46)	1:A:38:VAL:HA	1:A:36:GLU:HB2	10	0.15
(2,15)	1:A:38:VAL:HA	1:A:36:GLU:HB2	10	0.15
(2,123)	1:A:38:VAL:HA	1:A:36:GLU:HB2	10	0.15
(1,881)	1:A:21:LYS:H	1:A:20:GLY:HA3	2	0.15
(1,881)	1:A:21:LYS:H	1:A:20:GLY:HA3	8	0.15
(1,881)	1:A:21:LYS:H	1:A:20:GLY:HA3	9	0.15
(1,881)	1:A:21:LYS:H	1:A:20:GLY:HA3	11	0.15
(1,881)	1:A:21:LYS:H	1:A:20:GLY:HA3	15	0.15
(1,881)	1:A:21:LYS:H	1:A:20:GLY:HA3	17	0.15
(1,825)	2:B:12:ALA:H	2:B:12:ALA:HB3	7	0.15
(1,825)	2:B:12:ALA:H	2:B:12:ALA:HB3	16	0.15
(1,449)	1:A:48:ALA:H	1:A:51:TYR:HA	5	0.15
(1,449)	1:A:48:ALA:H	1:A:51:TYR:HA	12	0.15
(1,449)	1:A:48:ALA:H	1:A:51:TYR:HA	18	0.15
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD11	9	0.15
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD12	9	0.15
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD13	9	0.15
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD21	9	0.15
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD22	9	0.15
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD23	9	0.15

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD11	2	0.15
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD12	2	0.15
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD13	2	0.15
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD21	2	0.15
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD22	2	0.15
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD23	2	0.15
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD11	16	0.15
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD12	16	0.15
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD13	16	0.15
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD21	16	0.15
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD22	16	0.15
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD23	16	0.15
(1,3398)	2:B:5:THR:HG1	1:A:9:GLU:HA	3	0.15
(1,3398)	2:B:5:THR:HG21	1:A:9:GLU:HA	3	0.15
(1,3398)	2:B:5:THR:HG22	1:A:9:GLU:HA	3	0.15
(1,3398)	2:B:5:THR:HG23	1:A:9:GLU:HA	3	0.15
(1,3388)	2:B:8:ARG:H	1:A:6:GLU:H	3	0.15
(1,3388)	2:B:8:ARG:H	1:A:6:GLU:H	14	0.15
(1,3255)	1:A:51:TYR:HD1	1:A:21:LYS:HB2	9	0.15
(1,3255)	1:A:51:TYR:HD1	1:A:21:LYS:HB3	9	0.15
(1,3255)	1:A:51:TYR:HD2	1:A:21:LYS:HB2	9	0.15
(1,3255)	1:A:51:TYR:HD2	1:A:21:LYS:HB3	9	0.15
(1,3154)	1:A:41:VAL:HB	1:A:43:VAL:H	1	0.15
(1,3154)	1:A:41:VAL:HB	1:A:43:VAL:H	10	0.15
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB2	14	0.15
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB3	14	0.15
(1,3137)	1:A:39:LYS:HA	1:A:25:TYR:H	4	0.15
(1,3137)	1:A:39:LYS:HA	1:A:25:TYR:H	20	0.15
(1,3055)	1:A:28:ARG:HA	1:A:30:LYS:H	11	0.15
(1,2890)	1:A:13:ILE:HD11	1:A:27:VAL:HB	1	0.15
(1,2890)	1:A:13:ILE:HD12	1:A:27:VAL:HB	1	0.15
(1,2890)	1:A:13:ILE:HD13	1:A:27:VAL:HB	1	0.15
(1,2890)	1:A:13:ILE:HD11	1:A:27:VAL:HB	14	0.15
(1,2890)	1:A:13:ILE:HD12	1:A:27:VAL:HB	14	0.15
(1,2890)	1:A:13:ILE:HD13	1:A:27:VAL:HB	14	0.15
(1,2890)	1:A:13:ILE:HD11	1:A:27:VAL:HB	17	0.15
(1,2890)	1:A:13:ILE:HD12	1:A:27:VAL:HB	17	0.15
(1,2890)	1:A:13:ILE:HD13	1:A:27:VAL:HB	17	0.15
(1,2890)	1:A:13:ILE:HD11	1:A:27:VAL:HB	19	0.15
(1,2890)	1:A:13:ILE:HD12	1:A:27:VAL:HB	19	0.15
(1,2890)	1:A:13:ILE:HD13	1:A:27:VAL:HB	19	0.15
(1,2889)	1:A:13:ILE:HA	1:A:27:VAL:HB	2	0.15

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,2889)	1:A:13:ILE:HA	1:A:27:VAL:HB	7	0.15
(1,2889)	1:A:13:ILE:HA	1:A:27:VAL:HB	12	0.15
(1,2889)	1:A:13:ILE:HA	1:A:27:VAL:HB	16	0.15
(1,2847)	1:A:10:VAL:HG11	1:A:26:LEU:HA	8	0.15
(1,2847)	1:A:10:VAL:HG12	1:A:26:LEU:HA	8	0.15
(1,2847)	1:A:10:VAL:HG13	1:A:26:LEU:HA	8	0.15
(1,2847)	1:A:10:VAL:HG21	1:A:26:LEU:HA	8	0.15
(1,2847)	1:A:10:VAL:HG22	1:A:26:LEU:HA	8	0.15
(1,2847)	1:A:10:VAL:HG23	1:A:26:LEU:HA	8	0.15
(1,2847)	1:A:10:VAL:HG11	1:A:26:LEU:HA	15	0.15
(1,2847)	1:A:10:VAL:HG12	1:A:26:LEU:HA	15	0.15
(1,2847)	1:A:10:VAL:HG13	1:A:26:LEU:HA	15	0.15
(1,2847)	1:A:10:VAL:HG21	1:A:26:LEU:HA	15	0.15
(1,2847)	1:A:10:VAL:HG22	1:A:26:LEU:HA	15	0.15
(1,2847)	1:A:10:VAL:HG23	1:A:26:LEU:HA	15	0.15
(1,2846)	1:A:10:VAL:HA	1:A:29:TRP:HD1	15	0.15
(1,2831)	1:A:9:GLU:HG2	1:A:26:LEU:HG	5	0.15
(1,2831)	1:A:9:GLU:HG3	1:A:26:LEU:HG	5	0.15
(1,2831)	1:A:9:GLU:HG2	1:A:26:LEU:HG	18	0.15
(1,2831)	1:A:9:GLU:HG3	1:A:26:LEU:HG	18	0.15
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB2	12	0.15
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB3	12	0.15
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB2	17	0.15
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB3	17	0.15
(1,2811)	1:A:8:ALA:HB1	1:A:40:GLY:H	7	0.15
(1,2811)	1:A:8:ALA:HB2	1:A:40:GLY:H	7	0.15
(1,2811)	1:A:8:ALA:HB3	1:A:40:GLY:H	7	0.15
(1,2799)	1:A:6:GLU:HG2	1:A:7:TYR:HA	13	0.15
(1,2799)	1:A:6:GLU:HG3	1:A:7:TYR:HA	13	0.15
(1,2799)	1:A:6:GLU:HG2	1:A:7:TYR:HA	14	0.15
(1,2799)	1:A:6:GLU:HG3	1:A:7:TYR:HA	14	0.15
(1,2754)	1:A:1:GLY:HA2	1:A:2:SER:H	17	0.15
(1,2754)	1:A:1:GLY:HA3	1:A:2:SER:H	17	0.15
(1,2749)	1:A:19:LYS:HB2	1:A:23:VAL:H	6	0.15
(1,2749)	1:A:19:LYS:HB2	1:A:23:VAL:H	16	0.15
(1,2742)	1:A:29:TRP:HB2	1:A:28:ARG:HB2	6	0.15
(1,270)	1:A:5:PHE:HB2	1:A:18:GLY:HA2	6	0.15
(1,270)	1:A:5:PHE:HB2	1:A:18:GLY:HA2	16	0.15
(1,270)	1:A:5:PHE:HB2	1:A:18:GLY:HA2	20	0.15
(1,2672)	1:A:16:LYS:HA	1:A:25:TYR:HA	1	0.15
(1,2672)	1:A:16:LYS:HA	1:A:25:TYR:HA	2	0.15
(1,2672)	1:A:16:LYS:HA	1:A:25:TYR:HA	3	0.15

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,2672)	1:A:16:LYS:HA	1:A:25:TYR:HA	7	0.15
(1,2672)	1:A:16:LYS:HA	1:A:25:TYR:HA	9	0.15
(1,2672)	1:A:16:LYS:HA	1:A:25:TYR:HA	14	0.15
(1,2031)	1:A:13:ILE:HB	1:A:25:TYR:H	9	0.15
(1,1935)	1:A:43:VAL:HA	1:A:42:HIS:HA	10	0.15
(1,1935)	1:A:43:VAL:HA	1:A:42:HIS:HA	13	0.15
(1,1935)	1:A:43:VAL:HA	1:A:42:HIS:HA	14	0.15
(1,1633)	1:A:52:GLU:H	1:A:52:GLU:HB2	1	0.15
(1,1633)	1:A:52:GLU:H	1:A:52:GLU:HB2	4	0.15
(1,1633)	1:A:52:GLU:H	1:A:52:GLU:HB2	7	0.15
(1,1633)	1:A:52:GLU:H	1:A:52:GLU:HB2	16	0.15
(1,161)	1:A:48:ALA:H	1:A:51:TYR:HA	5	0.15
(1,161)	1:A:48:ALA:H	1:A:51:TYR:HA	12	0.15
(1,161)	1:A:48:ALA:H	1:A:51:TYR:HA	18	0.15
(1,1512)	1:A:19:LYS:H	1:A:19:LYS:HB2	13	0.15
(1,1441)	1:A:46:ASP:HA	1:A:50:ASP:HB2	5	0.15
(1,1441)	1:A:46:ASP:HA	1:A:50:ASP:HB2	18	0.15
(1,1349)	1:A:52:GLU:H	1:A:52:GLU:HB2	1	0.15
(1,1349)	1:A:52:GLU:H	1:A:52:GLU:HB2	4	0.15
(1,1349)	1:A:52:GLU:H	1:A:52:GLU:HB2	7	0.15
(1,1349)	1:A:52:GLU:H	1:A:52:GLU:HB2	16	0.15
(1,1319)	1:A:48:ALA:H	1:A:51:TYR:HA	5	0.15
(1,1319)	1:A:48:ALA:H	1:A:51:TYR:HA	12	0.15
(1,1319)	1:A:48:ALA:H	1:A:51:TYR:HA	18	0.15
(1,1316)	1:A:47:VAL:H	2:B:12:ALA:HB2	5	0.15
(1,1121)	1:A:38:VAL:HA	1:A:36:GLU:HB2	10	0.15
(1,1034)	1:A:48:ALA:H	1:A:51:TYR:HA	5	0.15
(1,1034)	1:A:48:ALA:H	1:A:51:TYR:HA	12	0.15
(1,1034)	1:A:48:ALA:H	1:A:51:TYR:HA	18	0.15
(2,84)	1:A:38:VAL:HA	1:A:36:GLU:HB2	1	0.14
(2,78)	1:A:51:TYR:HB2	1:A:53:ASP:HB2	19	0.14
(2,46)	1:A:38:VAL:HA	1:A:36:GLU:HB2	1	0.14
(2,15)	1:A:38:VAL:HA	1:A:36:GLU:HB2	1	0.14
(2,123)	1:A:38:VAL:HA	1:A:36:GLU:HB2	1	0.14
(1,881)	1:A:21:LYS:H	1:A:20:GLY:HA3	4	0.14
(1,881)	1:A:21:LYS:H	1:A:20:GLY:HA3	10	0.14
(1,881)	1:A:21:LYS:H	1:A:20:GLY:HA3	12	0.14
(1,881)	1:A:21:LYS:H	1:A:20:GLY:HA3	13	0.14
(1,780)	1:A:53:ASP:H	1:A:53:ASP:HB2	10	0.14
(1,449)	1:A:48:ALA:H	1:A:51:TYR:HA	19	0.14
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD11	8	0.14
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD12	8	0.14

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD13	8	0.14
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD21	8	0.14
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD22	8	0.14
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD23	8	0.14
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD11	11	0.14
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD12	11	0.14
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD13	11	0.14
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD21	11	0.14
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD22	11	0.14
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD23	11	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD11	3	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD12	3	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD13	3	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD21	3	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD22	3	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD23	3	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD11	4	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD12	4	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD13	4	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD21	4	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD22	4	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD23	4	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD11	14	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD12	14	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD13	14	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD21	14	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD22	14	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD23	14	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD11	15	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD12	15	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD13	15	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD21	15	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD22	15	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD23	15	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD11	17	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD12	17	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD13	17	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD21	17	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD22	17	0.14
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD23	17	0.14
(1,3388)	2:B:8:ARG:H	1:A:6:GLU:H	20	0.14
(1,3348)	2:B:9:LYS:HG2	2:B:9:LYS:H	18	0.14

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,3348)	2:B:9:LYS:HG3	2:B:9:LYS:H	18	0.14
(1,3343)	2:B:8:ARG:H	2:B:9:LYS:H	19	0.14
(1,3199)	1:A:46:ASP:HB2	1:A:49:LYS:H	17	0.14
(1,3199)	1:A:46:ASP:HB3	1:A:49:LYS:H	17	0.14
(1,3154)	1:A:41:VAL:HB	1:A:43:VAL:H	8	0.14
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB2	9	0.14
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB3	9	0.14
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB2	15	0.14
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB3	15	0.14
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB2	18	0.14
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB3	18	0.14
(1,3137)	1:A:39:LYS:HA	1:A:25:TYR:H	12	0.14
(1,3036)	1:A:26:LEU:HG	1:A:15:GLU:H	6	0.14
(1,3036)	1:A:26:LEU:HG	1:A:15:GLU:H	12	0.14
(1,2920)	1:A:16:LYS:H	1:A:26:LEU:HB2	9	0.14
(1,2920)	1:A:16:LYS:H	1:A:26:LEU:HB3	9	0.14
(1,2920)	1:A:16:LYS:H	1:A:26:LEU:HB2	20	0.14
(1,2920)	1:A:16:LYS:H	1:A:26:LEU:HB3	20	0.14
(1,2890)	1:A:13:ILE:HD11	1:A:27:VAL:HB	10	0.14
(1,2890)	1:A:13:ILE:HD12	1:A:27:VAL:HB	10	0.14
(1,2890)	1:A:13:ILE:HD13	1:A:27:VAL:HB	10	0.14
(1,2890)	1:A:13:ILE:HD11	1:A:27:VAL:HB	15	0.14
(1,2890)	1:A:13:ILE:HD12	1:A:27:VAL:HB	15	0.14
(1,2890)	1:A:13:ILE:HD13	1:A:27:VAL:HB	15	0.14
(1,2889)	1:A:13:ILE:HA	1:A:27:VAL:HB	3	0.14
(1,2889)	1:A:13:ILE:HA	1:A:27:VAL:HB	10	0.14
(1,2889)	1:A:13:ILE:HA	1:A:27:VAL:HB	17	0.14
(1,2847)	1:A:10:VAL:HG11	1:A:26:LEU:HA	3	0.14
(1,2847)	1:A:10:VAL:HG12	1:A:26:LEU:HA	3	0.14
(1,2847)	1:A:10:VAL:HG13	1:A:26:LEU:HA	3	0.14
(1,2847)	1:A:10:VAL:HG21	1:A:26:LEU:HA	3	0.14
(1,2847)	1:A:10:VAL:HG22	1:A:26:LEU:HA	3	0.14
(1,2847)	1:A:10:VAL:HG23	1:A:26:LEU:HA	3	0.14
(1,2847)	1:A:10:VAL:HG11	1:A:26:LEU:HA	16	0.14
(1,2847)	1:A:10:VAL:HG12	1:A:26:LEU:HA	16	0.14
(1,2847)	1:A:10:VAL:HG13	1:A:26:LEU:HA	16	0.14
(1,2847)	1:A:10:VAL:HG21	1:A:26:LEU:HA	16	0.14
(1,2847)	1:A:10:VAL:HG22	1:A:26:LEU:HA	16	0.14
(1,2847)	1:A:10:VAL:HG23	1:A:26:LEU:HA	16	0.14
(1,2831)	1:A:9:GLU:HG2	1:A:26:LEU:HG	14	0.14
(1,2831)	1:A:9:GLU:HG3	1:A:26:LEU:HG	14	0.14
(1,2831)	1:A:9:GLU:HG2	1:A:26:LEU:HG	19	0.14

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,2831)	1:A:9:GLU:HG3	1:A:26:LEU:HG	19	0.14
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB2	1	0.14
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB3	1	0.14
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB2	19	0.14
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB3	19	0.14
(1,2811)	1:A:8:ALA:HB1	1:A:40:GLY:H	16	0.14
(1,2811)	1:A:8:ALA:HB2	1:A:40:GLY:H	16	0.14
(1,2811)	1:A:8:ALA:HB3	1:A:40:GLY:H	16	0.14
(1,2799)	1:A:6:GLU:HG2	1:A:7:TYR:HA	16	0.14
(1,2799)	1:A:6:GLU:HG3	1:A:7:TYR:HA	16	0.14
(1,2752)	1:A:10:VAL:HA	1:A:27:VAL:HA	19	0.14
(1,2749)	1:A:19:LYS:HB2	1:A:23:VAL:H	17	0.14
(1,2742)	1:A:29:TRP:HB2	1:A:28:ARG:HB2	9	0.14
(1,2709)	1:A:13:ILE:H	1:A:12:GLU:HB2	16	0.14
(1,2709)	1:A:13:ILE:H	1:A:12:GLU:HB2	19	0.14
(1,2672)	1:A:16:LYS:HA	1:A:25:TYR:HA	5	0.14
(1,2672)	1:A:16:LYS:HA	1:A:25:TYR:HA	19	0.14
(1,2523)	1:A:19:LYS:H	1:A:23:VAL:HB	6	0.14
(1,2444)	1:A:30:LYS:HA	1:A:11:ASP:HB2	8	0.14
(1,2036)	1:A:10:VAL:HA	1:A:27:VAL:HA	19	0.14
(1,1987)	1:A:9:GLU:H	1:A:12:GLU:H	3	0.14
(1,1965)	1:A:30:LYS:HA	1:A:11:ASP:HB2	8	0.14
(1,195)	1:A:53:ASP:H	1:A:53:ASP:HB2	10	0.14
(1,1935)	1:A:43:VAL:HA	1:A:42:HIS:HA	1	0.14
(1,1935)	1:A:43:VAL:HA	1:A:42:HIS:HA	4	0.14
(1,1935)	1:A:43:VAL:HA	1:A:42:HIS:HA	9	0.14
(1,1935)	1:A:43:VAL:HA	1:A:42:HIS:HA	12	0.14
(1,1815)	1:A:11:ASP:H	1:A:28:ARG:HB2	13	0.14
(1,1633)	1:A:52:GLU:H	1:A:52:GLU:HB2	3	0.14
(1,1633)	1:A:52:GLU:H	1:A:52:GLU:HB2	11	0.14
(1,1633)	1:A:52:GLU:H	1:A:52:GLU:HB2	14	0.14
(1,1633)	1:A:52:GLU:H	1:A:52:GLU:HB2	17	0.14
(1,161)	1:A:48:ALA:H	1:A:51:TYR:HA	19	0.14
(1,1441)	1:A:46:ASP:HA	1:A:50:ASP:HB2	4	0.14
(1,1441)	1:A:46:ASP:HA	1:A:50:ASP:HB2	14	0.14
(1,1349)	1:A:52:GLU:H	1:A:52:GLU:HB2	3	0.14
(1,1349)	1:A:52:GLU:H	1:A:52:GLU:HB2	11	0.14
(1,1349)	1:A:52:GLU:H	1:A:52:GLU:HB2	14	0.14
(1,1349)	1:A:52:GLU:H	1:A:52:GLU:HB2	17	0.14
(1,1319)	1:A:48:ALA:H	1:A:51:TYR:HA	19	0.14
(1,1316)	1:A:47:VAL:H	2:B:12:ALA:HB2	10	0.14
(1,1121)	1:A:38:VAL:HA	1:A:36:GLU:HB2	1	0.14

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1034)	1:A:48:ALA:H	1:A:51:TYR:HA	19	0.14
(2,78)	1:A:51:TYR:HB2	1:A:53:ASP:HB2	2	0.13
(2,128)	1:A:6:GLU:H	1:A:17:ARG:H	6	0.13
(2,128)	1:A:6:GLU:H	1:A:17:ARG:H	10	0.13
(2,101)	1:A:26:LEU:H	1:A:27:VAL:HB	14	0.13
(1,881)	1:A:21:LYS:H	1:A:20:GLY:HA3	1	0.13
(1,881)	1:A:21:LYS:H	1:A:20:GLY:HA3	6	0.13
(1,881)	1:A:21:LYS:H	1:A:20:GLY:HA3	7	0.13
(1,825)	2:B:12:ALA:H	2:B:12:ALA:HB3	6	0.13
(1,3410)	2:B:13:ASP:HB2	1:A:22:ASP:H	11	0.13
(1,3410)	2:B:13:ASP:HB3	1:A:22:ASP:H	11	0.13
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD11	6	0.13
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD12	6	0.13
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD13	6	0.13
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD21	6	0.13
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD22	6	0.13
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD23	6	0.13
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD11	1	0.13
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD12	1	0.13
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD13	1	0.13
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD21	1	0.13
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD22	1	0.13
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD23	1	0.13
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD11	7	0.13
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD12	7	0.13
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD13	7	0.13
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD21	7	0.13
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD22	7	0.13
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD23	7	0.13
(1,3388)	2:B:8:ARG:H	1:A:6:GLU:H	1	0.13
(1,3388)	2:B:8:ARG:H	1:A:6:GLU:H	18	0.13
(1,3255)	1:A:51:TYR:HD1	1:A:21:LYS:HB2	4	0.13
(1,3255)	1:A:51:TYR:HD1	1:A:21:LYS:HB3	4	0.13
(1,3255)	1:A:51:TYR:HD2	1:A:21:LYS:HB2	4	0.13
(1,3255)	1:A:51:TYR:HD2	1:A:21:LYS:HB3	4	0.13
(1,3199)	1:A:46:ASP:HB2	1:A:49:LYS:H	7	0.13
(1,3199)	1:A:46:ASP:HB3	1:A:49:LYS:H	7	0.13
(1,3154)	1:A:41:VAL:HB	1:A:43:VAL:H	2	0.13
(1,3154)	1:A:41:VAL:HB	1:A:43:VAL:H	12	0.13
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB2	2	0.13
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB3	2	0.13
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB2	13	0.13

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB3	13	0.13
(1,3137)	1:A:39:LYS:HA	1:A:25:TYR:H	9	0.13
(1,3036)	1:A:26:LEU:HG	1:A:15:GLU:H	10	0.13
(1,2924)	1:A:17:ARG:HD2	1:A:17:ARG:H	18	0.13
(1,2924)	1:A:17:ARG:HD3	1:A:17:ARG:H	18	0.13
(1,2890)	1:A:13:ILE:HD11	1:A:27:VAL:HB	2	0.13
(1,2890)	1:A:13:ILE:HD12	1:A:27:VAL:HB	2	0.13
(1,2890)	1:A:13:ILE:HD13	1:A:27:VAL:HB	2	0.13
(1,2890)	1:A:13:ILE:HD11	1:A:27:VAL:HB	3	0.13
(1,2890)	1:A:13:ILE:HD12	1:A:27:VAL:HB	3	0.13
(1,2890)	1:A:13:ILE:HD13	1:A:27:VAL:HB	3	0.13
(1,2890)	1:A:13:ILE:HD11	1:A:27:VAL:HB	13	0.13
(1,2890)	1:A:13:ILE:HD12	1:A:27:VAL:HB	13	0.13
(1,2890)	1:A:13:ILE:HD13	1:A:27:VAL:HB	13	0.13
(1,2887)	1:A:13:ILE:HB	1:A:25:TYR:H	5	0.13
(1,2847)	1:A:10:VAL:HG11	1:A:26:LEU:HA	5	0.13
(1,2847)	1:A:10:VAL:HG12	1:A:26:LEU:HA	5	0.13
(1,2847)	1:A:10:VAL:HG13	1:A:26:LEU:HA	5	0.13
(1,2847)	1:A:10:VAL:HG21	1:A:26:LEU:HA	5	0.13
(1,2847)	1:A:10:VAL:HG22	1:A:26:LEU:HA	5	0.13
(1,2847)	1:A:10:VAL:HG23	1:A:26:LEU:HA	5	0.13
(1,2846)	1:A:10:VAL:HA	1:A:29:TRP:HD1	4	0.13
(1,2846)	1:A:10:VAL:HA	1:A:29:TRP:HD1	5	0.13
(1,2846)	1:A:10:VAL:HA	1:A:29:TRP:HD1	16	0.13
(1,2844)	1:A:10:VAL:HA	1:A:29:TRP:HA	4	0.13
(1,2844)	1:A:10:VAL:HA	1:A:29:TRP:HA	5	0.13
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB2	5	0.13
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB3	5	0.13
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB2	18	0.13
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB3	18	0.13
(1,2811)	1:A:8:ALA:HB1	1:A:40:GLY:H	2	0.13
(1,2811)	1:A:8:ALA:HB2	1:A:40:GLY:H	2	0.13
(1,2811)	1:A:8:ALA:HB3	1:A:40:GLY:H	2	0.13
(1,2811)	1:A:8:ALA:HB1	1:A:40:GLY:H	11	0.13
(1,2811)	1:A:8:ALA:HB2	1:A:40:GLY:H	11	0.13
(1,2811)	1:A:8:ALA:HB3	1:A:40:GLY:H	11	0.13
(1,2811)	1:A:8:ALA:HB1	1:A:40:GLY:H	18	0.13
(1,2811)	1:A:8:ALA:HB2	1:A:40:GLY:H	18	0.13
(1,2811)	1:A:8:ALA:HB3	1:A:40:GLY:H	18	0.13
(1,2807)	1:A:8:ALA:HB1	1:A:8:ALA:H	17	0.13
(1,2807)	1:A:8:ALA:HB2	1:A:8:ALA:H	17	0.13
(1,2807)	1:A:8:ALA:HB3	1:A:8:ALA:H	17	0.13

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD2	16	0.13
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD3	16	0.13
(1,2752)	1:A:10:VAL:HA	1:A:27:VAL:HA	5	0.13
(1,2736)	1:A:2:SER:HA	1:A:4:VAL:H	15	0.13
(1,2672)	1:A:16:LYS:HA	1:A:25:TYR:HA	4	0.13
(1,2672)	1:A:16:LYS:HA	1:A:25:TYR:HA	12	0.13
(1,2672)	1:A:16:LYS:HA	1:A:25:TYR:HA	15	0.13
(1,2523)	1:A:19:LYS:H	1:A:23:VAL:HB	5	0.13
(1,2523)	1:A:19:LYS:H	1:A:23:VAL:HB	18	0.13
(1,2514)	1:A:15:GLU:H	1:A:14:VAL:HB	4	0.13
(1,2444)	1:A:30:LYS:HA	1:A:11:ASP:HB2	6	0.13
(1,2040)	1:A:6:GLU:H	1:A:17:ARG:H	6	0.13
(1,2040)	1:A:6:GLU:H	1:A:17:ARG:H	10	0.13
(1,2036)	1:A:10:VAL:HA	1:A:27:VAL:HA	5	0.13
(1,1965)	1:A:30:LYS:HA	1:A:11:ASP:HB2	6	0.13
(1,1684)	1:A:23:VAL:HA	1:A:23:VAL:HB	1	0.13
(1,1633)	1:A:52:GLU:H	1:A:52:GLU:HB2	5	0.13
(1,1633)	1:A:52:GLU:H	1:A:52:GLU:HB2	10	0.13
(1,1633)	1:A:52:GLU:H	1:A:52:GLU:HB2	12	0.13
(1,1538)	1:A:37:TRP:H	1:A:26:LEU:HG	19	0.13
(1,1512)	1:A:19:LYS:H	1:A:19:LYS:HB2	4	0.13
(1,1349)	1:A:52:GLU:H	1:A:52:GLU:HB2	5	0.13
(1,1349)	1:A:52:GLU:H	1:A:52:GLU:HB2	10	0.13
(1,1349)	1:A:52:GLU:H	1:A:52:GLU:HB2	12	0.13
(2,95)	1:A:7:TYR:HA	1:A:9:GLU:HA	2	0.12
(2,128)	1:A:6:GLU:H	1:A:17:ARG:H	3	0.12
(2,128)	1:A:6:GLU:H	1:A:17:ARG:H	5	0.12
(2,128)	1:A:6:GLU:H	1:A:17:ARG:H	14	0.12
(2,101)	1:A:26:LEU:H	1:A:27:VAL:HB	10	0.12
(2,101)	1:A:26:LEU:H	1:A:27:VAL:HB	13	0.12
(1,941)	1:A:20:GLY:H	1:A:19:LYS:H	3	0.12
(1,882)	1:A:22:ASP:H	1:A:22:ASP:HB2	3	0.12
(1,882)	1:A:22:ASP:H	1:A:22:ASP:HB2	16	0.12
(1,881)	1:A:21:LYS:H	1:A:20:GLY:HA3	16	0.12
(1,865)	1:A:29:TRP:HA	2:B:6:ALA:HB3	19	0.12
(1,780)	1:A:53:ASP:H	1:A:53:ASP:HB2	5	0.12
(1,446)	1:A:47:VAL:H	2:B:12:ALA:HB2	2	0.12
(1,3411)	2:B:9:LYS:HB2	1:A:42:HIS:HB2	14	0.12
(1,3411)	2:B:9:LYS:HB2	1:A:42:HIS:HB3	14	0.12
(1,3411)	2:B:9:LYS:HB3	1:A:42:HIS:HB2	14	0.12
(1,3411)	2:B:9:LYS:HB3	1:A:42:HIS:HB3	14	0.12
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD11	4	0.12

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD12	4	0.12
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD13	4	0.12
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD21	4	0.12
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD22	4	0.12
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD23	4	0.12
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD11	10	0.12
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD12	10	0.12
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD13	10	0.12
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD21	10	0.12
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD22	10	0.12
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD23	10	0.12
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD11	19	0.12
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD12	19	0.12
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD13	19	0.12
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD21	19	0.12
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD22	19	0.12
(1,3406)	2:B:5:THR:H	1:A:26:LEU:HD23	19	0.12
(1,3388)	2:B:8:ARG:H	1:A:6:GLU:H	8	0.12
(1,3343)	2:B:8:ARG:H	2:B:9:LYS:H	5	0.12
(1,3154)	1:A:41:VAL:HB	1:A:43:VAL:H	3	0.12
(1,3154)	1:A:41:VAL:HB	1:A:43:VAL:H	5	0.12
(1,3154)	1:A:41:VAL:HB	1:A:43:VAL:H	18	0.12
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB2	16	0.12
(1,3139)	1:A:39:LYS:HA	1:A:42:HIS:HB3	16	0.12
(1,3137)	1:A:39:LYS:HA	1:A:25:TYR:H	15	0.12
(1,296)	1:A:22:ASP:H	1:A:22:ASP:HB2	3	0.12
(1,296)	1:A:22:ASP:H	1:A:22:ASP:HB2	16	0.12
(1,2890)	1:A:13:ILE:HD11	1:A:27:VAL:HB	16	0.12
(1,2890)	1:A:13:ILE:HD12	1:A:27:VAL:HB	16	0.12
(1,2890)	1:A:13:ILE:HD13	1:A:27:VAL:HB	16	0.12
(1,2887)	1:A:13:ILE:HB	1:A:25:TYR:H	4	0.12
(1,2887)	1:A:13:ILE:HB	1:A:25:TYR:H	8	0.12
(1,2847)	1:A:10:VAL:HG11	1:A:26:LEU:HA	2	0.12
(1,2847)	1:A:10:VAL:HG12	1:A:26:LEU:HA	2	0.12
(1,2847)	1:A:10:VAL:HG13	1:A:26:LEU:HA	2	0.12
(1,2847)	1:A:10:VAL:HG21	1:A:26:LEU:HA	2	0.12
(1,2847)	1:A:10:VAL:HG22	1:A:26:LEU:HA	2	0.12
(1,2847)	1:A:10:VAL:HG23	1:A:26:LEU:HA	2	0.12
(1,2847)	1:A:10:VAL:HG11	1:A:26:LEU:HA	10	0.12
(1,2847)	1:A:10:VAL:HG12	1:A:26:LEU:HA	10	0.12
(1,2847)	1:A:10:VAL:HG13	1:A:26:LEU:HA	10	0.12
(1,2847)	1:A:10:VAL:HG21	1:A:26:LEU:HA	10	0.12

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,2847)	1:A:10:VAL:HG22	1:A:26:LEU:HA	10	0.12
(1,2847)	1:A:10:VAL:HG23	1:A:26:LEU:HA	10	0.12
(1,2847)	1:A:10:VAL:HG11	1:A:26:LEU:HA	14	0.12
(1,2847)	1:A:10:VAL:HG12	1:A:26:LEU:HA	14	0.12
(1,2847)	1:A:10:VAL:HG13	1:A:26:LEU:HA	14	0.12
(1,2847)	1:A:10:VAL:HG21	1:A:26:LEU:HA	14	0.12
(1,2847)	1:A:10:VAL:HG22	1:A:26:LEU:HA	14	0.12
(1,2847)	1:A:10:VAL:HG23	1:A:26:LEU:HA	14	0.12
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB2	2	0.12
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB3	2	0.12
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB2	7	0.12
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB3	7	0.12
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB2	15	0.12
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB3	15	0.12
(1,2811)	1:A:8:ALA:HB1	1:A:40:GLY:H	1	0.12
(1,2811)	1:A:8:ALA:HB2	1:A:40:GLY:H	1	0.12
(1,2811)	1:A:8:ALA:HB3	1:A:40:GLY:H	1	0.12
(1,2811)	1:A:8:ALA:HB1	1:A:40:GLY:H	3	0.12
(1,2811)	1:A:8:ALA:HB2	1:A:40:GLY:H	3	0.12
(1,2811)	1:A:8:ALA:HB3	1:A:40:GLY:H	3	0.12
(1,2811)	1:A:8:ALA:HB1	1:A:40:GLY:H	17	0.12
(1,2811)	1:A:8:ALA:HB2	1:A:40:GLY:H	17	0.12
(1,2811)	1:A:8:ALA:HB3	1:A:40:GLY:H	17	0.12
(1,281)	1:A:29:TRP:HA	2:B:6:ALA:HB3	5	0.12
(1,2799)	1:A:6:GLU:HG2	1:A:7:TYR:HA	17	0.12
(1,2799)	1:A:6:GLU:HG3	1:A:7:TYR:HA	17	0.12
(1,2761)	1:A:2:SER:HB2	1:A:51:TYR:H	18	0.12
(1,2761)	1:A:2:SER:HB3	1:A:51:TYR:H	18	0.12
(1,2754)	1:A:1:GLY:HA2	1:A:2:SER:H	5	0.12
(1,2754)	1:A:1:GLY:HA3	1:A:2:SER:H	5	0.12
(1,2752)	1:A:10:VAL:HA	1:A:27:VAL:HA	15	0.12
(1,2749)	1:A:19:LYS:HB2	1:A:23:VAL:H	1	0.12
(1,2749)	1:A:19:LYS:HB2	1:A:23:VAL:H	15	0.12
(1,2749)	1:A:19:LYS:HB2	1:A:23:VAL:H	18	0.12
(1,2742)	1:A:29:TRP:HB2	1:A:28:ARG:HB2	18	0.12
(1,2736)	1:A:2:SER:HA	1:A:4:VAL:H	11	0.12
(1,270)	1:A:5:PHE:HB2	1:A:18:GLY:HA2	9	0.12
(1,2672)	1:A:16:LYS:HA	1:A:25:TYR:HA	13	0.12
(1,2523)	1:A:19:LYS:H	1:A:23:VAL:HB	1	0.12
(1,2311)	1:A:20:GLY:H	1:A:20:GLY:HA3	19	0.12
(1,2040)	1:A:6:GLU:H	1:A:17:ARG:H	3	0.12
(1,2040)	1:A:6:GLU:H	1:A:17:ARG:H	5	0.12

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,2040)	1:A:6:GLU:H	1:A:17:ARG:H	14	0.12
(1,2036)	1:A:10:VAL:HA	1:A:27:VAL:HA	15	0.12
(1,1987)	1:A:9:GLU:H	1:A:12:GLU:H	14	0.12
(1,1975)	1:A:29:TRP:H	1:A:10:VAL:HB	5	0.12
(1,1975)	1:A:29:TRP:H	1:A:10:VAL:HB	15	0.12
(1,1975)	1:A:29:TRP:H	1:A:10:VAL:HB	16	0.12
(1,195)	1:A:53:ASP:H	1:A:53:ASP:HB2	5	0.12
(1,1935)	1:A:43:VAL:HA	1:A:42:HIS:HA	11	0.12
(1,1792)	1:A:20:GLY:H	1:A:20:GLY:HA2	6	0.12
(1,1792)	1:A:20:GLY:H	1:A:20:GLY:HA2	16	0.12
(1,1792)	1:A:20:GLY:H	1:A:20:GLY:HA2	20	0.12
(1,1684)	1:A:23:VAL:HA	1:A:23:VAL:HB	5	0.12
(1,1684)	1:A:23:VAL:HA	1:A:23:VAL:HB	14	0.12
(1,1633)	1:A:52:GLU:H	1:A:52:GLU:HB2	8	0.12
(1,1633)	1:A:52:GLU:H	1:A:52:GLU:HB2	18	0.12
(1,1512)	1:A:19:LYS:H	1:A:19:LYS:HB2	5	0.12
(1,1512)	1:A:19:LYS:H	1:A:19:LYS:HB2	6	0.12
(1,1512)	1:A:19:LYS:H	1:A:19:LYS:HB2	18	0.12
(1,1441)	1:A:46:ASP:HA	1:A:50:ASP:HB2	12	0.12
(1,1438)	1:A:29:TRP:HA	2:B:6:ALA:HB3	19	0.12
(1,1395)	1:A:20:GLY:H	1:A:23:VAL:HB	1	0.12
(1,1395)	1:A:20:GLY:H	1:A:23:VAL:HB	3	0.12
(1,1349)	1:A:52:GLU:H	1:A:52:GLU:HB2	8	0.12
(1,1349)	1:A:52:GLU:H	1:A:52:GLU:HB2	18	0.12
(1,1316)	1:A:47:VAL:H	2:B:12:ALA:HB2	4	0.12
(1,1316)	1:A:47:VAL:H	2:B:12:ALA:HB2	13	0.12
(1,1031)	1:A:47:VAL:H	2:B:12:ALA:HB2	2	0.12
(1,1030)	1:A:45:GLU:H	1:A:44:ALA:HA	1	0.12
(1,1030)	1:A:45:GLU:H	1:A:44:ALA:HA	3	0.12
(1,1030)	1:A:45:GLU:H	1:A:44:ALA:HA	5	0.12
(1,1030)	1:A:45:GLU:H	1:A:44:ALA:HA	10	0.12
(1,1030)	1:A:45:GLU:H	1:A:44:ALA:HA	17	0.12
(1,1030)	1:A:45:GLU:H	1:A:44:ALA:HA	18	0.12
(1,1030)	1:A:45:GLU:H	1:A:44:ALA:HA	19	0.12
(1,10)	1:A:22:ASP:H	1:A:22:ASP:HB2	3	0.12
(1,10)	1:A:22:ASP:H	1:A:22:ASP:HB2	16	0.12
(2,85)	1:A:9:GLU:HA	1:A:30:LYS:H	2	0.11
(2,85)	1:A:9:GLU:HA	1:A:30:LYS:H	10	0.11
(2,85)	1:A:9:GLU:HA	1:A:30:LYS:H	14	0.11
(2,128)	1:A:6:GLU:H	1:A:17:ARG:H	19	0.11
(1,882)	1:A:22:ASP:H	1:A:22:ASP:HB2	15	0.11
(1,881)	1:A:21:LYS:H	1:A:20:GLY:HA3	20	0.11

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,839)	1:A:9:GLU:HA	1:A:30:LYS:H	2	0.11
(1,839)	1:A:9:GLU:HA	1:A:30:LYS:H	10	0.11
(1,839)	1:A:9:GLU:HA	1:A:30:LYS:H	14	0.11
(1,825)	2:B:12:ALA:H	2:B:12:ALA:HB3	9	0.11
(1,547)	1:A:9:GLU:HA	1:A:30:LYS:H	2	0.11
(1,547)	1:A:9:GLU:HA	1:A:30:LYS:H	10	0.11
(1,547)	1:A:9:GLU:HA	1:A:30:LYS:H	14	0.11
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD11	12	0.11
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD12	12	0.11
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD13	12	0.11
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD21	12	0.11
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD22	12	0.11
(1,3407)	2:B:6:ALA:H	1:A:26:LEU:HD23	12	0.11
(1,3397)	2:B:8:ARG:HD2	1:A:9:GLU:H	11	0.11
(1,3397)	2:B:8:ARG:HD3	1:A:9:GLU:H	11	0.11
(1,3388)	2:B:8:ARG:H	1:A:6:GLU:H	15	0.11
(1,3372)	2:B:11:LYS:HD2	2:B:12:ALA:H	7	0.11
(1,3372)	2:B:11:LYS:HD3	2:B:12:ALA:H	7	0.11
(1,3350)	2:B:9:LYS:HA	2:B:10:ARG:H	13	0.11
(1,3255)	1:A:51:TYR:HD1	1:A:21:LYS:HB2	2	0.11
(1,3255)	1:A:51:TYR:HD1	1:A:21:LYS:HB3	2	0.11
(1,3255)	1:A:51:TYR:HD2	1:A:21:LYS:HB2	2	0.11
(1,3255)	1:A:51:TYR:HD2	1:A:21:LYS:HB3	2	0.11
(1,3255)	1:A:51:TYR:HD1	1:A:21:LYS:HB2	3	0.11
(1,3255)	1:A:51:TYR:HD1	1:A:21:LYS:HB3	3	0.11
(1,3255)	1:A:51:TYR:HD2	1:A:21:LYS:HB2	3	0.11
(1,3255)	1:A:51:TYR:HD2	1:A:21:LYS:HB3	3	0.11
(1,3199)	1:A:46:ASP:HB2	1:A:49:LYS:H	13	0.11
(1,3199)	1:A:46:ASP:HB3	1:A:49:LYS:H	13	0.11
(1,3154)	1:A:41:VAL:HB	1:A:43:VAL:H	6	0.11
(1,3154)	1:A:41:VAL:HB	1:A:43:VAL:H	7	0.11
(1,3154)	1:A:41:VAL:HB	1:A:43:VAL:H	13	0.11
(1,3154)	1:A:41:VAL:HB	1:A:43:VAL:H	17	0.11
(1,3154)	1:A:41:VAL:HB	1:A:43:VAL:H	19	0.11
(1,3036)	1:A:26:LEU:HG	1:A:15:GLU:H	11	0.11
(1,296)	1:A:22:ASP:H	1:A:22:ASP:HB2	15	0.11
(1,2890)	1:A:13:ILE:HD11	1:A:27:VAL:HB	18	0.11
(1,2890)	1:A:13:ILE:HD12	1:A:27:VAL:HB	18	0.11
(1,2890)	1:A:13:ILE:HD13	1:A:27:VAL:HB	18	0.11
(1,2889)	1:A:13:ILE:HA	1:A:27:VAL:HB	13	0.11
(1,2887)	1:A:13:ILE:HB	1:A:25:TYR:H	1	0.11
(1,2887)	1:A:13:ILE:HB	1:A:25:TYR:H	11	0.11

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,2844)	1:A:10:VAL:HA	1:A:29:TRP:HA	16	0.11
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB2	3	0.11
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB3	3	0.11
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB2	6	0.11
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB3	6	0.11
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB2	10	0.11
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB3	10	0.11
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB2	14	0.11
(1,2813)	1:A:8:ALA:H	1:A:24:GLU:HB3	14	0.11
(1,2811)	1:A:8:ALA:HB1	1:A:40:GLY:H	5	0.11
(1,2811)	1:A:8:ALA:HB2	1:A:40:GLY:H	5	0.11
(1,2811)	1:A:8:ALA:HB3	1:A:40:GLY:H	5	0.11
(1,2811)	1:A:8:ALA:HB1	1:A:40:GLY:H	8	0.11
(1,2811)	1:A:8:ALA:HB2	1:A:40:GLY:H	8	0.11
(1,2811)	1:A:8:ALA:HB3	1:A:40:GLY:H	8	0.11
(1,2811)	1:A:8:ALA:HB1	1:A:40:GLY:H	14	0.11
(1,2811)	1:A:8:ALA:HB2	1:A:40:GLY:H	14	0.11
(1,2811)	1:A:8:ALA:HB3	1:A:40:GLY:H	14	0.11
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD2	18	0.11
(1,2785)	1:A:5:PHE:HA	1:A:19:LYS:HD3	18	0.11
(1,2761)	1:A:2:SER:HB2	1:A:51:TYR:H	4	0.11
(1,2761)	1:A:2:SER:HB3	1:A:51:TYR:H	4	0.11
(1,2761)	1:A:2:SER:HB2	1:A:51:TYR:H	5	0.11
(1,2761)	1:A:2:SER:HB3	1:A:51:TYR:H	5	0.11
(1,2761)	1:A:2:SER:HB2	1:A:51:TYR:H	14	0.11
(1,2761)	1:A:2:SER:HB3	1:A:51:TYR:H	14	0.11
(1,2752)	1:A:10:VAL:HA	1:A:27:VAL:HA	16	0.11
(1,2749)	1:A:19:LYS:HB2	1:A:23:VAL:H	3	0.11
(1,2749)	1:A:19:LYS:HB2	1:A:23:VAL:H	5	0.11
(1,2744)	1:A:6:GLU:HB2	1:A:23:VAL:H	5	0.11
(1,2744)	1:A:6:GLU:HB2	1:A:23:VAL:H	19	0.11
(1,2736)	1:A:2:SER:HA	1:A:4:VAL:H	2	0.11
(1,2719)	1:A:56:GLU:HA	1:A:56:GLU:HB2	1	0.11
(1,2719)	1:A:56:GLU:HA	1:A:56:GLU:HB2	2	0.11
(1,2719)	1:A:56:GLU:HA	1:A:56:GLU:HB2	6	0.11
(1,2719)	1:A:56:GLU:HA	1:A:56:GLU:HB2	7	0.11
(1,2719)	1:A:56:GLU:HA	1:A:56:GLU:HB2	8	0.11
(1,2719)	1:A:56:GLU:HA	1:A:56:GLU:HB2	9	0.11
(1,2719)	1:A:56:GLU:HA	1:A:56:GLU:HB2	10	0.11
(1,2719)	1:A:56:GLU:HA	1:A:56:GLU:HB2	11	0.11
(1,2719)	1:A:56:GLU:HA	1:A:56:GLU:HB2	12	0.11
(1,2719)	1:A:56:GLU:HA	1:A:56:GLU:HB2	13	0.11

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,2719)	1:A:56:GLU:HA	1:A:56:GLU:HB2	14	0.11
(1,2719)	1:A:56:GLU:HA	1:A:56:GLU:HB2	15	0.11
(1,2719)	1:A:56:GLU:HA	1:A:56:GLU:HB2	16	0.11
(1,2719)	1:A:56:GLU:HA	1:A:56:GLU:HB2	17	0.11
(1,2719)	1:A:56:GLU:HA	1:A:56:GLU:HB2	18	0.11
(1,2719)	1:A:56:GLU:HA	1:A:56:GLU:HB2	19	0.11
(1,2719)	1:A:56:GLU:HA	1:A:56:GLU:HB2	20	0.11
(1,2709)	1:A:13:ILE:H	1:A:12:GLU:HB2	6	0.11
(1,2699)	1:A:48:ALA:HA	1:A:51:TYR:HB2	16	0.11
(1,2672)	1:A:16:LYS:HA	1:A:25:TYR:HA	10	0.11
(1,2672)	1:A:16:LYS:HA	1:A:25:TYR:HA	16	0.11
(1,2672)	1:A:16:LYS:HA	1:A:25:TYR:HA	20	0.11
(1,255)	1:A:9:GLU:HA	1:A:30:LYS:H	2	0.11
(1,255)	1:A:9:GLU:HA	1:A:30:LYS:H	10	0.11
(1,255)	1:A:9:GLU:HA	1:A:30:LYS:H	14	0.11
(1,2444)	1:A:30:LYS:HA	1:A:11:ASP:HB2	12	0.11
(1,2311)	1:A:20:GLY:H	1:A:20:GLY:HA3	5	0.11
(1,2311)	1:A:20:GLY:H	1:A:20:GLY:HA3	18	0.11
(1,2215)	1:A:48:ALA:HA	1:A:51:TYR:HB2	16	0.11
(1,2040)	1:A:6:GLU:H	1:A:17:ARG:H	19	0.11
(1,2036)	1:A:10:VAL:HA	1:A:27:VAL:HA	16	0.11
(1,2031)	1:A:13:ILE:HB	1:A:25:TYR:H	6	0.11
(1,1965)	1:A:30:LYS:HA	1:A:11:ASP:HB2	12	0.11
(1,1792)	1:A:20:GLY:H	1:A:20:GLY:HA2	4	0.11
(1,1792)	1:A:20:GLY:H	1:A:20:GLY:HA2	9	0.11
(1,1792)	1:A:20:GLY:H	1:A:20:GLY:HA2	12	0.11
(1,1684)	1:A:23:VAL:HA	1:A:23:VAL:HB	3	0.11
(1,1684)	1:A:23:VAL:HA	1:A:23:VAL:HB	8	0.11
(1,1684)	1:A:23:VAL:HA	1:A:23:VAL:HB	18	0.11
(1,1678)	1:A:30:LYS:H	1:A:10:VAL:HB	2	0.11
(1,1676)	1:A:48:ALA:HA	1:A:51:TYR:HB2	16	0.11
(1,1633)	1:A:52:GLU:H	1:A:52:GLU:HB2	20	0.11
(1,1441)	1:A:46:ASP:HA	1:A:50:ASP:HB2	1	0.11
(1,1441)	1:A:46:ASP:HA	1:A:50:ASP:HB2	3	0.11
(1,1441)	1:A:46:ASP:HA	1:A:50:ASP:HB2	7	0.11
(1,1413)	1:A:9:GLU:HA	1:A:30:LYS:H	2	0.11
(1,1413)	1:A:9:GLU:HA	1:A:30:LYS:H	10	0.11
(1,1413)	1:A:9:GLU:HA	1:A:30:LYS:H	14	0.11
(1,1391)	1:A:48:ALA:HA	1:A:51:TYR:HB2	16	0.11
(1,1349)	1:A:52:GLU:H	1:A:52:GLU:HB2	20	0.11
(1,1128)	1:A:9:GLU:HA	1:A:30:LYS:H	2	0.11
(1,1128)	1:A:9:GLU:HA	1:A:30:LYS:H	10	0.11

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1128)	1:A:9:GLU:HA	1:A:30:LYS:H	14	0.11
(1,1030)	1:A:45:GLU:H	1:A:44:ALA:HA	8	0.11
(1,1030)	1:A:45:GLU:H	1:A:44:ALA:HA	11	0.11
(1,1030)	1:A:45:GLU:H	1:A:44:ALA:HA	13	0.11
(1,1030)	1:A:45:GLU:H	1:A:44:ALA:HA	15	0.11
(1,10)	1:A:22:ASP:H	1:A:22:ASP:HB2	15	0.11

10 Dihedral-angle violation analysis

No dihedral-angle restraints found