Full wwPDB NMR Structure Validation Report ⓘ

Dec 25, 2024 – 08:14 PM EST

PDB ID	:	8U9O
BMRB ID	:	52129
Title	:	Solution structure of RsgI9 CRE domain from C. thermocellum
Authors	:	Takayesu, A.; Mahoney, B.J.; Clubb, R.T.
Deposited on	:	2023-09-19

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

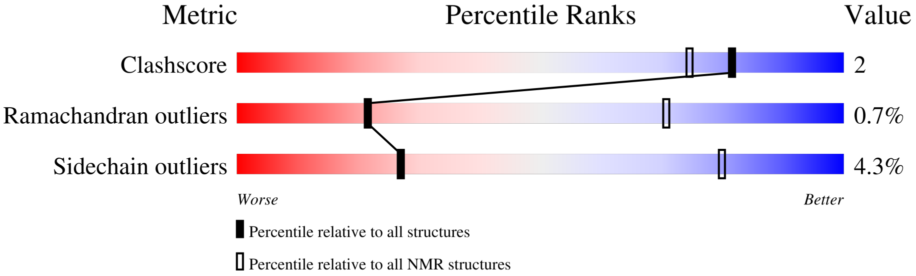
MolProbity	:	4.02b-467
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
wwPDB-RCI	:	v_1n_11_5_13_A (Berjanski et al., 2005)
PANAV	:	Wang et al. (2010)
wwPDB-ShiftChecker	:	v1.2
BMRB Restraints Analysis	:	v1.2
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal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

1 Overall quality at a glance

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

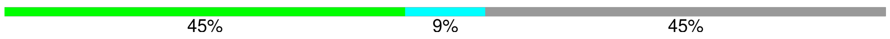
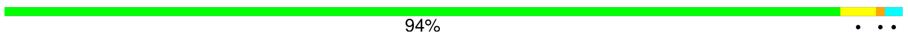
The overall completeness of chemical shifts assignment is 81%.

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



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

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

Mol	Chain	Length	Quality of chain
1	A	22	
2	B	155	

2 Ensemble composition and analysis ⓘ

This entry contains 20 models. Model 7 is the overall representative, medoid model (most similar to other models). The authors have identified model 1 as representative, based on the following criterion: *lowest energy*.

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

Well-defined (core) protein residues			
Well-defined core	**Residue range (total)**	**Backbone RMSD (Å)**	**Medoid model**
1	A:179-A:188, B:189-B:340 (162)	0.78	7

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

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

The models can be grouped into 4 clusters and 3 single-model clusters were found.

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

3 Entry composition

There are 2 unique types of molecules in this entry. The entry contains 2669 atoms, of which 1342 are hydrogens and 0 are deuteriums.

- Molecule 1 is a protein called Anti-sigma-I factor RsgI9.

Mol	Chain	Residues	Atoms					Trace
			Total	C	H	N	O	
1	A	12	171	57	79	13	22	0

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	177	GLY	ASP	conflict	UNP A3DC20

- Molecule 2 is a protein called Anti-sigma-I factor RsgI9.

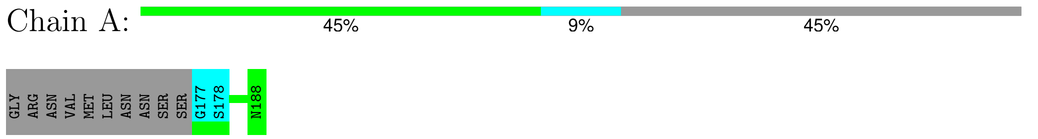
Mol	Chain	Residues	Atoms						Trace
			Total	C	H	N	O	S	
2	B	155	2498	769	1263	203	259	4	0

4 Residue-property plots ⓘ

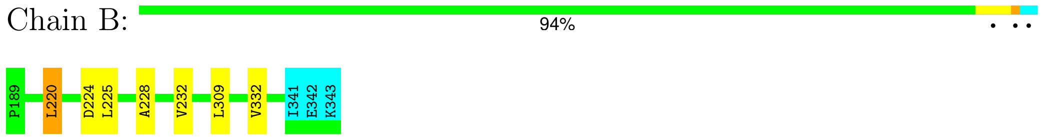
4.1 Average score per residue in the NMR ensemble

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: Anti-sigma-I factor RsgI9



- Molecule 2: Anti-sigma-I factor RsgI9

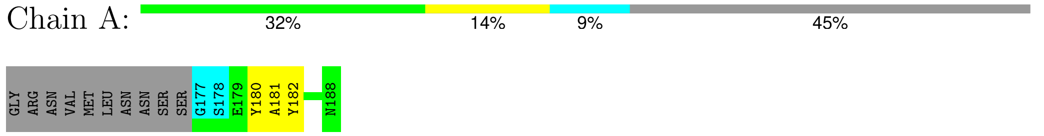


4.2 Scores per residue for each member of the ensemble

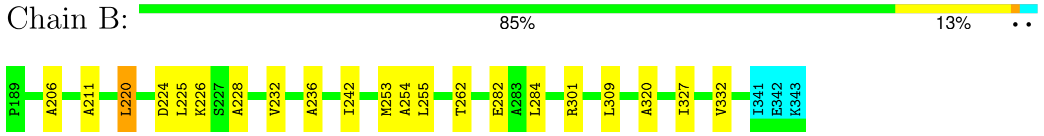
Colouring as in section 4.1 above.

4.2.1 Score per residue for model 1

- Molecule 1: Anti-sigma-I factor RsgI9

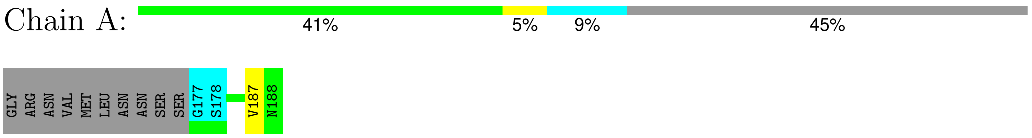


- Molecule 2: Anti-sigma-I factor RsgI9

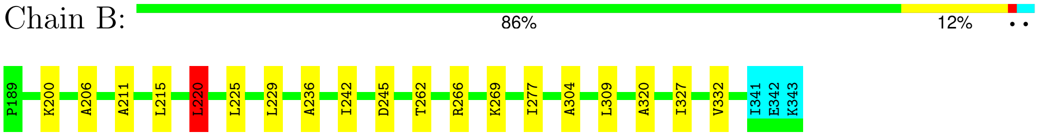


4.2.2 Score per residue for model 2

- Molecule 1: Anti-sigma-I factor RsgI9

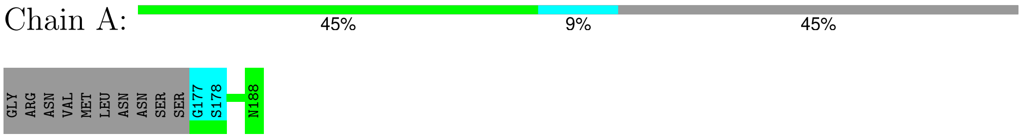


- Molecule 2: Anti-sigma-I factor RsgI9

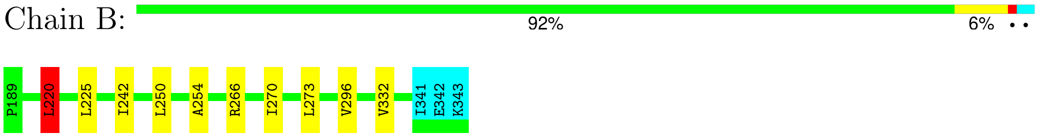


4.2.3 Score per residue for model 3

- Molecule 1: Anti-sigma-I factor RsgI9

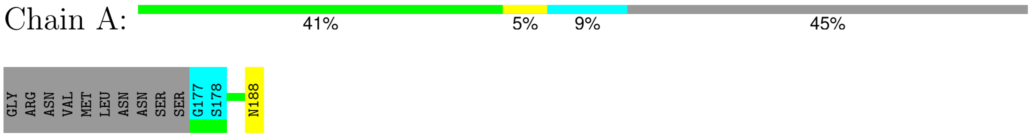


- Molecule 2: Anti-sigma-I factor RsgI9

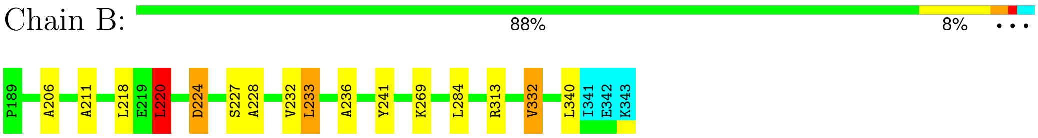


4.2.4 Score per residue for model 4

- Molecule 1: Anti-sigma-I factor RsgI9

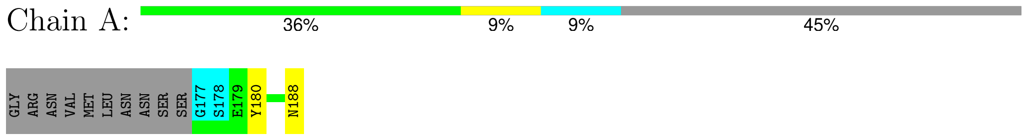


- Molecule 2: Anti-sigma-I factor RsgI9

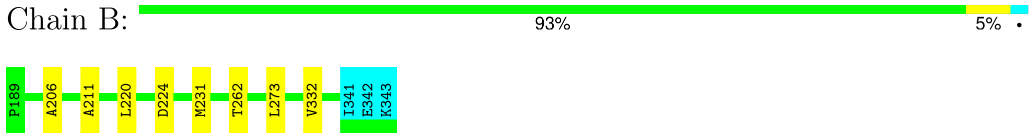


4.2.5 Score per residue for model 5

- Molecule 1: Anti-sigma-I factor RsgI9

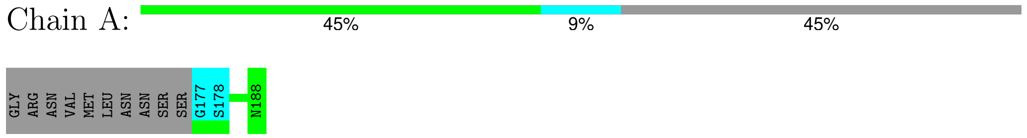


- Molecule 2: Anti-sigma-I factor RsgI9

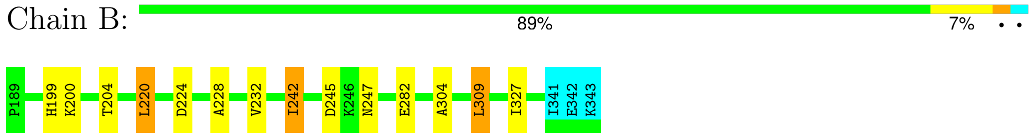


4.2.6 Score per residue for model 6

- Molecule 1: Anti-sigma-I factor RsgI9

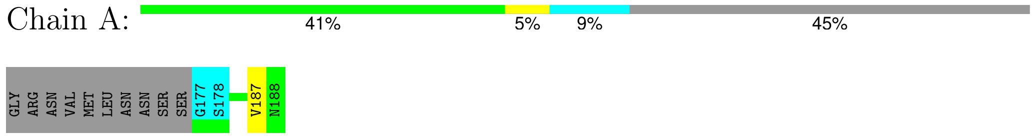


- Molecule 2: Anti-sigma-I factor RsgI9

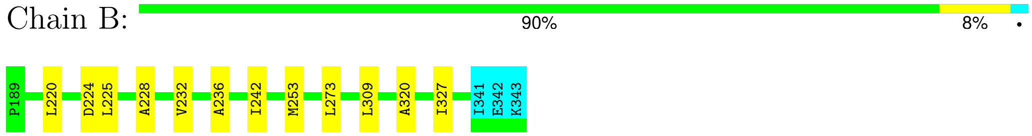


4.2.7 Score per residue for model 7 (medoid)

- Molecule 1: Anti-sigma-I factor RsgI9

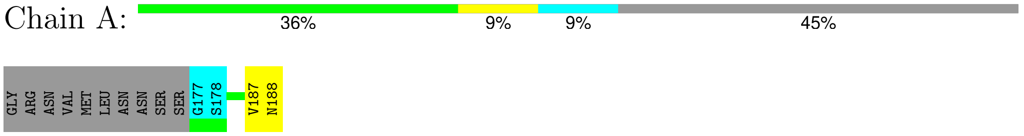


- Molecule 2: Anti-sigma-I factor RsgI9

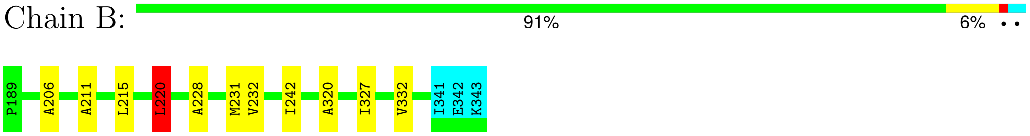


4.2.8 Score per residue for model 8

- Molecule 1: Anti-sigma-I factor RsgI9

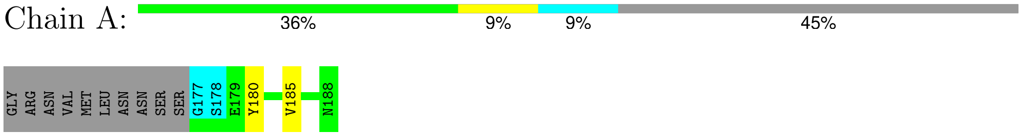


- Molecule 2: Anti-sigma-I factor RsgI9

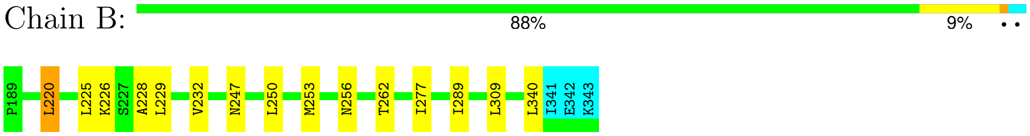


4.2.9 Score per residue for model 9

- Molecule 1: Anti-sigma-I factor RsgI9

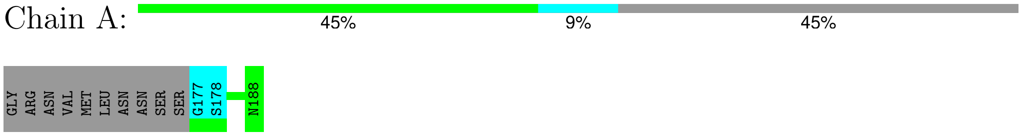


- Molecule 2: Anti-sigma-I factor RsgI9

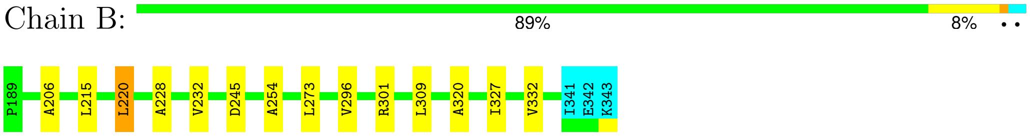


4.2.10 Score per residue for model 10

- Molecule 1: Anti-sigma-I factor RsgI9

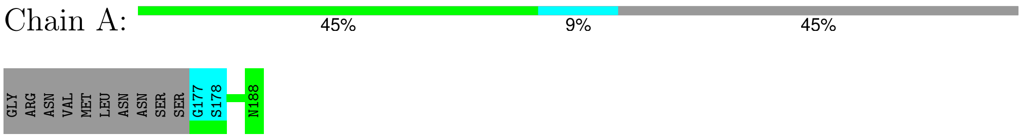


- Molecule 2: Anti-sigma-I factor RsgI9

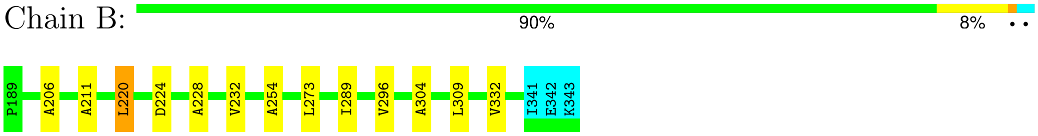


4.2.11 Score per residue for model 11

- Molecule 1: Anti-sigma-I factor RsgI9

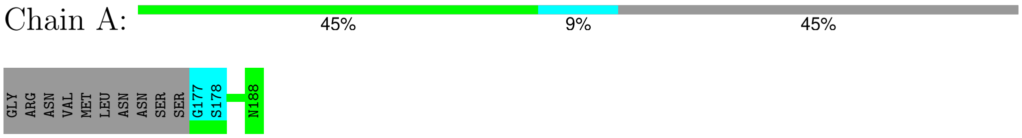


- Molecule 2: Anti-sigma-I factor RsgI9

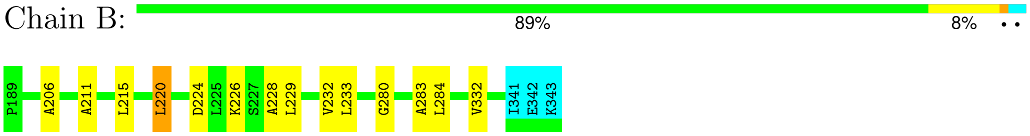


4.2.12 Score per residue for model 12

- Molecule 1: Anti-sigma-I factor RsgI9

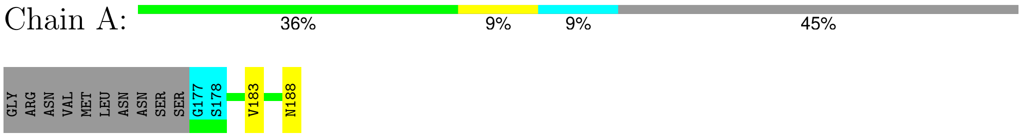


- Molecule 2: Anti-sigma-I factor RsgI9

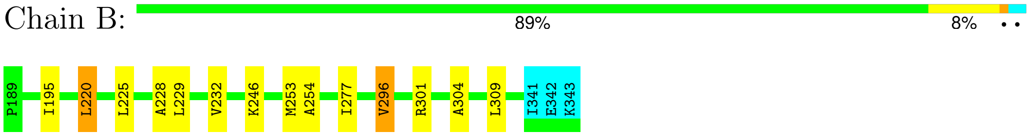


4.2.13 Score per residue for model 13

- Molecule 1: Anti-sigma-I factor RsgI9

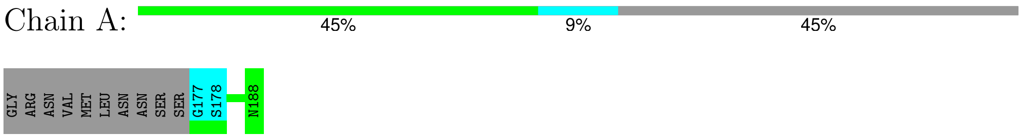


- Molecule 2: Anti-sigma-I factor RsgI9

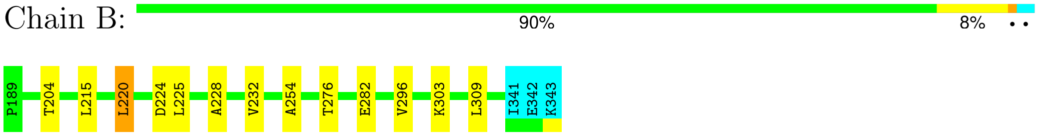


4.2.14 Score per residue for model 14

- Molecule 1: Anti-sigma-I factor RsgI9

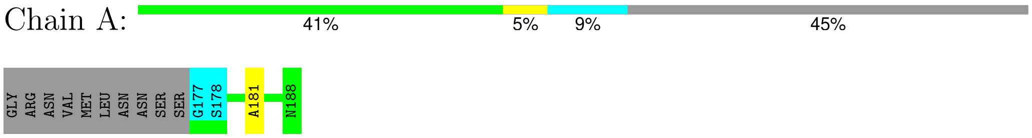


- Molecule 2: Anti-sigma-I factor RsgI9

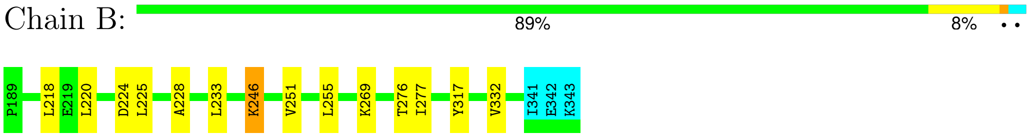


4.2.15 Score per residue for model 15

- Molecule 1: Anti-sigma-I factor RsgI9

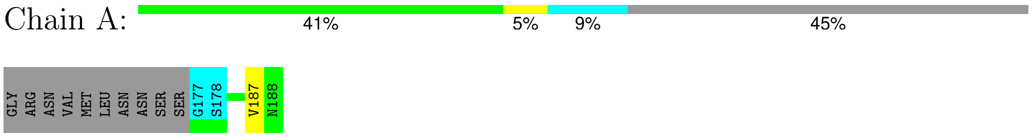


- Molecule 2: Anti-sigma-I factor RsgI9

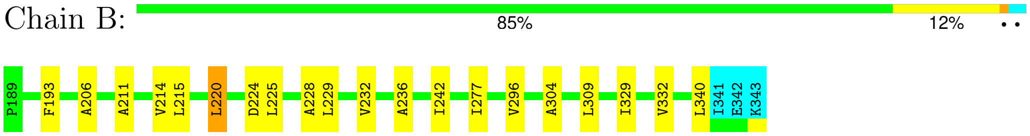


4.2.16 Score per residue for model 16

- Molecule 1: Anti-sigma-I factor RsgI9



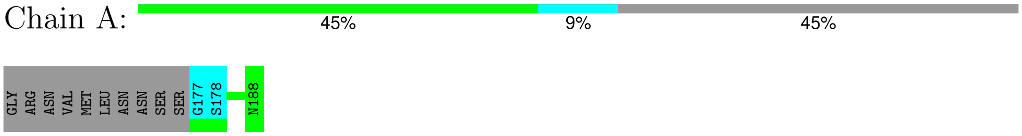
- Molecule 2: Anti-sigma-I factor RsgI9



4.2.17 Score per residue for model 17

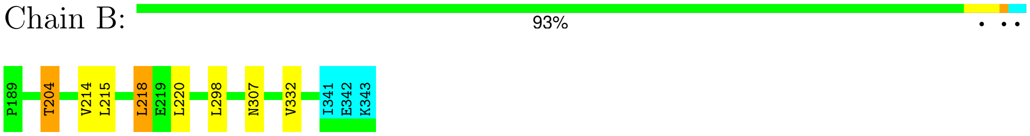
- Molecule 1: Anti-sigma-I factor RsgI9

Chain A:



- Molecule 2: Anti-sigma-I factor RsgI9

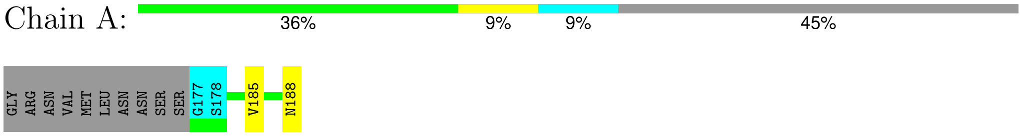
Chain B:



4.2.18 Score per residue for model 18

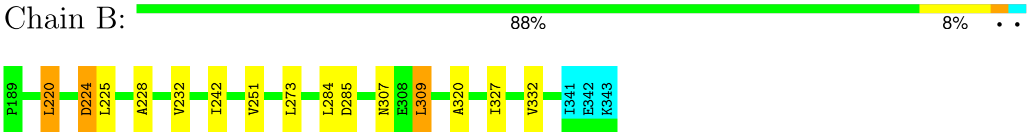
- Molecule 1: Anti-sigma-I factor RsgI9

Chain A:



- Molecule 2: Anti-sigma-I factor RsgI9

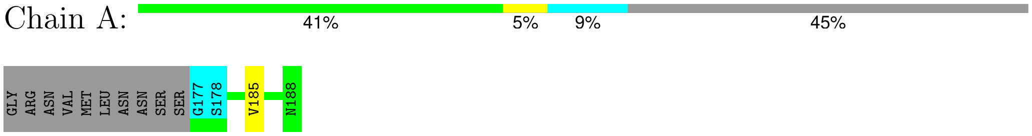
Chain B:



4.2.19 Score per residue for model 19

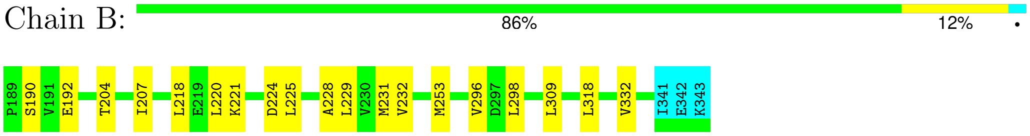
- Molecule 1: Anti-sigma-I factor RsgI9

Chain A:



- Molecule 2: Anti-sigma-I factor RsgI9

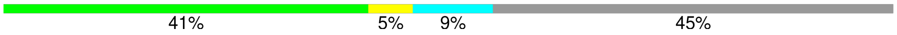
Chain B:

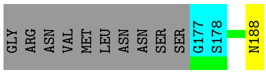


4.2.20 Score per residue for model 20

- Molecule 1: Anti-sigma-I factor RsgI9

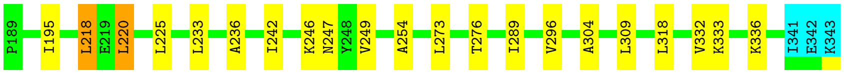
Chain A:





- Molecule 2: Anti-sigma-I factor RsgI9

Chain B:



5 Refinement protocol and experimental data overview ⓘ

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

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

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

Software name	**Classification**	**Version**
X-PLOR NIH	structure calculation	3.6
MOLMOL	refinement	
TALOS-N	geometry optimization	
PROCHECK / PROCHECK-NMR	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	1910
Number of shifts mapped to atoms	1844
Number of unparsed shifts	0
Number of shifts with mapping errors	66
Number of shifts with mapping warnings	0
Assignment completeness (well-defined parts)	81%

6 Model quality ⓘ

6.1 Standard geometry ⓘ

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

There are no bond-length outliers.

There are no bond-angle outliers.

There are no chirality outliers.

There are no planarity outliers.

6.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes
1	A	82	71	71	1±1
2	B	1208	1233	1231	6±3
All	All	25800	26080	26040	127

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 2.

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

Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
2:B:320:ALA:HB1	2:B:327:ILE:HD12	0.76	1.55	18	6
2:B:206:ALA:HB2	2:B:215:LEU:HD21	0.76	1.58	16	2
2:B:236:ALA:HB3	2:B:242:ILE:HD12	0.69	1.64	7	4
2:B:225:LEU:CD2	2:B:276:THR:HG21	0.67	2.20	20	1
1:A:181:ALA:HB2	2:B:255:LEU:HD23	0.64	1.70	15	1
2:B:304:ALA:HB1	2:B:309:LEU:O	0.63	1.93	16	6
2:B:206:ALA:HB1	2:B:211:ALA:HB3	0.62	1.70	16	5
2:B:254:ALA:HB2	2:B:296:VAL:HG13	0.62	1.72	13	1
2:B:193:PHE:CE2	2:B:228:ALA:HB1	0.60	2.31	16	1
2:B:266:ARG:O	2:B:270:ILE:HG23	0.60	1.97	3	1
2:B:190:SER:O	2:B:207:ILE:HD12	0.56	2.01	19	1
2:B:228:ALA:O	2:B:232:VAL:HG22	0.55	2.01	7	2
2:B:254:ALA:HB2	2:B:296:VAL:HB	0.55	1.78	20	2

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Atom-1	**Atom-2**	**Clash(Å)**	**Distance(Å)**	**Models**	
				Worst	Total
2:B:206:ALA:HB2	2:B:215:LEU:HD12	0.54	1.79	2	2
1:A:180:TYR:OH	2:B:262:THR:HG23	0.54	2.03	1	3
2:B:206:ALA:HB2	2:B:215:LEU:CD2	0.54	2.32	10	2
2:B:224:ASP:O	2:B:228:ALA:HB3	0.54	2.02	7	6
2:B:192:GLU:N	2:B:207:ILE:HD11	0.54	2.18	19	1
2:B:247:ASN:CB	2:B:289:ILE:HD13	0.53	2.34	9	1
1:A:185:VAL:HG21	2:B:229:LEU:HD21	0.52	1.81	19	2
2:B:206:ALA:HB1	2:B:211:ALA:CB	0.51	2.35	8	6
2:B:247:ASN:HB2	2:B:289:ILE:HD13	0.51	1.81	9	2
2:B:220:LEU:HD12	2:B:220:LEU:O	0.51	2.06	2	4
2:B:225:LEU:HD23	2:B:276:THR:HG21	0.51	1.83	15	2
2:B:204:THR:OG1	2:B:215:LEU:HD11	0.50	2.06	14	2
2:B:320:ALA:CB	2:B:327:ILE:HD12	0.48	2.38	1	1
2:B:228:ALA:O	2:B:232:VAL:HG23	0.48	2.09	14	11
2:B:195:ILE:HD11	2:B:225:LEU:HD13	0.48	1.85	20	1
2:B:233:LEU:HD21	2:B:249:VAL:HG21	0.48	1.84	20	1
2:B:229:LEU:HD21	2:B:277:ILE:HD11	0.47	1.86	2	1
2:B:224:ASP:O	2:B:228:ALA:HB2	0.47	2.10	16	1
2:B:229:LEU:HD11	2:B:277:ILE:HD12	0.47	1.86	13	1
2:B:236:ALA:CB	2:B:242:ILE:HD12	0.47	2.39	1	4
2:B:228:ALA:O	2:B:232:VAL:HG13	0.47	2.08	4	3
1:A:187:VAL:HG22	2:B:242:ILE:HD11	0.47	1.87	16	1
2:B:254:ALA:HB2	2:B:296:VAL:CG2	0.47	2.39	10	1
2:B:233:LEU:HD22	2:B:284:LEU:HD13	0.46	1.87	4	1
2:B:224:ASP:OD1	2:B:228:ALA:HB2	0.46	2.09	4	1
2:B:225:LEU:HD23	2:B:276:THR:CG2	0.45	2.41	15	1
1:A:185:VAL:HG12	2:B:251:VAL:HG22	0.45	1.88	18	1
1:A:182:TYR:CE1	2:B:254:ALA:HB3	0.45	2.46	1	1
2:B:211:ALA:O	2:B:214:VAL:HG22	0.45	2.11	16	1
2:B:254:ALA:HB2	2:B:296:VAL:HG23	0.45	1.87	14	3
2:B:229:LEU:O	2:B:233:LEU:HD13	0.45	2.12	12	1
2:B:256:ASN:O	2:B:262:THR:HG21	0.44	2.12	9	1
1:A:187:VAL:HG21	2:B:242:ILE:HD11	0.44	1.89	2	3
2:B:229:LEU:HG	2:B:277:ILE:HD11	0.44	1.89	16	1
2:B:262:THR:HG22	2:B:266:ARG:CZ	0.43	2.43	2	1
1:A:181:ALA:HB1	2:B:255:LEU:HD23	0.43	1.90	1	1
2:B:236:ALA:HB1	2:B:241:TYR:CE1	0.43	2.48	4	1
2:B:220:LEU:HD13	2:B:227:SER:OG	0.43	2.13	4	1
2:B:309:LEU:HD21	2:B:329:ILE:HD13	0.43	1.90	16	1
2:B:251:VAL:HG11	2:B:277:ILE:HD13	0.43	1.91	15	1
1:A:188:ASN:OXT	2:B:242:ILE:HD13	0.42	2.14	18	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
2:B:253:MET:SD	2:B:273:LEU:HD23	0.42	2.55	7	1
2:B:327:ILE:CG2	2:B:332:VAL:HG23	0.42	2.44	1	1
2:B:218:LEU:HD13	2:B:231:MET:SD	0.42	2.55	19	1
2:B:218:LEU:O	2:B:218:LEU:HD23	0.42	2.14	20	1
2:B:280:GLY:O	2:B:283:ALA:HB3	0.41	2.15	12	1
2:B:340:LEU:HD12	2:B:340:LEU:N	0.41	2.30	4	1
2:B:253:MET:O	2:B:296:VAL:HG22	0.41	2.15	19	1
2:B:215:LEU:HD12	2:B:215:LEU:O	0.41	2.16	10	1
2:B:332:VAL:HG22	2:B:340:LEU:HD21	0.41	1.93	4	1
1:A:183:VAL:HG21	2:B:195:ILE:HD12	0.41	1.93	13	1
2:B:242:ILE:HG23	2:B:247:ASN:ND2	0.40	2.31	6	1
2:B:307:ASN:ND2	2:B:309:LEU:HD21	0.40	2.32	18	1
2:B:214:VAL:O	2:B:218:LEU:HD21	0.40	2.17	17	1

6.3 Torsion angles ⓘ

6.3.1 Protein backbone ⓘ

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	9/22 (41%)	9±0 (100±0%)	0±0 (0±0%)	0±0 (0±0%)	100	100
2	B	151/155 (97%)	147±1 (97±1%)	3±1 (2±1%)	1±1 (1±0%)	21	71
All	All	3200/3540 (90%)	3113 (97%)	66 (2%)	21 (1%)	21	71

All 3 unique Ramachandran outliers are listed below. They are sorted by the frequency of occurrence in the ensemble.

Mol	Chain	Res	Type	Models (Total)
2	B	220	LEU	16
2	B	245	ASP	3
2	B	246	LYS	2

6.3.2 Protein sidechains ⓘ

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	9/19 (47%)	9±0 (97±5%)	0±0 (3±5%)	40	88
2	B	139/142 (98%)	133±2 (96±1%)	6±2 (4±1%)	26	79
All	All	2960/3220 (92%)	2834 (96%)	126 (4%)	27	80

All 38 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)
2	B	220	LEU	19
2	B	332	VAL	14
2	B	225	LEU	9
2	B	309	LEU	8
2	B	224	ASP	7
2	B	273	LEU	6
1	A	188	ASN	5
2	B	218	LEU	4
2	B	226	LYS	3
2	B	253	MET	3
2	B	282	GLU	3
2	B	284	LEU	3
2	B	301	ARG	3
2	B	269	LYS	3
2	B	204	THR	3
2	B	200	LYS	2
2	B	242	ILE	2
2	B	250	LEU	2
2	B	233	LEU	2
2	B	231	MET	2
2	B	340	LEU	2
2	B	296	VAL	2
2	B	246	LYS	2
2	B	298	LEU	2
2	B	318	LEU	2
2	B	313	ARG	1
2	B	199	HIS	1
2	B	327	ILE	1

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Mol	Chain	Res	Type	Models (Total)
2	B	277	ILE	1
2	B	289	ILE	1
2	B	215	LEU	1
2	B	303	LYS	1
2	B	317	TYR	1
2	B	307	ASN	1
2	B	285	ASP	1
2	B	221	LYS	1
2	B	333	LYS	1
2	B	336	LYS	1

6.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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

6.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

6.6 Ligand geometry (i)

There are no ligands in this entry.

6.7 Other polymers (i)

There are no such molecules in this entry.

6.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

7 Chemical shift validation ⓘ

The completeness of assignment taking into account all chemical shift lists is 81% for the well-defined parts and 81% for the entire structure.

7.1 Chemical shift list 1

File name: working_cs.cif

Chemical shift list name: *starch_ output*

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	1910
Number of shifts mapped to atoms	1844
Number of unparsed shifts	0
Number of shifts with mapping errors	66
Number of shifts with mapping warnings	0
Number of shift outliers (ShiftChecker)	5

The following assigned chemical shifts were not mapped to the molecules present in the coordinate file.

- No matching atom found in the structure. All 66 occurrences are reported below.

List ID	**Chain**	**Res**	**Type**	**Atom**	**Shift Data**		
					Value	Uncertainty	Ambiguity
1	A	169	ASN	N	120.96	.	.
1	A	169	ASN	H	8.65	.	.
1	A	169	ASN	CA	53.0	.	.
1	A	169	ASN	C	175.1	.	.
1	A	169	ASN	CB	38.22	.	.
1	A	169	ASN	HA	4.77	.	.
1	A	169	ASN	HB2	2.82	.	.
1	A	170	VAL	N	120.93	.	.
1	A	170	VAL	H	8.19	.	.
1	A	170	VAL	CA	62.4	.	.
1	A	170	VAL	C	175.95	.	.
1	A	170	VAL	CB	32.51	.	.
1	A	170	VAL	CG1	21.01	.	.
1	A	170	VAL	CG2	20.34	.	.

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List ID	**Chain**	**Res**	**Type**	**Atom**	**Shift Data**		
					Value	Uncertainty	Ambiguity
1	A	170	VAL	HA	4.1	.	.
1	A	170	VAL	HB	2.09	.	.
1	A	170	VAL	HG11	0.92	.	.
1	A	170	VAL	HG12	0.92	.	.
1	A	170	VAL	HG13	0.92	.	.
1	A	170	VAL	HG21	0.91	.	.
1	A	170	VAL	HG22	0.91	.	.
1	A	170	VAL	HG23	0.91	.	.
1	A	171	MET	N	123.62	.	.
1	A	171	MET	H	8.39	.	.
1	A	171	MET	CA	55.33	.	.
1	A	171	MET	CB	32.51	.	.
1	A	171	MET	CG	17.41	.	.
1	A	171	MET	CE	52.11	.	.
1	A	171	MET	HA	4.45	.	.
1	A	171	MET	HB2	2.05	.	.
1	A	171	MET	HG2	2.6	.	.
1	A	171	MET	HE1	0.917	.	.
1	A	171	MET	HE2	0.917	.	.
1	A	171	MET	HE3	0.917	.	.
1	A	172	LEU	N	125.13	.	.
1	A	172	LEU	H	8.48	.	.
1	A	172	LEU	CA	55.08	.	.
1	A	172	LEU	CB	42.34	.	.
1	A	172	LEU	CG	26.69	.	.
1	A	172	LEU	CD1	24.77	.	.
1	A	172	LEU	CD2	23.18	.	.
1	A	172	LEU	HA	4.34	.	.
1	A	172	LEU	HB2	1.63	.	.
1	A	172	LEU	HG	1.47	.	.
1	A	172	LEU	HD11	0.83	.	.
1	A	172	LEU	HD12	0.83	.	.
1	A	172	LEU	HD13	0.83	.	.
1	A	172	LEU	HD21	0.79	.	.
1	A	172	LEU	HD22	0.79	.	.
1	A	172	LEU	HD23	0.79	.	.
1	A	173	ASN	N	119.33	.	.
1	A	173	ASN	H	8.41	.	.
1	A	173	ASN	CA	53.19	.	.
1	A	173	ASN	C	174.91	.	.
1	A	173	ASN	CB	38.68	.	.

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List ID	Chain	Res	Type	Atom	Shift Data		
					Value	Uncertainty	Ambiguity
1	A	173	ASN	HA	4.68	.	.
1	A	173	ASN	HB2	2.81	.	.
1	A	174	ASN	N	116.37	.	.
1	A	174	ASN	H	8.39	.	.
1	A	174	ASN	CB	63.76	.	.
1	A	176	SER	N	118.51	.	.
1	A	176	SER	H	8.59	.	.
1	A	176	SER	CA	59.25	.	.
1	A	176	SER	CB	63.65	.	.
1	A	176	SER	HA	4.46	.	.
1	A	176	SER	HB2	3.96	.	.

7.1.2 Chemical shift referencing ⓘ

The following table shows the suggested chemical shift referencing corrections.

Nucleus	# values	Correction ± precision, *ppm*	Suggested action
$^{13}C_{\alpha}$	173	-0.08 ± 0.15	None needed (< 0.5 ppm)
$^{13}C_{\beta}$	166	0.28 ± 0.11	None needed (< 0.5 ppm)
$^{13}C'$	137	-0.01 ± 0.15	None needed (< 0.5 ppm)
^{15}N	172	0.40 ± 0.25	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 81%, i.e. 1792 atoms were assigned a chemical shift out of a possible 2223. 0 out of 32 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

	Total	^{1}H	^{13}C	^{15}N
Backbone	778/813 (96%)	326/328 (99%)	292/324 (90%)	160/161 (99%)
Sidechain	974/1323 (74%)	607/853 (71%)	362/426 (85%)	5/44 (11%)
Aromatic	40/87 (46%)	20/41 (49%)	20/44 (45%)	0/2 (0%)
Overall	1792/2223 (81%)	953/1222 (78%)	674/794 (85%)	165/207 (80%)

The following table shows the completeness of the chemical shift assignments for the full structure. The overall completeness is 81%, i.e. 1844 atoms were assigned a chemical shift out of a possible 2285. 0 out of 32 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

	Total	^{1}H	^{13}C	^{15}N
Backbone	803/839 (96%)	337/339 (99%)	301/334 (90%)	165/166 (99%)
Sidechain	1001/1359 (74%)	623/876 (71%)	373/438 (85%)	5/45 (11%)
Aromatic	40/87 (46%)	20/41 (49%)	20/44 (45%)	0/2 (0%)
Overall	1844/2285 (81%)	980/1256 (78%)	694/816 (85%)	170/213 (80%)

7.1.4 Statistically unusual chemical shifts

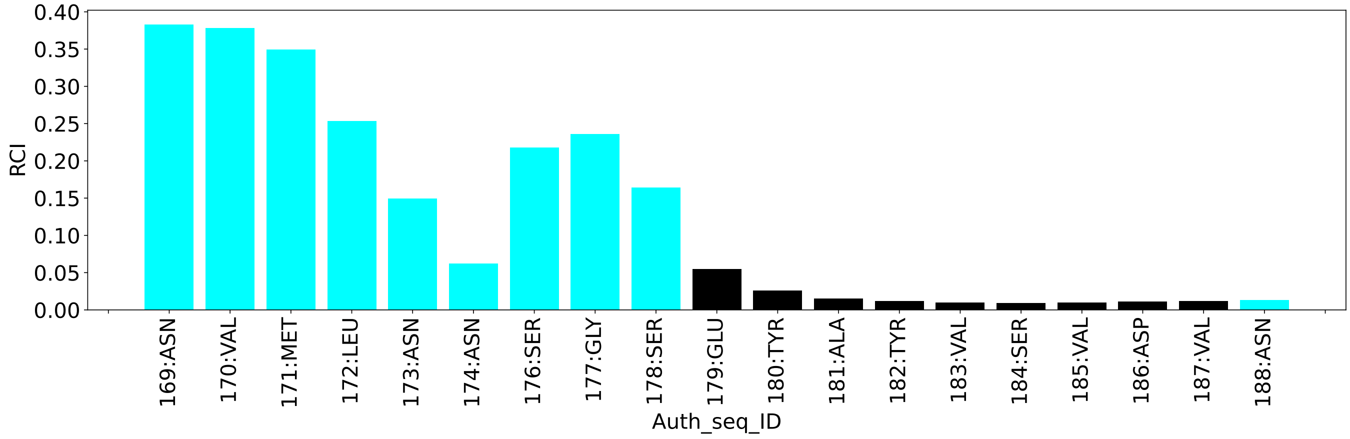
The following table lists the statistically unusual chemical shifts. These are statistical measures, and large deviations from the mean do not necessarily imply incorrect assignments. Molecules containing paramagnetic centres or hemes are expected to give rise to anomalous chemical shifts.

List Id	Chain	Res	Type	Atom	Shift, *ppm*	Expected range, *ppm*	Z-score
1	A	171	MET	CE	52.11	8.39 – 25.85	20.0
1	A	174	ASN	CB	63.76	30.50 – 46.89	15.3
1	A	171	MET	CG	17.41	25.46 – 38.60	-11.1
1	B	298	LEU	CG	37.88	21.37 – 32.19	10.3
1	B	189	PRO	HA	1.26	2.78 – 6.00	-9.7

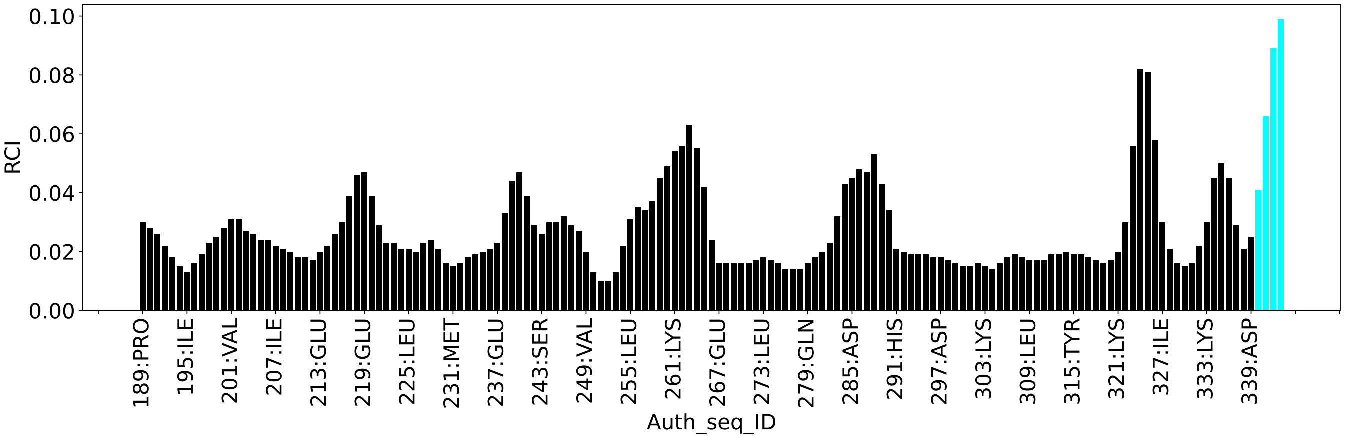
7.1.5 Random Coil Index (RCI) plots

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:



Random coil index (RCI) for chain B:


RCI
0.10
0.08
0.06
0.04
0.02
0.00
189:PRO
195:ILE
201:VAL
207:ILE
213:GLU
219:GLU
225:LEU
231:MET
237:GLU
243:SER
249:VAL
255:LEU
261:LYS
267:GLU
273:LEU
279:GLN
285:ASP
291:HIS
297:ASP
303:LYS
309:LEU
315:TYR
321:LYS
327:ILE
333:LYS
339:ASP
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	1668
Intra-residue (|i-j|=0)	438
Sequential (|i-j|=1)	463
Medium range (|i-j|>1 and |i-j|<5)	260
Long range (|i-j|≥5)	408
Inter-chain	99
Hydrogen bond restraints	0
Disulfide bond restraints	0
Total dihedral-angle restraints	301
Number of unmapped restraints	0
Number of restraints per residue	11.1
Number of long range restraints per residue[1]	2.3

[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)	16.6	0.2
0.2-0.5 (Medium)	10.0	0.46
>0.5 (Large)	None	None

8.2.2 Average number of dihedral-angle violations per model ⓘ

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

Bins (°)	Average number of violations per model	Max (°)
1.0-10.0 (Small)	14.9	4.97
10.0-20.0 (Medium)	None	None
>20.0 (Large)	None	None

9 Distance violation analysis

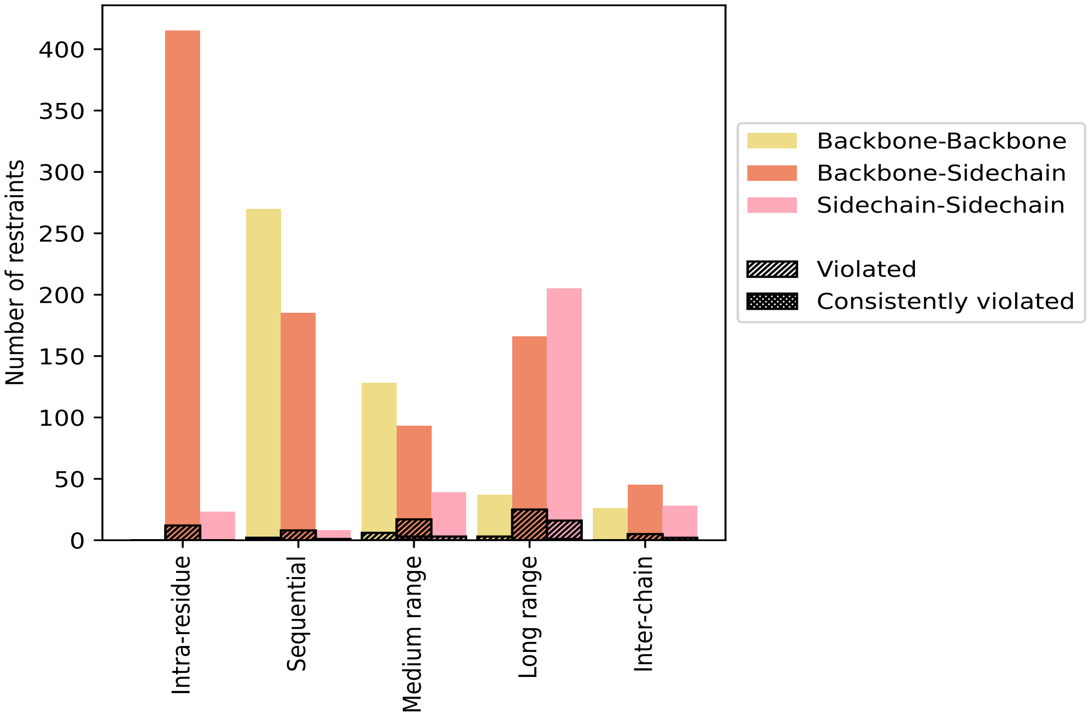
9.1 Summary of distance violations

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)	438	26.3	12	2.7	0.7	0	0.0	0.0
Backbone-Backbone	0	0.0	0	0.0	0.0	0	0.0	0.0
Backbone-Sidechain	415	24.9	12	2.9	0.7	0	0.0	0.0
Sidechain-Sidechain	23	1.4	0	0.0	0.0	0	0.0	0.0
Sequential (|i-j|=1)	463	27.8	11	2.4	0.7	2	0.4	0.1
Backbone-Backbone	270	16.2	2	0.7	0.1	2	0.7	0.1
Backbone-Sidechain	185	11.1	8	4.3	0.5	0	0.0	0.0
Sidechain-Sidechain	8	0.5	1	12.5	0.1	0	0.0	0.0
Medium range (|i-j|>1 & |i-j|<5)	260	15.6	26	10.0	1.6	3	1.2	0.2
Backbone-Backbone	128	7.7	6	4.7	0.4	0	0.0	0.0
Backbone-Sidechain	93	5.6	17	18.3	1.0	3	3.2	0.2
Sidechain-Sidechain	39	2.3	3	7.7	0.2	0	0.0	0.0
Long range (|i-j|≥5)	408	24.5	44	10.8	2.6	1	0.2	0.1
Backbone-Backbone	37	2.2	3	8.1	0.2	0	0.0	0.0
Backbone-Sidechain	166	10.0	25	15.1	1.5	0	0.0	0.0
Sidechain-Sidechain	205	12.3	16	7.8	1.0	1	0.5	0.1
Inter-chain	99	5.9	7	7.1	0.4	0	0.0	0.0
Backbone-Backbone	26	1.6	0	0.0	0.0	0	0.0	0.0
Backbone-Sidechain	45	2.7	5	11.1	0.3	0	0.0	0.0
Sidechain-Sidechain	28	1.7	2	7.1	0.1	0	0.0	0.0
Hydrogen bond	0	0.0	0	0.0	0.0	0	0.0	0.0
Disulfide bond	0	0.0	0	0.0	0.0	0	0.0	0.0
Total	1668	100.0	100	6.0	6.0	6	0.4	0.4
Backbone-Backbone	461	27.6	11	2.4	0.7	2	0.4	0.1
Backbone-Sidechain	904	54.2	67	7.4	4.0	3	0.3	0.2
Sidechain-Sidechain	303	18.2	22	7.3	1.3	1	0.3	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	1	6	10	8	2	27	0.17	0.34	0.07	0.14
2	3	5	10	10	1	29	0.18	0.36	0.07	0.16
3	1	6	11	9	0	27	0.2	0.44	0.1	0.14
4	0	5	10	13	1	29	0.2	0.34	0.07	0.2
5	2	4	11	8	0	25	0.21	0.38	0.08	0.19
6	5	5	12	6	0	28	0.19	0.37	0.07	0.17
7	2	7	11	8	0	28	0.2	0.41	0.08	0.17
8	5	4	15	11	0	35	0.19	0.39	0.08	0.16
9	0	3	11	10	2	26	0.18	0.39	0.07	0.16
10	3	3	9	9	3	27	0.18	0.46	0.09	0.13

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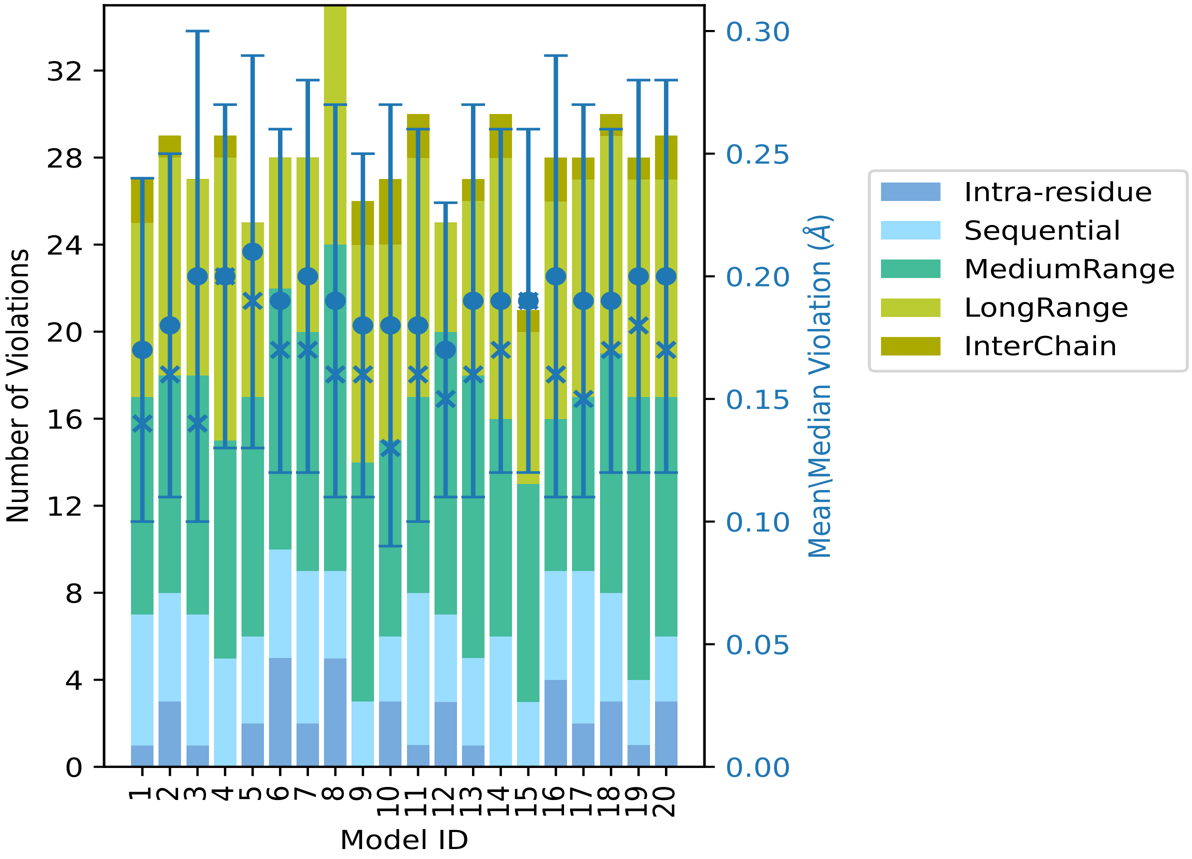
Model ID	Number of violations						Mean (Å)	Max (Å)	SD[6] (Å)	Median (Å)
	IR[1]	SQ[2]	MR[3]	LR[4]	IC[5]	Total				
11	1	7	9	11	2	30	0.18	0.37	0.08	0.16
12	3	4	13	5	0	25	0.17	0.34	0.06	0.15
13	1	4	13	8	1	27	0.19	0.38	0.08	0.16
14	0	6	10	12	2	30	0.19	0.37	0.07	0.17
15	0	3	10	7	1	21	0.19	0.39	0.07	0.19
16	4	5	7	10	2	28	0.2	0.46	0.09	0.16
17	2	7	8	10	1	28	0.19	0.38	0.08	0.15
18	3	5	11	10	1	30	0.19	0.38	0.07	0.17
19	1	3	13	10	1	28	0.2	0.44	0.08	0.18
20	3	3	11	10	2	29	0.2	0.37	0.08	0.17

[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

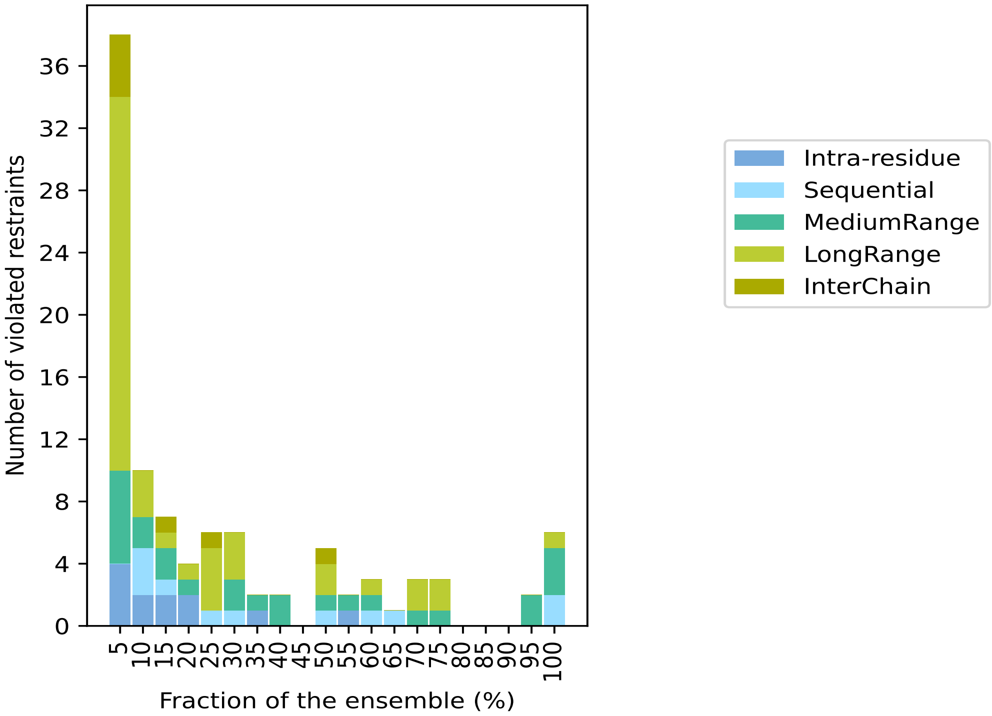
9.3 Distance violation statistics for the ensemble (i)

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, 1568(IR:426, SQ:452, MR:234, LR:364, IC:92) 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]	%
4	0	6	24	4	38	1	5.0
2	3	2	3	0	10	2	10.0
2	1	2	1	1	7	3	15.0
2	0	1	1	0	4	4	20.0
0	1	0	4	1	6	5	25.0
0	1	2	3	0	6	6	30.0
1	0	1	0	0	2	7	35.0
0	0	2	0	0	2	8	40.0
0	0	0	0	0	0	9	45.0
0	1	1	2	1	5	10	50.0
1	0	1	0	0	2	11	55.0
0	1	1	1	0	3	12	60.0
0	1	0	0	0	1	13	65.0
0	0	1	2	0	3	14	70.0
0	0	1	2	0	3	15	75.0
0	0	0	0	0	0	16	80.0
0	0	0	0	0	0	17	85.0
0	0	0	0	0	0	18	90.0
0	0	2	0	0	2	19	95.0
0	2	3	1	0	6	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

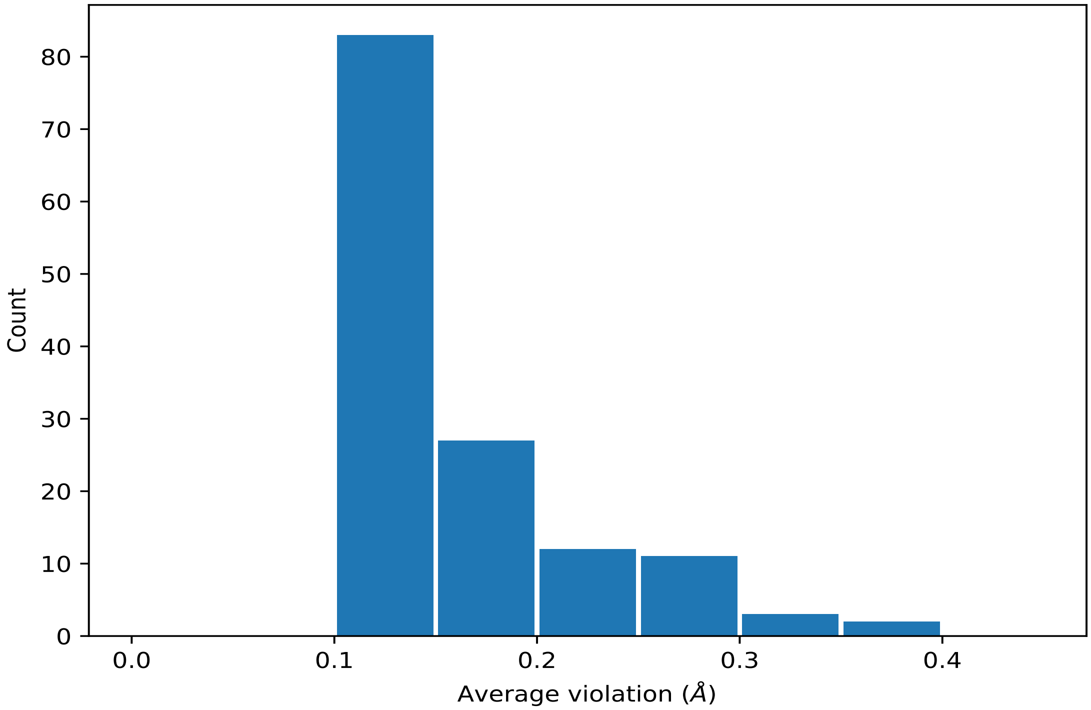
9.3.1 Bar graph : Distance violation statistics for the ensemble ⓘ



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 (i)

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

Key	Atom-1	Atom-2	Models[1]	Mean (Å)	SD[1] (Å)	Median (Å)
(1,853)	2:243:B:SER:H	2:244:B:ASP:H	20	0.38	0.04	0.38
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB2	20	0.27	0.04	0.27
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB3	20	0.27	0.04	0.27
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB2	20	0.26	0.06	0.26
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB3	20	0.26	0.06	0.26
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB2	20	0.26	0.03	0.26
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB3	20	0.26	0.03	0.26
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB2	20	0.19	0.05	0.18
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB3	20	0.19	0.05	0.18
(1,359)	2:342:B:GLU:H	2:343:B:LYS:H	20	0.18	0.06	0.18
(1,235)	2:299:B:GLU:H	2:297:B:ASP:H	19	0.26	0.05	0.28
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB2	19	0.25	0.07	0.26
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB3	19	0.25	0.07	0.26
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB2	15	0.19	0.07	0.19
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB3	15	0.19	0.07	0.19
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB2	15	0.19	0.04	0.18

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Key	Atom-1	Atom-2	Models[1]	Mean (Å)	SD[1] (Å)	Median (Å)
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB3	15	0.19	0.04	0.18
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB2	15	0.19	0.04	0.18
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB3	15	0.19	0.04	0.18
(1,700)	2:256:B:ASN:H	2:259:B:ASN:H	15	0.15	0.02	0.15
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD11	14	0.17	0.03	0.16
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD12	14	0.17	0.03	0.16
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD13	14	0.17	0.03	0.16
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD21	14	0.17	0.03	0.16
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD22	14	0.17	0.03	0.16
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD23	14	0.17	0.03	0.16
(1,428)	2:222:B:GLU:H	2:202:B:ILE:HA	14	0.16	0.04	0.16
(1,464)	2:271:B:ASP:H	2:267:B:GLU:H	14	0.13	0.02	0.13
(1,956)	2:327:B:ILE:HD11	2:328:B:THR:HA	13	0.23	0.05	0.22
(1,956)	2:327:B:ILE:HD12	2:328:B:THR:HA	13	0.23	0.05	0.22
(1,956)	2:327:B:ILE:HD13	2:328:B:THR:HA	13	0.23	0.05	0.22
(1,1036)	2:329:B:ILE:HD11	2:332:B:VAL:HB	12	0.15	0.04	0.15
(1,1036)	2:329:B:ILE:HD12	2:332:B:VAL:HB	12	0.15	0.04	0.15
(1,1036)	2:329:B:ILE:HD13	2:332:B:VAL:HB	12	0.15	0.04	0.15
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG21	12	0.14	0.02	0.15
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG22	12	0.14	0.02	0.15
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG23	12	0.14	0.02	0.15
(1,1062)	2:213:B:GLU:HB2	2:239:B:LEU:HA	12	0.14	0.03	0.14
(1,1062)	2:213:B:GLU:HB3	2:239:B:LEU:HA	12	0.14	0.03	0.14
(1,146)	2:283:B:ALA:H	2:281:B:ILE:HG12	11	0.26	0.07	0.25
(1,146)	2:283:B:ALA:H	2:281:B:ILE:HG13	11	0.26	0.07	0.25
(1,733)	2:218:B:LEU:H	2:218:B:LEU:HG	11	0.21	0.1	0.16
(1,351)	2:246:B:LYS:H	2:244:B:ASP:H	10	0.17	0.05	0.15
(1,1618)	2:224:B:ASP:HA	2:193:B:PHE:HZ	10	0.16	0.04	0.16
(1,1139)	1:188:A:ASN:HA	2:333:B:LYS:HB2	10	0.14	0.02	0.13
(1,1139)	1:188:A:ASN:HA	2:333:B:LYS:HB3	10	0.14	0.02	0.13
(1,11)	2:295:B:THR:H	2:294:B:VAL:HB	10	0.13	0.01	0.13
(1,1347)	2:244:B:ASP:HA	2:286:B:ASN:HB2	10	0.12	0.02	0.11
(1,1347)	2:244:B:ASP:HA	2:286:B:ASN:HB3	10	0.12	0.02	0.11
(1,587)	2:328:B:THR:H	2:332:B:VAL:HB	8	0.14	0.03	0.12
(1,1098)	2:276:B:THR:HA	2:272:B:GLU:HB2	8	0.12	0.02	0.12
(1,1098)	2:276:B:THR:HA	2:272:B:GLU:HB3	8	0.12	0.02	0.12
(1,1588)	2:223:B:LYS:HG2	2:221:B:LYS:HA	7	0.32	0.08	0.34
(1,1588)	2:223:B:LYS:HG3	2:221:B:LYS:HA	7	0.32	0.08	0.34
(1,82)	2:321:B:LYS:H	2:321:B:LYS:HG2	7	0.11	0.0	0.11
(1,82)	2:321:B:LYS:H	2:321:B:LYS:HG3	7	0.11	0.0	0.11
(1,107)	2:246:B:LYS:H	2:245:B:ASP:HB2	6	0.2	0.07	0.23
(1,107)	2:246:B:LYS:H	2:245:B:ASP:HB3	6	0.2	0.07	0.23

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Key	Atom-1	Atom-2	Models[1]	Mean (Å)	SD[1] (Å)	Median (Å)
(1,963)	2:220:B:LEU:HD11	2:204:B:THR:HB	6	0.17	0.05	0.18
(1,963)	2:220:B:LEU:HD12	2:204:B:THR:HB	6	0.17	0.05	0.18
(1,963)	2:220:B:LEU:HD13	2:204:B:THR:HB	6	0.17	0.05	0.18
(1,963)	2:220:B:LEU:HD21	2:204:B:THR:HB	6	0.17	0.05	0.18
(1,963)	2:220:B:LEU:HD22	2:204:B:THR:HB	6	0.17	0.05	0.18
(1,963)	2:220:B:LEU:HD23	2:204:B:THR:HB	6	0.17	0.05	0.18
(1,1562)	2:194:B:THR:HA	2:202:B:ILE:HG21	6	0.15	0.03	0.15
(1,1562)	2:194:B:THR:HA	2:202:B:ILE:HG22	6	0.15	0.03	0.15
(1,1562)	2:194:B:THR:HA	2:202:B:ILE:HG23	6	0.15	0.03	0.15
(1,1109)	2:193:B:PHE:HD1	2:203:B:VAL:HB	6	0.14	0.02	0.15
(1,1109)	2:193:B:PHE:HD2	2:203:B:VAL:HB	6	0.14	0.02	0.15
(1,21)	2:281:B:ILE:H	2:277:B:ILE:HG21	6	0.14	0.02	0.14
(1,21)	2:281:B:ILE:H	2:277:B:ILE:HG22	6	0.14	0.02	0.14
(1,21)	2:281:B:ILE:H	2:277:B:ILE:HG23	6	0.14	0.02	0.14
(1,827)	2:320:B:ALA:H	2:323:B:LYS:HB2	6	0.12	0.01	0.12
(1,827)	2:320:B:ALA:H	2:323:B:LYS:HB3	6	0.12	0.01	0.12
(1,447)	2:241:B:TYR:H	2:242:B:ILE:HB	5	0.31	0.08	0.35
(1,1455)	2:247:B:ASN:HA	2:289:B:ILE:HD11	5	0.18	0.05	0.2
(1,1455)	2:247:B:ASN:HA	2:289:B:ILE:HD12	5	0.18	0.05	0.2
(1,1455)	2:247:B:ASN:HA	2:289:B:ILE:HD13	5	0.18	0.05	0.2
(1,1660)	2:337:B:ILE:HA	1:186:A:ASP:HB2	5	0.15	0.05	0.12
(1,1660)	2:337:B:ILE:HA	1:186:A:ASP:HB3	5	0.15	0.05	0.12
(1,52)	2:327:B:ILE:H	2:321:B:LYS:HG2	5	0.14	0.02	0.14
(1,52)	2:327:B:ILE:H	2:321:B:LYS:HG3	5	0.14	0.02	0.14
(1,996)	2:294:B:VAL:HG11	2:318:B:LEU:HB2	5	0.13	0.01	0.13
(1,996)	2:294:B:VAL:HG11	2:318:B:LEU:HB3	5	0.13	0.01	0.13
(1,996)	2:294:B:VAL:HG12	2:318:B:LEU:HB2	5	0.13	0.01	0.13
(1,996)	2:294:B:VAL:HG12	2:318:B:LEU:HB3	5	0.13	0.01	0.13
(1,996)	2:294:B:VAL:HG13	2:318:B:LEU:HB2	5	0.13	0.01	0.13
(1,996)	2:294:B:VAL:HG13	2:318:B:LEU:HB3	5	0.13	0.01	0.13
(1,996)	2:294:B:VAL:HG21	2:318:B:LEU:HB2	5	0.13	0.01	0.13
(1,996)	2:294:B:VAL:HG21	2:318:B:LEU:HB3	5	0.13	0.01	0.13
(1,996)	2:294:B:VAL:HG22	2:318:B:LEU:HB2	5	0.13	0.01	0.13
(1,996)	2:294:B:VAL:HG22	2:318:B:LEU:HB3	5	0.13	0.01	0.13
(1,996)	2:294:B:VAL:HG23	2:318:B:LEU:HB2	5	0.13	0.01	0.13
(1,996)	2:294:B:VAL:HG23	2:318:B:LEU:HB3	5	0.13	0.01	0.13
(1,1162)	2:218:B:LEU:HG	2:193:B:PHE:HE1	5	0.13	0.02	0.13
(1,1162)	2:218:B:LEU:HG	2:193:B:PHE:HE2	5	0.13	0.02	0.13
(1,1224)	2:282:B:GLU:HG2	2:278:B:GLU:HA	4	0.21	0.02	0.22
(1,1224)	2:282:B:GLU:HG3	2:278:B:GLU:HA	4	0.21	0.02	0.22
(1,889)	2:327:B:ILE:H	2:327:B:ILE:HD11	4	0.15	0.07	0.12
(1,889)	2:327:B:ILE:H	2:327:B:ILE:HD12	4	0.15	0.07	0.12

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Key	Atom-1	Atom-2	Models[1]	Mean (Å)	SD[1] (Å)	Median (Å)
(1,889)	2:327:B:ILE:H	2:327:B:ILE:HD13	4	0.15	0.07	0.12
(1,1634)	2:241:B:TYR:HA	2:210:B:ASP:HB2	4	0.14	0.04	0.14
(1,1634)	2:241:B:TYR:HA	2:210:B:ASP:HB3	4	0.14	0.04	0.14
(1,445)	2:322:B:GLU:H	2:322:B:GLU:HG2	4	0.13	0.0	0.13
(1,445)	2:322:B:GLU:H	2:322:B:GLU:HG3	4	0.13	0.0	0.13
(1,779)	2:248:B:TYR:H	2:248:B:TYR:HE1	3	0.23	0.05	0.21
(1,779)	2:248:B:TYR:H	2:248:B:TYR:HE2	3	0.23	0.05	0.21
(1,980)	2:262:B:THR:HG21	2:255:B:LEU:HA	3	0.14	0.01	0.14
(1,980)	2:262:B:THR:HG22	2:255:B:LEU:HA	3	0.14	0.01	0.14
(1,980)	2:262:B:THR:HG23	2:255:B:LEU:HA	3	0.14	0.01	0.14
(1,865)	2:328:B:THR:H	2:328:B:THR:HB	3	0.14	0.01	0.13
(1,1548)	2:337:B:ILE:HG21	1:186:A:ASP:HA	3	0.12	0.01	0.12
(1,1548)	2:337:B:ILE:HG22	1:186:A:ASP:HA	3	0.12	0.01	0.12
(1,1548)	2:337:B:ILE:HG23	1:186:A:ASP:HA	3	0.12	0.01	0.12
(1,831)	2:292:B:ARG:H	2:291:B:HIS:HD2	3	0.12	0.0	0.12
(1,379)	2:327:B:ILE:H	2:325:B:MET:HA	3	0.12	0.0	0.12
(1,1123)	2:207:B:ILE:HD11	2:205:B:SER:HA	3	0.11	0.0	0.11
(1,1123)	2:207:B:ILE:HD12	2:205:B:SER:HA	3	0.11	0.0	0.11
(1,1123)	2:207:B:ILE:HD13	2:205:B:SER:HA	3	0.11	0.0	0.11
(1,1144)	2:266:B:ARG:HA	2:270:B:ILE:HB	2	0.36	0.08	0.36
(1,1211)	2:327:B:ILE:HB	2:332:B:VAL:HB	2	0.23	0.09	0.23
(1,354)	2:283:B:ALA:H	2:284:B:LEU:HG	2	0.22	0.02	0.22
(1,952)	2:229:B:LEU:HD11	2:277:B:ILE:H	2	0.14	0.02	0.14
(1,952)	2:229:B:LEU:HD12	2:277:B:ILE:H	2	0.14	0.02	0.14
(1,952)	2:229:B:LEU:HD13	2:277:B:ILE:H	2	0.14	0.02	0.14
(1,952)	2:229:B:LEU:HD21	2:277:B:ILE:H	2	0.14	0.02	0.14
(1,952)	2:229:B:LEU:HD22	2:277:B:ILE:H	2	0.14	0.02	0.14
(1,952)	2:229:B:LEU:HD23	2:277:B:ILE:H	2	0.14	0.02	0.14
(1,571)	2:244:B:ASP:H	2:288:B:THR:HG21	2	0.13	0.01	0.13
(1,571)	2:244:B:ASP:H	2:288:B:THR:HG22	2	0.13	0.01	0.13
(1,571)	2:244:B:ASP:H	2:288:B:THR:HG23	2	0.13	0.01	0.13
(1,824)	2:229:B:LEU:H	2:229:B:LEU:HG	2	0.12	0.02	0.12
(1,888)	2:303:B:LYS:H	2:303:B:LYS:HE2	2	0.12	0.02	0.12
(1,888)	2:303:B:LYS:H	2:303:B:LYS:HE3	2	0.12	0.02	0.12
(1,1350)	2:329:B:ILE:HB	2:328:B:THR:HB	2	0.12	0.02	0.12
(1,374)	2:328:B:THR:H	2:327:B:ILE:HB	2	0.11	0.0	0.11
(1,494)	2:283:B:ALA:H	2:279:B:GLN:HB2	2	0.11	0.01	0.11
(1,494)	2:283:B:ALA:H	2:279:B:GLN:HB3	2	0.11	0.01	0.11

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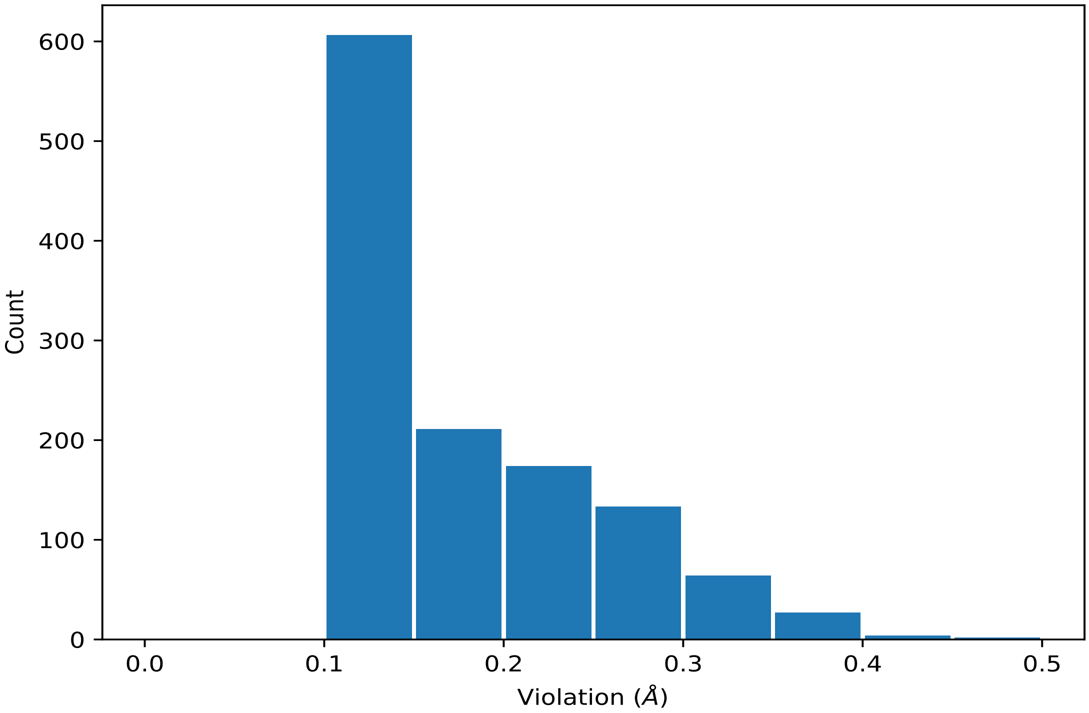
[1]Number of violated models, [2]Standard deviation

9.5 All violated distance restraints (i)

9.5.1 Histogram : Distribution of distance violations (i)

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



9.5.2 Table : All distance violations (i)

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

Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,853)	2:243:B:SER:H	2:244:B:ASP:H	10	0.46
(1,853)	2:243:B:SER:H	2:244:B:ASP:H	16	0.46
(1,1588)	2:223:B:LYS:HG2	2:221:B:LYS:HA	19	0.44
(1,1588)	2:223:B:LYS:HG3	2:221:B:LYS:HA	19	0.44
(1,1144)	2:266:B:ARG:HA	2:270:B:ILE:HB	3	0.44
(1,853)	2:243:B:SER:H	2:244:B:ASP:H	7	0.41
(1,853)	2:243:B:SER:H	2:244:B:ASP:H	3	0.39
(1,853)	2:243:B:SER:H	2:244:B:ASP:H	8	0.39
(1,853)	2:243:B:SER:H	2:244:B:ASP:H	9	0.39
(1,853)	2:243:B:SER:H	2:244:B:ASP:H	15	0.39

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,853)	2:243:B:SER:H	2:244:B:ASP:H	5	0.38
(1,853)	2:243:B:SER:H	2:244:B:ASP:H	13	0.38
(1,853)	2:243:B:SER:H	2:244:B:ASP:H	17	0.38
(1,853)	2:243:B:SER:H	2:244:B:ASP:H	18	0.38
(1,853)	2:243:B:SER:H	2:244:B:ASP:H	19	0.38
(1,447)	2:241:B:TYR:H	2:242:B:ILE:HB	17	0.38
(1,853)	2:243:B:SER:H	2:244:B:ASP:H	6	0.37
(1,853)	2:243:B:SER:H	2:244:B:ASP:H	11	0.37
(1,733)	2:218:B:LEU:H	2:218:B:LEU:HG	20	0.37
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB2	14	0.37
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB3	14	0.37
(1,447)	2:241:B:TYR:H	2:242:B:ILE:HB	14	0.37
(1,146)	2:283:B:ALA:H	2:281:B:ILE:HG12	5	0.37
(1,146)	2:283:B:ALA:H	2:281:B:ILE:HG13	5	0.37
(1,1588)	2:223:B:LYS:HG2	2:221:B:LYS:HA	8	0.36
(1,1588)	2:223:B:LYS:HG3	2:221:B:LYS:HA	8	0.36
(1,1588)	2:223:B:LYS:HG2	2:221:B:LYS:HA	18	0.36
(1,1588)	2:223:B:LYS:HG3	2:221:B:LYS:HA	18	0.36
(1,853)	2:243:B:SER:H	2:244:B:ASP:H	2	0.36
(1,853)	2:243:B:SER:H	2:244:B:ASP:H	14	0.36
(1,853)	2:243:B:SER:H	2:244:B:ASP:H	20	0.36
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB2	10	0.36
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB3	10	0.36
(1,447)	2:241:B:TYR:H	2:242:B:ILE:HB	11	0.35
(1,146)	2:283:B:ALA:H	2:281:B:ILE:HG12	3	0.35
(1,146)	2:283:B:ALA:H	2:281:B:ILE:HG13	3	0.35
(1,146)	2:283:B:ALA:H	2:281:B:ILE:HG12	7	0.35
(1,146)	2:283:B:ALA:H	2:281:B:ILE:HG13	7	0.35
(1,1588)	2:223:B:LYS:HG2	2:221:B:LYS:HA	2	0.34
(1,1588)	2:223:B:LYS:HG3	2:221:B:LYS:HA	2	0.34
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB2	16	0.34
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB3	16	0.34
(1,853)	2:243:B:SER:H	2:244:B:ASP:H	1	0.34
(1,853)	2:243:B:SER:H	2:244:B:ASP:H	12	0.34
(1,733)	2:218:B:LEU:H	2:218:B:LEU:HG	3	0.34
(1,733)	2:218:B:LEU:H	2:218:B:LEU:HG	8	0.34
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB2	4	0.34
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB3	4	0.34
(1,235)	2:299:B:GLU:H	2:297:B:ASP:H	8	0.34
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB2	19	0.34
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB3	19	0.34
(1,235)	2:299:B:GLU:H	2:297:B:ASP:H	4	0.33

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB2	5	0.33
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB3	5	0.33
(1,1588)	2:223:B:LYS:HG2	2:221:B:LYS:HA	4	0.32
(1,1588)	2:223:B:LYS:HG3	2:221:B:LYS:HA	4	0.32
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB2	4	0.32
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB3	4	0.32
(1,1211)	2:327:B:ILE:HB	2:332:B:VAL:HB	13	0.32
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB2	3	0.32
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB3	3	0.32
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB2	5	0.32
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB3	5	0.32
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB2	10	0.32
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB3	10	0.32
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB2	9	0.32
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB3	9	0.32
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB2	11	0.32
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB3	11	0.32
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB2	3	0.32
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB3	3	0.32
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB2	13	0.32
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB3	13	0.32
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB2	1	0.31
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB3	1	0.31
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB2	7	0.31
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB3	7	0.31
(1,470)	2:343:B:LYS:H	2:343:B:LYS:HD2	16	0.31
(1,470)	2:343:B:LYS:H	2:343:B:LYS:HD3	16	0.31
(1,281)	2:343:B:LYS:H	2:343:B:LYS:HG2	16	0.31
(1,281)	2:343:B:LYS:H	2:343:B:LYS:HG3	16	0.31
(1,235)	2:299:B:GLU:H	2:297:B:ASP:H	3	0.31
(1,235)	2:299:B:GLU:H	2:297:B:ASP:H	13	0.31
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB2	2	0.31
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB3	2	0.31
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB2	4	0.31
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB3	4	0.31
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB2	8	0.31
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB3	8	0.31
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB2	19	0.31
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB3	19	0.31
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB2	20	0.31
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB3	20	0.31
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB2	6	0.31

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB3	6	0.31
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB2	20	0.31
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB3	20	0.31
(1,956)	2:327:B:ILE:HD11	2:328:B:THR:HA	20	0.3
(1,956)	2:327:B:ILE:HD12	2:328:B:THR:HA	20	0.3
(1,956)	2:327:B:ILE:HD13	2:328:B:THR:HA	20	0.3
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB2	10	0.3
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB3	10	0.3
(1,779)	2:248:B:TYR:H	2:248:B:TYR:HE1	20	0.3
(1,779)	2:248:B:TYR:H	2:248:B:TYR:HE2	20	0.3
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB2	11	0.3
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB3	11	0.3
(1,447)	2:241:B:TYR:H	2:242:B:ILE:HB	5	0.3
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB2	14	0.3
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB3	14	0.3
(1,146)	2:283:B:ALA:H	2:281:B:ILE:HG12	16	0.3
(1,146)	2:283:B:ALA:H	2:281:B:ILE:HG13	16	0.3
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB2	2	0.29
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB3	2	0.29
(1,956)	2:327:B:ILE:HD11	2:328:B:THR:HA	19	0.29
(1,956)	2:327:B:ILE:HD12	2:328:B:THR:HA	19	0.29
(1,956)	2:327:B:ILE:HD13	2:328:B:THR:HA	19	0.29
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB2	16	0.29
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB3	16	0.29
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB2	5	0.29
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB3	5	0.29
(1,235)	2:299:B:GLU:H	2:297:B:ASP:H	6	0.29
(1,235)	2:299:B:GLU:H	2:297:B:ASP:H	10	0.29
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB2	1	0.29
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB3	1	0.29
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB2	15	0.29
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB3	15	0.29
(1,1588)	2:223:B:LYS:HG2	2:221:B:LYS:HA	5	0.28
(1,1588)	2:223:B:LYS:HG3	2:221:B:LYS:HA	5	0.28
(1,1144)	2:266:B:ARG:HA	2:270:B:ILE:HB	17	0.28
(1,956)	2:327:B:ILE:HD11	2:328:B:THR:HA	3	0.28
(1,956)	2:327:B:ILE:HD12	2:328:B:THR:HA	3	0.28
(1,956)	2:327:B:ILE:HD13	2:328:B:THR:HA	3	0.28
(1,956)	2:327:B:ILE:HD11	2:328:B:THR:HA	4	0.28
(1,956)	2:327:B:ILE:HD12	2:328:B:THR:HA	4	0.28
(1,956)	2:327:B:ILE:HD13	2:328:B:THR:HA	4	0.28
(1,889)	2:327:B:ILE:H	2:327:B:ILE:HD11	6	0.28

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,889)	2:327:B:ILE:H	2:327:B:ILE:HD12	6	0.28
(1,889)	2:327:B:ILE:H	2:327:B:ILE:HD13	6	0.28
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB2	6	0.28
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB3	6	0.28
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB2	3	0.28
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB3	3	0.28
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB2	8	0.28
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB3	8	0.28
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB2	17	0.28
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB3	17	0.28
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB2	20	0.28
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB3	20	0.28
(1,235)	2:299:B:GLU:H	2:297:B:ASP:H	7	0.28
(1,235)	2:299:B:GLU:H	2:297:B:ASP:H	9	0.28
(1,235)	2:299:B:GLU:H	2:297:B:ASP:H	14	0.28
(1,235)	2:299:B:GLU:H	2:297:B:ASP:H	20	0.28
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB2	13	0.28
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB3	13	0.28
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB2	17	0.28
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB3	17	0.28
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB2	7	0.28
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB3	7	0.28
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB2	18	0.27
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB3	18	0.27
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB2	16	0.27
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB3	16	0.27
(1,359)	2:342:B:GLU:H	2:343:B:LYS:H	1	0.27
(1,107)	2:246:B:LYS:H	2:245:B:ASP:HB2	7	0.27
(1,107)	2:246:B:LYS:H	2:245:B:ASP:HB3	7	0.27
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB2	15	0.26
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB3	15	0.26
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB2	6	0.26
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB3	6	0.26
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB2	13	0.26
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB3	13	0.26
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB2	19	0.26
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB3	19	0.26
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB2	3	0.26
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB3	3	0.26
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB2	7	0.26
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB3	7	0.26
(1,107)	2:246:B:LYS:H	2:245:B:ASP:HB2	8	0.26

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,107)	2:246:B:LYS:H	2:245:B:ASP:HB3	8	0.26
(1,1660)	2:337:B:ILE:HA	1:186:A:ASP:HB2	14	0.25
(1,1660)	2:337:B:ILE:HA	1:186:A:ASP:HB3	14	0.25
(1,1533)	2:262:B:THR:HA	2:255:B:LEU:HD11	2	0.25
(1,1533)	2:262:B:THR:HA	2:255:B:LEU:HD12	2	0.25
(1,1533)	2:262:B:THR:HA	2:255:B:LEU:HD13	2	0.25
(1,1533)	2:262:B:THR:HA	2:255:B:LEU:HD21	2	0.25
(1,1533)	2:262:B:THR:HA	2:255:B:LEU:HD22	2	0.25
(1,1533)	2:262:B:THR:HA	2:255:B:LEU:HD23	2	0.25
(1,1455)	2:247:B:ASN:HA	2:289:B:ILE:HD11	19	0.25
(1,1455)	2:247:B:ASN:HA	2:289:B:ILE:HD12	19	0.25
(1,1455)	2:247:B:ASN:HA	2:289:B:ILE:HD13	19	0.25
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB2	12	0.25
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB3	12	0.25
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB2	20	0.25
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB3	20	0.25
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB2	20	0.25
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB3	20	0.25
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB2	20	0.25
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB3	20	0.25
(1,956)	2:327:B:ILE:HD11	2:328:B:THR:HA	7	0.25
(1,956)	2:327:B:ILE:HD12	2:328:B:THR:HA	7	0.25
(1,956)	2:327:B:ILE:HD13	2:328:B:THR:HA	7	0.25
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB2	9	0.25
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB3	9	0.25
(1,853)	2:243:B:SER:H	2:244:B:ASP:H	4	0.25
(1,733)	2:218:B:LEU:H	2:218:B:LEU:HG	2	0.25
(1,733)	2:218:B:LEU:H	2:218:B:LEU:HG	19	0.25
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB2	4	0.25
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB3	4	0.25
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB2	12	0.25
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB3	12	0.25
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB2	2	0.25
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB3	2	0.25
(1,359)	2:342:B:GLU:H	2:343:B:LYS:H	4	0.25
(1,359)	2:342:B:GLU:H	2:343:B:LYS:H	7	0.25
(1,351)	2:246:B:LYS:H	2:244:B:ASP:H	6	0.25
(1,235)	2:299:B:GLU:H	2:297:B:ASP:H	12	0.25
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB2	16	0.25
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB3	16	0.25
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB2	18	0.25
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB3	18	0.25

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,146)	2:283:B:ALA:H	2:281:B:ILE:HG12	15	0.25
(1,146)	2:283:B:ALA:H	2:281:B:ILE:HG13	15	0.25
(1,146)	2:283:B:ALA:H	2:281:B:ILE:HG12	18	0.25
(1,146)	2:283:B:ALA:H	2:281:B:ILE:HG13	18	0.25
(1,107)	2:246:B:LYS:H	2:245:B:ASP:HB2	17	0.25
(1,107)	2:246:B:LYS:H	2:245:B:ASP:HB3	17	0.25
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB2	12	0.25
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB3	12	0.25
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB2	17	0.25
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB3	17	0.25
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB2	10	0.24
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB3	10	0.24
(1,1224)	2:282:B:GLU:HG2	2:278:B:GLU:HA	9	0.24
(1,1224)	2:282:B:GLU:HG3	2:278:B:GLU:HA	9	0.24
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB2	15	0.24
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB3	15	0.24
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB2	15	0.24
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB3	15	0.24
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB2	4	0.24
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB3	4	0.24
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB2	15	0.24
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB3	15	0.24
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB2	18	0.24
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB3	18	0.24
(1,428)	2:222:B:GLU:H	2:202:B:ILE:HA	9	0.24
(1,359)	2:342:B:GLU:H	2:343:B:LYS:H	5	0.24
(1,359)	2:342:B:GLU:H	2:343:B:LYS:H	8	0.24
(1,359)	2:342:B:GLU:H	2:343:B:LYS:H	18	0.24
(1,351)	2:246:B:LYS:H	2:244:B:ASP:H	11	0.24
(1,146)	2:283:B:ALA:H	2:281:B:ILE:HG12	1	0.24
(1,146)	2:283:B:ALA:H	2:281:B:ILE:HG13	1	0.24
(1,146)	2:283:B:ALA:H	2:281:B:ILE:HG12	14	0.24
(1,146)	2:283:B:ALA:H	2:281:B:ILE:HG13	14	0.24
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB2	4	0.24
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB3	4	0.24
(1,1618)	2:224:B:ASP:HA	2:193:B:PHE:HZ	13	0.23
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB2	8	0.23
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB3	8	0.23
(1,1224)	2:282:B:GLU:HG2	2:278:B:GLU:HA	19	0.23
(1,1224)	2:282:B:GLU:HG3	2:278:B:GLU:HA	19	0.23
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB2	6	0.23
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB3	6	0.23

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB2	6	0.23
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB3	6	0.23
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB2	19	0.23
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB3	19	0.23
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB2	19	0.23
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB3	19	0.23
(1,1036)	2:329:B:ILE:HD11	2:332:B:VAL:HB	4	0.23
(1,1036)	2:329:B:ILE:HD12	2:332:B:VAL:HB	4	0.23
(1,1036)	2:329:B:ILE:HD13	2:332:B:VAL:HB	4	0.23
(1,963)	2:220:B:LEU:HD11	2:204:B:THR:HB	4	0.23
(1,963)	2:220:B:LEU:HD12	2:204:B:THR:HB	4	0.23
(1,963)	2:220:B:LEU:HD13	2:204:B:THR:HB	4	0.23
(1,963)	2:220:B:LEU:HD21	2:204:B:THR:HB	4	0.23
(1,963)	2:220:B:LEU:HD22	2:204:B:THR:HB	4	0.23
(1,963)	2:220:B:LEU:HD23	2:204:B:THR:HB	4	0.23
(1,956)	2:327:B:ILE:HD11	2:328:B:THR:HA	8	0.23
(1,956)	2:327:B:ILE:HD12	2:328:B:THR:HA	8	0.23
(1,956)	2:327:B:ILE:HD13	2:328:B:THR:HA	8	0.23
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB2	18	0.23
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB3	18	0.23
(1,428)	2:222:B:GLU:H	2:202:B:ILE:HA	17	0.23
(1,359)	2:342:B:GLU:H	2:343:B:LYS:H	11	0.23
(1,354)	2:283:B:ALA:H	2:284:B:LEU:HG	14	0.23
(1,235)	2:299:B:GLU:H	2:297:B:ASP:H	2	0.23
(1,235)	2:299:B:GLU:H	2:297:B:ASP:H	15	0.23
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD11	7	0.22
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD12	7	0.22
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD13	7	0.22
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD21	7	0.22
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD22	7	0.22
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD23	7	0.22
(1,1099)	2:198:B:LYS:HA	2:200:B:LYS:HE2	12	0.22
(1,1099)	2:198:B:LYS:HA	2:200:B:LYS:HE3	12	0.22
(1,956)	2:327:B:ILE:HD11	2:328:B:THR:HA	2	0.22
(1,956)	2:327:B:ILE:HD12	2:328:B:THR:HA	2	0.22
(1,956)	2:327:B:ILE:HD13	2:328:B:THR:HA	2	0.22
(1,956)	2:327:B:ILE:HD11	2:328:B:THR:HA	5	0.22
(1,956)	2:327:B:ILE:HD12	2:328:B:THR:HA	5	0.22
(1,956)	2:327:B:ILE:HD13	2:328:B:THR:HA	5	0.22
(1,956)	2:327:B:ILE:HD11	2:328:B:THR:HA	10	0.22
(1,956)	2:327:B:ILE:HD12	2:328:B:THR:HA	10	0.22
(1,956)	2:327:B:ILE:HD13	2:328:B:THR:HA	10	0.22

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,956)	2:327:B:ILE:HD11	2:328:B:THR:HA	16	0.22
(1,956)	2:327:B:ILE:HD12	2:328:B:THR:HA	16	0.22
(1,956)	2:327:B:ILE:HD13	2:328:B:THR:HA	16	0.22
(1,956)	2:327:B:ILE:HD11	2:328:B:THR:HA	18	0.22
(1,956)	2:327:B:ILE:HD12	2:328:B:THR:HA	18	0.22
(1,956)	2:327:B:ILE:HD13	2:328:B:THR:HA	18	0.22
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB2	8	0.22
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB3	8	0.22
(1,587)	2:328:B:THR:H	2:332:B:VAL:HB	4	0.22
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB2	1	0.22
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB3	1	0.22
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB2	7	0.22
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB3	7	0.22
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB2	9	0.22
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB3	9	0.22
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB2	10	0.22
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB3	10	0.22
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB2	14	0.22
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB3	14	0.22
(1,359)	2:342:B:GLU:H	2:343:B:LYS:H	6	0.22
(1,359)	2:342:B:GLU:H	2:343:B:LYS:H	15	0.22
(1,359)	2:342:B:GLU:H	2:343:B:LYS:H	16	0.22
(1,351)	2:246:B:LYS:H	2:244:B:ASP:H	5	0.22
(1,235)	2:299:B:GLU:H	2:297:B:ASP:H	1	0.22
(1,235)	2:299:B:GLU:H	2:297:B:ASP:H	11	0.22
(1,235)	2:299:B:GLU:H	2:297:B:ASP:H	18	0.22
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB2	1	0.22
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB3	1	0.22
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB2	10	0.22
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB3	10	0.22
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB2	12	0.22
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB3	12	0.22
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB2	2	0.22
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB3	2	0.22
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB2	9	0.22
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB3	9	0.22
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB2	11	0.22
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB3	11	0.22
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD11	13	0.21
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD12	13	0.21
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD13	13	0.21
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD21	13	0.21

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD22	13	0.21
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD23	13	0.21
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD11	16	0.21
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD12	16	0.21
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD13	16	0.21
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD21	16	0.21
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD22	16	0.21
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD23	16	0.21
(1,1455)	2:247:B:ASN:HA	2:289:B:ILE:HD11	12	0.21
(1,1455)	2:247:B:ASN:HA	2:289:B:ILE:HD12	12	0.21
(1,1455)	2:247:B:ASN:HA	2:289:B:ILE:HD13	12	0.21
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB2	7	0.21
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB3	7	0.21
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB2	7	0.21
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB3	7	0.21
(1,963)	2:220:B:LEU:HD11	2:204:B:THR:HB	20	0.21
(1,963)	2:220:B:LEU:HD12	2:204:B:THR:HB	20	0.21
(1,963)	2:220:B:LEU:HD13	2:204:B:THR:HB	20	0.21
(1,963)	2:220:B:LEU:HD21	2:204:B:THR:HB	20	0.21
(1,963)	2:220:B:LEU:HD22	2:204:B:THR:HB	20	0.21
(1,963)	2:220:B:LEU:HD23	2:204:B:THR:HB	20	0.21
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB2	7	0.21
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB3	7	0.21
(1,779)	2:248:B:TYR:H	2:248:B:TYR:HE1	17	0.21
(1,779)	2:248:B:TYR:H	2:248:B:TYR:HE2	17	0.21
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB2	19	0.21
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB3	19	0.21
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB2	12	0.21
(1,514)	2:238:B:SER:H	2:234:B:GLU:HB3	12	0.21
(1,428)	2:222:B:GLU:H	2:202:B:ILE:HA	20	0.21
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB2	6	0.21
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB3	6	0.21
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB2	15	0.21
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB3	15	0.21
(1,107)	2:246:B:LYS:H	2:245:B:ASP:HB2	11	0.21
(1,107)	2:246:B:LYS:H	2:245:B:ASP:HB3	11	0.21
(1,1618)	2:224:B:ASP:HA	2:193:B:PHE:HZ	8	0.2
(1,1455)	2:247:B:ASN:HA	2:289:B:ILE:HD11	13	0.2
(1,1455)	2:247:B:ASN:HA	2:289:B:ILE:HD12	13	0.2
(1,1455)	2:247:B:ASN:HA	2:289:B:ILE:HD13	13	0.2
(1,1224)	2:282:B:GLU:HG2	2:278:B:GLU:HA	13	0.2
(1,1224)	2:282:B:GLU:HG3	2:278:B:GLU:HA	13	0.2

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,963)	2:220:B:LEU:HD11	2:204:B:THR:HB	19	0.2
(1,963)	2:220:B:LEU:HD12	2:204:B:THR:HB	19	0.2
(1,963)	2:220:B:LEU:HD13	2:204:B:THR:HB	19	0.2
(1,963)	2:220:B:LEU:HD21	2:204:B:THR:HB	19	0.2
(1,963)	2:220:B:LEU:HD22	2:204:B:THR:HB	19	0.2
(1,963)	2:220:B:LEU:HD23	2:204:B:THR:HB	19	0.2
(1,781)	2:237:B:GLU:H	2:242:B:ILE:HB	4	0.2
(1,354)	2:283:B:ALA:H	2:284:B:LEU:HG	1	0.2
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB2	5	0.2
(1,166)	2:281:B:ILE:H	2:279:B:GLN:HB3	5	0.2
(1,146)	2:283:B:ALA:H	2:281:B:ILE:HG12	10	0.2
(1,146)	2:283:B:ALA:H	2:281:B:ILE:HG13	10	0.2
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB2	16	0.2
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB3	16	0.2
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB2	18	0.2
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB3	18	0.2
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD11	5	0.19
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD12	5	0.19
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD13	5	0.19
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD21	5	0.19
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD22	5	0.19
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD23	5	0.19
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD11	15	0.19
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD12	15	0.19
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD13	15	0.19
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD21	15	0.19
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD22	15	0.19
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD23	15	0.19
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD11	18	0.19
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD12	18	0.19
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD13	18	0.19
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD21	18	0.19
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD22	18	0.19
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD23	18	0.19
(1,1562)	2:194:B:THR:HA	2:202:B:ILE:HG21	18	0.19
(1,1562)	2:194:B:THR:HA	2:202:B:ILE:HG22	18	0.19
(1,1562)	2:194:B:THR:HA	2:202:B:ILE:HG23	18	0.19
(1,1408)	2:275:B:GLU:HG2	2:278:B:GLU:HA	9	0.19
(1,1408)	2:275:B:GLU:HG3	2:278:B:GLU:HA	9	0.19
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB2	1	0.19
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB3	1	0.19
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB2	5	0.19

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB3	5	0.19
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB2	6	0.19
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB3	6	0.19
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB2	13	0.19
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB3	13	0.19
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB2	13	0.19
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB3	13	0.19
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB2	13	0.19
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB3	13	0.19
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB2	17	0.19
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB3	17	0.19
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB2	17	0.19
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB3	17	0.19
(1,1139)	1:188:A:ASN:HA	2:333:B:LYS:HB2	14	0.19
(1,1139)	1:188:A:ASN:HA	2:333:B:LYS:HB3	14	0.19
(1,1062)	2:213:B:GLU:HB2	2:239:B:LEU:HA	11	0.19
(1,1062)	2:213:B:GLU:HB3	2:239:B:LEU:HA	11	0.19
(1,1036)	2:329:B:ILE:HD11	2:332:B:VAL:HB	2	0.19
(1,1036)	2:329:B:ILE:HD12	2:332:B:VAL:HB	2	0.19
(1,1036)	2:329:B:ILE:HD13	2:332:B:VAL:HB	2	0.19
(1,1036)	2:329:B:ILE:HD11	2:332:B:VAL:HB	20	0.19
(1,1036)	2:329:B:ILE:HD12	2:332:B:VAL:HB	20	0.19
(1,1036)	2:329:B:ILE:HD13	2:332:B:VAL:HB	20	0.19
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB2	14	0.19
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB3	14	0.19
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB2	19	0.19
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB3	19	0.19
(1,428)	2:222:B:GLU:H	2:202:B:ILE:HA	15	0.19
(1,351)	2:246:B:LYS:H	2:244:B:ASP:H	2	0.19
(1,235)	2:299:B:GLU:H	2:297:B:ASP:H	16	0.19
(1,1634)	2:241:B:TYR:HA	2:210:B:ASP:HB2	14	0.18
(1,1634)	2:241:B:TYR:HA	2:210:B:ASP:HB3	14	0.18
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB2	17	0.18
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB3	17	0.18
(1,1224)	2:282:B:GLU:HG2	2:278:B:GLU:HA	8	0.18
(1,1224)	2:282:B:GLU:HG3	2:278:B:GLU:HA	8	0.18
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB2	3	0.18
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB3	3	0.18
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB2	3	0.18
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB3	3	0.18
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB2	14	0.18
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB3	14	0.18

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB2	14	0.18
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB3	14	0.18
(1,1109)	2:193:B:PHE:HD1	2:203:B:VAL:HB	9	0.18
(1,1109)	2:193:B:PHE:HD2	2:203:B:VAL:HB	9	0.18
(1,700)	2:256:B:ASN:H	2:259:B:ASN:H	11	0.18
(1,700)	2:256:B:ASN:H	2:259:B:ASN:H	19	0.18
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB2	9	0.18
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB3	9	0.18
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB2	11	0.18
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB3	11	0.18
(1,428)	2:222:B:GLU:H	2:202:B:ILE:HA	1	0.18
(1,428)	2:222:B:GLU:H	2:202:B:ILE:HA	7	0.18
(1,235)	2:299:B:GLU:H	2:297:B:ASP:H	5	0.18
(1,146)	2:283:B:ALA:H	2:281:B:ILE:HG12	6	0.18
(1,146)	2:283:B:ALA:H	2:281:B:ILE:HG13	6	0.18
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB2	8	0.18
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB3	8	0.18
(1,21)	2:281:B:ILE:H	2:277:B:ILE:HG21	14	0.18
(1,21)	2:281:B:ILE:H	2:277:B:ILE:HG22	14	0.18
(1,21)	2:281:B:ILE:H	2:277:B:ILE:HG23	14	0.18
(1,1634)	2:241:B:TYR:HA	2:210:B:ASP:HB2	4	0.17
(1,1634)	2:241:B:TYR:HA	2:210:B:ASP:HB3	4	0.17
(1,1618)	2:224:B:ASP:HA	2:193:B:PHE:HZ	2	0.17
(1,1618)	2:224:B:ASP:HA	2:193:B:PHE:HZ	14	0.17
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD11	20	0.17
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD12	20	0.17
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD13	20	0.17
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD21	20	0.17
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD22	20	0.17
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD23	20	0.17
(1,1359)	2:231:B:MET:HB2	2:218:B:LEU:HA	10	0.17
(1,1359)	2:231:B:MET:HB3	2:218:B:LEU:HA	10	0.17
(1,1347)	2:244:B:ASP:HA	2:286:B:ASN:HB2	16	0.17
(1,1347)	2:244:B:ASP:HA	2:286:B:ASN:HB3	16	0.17
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB2	9	0.17
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB3	9	0.17
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB2	18	0.17
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB3	18	0.17
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB2	19	0.17
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB3	19	0.17
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB2	1	0.17
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB3	1	0.17

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB2	1	0.17
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB3	1	0.17
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB2	18	0.17
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB3	18	0.17
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB2	18	0.17
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB3	18	0.17
(1,1062)	2:213:B:GLU:HB2	2:239:B:LEU:HA	19	0.17
(1,1062)	2:213:B:GLU:HB3	2:239:B:LEU:HA	19	0.17
(1,1036)	2:329:B:ILE:HD11	2:332:B:VAL:HB	11	0.17
(1,1036)	2:329:B:ILE:HD12	2:332:B:VAL:HB	11	0.17
(1,1036)	2:329:B:ILE:HD13	2:332:B:VAL:HB	11	0.17
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB2	20	0.17
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB3	20	0.17
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG21	1	0.17
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG22	1	0.17
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG23	1	0.17
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG21	6	0.17
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG22	6	0.17
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG23	6	0.17
(1,779)	2:248:B:TYR:H	2:248:B:TYR:HE1	6	0.17
(1,779)	2:248:B:TYR:H	2:248:B:TYR:HE2	6	0.17
(1,700)	2:256:B:ASN:H	2:259:B:ASN:H	9	0.17
(1,700)	2:256:B:ASN:H	2:259:B:ASN:H	15	0.17
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB2	2	0.17
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB3	2	0.17
(1,550)	2:201:B:VAL:H	2:222:B:GLU:H	11	0.17
(1,541)	2:296:B:VAL:H	2:253:B:MET:HG2	18	0.17
(1,541)	2:296:B:VAL:H	2:253:B:MET:HG3	18	0.17
(1,464)	2:271:B:ASP:H	2:267:B:GLU:H	6	0.17
(1,447)	2:241:B:TYR:H	2:242:B:ILE:HB	4	0.17
(1,428)	2:222:B:GLU:H	2:202:B:ILE:HA	8	0.17
(1,235)	2:299:B:GLU:H	2:297:B:ASP:H	19	0.17
(1,227)	2:336:B:LYS:H	2:336:B:LYS:HD2	8	0.17
(1,227)	2:336:B:LYS:H	2:336:B:LYS:HD3	8	0.17
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB2	14	0.17
(1,77)	2:331:B:GLU:H	2:333:B:LYS:HB3	14	0.17
(1,52)	2:327:B:ILE:H	2:321:B:LYS:HG2	8	0.17
(1,52)	2:327:B:ILE:H	2:321:B:LYS:HG3	8	0.17
(1,1653)	2:248:B:TYR:HE1	2:338:B:SER:HB2	17	0.16
(1,1653)	2:248:B:TYR:HE1	2:338:B:SER:HB3	17	0.16
(1,1653)	2:248:B:TYR:HE2	2:338:B:SER:HB2	17	0.16
(1,1653)	2:248:B:TYR:HE2	2:338:B:SER:HB3	17	0.16

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1618)	2:224:B:ASP:HA	2:193:B:PHE:HZ	20	0.16
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD11	19	0.16
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD12	19	0.16
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD13	19	0.16
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD21	19	0.16
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD22	19	0.16
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD23	19	0.16
(1,1588)	2:223:B:LYS:HG2	2:221:B:LYS:HA	13	0.16
(1,1588)	2:223:B:LYS:HG3	2:221:B:LYS:HA	13	0.16
(1,1562)	2:194:B:THR:HA	2:202:B:ILE:HG21	8	0.16
(1,1562)	2:194:B:THR:HA	2:202:B:ILE:HG22	8	0.16
(1,1562)	2:194:B:THR:HA	2:202:B:ILE:HG23	8	0.16
(1,1562)	2:194:B:THR:HA	2:202:B:ILE:HG21	15	0.16
(1,1562)	2:194:B:THR:HA	2:202:B:ILE:HG22	15	0.16
(1,1562)	2:194:B:THR:HA	2:202:B:ILE:HG23	15	0.16
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB2	7	0.16
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB3	7	0.16
(1,1139)	1:188:A:ASN:HA	2:333:B:LYS:HB2	11	0.16
(1,1139)	1:188:A:ASN:HA	2:333:B:LYS:HB3	11	0.16
(1,1109)	2:193:B:PHE:HD1	2:203:B:VAL:HB	14	0.16
(1,1109)	2:193:B:PHE:HD2	2:203:B:VAL:HB	14	0.16
(1,1062)	2:213:B:GLU:HB2	2:239:B:LEU:HA	7	0.16
(1,1062)	2:213:B:GLU:HB3	2:239:B:LEU:HA	7	0.16
(1,1062)	2:213:B:GLU:HB2	2:239:B:LEU:HA	14	0.16
(1,1062)	2:213:B:GLU:HB3	2:239:B:LEU:HA	14	0.16
(1,1036)	2:329:B:ILE:HD11	2:332:B:VAL:HB	5	0.16
(1,1036)	2:329:B:ILE:HD12	2:332:B:VAL:HB	5	0.16
(1,1036)	2:329:B:ILE:HD13	2:332:B:VAL:HB	5	0.16
(1,980)	2:262:B:THR:HG21	2:255:B:LEU:HA	20	0.16
(1,980)	2:262:B:THR:HG22	2:255:B:LEU:HA	20	0.16
(1,980)	2:262:B:THR:HG23	2:255:B:LEU:HA	20	0.16
(1,956)	2:327:B:ILE:HD11	2:328:B:THR:HA	17	0.16
(1,956)	2:327:B:ILE:HD12	2:328:B:THR:HA	17	0.16
(1,956)	2:327:B:ILE:HD13	2:328:B:THR:HA	17	0.16
(1,952)	2:229:B:LEU:HD11	2:277:B:ILE:H	18	0.16
(1,952)	2:229:B:LEU:HD12	2:277:B:ILE:H	18	0.16
(1,952)	2:229:B:LEU:HD13	2:277:B:ILE:H	18	0.16
(1,952)	2:229:B:LEU:HD21	2:277:B:ILE:H	18	0.16
(1,952)	2:229:B:LEU:HD22	2:277:B:ILE:H	18	0.16
(1,952)	2:229:B:LEU:HD23	2:277:B:ILE:H	18	0.16
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG21	13	0.16
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG22	13	0.16

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG23	13	0.16
(1,733)	2:218:B:LEU:H	2:218:B:LEU:HG	6	0.16
(1,700)	2:256:B:ASN:H	2:259:B:ASN:H	4	0.16
(1,700)	2:256:B:ASN:H	2:259:B:ASN:H	12	0.16
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB2	20	0.16
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB3	20	0.16
(1,464)	2:271:B:ASP:H	2:267:B:GLU:H	5	0.16
(1,464)	2:271:B:ASP:H	2:267:B:GLU:H	18	0.16
(1,428)	2:222:B:GLU:H	2:202:B:ILE:HA	11	0.16
(1,66)	2:231:B:MET:H	2:231:B:MET:HE1	18	0.16
(1,66)	2:231:B:MET:H	2:231:B:MET:HE2	18	0.16
(1,66)	2:231:B:MET:H	2:231:B:MET:HE3	18	0.16
(1,52)	2:327:B:ILE:H	2:321:B:LYS:HG2	2	0.16
(1,52)	2:327:B:ILE:H	2:321:B:LYS:HG3	2	0.16
(1,21)	2:281:B:ILE:H	2:277:B:ILE:HG21	5	0.16
(1,21)	2:281:B:ILE:H	2:277:B:ILE:HG22	5	0.16
(1,21)	2:281:B:ILE:H	2:277:B:ILE:HG23	5	0.16
(1,1618)	2:224:B:ASP:HA	2:193:B:PHE:HZ	16	0.15
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD11	14	0.15
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD12	14	0.15
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD13	14	0.15
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD21	14	0.15
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD22	14	0.15
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD23	14	0.15
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD11	17	0.15
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD12	17	0.15
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD13	17	0.15
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD21	17	0.15
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD22	17	0.15
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD23	17	0.15
(1,1347)	2:244:B:ASP:HA	2:286:B:ASN:HB2	17	0.15
(1,1347)	2:244:B:ASP:HA	2:286:B:ASN:HB3	17	0.15
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB2	14	0.15
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB3	14	0.15
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB2	16	0.15
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB3	16	0.15
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB2	5	0.15
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB3	5	0.15
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB2	5	0.15
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB3	5	0.15
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB2	9	0.15
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB3	9	0.15

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB2	9	0.15
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB3	9	0.15
(1,1162)	2:218:B:LEU:HG	2:193:B:PHE:HE1	9	0.15
(1,1162)	2:218:B:LEU:HG	2:193:B:PHE:HE2	9	0.15
(1,1139)	1:188:A:ASN:HA	2:333:B:LYS:HB2	19	0.15
(1,1139)	1:188:A:ASN:HA	2:333:B:LYS:HB3	19	0.15
(1,1109)	2:193:B:PHE:HD1	2:203:B:VAL:HB	16	0.15
(1,1109)	2:193:B:PHE:HD2	2:203:B:VAL:HB	16	0.15
(1,1098)	2:276:B:THR:HA	2:272:B:GLU:HB2	13	0.15
(1,1098)	2:276:B:THR:HA	2:272:B:GLU:HB3	13	0.15
(1,1036)	2:329:B:ILE:HD11	2:332:B:VAL:HB	12	0.15
(1,1036)	2:329:B:ILE:HD12	2:332:B:VAL:HB	12	0.15
(1,1036)	2:329:B:ILE:HD13	2:332:B:VAL:HB	12	0.15
(1,1009)	2:327:B:ILE:HG12	2:332:B:VAL:HB	14	0.15
(1,1009)	2:327:B:ILE:HG13	2:332:B:VAL:HB	14	0.15
(1,996)	2:294:B:VAL:HG11	2:318:B:LEU:HB2	18	0.15
(1,996)	2:294:B:VAL:HG11	2:318:B:LEU:HB3	18	0.15
(1,996)	2:294:B:VAL:HG12	2:318:B:LEU:HB2	18	0.15
(1,996)	2:294:B:VAL:HG12	2:318:B:LEU:HB3	18	0.15
(1,996)	2:294:B:VAL:HG13	2:318:B:LEU:HB2	18	0.15
(1,996)	2:294:B:VAL:HG13	2:318:B:LEU:HB3	18	0.15
(1,996)	2:294:B:VAL:HG21	2:318:B:LEU:HB2	18	0.15
(1,996)	2:294:B:VAL:HG21	2:318:B:LEU:HB3	18	0.15
(1,996)	2:294:B:VAL:HG22	2:318:B:LEU:HB2	18	0.15
(1,996)	2:294:B:VAL:HG22	2:318:B:LEU:HB3	18	0.15
(1,996)	2:294:B:VAL:HG23	2:318:B:LEU:HB2	18	0.15
(1,996)	2:294:B:VAL:HG23	2:318:B:LEU:HB3	18	0.15
(1,963)	2:220:B:LEU:HD11	2:204:B:THR:HB	2	0.15
(1,963)	2:220:B:LEU:HD12	2:204:B:THR:HB	2	0.15
(1,963)	2:220:B:LEU:HD13	2:204:B:THR:HB	2	0.15
(1,963)	2:220:B:LEU:HD21	2:204:B:THR:HB	2	0.15
(1,963)	2:220:B:LEU:HD22	2:204:B:THR:HB	2	0.15
(1,963)	2:220:B:LEU:HD23	2:204:B:THR:HB	2	0.15
(1,932)	2:279:B:GLN:HG2	2:226:B:LYS:HA	17	0.15
(1,932)	2:279:B:GLN:HG3	2:226:B:LYS:HA	17	0.15
(1,865)	2:328:B:THR:H	2:328:B:THR:HB	13	0.15
(1,824)	2:229:B:LEU:H	2:229:B:LEU:HG	16	0.15
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG21	2	0.15
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG22	2	0.15
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG23	2	0.15
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG21	3	0.15
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG22	3	0.15

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG23	3	0.15
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG21	14	0.15
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG22	14	0.15
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG23	14	0.15
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG21	18	0.15
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG22	18	0.15
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG23	18	0.15
(1,700)	2:256:B:ASN:H	2:259:B:ASN:H	8	0.15
(1,700)	2:256:B:ASN:H	2:259:B:ASN:H	14	0.15
(1,700)	2:256:B:ASN:H	2:259:B:ASN:H	20	0.15
(1,587)	2:328:B:THR:H	2:332:B:VAL:HB	13	0.15
(1,587)	2:328:B:THR:H	2:332:B:VAL:HB	20	0.15
(1,359)	2:342:B:GLU:H	2:343:B:LYS:H	12	0.15
(1,351)	2:246:B:LYS:H	2:244:B:ASP:H	20	0.15
(1,146)	2:283:B:ALA:H	2:281:B:ILE:HG12	12	0.15
(1,146)	2:283:B:ALA:H	2:281:B:ILE:HG13	12	0.15
(1,26)	2:206:B:ALA:H	2:215:B:LEU:HG	4	0.15
(1,11)	2:295:B:THR:H	2:294:B:VAL:HB	3	0.15
(1,11)	2:295:B:THR:H	2:294:B:VAL:HB	13	0.15
(1,1660)	2:337:B:ILE:HA	1:186:A:ASP:HB2	10	0.14
(1,1660)	2:337:B:ILE:HA	1:186:A:ASP:HB3	10	0.14
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD11	3	0.14
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD12	3	0.14
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD13	3	0.14
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD21	3	0.14
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD22	3	0.14
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD23	3	0.14
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD11	6	0.14
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD12	6	0.14
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD13	6	0.14
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD21	6	0.14
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD22	6	0.14
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD23	6	0.14
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD11	9	0.14
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD12	9	0.14
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD13	9	0.14
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD21	9	0.14
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD22	9	0.14
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD23	9	0.14
(1,1562)	2:194:B:THR:HA	2:202:B:ILE:HG21	3	0.14
(1,1562)	2:194:B:THR:HA	2:202:B:ILE:HG22	3	0.14
(1,1562)	2:194:B:THR:HA	2:202:B:ILE:HG23	3	0.14

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1562)	2:194:B:THR:HA	2:202:B:ILE:HG21	17	0.14
(1,1562)	2:194:B:THR:HA	2:202:B:ILE:HG22	17	0.14
(1,1562)	2:194:B:THR:HA	2:202:B:ILE:HG23	17	0.14
(1,1548)	2:337:B:ILE:HG21	1:186:A:ASP:HA	16	0.14
(1,1548)	2:337:B:ILE:HG22	1:186:A:ASP:HA	16	0.14
(1,1548)	2:337:B:ILE:HG23	1:186:A:ASP:HA	16	0.14
(1,1350)	2:329:B:ILE:HB	2:328:B:THR:HB	12	0.14
(1,1211)	2:327:B:ILE:HB	2:332:B:VAL:HB	6	0.14
(1,1162)	2:218:B:LEU:HG	2:193:B:PHE:HE1	16	0.14
(1,1162)	2:218:B:LEU:HG	2:193:B:PHE:HE2	16	0.14
(1,1109)	2:193:B:PHE:HD1	2:203:B:VAL:HB	3	0.14
(1,1109)	2:193:B:PHE:HD2	2:203:B:VAL:HB	3	0.14
(1,1098)	2:276:B:THR:HA	2:272:B:GLU:HB2	7	0.14
(1,1098)	2:276:B:THR:HA	2:272:B:GLU:HB3	7	0.14
(1,1098)	2:276:B:THR:HA	2:272:B:GLU:HB2	9	0.14
(1,1098)	2:276:B:THR:HA	2:272:B:GLU:HB3	9	0.14
(1,1062)	2:213:B:GLU:HB2	2:239:B:LEU:HA	3	0.14
(1,1062)	2:213:B:GLU:HB3	2:239:B:LEU:HA	3	0.14
(1,1062)	2:213:B:GLU:HB2	2:239:B:LEU:HA	8	0.14
(1,1062)	2:213:B:GLU:HB3	2:239:B:LEU:HA	8	0.14
(1,1062)	2:213:B:GLU:HB2	2:239:B:LEU:HA	20	0.14
(1,1062)	2:213:B:GLU:HB3	2:239:B:LEU:HA	20	0.14
(1,1036)	2:329:B:ILE:HD11	2:332:B:VAL:HB	8	0.14
(1,1036)	2:329:B:ILE:HD12	2:332:B:VAL:HB	8	0.14
(1,1036)	2:329:B:ILE:HD13	2:332:B:VAL:HB	8	0.14
(1,1036)	2:329:B:ILE:HD11	2:332:B:VAL:HB	16	0.14
(1,1036)	2:329:B:ILE:HD12	2:332:B:VAL:HB	16	0.14
(1,1036)	2:329:B:ILE:HD13	2:332:B:VAL:HB	16	0.14
(1,1036)	2:329:B:ILE:HD11	2:332:B:VAL:HB	18	0.14
(1,1036)	2:329:B:ILE:HD12	2:332:B:VAL:HB	18	0.14
(1,1036)	2:329:B:ILE:HD13	2:332:B:VAL:HB	18	0.14
(1,980)	2:262:B:THR:HG21	2:255:B:LEU:HA	4	0.14
(1,980)	2:262:B:THR:HG22	2:255:B:LEU:HA	4	0.14
(1,980)	2:262:B:THR:HG23	2:255:B:LEU:HA	4	0.14
(1,957)	2:192:B:GLU:HA	2:311:B:MET:HE1	19	0.14
(1,957)	2:192:B:GLU:HA	2:311:B:MET:HE2	19	0.14
(1,957)	2:192:B:GLU:HA	2:311:B:MET:HE3	19	0.14
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB2	1	0.14
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB3	1	0.14
(1,888)	2:303:B:LYS:H	2:303:B:LYS:HE2	10	0.14
(1,888)	2:303:B:LYS:H	2:303:B:LYS:HE3	10	0.14
(1,835)	2:283:B:ALA:H	2:279:B:GLN:HG2	17	0.14

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,835)	2:283:B:ALA:H	2:279:B:GLN:HG3	17	0.14
(1,827)	2:320:B:ALA:H	2:323:B:LYS:HB2	2	0.14
(1,827)	2:320:B:ALA:H	2:323:B:LYS:HB3	2	0.14
(1,700)	2:256:B:ASN:H	2:259:B:ASN:H	7	0.14
(1,571)	2:244:B:ASP:H	2:288:B:THR:HG21	12	0.14
(1,571)	2:244:B:ASP:H	2:288:B:THR:HG22	12	0.14
(1,571)	2:244:B:ASP:H	2:288:B:THR:HG23	12	0.14
(1,464)	2:271:B:ASP:H	2:267:B:GLU:H	8	0.14
(1,464)	2:271:B:ASP:H	2:267:B:GLU:H	11	0.14
(1,464)	2:271:B:ASP:H	2:267:B:GLU:H	12	0.14
(1,445)	2:322:B:GLU:H	2:322:B:GLU:HG2	5	0.14
(1,445)	2:322:B:GLU:H	2:322:B:GLU:HG3	5	0.14
(1,428)	2:222:B:GLU:H	2:202:B:ILE:HA	4	0.14
(1,428)	2:222:B:GLU:H	2:202:B:ILE:HA	14	0.14
(1,359)	2:342:B:GLU:H	2:343:B:LYS:H	3	0.14
(1,359)	2:342:B:GLU:H	2:343:B:LYS:H	14	0.14
(1,359)	2:342:B:GLU:H	2:343:B:LYS:H	17	0.14
(1,351)	2:246:B:LYS:H	2:244:B:ASP:H	19	0.14
(1,52)	2:327:B:ILE:H	2:321:B:LYS:HG2	7	0.14
(1,52)	2:327:B:ILE:H	2:321:B:LYS:HG3	7	0.14
(1,21)	2:281:B:ILE:H	2:277:B:ILE:HG21	8	0.14
(1,21)	2:281:B:ILE:H	2:277:B:ILE:HG22	8	0.14
(1,21)	2:281:B:ILE:H	2:277:B:ILE:HG23	8	0.14
(1,11)	2:295:B:THR:H	2:294:B:VAL:HB	6	0.14
(1,1618)	2:224:B:ASP:HA	2:193:B:PHE:HZ	11	0.13
(1,1502)	2:290:B:VAL:HB	2:248:B:TYR:HB2	5	0.13
(1,1502)	2:290:B:VAL:HB	2:248:B:TYR:HB3	5	0.13
(1,1347)	2:244:B:ASP:HA	2:286:B:ASN:HB2	14	0.13
(1,1347)	2:244:B:ASP:HA	2:286:B:ASN:HB3	14	0.13
(1,1343)	2:236:B:ALA:HB1	2:189:B:PRO:HD2	17	0.13
(1,1343)	2:236:B:ALA:HB1	2:189:B:PRO:HD3	17	0.13
(1,1343)	2:236:B:ALA:HB2	2:189:B:PRO:HD2	17	0.13
(1,1343)	2:236:B:ALA:HB2	2:189:B:PRO:HD3	17	0.13
(1,1343)	2:236:B:ALA:HB3	2:189:B:PRO:HD2	17	0.13
(1,1343)	2:236:B:ALA:HB3	2:189:B:PRO:HD3	17	0.13
(1,1247)	2:195:B:ILE:HG21	2:225:B:LEU:HA	7	0.13
(1,1247)	2:195:B:ILE:HG22	2:225:B:LEU:HA	7	0.13
(1,1247)	2:195:B:ILE:HG23	2:225:B:LEU:HA	7	0.13
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB2	3	0.13
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB3	3	0.13
(1,1162)	2:218:B:LEU:HG	2:193:B:PHE:HE1	2	0.13
(1,1162)	2:218:B:LEU:HG	2:193:B:PHE:HE2	2	0.13

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1139)	1:188:A:ASN:HA	2:333:B:LYS:HB2	1	0.13
(1,1139)	1:188:A:ASN:HA	2:333:B:LYS:HB3	1	0.13
(1,1139)	1:188:A:ASN:HA	2:333:B:LYS:HB2	2	0.13
(1,1139)	1:188:A:ASN:HA	2:333:B:LYS:HB3	2	0.13
(1,1139)	1:188:A:ASN:HA	2:333:B:LYS:HB2	4	0.13
(1,1139)	1:188:A:ASN:HA	2:333:B:LYS:HB3	4	0.13
(1,1109)	2:193:B:PHE:HD1	2:203:B:VAL:HB	5	0.13
(1,1109)	2:193:B:PHE:HD2	2:203:B:VAL:HB	5	0.13
(1,1062)	2:213:B:GLU:HB2	2:239:B:LEU:HA	6	0.13
(1,1062)	2:213:B:GLU:HB3	2:239:B:LEU:HA	6	0.13
(1,996)	2:294:B:VAL:HG11	2:318:B:LEU:HB2	2	0.13
(1,996)	2:294:B:VAL:HG11	2:318:B:LEU:HB3	2	0.13
(1,996)	2:294:B:VAL:HG12	2:318:B:LEU:HB2	2	0.13
(1,996)	2:294:B:VAL:HG12	2:318:B:LEU:HB3	2	0.13
(1,996)	2:294:B:VAL:HG13	2:318:B:LEU:HB2	2	0.13
(1,996)	2:294:B:VAL:HG13	2:318:B:LEU:HB3	2	0.13
(1,996)	2:294:B:VAL:HG21	2:318:B:LEU:HB2	2	0.13
(1,996)	2:294:B:VAL:HG21	2:318:B:LEU:HB3	2	0.13
(1,996)	2:294:B:VAL:HG22	2:318:B:LEU:HB2	2	0.13
(1,996)	2:294:B:VAL:HG22	2:318:B:LEU:HB3	2	0.13
(1,996)	2:294:B:VAL:HG23	2:318:B:LEU:HB2	2	0.13
(1,996)	2:294:B:VAL:HG23	2:318:B:LEU:HB3	2	0.13
(1,996)	2:294:B:VAL:HG11	2:318:B:LEU:HB2	4	0.13
(1,996)	2:294:B:VAL:HG11	2:318:B:LEU:HB3	4	0.13
(1,996)	2:294:B:VAL:HG12	2:318:B:LEU:HB2	4	0.13
(1,996)	2:294:B:VAL:HG12	2:318:B:LEU:HB3	4	0.13
(1,996)	2:294:B:VAL:HG13	2:318:B:LEU:HB2	4	0.13
(1,996)	2:294:B:VAL:HG13	2:318:B:LEU:HB3	4	0.13
(1,996)	2:294:B:VAL:HG21	2:318:B:LEU:HB2	4	0.13
(1,996)	2:294:B:VAL:HG21	2:318:B:LEU:HB3	4	0.13
(1,996)	2:294:B:VAL:HG22	2:318:B:LEU:HB2	4	0.13
(1,996)	2:294:B:VAL:HG22	2:318:B:LEU:HB3	4	0.13
(1,996)	2:294:B:VAL:HG23	2:318:B:LEU:HB2	4	0.13
(1,996)	2:294:B:VAL:HG23	2:318:B:LEU:HB3	4	0.13
(1,980)	2:262:B:THR:HG21	2:255:B:LEU:HA	16	0.13
(1,980)	2:262:B:THR:HG22	2:255:B:LEU:HA	16	0.13
(1,980)	2:262:B:THR:HG23	2:255:B:LEU:HA	16	0.13
(1,956)	2:327:B:ILE:HD11	2:328:B:THR:HA	1	0.13
(1,956)	2:327:B:ILE:HD12	2:328:B:THR:HA	1	0.13
(1,956)	2:327:B:ILE:HD13	2:328:B:THR:HA	1	0.13
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB2	3	0.13
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB3	3	0.13

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB2	15	0.13
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB3	15	0.13
(1,865)	2:328:B:THR:H	2:328:B:THR:HB	1	0.13
(1,865)	2:328:B:THR:H	2:328:B:THR:HB	6	0.13
(1,827)	2:320:B:ALA:H	2:323:B:LYS:HB2	6	0.13
(1,827)	2:320:B:ALA:H	2:323:B:LYS:HB3	6	0.13
(1,827)	2:320:B:ALA:H	2:323:B:LYS:HB2	7	0.13
(1,827)	2:320:B:ALA:H	2:323:B:LYS:HB3	7	0.13
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG21	12	0.13
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG22	12	0.13
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG23	12	0.13
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG21	16	0.13
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG22	16	0.13
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG23	16	0.13
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG21	17	0.13
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG22	17	0.13
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG23	17	0.13
(1,733)	2:218:B:LEU:H	2:218:B:LEU:HG	5	0.13
(1,733)	2:218:B:LEU:H	2:218:B:LEU:HG	12	0.13
(1,700)	2:256:B:ASN:H	2:259:B:ASN:H	6	0.13
(1,700)	2:256:B:ASN:H	2:259:B:ASN:H	13	0.13
(1,464)	2:271:B:ASP:H	2:267:B:GLU:H	4	0.13
(1,464)	2:271:B:ASP:H	2:267:B:GLU:H	19	0.13
(1,445)	2:322:B:GLU:H	2:322:B:GLU:HG2	7	0.13
(1,445)	2:322:B:GLU:H	2:322:B:GLU:HG3	7	0.13
(1,445)	2:322:B:GLU:H	2:322:B:GLU:HG2	8	0.13
(1,445)	2:322:B:GLU:H	2:322:B:GLU:HG3	8	0.13
(1,445)	2:322:B:GLU:H	2:322:B:GLU:HG2	17	0.13
(1,445)	2:322:B:GLU:H	2:322:B:GLU:HG3	17	0.13
(1,428)	2:222:B:GLU:H	2:202:B:ILE:HA	10	0.13
(1,428)	2:222:B:GLU:H	2:202:B:ILE:HA	19	0.13
(1,359)	2:342:B:GLU:H	2:343:B:LYS:H	13	0.13
(1,359)	2:342:B:GLU:H	2:343:B:LYS:H	19	0.13
(1,351)	2:246:B:LYS:H	2:244:B:ASP:H	13	0.13
(1,52)	2:327:B:ILE:H	2:321:B:LYS:HG2	10	0.13
(1,52)	2:327:B:ILE:H	2:321:B:LYS:HG3	10	0.13
(1,21)	2:281:B:ILE:H	2:277:B:ILE:HG21	10	0.13
(1,21)	2:281:B:ILE:H	2:277:B:ILE:HG22	10	0.13
(1,21)	2:281:B:ILE:H	2:277:B:ILE:HG23	10	0.13
(1,19)	2:251:B:VAL:H	2:293:B:THR:HG21	8	0.13
(1,19)	2:251:B:VAL:H	2:293:B:THR:HG22	8	0.13
(1,19)	2:251:B:VAL:H	2:293:B:THR:HG23	8	0.13

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,11)	2:295:B:THR:H	2:294:B:VAL:HB	7	0.13
(1,11)	2:295:B:THR:H	2:294:B:VAL:HB	9	0.13
(1,11)	2:295:B:THR:H	2:294:B:VAL:HB	11	0.13
(1,11)	2:295:B:THR:H	2:294:B:VAL:HB	16	0.13
(1,11)	2:295:B:THR:H	2:294:B:VAL:HB	17	0.13
(1,1660)	2:337:B:ILE:HA	1:186:A:ASP:HB2	1	0.12
(1,1660)	2:337:B:ILE:HA	1:186:A:ASP:HB3	1	0.12
(1,1618)	2:224:B:ASP:HA	2:193:B:PHE:HZ	3	0.12
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD11	10	0.12
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD12	10	0.12
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD13	10	0.12
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD21	10	0.12
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD22	10	0.12
(1,1599)	2:207:B:ILE:HA	2:215:B:LEU:HD23	10	0.12
(1,1548)	2:337:B:ILE:HG21	1:186:A:ASP:HA	10	0.12
(1,1548)	2:337:B:ILE:HG22	1:186:A:ASP:HA	10	0.12
(1,1548)	2:337:B:ILE:HG23	1:186:A:ASP:HA	10	0.12
(1,1455)	2:247:B:ASN:HA	2:289:B:ILE:HD11	8	0.12
(1,1455)	2:247:B:ASN:HA	2:289:B:ILE:HD12	8	0.12
(1,1455)	2:247:B:ASN:HA	2:289:B:ILE:HD13	8	0.12
(1,1347)	2:244:B:ASP:HA	2:286:B:ASN:HB2	11	0.12
(1,1347)	2:244:B:ASP:HA	2:286:B:ASN:HB3	11	0.12
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB2	15	0.12
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB3	15	0.12
(1,1175)	2:329:B:ILE:HD11	2:307:B:ASN:HA	8	0.12
(1,1175)	2:329:B:ILE:HD12	2:307:B:ASN:HA	8	0.12
(1,1175)	2:329:B:ILE:HD13	2:307:B:ASN:HA	8	0.12
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB2	4	0.12
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB3	4	0.12
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB2	4	0.12
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB3	4	0.12
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB2	11	0.12
(1,1168)	2:193:B:PHE:HD1	2:215:B:LEU:HB3	11	0.12
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB2	11	0.12
(1,1168)	2:193:B:PHE:HD2	2:215:B:LEU:HB3	11	0.12
(1,1139)	1:188:A:ASN:HA	2:333:B:LYS:HB2	10	0.12
(1,1139)	1:188:A:ASN:HA	2:333:B:LYS:HB3	10	0.12
(1,1139)	1:188:A:ASN:HA	2:333:B:LYS:HB2	16	0.12
(1,1139)	1:188:A:ASN:HA	2:333:B:LYS:HB3	16	0.12
(1,1139)	1:188:A:ASN:HA	2:333:B:LYS:HB2	20	0.12
(1,1139)	1:188:A:ASN:HA	2:333:B:LYS:HB3	20	0.12
(1,1125)	2:242:B:ILE:HG21	1:187:A:VAL:HA	9	0.12

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1125)	2:242:B:ILE:HG22	1:187:A:VAL:HA	9	0.12
(1,1125)	2:242:B:ILE:HG23	1:187:A:VAL:HA	9	0.12
(1,1123)	2:207:B:ILE:HD11	2:205:B:SER:HA	10	0.12
(1,1123)	2:207:B:ILE:HD12	2:205:B:SER:HA	10	0.12
(1,1123)	2:207:B:ILE:HD13	2:205:B:SER:HA	10	0.12
(1,1098)	2:276:B:THR:HA	2:272:B:GLU:HB2	1	0.12
(1,1098)	2:276:B:THR:HA	2:272:B:GLU:HB3	1	0.12
(1,1098)	2:276:B:THR:HA	2:272:B:GLU:HB2	8	0.12
(1,1098)	2:276:B:THR:HA	2:272:B:GLU:HB3	8	0.12
(1,1098)	2:276:B:THR:HA	2:272:B:GLU:HB2	17	0.12
(1,1098)	2:276:B:THR:HA	2:272:B:GLU:HB3	17	0.12
(1,1077)	2:242:B:ILE:HB	2:237:B:GLU:HG2	17	0.12
(1,1077)	2:242:B:ILE:HB	2:237:B:GLU:HG3	17	0.12
(1,1036)	2:329:B:ILE:HD11	2:332:B:VAL:HB	17	0.12
(1,1036)	2:329:B:ILE:HD12	2:332:B:VAL:HB	17	0.12
(1,1036)	2:329:B:ILE:HD13	2:332:B:VAL:HB	17	0.12
(1,996)	2:294:B:VAL:HG11	2:318:B:LEU:HB2	1	0.12
(1,996)	2:294:B:VAL:HG11	2:318:B:LEU:HB3	1	0.12
(1,996)	2:294:B:VAL:HG12	2:318:B:LEU:HB2	1	0.12
(1,996)	2:294:B:VAL:HG12	2:318:B:LEU:HB3	1	0.12
(1,996)	2:294:B:VAL:HG13	2:318:B:LEU:HB2	1	0.12
(1,996)	2:294:B:VAL:HG13	2:318:B:LEU:HB3	1	0.12
(1,996)	2:294:B:VAL:HG21	2:318:B:LEU:HB2	1	0.12
(1,996)	2:294:B:VAL:HG21	2:318:B:LEU:HB3	1	0.12
(1,996)	2:294:B:VAL:HG22	2:318:B:LEU:HB2	1	0.12
(1,996)	2:294:B:VAL:HG22	2:318:B:LEU:HB3	1	0.12
(1,996)	2:294:B:VAL:HG23	2:318:B:LEU:HB2	1	0.12
(1,996)	2:294:B:VAL:HG23	2:318:B:LEU:HB3	1	0.12
(1,963)	2:220:B:LEU:HD11	2:204:B:THR:HB	10	0.12
(1,963)	2:220:B:LEU:HD12	2:204:B:THR:HB	10	0.12
(1,963)	2:220:B:LEU:HD13	2:204:B:THR:HB	10	0.12
(1,963)	2:220:B:LEU:HD21	2:204:B:THR:HB	10	0.12
(1,963)	2:220:B:LEU:HD22	2:204:B:THR:HB	10	0.12
(1,963)	2:220:B:LEU:HD23	2:204:B:THR:HB	10	0.12
(1,952)	2:229:B:LEU:HD11	2:277:B:ILE:H	16	0.12
(1,952)	2:229:B:LEU:HD12	2:277:B:ILE:H	16	0.12
(1,952)	2:229:B:LEU:HD13	2:277:B:ILE:H	16	0.12
(1,952)	2:229:B:LEU:HD21	2:277:B:ILE:H	16	0.12
(1,952)	2:229:B:LEU:HD22	2:277:B:ILE:H	16	0.12
(1,952)	2:229:B:LEU:HD23	2:277:B:ILE:H	16	0.12
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB2	2	0.12
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB3	2	0.12

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB2	11	0.12
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB3	11	0.12
(1,889)	2:327:B:ILE:H	2:327:B:ILE:HD11	12	0.12
(1,889)	2:327:B:ILE:H	2:327:B:ILE:HD12	12	0.12
(1,889)	2:327:B:ILE:H	2:327:B:ILE:HD13	12	0.12
(1,831)	2:292:B:ARG:H	2:291:B:HIS:HD2	6	0.12
(1,831)	2:292:B:ARG:H	2:291:B:HIS:HD2	15	0.12
(1,831)	2:292:B:ARG:H	2:291:B:HIS:HD2	18	0.12
(1,827)	2:320:B:ALA:H	2:323:B:LYS:HB2	8	0.12
(1,827)	2:320:B:ALA:H	2:323:B:LYS:HB3	8	0.12
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG21	4	0.12
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG22	4	0.12
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG23	4	0.12
(1,700)	2:256:B:ASN:H	2:259:B:ASN:H	2	0.12
(1,587)	2:328:B:THR:H	2:332:B:VAL:HB	6	0.12
(1,587)	2:328:B:THR:H	2:332:B:VAL:HB	14	0.12
(1,587)	2:328:B:THR:H	2:332:B:VAL:HB	19	0.12
(1,571)	2:244:B:ASP:H	2:288:B:THR:HG21	1	0.12
(1,571)	2:244:B:ASP:H	2:288:B:THR:HG22	1	0.12
(1,571)	2:244:B:ASP:H	2:288:B:THR:HG23	1	0.12
(1,494)	2:283:B:ALA:H	2:279:B:GLN:HB2	10	0.12
(1,494)	2:283:B:ALA:H	2:279:B:GLN:HB3	10	0.12
(1,464)	2:271:B:ASP:H	2:267:B:GLU:H	7	0.12
(1,464)	2:271:B:ASP:H	2:267:B:GLU:H	9	0.12
(1,464)	2:271:B:ASP:H	2:267:B:GLU:H	20	0.12
(1,385)	2:314:B:TYR:H	2:304:B:ALA:HA	4	0.12
(1,379)	2:327:B:ILE:H	2:325:B:MET:HA	3	0.12
(1,379)	2:327:B:ILE:H	2:325:B:MET:HA	12	0.12
(1,359)	2:342:B:GLU:H	2:343:B:LYS:H	2	0.12
(1,359)	2:342:B:GLU:H	2:343:B:LYS:H	9	0.12
(1,359)	2:342:B:GLU:H	2:343:B:LYS:H	20	0.12
(1,351)	2:246:B:LYS:H	2:244:B:ASP:H	8	0.12
(1,351)	2:246:B:LYS:H	2:244:B:ASP:H	17	0.12
(1,90)	2:280:B:GLY:H	2:226:B:LYS:HG2	5	0.12
(1,90)	2:280:B:GLY:H	2:226:B:LYS:HG3	5	0.12
(1,82)	2:321:B:LYS:H	2:321:B:LYS:HG2	7	0.12
(1,82)	2:321:B:LYS:H	2:321:B:LYS:HG3	7	0.12
(1,82)	2:321:B:LYS:H	2:321:B:LYS:HG2	8	0.12
(1,82)	2:321:B:LYS:H	2:321:B:LYS:HG3	8	0.12
(1,82)	2:321:B:LYS:H	2:321:B:LYS:HG2	10	0.12
(1,82)	2:321:B:LYS:H	2:321:B:LYS:HG3	10	0.12
(1,21)	2:281:B:ILE:H	2:277:B:ILE:HG21	18	0.12

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,21)	2:281:B:ILE:H	2:277:B:ILE:HG22	18	0.12
(1,21)	2:281:B:ILE:H	2:277:B:ILE:HG23	18	0.12
(1,11)	2:295:B:THR:H	2:294:B:VAL:HB	2	0.12
(1,1660)	2:337:B:ILE:HA	1:186:A:ASP:HB2	15	0.11
(1,1660)	2:337:B:ILE:HA	1:186:A:ASP:HB3	15	0.11
(1,1660)	2:337:B:ILE:HA	1:186:A:ASP:HB2	17	0.11
(1,1660)	2:337:B:ILE:HA	1:186:A:ASP:HB3	17	0.11
(1,1634)	2:241:B:TYR:HA	2:210:B:ASP:HB2	16	0.11
(1,1634)	2:241:B:TYR:HA	2:210:B:ASP:HB3	16	0.11
(1,1618)	2:224:B:ASP:HA	2:193:B:PHE:HZ	5	0.11
(1,1618)	2:224:B:ASP:HA	2:193:B:PHE:HZ	12	0.11
(1,1548)	2:337:B:ILE:HG21	1:186:A:ASP:HA	9	0.11
(1,1548)	2:337:B:ILE:HG22	1:186:A:ASP:HA	9	0.11
(1,1548)	2:337:B:ILE:HG23	1:186:A:ASP:HA	9	0.11
(1,1539)	2:281:B:ILE:HB	2:277:B:ILE:HG21	8	0.11
(1,1539)	2:281:B:ILE:HB	2:277:B:ILE:HG22	8	0.11
(1,1539)	2:281:B:ILE:HB	2:277:B:ILE:HG23	8	0.11
(1,1455)	2:247:B:ASN:HA	2:289:B:ILE:HD11	15	0.11
(1,1455)	2:247:B:ASN:HA	2:289:B:ILE:HD12	15	0.11
(1,1455)	2:247:B:ASN:HA	2:289:B:ILE:HD13	15	0.11
(1,1403)	2:337:B:ILE:HD11	2:250:B:LEU:HG	19	0.11
(1,1403)	2:337:B:ILE:HD12	2:250:B:LEU:HG	19	0.11
(1,1403)	2:337:B:ILE:HD13	2:250:B:LEU:HG	19	0.11
(1,1350)	2:329:B:ILE:HB	2:328:B:THR:HB	11	0.11
(1,1347)	2:244:B:ASP:HA	2:286:B:ASN:HB2	3	0.11
(1,1347)	2:244:B:ASP:HA	2:286:B:ASN:HB3	3	0.11
(1,1347)	2:244:B:ASP:HA	2:286:B:ASN:HB2	4	0.11
(1,1347)	2:244:B:ASP:HA	2:286:B:ASN:HB3	4	0.11
(1,1347)	2:244:B:ASP:HA	2:286:B:ASN:HB2	8	0.11
(1,1347)	2:244:B:ASP:HA	2:286:B:ASN:HB3	8	0.11
(1,1347)	2:244:B:ASP:HA	2:286:B:ASN:HB2	10	0.11
(1,1347)	2:244:B:ASP:HA	2:286:B:ASN:HB3	10	0.11
(1,1306)	2:229:B:LEU:HA	2:193:B:PHE:HZ	9	0.11
(1,1291)	2:314:B:TYR:HA	2:318:B:LEU:HA	3	0.11
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB2	11	0.11
(1,1234)	2:255:B:LEU:HG	2:273:B:LEU:HB3	11	0.11
(1,1210)	2:281:B:ILE:HD11	2:289:B:ILE:HG21	12	0.11
(1,1210)	2:281:B:ILE:HD11	2:289:B:ILE:HG22	12	0.11
(1,1210)	2:281:B:ILE:HD11	2:289:B:ILE:HG23	12	0.11
(1,1210)	2:281:B:ILE:HD12	2:289:B:ILE:HG21	12	0.11
(1,1210)	2:281:B:ILE:HD12	2:289:B:ILE:HG22	12	0.11
(1,1210)	2:281:B:ILE:HD12	2:289:B:ILE:HG23	12	0.11

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1210)	2:281:B:ILE:HD13	2:289:B:ILE:HG21	12	0.11
(1,1210)	2:281:B:ILE:HD13	2:289:B:ILE:HG22	12	0.11
(1,1210)	2:281:B:ILE:HD13	2:289:B:ILE:HG23	12	0.11
(1,1162)	2:218:B:LEU:HG	2:193:B:PHE:HE1	14	0.11
(1,1162)	2:218:B:LEU:HG	2:193:B:PHE:HE2	14	0.11
(1,1139)	1:188:A:ASN:HA	2:333:B:LYS:HB2	18	0.11
(1,1139)	1:188:A:ASN:HA	2:333:B:LYS:HB3	18	0.11
(1,1128)	2:199:B:HIS:HB2	2:225:B:LEU:HB2	6	0.11
(1,1128)	2:199:B:HIS:HB2	2:225:B:LEU:HB3	6	0.11
(1,1128)	2:199:B:HIS:HB3	2:225:B:LEU:HB2	6	0.11
(1,1128)	2:199:B:HIS:HB3	2:225:B:LEU:HB3	6	0.11
(1,1123)	2:207:B:ILE:HD11	2:205:B:SER:HA	12	0.11
(1,1123)	2:207:B:ILE:HD12	2:205:B:SER:HA	12	0.11
(1,1123)	2:207:B:ILE:HD13	2:205:B:SER:HA	12	0.11
(1,1123)	2:207:B:ILE:HD11	2:205:B:SER:HA	19	0.11
(1,1123)	2:207:B:ILE:HD12	2:205:B:SER:HA	19	0.11
(1,1123)	2:207:B:ILE:HD13	2:205:B:SER:HA	19	0.11
(1,1109)	2:193:B:PHE:HD1	2:203:B:VAL:HB	18	0.11
(1,1109)	2:193:B:PHE:HD2	2:203:B:VAL:HB	18	0.11
(1,1064)	2:226:B:LYS:HE2	2:230:B:VAL:HG11	20	0.11
(1,1064)	2:226:B:LYS:HE2	2:230:B:VAL:HG12	20	0.11
(1,1064)	2:226:B:LYS:HE2	2:230:B:VAL:HG13	20	0.11
(1,1064)	2:226:B:LYS:HE2	2:230:B:VAL:HG21	20	0.11
(1,1064)	2:226:B:LYS:HE2	2:230:B:VAL:HG22	20	0.11
(1,1064)	2:226:B:LYS:HE2	2:230:B:VAL:HG23	20	0.11
(1,1064)	2:226:B:LYS:HE3	2:230:B:VAL:HG11	20	0.11
(1,1064)	2:226:B:LYS:HE3	2:230:B:VAL:HG12	20	0.11
(1,1064)	2:226:B:LYS:HE3	2:230:B:VAL:HG13	20	0.11
(1,1064)	2:226:B:LYS:HE3	2:230:B:VAL:HG21	20	0.11
(1,1064)	2:226:B:LYS:HE3	2:230:B:VAL:HG22	20	0.11
(1,1064)	2:226:B:LYS:HE3	2:230:B:VAL:HG23	20	0.11
(1,1062)	2:213:B:GLU:HB2	2:239:B:LEU:HA	1	0.11
(1,1062)	2:213:B:GLU:HB3	2:239:B:LEU:HA	1	0.11
(1,1062)	2:213:B:GLU:HB2	2:239:B:LEU:HA	9	0.11
(1,1062)	2:213:B:GLU:HB3	2:239:B:LEU:HA	9	0.11
(1,1062)	2:213:B:GLU:HB2	2:239:B:LEU:HA	10	0.11
(1,1062)	2:213:B:GLU:HB3	2:239:B:LEU:HA	10	0.11
(1,1036)	2:329:B:ILE:HD11	2:332:B:VAL:HB	3	0.11
(1,1036)	2:329:B:ILE:HD12	2:332:B:VAL:HB	3	0.11
(1,1036)	2:329:B:ILE:HD13	2:332:B:VAL:HB	3	0.11
(1,996)	2:294:B:VAL:HG11	2:318:B:LEU:HB2	8	0.11
(1,996)	2:294:B:VAL:HG11	2:318:B:LEU:HB3	8	0.11

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,996)	2:294:B:VAL:HG12	2:318:B:LEU:HB2	8	0.11
(1,996)	2:294:B:VAL:HG12	2:318:B:LEU:HB3	8	0.11
(1,996)	2:294:B:VAL:HG13	2:318:B:LEU:HB2	8	0.11
(1,996)	2:294:B:VAL:HG13	2:318:B:LEU:HB3	8	0.11
(1,996)	2:294:B:VAL:HG21	2:318:B:LEU:HB2	8	0.11
(1,996)	2:294:B:VAL:HG21	2:318:B:LEU:HB3	8	0.11
(1,996)	2:294:B:VAL:HG22	2:318:B:LEU:HB2	8	0.11
(1,996)	2:294:B:VAL:HG22	2:318:B:LEU:HB3	8	0.11
(1,996)	2:294:B:VAL:HG23	2:318:B:LEU:HB2	8	0.11
(1,996)	2:294:B:VAL:HG23	2:318:B:LEU:HB3	8	0.11
(1,963)	2:220:B:LEU:HD11	2:204:B:THR:HB	9	0.11
(1,963)	2:220:B:LEU:HD12	2:204:B:THR:HB	9	0.11
(1,963)	2:220:B:LEU:HD13	2:204:B:THR:HB	9	0.11
(1,963)	2:220:B:LEU:HD21	2:204:B:THR:HB	9	0.11
(1,963)	2:220:B:LEU:HD22	2:204:B:THR:HB	9	0.11
(1,963)	2:220:B:LEU:HD23	2:204:B:THR:HB	9	0.11
(1,889)	2:327:B:ILE:H	2:327:B:ILE:HD11	8	0.11
(1,889)	2:327:B:ILE:H	2:327:B:ILE:HD12	8	0.11
(1,889)	2:327:B:ILE:H	2:327:B:ILE:HD13	8	0.11
(1,888)	2:303:B:LYS:H	2:303:B:LYS:HE2	11	0.11
(1,888)	2:303:B:LYS:H	2:303:B:LYS:HE3	11	0.11
(1,827)	2:320:B:ALA:H	2:323:B:LYS:HB2	9	0.11
(1,827)	2:320:B:ALA:H	2:323:B:LYS:HB3	9	0.11
(1,827)	2:320:B:ALA:H	2:323:B:LYS:HB2	12	0.11
(1,827)	2:320:B:ALA:H	2:323:B:LYS:HB3	12	0.11
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG21	7	0.11
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG22	7	0.11
(1,791)	2:288:B:THR:H	2:289:B:ILE:HG23	7	0.11
(1,733)	2:218:B:LEU:H	2:218:B:LEU:HG	16	0.11
(1,733)	2:218:B:LEU:H	2:218:B:LEU:HG	18	0.11
(1,700)	2:256:B:ASN:H	2:259:B:ASN:H	1	0.11
(1,700)	2:256:B:ASN:H	2:259:B:ASN:H	18	0.11
(1,587)	2:328:B:THR:H	2:332:B:VAL:HB	1	0.11
(1,587)	2:328:B:THR:H	2:332:B:VAL:HB	15	0.11
(1,464)	2:271:B:ASP:H	2:267:B:GLU:H	1	0.11
(1,464)	2:271:B:ASP:H	2:267:B:GLU:H	13	0.11
(1,464)	2:271:B:ASP:H	2:267:B:GLU:H	15	0.11
(1,428)	2:222:B:GLU:H	2:202:B:ILE:HA	13	0.11
(1,379)	2:327:B:ILE:H	2:325:B:MET:HA	15	0.11
(1,374)	2:328:B:THR:H	2:327:B:ILE:HB	7	0.11
(1,374)	2:328:B:THR:H	2:327:B:ILE:HB	11	0.11
(1,359)	2:342:B:GLU:H	2:343:B:LYS:H	10	0.11

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,82)	2:321:B:LYS:H	2:321:B:LYS:HG2	2	0.11
(1,82)	2:321:B:LYS:H	2:321:B:LYS:HG3	2	0.11
(1,82)	2:321:B:LYS:H	2:321:B:LYS:HG2	12	0.11
(1,82)	2:321:B:LYS:H	2:321:B:LYS:HG3	12	0.11
(1,82)	2:321:B:LYS:H	2:321:B:LYS:HG2	18	0.11
(1,82)	2:321:B:LYS:H	2:321:B:LYS:HG3	18	0.11
(1,82)	2:321:B:LYS:H	2:321:B:LYS:HG2	20	0.11
(1,82)	2:321:B:LYS:H	2:321:B:LYS:HG3	20	0.11
(1,52)	2:327:B:ILE:H	2:321:B:LYS:HG2	18	0.11
(1,52)	2:327:B:ILE:H	2:321:B:LYS:HG3	18	0.11
(1,21)	2:281:B:ILE:H	2:277:B:ILE:HG21	3	0.11
(1,21)	2:281:B:ILE:H	2:277:B:ILE:HG22	3	0.11
(1,21)	2:281:B:ILE:H	2:277:B:ILE:HG23	3	0.11
(1,11)	2:295:B:THR:H	2:294:B:VAL:HB	14	0.11
(1,1637)	1:187:A:VAL:HB	2:233:B:LEU:HG	11	0.1
(1,1634)	2:241:B:TYR:HA	2:210:B:ASP:HB2	11	0.1
(1,1634)	2:241:B:TYR:HA	2:210:B:ASP:HB3	11	0.1
(1,1613)	2:329:B:ILE:HG21	2:309:B:LEU:HB2	11	0.1
(1,1613)	2:329:B:ILE:HG21	2:309:B:LEU:HB3	11	0.1
(1,1613)	2:329:B:ILE:HG22	2:309:B:LEU:HB2	11	0.1
(1,1613)	2:329:B:ILE:HG22	2:309:B:LEU:HB3	11	0.1
(1,1613)	2:329:B:ILE:HG23	2:309:B:LEU:HB2	11	0.1
(1,1613)	2:329:B:ILE:HG23	2:309:B:LEU:HB3	11	0.1
(1,1580)	2:273:B:LEU:HD11	1:180:A:TYR:HE1	20	0.1
(1,1580)	2:273:B:LEU:HD11	1:180:A:TYR:HE2	20	0.1
(1,1580)	2:273:B:LEU:HD12	1:180:A:TYR:HE1	20	0.1
(1,1580)	2:273:B:LEU:HD12	1:180:A:TYR:HE2	20	0.1
(1,1580)	2:273:B:LEU:HD13	1:180:A:TYR:HE1	20	0.1
(1,1580)	2:273:B:LEU:HD13	1:180:A:TYR:HE2	20	0.1
(1,1580)	2:273:B:LEU:HD21	1:180:A:TYR:HE1	20	0.1
(1,1580)	2:273:B:LEU:HD21	1:180:A:TYR:HE2	20	0.1
(1,1580)	2:273:B:LEU:HD22	1:180:A:TYR:HE1	20	0.1
(1,1580)	2:273:B:LEU:HD22	1:180:A:TYR:HE2	20	0.1
(1,1580)	2:273:B:LEU:HD23	1:180:A:TYR:HE1	20	0.1
(1,1580)	2:273:B:LEU:HD23	1:180:A:TYR:HE2	20	0.1
(1,1562)	2:194:B:THR:HA	2:202:B:ILE:HG21	4	0.1
(1,1562)	2:194:B:THR:HA	2:202:B:ILE:HG22	4	0.1
(1,1562)	2:194:B:THR:HA	2:202:B:ILE:HG23	4	0.1
(1,1347)	2:244:B:ASP:HA	2:286:B:ASN:HB2	1	0.1
(1,1347)	2:244:B:ASP:HA	2:286:B:ASN:HB3	1	0.1
(1,1347)	2:244:B:ASP:HA	2:286:B:ASN:HB2	20	0.1
(1,1347)	2:244:B:ASP:HA	2:286:B:ASN:HB3	20	0.1

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1340)	2:225:B:LEU:HD11	1:183:A:VAL:HA	13	0.1
(1,1340)	2:225:B:LEU:HD12	1:183:A:VAL:HA	13	0.1
(1,1340)	2:225:B:LEU:HD13	1:183:A:VAL:HA	13	0.1
(1,1340)	2:225:B:LEU:HD21	1:183:A:VAL:HA	13	0.1
(1,1340)	2:225:B:LEU:HD22	1:183:A:VAL:HA	13	0.1
(1,1340)	2:225:B:LEU:HD23	1:183:A:VAL:HA	13	0.1
(1,1162)	2:218:B:LEU:HG	2:193:B:PHE:HE1	11	0.1
(1,1162)	2:218:B:LEU:HG	2:193:B:PHE:HE2	11	0.1
(1,1098)	2:276:B:THR:HA	2:272:B:GLU:HB2	14	0.1
(1,1098)	2:276:B:THR:HA	2:272:B:GLU:HB3	14	0.1
(1,1098)	2:276:B:THR:HA	2:272:B:GLU:HB2	19	0.1
(1,1098)	2:276:B:THR:HA	2:272:B:GLU:HB3	19	0.1
(1,1062)	2:213:B:GLU:HB2	2:239:B:LEU:HA	2	0.1
(1,1062)	2:213:B:GLU:HB3	2:239:B:LEU:HA	2	0.1
(1,1036)	2:329:B:ILE:HD11	2:332:B:VAL:HB	13	0.1
(1,1036)	2:329:B:ILE:HD12	2:332:B:VAL:HB	13	0.1
(1,1036)	2:329:B:ILE:HD13	2:332:B:VAL:HB	13	0.1
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB2	5	0.1
(1,895)	2:279:B:GLN:H	2:226:B:LYS:HB3	5	0.1
(1,889)	2:327:B:ILE:H	2:327:B:ILE:HD11	2	0.1
(1,889)	2:327:B:ILE:H	2:327:B:ILE:HD12	2	0.1
(1,889)	2:327:B:ILE:H	2:327:B:ILE:HD13	2	0.1
(1,824)	2:229:B:LEU:H	2:229:B:LEU:HG	6	0.1
(1,782)	2:294:B:VAL:H	2:251:B:VAL:HB	13	0.1
(1,733)	2:218:B:LEU:H	2:218:B:LEU:HG	10	0.1
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB2	13	0.1
(1,607)	2:282:B:GLU:H	2:279:B:GLN:HB3	13	0.1
(1,494)	2:283:B:ALA:H	2:279:B:GLN:HB2	6	0.1
(1,494)	2:283:B:ALA:H	2:279:B:GLN:HB3	6	0.1
(1,428)	2:222:B:GLU:H	2:202:B:ILE:HA	2	0.1
(1,351)	2:246:B:LYS:H	2:244:B:ASP:H	7	0.1
(1,107)	2:246:B:LYS:H	2:245:B:ASP:HB2	1	0.1
(1,107)	2:246:B:LYS:H	2:245:B:ASP:HB3	1	0.1
(1,107)	2:246:B:LYS:H	2:245:B:ASP:HB2	3	0.1
(1,107)	2:246:B:LYS:H	2:245:B:ASP:HB3	3	0.1

10 Dihedral-angle violation analysis ⓘ

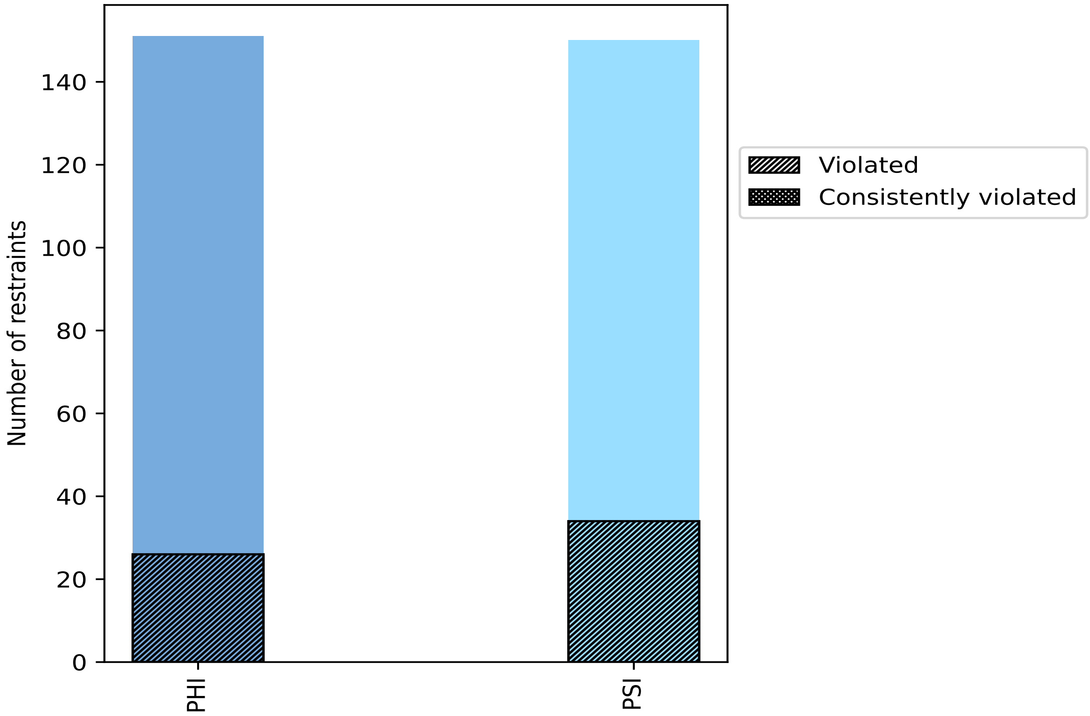
10.1 Summary of dihedral-angle violations ⓘ

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

Angle type	Count	%[1]	Violated[3]			Consistently Violated[4]		
			Count	%[2]	%[1]	Count	%[2]	%[1]
PHI	151	50.2	26	17.2	8.6	0	0.0	0.0
PSI	150	49.8	34	22.7	11.3	0	0.0	0.0
Total	301	100.0	60	19.9	19.9	0	0.0	0.0

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

10.1.1 Bar chart : Distribution of dihedral-angles and violations ⓘ



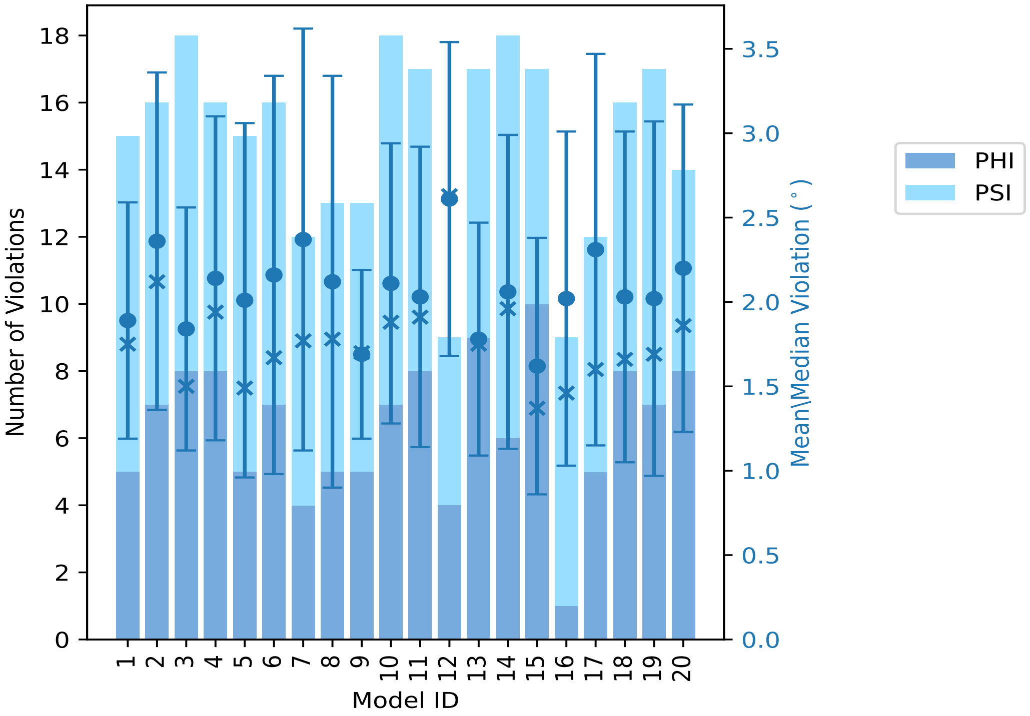
Violated and consistently violated restraints are shown using different hatch patterns in their respective categories

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

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

Model ID	Number of violations			Mean (°)	Max (°)	SD (°)	Median (°)
	PHI	PSI	Total				
1	5	10	15	1.89	3.61	0.7	1.75
2	7	9	16	2.36	4.3	1.0	2.12
3	8	10	18	1.84	3.39	0.72	1.5
4	8	8	16	2.14	4.68	0.96	1.94
5	5	10	15	2.01	4.14	1.05	1.49
6	7	9	16	2.16	4.72	1.18	1.67
7	4	8	12	2.37	4.74	1.25	1.77
8	5	8	13	2.12	4.97	1.22	1.78
9	5	8	13	1.69	2.59	0.5	1.7
10	7	11	18	2.11	3.87	0.83	1.88
11	8	9	17	2.03	4.74	0.89	1.91
12	4	5	9	2.61	4.73	0.93	2.63
13	9	8	17	1.78	3.56	0.69	1.75
14	6	12	18	2.06	4.61	0.93	1.96
15	10	7	17	1.62	4.28	0.76	1.37
16	1	8	9	2.02	4.15	0.99	1.46
17	5	7	12	2.31	4.8	1.16	1.6
18	8	8	16	2.03	4.43	0.98	1.66
19	7	10	17	2.02	4.86	1.05	1.69
20	8	6	14	2.2	4.46	0.97	1.86

10.2.1 Bar graph : Dihedral 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

10.3 Dihedral-angle violation statistics for the ensemble ⓘ

Violation analysis may find that some restraints are violated in very few models and some are violated in most of models. The following table provides this information as number of violated restraints for a given fraction of ensemble.

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

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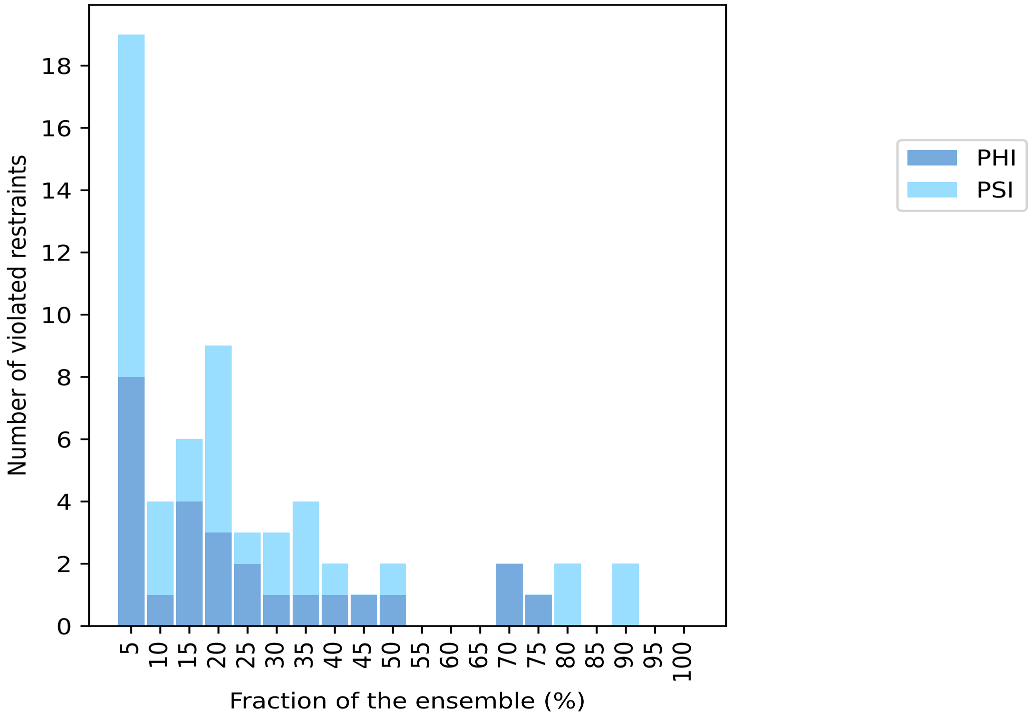
Number of violated restraints			Fraction of the ensemble	
PHI	PSI	Total	Count[1]	%
0	0	0	12	60.0
0	0	0	13	65.0
2	0	2	14	70.0
1	0	1	15	75.0
0	2	2	16	80.0
0	0	0	17	85.0
0	2	2	18	90.0
0	0	0	19	95.0
0	0	0	20	100.0

[1] Number of models with violations

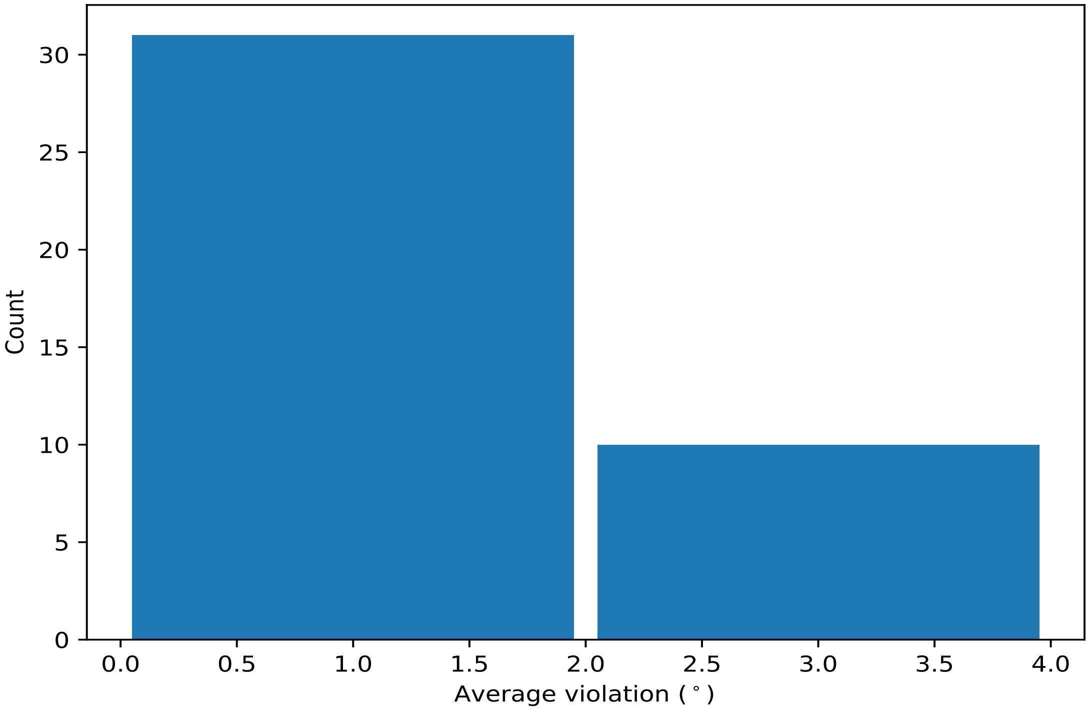
10.3.1 Bar graph : Dihedral-angle Violation statistics for the ensemble



10.4 Most violated dihedral-angle restraints in the ensemble

10.4.1 Histogram : Distribution of mean dihedral-angle 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



10.4.2 Table: Most violated dihedral-angle 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.

Key	Atom-1	Atom-2	Atom-3	Atom-4	Models[1]	Mean	SD[2]	Median
(1,227)	2:265:B:LYS:N	2:265:B:LYS:CA	2:265:B:LYS:C	2:266:B:ARG:N	18	3.76	0.99	3.98
(1,221)	2:258:B:LYS:N	2:258:B:LYS:CA	2:258:B:LYS:C	2:259:B:ASN:N	18	3.07	1.06	2.8
(1,194)	2:225:B:LEU:N	2:225:B:LEU:CA	2:225:B:LEU:C	2:226:B:LYS:N	16	2.78	0.97	2.38
(1,295)	2:334:B:SER:N	2:334:B:SER:CA	2:334:B:SER:C	2:335:B:SER:N	16	2.48	0.95	2.24
(1,45)	2:225:B:LEU:C	2:226:B:LYS:N	2:226:B:LYS:CA	2:226:B:LYS:C	15	2.89	1.13	2.81
(1,40)	2:218:B:LEU:C	2:219:B:GLU:N	2:219:B:GLU:CA	2:219:B:GLU:C	14	1.93	0.55	1.8
(1,10)	1:187:A:VAL:C	1:188:A:ASN:N	1:188:A:ASN:CA	1:188:A:ASN:C	14	1.72	0.42	1.68
(1,166)	2:195:B:ILE:N	2:195:B:ILE:CA	2:195:B:ILE:C	2:196:B:ASN:N	10	1.69	0.22	1.75
(1,29)	2:207:B:ILE:C	2:208:B:ASN:N	2:208:B:ASN:CA	2:208:B:ASN:C	10	1.6	0.27	1.57
(1,26)	2:204:B:THR:C	2:205:B:SER:N	2:205:B:SER:CA	2:205:B:SER:C	9	1.39	0.23	1.41
(1,70)	2:256:B:ASN:C	2:257:B:ASP:N	2:257:B:ASP:CA	2:257:B:ASP:C	8	1.41	0.35	1.28
(1,186)	2:215:B:LEU:N	2:215:B:LEU:CA	2:215:B:LEU:C	2:216:B:ASP:N	8	1.36	0.33	1.23
(1,284)	2:323:B:LYS:N	2:323:B:LYS:CA	2:323:B:LYS:C	2:324:B:GLY:N	7	2.55	0.84	2.52
(1,19)	2:197:B:SER:C	2:198:B:LYS:N	2:198:B:LYS:CA	2:198:B:LYS:C	7	2.19	0.91	1.88
(1,176)	2:205:B:SER:N	2:205:B:SER:CA	2:205:B:SER:C	2:206:B:ALA:N	7	1.82	0.37	2.0
(1,299)	2:339:B:ASP:N	2:339:B:ASP:CA	2:339:B:ASP:C	2:340:B:LEU:N	7	1.57	0.28	1.68
(1,193)	2:224:B:ASP:N	2:224:B:ASP:CA	2:224:B:ASP:C	2:225:B:LEU:N	6	1.69	0.54	1.59
(1,189)	2:218:B:LEU:N	2:218:B:LEU:CA	2:218:B:LEU:C	2:219:B:GLU:N	6	1.67	0.42	1.8
(1,75)	2:261:B:LYS:C	2:262:B:THR:N	2:262:B:THR:CA	2:262:B:THR:C	6	1.46	0.32	1.38
(1,99)	2:287:B:ASP:C	2:288:B:THR:N	2:288:B:THR:CA	2:288:B:THR:C	5	1.64	0.54	1.55

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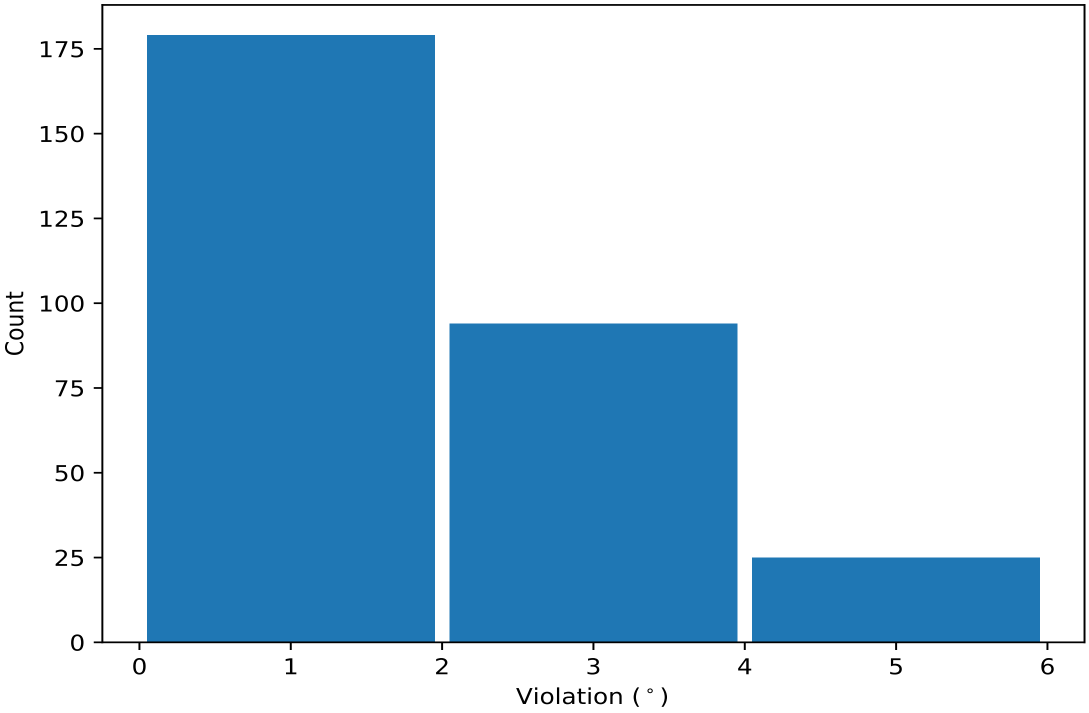
Key	Atom-1	Atom-2	Atom-3	Atom-4	Models[1]	Mean	SD[2]	Median
(1,36)	2:214:B:VAL:C	2:215:B:LEU:N	2:215:B:LEU:CA	2:215:B:LEU:C	5	1.47	0.32	1.43
(1,208)	2:239:B:LEU:N	2:239:B:LEU:CA	2:239:B:LEU:C	2:240:B:GLY:N	5	1.26	0.23	1.13
(1,190)	2:219:B:GLU:N	2:219:B:GLU:CA	2:219:B:GLU:C	2:220:B:LEU:N	4	2.06	0.43	2.3
(1,248)	2:287:B:ASP:N	2:287:B:ASP:CA	2:287:B:ASP:C	2:288:B:THR:N	4	1.77	0.43	1.92
(1,300)	2:340:B:LEU:N	2:340:B:LEU:CA	2:340:B:LEU:C	2:341:B:ILE:N	4	1.74	0.45	1.83
(1,151)	2:341:B:ILE:C	2:342:B:GLU:N	2:342:B:GLU:CA	2:342:B:GLU:C	4	1.71	0.39	1.8
(1,61)	2:242:B:ILE:C	2:243:B:SER:N	2:243:B:SER:CA	2:243:B:SER:C	4	1.71	0.57	1.61
(1,102)	2:290:B:VAL:C	2:291:B:HIS:N	2:291:B:HIS:CA	2:291:B:HIS:C	4	1.68	0.34	1.62
(1,187)	2:216:B:ASP:N	2:216:B:ASP:CA	2:216:B:ASP:C	2:217:B:GLY:N	4	1.5	0.29	1.56
(1,257)	2:296:B:VAL:N	2:296:B:VAL:CA	2:296:B:VAL:C	2:297:B:ASP:N	4	1.34	0.32	1.23
(1,164)	2:193:B:PHE:N	2:193:B:PHE:CA	2:193:B:PHE:C	2:194:B:THR:N	4	1.18	0.12	1.15
(1,134)	2:322:B:GLU:C	2:323:B:LYS:N	2:323:B:LYS:CA	2:323:B:LYS:C	3	2.48	0.36	2.65
(1,2)	1:179:A:GLU:C	1:180:A:TYR:N	1:180:A:TYR:CA	1:180:A:TYR:C	3	2.09	1.09	1.54
(1,39)	2:217:B:GLY:C	2:218:B:LEU:N	2:218:B:LEU:CA	2:218:B:LEU:C	3	1.96	0.85	1.49
(1,21)	2:199:B:HIS:C	2:200:B:LYS:N	2:200:B:LYS:CA	2:200:B:LYS:C	3	1.82	0.4	1.91
(1,159)	1:186:A:ASP:N	1:186:A:ASP:CA	1:186:A:ASP:C	1:187:A:VAL:N	3	1.46	0.19	1.39
(1,214)	2:249:B:VAL:N	2:249:B:VAL:CA	2:249:B:VAL:C	2:250:B:LEU:N	3	1.3	0.15	1.31
(1,160)	1:187:A:VAL:N	1:187:A:VAL:CA	1:187:A:VAL:C	1:188:A:ASN:N	2	1.69	0.36	1.69
(1,11)	2:189:B:PRO:C	2:190:B:SER:N	2:190:B:SER:CA	2:190:B:SER:C	2	1.29	0.06	1.29
(1,289)	2:328:B:THR:N	2:328:B:THR:CA	2:328:B:THR:C	2:329:B:ILE:N	2	1.19	0.17	1.19
(1,218)	2:253:B:MET:N	2:253:B:MET:CA	2:253:B:MET:C	2:254:B:ALA:N	2	1.1	0.01	1.1

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

10.5 All violated dihedral-angle restraints ⓘ

10.5.1 Histogram : Distribution of violations ⓘ

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



10.5.2 Table: All violated dihedral-angle restraints ⓘ

The following table lists the absolute value of the violation for each restraint in the ensemble sorted by its value. The Key (restraint list ID, restraint ID) is the unique identifier for a given restraint.

Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,227)	2:265:B:LYS:N	2:265:B:LYS:CA	2:265:B:LYS:C	2:266:B:ARG:N	8	4.97
(1,221)	2:258:B:LYS:N	2:258:B:LYS:CA	2:258:B:LYS:C	2:259:B:ASN:N	19	4.86
(1,221)	2:258:B:LYS:N	2:258:B:LYS:CA	2:258:B:LYS:C	2:259:B:ASN:N	17	4.8
(1,227)	2:265:B:LYS:N	2:265:B:LYS:CA	2:265:B:LYS:C	2:266:B:ARG:N	11	4.74
(1,45)	2:225:B:LEU:C	2:226:B:LYS:N	2:226:B:LYS:CA	2:226:B:LYS:C	7	4.74
(1,227)	2:265:B:LYS:N	2:265:B:LYS:CA	2:265:B:LYS:C	2:266:B:ARG:N	12	4.73
(1,295)	2:334:B:SER:N	2:334:B:SER:CA	2:334:B:SER:C	2:335:B:SER:N	6	4.72
(1,45)	2:225:B:LEU:C	2:226:B:LYS:N	2:226:B:LYS:CA	2:226:B:LYS:C	4	4.68
(1,221)	2:258:B:LYS:N	2:258:B:LYS:CA	2:258:B:LYS:C	2:259:B:ASN:N	8	4.66
(1,227)	2:265:B:LYS:N	2:265:B:LYS:CA	2:265:B:LYS:C	2:266:B:ARG:N	14	4.61
(1,227)	2:265:B:LYS:N	2:265:B:LYS:CA	2:265:B:LYS:C	2:266:B:ARG:N	7	4.54
(1,227)	2:265:B:LYS:N	2:265:B:LYS:CA	2:265:B:LYS:C	2:266:B:ARG:N	20	4.46
(1,227)	2:265:B:LYS:N	2:265:B:LYS:CA	2:265:B:LYS:C	2:266:B:ARG:N	18	4.43
(1,19)	2:197:B:SER:C	2:198:B:LYS:N	2:198:B:LYS:CA	2:198:B:LYS:C	2	4.3
(1,227)	2:265:B:LYS:N	2:265:B:LYS:CA	2:265:B:LYS:C	2:266:B:ARG:N	15	4.28
(1,45)	2:225:B:LEU:C	2:226:B:LYS:N	2:226:B:LYS:CA	2:226:B:LYS:C	18	4.26
(1,227)	2:265:B:LYS:N	2:265:B:LYS:CA	2:265:B:LYS:C	2:266:B:ARG:N	19	4.21
(1,221)	2:258:B:LYS:N	2:258:B:LYS:CA	2:258:B:LYS:C	2:259:B:ASN:N	16	4.15
(1,194)	2:225:B:LEU:N	2:225:B:LEU:CA	2:225:B:LEU:C	2:226:B:LYS:N	5	4.14
(1,45)	2:225:B:LEU:C	2:226:B:LYS:N	2:226:B:LYS:CA	2:226:B:LYS:C	5	4.13
(1,194)	2:225:B:LEU:N	2:225:B:LEU:CA	2:225:B:LEU:C	2:226:B:LYS:N	6	4.11

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,194)	2:225:B:LEU:N	2:225:B:LEU:CA	2:225:B:LEU:C	2:226:B:LYS:N	4	4.1
(1,194)	2:225:B:LEU:N	2:225:B:LEU:CA	2:225:B:LEU:C	2:226:B:LYS:N	2	4.07
(1,221)	2:258:B:LYS:N	2:258:B:LYS:CA	2:258:B:LYS:C	2:259:B:ASN:N	20	4.06
(1,251)	2:290:B:VAL:N	2:290:B:VAL:CA	2:290:B:VAL:C	2:291:B:HIS:N	14	4.04
(1,284)	2:323:B:LYS:N	2:323:B:LYS:CA	2:323:B:LYS:C	2:324:B:GLY:N	17	3.91
(1,295)	2:334:B:SER:N	2:334:B:SER:CA	2:334:B:SER:C	2:335:B:SER:N	10	3.87
(1,227)	2:265:B:LYS:N	2:265:B:LYS:CA	2:265:B:LYS:C	2:266:B:ARG:N	10	3.76
(1,227)	2:265:B:LYS:N	2:265:B:LYS:CA	2:265:B:LYS:C	2:266:B:ARG:N	6	3.66
(1,227)	2:265:B:LYS:N	2:265:B:LYS:CA	2:265:B:LYS:C	2:266:B:ARG:N	2	3.64
(1,2)	1:179:A:GLU:C	1:180:A:TYR:N	1:180:A:TYR:CA	1:180:A:TYR:C	1	3.61
(1,45)	2:225:B:LEU:C	2:226:B:LYS:N	2:226:B:LYS:CA	2:226:B:LYS:C	6	3.6
(1,194)	2:225:B:LEU:N	2:225:B:LEU:CA	2:225:B:LEU:C	2:226:B:LYS:N	13	3.56
(1,221)	2:258:B:LYS:N	2:258:B:LYS:CA	2:258:B:LYS:C	2:259:B:ASN:N	2	3.55
(1,295)	2:334:B:SER:N	2:334:B:SER:CA	2:334:B:SER:C	2:335:B:SER:N	7	3.46
(1,194)	2:225:B:LEU:N	2:225:B:LEU:CA	2:225:B:LEU:C	2:226:B:LYS:N	7	3.42
(1,227)	2:265:B:LYS:N	2:265:B:LYS:CA	2:265:B:LYS:C	2:266:B:ARG:N	3	3.39
(1,227)	2:265:B:LYS:N	2:265:B:LYS:CA	2:265:B:LYS:C	2:266:B:ARG:N	1	3.35
(1,221)	2:258:B:LYS:N	2:258:B:LYS:CA	2:258:B:LYS:C	2:259:B:ASN:N	13	3.33
(1,284)	2:323:B:LYS:N	2:323:B:LYS:CA	2:323:B:LYS:C	2:324:B:GLY:N	16	3.3
(1,227)	2:265:B:LYS:N	2:265:B:LYS:CA	2:265:B:LYS:C	2:266:B:ARG:N	17	3.3
(1,221)	2:258:B:LYS:N	2:258:B:LYS:CA	2:258:B:LYS:C	2:259:B:ASN:N	10	3.3
(1,295)	2:334:B:SER:N	2:334:B:SER:CA	2:334:B:SER:C	2:335:B:SER:N	5	3.25
(1,39)	2:217:B:GLY:C	2:218:B:LEU:N	2:218:B:LEU:CA	2:218:B:LEU:C	17	3.15
(1,194)	2:225:B:LEU:N	2:225:B:LEU:CA	2:225:B:LEU:C	2:226:B:LYS:N	12	3.14
(1,295)	2:334:B:SER:N	2:334:B:SER:CA	2:334:B:SER:C	2:335:B:SER:N	3	3.13
(1,284)	2:323:B:LYS:N	2:323:B:LYS:CA	2:323:B:LYS:C	2:324:B:GLY:N	11	3.02
(1,221)	2:258:B:LYS:N	2:258:B:LYS:CA	2:258:B:LYS:C	2:259:B:ASN:N	5	3.0
(1,211)	2:243:B:SER:N	2:243:B:SER:CA	2:243:B:SER:C	2:244:B:ASP:N	4	2.98
(1,45)	2:225:B:LEU:C	2:226:B:LYS:N	2:226:B:LYS:CA	2:226:B:LYS:C	12	2.89
(1,40)	2:218:B:LEU:C	2:219:B:GLU:N	2:219:B:GLU:CA	2:219:B:GLU:C	20	2.88
(1,45)	2:225:B:LEU:C	2:226:B:LYS:N	2:226:B:LYS:CA	2:226:B:LYS:C	3	2.85
(1,134)	2:322:B:GLU:C	2:323:B:LYS:N	2:323:B:LYS:CA	2:323:B:LYS:C	18	2.82
(1,45)	2:225:B:LEU:C	2:226:B:LYS:N	2:226:B:LYS:CA	2:226:B:LYS:C	20	2.81
(1,45)	2:225:B:LEU:C	2:226:B:LYS:N	2:226:B:LYS:CA	2:226:B:LYS:C	2	2.76
(1,134)	2:322:B:GLU:C	2:323:B:LYS:N	2:323:B:LYS:CA	2:323:B:LYS:C	10	2.65
(1,45)	2:225:B:LEU:C	2:226:B:LYS:N	2:226:B:LYS:CA	2:226:B:LYS:C	19	2.64
(1,10)	1:187:A:VAL:C	1:188:A:ASN:N	1:188:A:ASN:CA	1:188:A:ASN:C	12	2.64
(1,295)	2:334:B:SER:N	2:334:B:SER:CA	2:334:B:SER:C	2:335:B:SER:N	2	2.63
(1,193)	2:224:B:ASP:N	2:224:B:ASP:CA	2:224:B:ASP:C	2:225:B:LEU:N	12	2.63
(1,40)	2:218:B:LEU:C	2:219:B:GLU:N	2:219:B:GLU:CA	2:219:B:GLU:C	11	2.62
(1,221)	2:258:B:LYS:N	2:258:B:LYS:CA	2:258:B:LYS:C	2:259:B:ASN:N	9	2.59
(1,99)	2:287:B:ASP:C	2:288:B:THR:N	2:288:B:THR:CA	2:288:B:THR:C	11	2.59
(1,61)	2:242:B:ILE:C	2:243:B:SER:N	2:243:B:SER:CA	2:243:B:SER:C	17	2.59
(1,40)	2:218:B:LEU:C	2:219:B:GLU:N	2:219:B:GLU:CA	2:219:B:GLU:C	8	2.57
(1,221)	2:258:B:LYS:N	2:258:B:LYS:CA	2:258:B:LYS:C	2:259:B:ASN:N	6	2.56
(1,221)	2:258:B:LYS:N	2:258:B:LYS:CA	2:258:B:LYS:C	2:259:B:ASN:N	11	2.54
(1,284)	2:323:B:LYS:N	2:323:B:LYS:CA	2:323:B:LYS:C	2:324:B:GLY:N	10	2.52
(1,40)	2:218:B:LEU:C	2:219:B:GLU:N	2:219:B:GLU:CA	2:219:B:GLU:C	14	2.46
(1,194)	2:225:B:LEU:N	2:225:B:LEU:CA	2:225:B:LEU:C	2:226:B:LYS:N	19	2.45
(1,295)	2:334:B:SER:N	2:334:B:SER:CA	2:334:B:SER:C	2:335:B:SER:N	19	2.44
(1,40)	2:218:B:LEU:C	2:219:B:GLU:N	2:219:B:GLU:CA	2:219:B:GLU:C	3	2.44

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,221)	2:258:B:LYS:N	2:258:B:LYS:CA	2:258:B:LYS:C	2:259:B:ASN:N	18	2.42
(1,221)	2:258:B:LYS:N	2:258:B:LYS:CA	2:258:B:LYS:C	2:259:B:ASN:N	14	2.38
(1,221)	2:258:B:LYS:N	2:258:B:LYS:CA	2:258:B:LYS:C	2:259:B:ASN:N	12	2.34
(1,190)	2:219:B:GLU:N	2:219:B:GLU:CA	2:219:B:GLU:C	2:220:B:LEU:N	2	2.34
(1,190)	2:219:B:GLU:N	2:219:B:GLU:CA	2:219:B:GLU:C	2:220:B:LEU:N	1	2.33
(1,244)	2:282:B:GLU:N	2:282:B:GLU:CA	2:282:B:GLU:C	2:283:B:ALA:N	14	2.32
(1,194)	2:225:B:LEU:N	2:225:B:LEU:CA	2:225:B:LEU:C	2:226:B:LYS:N	3	2.31
(1,10)	1:187:A:VAL:C	1:188:A:ASN:N	1:188:A:ASN:CA	1:188:A:ASN:C	6	2.31
(1,169)	2:198:B:LYS:N	2:198:B:LYS:CA	2:198:B:LYS:C	2:199:B:HIS:N	10	2.3
(1,295)	2:334:B:SER:N	2:334:B:SER:CA	2:334:B:SER:C	2:335:B:SER:N	4	2.29
(1,194)	2:225:B:LEU:N	2:225:B:LEU:CA	2:225:B:LEU:C	2:226:B:LYS:N	9	2.29
(1,190)	2:219:B:GLU:N	2:219:B:GLU:CA	2:219:B:GLU:C	2:220:B:LEU:N	11	2.27
(1,21)	2:199:B:HIS:C	2:200:B:LYS:N	2:200:B:LYS:CA	2:200:B:LYS:C	14	2.27
(1,176)	2:205:B:SER:N	2:205:B:SER:CA	2:205:B:SER:C	2:206:B:ALA:N	16	2.25
(1,70)	2:256:B:ASN:C	2:257:B:ASP:N	2:257:B:ASP:CA	2:257:B:ASP:C	10	2.23
(1,300)	2:340:B:LEU:N	2:340:B:LEU:CA	2:340:B:LEU:C	2:341:B:ILE:N	3	2.22
(1,295)	2:334:B:SER:N	2:334:B:SER:CA	2:334:B:SER:C	2:335:B:SER:N	14	2.2
(1,19)	2:197:B:SER:C	2:198:B:LYS:N	2:198:B:LYS:CA	2:198:B:LYS:C	15	2.2
(1,227)	2:265:B:LYS:N	2:265:B:LYS:CA	2:265:B:LYS:C	2:266:B:ARG:N	5	2.19
(1,19)	2:197:B:SER:C	2:198:B:LYS:N	2:198:B:LYS:CA	2:198:B:LYS:C	19	2.18
(1,10)	1:187:A:VAL:C	1:188:A:ASN:N	1:188:A:ASN:CA	1:188:A:ASN:C	3	2.18
(1,248)	2:287:B:ASP:N	2:287:B:ASP:CA	2:287:B:ASP:C	2:288:B:THR:N	18	2.15
(1,194)	2:225:B:LEU:N	2:225:B:LEU:CA	2:225:B:LEU:C	2:226:B:LYS:N	10	2.15
(1,102)	2:290:B:VAL:C	2:291:B:HIS:N	2:291:B:HIS:CA	2:291:B:HIS:C	12	2.15
(1,166)	2:195:B:ILE:N	2:195:B:ILE:CA	2:195:B:ILE:C	2:196:B:ASN:N	6	2.14
(1,189)	2:218:B:LEU:N	2:218:B:LEU:CA	2:218:B:LEU:C	2:219:B:GLU:N	14	2.12
(1,151)	2:341:B:ILE:C	2:342:B:GLU:N	2:342:B:GLU:CA	2:342:B:GLU:C	2	2.12
(1,75)	2:261:B:LYS:C	2:262:B:THR:N	2:262:B:THR:CA	2:262:B:THR:C	15	2.12
(1,176)	2:205:B:SER:N	2:205:B:SER:CA	2:205:B:SER:C	2:206:B:ALA:N	2	2.11
(1,40)	2:218:B:LEU:C	2:219:B:GLU:N	2:219:B:GLU:CA	2:219:B:GLU:C	9	2.1
(1,248)	2:287:B:ASP:N	2:287:B:ASP:CA	2:287:B:ASP:C	2:288:B:THR:N	20	2.09
(1,189)	2:218:B:LEU:N	2:218:B:LEU:CA	2:218:B:LEU:C	2:219:B:GLU:N	11	2.09
(1,300)	2:340:B:LEU:N	2:340:B:LEU:CA	2:340:B:LEU:C	2:341:B:ILE:N	13	2.08
(1,295)	2:334:B:SER:N	2:334:B:SER:CA	2:334:B:SER:C	2:335:B:SER:N	9	2.07
(1,193)	2:224:B:ASP:N	2:224:B:ASP:CA	2:224:B:ASP:C	2:225:B:LEU:N	4	2.07
(1,295)	2:334:B:SER:N	2:334:B:SER:CA	2:334:B:SER:C	2:335:B:SER:N	11	2.06
(1,227)	2:265:B:LYS:N	2:265:B:LYS:CA	2:265:B:LYS:C	2:266:B:ARG:N	4	2.05
(1,160)	1:187:A:VAL:N	1:187:A:VAL:CA	1:187:A:VAL:C	1:188:A:ASN:N	14	2.05
(1,29)	2:207:B:ILE:C	2:208:B:ASN:N	2:208:B:ASN:CA	2:208:B:ASN:C	13	2.05
(1,284)	2:323:B:LYS:N	2:323:B:LYS:CA	2:323:B:LYS:C	2:324:B:GLY:N	9	2.03
(1,194)	2:225:B:LEU:N	2:225:B:LEU:CA	2:225:B:LEU:C	2:226:B:LYS:N	8	2.03
(1,29)	2:207:B:ILE:C	2:208:B:ASN:N	2:208:B:ASN:CA	2:208:B:ASN:C	19	2.03
(1,221)	2:258:B:LYS:N	2:258:B:LYS:CA	2:258:B:LYS:C	2:259:B:ASN:N	4	2.01
(1,176)	2:205:B:SER:N	2:205:B:SER:CA	2:205:B:SER:C	2:206:B:ALA:N	15	2.01
(1,151)	2:341:B:ILE:C	2:342:B:GLU:N	2:342:B:GLU:CA	2:342:B:GLU:C	4	2.01
(1,295)	2:334:B:SER:N	2:334:B:SER:CA	2:334:B:SER:C	2:335:B:SER:N	1	2.0
(1,176)	2:205:B:SER:N	2:205:B:SER:CA	2:205:B:SER:C	2:206:B:ALA:N	8	2.0
(1,134)	2:322:B:GLU:C	2:323:B:LYS:N	2:323:B:LYS:CA	2:323:B:LYS:C	20	1.98
(1,45)	2:225:B:LEU:C	2:226:B:LYS:N	2:226:B:LYS:CA	2:226:B:LYS:C	8	1.98
(1,299)	2:339:B:ASP:N	2:339:B:ASP:CA	2:339:B:ASP:C	2:340:B:LEU:N	13	1.95
(1,189)	2:218:B:LEU:N	2:218:B:LEU:CA	2:218:B:LEU:C	2:219:B:GLU:N	1	1.95

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,194)	2:225:B:LEU:N	2:225:B:LEU:CA	2:225:B:LEU:C	2:226:B:LYS:N	20	1.94
(1,21)	2:199:B:HIS:C	2:200:B:LYS:N	2:200:B:LYS:CA	2:200:B:LYS:C	11	1.91
(1,10)	1:187:A:VAL:C	1:188:A:ASN:N	1:188:A:ASN:CA	1:188:A:ASN:C	9	1.91
(1,186)	2:215:B:LEU:N	2:215:B:LEU:CA	2:215:B:LEU:C	2:216:B:ASP:N	16	1.9
(1,19)	2:197:B:SER:C	2:198:B:LYS:N	2:198:B:LYS:CA	2:198:B:LYS:C	4	1.88
(1,10)	1:187:A:VAL:C	1:188:A:ASN:N	1:188:A:ASN:CA	1:188:A:ASN:C	10	1.88
(1,166)	2:195:B:ILE:N	2:195:B:ILE:CA	2:195:B:ILE:C	2:196:B:ASN:N	2	1.87
(1,102)	2:290:B:VAL:C	2:291:B:HIS:N	2:291:B:HIS:CA	2:291:B:HIS:C	10	1.87
(1,36)	2:214:B:VAL:C	2:215:B:LEU:N	2:215:B:LEU:CA	2:215:B:LEU:C	14	1.87
(1,45)	2:225:B:LEU:C	2:226:B:LYS:N	2:226:B:LYS:CA	2:226:B:LYS:C	10	1.86
(1,40)	2:218:B:LEU:C	2:219:B:GLU:N	2:219:B:GLU:CA	2:219:B:GLU:C	1	1.86
(1,257)	2:296:B:VAL:N	2:296:B:VAL:CA	2:296:B:VAL:C	2:297:B:ASP:N	15	1.84
(1,186)	2:215:B:LEU:N	2:215:B:LEU:CA	2:215:B:LEU:C	2:216:B:ASP:N	10	1.83
(1,62)	2:246:B:LYS:C	2:247:B:ASN:N	2:247:B:ASN:CA	2:247:B:ASN:C	7	1.82
(1,187)	2:216:B:ASP:N	2:216:B:ASP:CA	2:216:B:ASP:C	2:217:B:GLY:N	13	1.8
(1,170)	2:199:B:HIS:N	2:199:B:HIS:CA	2:199:B:HIS:C	2:200:B:LYS:N	6	1.8
(1,36)	2:214:B:VAL:C	2:215:B:LEU:N	2:215:B:LEU:CA	2:215:B:LEU:C	3	1.8
(1,299)	2:339:B:ASP:N	2:339:B:ASP:CA	2:339:B:ASP:C	2:340:B:LEU:N	1	1.79
(1,176)	2:205:B:SER:N	2:205:B:SER:CA	2:205:B:SER:C	2:206:B:ALA:N	7	1.79
(1,166)	2:195:B:ILE:N	2:195:B:ILE:CA	2:195:B:ILE:C	2:196:B:ASN:N	5	1.78
(1,166)	2:195:B:ILE:N	2:195:B:ILE:CA	2:195:B:ILE:C	2:196:B:ASN:N	13	1.78
(1,26)	2:204:B:THR:C	2:205:B:SER:N	2:205:B:SER:CA	2:205:B:SER:C	8	1.78
(1,19)	2:197:B:SER:C	2:198:B:LYS:N	2:198:B:LYS:CA	2:198:B:LYS:C	20	1.78
(1,99)	2:287:B:ASP:C	2:288:B:THR:N	2:288:B:THR:CA	2:288:B:THR:C	13	1.77
(1,248)	2:287:B:ASP:N	2:287:B:ASP:CA	2:287:B:ASP:C	2:288:B:THR:N	7	1.75
(1,194)	2:225:B:LEU:N	2:225:B:LEU:CA	2:225:B:LEU:C	2:226:B:LYS:N	1	1.75
(1,166)	2:195:B:ILE:N	2:195:B:ILE:CA	2:195:B:ILE:C	2:196:B:ASN:N	18	1.75
(1,166)	2:195:B:ILE:N	2:195:B:ILE:CA	2:195:B:ILE:C	2:196:B:ASN:N	19	1.75
(1,29)	2:207:B:ILE:C	2:208:B:ASN:N	2:208:B:ASN:CA	2:208:B:ASN:C	5	1.75
(1,10)	1:187:A:VAL:C	1:188:A:ASN:N	1:188:A:ASN:CA	1:188:A:ASN:C	13	1.75
(1,187)	2:216:B:ASP:N	2:216:B:ASP:CA	2:216:B:ASP:C	2:217:B:GLY:N	7	1.73
(1,40)	2:218:B:LEU:C	2:219:B:GLU:N	2:219:B:GLU:CA	2:219:B:GLU:C	10	1.73
(1,26)	2:204:B:THR:C	2:205:B:SER:N	2:205:B:SER:CA	2:205:B:SER:C	20	1.73
(1,193)	2:224:B:ASP:N	2:224:B:ASP:CA	2:224:B:ASP:C	2:225:B:LEU:N	14	1.72
(1,19)	2:197:B:SER:C	2:198:B:LYS:N	2:198:B:LYS:CA	2:198:B:LYS:C	18	1.72
(1,159)	1:186:A:ASP:N	1:186:A:ASP:CA	1:186:A:ASP:C	1:187:A:VAL:N	1	1.71
(1,299)	2:339:B:ASP:N	2:339:B:ASP:CA	2:339:B:ASP:C	2:340:B:LEU:N	9	1.7
(1,29)	2:207:B:ILE:C	2:208:B:ASN:N	2:208:B:ASN:CA	2:208:B:ASN:C	20	1.7
(1,61)	2:242:B:ILE:C	2:243:B:SER:N	2:243:B:SER:CA	2:243:B:SER:C	19	1.69
(1,10)	1:187:A:VAL:C	1:188:A:ASN:N	1:188:A:ASN:CA	1:188:A:ASN:C	18	1.69
(1,299)	2:339:B:ASP:N	2:339:B:ASP:CA	2:339:B:ASP:C	2:340:B:LEU:N	12	1.68
(1,295)	2:334:B:SER:N	2:334:B:SER:CA	2:334:B:SER:C	2:335:B:SER:N	17	1.68
(1,10)	1:187:A:VAL:C	1:188:A:ASN:N	1:188:A:ASN:CA	1:188:A:ASN:C	20	1.68
(1,40)	2:218:B:LEU:C	2:219:B:GLU:N	2:219:B:GLU:CA	2:219:B:GLU:C	15	1.67
(1,194)	2:225:B:LEU:N	2:225:B:LEU:CA	2:225:B:LEU:C	2:226:B:LYS:N	18	1.64
(1,189)	2:218:B:LEU:N	2:218:B:LEU:CA	2:218:B:LEU:C	2:219:B:GLU:N	2	1.64
(1,208)	2:239:B:LEU:N	2:239:B:LEU:CA	2:239:B:LEU:C	2:240:B:GLY:N	4	1.59
(1,70)	2:256:B:ASN:C	2:257:B:ASP:N	2:257:B:ASP:CA	2:257:B:ASP:C	4	1.59
(1,29)	2:207:B:ILE:C	2:208:B:ASN:N	2:208:B:ASN:CA	2:208:B:ASN:C	11	1.59
(1,300)	2:340:B:LEU:N	2:340:B:LEU:CA	2:340:B:LEU:C	2:341:B:ILE:N	1	1.58
(1,221)	2:258:B:LYS:N	2:258:B:LYS:CA	2:258:B:LYS:C	2:259:B:ASN:N	3	1.58

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,151)	2:341:B:ILE:C	2:342:B:GLU:N	2:342:B:GLU:CA	2:342:B:GLU:C	8	1.58
(1,10)	1:187:A:VAL:C	1:188:A:ASN:N	1:188:A:ASN:CA	1:188:A:ASN:C	4	1.58
(1,99)	2:287:B:ASP:C	2:288:B:THR:N	2:288:B:THR:CA	2:288:B:THR:C	14	1.55
(1,29)	2:207:B:ILE:C	2:208:B:ASN:N	2:208:B:ASN:CA	2:208:B:ASN:C	9	1.55
(1,295)	2:334:B:SER:N	2:334:B:SER:CA	2:334:B:SER:C	2:335:B:SER:N	18	1.54
(1,166)	2:195:B:ILE:N	2:195:B:ILE:CA	2:195:B:ILE:C	2:196:B:ASN:N	20	1.54
(1,63)	2:247:B:ASN:C	2:248:B:TYR:N	2:248:B:TYR:CA	2:248:B:TYR:C	13	1.54
(1,45)	2:225:B:LEU:C	2:226:B:LYS:N	2:226:B:LYS:CA	2:226:B:LYS:C	13	1.54
(1,2)	1:179:A:GLU:C	1:180:A:TYR:N	1:180:A:TYR:CA	1:180:A:TYR:C	6	1.54
(1,284)	2:323:B:LYS:N	2:323:B:LYS:CA	2:323:B:LYS:C	2:324:B:GLY:N	14	1.53
(1,284)	2:323:B:LYS:N	2:323:B:LYS:CA	2:323:B:LYS:C	2:324:B:GLY:N	18	1.53
(1,61)	2:242:B:ILE:C	2:243:B:SER:N	2:243:B:SER:CA	2:243:B:SER:C	11	1.53
(1,40)	2:218:B:LEU:C	2:219:B:GLU:N	2:219:B:GLU:CA	2:219:B:GLU:C	17	1.52
(1,186)	2:215:B:LEU:N	2:215:B:LEU:CA	2:215:B:LEU:C	2:216:B:ASP:N	17	1.5
(1,166)	2:195:B:ILE:N	2:195:B:ILE:CA	2:195:B:ILE:C	2:196:B:ASN:N	14	1.5
(1,10)	1:187:A:VAL:C	1:188:A:ASN:N	1:188:A:ASN:CA	1:188:A:ASN:C	2	1.5
(1,208)	2:239:B:LEU:N	2:239:B:LEU:CA	2:239:B:LEU:C	2:240:B:GLY:N	5	1.49
(1,166)	2:195:B:ILE:N	2:195:B:ILE:CA	2:195:B:ILE:C	2:196:B:ASN:N	7	1.49
(1,39)	2:217:B:GLY:C	2:218:B:LEU:N	2:218:B:LEU:CA	2:218:B:LEU:C	15	1.49
(1,214)	2:249:B:VAL:N	2:249:B:VAL:CA	2:249:B:VAL:C	2:250:B:LEU:N	8	1.47
(1,70)	2:256:B:ASN:C	2:257:B:ASP:N	2:257:B:ASP:CA	2:257:B:ASP:C	2	1.47
(1,299)	2:339:B:ASP:N	2:339:B:ASP:CA	2:339:B:ASP:C	2:340:B:LEU:N	16	1.46
(1,193)	2:224:B:ASP:N	2:224:B:ASP:CA	2:224:B:ASP:C	2:225:B:LEU:N	19	1.46
(1,75)	2:261:B:LYS:C	2:262:B:THR:N	2:262:B:THR:CA	2:262:B:THR:C	18	1.46
(1,29)	2:207:B:ILE:C	2:208:B:ASN:N	2:208:B:ASN:CA	2:208:B:ASN:C	17	1.46
(1,176)	2:205:B:SER:N	2:205:B:SER:CA	2:205:B:SER:C	2:206:B:ALA:N	3	1.43
(1,40)	2:218:B:LEU:C	2:219:B:GLU:N	2:219:B:GLU:CA	2:219:B:GLU:C	2	1.43
(1,36)	2:214:B:VAL:C	2:215:B:LEU:N	2:215:B:LEU:CA	2:215:B:LEU:C	4	1.43
(1,75)	2:261:B:LYS:C	2:262:B:THR:N	2:262:B:THR:CA	2:262:B:THR:C	13	1.42
(1,26)	2:204:B:THR:C	2:205:B:SER:N	2:205:B:SER:CA	2:205:B:SER:C	9	1.42
(1,40)	2:218:B:LEU:C	2:219:B:GLU:N	2:219:B:GLU:CA	2:219:B:GLU:C	19	1.41
(1,26)	2:204:B:THR:C	2:205:B:SER:N	2:205:B:SER:CA	2:205:B:SER:C	13	1.41
(1,26)	2:204:B:THR:C	2:205:B:SER:N	2:205:B:SER:CA	2:205:B:SER:C	16	1.41
(1,10)	1:187:A:VAL:C	1:188:A:ASN:N	1:188:A:ASN:CA	1:188:A:ASN:C	11	1.4
(1,257)	2:296:B:VAL:N	2:296:B:VAL:CA	2:296:B:VAL:C	2:297:B:ASP:N	1	1.39
(1,159)	1:186:A:ASP:N	1:186:A:ASP:CA	1:186:A:ASP:C	1:187:A:VAL:N	15	1.39
(1,29)	2:207:B:ILE:C	2:208:B:ASN:N	2:208:B:ASN:CA	2:208:B:ASN:C	18	1.39
(1,187)	2:216:B:ASP:N	2:216:B:ASP:CA	2:216:B:ASP:C	2:217:B:GLY:N	4	1.38
(1,102)	2:290:B:VAL:C	2:291:B:HIS:N	2:291:B:HIS:CA	2:291:B:HIS:C	11	1.38
(1,288)	2:327:B:ILE:N	2:327:B:ILE:CA	2:327:B:ILE:C	2:328:B:THR:N	6	1.37
(1,45)	2:225:B:LEU:C	2:226:B:LYS:N	2:226:B:LYS:CA	2:226:B:LYS:C	15	1.37
(1,40)	2:218:B:LEU:C	2:219:B:GLU:N	2:219:B:GLU:CA	2:219:B:GLU:C	7	1.37
(1,289)	2:328:B:THR:N	2:328:B:THR:CA	2:328:B:THR:C	2:329:B:ILE:N	3	1.36
(1,227)	2:265:B:LYS:N	2:265:B:LYS:CA	2:265:B:LYS:C	2:266:B:ARG:N	16	1.36
(1,164)	2:193:B:PHE:N	2:193:B:PHE:CA	2:193:B:PHE:C	2:194:B:THR:N	17	1.36
(1,22)	2:200:B:LYS:C	2:201:B:VAL:N	2:201:B:VAL:CA	2:201:B:VAL:C	11	1.36
(1,10)	1:187:A:VAL:C	1:188:A:ASN:N	1:188:A:ASN:CA	1:188:A:ASN:C	17	1.36
(1,75)	2:261:B:LYS:C	2:262:B:THR:N	2:262:B:THR:CA	2:262:B:THR:C	1	1.35
(1,11)	2:189:B:PRO:C	2:190:B:SER:N	2:190:B:SER:CA	2:190:B:SER:C	6	1.35
(1,166)	2:195:B:ILE:N	2:195:B:ILE:CA	2:195:B:ILE:C	2:196:B:ASN:N	16	1.34
(1,29)	2:207:B:ILE:C	2:208:B:ASN:N	2:208:B:ASN:CA	2:208:B:ASN:C	4	1.34

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,160)	1:187:A:VAL:N	1:187:A:VAL:CA	1:187:A:VAL:C	1:188:A:ASN:N	2	1.33
(1,102)	2:290:B:VAL:C	2:291:B:HIS:N	2:291:B:HIS:CA	2:291:B:HIS:C	1	1.33
(1,190)	2:219:B:GLU:N	2:219:B:GLU:CA	2:219:B:GLU:C	2:220:B:LEU:N	5	1.32
(1,26)	2:204:B:THR:C	2:205:B:SER:N	2:205:B:SER:CA	2:205:B:SER:C	18	1.32
(1,214)	2:249:B:VAL:N	2:249:B:VAL:CA	2:249:B:VAL:C	2:250:B:LEU:N	19	1.31
(1,70)	2:256:B:ASN:C	2:257:B:ASP:N	2:257:B:ASP:CA	2:257:B:ASP:C	3	1.31
(1,45)	2:225:B:LEU:C	2:226:B:LYS:N	2:226:B:LYS:CA	2:226:B:LYS:C	1	1.31
(1,194)	2:225:B:LEU:N	2:225:B:LEU:CA	2:225:B:LEU:C	2:226:B:LYS:N	11	1.3
(1,175)	2:204:B:THR:N	2:204:B:THR:CA	2:204:B:THR:C	2:205:B:SER:N	3	1.29
(1,21)	2:199:B:HIS:C	2:200:B:LYS:N	2:200:B:LYS:CA	2:200:B:LYS:C	3	1.29
(1,19)	2:197:B:SER:C	2:198:B:LYS:N	2:198:B:LYS:CA	2:198:B:LYS:C	12	1.29
(1,299)	2:339:B:ASP:N	2:339:B:ASP:CA	2:339:B:ASP:C	2:340:B:LEU:N	10	1.28
(1,159)	1:186:A:ASP:N	1:186:A:ASP:CA	1:186:A:ASP:C	1:187:A:VAL:N	10	1.27
(1,26)	2:204:B:THR:C	2:205:B:SER:N	2:205:B:SER:CA	2:205:B:SER:C	7	1.27
(1,295)	2:334:B:SER:N	2:334:B:SER:CA	2:334:B:SER:C	2:335:B:SER:N	15	1.25
(1,75)	2:261:B:LYS:C	2:262:B:THR:N	2:262:B:THR:CA	2:262:B:THR:C	5	1.25
(1,70)	2:256:B:ASN:C	2:257:B:ASP:N	2:257:B:ASP:CA	2:257:B:ASP:C	18	1.25
(1,186)	2:215:B:LEU:N	2:215:B:LEU:CA	2:215:B:LEU:C	2:216:B:ASP:N	15	1.24
(1,99)	2:287:B:ASP:C	2:288:B:THR:N	2:288:B:THR:CA	2:288:B:THR:C	19	1.24
(1,39)	2:217:B:GLY:C	2:218:B:LEU:N	2:218:B:LEU:CA	2:218:B:LEU:C	4	1.23
(1,23)	2:201:B:VAL:C	2:202:B:ILE:N	2:202:B:ILE:CA	2:202:B:ILE:C	19	1.23
(1,11)	2:189:B:PRO:C	2:190:B:SER:N	2:190:B:SER:CA	2:190:B:SER:C	8	1.23
(1,193)	2:224:B:ASP:N	2:224:B:ASP:CA	2:224:B:ASP:C	2:225:B:LEU:N	5	1.22
(1,186)	2:215:B:LEU:N	2:215:B:LEU:CA	2:215:B:LEU:C	2:216:B:ASP:N	5	1.22
(1,219)	2:254:B:ALA:N	2:254:B:ALA:CA	2:254:B:ALA:C	2:255:B:LEU:N	19	1.21
(1,100)	2:288:B:THR:C	2:289:B:ILE:N	2:289:B:ILE:CA	2:289:B:ILE:C	10	1.21
(1,221)	2:258:B:LYS:N	2:258:B:LYS:CA	2:258:B:LYS:C	2:259:B:ASN:N	15	1.2
(1,70)	2:256:B:ASN:C	2:257:B:ASP:N	2:257:B:ASP:CA	2:257:B:ASP:C	14	1.2
(1,164)	2:193:B:PHE:N	2:193:B:PHE:CA	2:193:B:PHE:C	2:194:B:THR:N	9	1.18
(1,36)	2:214:B:VAL:C	2:215:B:LEU:N	2:215:B:LEU:CA	2:215:B:LEU:C	20	1.17
(1,146)	2:334:B:SER:C	2:335:B:SER:N	2:335:B:SER:CA	2:335:B:SER:C	3	1.16
(1,29)	2:207:B:ILE:C	2:208:B:ASN:N	2:208:B:ASN:CA	2:208:B:ASN:C	6	1.16
(1,10)	1:187:A:VAL:C	1:188:A:ASN:N	1:188:A:ASN:CA	1:188:A:ASN:C	15	1.16
(1,189)	2:218:B:LEU:N	2:218:B:LEU:CA	2:218:B:LEU:C	2:219:B:GLU:N	10	1.15
(1,26)	2:204:B:THR:C	2:205:B:SER:N	2:205:B:SER:CA	2:205:B:SER:C	15	1.15
(1,151)	2:341:B:ILE:C	2:342:B:GLU:N	2:342:B:GLU:CA	2:342:B:GLU:C	15	1.14
(1,145)	2:333:B:LYS:C	2:334:B:SER:N	2:334:B:SER:CA	2:334:B:SER:C	13	1.14
(1,75)	2:261:B:LYS:C	2:262:B:THR:N	2:262:B:THR:CA	2:262:B:THR:C	3	1.14
(1,208)	2:239:B:LEU:N	2:239:B:LEU:CA	2:239:B:LEU:C	2:240:B:GLY:N	6	1.13
(1,164)	2:193:B:PHE:N	2:193:B:PHE:CA	2:193:B:PHE:C	2:194:B:THR:N	8	1.13
(1,70)	2:256:B:ASN:C	2:257:B:ASP:N	2:257:B:ASP:CA	2:257:B:ASP:C	5	1.13
(1,2)	1:179:A:GLU:C	1:180:A:TYR:N	1:180:A:TYR:CA	1:180:A:TYR:C	5	1.13
(1,295)	2:334:B:SER:N	2:334:B:SER:CA	2:334:B:SER:C	2:335:B:SER:N	8	1.12
(1,176)	2:205:B:SER:N	2:205:B:SER:CA	2:205:B:SER:C	2:206:B:ALA:N	14	1.12
(1,299)	2:339:B:ASP:N	2:339:B:ASP:CA	2:339:B:ASP:C	2:340:B:LEU:N	5	1.11
(1,214)	2:249:B:VAL:N	2:249:B:VAL:CA	2:249:B:VAL:C	2:250:B:LEU:N	13	1.11
(1,10)	1:187:A:VAL:C	1:188:A:ASN:N	1:188:A:ASN:CA	1:188:A:ASN:C	14	1.11
(1,218)	2:253:B:MET:N	2:253:B:MET:CA	2:253:B:MET:C	2:254:B:ALA:N	19	1.1
(1,208)	2:239:B:LEU:N	2:239:B:LEU:CA	2:239:B:LEU:C	2:240:B:GLY:N	11	1.1
(1,70)	2:256:B:ASN:C	2:257:B:ASP:N	2:257:B:ASP:CA	2:257:B:ASP:C	6	1.1
(1,300)	2:340:B:LEU:N	2:340:B:LEU:CA	2:340:B:LEU:C	2:341:B:ILE:N	10	1.09

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,218)	2:253:B:MET:N	2:253:B:MET:CA	2:253:B:MET:C	2:254:B:ALA:N	8	1.09
(1,189)	2:218:B:LEU:N	2:218:B:LEU:CA	2:218:B:LEU:C	2:219:B:GLU:N	9	1.09
(1,187)	2:216:B:ASP:N	2:216:B:ASP:CA	2:216:B:ASP:C	2:217:B:GLY:N	17	1.09
(1,248)	2:287:B:ASP:N	2:287:B:ASP:CA	2:287:B:ASP:C	2:288:B:THR:N	1	1.08
(1,186)	2:215:B:LEU:N	2:215:B:LEU:CA	2:215:B:LEU:C	2:216:B:ASP:N	3	1.08
(1,152)	1:179:A:GLU:N	1:179:A:GLU:CA	1:179:A:GLU:C	1:180:A:TYR:N	3	1.08
(1,65)	2:249:B:VAL:C	2:250:B:LEU:N	2:250:B:LEU:CA	2:250:B:LEU:C	15	1.08
(1,257)	2:296:B:VAL:N	2:296:B:VAL:CA	2:296:B:VAL:C	2:297:B:ASP:N	7	1.07
(1,216)	2:251:B:VAL:N	2:251:B:VAL:CA	2:251:B:VAL:C	2:252:B:SER:N	19	1.07
(1,36)	2:214:B:VAL:C	2:215:B:LEU:N	2:215:B:LEU:CA	2:215:B:LEU:C	9	1.07
(1,186)	2:215:B:LEU:N	2:215:B:LEU:CA	2:215:B:LEU:C	2:216:B:ASP:N	13	1.06
(1,99)	2:287:B:ASP:C	2:288:B:THR:N	2:288:B:THR:CA	2:288:B:THR:C	6	1.05
(1,257)	2:296:B:VAL:N	2:296:B:VAL:CA	2:296:B:VAL:C	2:297:B:ASP:N	20	1.04
(1,193)	2:224:B:ASP:N	2:224:B:ASP:CA	2:224:B:ASP:C	2:225:B:LEU:N	18	1.04
(1,164)	2:193:B:PHE:N	2:193:B:PHE:CA	2:193:B:PHE:C	2:194:B:THR:N	6	1.04
(1,285)	2:324:B:GLY:N	2:324:B:GLY:CA	2:324:B:GLY:C	2:325:B:MET:N	16	1.03
(1,26)	2:204:B:THR:C	2:205:B:SER:N	2:205:B:SER:CA	2:205:B:SER:C	2	1.03
(1,289)	2:328:B:THR:N	2:328:B:THR:CA	2:328:B:THR:C	2:329:B:ILE:N	14	1.02
(1,186)	2:215:B:LEU:N	2:215:B:LEU:CA	2:215:B:LEU:C	2:216:B:ASP:N	11	1.02
(1,61)	2:242:B:ILE:C	2:243:B:SER:N	2:243:B:SER:CA	2:243:B:SER:C	15	1.02
(1,40)	2:218:B:LEU:C	2:219:B:GLU:N	2:219:B:GLU:CA	2:219:B:GLU:C	13	1.02
(1,208)	2:239:B:LEU:N	2:239:B:LEU:CA	2:239:B:LEU:C	2:240:B:GLY:N	9	1.01