



Full wwPDB NMR Structure Validation Report ⓘ

Mar 6, 2026 – 01:50 PM UTC

PDB ID : 2LKO / pdb_00002lko
BMRB ID : 18002
Title : Structural Basis of Phosphoinositide Binding to Kindlin-2 Pleckstrin Homology Domain in Regulating Integrin Activation
Authors : Liu, J.; Fukuda, K.; Xu, Z.
Deposited on : 2011-10-17

This is a Full wwPDB NMR Structure Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/NMRValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

MolProbity : 4-5-2 with Phenix2.0
Mogul : 2022.3.0, CSD as543be (2022)
Buster-report : wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
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) : 2.49

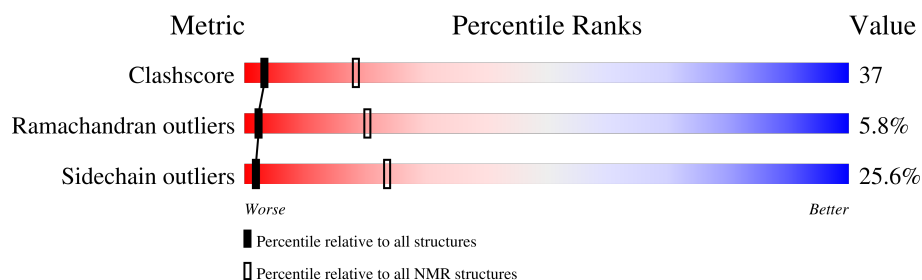
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

SOLUTION NMR

The overall completeness of chemical shifts assignment is 63%.

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	229148	14424
Ramachandran outliers	224038	12848
Sidechain outliers	223484	12823

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

Mol	Chain	Length	Quality of chain
1	A	138	30% 46% 7% 16%

2 Ensemble composition and analysis

This entry contains 20 models. Model 10 is the overall representative, medoid model (most similar to other models). The authors have identified model 1 as representative, based on the following criterion: *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:372-A:409, A:417-A:494 (116)	1.18	10

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

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

The models can be grouped into 2 clusters and 2 single-model clusters were found.

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

3 Entry composition [i](#)

There are 2 unique types of molecules in this entry. The entry contains 2236 atoms, of which 1110 are hydrogens and 0 are deuteriums.

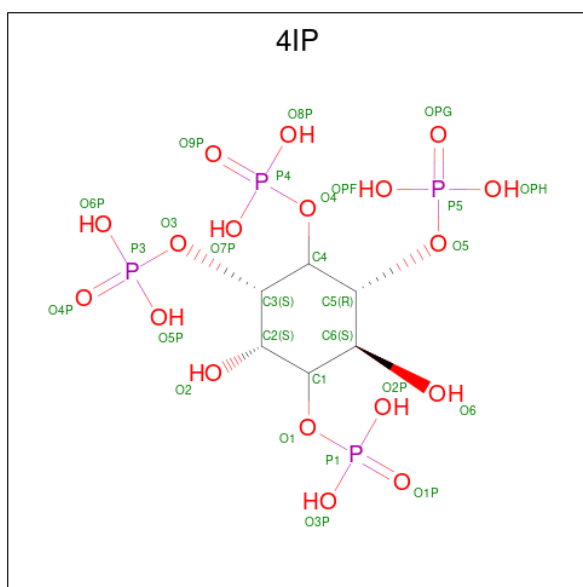
- Molecule 1 is a protein called Fermitin family homolog 2.

Mol	Chain	Residues	Atoms						Trace
1	A	138	Total	C	H	N	O	S	0
			2200	696	1102	186	205	11	

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	363	GLY	-	expression tag	UNP Q96AC1
A	364	SER	-	expression tag	UNP Q96AC1
A	365	HIS	-	expression tag	UNP Q96AC1
A	366	MET	-	expression tag	UNP Q96AC1

- Molecule 2 is INOSITOL-(1,3,4,5)-TETRAKISPHOSPHATE (CCD ID: 4IP) (formula: $C_6H_{16}O_{18}P_4$).



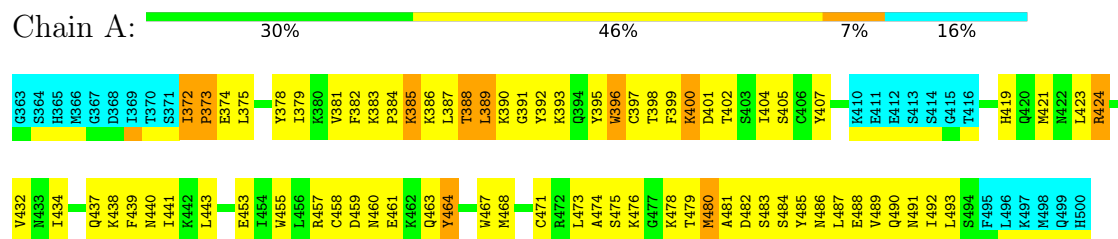
Mol	Chain	Residues	Atoms				
2	A	1	Total	C	H	O	P
			36	6	8	18	4

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: Fermitin family homolog 2

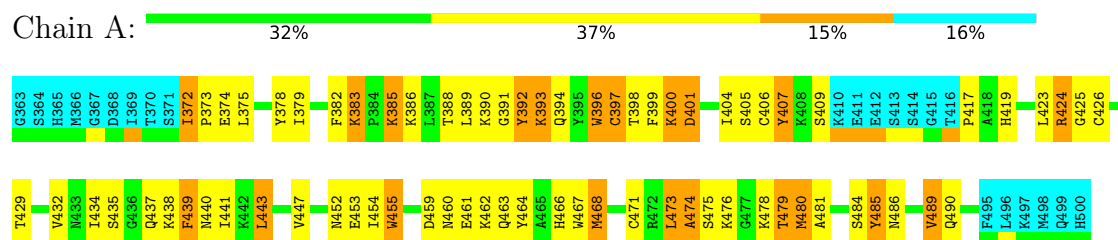


4.2 Scores per residue for each member of the ensemble

Colouring as in section 4.1 above.

4.2.1 Score per residue for model 1

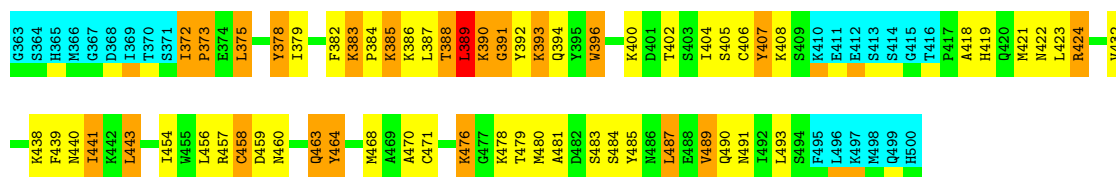
- Molecule 1: Fermitin family homolog 2



4.2.2 Score per residue for model 2

- Molecule 1: Fermitin family homolog 2

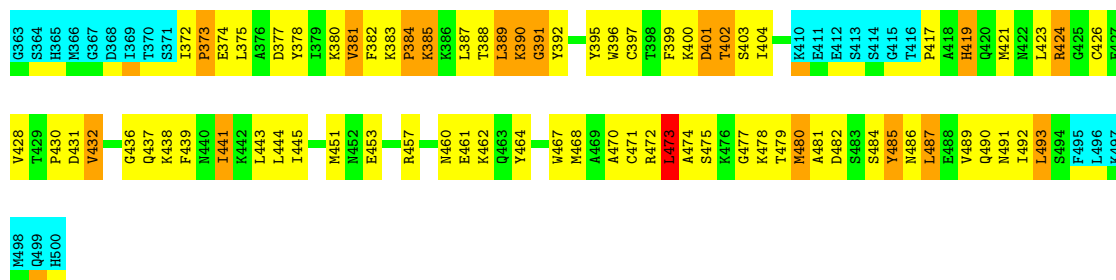




4.2.3 Score per residue for model 3

- Molecule 1: Fermitin family homolog 2

Chain A: 30% 41% 12% 16%



4.2.4 Score per residue for model 4

- Molecule 1: Fermitin family homolog 2

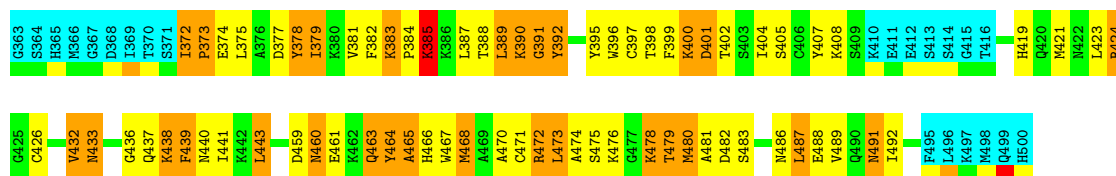
Chain A: 33% 41% 9% 16%



4.2.5 Score per residue for model 5

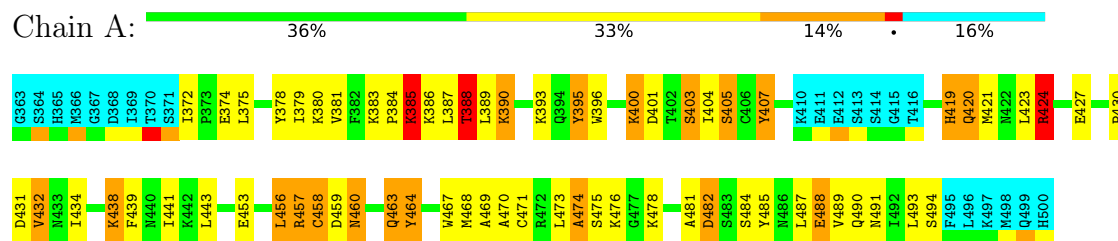
- Molecule 1: Fermitin family homolog 2

Chain A: 32% 30% 21% 16%



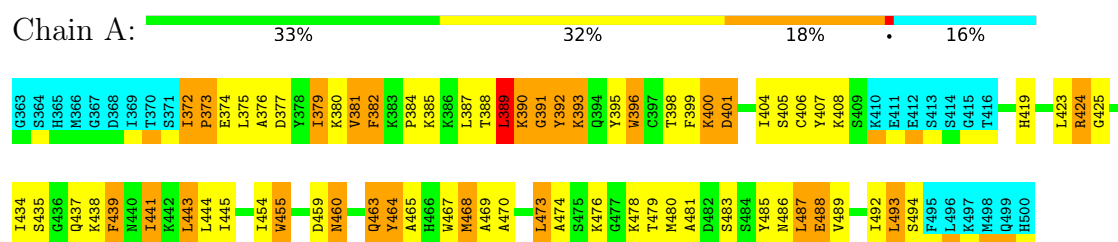
4.2.6 Score per residue for model 6

- Molecule 1: Fermitin family homolog 2



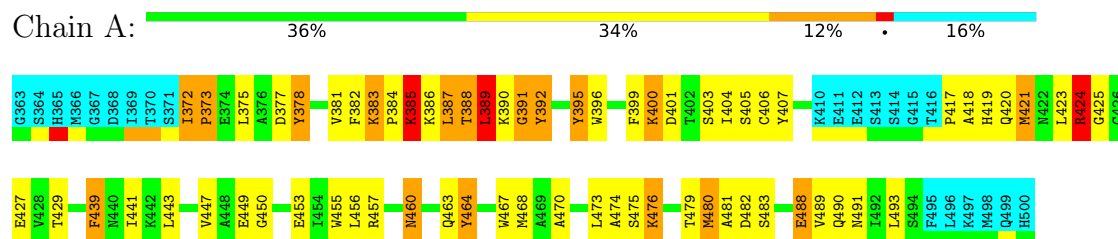
4.2.7 Score per residue for model 7

- Molecule 1: Fermitin family homolog 2



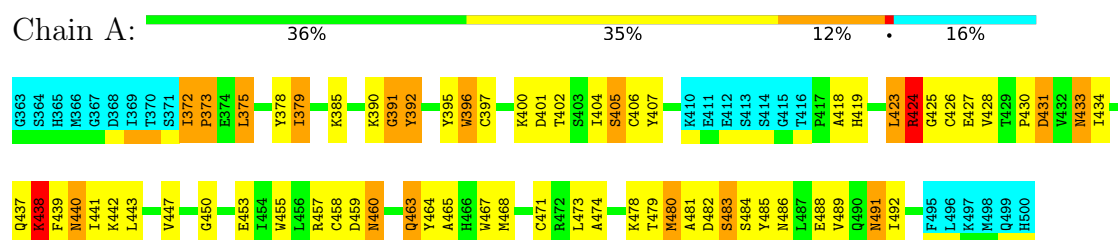
4.2.8 Score per residue for model 8

- Molecule 1: Fermitin family homolog 2



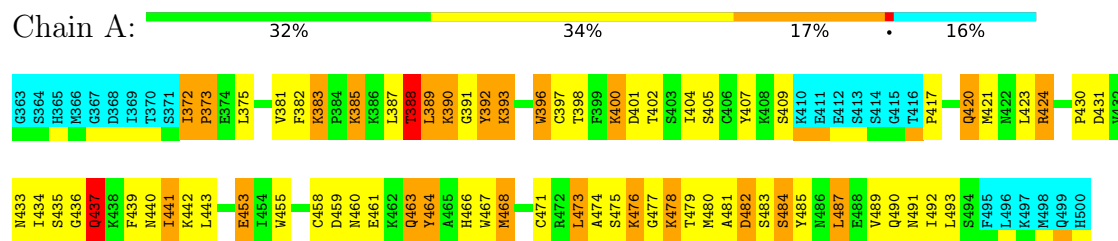
4.2.9 Score per residue for model 9

- Molecule 1: Fermitin family homolog 2



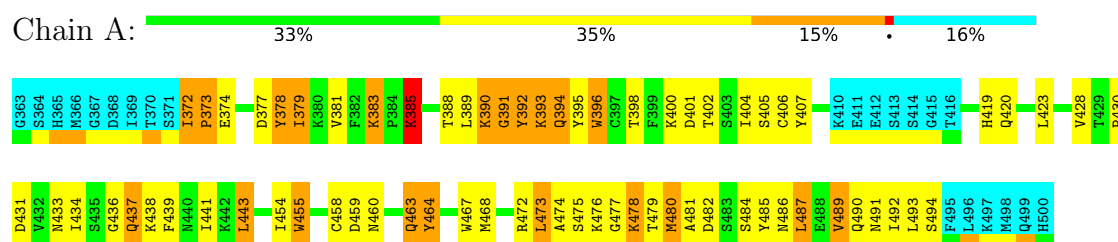
4.2.10 Score per residue for model 10 (medoid)

- Molecule 1: Fermitin family homolog 2



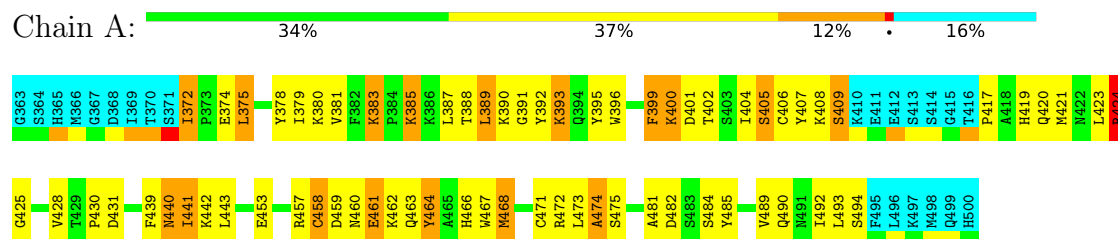
4.2.11 Score per residue for model 11

- Molecule 1: Fermitin family homolog 2



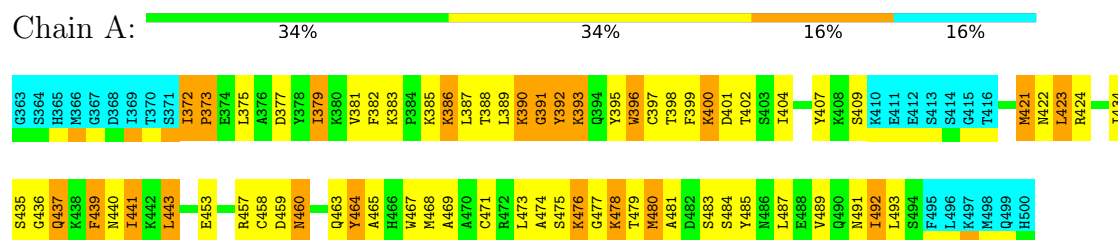
4.2.12 Score per residue for model 12

- Molecule 1: Fermitin family homolog 2



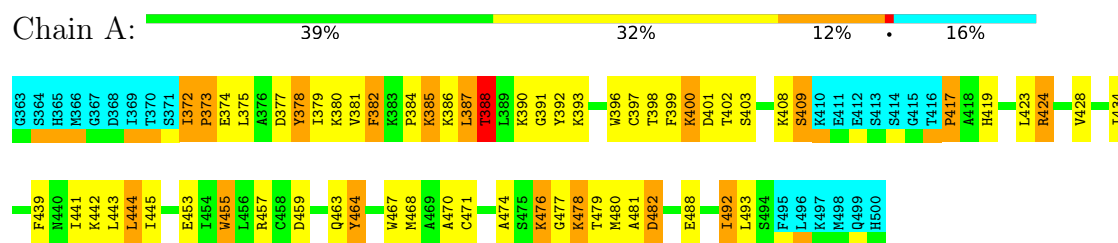
4.2.13 Score per residue for model 13

- Molecule 1: Fermitin family homolog 2



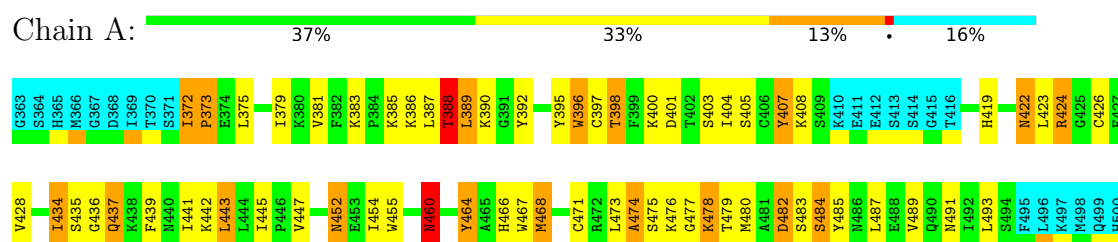
4.2.14 Score per residue for model 14

- Molecule 1: Fermitin family homolog 2



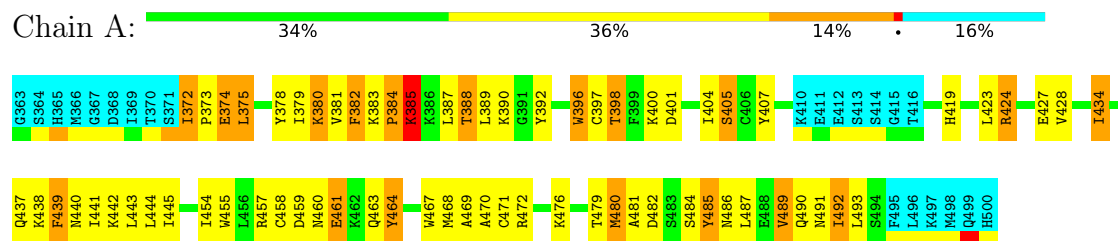
4.2.15 Score per residue for model 15

- Molecule 1: Fermitin family homolog 2



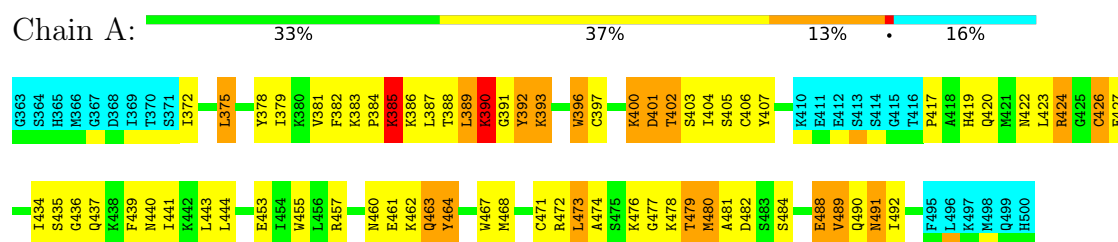
4.2.16 Score per residue for model 16

- Molecule 1: Fermitin family homolog 2



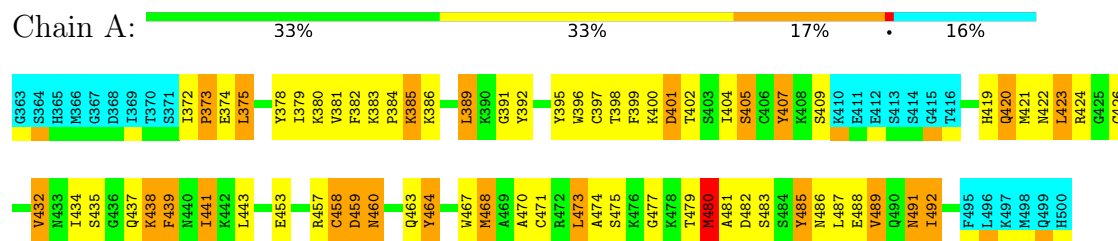
4.2.17 Score per residue for model 17

- Molecule 1: Fermitin family homolog 2



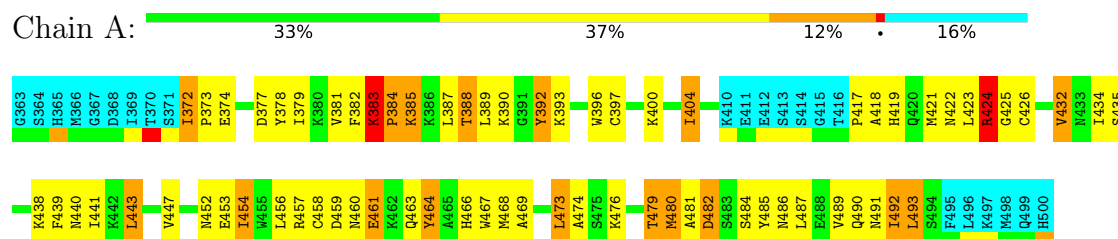
4.2.18 Score per residue for model 18

- Molecule 1: Fermitin family homolog 2



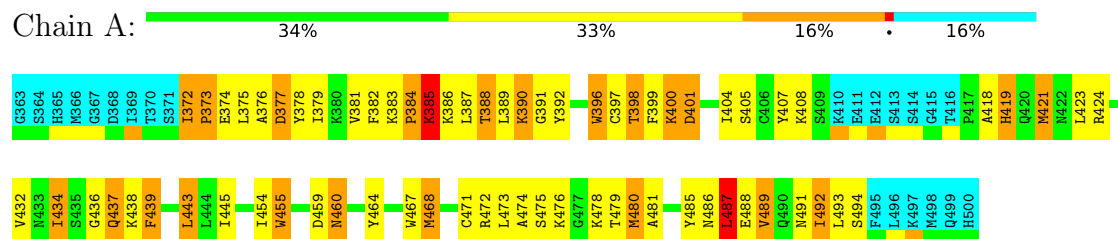
4.2.19 Score per residue for model 19

- Molecule 1: Fermitin family homolog 2



4.2.20 Score per residue for model 20

- Molecule 1: Fermitin family homolog 2



5 Refinement protocol and experimental data overview

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

Of the 100 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
ARIA	structure solution	
X-PLOR NIH	structure solution	
X-PLOR NIH	refinement	
ARIA	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	1175
Number of shifts mapped to atoms	1175
Number of unparsed shifts	0
Number of shifts with mapping errors	0
Number of shifts with mapping warnings	0
Assignment completeness (well-defined parts)	63%

6 Model quality [i](#)

6.1 Standard geometry [i](#)

Bond lengths and bond angles in the following residue types are not validated in this section: 4IP

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#Z>5	RMSZ	#Z>5
1	A	1.48±0.01	0±0/953 (0.0± 0.0%)	1.16±0.02	0±0/1286 (0.0± 0.0%)
All	All	1.48	0/19060 (0.0%)	1.16	2/25720 (0.0%)

There are no bond-length outliers.

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

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)	Models	
								Worst	Total
1	A	473	LEU	N-CA-C	-5.35	105.45	111.28	3	1
1	A	379	ILE	N-CA-CB	-5.27	105.80	112.60	13	1

There are no chirality outliers.

There are no planarity outliers.

6.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes
1	A	931	942	940	67±9
2	A	28	8	8	6±2
All	All	19180	19000	18960	1420

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 37.

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

Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:441:ILE:H	1:A:441:ILE:HD13	0.92	1.24	13	1
1:A:423:LEU:H	1:A:423:LEU:HD13	0.89	1.27	18	1
1:A:434:ILE:HD12	1:A:434:ILE:H	0.86	1.30	13	9
1:A:389:LEU:HD13	1:A:389:LEU:N	0.82	1.90	3	2
1:A:473:LEU:H	1:A:473:LEU:HD13	0.81	1.31	18	4
1:A:423:LEU:HD22	1:A:423:LEU:H	0.81	1.34	13	4
1:A:423:LEU:N	1:A:423:LEU:HD13	0.81	1.91	13	1
1:A:468:MET:N	1:A:468:MET:SD	0.80	2.54	20	1
1:A:479:THR:HG22	1:A:480:MET:H	0.79	1.37	11	4
1:A:473:LEU:C	1:A:473:LEU:HD22	0.79	2.02	5	1
1:A:468:MET:SD	1:A:492:ILE:HD13	0.77	2.19	13	2
1:A:389:LEU:H	1:A:389:LEU:HD22	0.76	1.40	3	2
1:A:473:LEU:HD22	1:A:474:ALA:N	0.76	1.96	18	3
1:A:441:ILE:HD13	1:A:441:ILE:N	0.74	1.98	13	2
1:A:434:ILE:HD12	1:A:434:ILE:N	0.73	1.98	15	9
1:A:473:LEU:HD23	1:A:474:ALA:N	0.73	1.98	3	2
1:A:389:LEU:HD12	1:A:390:LYS:N	0.73	1.98	8	1
1:A:460:ASN:ND2	1:A:462:LYS:H	0.72	1.82	17	2
1:A:423:LEU:HD22	1:A:423:LEU:N	0.72	1.98	3	13
1:A:473:LEU:HD23	1:A:478:LYS:O	0.71	1.84	5	1
1:A:481:ALA:HB3	1:A:485:TYR:CE2	0.70	2.22	18	1
1:A:473:LEU:HD13	1:A:473:LEU:N	0.70	2.02	18	2
1:A:375:LEU:C	1:A:375:LEU:HD13	0.69	2.13	12	13
1:A:456:LEU:HD23	1:A:456:LEU:N	0.68	2.01	6	1
1:A:404:ILE:HD12	1:A:404:ILE:N	0.68	2.03	3	2
1:A:396:TRP:H	1:A:396:TRP:CD1	0.67	2.07	13	10
1:A:473:LEU:HD23	1:A:473:LEU:C	0.67	2.14	7	2
1:A:392:TYR:CZ	1:A:457:ARG:NH2	0.66	2.64	8	1
1:A:455:TRP:N	1:A:455:TRP:CD2	0.66	2.64	14	1
1:A:473:LEU:H	1:A:473:LEU:CD1	0.66	2.04	18	1
1:A:426:CYS:H	1:A:474:ALA:HB1	0.65	1.49	3	2
1:A:479:THR:HG22	1:A:480:MET:N	0.65	2.07	9	6
1:A:387:LEU:O	1:A:388:THR:HG23	0.64	1.92	15	1
1:A:389:LEU:HD13	1:A:389:LEU:H	0.64	1.52	15	1
1:A:393:LYS:NZ	1:A:395:TYR:CE1	0.63	2.66	12	1
1:A:439:PHE:CD1	1:A:439:PHE:N	0.63	2.67	18	7
1:A:455:TRP:N	1:A:455:TRP:CE3	0.62	2.67	14	1
1:A:407:TYR:CD1	1:A:407:TYR:N	0.62	2.67	6	8
1:A:492:ILE:N	1:A:492:ILE:HD13	0.62	2.09	4	1
1:A:444:LEU:HD12	1:A:445:ILE:H	0.62	1.53	7	4
1:A:393:LYS:NZ	1:A:395:TYR:CZ	0.62	2.66	12	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:464:TYR:CD2	1:A:468:MET:SD	0.62	2.92	10	1
1:A:392:TYR:CE2	1:A:457:ARG:NH2	0.62	2.67	2	4
1:A:388:THR:HG23	1:A:388:THR:O	0.61	1.94	16	1
1:A:378:TYR:CD1	1:A:378:TYR:N	0.61	2.67	14	10
1:A:460:ASN:ND2	1:A:462:LYS:N	0.61	2.48	17	2
1:A:396:TRP:CZ2	1:A:407:TYR:CD1	0.61	2.88	6	1
1:A:443:LEU:HD21	1:A:471:CYS:SG	0.61	2.34	13	2
1:A:473:LEU:C	1:A:473:LEU:HD12	0.61	2.20	8	1
1:A:485:TYR:CG	1:A:486:ASN:N	0.61	2.68	16	3
1:A:395:TYR:CE2	2:A:1228:4IP:O4P	0.61	2.53	5	1
1:A:389:LEU:HD13	1:A:390:LYS:H	0.60	1.54	2	1
1:A:397:CYS:SG	1:A:398:THR:N	0.60	2.74	5	4
1:A:424:ARG:CD	1:A:425:GLY:N	0.60	2.65	9	3
1:A:383:LYS:H	1:A:383:LYS:NZ	0.60	1.94	8	1
1:A:382:PHE:O	1:A:382:PHE:CG	0.60	2.54	16	8
1:A:439:PHE:CG	1:A:458:CYS:SG	0.60	2.94	2	2
1:A:460:ASN:ND2	1:A:463:GLN:H	0.60	1.94	7	2
1:A:400:LYS:HZ3	1:A:404:ILE:C	0.60	2.04	18	1
1:A:485:TYR:CD1	1:A:486:ASN:N	0.59	2.70	11	4
1:A:436:GLY:O	1:A:437:GLN:NE2	0.59	2.34	10	2
1:A:471:CYS:SG	1:A:472:ARG:N	0.59	2.75	16	4
2:A:1228:4IP:O2	2:A:1228:4IP:O6P	0.59	2.21	11	1
1:A:423:LEU:H	1:A:423:LEU:CD1	0.59	2.05	18	1
1:A:421:MET:SD	1:A:421:MET:N	0.59	2.75	13	1
1:A:419:HIS:NE2	1:A:421:MET:SD	0.59	2.75	6	2
2:A:1228:4IP:O6P	2:A:1228:4IP:O4	0.59	2.20	11	1
1:A:377:ASP:OD1	1:A:467:TRP:NE1	0.59	2.35	5	4
1:A:392:TYR:CE1	1:A:457:ARG:NH2	0.59	2.70	8	3
1:A:432:VAL:HG23	1:A:438:LYS:O	0.59	1.98	5	5
1:A:419:HIS:CE1	1:A:421:MET:SD	0.59	2.96	2	2
1:A:429:THR:O	1:A:441:ILE:HD12	0.59	1.97	1	1
1:A:374:GLU:CD	1:A:374:GLU:N	0.59	2.61	12	2
1:A:458:CYS:SG	1:A:459:ASP:N	0.59	2.75	12	3
1:A:396:TRP:CD1	1:A:396:TRP:N	0.59	2.71	15	11
1:A:423:LEU:N	1:A:423:LEU:CD1	0.59	2.62	13	1
1:A:479:THR:O	1:A:481:ALA:N	0.58	2.37	20	7
1:A:460:ASN:N	1:A:460:ASN:ND2	0.58	2.51	8	2
1:A:444:LEU:HD12	1:A:445:ILE:N	0.58	2.13	7	4
1:A:389:LEU:HD12	1:A:390:LYS:H	0.58	1.56	8	1
1:A:441:ILE:HD12	1:A:442:LYS:N	0.58	2.13	10	1
1:A:473:LEU:HD12	1:A:474:ALA:N	0.58	2.12	15	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:440:ASN:N	1:A:464:TYR:OH	0.58	2.37	13	2
1:A:439:PHE:CD2	1:A:464:TYR:CD2	0.58	2.91	9	2
1:A:397:CYS:SG	1:A:467:TRP:CH2	0.58	2.95	10	8
1:A:404:ILE:HG22	1:A:405:SER:N	0.58	2.14	1	13
1:A:397:CYS:SG	1:A:467:TRP:CZ2	0.57	2.94	9	4
1:A:419:HIS:NE2	1:A:421:MET:CG	0.57	2.66	3	1
1:A:372:ILE:N	1:A:373:PRO:CD	0.57	2.67	9	17
1:A:383:LYS:H	1:A:385:LYS:NZ	0.57	1.97	2	1
1:A:441:ILE:HD13	1:A:464:TYR:CE1	0.57	2.35	18	2
1:A:485:TYR:CD1	1:A:485:TYR:N	0.57	2.67	18	1
1:A:423:LEU:O	1:A:424:ARG:O	0.57	2.22	6	15
1:A:473:LEU:C	1:A:473:LEU:CD2	0.57	2.76	5	3
1:A:383:LYS:H	1:A:384:PRO:CD	0.57	2.13	19	1
1:A:404:ILE:N	1:A:404:ILE:CD1	0.57	2.68	3	2
1:A:473:LEU:HD22	1:A:473:LEU:O	0.57	1.98	5	1
1:A:391:GLY:C	1:A:393:LYS:NZ	0.57	2.63	11	1
1:A:485:TYR:CZ	1:A:486:ASN:ND2	0.57	2.73	16	2
2:A:1228:4IP:O2	2:A:1228:4IP:P3	0.56	2.63	4	2
1:A:473:LEU:O	1:A:476:LYS:N	0.56	2.38	13	5
1:A:385:LYS:NZ	2:A:1228:4IP:O2	0.56	2.39	8	1
1:A:408:LYS:O	1:A:409:SER:CB	0.56	2.53	14	2
1:A:460:ASN:HD22	1:A:463:GLN:H	0.56	1.42	18	2
1:A:396:TRP:CD1	1:A:407:TYR:O	0.56	2.58	4	11
1:A:473:LEU:HD22	1:A:473:LEU:N	0.56	2.15	10	2
1:A:400:LYS:O	1:A:401:ASP:C	0.56	2.47	18	13
1:A:473:LEU:O	1:A:477:GLY:N	0.56	2.37	3	1
1:A:456:LEU:N	1:A:456:LEU:CD2	0.56	2.68	6	1
1:A:389:LEU:N	1:A:389:LEU:CD1	0.56	2.66	15	3
1:A:383:LYS:NZ	2:A:1228:4IP:O3	0.56	2.38	2	2
1:A:487:LEU:O	1:A:491:ASN:ND2	0.56	2.39	15	5
1:A:382:PHE:O	1:A:455:TRP:CZ3	0.56	2.59	1	2
1:A:397:CYS:SG	1:A:404:ILE:CG2	0.56	2.94	20	4
1:A:461:GLU:H	1:A:461:GLU:CD	0.56	2.09	19	4
2:A:1228:4IP:P3	2:A:1228:4IP:O4	0.56	2.64	16	2
1:A:470:ALA:O	1:A:473:LEU:N	0.56	2.38	5	1
1:A:383:LYS:NZ	1:A:383:LYS:N	0.56	2.53	8	1
1:A:379:ILE:H	1:A:394:GLN:HE22	0.56	1.44	11	1
2:A:1228:4IP:P1	2:A:1228:4IP:O6	0.56	2.64	5	8
1:A:383:LYS:NZ	2:A:1228:4IP:O6P	0.55	2.38	6	1
1:A:384:PRO:O	1:A:385:LYS:HB2	0.55	1.99	17	1
1:A:375:LEU:HD13	1:A:375:LEU:O	0.55	2.01	2	5

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:393:LYS:NZ	2:A:1228:4IP:O6P	0.55	2.40	6	1
1:A:390:LYS:O	1:A:392:TYR:N	0.55	2.40	13	3
1:A:423:LEU:H	1:A:423:LEU:CD2	0.55	2.04	13	2
2:A:1228:4IP:O4	2:A:1228:4IP:O5P	0.55	2.25	15	2
1:A:384:PRO:O	1:A:385:LYS:CG	0.55	2.55	16	2
1:A:462:LYS:O	1:A:466:HIS:ND1	0.55	2.40	12	3
1:A:382:PHE:CD1	1:A:382:PHE:O	0.55	2.59	7	2
1:A:385:LYS:HZ1	1:A:390:LYS:C	0.55	2.10	6	1
1:A:391:GLY:C	1:A:393:LYS:HZ2	0.55	2.09	11	1
1:A:396:TRP:O	1:A:407:TYR:CZ	0.55	2.60	11	1
2:A:1228:4IP:P5	2:A:1228:4IP:O8P	0.55	2.65	15	1
1:A:389:LEU:O	1:A:391:GLY:N	0.55	2.40	7	1
1:A:400:LYS:O	1:A:402:THR:N	0.55	2.40	18	5
1:A:434:ILE:N	1:A:434:ILE:CD1	0.55	2.70	15	5
1:A:459:ASP:N	1:A:463:GLN:OE1	0.55	2.40	1	1
1:A:399:PHE:CD2	1:A:479:THR:OG1	0.55	2.60	7	3
1:A:433:ASN:HD22	1:A:433:ASN:N	0.55	1.98	10	1
1:A:468:MET:H	1:A:468:MET:CE	0.55	2.14	10	1
1:A:485:TYR:O	1:A:488:GLU:N	0.55	2.40	9	2
1:A:400:LYS:NZ	1:A:405:SER:OG	0.54	2.40	12	5
1:A:441:ILE:HG23	1:A:464:TYR:CZ	0.54	2.37	13	1
1:A:485:TYR:C	1:A:485:TYR:CD1	0.54	2.86	16	2
1:A:423:LEU:N	1:A:423:LEU:CD2	0.54	2.70	8	12
1:A:471:CYS:O	1:A:474:ALA:HB3	0.54	2.02	3	3
1:A:391:GLY:O	1:A:393:LYS:N	0.54	2.40	13	3
1:A:433:ASN:O	1:A:437:GLN:N	0.54	2.41	11	1
1:A:441:ILE:N	1:A:464:TYR:OH	0.54	2.40	3	2
1:A:395:TYR:CZ	2:A:1228:4IP:O4P	0.54	2.60	5	1
1:A:396:TRP:CG	1:A:396:TRP:O	0.54	2.61	12	2
1:A:439:PHE:CB	1:A:464:TYR:CE1	0.54	2.91	13	4
1:A:385:LYS:NZ	1:A:390:LYS:C	0.54	2.65	6	1
1:A:441:ILE:O	1:A:441:ILE:HG23	0.54	2.02	19	5
1:A:480:MET:C	1:A:482:ASP:H	0.54	2.10	15	2
1:A:454:ILE:C	1:A:455:TRP:CD1	0.54	2.86	20	5
1:A:382:PHE:C	1:A:382:PHE:CD1	0.54	2.84	5	2
1:A:436:GLY:C	1:A:437:GLN:NE2	0.54	2.66	20	2
1:A:377:ASP:CG	1:A:467:TRP:NE1	0.54	2.65	19	2
1:A:377:ASP:OD2	1:A:467:TRP:CD1	0.54	2.61	20	2
1:A:460:ASN:HD21	1:A:462:LYS:H	0.54	1.46	17	1
1:A:378:TYR:O	1:A:463:GLN:NE2	0.54	2.41	12	1
2:A:1228:4IP:O5	2:A:1228:4IP:P4	0.53	2.66	20	7

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:382:PHE:O	1:A:382:PHE:CD2	0.53	2.61	13	3
1:A:467:TRP:O	1:A:471:CYS:SG	0.53	2.65	6	6
1:A:473:LEU:O	1:A:475:SER:N	0.53	2.42	6	10
1:A:473:LEU:C	1:A:475:SER:N	0.53	2.65	15	12
1:A:389:LEU:HD13	1:A:390:LYS:N	0.53	2.18	2	1
1:A:441:ILE:HD12	1:A:441:ILE:C	0.53	2.28	10	1
1:A:482:ASP:O	1:A:485:TYR:CD1	0.53	2.61	11	2
1:A:389:LEU:O	1:A:390:LYS:O	0.53	2.25	17	2
1:A:460:ASN:N	1:A:460:ASN:OD1	0.53	2.40	20	1
1:A:385:LYS:NZ	1:A:453:GLU:O	0.53	2.41	13	1
1:A:480:MET:O	1:A:485:TYR:CD2	0.53	2.61	19	1
1:A:478:LYS:CD	1:A:479:THR:H	0.53	2.17	20	6
1:A:396:TRP:HE1	1:A:408:LYS:C	0.53	2.12	4	3
1:A:437:GLN:O	1:A:439:PHE:CE1	0.53	2.61	5	2
1:A:443:LEU:O	1:A:454:ILE:N	0.53	2.38	7	1
1:A:377:ASP:CG	1:A:467:TRP:HE1	0.53	2.12	14	1
1:A:374:GLU:N	1:A:374:GLU:OE2	0.53	2.41	18	1
1:A:481:ALA:O	1:A:482:ASP:CB	0.53	2.56	6	5
1:A:418:ALA:O	1:A:419:HIS:CG	0.53	2.62	8	1
1:A:455:TRP:CD1	1:A:455:TRP:N	0.53	2.77	16	3
1:A:434:ILE:H	1:A:434:ILE:CD1	0.53	2.09	13	7
1:A:387:LEU:C	1:A:388:THR:HG22	0.53	2.29	14	1
1:A:443:LEU:O	1:A:454:ILE:O	0.53	2.27	7	6
1:A:489:VAL:CG2	1:A:490:GLN:N	0.53	2.72	19	11
1:A:375:LEU:C	1:A:375:LEU:HD23	0.53	2.28	7	1
1:A:422:ASN:N	1:A:422:ASN:OD1	0.53	2.42	19	1
1:A:396:TRP:CE2	1:A:408:LYS:O	0.53	2.62	20	1
2:A:1228:4IP:O5	2:A:1228:4IP:O7P	0.53	2.27	11	2
1:A:404:ILE:CG2	1:A:405:SER:N	0.53	2.72	18	7
1:A:399:PHE:CG	1:A:479:THR:OG1	0.53	2.59	7	1
2:A:1228:4IP:O4	2:A:1228:4IP:P3	0.53	2.67	11	1
1:A:433:ASN:N	1:A:433:ASN:ND2	0.52	2.56	5	2
1:A:389:LEU:O	2:A:1228:4IP:P3	0.52	2.66	7	1
1:A:460:ASN:HD22	1:A:463:GLN:HE21	0.52	1.47	9	1
1:A:396:TRP:CZ2	1:A:408:LYS:O	0.52	2.61	20	1
1:A:481:ALA:O	1:A:483:SER:N	0.52	2.42	13	6
1:A:427:GLU:CD	1:A:428:VAL:N	0.52	2.67	9	2
2:A:1228:4IP:O4P	2:A:1228:4IP:O2	0.52	2.27	16	2
1:A:441:ILE:N	1:A:441:ILE:CD1	0.52	2.71	13	2
1:A:396:TRP:CE2	1:A:407:TYR:CD1	0.52	2.98	6	1
1:A:489:VAL:HG23	1:A:490:GLN:N	0.52	2.19	8	4

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:437:GLN:CD	1:A:437:GLN:N	0.52	2.67	13	2
1:A:467:TRP:O	1:A:470:ALA:N	0.52	2.41	3	2
1:A:375:LEU:HD23	1:A:376:ALA:N	0.52	2.19	7	1
1:A:464:TYR:CG	1:A:468:MET:SD	0.52	3.02	10	2
1:A:479:THR:C	1:A:481:ALA:N	0.52	2.67	3	6
1:A:388:THR:OG1	1:A:389:LEU:N	0.52	2.40	12	4
1:A:401:ASP:N	1:A:401:ASP:OD1	0.52	2.42	8	1
1:A:390:LYS:CD	2:A:1228:4IP:O2P	0.52	2.57	2	1
1:A:396:TRP:CD1	1:A:396:TRP:H	0.52	2.23	19	4
1:A:487:LEU:O	1:A:487:LEU:HD23	0.52	2.04	7	1
1:A:480:MET:SD	1:A:480:MET:O	0.52	2.68	18	8
1:A:486:ASN:O	1:A:488:GLU:N	0.52	2.42	4	3
2:A:1228:4IP:O2P	2:A:1228:4IP:O2	0.52	2.24	7	1
1:A:400:LYS:NZ	1:A:400:LYS:CB	0.52	2.70	12	1
1:A:492:ILE:HD13	1:A:493:LEU:N	0.52	2.20	20	1
1:A:420:GLN:C	1:A:421:MET:SD	0.52	2.93	8	1
1:A:389:LEU:CD1	1:A:390:LYS:H	0.52	2.18	2	1
1:A:439:PHE:CD2	1:A:458:CYS:SG	0.52	3.03	2	2
1:A:389:LEU:N	1:A:389:LEU:HD22	0.52	2.17	3	2
1:A:460:ASN:CG	1:A:461:GLU:N	0.52	2.68	17	2
1:A:395:TYR:CE2	2:A:1228:4IP:P3	0.52	3.02	5	1
1:A:482:ASP:O	1:A:484:SER:N	0.52	2.43	9	2
1:A:464:TYR:O	1:A:468:MET:SD	0.52	2.68	20	2
1:A:389:LEU:CD1	1:A:390:LYS:N	0.52	2.72	2	1
1:A:439:PHE:CE2	1:A:460:ASN:C	0.52	2.88	2	2
1:A:468:MET:O	1:A:471:CYS:SG	0.52	2.68	17	8
2:A:1228:4IP:O2	2:A:1228:4IP:O5P	0.52	2.28	15	2
1:A:437:GLN:O	1:A:439:PHE:CD1	0.52	2.63	15	3
1:A:420:GLN:N	1:A:420:GLN:OE1	0.52	2.42	17	1
1:A:428:VAL:HG23	1:A:471:CYS:SG	0.51	2.45	4	1
1:A:389:LEU:O	1:A:390:LYS:C	0.51	2.54	17	3
1:A:395:TYR:O	1:A:395:TYR:CD1	0.51	2.64	6	3
1:A:436:GLY:C	1:A:437:GLN:CD	0.51	2.78	13	5
1:A:468:MET:SD	1:A:468:MET:C	0.51	2.93	18	2
1:A:426:CYS:SG	1:A:474:ALA:CB	0.51	2.98	5	2
1:A:385:LYS:HZ3	2:A:1228:4IP:H2	0.51	1.65	5	1
1:A:481:ALA:O	1:A:482:ASP:CG	0.51	2.53	6	2
1:A:485:TYR:CD2	1:A:486:ASN:N	0.51	2.79	7	1
1:A:383:LYS:H	1:A:383:LYS:HZ3	0.51	1.47	8	1
1:A:389:LEU:H	1:A:389:LEU:CD2	0.51	2.14	3	2
1:A:386:LYS:CE	2:A:1228:4IP:O7P	0.51	2.57	15	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:388:THR:C	1:A:389:LEU:HD13	0.51	2.31	3	1
1:A:476:LYS:CB	1:A:476:LYS:NZ	0.51	2.73	13	1
1:A:422:ASN:O	1:A:422:ASN:ND2	0.51	2.44	15	1
1:A:443:LEU:N	1:A:454:ILE:O	0.51	2.43	7	2
2:A:1228:4IP:P3	2:A:1228:4IP:HO2	0.51	2.28	12	3
1:A:380:LYS:O	1:A:457:ARG:N	0.51	2.41	16	1
1:A:378:TYR:O	1:A:378:TYR:CD2	0.51	2.64	1	3
1:A:468:MET:C	1:A:471:CYS:HG	0.51	2.13	9	1
1:A:379:ILE:O	1:A:394:GLN:NE2	0.51	2.43	11	1
1:A:447:VAL:HG11	1:A:452:ASN:ND2	0.51	2.21	19	4
1:A:436:GLY:O	1:A:437:GLN:C	0.51	2.53	10	6
1:A:396:TRP:NE1	1:A:407:TYR:O	0.51	2.44	15	5
1:A:418:ALA:O	1:A:419:HIS:ND1	0.51	2.44	20	2
1:A:377:ASP:CG	1:A:467:TRP:CD1	0.51	2.88	5	1
2:A:1228:4IP:O8P	2:A:1228:4IP:O4P	0.51	2.28	11	1
1:A:440:ASN:C	1:A:464:TYR:OH	0.50	2.54	13	8
1:A:491:ASN:ND2	1:A:491:ASN:C	0.50	2.69	18	2
1:A:478:LYS:O	1:A:480:MET:SD	0.50	2.69	15	1
1:A:434:ILE:O	1:A:437:GLN:NE2	0.50	2.40	16	1
2:A:1228:4IP:O6P	2:A:1228:4IP:O2	0.50	2.27	18	1
1:A:472:ARG:CB	1:A:488:GLU:OE1	0.50	2.59	5	1
2:A:1228:4IP:O6	2:A:1228:4IP:P5	0.50	2.70	8	1
1:A:492:ILE:HD12	1:A:493:LEU:N	0.50	2.21	19	1
1:A:479:THR:C	1:A:481:ALA:H	0.50	2.14	1	9
1:A:382:PHE:CD1	1:A:382:PHE:C	0.50	2.89	7	2
1:A:400:LYS:NZ	1:A:404:ILE:O	0.50	2.44	5	2
1:A:383:LYS:O	1:A:385:LYS:NZ	0.50	2.44	1	2
1:A:375:LEU:C	1:A:375:LEU:CD2	0.50	2.84	7	1
2:A:1228:4IP:O6	2:A:1228:4IP:O2P	0.50	2.28	8	3
1:A:424:ARG:CD	1:A:424:ARG:C	0.50	2.84	14	1
1:A:399:PHE:CE2	1:A:479:THR:OG1	0.50	2.61	4	1
1:A:468:MET:CG	1:A:469:ALA:N	0.50	2.74	19	4
2:A:1228:4IP:O2	2:A:1228:4IP:O1P	0.50	2.30	10	1
2:A:1228:4IP:O4	2:A:1228:4IP:O6P	0.50	2.30	18	1
1:A:424:ARG:C	1:A:426:CYS:N	0.50	2.69	19	1
2:A:1228:4IP:O6	2:A:1228:4IP:O1P	0.50	2.30	2	2
1:A:420:GLN:CD	1:A:420:GLN:N	0.50	2.69	11	1
1:A:423:LEU:O	1:A:424:ARG:C	0.50	2.55	14	4
1:A:459:ASP:C	1:A:460:ASN:CG	0.50	2.80	5	7
1:A:473:LEU:CD2	1:A:478:LYS:O	0.50	2.59	5	1
2:A:1228:4IP:O7P	2:A:1228:4IP:OPH	0.50	2.30	6	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:387:LEU:O	1:A:388:THR:CG2	0.50	2.59	15	1
1:A:400:LYS:NZ	1:A:404:ILE:C	0.49	2.70	5	2
1:A:393:LYS:HZ2	1:A:408:LYS:HD3	0.49	1.67	14	1
1:A:385:LYS:CE	1:A:391:GLY:H	0.49	2.20	10	1
1:A:377:ASP:OD1	1:A:378:TYR:N	0.49	2.45	8	1
1:A:420:GLN:O	1:A:421:MET:SD	0.49	2.71	12	1
1:A:382:PHE:O	1:A:382:PHE:CD1	0.49	2.65	19	1
1:A:479:THR:O	1:A:480:MET:C	0.49	2.56	5	4
1:A:387:LEU:O	1:A:388:THR:CB	0.49	2.60	14	4
1:A:489:VAL:C	1:A:491:ASN:N	0.49	2.68	8	2
1:A:443:LEU:CB	1:A:454:ILE:O	0.49	2.60	11	2
1:A:397:CYS:SG	1:A:404:ILE:HG23	0.49	2.47	15	1
1:A:375:LEU:C	1:A:375:LEU:CD1	0.49	2.86	3	6
1:A:381:VAL:CG2	1:A:455:TRP:O	0.49	2.61	7	1
1:A:479:THR:CG2	1:A:480:MET:H	0.49	2.19	18	4
1:A:381:VAL:HG23	1:A:455:TRP:O	0.49	2.06	8	2
1:A:419:HIS:ND1	1:A:419:HIS:C	0.49	2.69	3	1
1:A:479:THR:CG2	1:A:480:MET:N	0.49	2.75	18	5
1:A:396:TRP:CD1	1:A:407:TYR:CE2	0.49	3.00	11	1
1:A:473:LEU:HD12	1:A:479:THR:HA	0.49	1.84	3	1
2:A:1228:4IP:O5P	2:A:1228:4IP:O4	0.49	2.30	4	1
1:A:487:LEU:HD12	1:A:487:LEU:N	0.49	2.22	6	1
1:A:438:LYS:HZ1	1:A:440:ASN:CG	0.49	2.15	9	1
1:A:480:MET:CG	1:A:480:MET:O	0.49	2.60	7	1
1:A:482:ASP:C	1:A:484:SER:N	0.49	2.68	9	2
1:A:387:LEU:O	1:A:388:THR:C	0.49	2.56	16	1
1:A:389:LEU:O	2:A:1228:4IP:O4P	0.49	2.31	7	1
1:A:389:LEU:H	1:A:389:LEU:CD1	0.49	2.18	15	1
1:A:441:ILE:HD13	1:A:441:ILE:H	0.48	1.68	2	1
1:A:463:GLN:HE21	1:A:463:GLN:N	0.48	2.06	5	1
2:A:1228:4IP:O2P	2:A:1228:4IP:O6	0.48	2.27	13	2
1:A:473:LEU:O	1:A:474:ALA:C	0.48	2.57	13	16
1:A:423:LEU:CD2	1:A:423:LEU:N	0.48	2.76	14	2
1:A:473:LEU:HD21	1:A:479:THR:HA	0.48	1.85	7	1
1:A:426:CYS:SG	1:A:474:ALA:HB3	0.48	2.48	9	2
1:A:400:LYS:CE	1:A:405:SER:OG	0.48	2.61	11	2
1:A:388:THR:O	1:A:388:THR:CG2	0.48	2.62	16	1
1:A:387:LEU:O	1:A:388:THR:OG1	0.48	2.31	15	4
1:A:442:LYS:CD	1:A:442:LYS:C	0.48	2.87	4	1
1:A:385:LYS:CE	2:A:1228:4IP:O7P	0.48	2.61	8	1
1:A:374:GLU:O	1:A:374:GLU:CG	0.48	2.62	5	7

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:441:ILE:HD12	1:A:464:TYR:CD1	0.48	2.44	9	1
1:A:486:ASN:O	1:A:490:GLN:CG	0.48	2.62	16	1
1:A:423:LEU:N	1:A:423:LEU:HD22	0.48	2.23	14	3
1:A:470:ALA:O	1:A:474:ALA:N	0.48	2.42	7	1
1:A:433:ASN:O	1:A:437:GLN:C	0.48	2.57	9	1
1:A:372:ILE:N	1:A:374:GLU:OE2	0.48	2.47	12	1
1:A:393:LYS:NZ	1:A:395:TYR:OH	0.48	2.44	12	1
1:A:441:ILE:O	1:A:441:ILE:CG2	0.48	2.61	19	4
2:A:1228:4IP:P5	2:A:1228:4IP:O6	0.48	2.71	1	3
1:A:388:THR:O	2:A:1228:4IP:O2P	0.48	2.31	2	1
1:A:492:ILE:O	1:A:493:LEU:C	0.48	2.56	14	8
1:A:489:VAL:O	1:A:492:ILE:HD13	0.48	2.09	18	2
1:A:384:PRO:CG	1:A:453:GLU:CD	0.48	2.86	17	2
2:A:1228:4IP:P3	2:A:1228:4IP:O2	0.48	2.72	12	1
1:A:389:LEU:C	2:A:1228:4IP:O2P	0.48	2.56	10	1
1:A:384:PRO:O	1:A:385:LYS:CB	0.48	2.61	20	4
1:A:420:GLN:O	1:A:420:GLN:NE2	0.48	2.47	18	1
2:A:1228:4IP:O9P	2:A:1228:4IP:P5	0.48	2.71	20	1
1:A:374:GLU:OE1	1:A:374:GLU:N	0.48	2.40	11	1
1:A:408:LYS:O	1:A:409:SER:OG	0.48	2.32	12	1
1:A:385:LYS:CE	2:A:1228:4IP:O2	0.47	2.62	8	2
1:A:400:LYS:HZ2	1:A:400:LYS:HB2	0.47	1.69	10	1
1:A:403:SER:OG	1:A:404:ILE:N	0.47	2.47	17	1
1:A:453:GLU:O	1:A:453:GLU:CG	0.47	2.62	14	7
1:A:480:MET:C	1:A:482:ASP:N	0.47	2.70	3	3
1:A:465:ALA:HA	1:A:468:MET:HE2	0.47	1.87	4	1
1:A:447:VAL:HG11	1:A:452:ASN:HD22	0.47	1.68	19	2
1:A:459:ASP:O	1:A:460:ASN:ND2	0.47	2.47	16	2
1:A:406:CYS:O	1:A:417:PRO:CB	0.47	2.62	1	3
1:A:467:TRP:O	1:A:468:MET:C	0.47	2.56	6	14
1:A:384:PRO:O	1:A:385:LYS:C	0.47	2.57	18	2
1:A:486:ASN:O	1:A:487:LEU:C	0.47	2.58	4	3
1:A:474:ALA:O	1:A:477:GLY:N	0.47	2.42	17	2
1:A:473:LEU:CD2	1:A:474:ALA:N	0.47	2.78	19	2
1:A:419:HIS:CG	1:A:420:GLN:N	0.47	2.81	18	1
1:A:392:TYR:CD2	1:A:457:ARG:NH2	0.47	2.83	18	2
1:A:377:ASP:OD1	1:A:377:ASP:C	0.47	2.54	5	3
1:A:488:GLU:CD	1:A:488:GLU:C	0.47	2.82	6	3
1:A:372:ILE:C	1:A:374:GLU:OE2	0.47	2.58	18	1
2:A:1228:4IP:O5P	2:A:1228:4IP:P4	0.47	2.72	16	1
2:A:1228:4IP:O9P	2:A:1228:4IP:OPH	0.47	2.33	20	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
2:A:1228:4IP:O6	2:A:1228:4IP:P1	0.47	2.73	13	1
1:A:463:GLN:O	1:A:464:TYR:C	0.47	2.58	2	15
1:A:459:ASP:O	1:A:460:ASN:CG	0.47	2.57	4	4
1:A:480:MET:O	1:A:480:MET:CG	0.47	2.63	2	1
1:A:485:TYR:O	1:A:486:ASN:C	0.47	2.58	9	4
2:A:1228:4IP:OPH	2:A:1228:4IP:O7P	0.47	2.33	13	1
2:A:1228:4IP:O3P	2:A:1228:4IP:O2	0.47	2.32	14	1
1:A:464:TYR:O	1:A:465:ALA:C	0.47	2.57	9	4
1:A:485:TYR:CE2	1:A:488:GLU:OE1	0.47	2.68	9	1
1:A:395:TYR:CE1	1:A:406:CYS:SG	0.47	3.08	11	1
1:A:387:LEU:O	1:A:388:THR:HG22	0.47	2.09	14	1
1:A:481:ALA:C	1:A:483:SER:H	0.47	2.18	18	1
1:A:457:ARG:C	1:A:458:CYS:SG	0.46	2.98	6	1
2:A:1228:4IP:O7P	2:A:1228:4IP:P5	0.46	2.73	13	2
1:A:475:SER:C	1:A:477:GLY:N	0.46	2.73	15	4
1:A:441:ILE:CA	1:A:464:TYR:OH	0.46	2.63	12	1
1:A:493:LEU:HD22	1:A:493:LEU:H	0.46	1.69	16	1
1:A:404:ILE:CD1	1:A:404:ILE:N	0.46	2.78	19	2
1:A:388:THR:C	1:A:389:LEU:HD12	0.46	2.35	13	1
1:A:390:LYS:CG	1:A:391:GLY:H	0.46	2.23	17	1
1:A:481:ALA:HB3	1:A:485:TYR:CZ	0.46	2.45	18	1
2:A:1228:4IP:O5	2:A:1228:4IP:O8P	0.46	2.33	20	7
1:A:384:PRO:O	1:A:385:LYS:O	0.46	2.33	6	5
1:A:388:THR:HG23	1:A:389:LEU:N	0.46	2.26	5	1
1:A:473:LEU:HD23	1:A:478:LYS:N	0.46	2.26	5	1
1:A:475:SER:C	1:A:477:GLY:H	0.46	2.18	18	5
1:A:419:HIS:C	1:A:420:GLN:OE1	0.46	2.59	17	1
1:A:376:ALA:C	1:A:377:ASP:CG	0.46	2.83	20	1
1:A:401:ASP:OD1	1:A:401:ASP:N	0.46	2.42	1	1
1:A:469:ALA:O	1:A:473:LEU:N	0.46	2.41	7	1
1:A:391:GLY:O	1:A:392:TYR:C	0.46	2.59	2	8
1:A:386:LYS:NZ	1:A:449:GLU:OE1	0.46	2.47	8	1
1:A:436:GLY:C	1:A:437:GLN:HE21	0.46	2.15	11	1
1:A:422:ASN:ND2	1:A:422:ASN:N	0.46	2.61	15	1
1:A:389:LEU:HD23	1:A:389:LEU:H	0.46	1.69	18	1
1:A:385:LYS:NZ	1:A:391:GLY:CA	0.46	2.78	1	1
1:A:453:GLU:OE2	1:A:455:TRP:NE1	0.46	2.46	10	1
1:A:390:LYS:O	1:A:391:GLY:O	0.46	2.34	5	4
1:A:441:ILE:H	1:A:441:ILE:CD1	0.46	2.22	2	1
1:A:424:ARG:O	1:A:426:CYS:N	0.46	2.49	19	1
1:A:403:SER:C	1:A:404:ILE:HD12	0.46	2.35	15	2

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
2:A:1228:4IP:O2P	2:A:1228:4IP:C6	0.46	2.64	8	1
1:A:464:TYR:O	1:A:468:MET:CG	0.46	2.63	15	3
1:A:421:MET:SD	1:A:423:LEU:HD11	0.46	2.51	20	1
1:A:473:LEU:CD2	1:A:473:LEU:N	0.46	2.79	1	1
1:A:487:LEU:O	1:A:491:ASN:CG	0.46	2.59	19	8
1:A:373:PRO:O	1:A:399:PHE:O	0.46	2.34	5	7
1:A:473:LEU:HD22	1:A:474:ALA:H	0.46	1.71	19	2
1:A:439:PHE:CB	1:A:458:CYS:HG	0.46	2.21	12	1
1:A:382:PHE:CD2	1:A:383:LYS:N	0.46	2.84	17	1
1:A:419:HIS:ND1	1:A:421:MET:SD	0.46	2.89	19	1
1:A:439:PHE:CB	1:A:458:CYS:SG	0.46	3.04	2	1
1:A:486:ASN:C	1:A:488:GLU:N	0.46	2.75	5	3
1:A:492:ILE:N	1:A:492:ILE:CD1	0.46	2.74	4	1
1:A:453:GLU:CG	1:A:453:GLU:O	0.46	2.64	6	1
1:A:395:TYR:CD1	1:A:395:TYR:N	0.46	2.84	7	1
1:A:427:GLU:CD	1:A:428:VAL:H	0.46	2.18	9	1
1:A:479:THR:C	1:A:480:MET:SD	0.46	2.99	15	1
1:A:406:CYS:O	1:A:418:ALA:N	0.45	2.49	9	2
1:A:454:ILE:CG2	1:A:456:LEU:HD21	0.45	2.41	2	1
1:A:433:ASN:N	1:A:433:ASN:HD22	0.45	2.09	5	1
1:A:478:LYS:HB3	1:A:480:MET:HE1	0.45	1.88	15	1
1:A:420:GLN:O	1:A:420:GLN:CD	0.45	2.59	18	1
1:A:424:ARG:CG	1:A:425:GLY:N	0.45	2.79	7	2
1:A:381:VAL:O	1:A:391:GLY:O	0.45	2.34	18	2
1:A:397:CYS:SG	1:A:405:SER:O	0.45	2.70	5	1
1:A:381:VAL:CG2	1:A:382:PHE:N	0.45	2.79	7	2
1:A:434:ILE:O	1:A:437:GLN:N	0.45	2.48	18	1
1:A:491:ASN:HD22	1:A:492:ILE:N	0.45	2.08	18	1
1:A:434:ILE:O	1:A:435:SER:C	0.45	2.59	19	9
1:A:443:LEU:HD11	1:A:471:CYS:SG	0.45	2.51	2	1
1:A:377:ASP:OD1	1:A:379:ILE:HD12	0.45	2.10	5	1
1:A:436:GLY:C	1:A:438:LYS:N	0.45	2.72	5	1
1:A:395:TYR:CD1	1:A:395:TYR:C	0.45	2.95	13	3
1:A:493:LEU:CD2	1:A:493:LEU:N	0.45	2.79	6	1
1:A:487:LEU:O	1:A:491:ASN:OD1	0.45	2.35	13	3
2:A:1228:4IP:O6	2:A:1228:4IP:OPH	0.45	2.31	3	1
1:A:420:GLN:CD	1:A:420:GLN:O	0.45	2.59	6	2
1:A:372:ILE:C	1:A:374:GLU:OE1	0.45	2.60	12	1
1:A:391:GLY:N	2:A:1228:4IP:O6P	0.45	2.50	12	1
1:A:383:LYS:NZ	2:A:1228:4IP:P3	0.45	2.89	6	1
1:A:419:HIS:CD2	1:A:421:MET:SD	0.45	3.10	6	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:438:LYS:HZ2	1:A:439:PHE:C	0.45	2.19	9	1
1:A:468:MET:H	1:A:468:MET:HE3	0.45	1.69	10	1
1:A:423:LEU:HD13	1:A:423:LEU:N	0.45	2.12	18	1
1:A:439:PHE:C	1:A:464:TYR:CZ	0.45	2.95	3	1
1:A:400:LYS:O	1:A:403:SER:O	0.45	2.35	6	2
1:A:485:TYR:CZ	1:A:486:ASN:OD1	0.45	2.70	11	1
1:A:390:LYS:NZ	2:A:1228:4IP:O2	0.45	2.39	17	1
1:A:400:LYS:CB	1:A:400:LYS:NZ	0.45	2.79	1	1
1:A:473:LEU:C	1:A:473:LEU:CD1	0.45	2.89	17	2
1:A:389:LEU:O	2:A:1228:4IP:O2P	0.45	2.34	10	1
2:A:1228:4IP:P4	2:A:1228:4IP:O5	0.45	2.75	16	1
1:A:473:LEU:HD22	1:A:473:LEU:C	0.45	2.37	18	1
1:A:432:VAL:C	1:A:433:ASN:HD22	0.45	2.20	5	1
1:A:385:LYS:CE	1:A:390:LYS:O	0.45	2.65	12	1
1:A:381:VAL:HG11	2:A:1228:4IP:O6P	0.45	2.12	19	1
1:A:389:LEU:CG	1:A:390:LYS:H	0.45	2.25	20	1
1:A:434:ILE:C	1:A:436:GLY:N	0.45	2.73	20	1
1:A:406:CYS:SG	2:A:1228:4IP:OPF	0.45	2.75	7	1
1:A:460:ASN:ND2	1:A:463:GLN:HE21	0.45	2.10	9	1
2:A:1228:4IP:O5	2:A:1228:4IP:O9P	0.45	2.35	10	2
1:A:459:ASP:C	1:A:460:ASN:OD1	0.45	2.60	13	2
1:A:423:LEU:CD2	1:A:423:LEU:C	0.45	2.90	18	1
1:A:489:VAL:O	1:A:491:ASN:N	0.44	2.50	8	2
1:A:478:LYS:CD	1:A:479:THR:N	0.44	2.80	15	2
1:A:377:ASP:OD2	1:A:463:GLN:NE2	0.44	2.50	19	1
1:A:402:THR:OG1	1:A:424:ARG:NH2	0.44	2.50	2	1
1:A:482:ASP:O	1:A:483:SER:C	0.44	2.61	18	4
1:A:387:LEU:C	1:A:387:LEU:CD1	0.44	2.90	8	1
1:A:488:GLU:C	1:A:488:GLU:OE2	0.44	2.60	8	1
1:A:383:LYS:CG	2:A:1228:4IP:O5P	0.44	2.65	12	1
1:A:422:ASN:ND2	1:A:422:ASN:H	0.44	2.11	15	1
1:A:454:ILE:O	1:A:455:TRP:CD1	0.44	2.71	15	1
1:A:385:LYS:NZ	2:A:1228:4IP:O7P	0.44	2.50	8	1
2:A:1228:4IP:O3P	2:A:1228:4IP:C2	0.44	2.65	14	1
1:A:484:SER:OG	1:A:485:TYR:N	0.44	2.50	15	1
1:A:386:LYS:HB3	1:A:390:LYS:HZ1	0.44	1.72	17	1
1:A:478:LYS:CG	1:A:479:THR:N	0.44	2.80	20	1
1:A:439:PHE:C	1:A:464:TYR:OH	0.44	2.60	3	2
1:A:493:LEU:N	1:A:493:LEU:HD22	0.44	2.26	6	1
1:A:383:LYS:NZ	1:A:395:TYR:CE1	0.44	2.85	15	1
1:A:439:PHE:CE1	1:A:459:ASP:C	0.44	2.96	19	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:393:LYS:HZ1	2:A:1228:4IP:P3	0.44	2.35	6	1
1:A:478:LYS:CE	1:A:479:THR:O	0.44	2.65	10	1
1:A:427:GLU:OE2	1:A:428:VAL:N	0.44	2.51	16	1
1:A:441:ILE:CD1	1:A:464:TYR:CD1	0.44	3.00	18	1
1:A:389:LEU:HG	1:A:390:LYS:H	0.44	1.71	20	1
1:A:377:ASP:OD2	1:A:463:GLN:CD	0.44	2.61	7	3
1:A:491:ASN:O	1:A:492:ILE:C	0.44	2.61	9	3
1:A:476:LYS:C	1:A:478:LYS:H	0.44	2.21	14	2
1:A:492:ILE:C	1:A:494:SER:N	0.44	2.74	7	2
1:A:439:PHE:O	1:A:464:TYR:OH	0.44	2.34	3	1
1:A:473:LEU:HD13	1:A:480:MET:H	0.44	1.73	15	1
1:A:384:PRO:O	1:A:385:LYS:CD	0.44	2.66	16	2
1:A:484:SER:O	1:A:485:TYR:C	0.44	2.61	1	11
1:A:406:CYS:SG	1:A:407:TYR:N	0.44	2.91	8	1
1:A:430:PRO:O	1:A:431:ASP:OD1	0.44	2.36	9	2
2:A:1228:4IP:O8P	2:A:1228:4IP:OPH	0.44	2.36	15	1
2:A:1228:4IP:OPH	2:A:1228:4IP:P4	0.44	2.76	15	1
1:A:439:PHE:CE2	1:A:460:ASN:O	0.44	2.71	17	1
1:A:463:GLN:NE2	1:A:463:GLN:O	0.44	2.51	19	1
1:A:460:ASN:O	1:A:461:GLU:C	0.43	2.61	1	1
1:A:473:LEU:HD12	1:A:479:THR:CA	0.43	2.43	3	1
1:A:453:GLU:CD	1:A:455:TRP:HE1	0.43	2.21	10	1
1:A:374:GLU:N	1:A:374:GLU:OE1	0.43	2.52	12	2
1:A:453:GLU:O	1:A:455:TRP:CZ2	0.43	2.71	14	1
1:A:387:LEU:C	1:A:388:THR:OG1	0.43	2.60	15	1
1:A:483:SER:O	1:A:484:SER:C	0.43	2.61	15	1
1:A:391:GLY:O	1:A:392:TYR:O	0.43	2.36	1	1
1:A:383:LYS:H	1:A:385:LYS:HZ2	0.43	1.54	2	1
1:A:458:CYS:O	1:A:459:ASP:CG	0.43	2.62	9	2
1:A:391:GLY:N	2:A:1228:4IP:O2P	0.43	2.51	14	1
1:A:428:VAL:O	1:A:428:VAL:HG23	0.43	2.12	16	1
1:A:372:ILE:N	1:A:372:ILE:HD12	0.43	2.28	19	1
1:A:385:LYS:HZ3	1:A:391:GLY:HA3	0.43	1.74	1	1
1:A:393:LYS:CE	1:A:395:TYR:CE1	0.43	3.01	4	1
1:A:428:VAL:CG2	1:A:471:CYS:SG	0.43	3.07	4	1
1:A:388:THR:HG22	1:A:389:LEU:H	0.43	1.72	11	1
1:A:430:PRO:O	1:A:431:ASP:CG	0.43	2.61	6	3
1:A:433:ASN:O	1:A:438:LYS:N	0.43	2.51	9	1
1:A:377:ASP:OD2	1:A:463:GLN:OE1	0.43	2.37	11	1
1:A:470:ALA:O	1:A:471:CYS:C	0.43	2.62	16	5
1:A:441:ILE:HD12	1:A:464:TYR:CE1	0.43	2.48	9	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:466:HIS:ND1	1:A:466:HIS:N	0.43	2.67	10	1
1:A:485:TYR:CE1	1:A:486:ASN:OD1	0.43	2.72	11	1
1:A:383:LYS:CB	1:A:384:PRO:CD	0.43	2.97	5	2
1:A:492:ILE:O	1:A:494:SER:N	0.43	2.52	7	1
1:A:482:ASP:OD1	1:A:486:ASN:OD1	0.43	2.36	18	1
1:A:374:GLU:N	1:A:374:GLU:CD	0.43	2.77	18	1
1:A:458:CYS:O	1:A:459:ASP:OD1	0.43	2.37	19	1
1:A:485:TYR:CE1	1:A:486:ASN:CG	0.43	2.97	3	1
1:A:393:LYS:CE	1:A:395:TYR:OH	0.43	2.67	7	1
1:A:430:PRO:C	1:A:431:ASP:CG	0.43	2.87	10	2
1:A:439:PHE:HB2	1:A:464:TYR:CD1	0.43	2.49	20	1
1:A:400:LYS:CG	1:A:401:ASP:N	0.43	2.81	1	1
1:A:464:TYR:O	1:A:466:HIS:N	0.43	2.52	5	1
1:A:493:LEU:O	1:A:494:SER:C	0.43	2.62	20	2
1:A:398:THR:OG1	1:A:405:SER:OG	0.43	2.34	10	1
1:A:419:HIS:CE1	1:A:420:GLN:OE1	0.43	2.71	18	1
1:A:459:ASP:CB	1:A:463:GLN:OE1	0.42	2.67	1	1
1:A:387:LEU:C	1:A:387:LEU:HD13	0.42	2.39	8	1
1:A:382:PHE:CD1	1:A:382:PHE:N	0.42	2.83	14	1
1:A:482:ASP:O	1:A:486:ASN:CG	0.42	2.62	18	1
1:A:383:LYS:N	1:A:384:PRO:CD	0.42	2.81	19	1
1:A:408:LYS:CB	1:A:408:LYS:NZ	0.42	2.82	4	1
1:A:390:LYS:O	1:A:391:GLY:C	0.42	2.61	5	1
1:A:473:LEU:H	1:A:473:LEU:HD22	0.42	1.71	10	1
1:A:383:LYS:C	1:A:385:LYS:H	0.42	2.21	12	1
1:A:427:GLU:CD	1:A:427:GLU:C	0.42	2.87	16	1
1:A:392:TYR:N	1:A:393:LYS:NZ	0.42	2.67	11	1
1:A:396:TRP:CZ2	1:A:407:TYR:CG	0.42	3.08	6	1
1:A:459:ASP:O	1:A:460:ASN:OD1	0.42	2.37	11	1
1:A:386:LYS:O	1:A:387:LEU:C	0.42	2.62	13	1
1:A:402:THR:O	1:A:422:ASN:ND2	0.42	2.52	17	1
1:A:480:MET:C	1:A:480:MET:SD	0.42	3.02	19	1
1:A:420:GLN:N	1:A:421:MET:SD	0.42	2.92	8	1
1:A:379:ILE:HD13	1:A:379:ILE:N	0.42	2.30	9	1
1:A:379:ILE:O	1:A:394:GLN:CD	0.42	2.63	11	1
1:A:393:LYS:NZ	2:A:1228:4IP:P3	0.42	2.93	6	1
1:A:396:TRP:CH2	1:A:407:TYR:CE1	0.42	3.07	6	1
1:A:424:ARG:O	1:A:425:GLY:C	0.42	2.63	19	2
1:A:389:LEU:HD21	2:A:1228:4IP:O4P	0.42	2.14	15	1
1:A:374:GLU:OE1	1:A:374:GLU:C	0.42	2.62	16	1
1:A:482:ASP:CG	1:A:486:ASN:OD1	0.42	2.62	18	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:396:TRP:NE1	1:A:408:LYS:O	0.42	2.52	20	1
1:A:444:LEU:HD11	1:A:451:MET:HB3	0.42	1.92	3	1
1:A:487:LEU:N	1:A:487:LEU:HD12	0.42	2.30	5	1
1:A:441:ILE:HB	1:A:468:MET:HE1	0.42	1.92	7	1
1:A:488:GLU:C	1:A:488:GLU:CD	0.42	2.87	8	1
1:A:457:ARG:O	1:A:463:GLN:OE1	0.42	2.37	14	1
1:A:383:LYS:C	1:A:385:LYS:N	0.42	2.78	12	1
1:A:387:LEU:O	1:A:388:THR:O	0.42	2.38	16	1
1:A:372:ILE:O	1:A:374:GLU:OE2	0.42	2.36	18	1
1:A:395:TYR:OH	2:A:1228:4IP:O5P	0.42	2.31	9	1
1:A:381:VAL:HG22	1:A:382:PHE:N	0.42	2.28	13	2
1:A:386:LYS:NZ	2:A:1228:4IP:O7P	0.42	2.52	15	1
1:A:447:VAL:CG1	1:A:452:ASN:ND2	0.42	2.83	15	1
1:A:399:PHE:CD2	1:A:404:ILE:HD11	0.42	2.50	1	1
1:A:417:PRO:O	1:A:418:ALA:C	0.42	2.62	4	2
1:A:467:TRP:C	1:A:471:CYS:HG	0.42	2.20	6	1
1:A:399:PHE:CD1	1:A:479:THR:OG1	0.41	2.73	1	1
1:A:434:ILE:O	1:A:437:GLN:OE1	0.41	2.37	7	2
1:A:383:LYS:NZ	1:A:391:GLY:CA	0.41	2.83	8	1
1:A:434:ILE:C	1:A:437:GLN:H	0.41	2.21	18	1
1:A:377:ASP:OD1	1:A:378:TYR:O	0.41	2.37	3	1
1:A:464:TYR:CD2	1:A:468:MET:CG	0.41	3.03	7	1
1:A:397:CYS:HG	1:A:404:ILE:HG23	0.41	1.75	15	1
1:A:427:GLU:OE2	1:A:428:VAL:C	0.41	2.63	16	1
1:A:382:PHE:CG	1:A:383:LYS:N	0.41	2.88	17	1
1:A:383:LYS:H	1:A:384:PRO:HD3	0.41	1.75	19	1
1:A:392:TYR:CZ	1:A:457:ARG:NH1	0.41	2.89	3	1
1:A:463:GLN:NE2	1:A:463:GLN:CA	0.41	2.82	5	1
1:A:463:GLN:CD	1:A:463:GLN:C	0.41	2.87	19	1
1:A:460:ASN:HD21	1:A:462:LYS:CG	0.41	2.29	3	2
1:A:428:VAL:O	1:A:428:VAL:HG13	0.41	2.15	12	1
1:A:460:ASN:OD1	1:A:460:ASN:N	0.41	2.53	12	1
1:A:485:TYR:CE2	1:A:486:ASN:CG	0.41	2.99	16	1
1:A:422:ASN:C	1:A:424:ARG:H	0.41	2.23	18	1
1:A:469:ALA:O	1:A:470:ALA:C	0.41	2.62	6	1
1:A:406:CYS:O	1:A:407:TYR:CD1	0.41	2.74	8	1
1:A:438:LYS:NZ	1:A:440:ASN:CB	0.41	2.83	9	1
1:A:385:LYS:CE	1:A:391:GLY:N	0.41	2.83	10	1
1:A:478:LYS:HG2	1:A:479:THR:N	0.41	2.30	10	1
1:A:395:TYR:CD1	1:A:395:TYR:O	0.41	2.74	13	1
1:A:422:ASN:C	1:A:424:ARG:N	0.41	2.78	18	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:439:PHE:CB	1:A:464:TYR:CD1	0.41	3.03	5	1
1:A:389:LEU:CG	1:A:390:LYS:N	0.41	2.84	12	1
1:A:377:ASP:OD1	1:A:467:TRP:CE2	0.41	2.74	19	1
1:A:447:VAL:N	1:A:450:GLY:O	0.41	2.44	9	1
1:A:476:LYS:NZ	1:A:476:LYS:CB	0.41	2.83	10	1
1:A:390:LYS:CG	1:A:391:GLY:N	0.41	2.83	17	2
1:A:381:VAL:CG2	1:A:383:LYS:NZ	0.41	2.84	10	1
1:A:374:GLU:CG	1:A:399:PHE:O	0.41	2.69	12	1
1:A:439:PHE:HB3	1:A:464:TYR:CE1	0.41	2.50	13	1
1:A:422:ASN:HD22	1:A:422:ASN:C	0.41	2.23	15	1
1:A:392:TYR:CE2	1:A:457:ARG:CZ	0.41	3.04	18	2
1:A:485:TYR:CD2	1:A:488:GLU:CD	0.41	2.99	9	1
1:A:439:PHE:CE2	1:A:460:ASN:N	0.41	2.89	10	1
1:A:400:LYS:NZ	1:A:405:SER:N	0.41	2.68	15	1
1:A:400:LYS:NZ	1:A:405:SER:CB	0.41	2.83	18	1
1:A:491:ASN:ND2	1:A:492:ILE:N	0.41	2.69	18	1
1:A:436:GLY:O	1:A:438:LYS:N	0.41	2.53	20	1
1:A:424:ARG:CD	1:A:425:GLY:H	0.41	2.29	9	1
1:A:393:LYS:HG3	1:A:394:GLN:N	0.40	2.30	2	1
1:A:487:LEU:N	1:A:487:LEU:CD1	0.40	2.84	6	1
1:A:379:ILE:O	1:A:395:TYR:N	0.40	2.54	7	1
1:A:427:GLU:CB	1:A:444:LEU:O	0.40	2.69	17	1
1:A:396:TRP:CZ3	1:A:407:TYR:CE1	0.40	3.09	6	1
1:A:459:ASP:OD2	1:A:460:ASN:OD1	0.40	2.39	7	1
1:A:489:VAL:O	1:A:490:GLN:C	0.40	2.65	8	1
1:A:389:LEU:O	1:A:390:LYS:CB	0.40	2.69	10	1
1:A:479:THR:O	1:A:480:MET:CG	0.40	2.70	20	1
1:A:388:THR:HG23	2:A:1228:4IP:O2P	0.40	2.17	5	1
1:A:470:ALA:O	1:A:473:LEU:CD1	0.40	2.69	5	1
1:A:420:GLN:O	1:A:420:GLN:OE1	0.40	2.39	6	1
1:A:459:ASP:OD2	1:A:463:GLN:NE2	0.40	2.53	7	1
1:A:447:VAL:HG23	1:A:450:GLY:H	0.40	1.76	8	1
1:A:457:ARG:CZ	1:A:457:ARG:CB	0.40	2.99	12	1
1:A:393:LYS:NZ	1:A:393:LYS:CB	0.40	2.85	1	1
1:A:396:TRP:O	1:A:396:TRP:CG	0.40	2.75	4	1
1:A:468:MET:SD	1:A:492:ILE:CG1	0.40	3.10	5	1
1:A:406:CYS:SG	2:A:1228:4IP:OPG	0.40	2.80	7	1
1:A:372:ILE:N	1:A:373:PRO:HD3	0.40	2.31	19	1
1:A:478:LYS:HG3	1:A:479:THR:N	0.40	2.32	20	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	116/138 (84%)	93±2 (80±2%)	17±2 (14±2%)	7±2 (6±2%)	2	20
All	All	2320/2760 (84%)	1851 (80%)	335 (14%)	134 (6%)	2	20

All 26 unique Ramachandran outliers are listed below. They are sorted by the frequency of occurrence in the ensemble.

Mol	Chain	Res	Type	Models (Total)
1	A	385	LYS	17
1	A	424	ARG	15
1	A	373	PRO	14
1	A	401	ASP	10
1	A	392	TYR	9
1	A	480	MET	9
1	A	391	GLY	9
1	A	390	LYS	7
1	A	388	THR	7
1	A	384	PRO	5
1	A	482	ASP	5
1	A	474	ALA	4
1	A	389	LEU	4
1	A	487	LEU	3
1	A	438	LYS	2
1	A	437	GLN	2
1	A	409	SER	2
1	A	459	ASP	2
1	A	402	THR	1
1	A	465	ALA	1
1	A	483	SER	1
1	A	387	LEU	1
1	A	417	PRO	1
1	A	460	ASN	1
1	A	372	ILE	1
1	A	383	LYS	1

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	103/122 (84%)	77±4 (74±4%)	26±4 (26±4%)	2	23
All	All	2060/2440 (84%)	1532 (74%)	528 (26%)	2	23

All 85 unique residues with a non-rotameric sidechain are listed below. They are sorted by the frequency of occurrence in the ensemble.

Mol	Chain	Res	Type	Models (Total)
1	A	443	LEU	20
1	A	379	ILE	17
1	A	464	TYR	16
1	A	372	ILE	15
1	A	383	LYS	14
1	A	400	LYS	14
1	A	476	LYS	14
1	A	489	VAL	14
1	A	389	LEU	12
1	A	441	ILE	12
1	A	396	TRP	11
1	A	419	HIS	11
1	A	478	LYS	11
1	A	375	LEU	11
1	A	385	LYS	11
1	A	393	LYS	10
1	A	398	THR	10
1	A	439	PHE	10
1	A	388	THR	9
1	A	390	LYS	9
1	A	468	MET	9
1	A	473	LEU	9
1	A	387	LEU	9
1	A	381	VAL	9
1	A	460	ASN	9
1	A	432	VAL	8
1	A	438	LYS	8
1	A	378	TYR	8
1	A	458	CYS	8

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Mol	Chain	Res	Type	Models (Total)
1	A	463	GLN	8
1	A	487	LEU	8
1	A	492	ILE	8
1	A	386	LYS	7
1	A	493	LEU	7
1	A	380	LYS	7
1	A	407	TYR	6
1	A	402	THR	6
1	A	392	TYR	6
1	A	461	GLU	6
1	A	480	MET	6
1	A	424	ARG	6
1	A	455	TRP	5
1	A	485	TYR	5
1	A	405	SER	5
1	A	488	GLU	5
1	A	421	MET	5
1	A	442	LYS	5
1	A	426	CYS	4
1	A	479	THR	4
1	A	408	LYS	4
1	A	428	VAL	4
1	A	491	ASN	4
1	A	382	PHE	4
1	A	453	GLU	4
1	A	437	GLN	4
1	A	422	ASN	3
1	A	440	ASN	3
1	A	472	ARG	3
1	A	395	TYR	3
1	A	420	GLN	3
1	A	456	LEU	3
1	A	423	LEU	3
1	A	434	ILE	3
1	A	394	GLN	2
1	A	397	CYS	2
1	A	433	ASN	2
1	A	403	SER	2
1	A	427	GLU	2
1	A	484	SER	2
1	A	399	PHE	2
1	A	404	ILE	2

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Mol	Chain	Res	Type	Models (Total)
1	A	445	ILE	2
1	A	466	HIS	2
1	A	482	ASP	2
1	A	401	ASP	1
1	A	457	ARG	1
1	A	429	THR	1
1	A	431	ASP	1
1	A	490	GLN	1
1	A	444	LEU	1
1	A	452	ASN	1
1	A	374	GLU	1
1	A	409	SER	1
1	A	454	ILE	1
1	A	377	ASP	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](#)

1 ligand is modelled in this entry.

In the following table, the Counts columns list the number of bonds for which Mogul statistics could be retrieved, the number of bonds that are observed in the model and the number of bonds that are defined in the chemical component dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length is the number of standard deviations the observed value is removed from the expected value. A bond length with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the average root-mean-square of all Z scores of the bond lengths.

Mol	Type	Chain	Res	Link	Bond lengths		
					Counts	RMSZ	#Z>2
2	4IP	A	1228	-	28,28,28	1.45±0.01	2±0 (7±0%)

In the following table, the Counts columns list the number of angles for which Mogul statistics could be retrieved, the number of angles that are observed in the model and the number of angles that are defined in the chemical component dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond angle is the number of standard deviations the observed value is removed from the expected value. A bond angle with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the average root-mean-square of all Z scores of the bond angles.

Mol	Type	Chain	Res	Link	Bond angles		
					Counts	RMSZ	#Z>2
2	4IP	A	1228	-	46,46,46	0.78±0.01	0±0 (0±0%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the chemical component dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	4IP	A	1228	-	-	0±0,20,44,44	0±0,1,1,1

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

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)	Models	
								Worst	Total
2	A	1228	4IP	P4-O9P	3.58	1.61	1.50	20	20
2	A	1228	4IP	P5-OPG	3.57	1.61	1.50	5	20

There are no bond-angle outliers.

There are no chirality outliers.

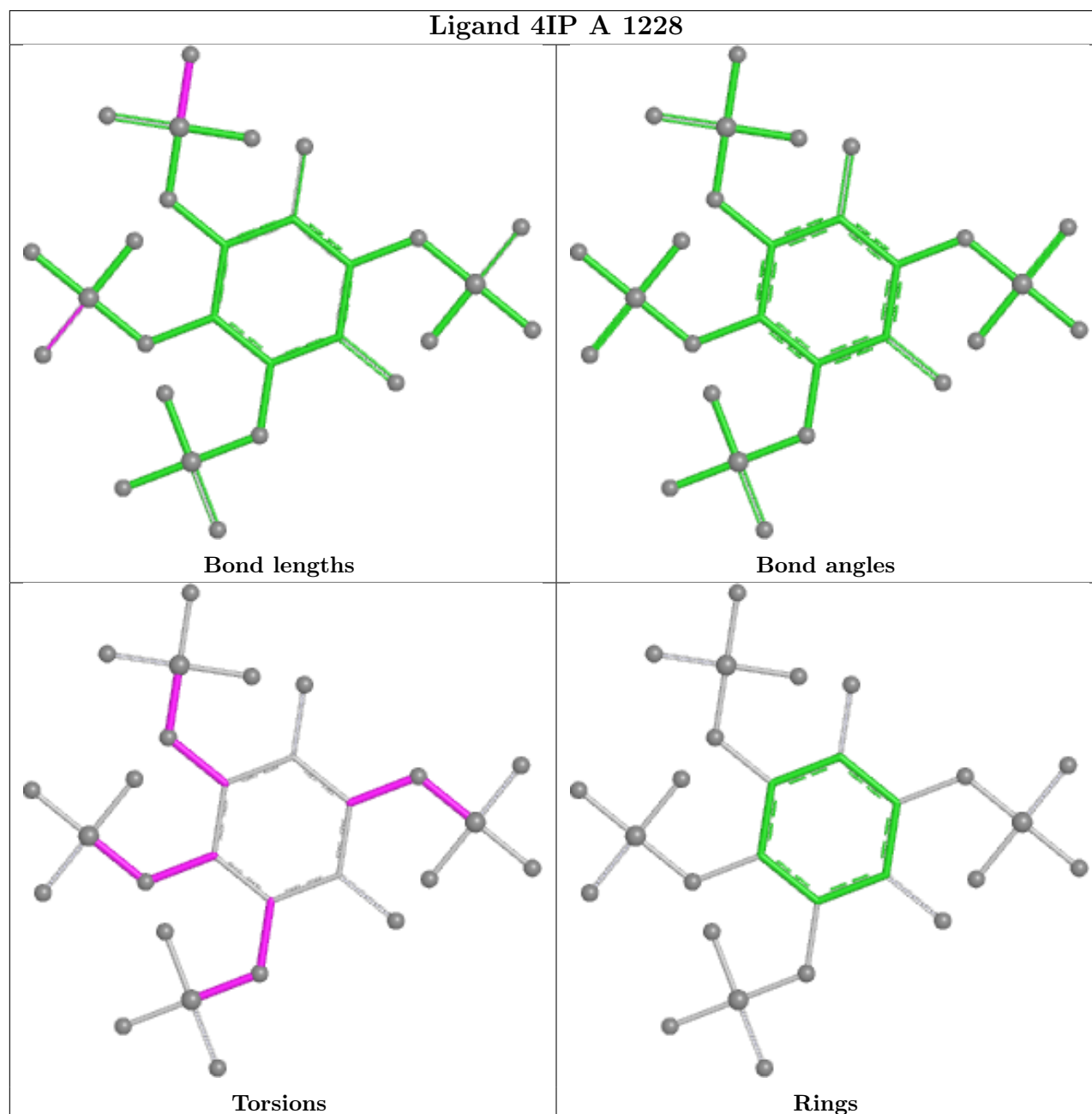
All unique torsion outliers are listed below.

Mol	Chain	Res	Type	Atoms	Models (Total)
2	A	1228	4IP	C2-C3-O3-P3	1

There are no ring outliers.

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will

also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.



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 63% for the well-defined parts and 62% for the entire structure.

7.1 Chemical shift list 1

File name: working_cs.cif

Chemical shift list name: *assigned_chem_shift_list_1*

7.1.1 Bookkeeping

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

Total number of shifts	1175
Number of shifts mapped to atoms	1175
Number of unparsed shifts	0
Number of shifts with mapping errors	0
Number of shifts with mapping warnings	0
Number of shift outliers (ShiftChecker)	1

7.1.2 Chemical shift referencing

The following table shows the suggested chemical shift referencing corrections.

Nucleus	# values	Correction $\pm$ precision, ppm	Suggested action
$^{13}\text{C}_\alpha$	134	-0.44 ± 0.00	None needed (< 0.5 ppm)
$^{13}\text{C}_\beta$	129	-0.11 ± 0.00	None needed (< 0.5 ppm)
$^{13}\text{C}'$	0	—	None (insufficient data)
^{15}N	129	-0.13 ± 0.00	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 63%, i.e. 1010 atoms were assigned a chemical shift out of a possible 1607. 0 out of 15 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

	Total	^1H	^{13}C	^{15}N
Backbone	445/575 (77%)	220/232 (95%)	115/232 (50%)	110/111 (99%)
Sidechain	565/896 (63%)	356/582 (61%)	209/280 (75%)	0/34 (0%)

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	Total	¹H	¹³C	¹⁵N
Aromatic	0/136 (0%)	0/65 (0%)	0/64 (0%)	0/7 (0%)
Overall	1010/1607 (63%)	576/879 (66%)	324/576 (56%)	110/152 (72%)

The following table shows the completeness of the chemical shift assignments for the full structure. The overall completeness is 62%, i.e. 1169 atoms were assigned a chemical shift out of a possible 1879. 0 out of 16 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

	Total	¹H	¹³C	¹⁵N
Backbone	521/688 (76%)	258/279 (92%)	134/276 (49%)	129/133 (97%)
Sidechain	648/1029 (63%)	405/668 (61%)	243/324 (75%)	0/37 (0%)
Aromatic	0/162 (0%)	0/78 (0%)	0/73 (0%)	0/11 (0%)
Overall	1169/1879 (62%)	663/1025 (65%)	377/673 (56%)	129/181 (71%)

7.1.4 Statistically unusual chemical shifts [i](#)

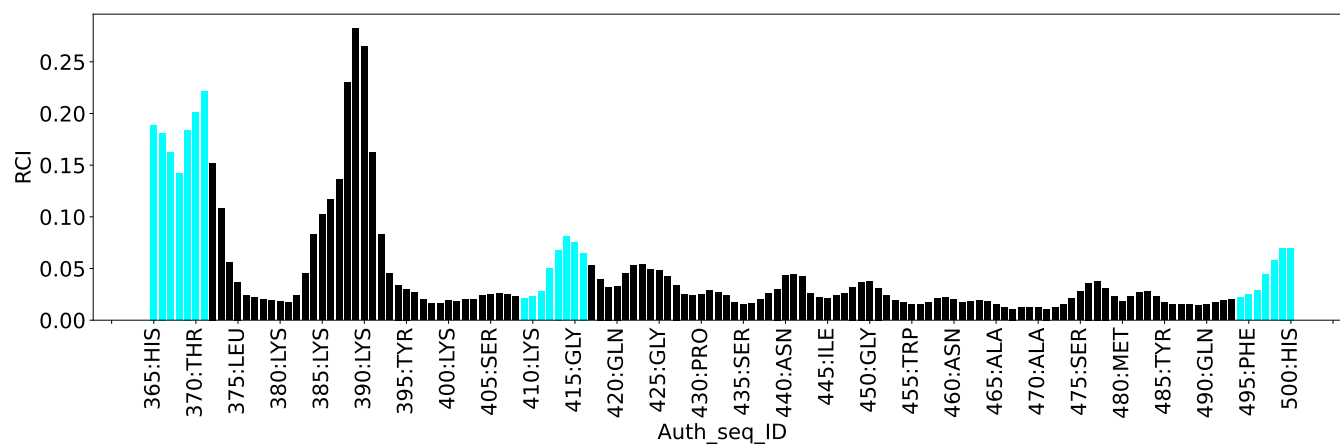
The following table lists the statistically unusual chemical shifts. These are statistical measures, and large deviations from the mean do not necessarily imply incorrect assignments. Molecules containing paramagnetic centres or hemes are expected to give rise to anomalous chemical shifts.

List Id	Chain	Res	Type	Atom	Shift, ppm	Expected range, ppm	Z-score
1	A	499	GLN	CB	283389.00	20.34 – 37.98	160634.8

7.1.5 Random Coil Index (RCI) plots [i](#)

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

Random coil index (RCI) for chain A:



8 NMR restraints analysis

8.1 Conformationally restricting restraints

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

Description	Value
Total distance restraints	1924
Intra-residue ($ i-j =0$)	666
Sequential ($ i-j =1$)	625
Medium range ($ i-j >1$ and $ i-j <5$)	233
Long range ($ i-j \geq 5$)	304
Inter-chain	19
Hydrogen bond restraints	77
Disulfide bond restraints	0
Total dihedral-angle restraints	141
Number of unmapped restraints	0
Number of restraints per residue	14.9
Number of long range restraints per residue ¹	2.2

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

8.2 Residual restraint violations

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

8.2.1 Average number of distance violations per model

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

Bins (Å)	Average number of violations per model	Max (Å)
0.1-0.2 (Small)	46.5	0.2
0.2-0.5 (Medium)	29.9	0.5
>0.5 (Large)	20.4	4.32

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

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

Bins (°)	Average number of violations per model	Max (°)
1.0-10.0 (Small)	15.7	4.99
10.0-20.0 (Medium)	None	None
>20.0 (Large)	None	None

9 Distance violation analysis ⓘ

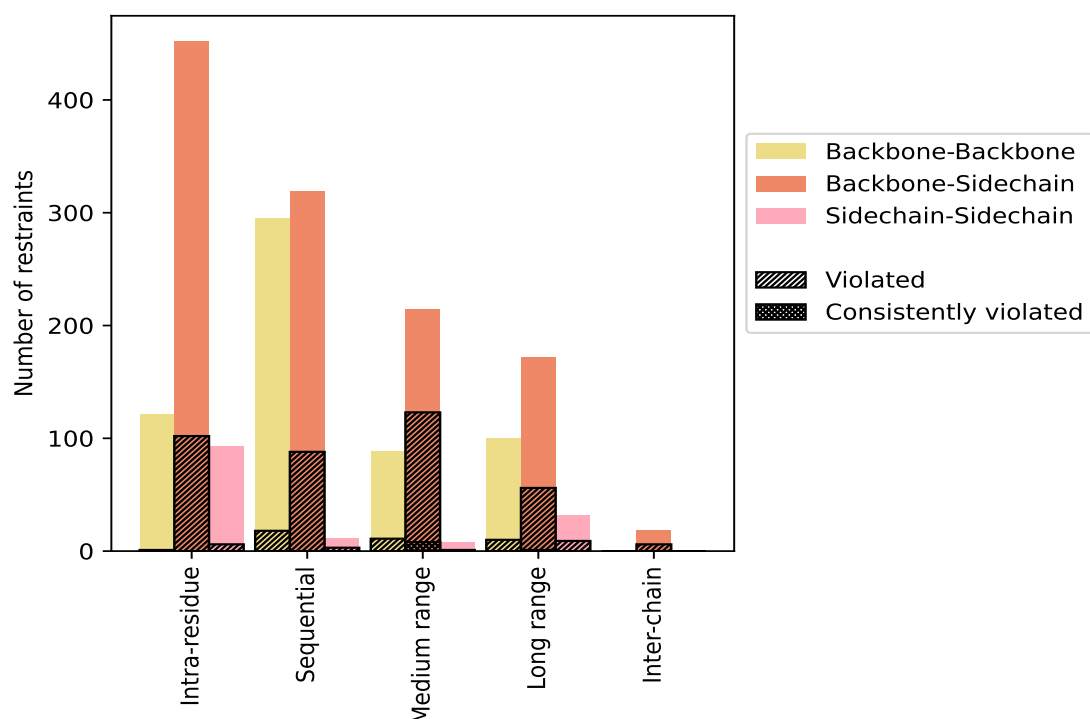
9.1 Summary of distance violations ⓘ

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$)	666	34.6	109	16.4	5.7	0	0.0	0.0
Backbone-Backbone	121	6.3	1	0.8	0.1	0	0.0	0.0
Backbone-Sidechain	452	23.5	102	22.6	5.3	0	0.0	0.0
Sidechain-Sidechain	93	4.8	6	6.5	0.3	0	0.0	0.0
Sequential ($ i-j =1$)	625	32.5	109	17.4	5.7	0	0.0	0.0
Backbone-Backbone	295	15.3	18	6.1	0.9	0	0.0	0.0
Backbone-Sidechain	319	16.6	88	27.6	4.6	0	0.0	0.0
Sidechain-Sidechain	11	0.6	3	27.3	0.2	0	0.0	0.0
Medium range ($ i-j >1$ & $ i-j <5$)	233	12.1	68	29.2	3.5	1	0.4	0.1
Backbone-Backbone	88	4.6	11	12.5	0.6	0	0.0	0.0
Backbone-Sidechain	137	7.1	56	40.9	2.9	1	0.7	0.1
Sidechain-Sidechain	8	0.4	1	12.5	0.1	0	0.0	0.0
Long range ($ i-j \geq 5$)	304	15.8	75	24.7	3.9	1	0.3	0.1
Backbone-Backbone	100	5.2	10	10.0	0.5	0	0.0	0.0
Backbone-Sidechain	172	8.9	56	32.6	2.9	1	0.6	0.1
Sidechain-Sidechain	32	1.7	9	28.1	0.5	0	0.0	0.0
Inter-chain	19	1.0	6	31.6	0.3	0	0.0	0.0
Backbone-Backbone	1	0.1	0	0.0	0.0	0	0.0	0.0
Backbone-Sidechain	18	0.9	6	33.3	0.3	0	0.0	0.0
Sidechain-Sidechain	0	0.0	0	0.0	0.0	0	0.0	0.0
Hydrogen bond	77	4.0	67	87.0	3.5	7	9.1	0.4
Disulfide bond	0	0.0	0	0.0	0.0	0	0.0	0.0
Total	1924	100.0	434	22.6	22.6	9	0.5	0.5
Backbone-Backbone	605	31.4	40	6.6	2.1	0	0.0	0.0
Backbone-Sidechain	1175	61.1	375	31.9	19.5	9	0.8	0.5
Sidechain-Sidechain	144	7.5	19	13.2	1.0	0	0.0	0.0

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

9.1.1 Bar chart : Distribution of distance restraints and violations [i](#)



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 [i](#)

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

Model ID	Number of violations						Mean (Å)	Max (Å)	SD ⁶ (Å)	Median (Å)
	IR ¹	SQ ²	MR ³	LR ⁴	IC ⁵	Total				
1	14	20	50	14	2	100	0.36	2.57	0.43	0.19
2	12	12	41	8	3	76	0.38	2.16	0.4	0.24
3	19	17	47	16	1	100	0.43	4.32	0.62	0.22
4	13	20	49	18	3	103	0.38	2.34	0.42	0.21
5	17	14	53	14	1	99	0.41	3.39	0.57	0.18
6	18	23	46	9	3	99	0.4	2.57	0.47	0.21
7	19	16	48	15	2	100	0.35	2.23	0.41	0.17
8	16	19	53	17	1	106	0.34	2.17	0.37	0.2
9	23	16	55	15	2	111	0.4	2.4	0.42	0.22
10	19	20	54	14	1	108	0.37	2.38	0.39	0.22

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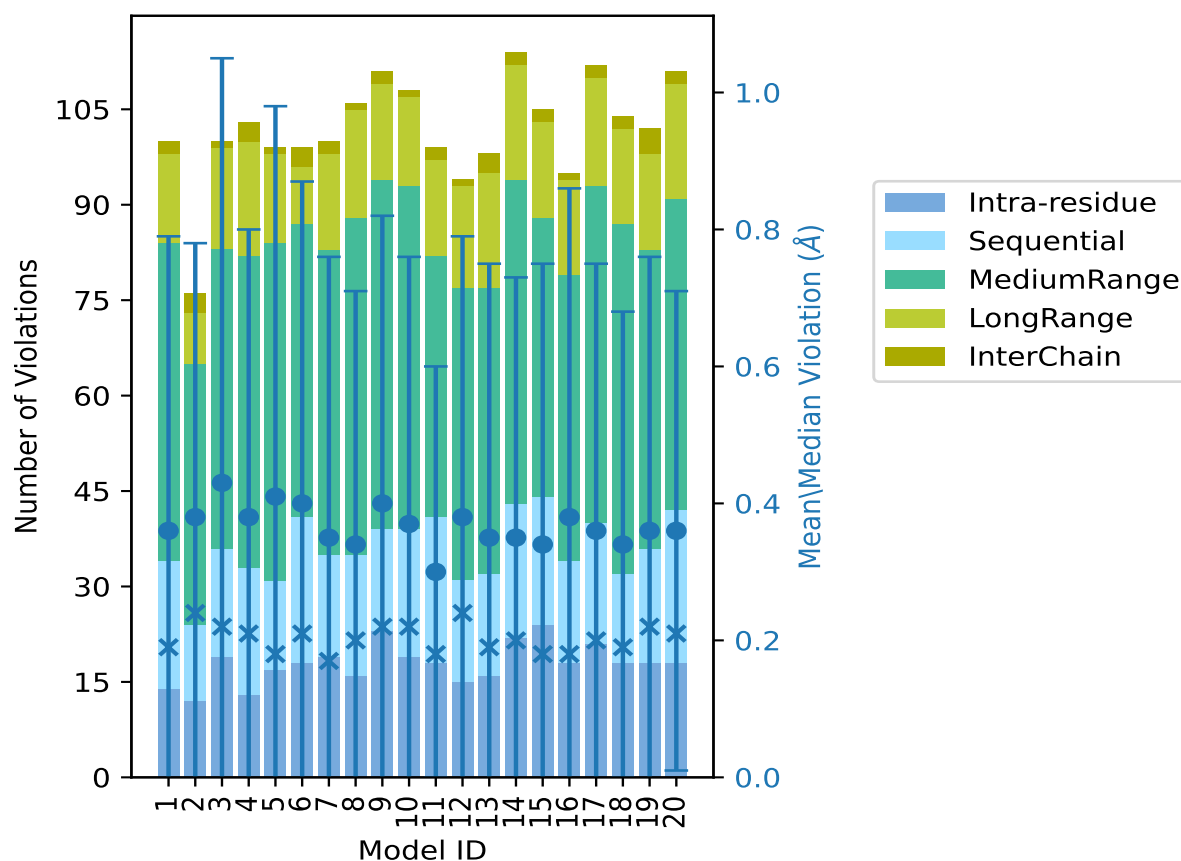
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Model ID	Number of violations						Mean (Å)	Max (Å)	SD ⁶ (Å)	Median (Å)
	IR ¹	SQ ²	MR ³	LR ⁴	IC ⁵	Total				
11	18	23	41	15	2	99	0.3	1.7	0.3	0.18
12	15	16	46	16	1	94	0.38	2.17	0.41	0.24
13	16	16	45	18	3	98	0.35	2.01	0.4	0.19
14	22	21	51	18	2	114	0.35	2.26	0.38	0.2
15	24	20	44	15	2	105	0.34	2.42	0.41	0.18
16	18	16	45	15	1	95	0.38	2.98	0.48	0.18
17	21	19	53	17	2	112	0.36	2.33	0.39	0.2
18	18	14	55	15	2	104	0.34	1.87	0.34	0.19
19	18	18	47	15	4	102	0.36	2.45	0.4	0.22
20	18	24	49	18	2	111	0.36	2.25	0.35	0.21

¹Intra-residue restraints, ²Sequential restraints, ³Medium range restraints, ⁴Long range restraints,

⁵Inter-chain restraints, ⁶Standard deviation

9.2.1 Bar graph : Distance Violation statistics for each model ⓘ



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

9.3 Distance violation statistics for the ensemble

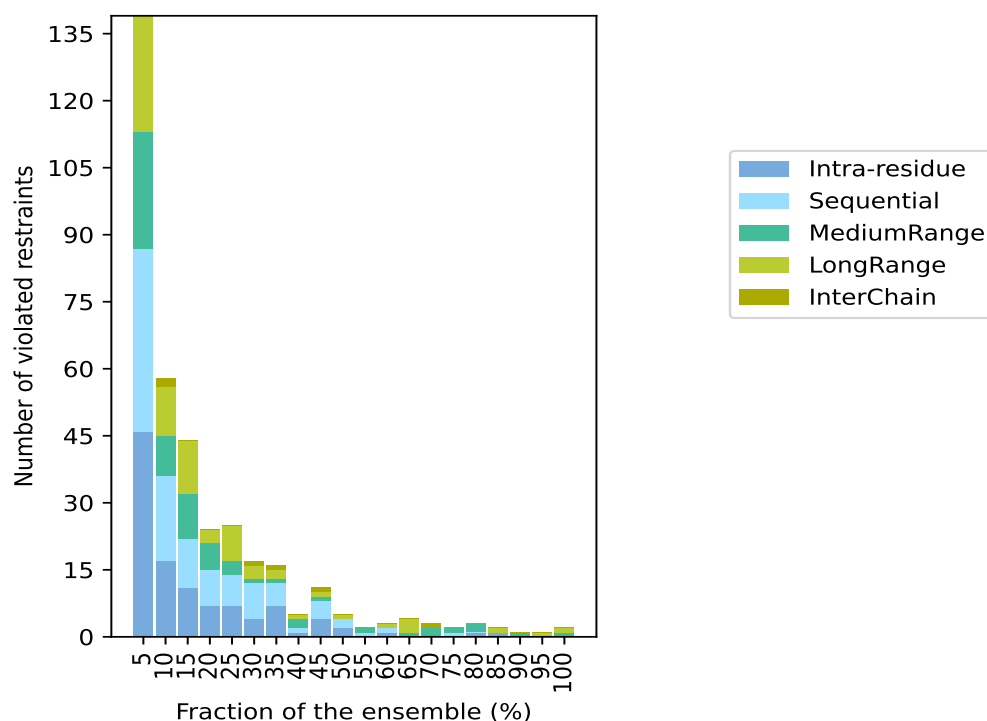
Violation analysis may find that some restraints are violated in few models and some are violated in most of models. The following table provides this information as number of violated restraints for a given fraction of the ensemble. In total, 1480(IR:557, SQ:516, MR:165, LR:229, IC:13) restraints are 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	%
46	41	26	26	0	139	1	5.0
17	19	9	11	2	58	2	10.0
11	11	10	12	0	44	3	15.0
7	8	6	3	0	24	4	20.0
7	7	3	8	0	25	5	25.0
4	8	1	3	1	17	6	30.0
7	5	1	2	1	16	7	35.0
1	1	2	1	0	5	8	40.0
4	4	1	1	1	11	9	45.0
2	2	0	1	0	5	10	50.0
0	1	1	0	0	2	11	55.0
1	1	0	1	0	3	12	60.0
0	0	1	3	0	4	13	65.0
0	0	2	0	1	3	14	70.0
0	1	1	0	0	2	15	75.0
1	0	2	0	0	3	16	80.0
1	0	0	1	0	2	17	85.0
0	0	1	0	0	1	18	90.0
0	0	0	1	0	1	19	95.0
0	0	1	1	0	2	20	100.0

¹Intra-residue restraints, ²Sequential restraints, ³Medium range restraints, ⁴Long range restraints,

⁵Inter-chain restraints, ⁶ Number of models with violations

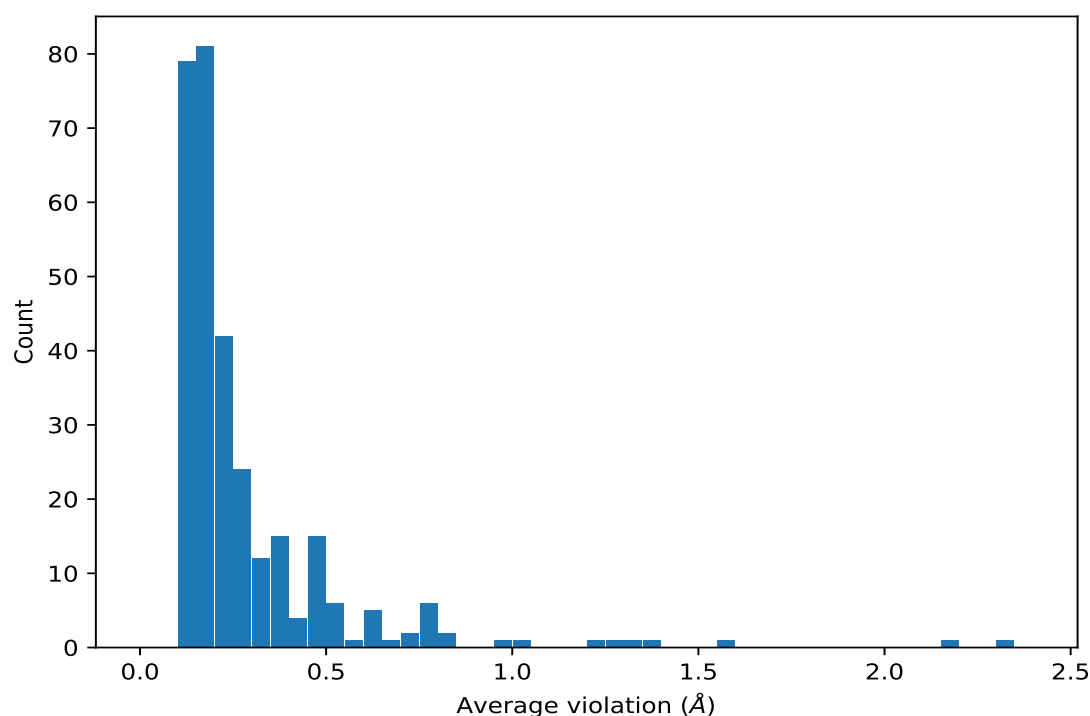
9.3.1 Bar graph : Distance violation statistics for the ensemble [i](#)



9.4 Most violated distance restraints in the ensemble [i](#)

9.4.1 Histogram : Distribution of mean distance violations [i](#)

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



9.4.2 Table: Most violated distance restraints [i](#)

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

Key	Atom-1	Atom-2	Models ¹	Mean (Å)	SD ¹ (Å)	Median (Å)
(4,42)	1:474:A:ALA:O	1:478:A:LYS:H	20	2.31	0.67	2.24
(4,43)	1:475:A:SER:O	1:478:A:LYS:H	20	2.17	0.26	2.17
(4,13)	1:465:A:ALA:O	1:468:A:MET:H	20	1.38	0.44	1.53
(1,214)	1:381:A:VAL:H	1:457:A:ARG:HH12	20	1.34	0.4	1.46
(4,41)	1:474:A:ALA:O	1:478:A:LYS:N	20	1.29	0.62	1.15
(2,139)	1:475:A:SER:O	1:478:A:LYS:N	20	1.2	0.28	1.15
(4,36)	1:472:A:ARG:O	1:476:A:LYS:H	20	0.77	0.13	0.79
(4,64)	1:490:A:GLN:O	1:494:A:SER:H	20	0.62	0.15	0.67
(4,58)	1:488:A:GLU:O	1:492:A:ILE:H	20	0.38	0.19	0.3
(4,15)	1:465:A:ALA:O	1:469:A:ALA:H	19	0.68	0.14	0.73
(1,872)	1:428:A:VAL:HG11	1:472:A:ARG:HA	19	0.46	0.13	0.5
(1,872)	1:428:A:VAL:HG12	1:472:A:ARG:HA	19	0.46	0.13	0.5
(1,872)	1:428:A:VAL:HG13	1:472:A:ARG:HA	19	0.46	0.13	0.5
(1,872)	1:428:A:VAL:HG21	1:472:A:ARG:HA	19	0.46	0.13	0.5
(1,872)	1:428:A:VAL:HG22	1:472:A:ARG:HA	19	0.46	0.13	0.5
(1,872)	1:428:A:VAL:HG23	1:472:A:ARG:HA	19	0.46	0.13	0.5

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Key	Atom-1	Atom-2	Models ¹	Mean (Å)	SD ¹ (Å)	Median (Å)
(4,35)	1:472:A:ARG:O	1:476:A:LYS:N	19	0.39	0.09	0.39
(4,33)	1:471:A:CYS:O	1:475:A:SER:H	18	0.63	0.19	0.73
(4,76)	1:494:A:SER:O	1:498:A:MET:H	18	0.61	0.19	0.71
(2,137)	1:473:A:LEU:O	1:476:A:LYS:N	18	0.37	0.16	0.34
(4,62)	1:490:A:GLN:O	1:493:A:LEU:H	17	1.0	0.38	1.0
(4,39)	1:473:A:LEU:O	1:477:A:GLY:H	17	0.62	0.19	0.61
(4,67)	1:491:A:ASN:O	1:495:A:PHE:H	17	0.51	0.23	0.57
(4,9)	1:463:A:GLN:O	1:467:A:TRP:H	17	0.47	0.19	0.52
(4,14)	1:465:A:ALA:O	1:469:A:ALA:N	17	0.35	0.06	0.35
(4,63)	1:490:A:GLN:O	1:494:A:SER:N	17	0.29	0.12	0.28
(1,1150)	1:454:A:ILE:H	1:444:A:LEU:HD12	17	0.14	0.03	0.13
(1,58)	1:461:A:GLU:HA	1:461:A:GLU:HG2	17	0.11	0.01	0.11
(1,408)	1:378:A:TYR:H	1:378:A:TYR:HE2	16	0.84	0.44	0.78
(2,127)	1:463:A:GLN:O	1:466:A:HIS:N	16	0.24	0.08	0.26
(1,222)	1:491:A:ASN:H	1:489:A:VAL:HG12	16	0.16	0.03	0.16
(4,6)	1:462:A:LYS:O	1:466:A:HIS:H	15	0.51	0.19	0.5
(4,10)	1:464:A:TYR:O	1:467:A:TRP:H	15	0.4	0.39	0.17
(1,1654)	1:498:A:MET:H	1:496:A:LEU:HB3	15	0.17	0.07	0.14
(1,533)	1:393:A:LYS:H	1:392:A:TYR:HB2	15	0.13	0.02	0.13
(1,1689)	1:385:A:LYS:HE3	2:1228:A:4IP:H4	14	0.77	0.58	0.54
(1,1689)	1:386:A:LYS:HE3	2:1228:A:4IP:H4	14	0.77	0.58	0.54
(1,1689)	1:385:A:LYS:HE2	2:1228:A:4IP:H4	14	0.77	0.58	0.54
(1,1689)	1:386:A:LYS:HE2	2:1228:A:4IP:H4	14	0.77	0.58	0.54
(4,55)	1:487:A:LEU:O	1:491:A:ASN:H	14	0.5	0.16	0.52
(4,53)	1:487:A:LEU:O	1:490:A:GLN:H	14	0.36	0.17	0.29
(2,148)	1:492:A:ILE:O	1:495:A:PHE:N	14	0.34	0.15	0.34
(2,131)	1:467:A:TRP:O	1:470:A:ALA:N	14	0.31	0.13	0.32
(4,16)	1:466:A:HIS:O	1:469:A:ALA:H	13	0.49	0.22	0.48
(4,46)	1:484:A:SER:O	1:488:A:GLU:H	13	0.39	0.22	0.31
(4,61)	1:489:A:VAL:O	1:493:A:LEU:H	13	0.34	0.2	0.28
(2,129)	1:465:A:ALA:O	1:468:A:MET:N	13	0.28	0.13	0.23
(1,211)	1:385:A:LYS:H	1:453:A:GLU:HG2	13	0.24	0.11	0.19
(1,858)	1:427:A:GLU:H	1:444:A:LEU:HD12	13	0.17	0.05	0.16
(1,114)	1:404:A:ILE:HD12	1:399:A:PHE:HB3	13	0.16	0.05	0.15
(1,999)	1:441:A:ILE:H	1:441:A:ILE:HD12	12	0.26	0.09	0.23
(1,1184)	1:456:A:LEU:H	1:379:A:ILE:HG12	12	0.18	0.04	0.18
(1,1269)	1:463:A:GLN:H	1:462:A:LYS:HD2	12	0.13	0.02	0.13
(4,73)	1:493:A:LEU:O	1:497:A:LYS:H	11	0.51	0.18	0.5
(4,70)	1:492:A:ILE:O	1:496:A:LEU:H	11	0.47	0.2	0.54
(2,136)	1:472:A:ARG:O	1:475:A:SER:N	11	0.33	0.12	0.33
(1,566)	1:396:A:TRP:H	1:395:A:TYR:HB2	11	0.26	0.11	0.23
(4,75)	1:494:A:SER:O	1:498:A:MET:N	11	0.23	0.07	0.25

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Key	Atom-1	Atom-2	Models ¹	Mean (Å)	SD ¹ (Å)	Median (Å)
(4,24)	1:468:A:MET:O	1:472:A:ARG:H	10	0.47	0.18	0.48
(4,49)	1:485:A:TYR:O	1:489:A:VAL:H	10	0.43	0.17	0.48
(4,18)	1:466:A:HIS:O	1:470:A:ALA:H	10	0.33	0.18	0.38
(4,50)	1:486:A:ASN:O	1:489:A:VAL:H	10	0.24	0.08	0.23
(4,32)	1:471:A:CYS:O	1:475:A:SER:N	10	0.22	0.05	0.22
(1,1032)	1:444:A:LEU:H	1:443:A:LEU:HD22	10	0.17	0.04	0.16
(1,474)	1:385:A:LYS:H	1:385:A:LYS:HB3	10	0.16	0.04	0.16
(1,77)	1:417:A:PRO:HB2	1:406:A:CYS:HB3	10	0.15	0.03	0.14
(1,394)	1:377:A:ASP:H	1:376:A:ALA:H	10	0.12	0.01	0.12
(1,275)	1:437:A:GLN:HE22	1:437:A:GLN:HE21	10	0.1	0.0	0.1
(4,22)	1:468:A:MET:O	1:471:A:CYS:H	9	0.59	0.26	0.71
(1,1638)	1:496:A:LEU:H	1:495:A:PHE:HD1	9	0.53	0.52	0.18
(2,141)	1:485:A:TYR:O	1:488:A:GLU:N	9	0.36	0.13	0.32
(1,3)	1:389:A:LEU:HB2	1:389:A:LEU:HA	9	0.29	0.1	0.37
(4,8)	1:463:A:GLN:O	1:467:A:TRP:N	9	0.26	0.06	0.27
(1,46)	1:379:A:ILE:HD12	1:379:A:ILE:HB	9	0.26	0.08	0.25
(1,1690)	1:390:A:LYS:HE2	2:1228:A:4IP:H2	9	0.26	0.08	0.26
(1,1690)	1:390:A:LYS:HE3	2:1228:A:4IP:H2	9	0.26	0.08	0.26
(4,1)	1:461:A:GLU:O	1:464:A:TYR:H	9	0.26	0.23	0.15
(1,139)	1:482:A:ASP:HB2	1:481:A:ALA:HA	9	0.18	0.02	0.19
(1,1222)	1:459:A:ASP:H	1:439:A:PHE:HZ	9	0.15	0.03	0.15
(1,1566)	1:490:A:GLN:H	1:489:A:VAL:HG12	9	0.15	0.04	0.14
(1,787)	1:421:A:MET:H	1:421:A:MET:HB2	9	0.14	0.02	0.14
(1,1220)	1:459:A:ASP:H	1:459:A:ASP:HB2	9	0.14	0.02	0.13
(1,651)	1:405:A:SER:H	1:404:A:ILE:HG13	9	0.13	0.02	0.12
(4,71)	1:493:A:LEU:O	1:496:A:LEU:H	8	0.44	0.19	0.5
(4,66)	1:491:A:ASN:O	1:495:A:PHE:N	8	0.3	0.09	0.3
(4,31)	1:471:A:CYS:O	1:474:A:ALA:H	8	0.26	0.12	0.28
(4,72)	1:493:A:LEU:O	1:497:A:LYS:N	8	0.26	0.13	0.24
(4,52)	1:486:A:ASN:O	1:490:A:GLN:H	8	0.26	0.11	0.21
(4,38)	1:473:A:LEU:O	1:477:A:GLY:N	8	0.24	0.09	0.24
(2,133)	1:469:A:ALA:O	1:472:A:ARG:N	8	0.23	0.09	0.24
(2,140)	1:484:A:SER:O	1:487:A:LEU:N	8	0.22	0.06	0.2
(4,3)	1:461:A:GLU:O	1:465:A:ALA:H	8	0.19	0.04	0.18
(1,1616)	1:493:A:LEU:H	1:493:A:LEU:HD12	8	0.14	0.04	0.12
(1,582)	1:397:A:CYS:H	1:379:A:ILE:HG22	8	0.14	0.02	0.14
(1,543)	1:394:A:GLN:H	1:393:A:LYS:HB2	8	0.13	0.02	0.12
(1,1683)	1:408:A:LYS:HE2	2:1228:A:4IP:H4	7	0.74	0.5	0.68
(1,1683)	1:408:A:LYS:HE3	2:1228:A:4IP:H4	7	0.74	0.5	0.68
(1,1237)	1:460:A:ASN:H	1:464:A:TYR:HE1	7	0.51	0.79	0.12
(4,4)	1:462:A:LYS:O	1:465:A:ALA:H	7	0.33	0.24	0.19
(1,473)	1:385:A:LYS:H	1:385:A:LYS:HB2	7	0.31	0.07	0.33

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Key	Atom-1	Atom-2	Models ¹	Mean (Å)	SD ¹ (Å)	Median (Å)
(4,69)	1:492:A:ILE:O	1:496:A:LEU:N	7	0.29	0.07	0.28
(4,27)	1:469:A:ALA:O	1:473:A:LEU:H	7	0.27	0.13	0.23
(1,505)	1:389:A:LEU:H	1:389:A:LEU:HD12	7	0.25	0.08	0.24
(4,57)	1:488:A:GLU:O	1:492:A:ILE:N	7	0.25	0.11	0.21
(4,5)	1:462:A:LYS:O	1:466:A:HIS:N	7	0.24	0.12	0.22
(4,23)	1:468:A:MET:O	1:472:A:ARG:N	7	0.22	0.07	0.26
(4,48)	1:485:A:TYR:O	1:489:A:VAL:N	7	0.22	0.11	0.17
(1,965)	1:438:A:LYS:H	1:438:A:LYS:HD2	7	0.21	0.07	0.21
(1,465)	1:383:A:LYS:H	1:383:A:LYS:HB3	7	0.19	0.05	0.21
(1,11)	1:379:A:ILE:HD12	1:379:A:ILE:HG12	7	0.18	0.04	0.18
(1,444)	1:381:A:VAL:H	1:393:A:LYS:HB2	7	0.17	0.07	0.13
(1,226)	1:482:A:ASP:H	1:476:A:LYS:HD2	7	0.17	0.03	0.15
(1,492)	1:387:A:LEU:H	1:386:A:LYS:HG2	7	0.17	0.02	0.15
(1,1003)	1:442:A:LYS:H	1:441:A:ILE:HB	7	0.16	0.03	0.16
(1,409)	1:378:A:TYR:H	1:379:A:ILE:HD12	7	0.16	0.03	0.14
(1,605)	1:399:A:PHE:H	1:400:A:LYS:HZ2	7	0.15	0.02	0.16
(1,620)	1:401:A:ASP:H	1:400:A:LYS:HG2	7	0.15	0.02	0.14
(1,1651)	1:497:A:LYS:H	1:497:A:LYS:HD2	7	0.14	0.02	0.15
(1,119)	1:496:A:LEU:HD22	1:496:A:LEU:HA	7	0.14	0.02	0.14
(1,247)	1:433:A:ASN:H	1:439:A:PHE:HD1	6	0.83	0.3	0.92
(1,1502)	1:485:A:TYR:H	1:485:A:TYR:HD1	6	0.49	0.26	0.51
(4,28)	1:470:A:ALA:O	1:473:A:LEU:H	6	0.46	0.25	0.46
(2,151)	1:495:A:PHE:O	1:498:A:MET:N	6	0.38	0.17	0.36
(1,1685)	1:408:A:LYS:HD2	2:1228:A:4IP:H4	6	0.38	0.18	0.35
(1,1685)	1:408:A:LYS:HD3	2:1228:A:4IP:H4	6	0.38	0.18	0.35
(4,12)	1:464:A:TYR:O	1:468:A:MET:H	6	0.37	0.24	0.36
(1,952)	1:437:A:GLN:H	1:437:A:GLN:HG2	6	0.22	0.04	0.23
(1,1099)	1:451:A:MET:H	1:444:A:LEU:HD12	6	0.2	0.06	0.2
(1,477)	1:385:A:LYS:H	1:385:A:LYS:HG2	6	0.2	0.07	0.2
(1,1657)	1:498:A:MET:H	1:497:A:LYS:HB3	6	0.2	0.05	0.18
(1,377)	1:375:A:LEU:H	1:374:A:GLU:HG3	6	0.19	0.09	0.15
(2,81)	1:443:A:LEU:H	1:455:A:TRP:HE3	6	0.19	0.03	0.2
(1,1645)	1:496:A:LEU:H	1:496:A:LEU:HG	6	0.18	0.03	0.18
(1,479)	1:385:A:LYS:H	1:386:A:LYS:HE2	6	0.18	0.05	0.16
(1,973)	1:439:A:PHE:H	1:438:A:LYS:HG2	6	0.18	0.04	0.2
(1,546)	1:394:A:GLN:H	1:393:A:LYS:HG2	6	0.16	0.04	0.14
(1,422)	1:380:A:LYS:H	1:379:A:ILE:HG12	6	0.15	0.05	0.14
(1,903)	1:432:A:VAL:H	1:431:A:ASP:HB3	6	0.15	0.02	0.16
(1,826)	1:424:A:ARG:H	1:425:A:GLY:H	6	0.13	0.02	0.12
(1,527)	1:392:A:TYR:H	1:392:A:TYR:HE1	5	0.76	0.25	0.65
(4,65)	1:491:A:ASN:O	1:494:A:SER:H	5	0.6	0.35	0.61
(4,25)	1:469:A:ALA:O	1:472:A:ARG:H	5	0.48	0.3	0.34

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Key	Atom-1	Atom-2	Models ¹	Mean (Å)	SD ¹ (Å)	Median (Å)
(1,246)	1:436:A:GLY:H	1:437:A:GLN:HG2	5	0.31	0.07	0.31
(1,970)	1:438:A:LYS:H	1:439:A:PHE:HD1	5	0.28	0.14	0.2
(1,1478)	1:480:A:MET:H	1:480:A:MET:HG2	5	0.26	0.08	0.3
(4,60)	1:489:A:VAL:O	1:493:A:LEU:N	5	0.26	0.13	0.18
(1,99)	1:438:A:LYS:HB2	1:434:A:ILE:HA	5	0.22	0.1	0.22
(1,263)	1:390:A:LYS:H	1:389:A:LEU:HG	5	0.21	0.04	0.22
(1,171)	1:383:A:LYS:HA	1:391:A:GLY:HA2	5	0.2	0.08	0.16
(1,959)	1:438:A:LYS:H	1:434:A:ILE:HD12	5	0.2	0.08	0.18
(1,489)	1:386:A:LYS:H	1:386:A:LYS:HG3	5	0.17	0.05	0.16
(1,476)	1:385:A:LYS:H	1:385:A:LYS:HE2	5	0.17	0.05	0.16
(1,225)	1:421:A:MET:H	1:404:A:ILE:HG22	5	0.17	0.06	0.16
(1,481)	1:386:A:LYS:H	1:384:A:PRO:HD2	5	0.17	0.07	0.13
(1,507)	1:389:A:LEU:H	1:389:A:LEU:HG	5	0.17	0.06	0.14
(1,1197)	1:457:A:ARG:H	1:379:A:ILE:HG12	5	0.17	0.04	0.17
(2,89)	1:458:A:CYS:H	1:380:A:LYS:HG2	5	0.16	0.07	0.15
(1,170)	1:408:A:LYS:HD2	1:407:A:TYR:HA	5	0.16	0.05	0.14
(1,1163)	1:454:A:ILE:H	1:455:A:TRP:HE3	5	0.16	0.03	0.17
(1,1472)	1:482:A:ASP:H	1:375:A:LEU:HB2	5	0.15	0.04	0.18
(1,1487)	1:482:A:ASP:H	1:481:A:ALA:HB2	5	0.15	0.04	0.14
(1,504)	1:389:A:LEU:H	1:389:A:LEU:HB2	5	0.15	0.06	0.13
(1,493)	1:387:A:LEU:H	1:386:A:LYS:HG3	5	0.15	0.04	0.13
(1,1563)	1:490:A:GLN:H	1:469:A:ALA:HB2	5	0.14	0.02	0.16
(1,349)	1:369:A:ILE:H	1:369:A:ILE:HD12	5	0.14	0.01	0.15
(1,895)	1:431:A:ASP:H	1:440:A:ASN:HB2	5	0.14	0.01	0.13
(1,323)	1:457:A:ARG:H	1:381:A:VAL:HG12	5	0.12	0.01	0.11
(1,194)	1:391:A:GLY:H	1:392:A:TYR:HD1	4	1.56	0.44	1.64
(4,74)	1:494:A:SER:O	1:497:A:LYS:H	4	0.49	0.28	0.46
(4,47)	1:485:A:TYR:O	1:488:A:GLU:H	4	0.42	0.21	0.3
(2,138)	1:474:A:ALA:O	1:477:A:GLY:N	4	0.38	0.18	0.4
(2,134)	1:470:A:ALA:O	1:473:A:LEU:N	4	0.36	0.15	0.3
(1,522)	1:390:A:LYS:H	1:391:A:GLY:H	4	0.28	0.09	0.28
(1,1610)	1:492:A:ILE:H	1:492:A:ILE:HD12	4	0.24	0.07	0.28
(2,44)	1:388:A:THR:H	1:389:A:LEU:HG	4	0.22	0.07	0.22
(1,669)	1:407:A:TYR:H	1:407:A:TYR:HB2	4	0.21	0.02	0.21
(2,145)	1:489:A:VAL:O	1:492:A:ILE:N	4	0.2	0.09	0.2
(1,366)	1:372:A:ILE:H	1:372:A:ILE:HG13	4	0.2	0.08	0.17
(1,957)	1:438:A:LYS:H	1:433:A:ASN:HB2	4	0.18	0.04	0.18
(4,17)	1:466:A:HIS:O	1:470:A:ALA:N	4	0.17	0.05	0.15
(1,849)	1:427:A:GLU:H	1:426:A:CYS:HB3	4	0.16	0.03	0.16
(1,513)	1:390:A:LYS:H	1:390:A:LYS:HG3	4	0.16	0.04	0.15
(1,1188)	1:456:A:LEU:H	1:455:A:TRP:HE3	4	0.16	0.05	0.14
(1,1179)	1:455:A:TRP:HE1	1:453:A:GLU:HG2	4	0.14	0.02	0.15

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Key	Atom-1	Atom-2	Models ¹	Mean (Å)	SD ¹ (Å)	Median (Å)
(1,1247)	1:461:A:GLU:H	1:460:A:ASN:HB2	4	0.14	0.03	0.14
(1,1582)	1:491:A:ASN:H	1:489:A:VAL:HG22	4	0.14	0.01	0.14
(2,12)	1:445:A:ILE:HD12	1:452:A:ASN:HB3	4	0.14	0.02	0.15
(2,25)	1:491:A:ASN:H	1:492:A:ILE:HB	4	0.14	0.04	0.14
(1,1289)	1:465:A:ALA:H	1:461:A:GLU:HA	4	0.14	0.03	0.14
(1,1008)	1:442:A:LYS:H	1:442:A:LYS:HD3	4	0.14	0.02	0.14
(1,482)	1:385:A:LYS:H	1:386:A:LYS:H	4	0.13	0.03	0.12
(1,1261)	1:462:A:LYS:H	1:462:A:LYS:HB2	4	0.12	0.01	0.12
(1,1177)	1:455:A:TRP:HE1	1:442:A:LYS:HE2	4	0.12	0.02	0.12
(1,1580)	1:490:A:GLN:HE22	1:490:A:GLN:HG2	4	0.11	0.01	0.12
(4,45)	1:484:A:SER:O	1:488:A:GLU:N	3	0.48	0.03	0.49
(2,147)	1:491:A:ASN:O	1:494:A:SER:N	3	0.37	0.01	0.37
(2,142)	1:486:A:ASN:O	1:489:A:VAL:N	3	0.35	0.05	0.33
(1,357)	1:371:A:SER:H	1:370:A:THR:HA	3	0.27	0.05	0.3
(1,1193)	1:456:A:LEU:H	1:456:A:LEU:HD22	3	0.24	0.09	0.18
(1,598)	1:399:A:PHE:H	1:375:A:LEU:HD22	3	0.22	0.05	0.25
(1,1463)	1:479:A:THR:H	1:478:A:LYS:HB2	3	0.22	0.06	0.23
(2,144)	1:488:A:GLU:O	1:491:A:ASN:N	3	0.22	0.14	0.12
(1,478)	1:385:A:LYS:H	1:385:A:LYS:HG3	3	0.2	0.07	0.19
(1,374)	1:374:A:GLU:H	1:374:A:GLU:HG2	3	0.19	0.06	0.18
(1,1182)	1:455:A:TRP:HE1	1:455:A:TRP:HA	3	0.18	0.06	0.22
(1,496)	1:387:A:LEU:H	1:387:A:LEU:HB3	3	0.18	0.04	0.19
(1,1437)	1:476:A:LYS:H	1:476:A:LYS:HE2	3	0.17	0.02	0.16
(1,509)	1:390:A:LYS:H	1:389:A:LEU:HB2	3	0.17	0.06	0.15
(1,456)	1:382:A:PHE:H	1:455:A:TRP:HB2	3	0.16	0.07	0.12
(1,245)	1:441:A:ILE:H	1:456:A:LEU:HD12	3	0.16	0.04	0.18
(2,26)	1:388:A:THR:H	1:385:A:LYS:HD2	3	0.16	0.02	0.17
(1,642)	1:404:A:ILE:H	1:404:A:ILE:HD12	3	0.16	0.04	0.14
(1,663)	1:407:A:TYR:H	1:396:A:TRP:HB2	3	0.15	0.03	0.17
(1,322)	1:454:A:ILE:H	1:443:A:LEU:HB2	3	0.15	0.02	0.15
(1,429)	1:380:A:LYS:H	1:381:A:VAL:HG12	3	0.15	0.03	0.14
(1,747)	1:415:A:GLY:H	1:416:A:THR:HB	3	0.15	0.03	0.15
(1,1603)	1:492:A:ILE:H	1:465:A:ALA:HB2	3	0.15	0.05	0.11
(1,545)	1:394:A:GLN:H	1:393:A:LYS:HD2	3	0.15	0.03	0.15
(1,468)	1:383:A:LYS:H	1:383:A:LYS:HG2	3	0.14	0.02	0.13
(1,515)	1:391:A:GLY:H	1:389:A:LEU:HD12	3	0.14	0.02	0.13
(1,517)	1:391:A:GLY:H	1:390:A:LYS:HB2	3	0.14	0.03	0.13
(1,1644)	1:496:A:LEU:H	1:496:A:LEU:HD22	3	0.14	0.03	0.13
(1,1471)	1:481:A:ALA:H	1:375:A:LEU:HB2	3	0.14	0.04	0.12
(1,118)	1:383:A:LYS:HB2	1:383:A:LYS:HE2	3	0.14	0.05	0.1
(1,281)	1:491:A:ASN:H	1:489:A:VAL:HB	3	0.13	0.01	0.14
(1,124)	1:405:A:SER:HB3	1:420:A:GLN:HA	3	0.13	0.02	0.11

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Key	Atom-1	Atom-2	Models ¹	Mean (Å)	SD ¹ (Å)	Median (Å)
(1,729)	1:413:A:SER:H	1:412:A:GLU:HA	3	0.13	0.01	0.12
(1,865)	1:428:A:VAL:H	1:427:A:GLU:HG2	3	0.13	0.02	0.12
(1,183)	1:438:A:LYS:HE3	1:434:A:ILE:HA	3	0.12	0.03	0.11
(1,102)	1:375:A:LEU:HD12	1:473:A:LEU:HG	3	0.12	0.02	0.11
(1,683)	1:409:A:SER:H	1:396:A:TRP:H	3	0.12	0.02	0.11
(2,7)	1:401:A:ASP:HB2	1:372:A:ILE:HG13	3	0.12	0.01	0.13
(1,1581)	1:491:A:ASN:H	1:488:A:GLU:HA	3	0.12	0.01	0.12
(1,107)	1:486:A:ASN:HB2	1:487:A:LEU:HB2	3	0.11	0.01	0.12
(1,277)	1:496:A:LEU:H	1:493:A:LEU:HD22	3	0.11	0.01	0.11
(1,1531)	1:487:A:LEU:H	1:489:A:VAL:HG12	3	0.11	0.0	0.11
(1,867)	1:428:A:VAL:H	1:427:A:GLU:H	3	0.11	0.01	0.11
(1,109)	1:417:A:PRO:HB3	1:406:A:CYS:HA	3	0.1	0.0	0.1
(1,906)	1:432:A:VAL:H	1:432:A:VAL:HG12	3	0.1	0.0	0.1
(2,103)	1:463:A:GLN:H	1:464:A:TYR:HD1	2	0.96	0.54	0.96
(4,40)	1:474:A:ALA:O	1:477:A:GLY:H	2	0.3	0.16	0.3
(1,1680)	1:383:A:LYS:HD2	2:1228:A:4IP:H4	2	0.3	0.08	0.3
(1,1680)	1:383:A:LYS:HD3	2:1228:A:4IP:H4	2	0.3	0.08	0.3
(1,1602)	1:491:A:ASN:H	1:491:A:ASN:HD22	2	0.28	0.04	0.28
(1,488)	1:386:A:LYS:H	1:386:A:LYS:HG2	2	0.26	0.02	0.26
(1,144)	1:411:A:GLU:HA	1:410:A:LYS:HG2	2	0.24	0.04	0.24
(1,331)	1:471:A:CYS:H	1:474:A:ALA:HB2	2	0.22	0.08	0.22
(1,1560)	1:489:A:VAL:H	1:489:A:VAL:HG22	2	0.22	0.04	0.22
(1,427)	1:380:A:LYS:H	1:380:A:LYS:HE2	2	0.21	0.01	0.21
(1,1661)	1:498:A:MET:H	1:498:A:MET:HB2	2	0.21	0.06	0.21
(1,905)	1:432:A:VAL:H	1:432:A:VAL:HB	2	0.2	0.02	0.2
(1,1208)	1:457:A:ARG:H	1:457:A:ARG:HD2	2	0.2	0.02	0.2
(1,510)	1:390:A:LYS:H	1:389:A:LEU:HD12	2	0.2	0.02	0.2
(1,1233)	1:460:A:ASN:H	1:460:A:ASN:HD22	2	0.2	0.0	0.2
(4,11)	1:464:A:TYR:O	1:468:A:MET:N	2	0.2	0.09	0.2
(1,346)	1:369:A:ILE:H	1:368:A:ASP:HA	2	0.2	0.06	0.2
(1,1678)	1:389:A:LEU:H	2:1228:A:4IP:H6	2	0.2	0.06	0.2
(1,687)	1:409:A:SER:H	1:408:A:LYS:HE3	2	0.19	0.07	0.19
(2,132)	1:468:A:MET:O	1:471:A:CYS:N	2	0.18	0.05	0.18
(4,51)	1:486:A:ASN:O	1:490:A:GLN:N	2	0.18	0.04	0.18
(1,475)	1:385:A:LYS:H	1:385:A:LYS:HD2	2	0.18	0.03	0.18
(2,149)	1:493:A:LEU:O	1:496:A:LEU:N	2	0.18	0.03	0.18
(1,1655)	1:498:A:MET:H	1:496:A:LEU:HD12	2	0.17	0.03	0.17
(1,731)	1:413:A:SER:H	1:412:A:GLU:HB3	2	0.17	0.05	0.17
(1,1444)	1:477:A:GLY:H	1:426:A:CYS:H	2	0.17	0.02	0.17
(1,883)	1:429:A:THR:H	1:442:A:LYS:HD2	2	0.16	0.02	0.16
(4,26)	1:469:A:ALA:O	1:473:A:LEU:N	2	0.16	0.02	0.16
(1,1420)	1:475:A:SER:H	1:474:A:ALA:HB2	2	0.16	0.02	0.16

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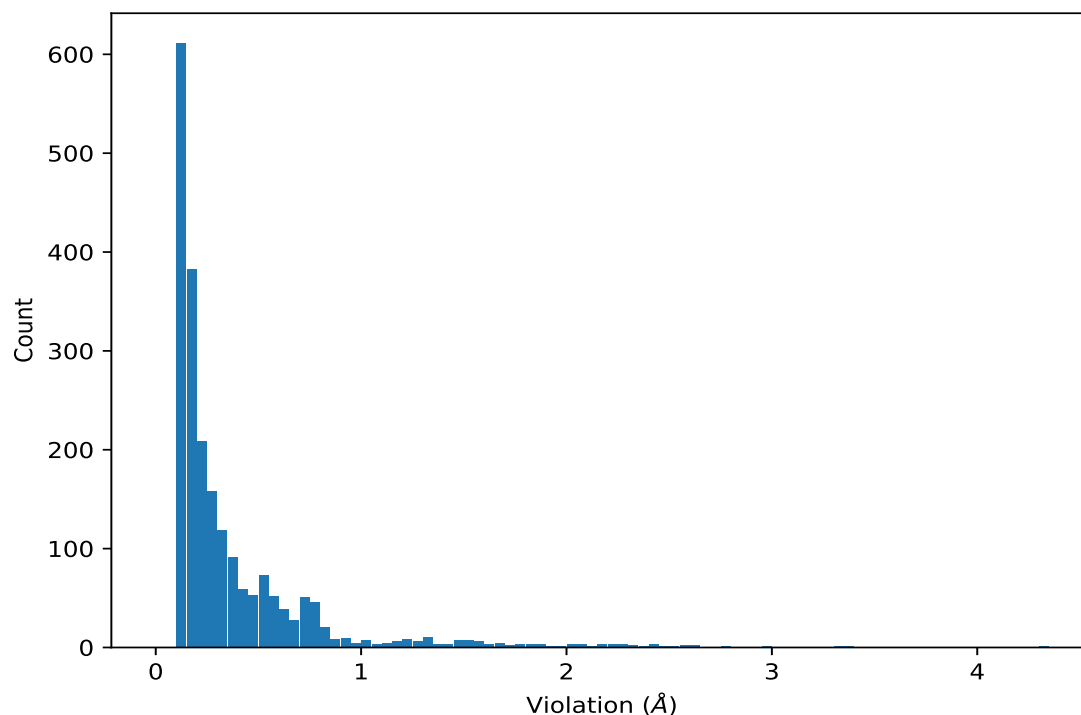
Key	Atom-1	Atom-2	Models ¹	Mean (Å)	SD ¹ (Å)	Median (Å)
(1,1573)	1:490:A:GLN:H	1:491:A:ASN:HB2	2	0.16	0.04	0.16
(1,416)	1:379:A:ILE:H	1:379:A:ILE:HG12	2	0.16	0.05	0.16
(1,555)	1:395:A:TYR:H	1:379:A:ILE:HG12	2	0.16	0.01	0.16
(2,120)	1:496:A:LEU:H	1:497:A:LYS:HB3	2	0.16	0.01	0.16
(1,259)	1:479:A:THR:H	1:478:A:LYS:HE2	2	0.15	0.02	0.15
(1,276)	1:370:A:THR:H	1:371:A:SER:HA	2	0.15	0.03	0.15
(1,828)	1:425:A:GLY:H	1:424:A:ARG:HB2	2	0.15	0.0	0.15
(1,208)	1:395:A:TYR:H	1:393:A:LYS:HD2	2	0.15	0.03	0.15
(4,30)	1:470:A:ALA:O	1:474:A:ALA:H	2	0.14	0.03	0.14
(1,16)	1:379:A:ILE:HD12	1:379:A:ILE:HG22	2	0.14	0.03	0.14
(1,130)	1:401:A:ASP:HB2	1:400:A:LYS:HB2	2	0.14	0.04	0.14
(1,364)	1:372:A:ILE:H	1:372:A:ILE:HD12	2	0.14	0.03	0.14
(1,464)	1:383:A:LYS:H	1:383:A:LYS:HB2	2	0.14	0.0	0.14
(1,1029)	1:444:A:LEU:H	1:428:A:VAL:HA	2	0.14	0.0	0.14
(2,67)	1:421:A:MET:H	1:406:A:CYS:HB3	2	0.14	0.02	0.14
(1,978)	1:439:A:PHE:H	1:439:A:PHE:HD1	2	0.14	0.01	0.14
(1,1479)	1:480:A:MET:H	1:480:A:MET:HG3	2	0.14	0.02	0.14
(1,162)	1:414:A:SER:HA	1:412:A:GLU:HB3	2	0.13	0.01	0.13
(1,1409)	1:474:A:ALA:H	1:473:A:LEU:HG	2	0.13	0.02	0.13
(1,974)	1:439:A:PHE:H	1:438:A:LYS:HG3	2	0.12	0.01	0.12
(1,1351)	1:468:A:MET:H	1:441:A:ILE:HB	2	0.12	0.01	0.12
(1,1643)	1:496:A:LEU:H	1:496:A:LEU:HD12	2	0.12	0.02	0.12
(1,279)	1:496:A:LEU:H	1:492:A:ILE:HA	2	0.12	0.01	0.12
(1,880)	1:429:A:THR:H	1:429:A:THR:HG21	2	0.12	0.0	0.12
(1,1404)	1:474:A:ALA:H	1:470:A:ALA:HB2	2	0.12	0.01	0.12
(1,165)	1:370:A:THR:HB	1:369:A:ILE:HB	2	0.12	0.02	0.12
(1,1281)	1:464:A:TYR:H	1:439:A:PHE:HD1	2	0.12	0.02	0.12
(1,1281)	1:464:A:TYR:H	1:439:A:PHE:HD2	2	0.12	0.02	0.12
(1,57)	1:447:A:VAL:HG12	1:451:A:MET:HA	2	0.12	0.0	0.12
(1,491)	1:387:A:LEU:H	1:386:A:LYS:HB3	2	0.12	0.0	0.12
(1,674)	1:395:A:TYR:H	1:408:A:LYS:HG2	2	0.12	0.0	0.12
(1,814)	1:424:A:ARG:H	1:403:A:SER:HA	2	0.12	0.0	0.12
(2,1)	1:446:A:PRO:HD2	1:427:A:GLU:HB3	2	0.11	0.0	0.11
(2,69)	1:426:A:CYS:H	1:443:A:LEU:HD12	2	0.11	0.01	0.11
(1,1464)	1:479:A:THR:H	1:478:A:LYS:HD2	2	0.11	0.0	0.11
(1,300)	1:413:A:SER:H	1:412:A:GLU:HG3	2	0.1	0.0	0.1

¹Number of violated models, ²Standard deviation

9.5 All violated distance restraints [i](#)

9.5.1 Histogram : Distribution of distance violations [i](#)

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



9.5.2 Table : All distance violations [i](#)

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

Key	Atom-1	Atom-2	Model ID	Violation (Å)
(4,42)	1:474:A:ALA:O	1:478:A:LYS:H	3	4.32
(4,42)	1:474:A:ALA:O	1:478:A:LYS:H	5	3.39
(4,41)	1:474:A:ALA:O	1:478:A:LYS:N	3	3.32
(4,42)	1:474:A:ALA:O	1:478:A:LYS:H	16	2.98
(4,43)	1:475:A:SER:O	1:478:A:LYS:H	5	2.75
(4,43)	1:475:A:SER:O	1:478:A:LYS:H	3	2.62
(4,41)	1:474:A:ALA:O	1:478:A:LYS:N	5	2.62
(4,42)	1:474:A:ALA:O	1:478:A:LYS:H	1	2.57
(4,42)	1:474:A:ALA:O	1:478:A:LYS:H	6	2.57
(4,43)	1:475:A:SER:O	1:478:A:LYS:H	16	2.53

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(4,42)	1:474:A:ALA:O	1:478:A:LYS:H	19	2.45
(4,42)	1:474:A:ALA:O	1:478:A:LYS:H	15	2.42
(1,1237)	1:460:A:ASN:H	1:464:A:TYR:HE1	6	2.42
(4,43)	1:475:A:SER:O	1:478:A:LYS:H	9	2.4
(4,42)	1:474:A:ALA:O	1:478:A:LYS:H	10	2.38
(4,42)	1:474:A:ALA:O	1:478:A:LYS:H	4	2.34
(4,43)	1:475:A:SER:O	1:478:A:LYS:H	17	2.33
(4,43)	1:475:A:SER:O	1:478:A:LYS:H	1	2.27
(4,42)	1:474:A:ALA:O	1:478:A:LYS:H	14	2.26
(4,43)	1:475:A:SER:O	1:478:A:LYS:H	20	2.25
(4,43)	1:475:A:SER:O	1:478:A:LYS:H	6	2.23
(4,43)	1:475:A:SER:O	1:478:A:LYS:H	7	2.23
(4,42)	1:474:A:ALA:O	1:478:A:LYS:H	7	2.23
(4,43)	1:475:A:SER:O	1:478:A:LYS:H	8	2.17
(4,43)	1:475:A:SER:O	1:478:A:LYS:H	12	2.17
(4,42)	1:474:A:ALA:O	1:478:A:LYS:H	2	2.16
(4,42)	1:474:A:ALA:O	1:478:A:LYS:H	12	2.15
(4,43)	1:475:A:SER:O	1:478:A:LYS:H	19	2.1
(4,43)	1:475:A:SER:O	1:478:A:LYS:H	4	2.08
(4,43)	1:475:A:SER:O	1:478:A:LYS:H	15	2.08
(4,43)	1:475:A:SER:O	1:478:A:LYS:H	14	2.05
(1,194)	1:391:A:GLY:H	1:392:A:TYR:HD1	9	2.05
(4,13)	1:465:A:ALA:O	1:468:A:MET:H	8	2.03
(4,42)	1:474:A:ALA:O	1:478:A:LYS:H	17	2.02
(4,42)	1:474:A:ALA:O	1:478:A:LYS:H	13	2.01
(4,13)	1:465:A:ALA:O	1:468:A:MET:H	13	2.0
(4,42)	1:474:A:ALA:O	1:478:A:LYS:H	8	1.96
(4,43)	1:475:A:SER:O	1:478:A:LYS:H	2	1.91
(1,194)	1:391:A:GLY:H	1:392:A:TYR:HD1	15	1.89
(4,13)	1:465:A:ALA:O	1:468:A:MET:H	10	1.88
(4,43)	1:475:A:SER:O	1:478:A:LYS:H	10	1.87
(4,43)	1:475:A:SER:O	1:478:A:LYS:H	18	1.87
(4,43)	1:475:A:SER:O	1:478:A:LYS:H	13	1.84
(2,139)	1:475:A:SER:O	1:478:A:LYS:N	5	1.8
(1,214)	1:381:A:VAL:H	1:457:A:ARG:HH12	5	1.8
(4,42)	1:474:A:ALA:O	1:478:A:LYS:H	9	1.78
(2,139)	1:475:A:SER:O	1:478:A:LYS:N	3	1.78
(4,41)	1:474:A:ALA:O	1:478:A:LYS:N	16	1.76
(4,13)	1:465:A:ALA:O	1:468:A:MET:H	18	1.75
(1,408)	1:378:A:TYR:H	1:378:A:TYR:HE2	7	1.72
(4,43)	1:475:A:SER:O	1:478:A:LYS:H	11	1.7
(1,1689)	1:386:A:LYS:HE3	2:1228:A:4IP:H4	19	1.68

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,408)	1:378:A:TYR:H	1:378:A:TYR:HE2	12	1.68
(4,13)	1:465:A:ALA:O	1:468:A:MET:H	1	1.67
(1,214)	1:381:A:VAL:H	1:457:A:ARG:HH12	2	1.67
(1,214)	1:381:A:VAL:H	1:457:A:ARG:HH12	10	1.65
(1,214)	1:381:A:VAL:H	1:457:A:ARG:HH12	1	1.64
(1,214)	1:381:A:VAL:H	1:457:A:ARG:HH12	11	1.63
(1,214)	1:381:A:VAL:H	1:457:A:ARG:HH12	15	1.63
(4,13)	1:465:A:ALA:O	1:468:A:MET:H	14	1.6
(1,1689)	1:386:A:LYS:HE3	2:1228:A:4IP:H4	4	1.59
(4,62)	1:490:A:GLN:O	1:493:A:LEU:H	16	1.58
(4,62)	1:490:A:GLN:O	1:493:A:LEU:H	5	1.56
(4,13)	1:465:A:ALA:O	1:468:A:MET:H	17	1.56
(4,13)	1:465:A:ALA:O	1:468:A:MET:H	15	1.55
(4,13)	1:465:A:ALA:O	1:468:A:MET:H	16	1.55
(4,10)	1:464:A:TYR:O	1:467:A:TRP:H	20	1.55
(2,139)	1:475:A:SER:O	1:478:A:LYS:N	16	1.54
(1,214)	1:381:A:VAL:H	1:457:A:ARG:HH12	13	1.54
(4,13)	1:465:A:ALA:O	1:468:A:MET:H	4	1.53
(4,13)	1:465:A:ALA:O	1:468:A:MET:H	19	1.53
(4,42)	1:474:A:ALA:O	1:478:A:LYS:H	20	1.52
(4,62)	1:490:A:GLN:O	1:493:A:LEU:H	7	1.5
(2,103)	1:463:A:GLN:H	1:464:A:TYR:HD1	6	1.5
(1,214)	1:381:A:VAL:H	1:457:A:ARG:HH12	18	1.5
(4,13)	1:465:A:ALA:O	1:468:A:MET:H	9	1.49
(1,214)	1:381:A:VAL:H	1:457:A:ARG:HH12	3	1.49
(1,214)	1:381:A:VAL:H	1:457:A:ARG:HH12	9	1.49
(2,139)	1:475:A:SER:O	1:478:A:LYS:N	9	1.47
(4,42)	1:474:A:ALA:O	1:478:A:LYS:H	18	1.46
(1,1689)	1:386:A:LYS:HE2	2:1228:A:4IP:H4	10	1.46
(1,1683)	1:408:A:LYS:HE2	2:1228:A:4IP:H4	17	1.45
(1,1683)	1:408:A:LYS:HE3	2:1228:A:4IP:H4	17	1.45
(1,214)	1:381:A:VAL:H	1:457:A:ARG:HH12	17	1.43
(4,13)	1:465:A:ALA:O	1:468:A:MET:H	5	1.42
(4,41)	1:474:A:ALA:O	1:478:A:LYS:N	12	1.4
(1,1689)	1:386:A:LYS:HE3	2:1228:A:4IP:H4	6	1.4
(1,194)	1:391:A:GLY:H	1:392:A:TYR:HD1	14	1.39
(1,214)	1:381:A:VAL:H	1:457:A:ARG:HH12	4	1.36
(1,214)	1:381:A:VAL:H	1:457:A:ARG:HH12	6	1.35
(1,408)	1:378:A:TYR:H	1:378:A:TYR:HE2	5	1.34
(4,62)	1:490:A:GLN:O	1:493:A:LEU:H	3	1.33
(1,1683)	1:408:A:LYS:HE2	2:1228:A:4IP:H4	4	1.33
(1,1683)	1:408:A:LYS:HE3	2:1228:A:4IP:H4	4	1.33

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,139)	1:475:A:SER:O	1:478:A:LYS:N	20	1.32
(1,214)	1:381:A:VAL:H	1:457:A:ARG:HH12	20	1.32
(1,214)	1:381:A:VAL:H	1:457:A:ARG:HH12	14	1.31
(4,62)	1:490:A:GLN:O	1:493:A:LEU:H	4	1.3
(4,13)	1:465:A:ALA:O	1:468:A:MET:H	2	1.3
(2,139)	1:475:A:SER:O	1:478:A:LYS:N	17	1.3
(1,247)	1:433:A:ASN:H	1:439:A:PHE:HD1	13	1.3
(1,1689)	1:385:A:LYS:HE3	2:1228:A:4IP:H4	11	1.29
(1,214)	1:381:A:VAL:H	1:457:A:ARG:HH12	7	1.29
(2,139)	1:475:A:SER:O	1:478:A:LYS:N	12	1.28
(1,1638)	1:496:A:LEU:H	1:495:A:PHE:HD1	3	1.28
(2,139)	1:475:A:SER:O	1:478:A:LYS:N	7	1.27
(1,1638)	1:496:A:LEU:H	1:495:A:PHE:HD1	13	1.27
(4,41)	1:474:A:ALA:O	1:478:A:LYS:N	6	1.26
(4,62)	1:490:A:GLN:O	1:493:A:LEU:H	1	1.24
(4,62)	1:490:A:GLN:O	1:493:A:LEU:H	13	1.23
(4,41)	1:474:A:ALA:O	1:478:A:LYS:N	1	1.23
(1,1638)	1:496:A:LEU:H	1:495:A:PHE:HD1	17	1.23
(4,65)	1:491:A:ASN:O	1:494:A:SER:H	5	1.21
(4,41)	1:474:A:ALA:O	1:478:A:LYS:N	19	1.21
(1,214)	1:381:A:VAL:H	1:457:A:ARG:HH12	12	1.21
(4,42)	1:474:A:ALA:O	1:478:A:LYS:H	11	1.2
(4,41)	1:474:A:ALA:O	1:478:A:LYS:N	9	1.2
(4,41)	1:474:A:ALA:O	1:478:A:LYS:N	4	1.19
(2,139)	1:475:A:SER:O	1:478:A:LYS:N	1	1.19
(2,139)	1:475:A:SER:O	1:478:A:LYS:N	6	1.19
(4,41)	1:474:A:ALA:O	1:478:A:LYS:N	10	1.16
(4,13)	1:465:A:ALA:O	1:468:A:MET:H	3	1.16
(4,41)	1:474:A:ALA:O	1:478:A:LYS:N	2	1.15
(1,408)	1:378:A:TYR:H	1:378:A:TYR:HE2	1	1.15
(4,41)	1:474:A:ALA:O	1:478:A:LYS:N	7	1.13
(4,62)	1:490:A:GLN:O	1:493:A:LEU:H	12	1.12
(4,41)	1:474:A:ALA:O	1:478:A:LYS:N	14	1.11
(2,139)	1:475:A:SER:O	1:478:A:LYS:N	4	1.11
(2,139)	1:475:A:SER:O	1:478:A:LYS:N	14	1.11
(2,139)	1:475:A:SER:O	1:478:A:LYS:N	19	1.09
(1,408)	1:378:A:TYR:H	1:378:A:TYR:HE2	9	1.09
(2,139)	1:475:A:SER:O	1:478:A:LYS:N	8	1.08
(1,527)	1:392:A:TYR:H	1:392:A:TYR:HE1	8	1.08
(4,41)	1:474:A:ALA:O	1:478:A:LYS:N	15	1.04
(2,139)	1:475:A:SER:O	1:478:A:LYS:N	2	1.04
(1,527)	1:392:A:TYR:H	1:392:A:TYR:HE1	12	1.03

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(4,25)	1:469:A:ALA:O	1:472:A:ARG:H	20	1.02
(1,1683)	1:408:A:LYS:HE2	2:1228:A:4IP:H4	3	1.02
(1,1683)	1:408:A:LYS:HE3	2:1228:A:4IP:H4	3	1.02
(4,41)	1:474:A:ALA:O	1:478:A:LYS:N	13	1.01
(4,62)	1:490:A:GLN:O	1:493:A:LEU:H	14	1.0
(4,22)	1:468:A:MET:O	1:471:A:CYS:H	9	0.98
(4,13)	1:465:A:ALA:O	1:468:A:MET:H	12	0.97
(4,41)	1:474:A:ALA:O	1:478:A:LYS:N	20	0.96
(4,36)	1:472:A:ARG:O	1:476:A:LYS:H	11	0.96
(1,1689)	1:386:A:LYS:HE2	2:1228:A:4IP:H4	16	0.96
(1,247)	1:433:A:ASN:H	1:439:A:PHE:HD1	19	0.93
(1,247)	1:433:A:ASN:H	1:439:A:PHE:HD1	20	0.93
(1,194)	1:391:A:GLY:H	1:392:A:TYR:HD1	12	0.93
(4,62)	1:490:A:GLN:O	1:493:A:LEU:H	10	0.92
(4,41)	1:474:A:ALA:O	1:478:A:LYS:N	18	0.92
(2,139)	1:475:A:SER:O	1:478:A:LYS:N	15	0.92
(4,36)	1:472:A:ARG:O	1:476:A:LYS:H	19	0.91
(1,247)	1:433:A:ASN:H	1:439:A:PHE:HD1	14	0.91
(2,139)	1:475:A:SER:O	1:478:A:LYS:N	18	0.9
(1,214)	1:381:A:VAL:H	1:457:A:ARG:HH12	19	0.9
(2,139)	1:475:A:SER:O	1:478:A:LYS:N	13	0.89
(4,36)	1:472:A:ARG:O	1:476:A:LYS:H	8	0.88
(4,1)	1:461:A:GLU:O	1:464:A:TYR:H	9	0.88
(4,39)	1:473:A:LEU:O	1:477:A:GLY:H	15	0.87
(4,36)	1:472:A:ARG:O	1:476:A:LYS:H	18	0.87
(4,74)	1:494:A:SER:O	1:497:A:LYS:H	16	0.86
(4,36)	1:472:A:ARG:O	1:476:A:LYS:H	14	0.86
(1,408)	1:378:A:TYR:H	1:378:A:TYR:HE2	18	0.86
(4,36)	1:472:A:ARG:O	1:476:A:LYS:H	17	0.85
(2,139)	1:475:A:SER:O	1:478:A:LYS:N	10	0.84
(2,139)	1:475:A:SER:O	1:478:A:LYS:N	11	0.84
(4,76)	1:494:A:SER:O	1:498:A:MET:H	9	0.83
(4,39)	1:473:A:LEU:O	1:477:A:GLY:H	7	0.83
(4,6)	1:462:A:LYS:O	1:466:A:HIS:H	9	0.83
(4,46)	1:484:A:SER:O	1:488:A:GLU:H	9	0.82
(4,13)	1:465:A:ALA:O	1:468:A:MET:H	20	0.82
(4,4)	1:462:A:LYS:O	1:465:A:ALA:H	9	0.82
(1,408)	1:378:A:TYR:H	1:378:A:TYR:HE2	20	0.82
(4,76)	1:494:A:SER:O	1:498:A:MET:H	8	0.81
(4,41)	1:474:A:ALA:O	1:478:A:LYS:N	17	0.81
(4,36)	1:472:A:ARG:O	1:476:A:LYS:H	4	0.81
(4,36)	1:472:A:ARG:O	1:476:A:LYS:H	10	0.81

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(4,36)	1:472:A:ARG:O	1:476:A:LYS:H	12	0.81
(4,33)	1:471:A:CYS:O	1:475:A:SER:H	3	0.81
(4,22)	1:468:A:MET:O	1:471:A:CYS:H	14	0.81
(4,10)	1:464:A:TYR:O	1:467:A:TRP:H	1	0.81
(4,67)	1:491:A:ASN:O	1:495:A:PHE:H	19	0.8
(4,33)	1:471:A:CYS:O	1:475:A:SER:H	10	0.8
(4,15)	1:465:A:ALA:O	1:469:A:ALA:H	1	0.8
(1,408)	1:378:A:TYR:H	1:378:A:TYR:HE2	16	0.8
(4,67)	1:491:A:ASN:O	1:495:A:PHE:H	4	0.79
(4,64)	1:490:A:GLN:O	1:494:A:SER:H	18	0.79
(4,62)	1:490:A:GLN:O	1:493:A:LEU:H	2	0.79
(4,47)	1:485:A:TYR:O	1:488:A:GLU:H	6	0.79
(4,46)	1:484:A:SER:O	1:488:A:GLU:H	18	0.79
(4,41)	1:474:A:ALA:O	1:478:A:LYS:N	8	0.79
(4,39)	1:473:A:LEU:O	1:477:A:GLY:H	13	0.79
(4,36)	1:472:A:ARG:O	1:476:A:LYS:H	9	0.79
(4,36)	1:472:A:ARG:O	1:476:A:LYS:H	13	0.79
(4,33)	1:471:A:CYS:O	1:475:A:SER:H	5	0.79
(4,28)	1:470:A:ALA:O	1:473:A:LEU:H	19	0.79
(4,16)	1:466:A:HIS:O	1:469:A:ALA:H	6	0.79
(4,16)	1:466:A:HIS:O	1:469:A:ALA:H	14	0.79
(4,15)	1:465:A:ALA:O	1:469:A:ALA:H	8	0.79
(4,15)	1:465:A:ALA:O	1:469:A:ALA:H	10	0.79
(4,15)	1:465:A:ALA:O	1:469:A:ALA:H	13	0.79
(4,9)	1:463:A:GLN:O	1:467:A:TRP:H	20	0.79
(4,6)	1:462:A:LYS:O	1:466:A:HIS:H	20	0.79
(1,1502)	1:485:A:TYR:H	1:485:A:TYR:HD1	19	0.79
(4,76)	1:494:A:SER:O	1:498:A:MET:H	7	0.78
(4,64)	1:490:A:GLN:O	1:494:A:SER:H	14	0.78
(4,58)	1:488:A:GLU:O	1:492:A:ILE:H	17	0.78
(4,36)	1:472:A:ARG:O	1:476:A:LYS:H	15	0.78
(4,10)	1:464:A:TYR:O	1:467:A:TRP:H	6	0.78
(1,1502)	1:485:A:TYR:H	1:485:A:TYR:HD1	11	0.78
(4,39)	1:473:A:LEU:O	1:477:A:GLY:H	17	0.77
(4,36)	1:472:A:ARG:O	1:476:A:LYS:H	16	0.77
(4,33)	1:471:A:CYS:O	1:475:A:SER:H	19	0.77
(4,73)	1:493:A:LEU:O	1:497:A:LYS:H	20	0.76
(4,67)	1:491:A:ASN:O	1:495:A:PHE:H	17	0.76
(4,64)	1:490:A:GLN:O	1:494:A:SER:H	17	0.76
(4,61)	1:489:A:VAL:O	1:493:A:LEU:H	9	0.76
(4,36)	1:472:A:ARG:O	1:476:A:LYS:H	7	0.76
(4,33)	1:471:A:CYS:O	1:475:A:SER:H	7	0.76

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(4,33)	1:471:A:CYS:O	1:475:A:SER:H	18	0.76
(4,15)	1:465:A:ALA:O	1:469:A:ALA:H	9	0.76
(1,408)	1:378:A:TYR:H	1:378:A:TYR:HE2	2	0.76
(4,76)	1:494:A:SER:O	1:498:A:MET:H	17	0.75
(4,73)	1:493:A:LEU:O	1:497:A:LYS:H	14	0.75
(4,39)	1:473:A:LEU:O	1:477:A:GLY:H	8	0.75
(4,36)	1:472:A:ARG:O	1:476:A:LYS:H	20	0.75
(4,28)	1:470:A:ALA:O	1:473:A:LEU:H	11	0.75
(4,15)	1:465:A:ALA:O	1:469:A:ALA:H	4	0.75
(4,15)	1:465:A:ALA:O	1:469:A:ALA:H	15	0.75
(4,15)	1:465:A:ALA:O	1:469:A:ALA:H	16	0.75
(4,12)	1:464:A:TYR:O	1:468:A:MET:H	20	0.75
(4,76)	1:494:A:SER:O	1:498:A:MET:H	2	0.74
(4,73)	1:493:A:LEU:O	1:497:A:LYS:H	9	0.74
(4,64)	1:490:A:GLN:O	1:494:A:SER:H	7	0.74
(4,62)	1:490:A:GLN:O	1:493:A:LEU:H	15	0.74
(4,58)	1:488:A:GLU:O	1:492:A:ILE:H	5	0.74
(4,49)	1:485:A:TYR:O	1:489:A:VAL:H	6	0.74
(4,39)	1:473:A:LEU:O	1:477:A:GLY:H	18	0.74
(4,76)	1:494:A:SER:O	1:498:A:MET:H	16	0.73
(4,76)	1:494:A:SER:O	1:498:A:MET:H	20	0.73
(4,64)	1:490:A:GLN:O	1:494:A:SER:H	10	0.73
(4,46)	1:484:A:SER:O	1:488:A:GLU:H	17	0.73
(4,39)	1:473:A:LEU:O	1:477:A:GLY:H	4	0.73
(4,39)	1:473:A:LEU:O	1:477:A:GLY:H	10	0.73
(4,33)	1:471:A:CYS:O	1:475:A:SER:H	8	0.73
(4,33)	1:471:A:CYS:O	1:475:A:SER:H	9	0.73
(4,33)	1:471:A:CYS:O	1:475:A:SER:H	11	0.73
(4,33)	1:471:A:CYS:O	1:475:A:SER:H	14	0.73
(4,15)	1:465:A:ALA:O	1:469:A:ALA:H	5	0.73
(4,15)	1:465:A:ALA:O	1:469:A:ALA:H	17	0.73
(4,76)	1:494:A:SER:O	1:498:A:MET:H	5	0.72
(4,70)	1:492:A:ILE:O	1:496:A:LEU:H	20	0.72
(4,67)	1:491:A:ASN:O	1:495:A:PHE:H	20	0.72
(4,64)	1:490:A:GLN:O	1:494:A:SER:H	4	0.72
(4,64)	1:490:A:GLN:O	1:494:A:SER:H	19	0.72
(4,36)	1:472:A:ARG:O	1:476:A:LYS:H	5	0.72
(4,36)	1:472:A:ARG:O	1:476:A:LYS:H	6	0.72
(4,33)	1:471:A:CYS:O	1:475:A:SER:H	6	0.72
(4,22)	1:468:A:MET:O	1:471:A:CYS:H	15	0.72
(4,16)	1:466:A:HIS:O	1:469:A:ALA:H	2	0.72
(4,15)	1:465:A:ALA:O	1:469:A:ALA:H	3	0.72

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(4,76)	1:494:A:SER:O	1:498:A:MET:H	12	0.71
(4,76)	1:494:A:SER:O	1:498:A:MET:H	13	0.71
(4,70)	1:492:A:ILE:O	1:496:A:LEU:H	10	0.71
(4,67)	1:491:A:ASN:O	1:495:A:PHE:H	1	0.71
(4,62)	1:490:A:GLN:O	1:493:A:LEU:H	6	0.71
(4,55)	1:487:A:LEU:O	1:491:A:ASN:H	10	0.71
(4,24)	1:468:A:MET:O	1:472:A:ARG:H	18	0.71
(4,22)	1:468:A:MET:O	1:471:A:CYS:H	5	0.71
(4,22)	1:468:A:MET:O	1:471:A:CYS:H	7	0.71
(4,15)	1:465:A:ALA:O	1:469:A:ALA:H	14	0.71
(4,67)	1:491:A:ASN:O	1:495:A:PHE:H	12	0.7
(4,64)	1:490:A:GLN:O	1:494:A:SER:H	6	0.7
(4,55)	1:487:A:LEU:O	1:491:A:ASN:H	15	0.7
(4,53)	1:487:A:LEU:O	1:490:A:GLN:H	3	0.7
(4,15)	1:465:A:ALA:O	1:469:A:ALA:H	7	0.7
(1,872)	1:428:A:VAL:HG11	1:472:A:ARG:HA	16	0.7
(1,872)	1:428:A:VAL:HG12	1:472:A:ARG:HA	16	0.7
(1,872)	1:428:A:VAL:HG13	1:472:A:ARG:HA	16	0.7
(1,872)	1:428:A:VAL:HG21	1:472:A:ARG:HA	16	0.7
(1,872)	1:428:A:VAL:HG22	1:472:A:ARG:HA	16	0.7
(1,872)	1:428:A:VAL:HG23	1:472:A:ARG:HA	16	0.7
(4,76)	1:494:A:SER:O	1:498:A:MET:H	3	0.69
(4,36)	1:472:A:ARG:O	1:476:A:LYS:H	2	0.69
(4,24)	1:468:A:MET:O	1:472:A:ARG:H	9	0.69
(4,16)	1:466:A:HIS:O	1:469:A:ALA:H	4	0.69
(4,15)	1:465:A:ALA:O	1:469:A:ALA:H	18	0.69
(4,6)	1:462:A:LYS:O	1:466:A:HIS:H	5	0.69
(4,64)	1:490:A:GLN:O	1:494:A:SER:H	16	0.68
(1,1683)	1:408:A:LYS:HE2	2:1228:A:4IP:H4	18	0.68
(1,1683)	1:408:A:LYS:HE3	2:1228:A:4IP:H4	18	0.68
(4,64)	1:490:A:GLN:O	1:494:A:SER:H	2	0.67
(4,64)	1:490:A:GLN:O	1:494:A:SER:H	3	0.67
(4,64)	1:490:A:GLN:O	1:494:A:SER:H	12	0.67
(4,36)	1:472:A:ARG:O	1:476:A:LYS:H	1	0.67
(4,13)	1:465:A:ALA:O	1:468:A:MET:H	7	0.67
(4,9)	1:463:A:GLN:O	1:467:A:TRP:H	6	0.67
(4,6)	1:462:A:LYS:O	1:466:A:HIS:H	10	0.67
(4,74)	1:494:A:SER:O	1:497:A:LYS:H	3	0.66
(4,58)	1:488:A:GLU:O	1:492:A:ILE:H	15	0.66
(4,53)	1:487:A:LEU:O	1:490:A:GLN:H	4	0.66
(4,24)	1:468:A:MET:O	1:472:A:ARG:H	14	0.66
(4,16)	1:466:A:HIS:O	1:469:A:ALA:H	18	0.66

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(4,9)	1:463:A:GLN:O	1:467:A:TRP:H	12	0.66
(4,9)	1:463:A:GLN:O	1:467:A:TRP:H	17	0.66
(1,408)	1:378:A:TYR:H	1:378:A:TYR:HE2	3	0.66
(4,71)	1:493:A:LEU:O	1:496:A:LEU:H	2	0.65
(4,33)	1:471:A:CYS:O	1:475:A:SER:H	12	0.65
(4,9)	1:463:A:GLN:O	1:467:A:TRP:H	2	0.65
(1,527)	1:392:A:TYR:H	1:392:A:TYR:HE1	14	0.65
(4,67)	1:491:A:ASN:O	1:495:A:PHE:H	7	0.64
(4,55)	1:487:A:LEU:O	1:491:A:ASN:H	8	0.64
(4,10)	1:464:A:TYR:O	1:467:A:TRP:H	8	0.64
(4,6)	1:462:A:LYS:O	1:466:A:HIS:H	13	0.64
(1,1685)	1:408:A:LYS:HD2	2:1228:A:4IP:H4	1	0.64
(1,1685)	1:408:A:LYS:HD3	2:1228:A:4IP:H4	1	0.64
(4,58)	1:488:A:GLU:O	1:492:A:ILE:H	3	0.63
(4,55)	1:487:A:LEU:O	1:491:A:ASN:H	5	0.63
(4,15)	1:465:A:ALA:O	1:469:A:ALA:H	19	0.63
(4,70)	1:492:A:ILE:O	1:496:A:LEU:H	4	0.62
(4,64)	1:490:A:GLN:O	1:494:A:SER:H	1	0.62
(4,62)	1:490:A:GLN:O	1:493:A:LEU:H	8	0.62
(2,148)	1:492:A:ILE:O	1:495:A:PHE:N	16	0.62
(2,137)	1:473:A:LEU:O	1:476:A:LYS:N	8	0.62
(2,137)	1:473:A:LEU:O	1:476:A:LYS:N	13	0.62
(2,134)	1:470:A:ALA:O	1:473:A:LEU:N	5	0.62
(4,70)	1:492:A:ILE:O	1:496:A:LEU:H	1	0.61
(4,65)	1:491:A:ASN:O	1:494:A:SER:H	16	0.61
(4,65)	1:491:A:ASN:O	1:494:A:SER:H	20	0.61
(4,62)	1:490:A:GLN:O	1:493:A:LEU:H	20	0.61
(4,61)	1:489:A:VAL:O	1:493:A:LEU:H	18	0.61
(4,39)	1:473:A:LEU:O	1:477:A:GLY:H	2	0.61
(4,35)	1:472:A:ARG:O	1:476:A:LYS:N	11	0.61
(4,15)	1:465:A:ALA:O	1:469:A:ALA:H	2	0.61
(2,151)	1:495:A:PHE:O	1:498:A:MET:N	16	0.61
(1,872)	1:428:A:VAL:HG11	1:472:A:ARG:HA	3	0.61
(1,872)	1:428:A:VAL:HG12	1:472:A:ARG:HA	3	0.61
(1,872)	1:428:A:VAL:HG13	1:472:A:ARG:HA	3	0.61
(1,872)	1:428:A:VAL:HG21	1:472:A:ARG:HA	3	0.61
(1,872)	1:428:A:VAL:HG22	1:472:A:ARG:HA	3	0.61
(1,872)	1:428:A:VAL:HG23	1:472:A:ARG:HA	3	0.61
(1,408)	1:378:A:TYR:H	1:378:A:TYR:HE2	6	0.61
(4,73)	1:493:A:LEU:O	1:497:A:LYS:H	11	0.6
(4,25)	1:469:A:ALA:O	1:472:A:ARG:H	8	0.6
(4,24)	1:468:A:MET:O	1:472:A:ARG:H	15	0.6

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(4,9)	1:463:A:GLN:O	1:467:A:TRP:H	5	0.6
(4,9)	1:463:A:GLN:O	1:467:A:TRP:H	10	0.6
(2,141)	1:485:A:TYR:O	1:488:A:GLU:N	9	0.6
(1,1502)	1:485:A:TYR:H	1:485:A:TYR:HD1	9	0.6
(4,71)	1:493:A:LEU:O	1:496:A:LEU:H	19	0.59
(4,70)	1:492:A:ILE:O	1:496:A:LEU:H	7	0.59
(4,41)	1:474:A:ALA:O	1:478:A:LYS:N	11	0.59
(4,33)	1:471:A:CYS:O	1:475:A:SER:H	15	0.59
(4,22)	1:468:A:MET:O	1:471:A:CYS:H	17	0.59
(2,137)	1:473:A:LEU:O	1:476:A:LYS:N	15	0.59
(2,131)	1:467:A:TRP:O	1:470:A:ALA:N	3	0.59
(1,872)	1:428:A:VAL:HG11	1:472:A:ARG:HA	14	0.59
(1,872)	1:428:A:VAL:HG12	1:472:A:ARG:HA	14	0.59
(1,872)	1:428:A:VAL:HG13	1:472:A:ARG:HA	14	0.59
(1,872)	1:428:A:VAL:HG21	1:472:A:ARG:HA	14	0.59
(1,872)	1:428:A:VAL:HG22	1:472:A:ARG:HA	14	0.59
(1,872)	1:428:A:VAL:HG23	1:472:A:ARG:HA	14	0.59
(4,67)	1:491:A:ASN:O	1:495:A:PHE:H	6	0.58
(4,64)	1:490:A:GLN:O	1:494:A:SER:H	11	0.58
(4,55)	1:487:A:LEU:O	1:491:A:ASN:H	7	0.58
(4,16)	1:466:A:HIS:O	1:469:A:ALA:H	16	0.58
(4,13)	1:465:A:ALA:O	1:468:A:MET:H	6	0.58
(4,6)	1:462:A:LYS:O	1:466:A:HIS:H	17	0.58
(2,151)	1:495:A:PHE:O	1:498:A:MET:N	9	0.58
(2,138)	1:474:A:ALA:O	1:477:A:GLY:N	17	0.58
(1,1685)	1:408:A:LYS:HD2	2:1228:A:4IP:H4	4	0.58
(1,1685)	1:408:A:LYS:HD3	2:1228:A:4IP:H4	4	0.58
(4,76)	1:494:A:SER:O	1:498:A:MET:H	19	0.57
(4,71)	1:493:A:LEU:O	1:496:A:LEU:H	3	0.57
(4,67)	1:491:A:ASN:O	1:495:A:PHE:H	3	0.57
(4,39)	1:473:A:LEU:O	1:477:A:GLY:H	11	0.57
(4,18)	1:466:A:HIS:O	1:470:A:ALA:H	4	0.57
(2,141)	1:485:A:TYR:O	1:488:A:GLU:N	18	0.57
(2,136)	1:472:A:ARG:O	1:475:A:SER:N	7	0.57
(1,872)	1:428:A:VAL:HG11	1:472:A:ARG:HA	19	0.57
(1,872)	1:428:A:VAL:HG12	1:472:A:ARG:HA	19	0.57
(1,872)	1:428:A:VAL:HG13	1:472:A:ARG:HA	19	0.57
(1,872)	1:428:A:VAL:HG21	1:472:A:ARG:HA	19	0.57
(1,872)	1:428:A:VAL:HG22	1:472:A:ARG:HA	19	0.57
(1,872)	1:428:A:VAL:HG23	1:472:A:ARG:HA	19	0.57
(4,64)	1:490:A:GLN:O	1:494:A:SER:H	9	0.56
(4,35)	1:472:A:ARG:O	1:476:A:LYS:N	19	0.56

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(4,15)	1:465:A:ALA:O	1:469:A:ALA:H	20	0.56
(2,137)	1:473:A:LEU:O	1:476:A:LYS:N	10	0.56
(1,872)	1:428:A:VAL:HG11	1:472:A:ARG:HA	10	0.56
(1,872)	1:428:A:VAL:HG12	1:472:A:ARG:HA	10	0.56
(1,872)	1:428:A:VAL:HG13	1:472:A:ARG:HA	10	0.56
(1,872)	1:428:A:VAL:HG21	1:472:A:ARG:HA	10	0.56
(1,872)	1:428:A:VAL:HG22	1:472:A:ARG:HA	10	0.56
(1,872)	1:428:A:VAL:HG23	1:472:A:ARG:HA	10	0.56
(1,247)	1:433:A:ASN:H	1:439:A:PHE:HD1	4	0.56
(4,39)	1:473:A:LEU:O	1:477:A:GLY:H	6	0.55
(4,39)	1:473:A:LEU:O	1:477:A:GLY:H	12	0.55
(4,6)	1:462:A:LYS:O	1:466:A:HIS:H	12	0.55
(2,131)	1:467:A:TRP:O	1:470:A:ALA:N	8	0.55
(1,1286)	1:464:A:TYR:H	1:464:A:TYR:HE1	6	0.55
(4,73)	1:493:A:LEU:O	1:497:A:LYS:H	7	0.54
(4,70)	1:492:A:ILE:O	1:496:A:LEU:H	17	0.54
(4,61)	1:489:A:VAL:O	1:493:A:LEU:H	16	0.54
(4,55)	1:487:A:LEU:O	1:491:A:ASN:H	6	0.54
(4,53)	1:487:A:LEU:O	1:490:A:GLN:H	1	0.54
(4,12)	1:464:A:TYR:O	1:468:A:MET:H	10	0.54
(4,9)	1:463:A:GLN:O	1:467:A:TRP:H	18	0.54
(4,4)	1:462:A:LYS:O	1:465:A:ALA:H	15	0.54
(2,137)	1:473:A:LEU:O	1:476:A:LYS:N	6	0.54
(1,1689)	1:386:A:LYS:HE2	2:1228:A:4IP:H4	12	0.54
(1,1237)	1:460:A:ASN:H	1:464:A:TYR:HE1	9	0.54
(1,872)	1:428:A:VAL:HG11	1:472:A:ARG:HA	15	0.54
(1,872)	1:428:A:VAL:HG12	1:472:A:ARG:HA	15	0.54
(1,872)	1:428:A:VAL:HG13	1:472:A:ARG:HA	15	0.54
(1,872)	1:428:A:VAL:HG21	1:472:A:ARG:HA	15	0.54
(1,872)	1:428:A:VAL:HG22	1:472:A:ARG:HA	15	0.54
(1,872)	1:428:A:VAL:HG23	1:472:A:ARG:HA	15	0.54
(4,64)	1:490:A:GLN:O	1:494:A:SER:H	20	0.53
(4,62)	1:490:A:GLN:O	1:493:A:LEU:H	18	0.53
(4,55)	1:487:A:LEU:O	1:491:A:ASN:H	3	0.53
(4,31)	1:471:A:CYS:O	1:474:A:ALA:H	18	0.53
(2,138)	1:474:A:ALA:O	1:477:A:GLY:N	14	0.53
(1,1689)	1:385:A:LYS:HE3	2:1228:A:4IP:H4	9	0.53
(1,527)	1:392:A:TYR:H	1:392:A:TYR:HE1	9	0.53
(4,71)	1:493:A:LEU:O	1:496:A:LEU:H	7	0.52
(4,63)	1:490:A:GLN:O	1:494:A:SER:N	14	0.52
(4,63)	1:490:A:GLN:O	1:494:A:SER:N	18	0.52
(4,18)	1:466:A:HIS:O	1:470:A:ALA:H	8	0.52

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(4,9)	1:463:A:GLN:O	1:467:A:TRP:H	9	0.52
(1,872)	1:428:A:VAL:HG11	1:472:A:ARG:HA	5	0.52
(1,872)	1:428:A:VAL:HG12	1:472:A:ARG:HA	5	0.52
(1,872)	1:428:A:VAL:HG13	1:472:A:ARG:HA	5	0.52
(1,872)	1:428:A:VAL:HG21	1:472:A:ARG:HA	5	0.52
(1,872)	1:428:A:VAL:HG22	1:472:A:ARG:HA	5	0.52
(1,872)	1:428:A:VAL:HG23	1:472:A:ARG:HA	5	0.52
(4,67)	1:491:A:ASN:O	1:495:A:PHE:H	10	0.51
(4,58)	1:488:A:GLU:O	1:492:A:ILE:H	19	0.51
(4,55)	1:487:A:LEU:O	1:491:A:ASN:H	4	0.51
(4,49)	1:485:A:TYR:O	1:489:A:VAL:H	12	0.51
(4,49)	1:485:A:TYR:O	1:489:A:VAL:H	17	0.51
(4,49)	1:485:A:TYR:O	1:489:A:VAL:H	20	0.51
(4,18)	1:466:A:HIS:O	1:470:A:ALA:H	6	0.51
(2,148)	1:492:A:ILE:O	1:495:A:PHE:N	3	0.51
(2,129)	1:465:A:ALA:O	1:468:A:MET:N	8	0.51
(2,129)	1:465:A:ALA:O	1:468:A:MET:N	13	0.51
(1,872)	1:428:A:VAL:HG11	1:472:A:ARG:HA	17	0.51
(1,872)	1:428:A:VAL:HG12	1:472:A:ARG:HA	17	0.51
(1,872)	1:428:A:VAL:HG13	1:472:A:ARG:HA	17	0.51
(1,872)	1:428:A:VAL:HG21	1:472:A:ARG:HA	17	0.51
(1,872)	1:428:A:VAL:HG22	1:472:A:ARG:HA	17	0.51
(1,872)	1:428:A:VAL:HG23	1:472:A:ARG:HA	17	0.51
(4,73)	1:493:A:LEU:O	1:497:A:LYS:H	15	0.5
(4,61)	1:489:A:VAL:O	1:493:A:LEU:H	17	0.5
(4,45)	1:484:A:SER:O	1:488:A:GLU:N	18	0.5
(4,39)	1:473:A:LEU:O	1:477:A:GLY:H	1	0.5
(4,39)	1:473:A:LEU:O	1:477:A:GLY:H	14	0.5
(4,33)	1:471:A:CYS:O	1:475:A:SER:H	13	0.5
(4,13)	1:465:A:ALA:O	1:468:A:MET:H	11	0.5
(4,6)	1:462:A:LYS:O	1:466:A:HIS:H	19	0.5
(4,5)	1:462:A:LYS:O	1:466:A:HIS:N	9	0.5
(1,872)	1:428:A:VAL:HG11	1:472:A:ARG:HA	8	0.5
(1,872)	1:428:A:VAL:HG12	1:472:A:ARG:HA	8	0.5
(1,872)	1:428:A:VAL:HG13	1:472:A:ARG:HA	8	0.5
(1,872)	1:428:A:VAL:HG21	1:472:A:ARG:HA	8	0.5
(1,872)	1:428:A:VAL:HG22	1:472:A:ARG:HA	8	0.5
(1,872)	1:428:A:VAL:HG23	1:472:A:ARG:HA	8	0.5
(1,872)	1:428:A:VAL:HG11	1:472:A:ARG:HA	20	0.5
(1,872)	1:428:A:VAL:HG12	1:472:A:ARG:HA	20	0.5
(1,872)	1:428:A:VAL:HG13	1:472:A:ARG:HA	20	0.5
(1,872)	1:428:A:VAL:HG21	1:472:A:ARG:HA	20	0.5

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,872)	1:428:A:VAL:HG22	1:472:A:ARG:HA	20	0.5
(1,872)	1:428:A:VAL:HG23	1:472:A:ARG:HA	20	0.5
(1,527)	1:392:A:TYR:H	1:392:A:TYR:HE1	15	0.5
(4,67)	1:491:A:ASN:O	1:495:A:PHE:H	5	0.49
(4,64)	1:490:A:GLN:O	1:494:A:SER:H	8	0.49
(4,58)	1:488:A:GLU:O	1:492:A:ILE:H	8	0.49
(4,55)	1:487:A:LEU:O	1:491:A:ASN:H	14	0.49
(4,49)	1:485:A:TYR:O	1:489:A:VAL:H	14	0.49
(4,45)	1:484:A:SER:O	1:488:A:GLU:N	9	0.49
(4,35)	1:472:A:ARG:O	1:476:A:LYS:N	18	0.49
(4,27)	1:469:A:ALA:O	1:473:A:LEU:H	10	0.49
(4,12)	1:464:A:TYR:O	1:468:A:MET:H	8	0.49
(2,148)	1:492:A:ILE:O	1:495:A:PHE:N	10	0.49
(2,129)	1:465:A:ALA:O	1:468:A:MET:N	10	0.49
(4,66)	1:491:A:ASN:O	1:495:A:PHE:N	4	0.48
(4,58)	1:488:A:GLU:O	1:492:A:ILE:H	6	0.48
(4,39)	1:473:A:LEU:O	1:477:A:GLY:H	20	0.48
(4,35)	1:472:A:ARG:O	1:476:A:LYS:N	14	0.48
(4,28)	1:470:A:ALA:O	1:473:A:LEU:H	10	0.48
(4,24)	1:468:A:MET:O	1:472:A:ARG:H	5	0.48
(4,24)	1:468:A:MET:O	1:472:A:ARG:H	7	0.48
(4,16)	1:466:A:HIS:O	1:469:A:ALA:H	8	0.48
(2,148)	1:492:A:ILE:O	1:495:A:PHE:N	7	0.48
(2,137)	1:473:A:LEU:O	1:476:A:LYS:N	12	0.48
(1,970)	1:438:A:LYS:H	1:439:A:PHE:HD1	13	0.48
(1,872)	1:428:A:VAL:HG11	1:472:A:ARG:HA	11	0.48
(1,872)	1:428:A:VAL:HG12	1:472:A:ARG:HA	11	0.48
(1,872)	1:428:A:VAL:HG13	1:472:A:ARG:HA	11	0.48
(1,872)	1:428:A:VAL:HG21	1:472:A:ARG:HA	11	0.48
(1,872)	1:428:A:VAL:HG22	1:472:A:ARG:HA	11	0.48
(1,872)	1:428:A:VAL:HG23	1:472:A:ARG:HA	11	0.48
(4,76)	1:494:A:SER:O	1:498:A:MET:H	6	0.47
(4,71)	1:493:A:LEU:O	1:496:A:LEU:H	13	0.47
(4,60)	1:489:A:VAL:O	1:493:A:LEU:N	9	0.47
(4,49)	1:485:A:TYR:O	1:489:A:VAL:H	4	0.47
(4,14)	1:465:A:ALA:O	1:469:A:ALA:N	3	0.47
(1,408)	1:378:A:TYR:H	1:378:A:TYR:HE2	17	0.47
(4,76)	1:494:A:SER:O	1:498:A:MET:H	14	0.46
(4,76)	1:494:A:SER:O	1:498:A:MET:H	15	0.46
(4,70)	1:492:A:ILE:O	1:496:A:LEU:H	19	0.46
(4,55)	1:487:A:LEU:O	1:491:A:ASN:H	2	0.46
(4,49)	1:485:A:TYR:O	1:489:A:VAL:H	8	0.46

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(4,48)	1:485:A:TYR:O	1:489:A:VAL:N	6	0.46
(4,40)	1:474:A:ALA:O	1:477:A:GLY:H	3	0.46
(4,6)	1:462:A:LYS:O	1:466:A:HIS:H	8	0.46
(2,148)	1:492:A:ILE:O	1:495:A:PHE:N	13	0.46
(2,136)	1:472:A:ARG:O	1:475:A:SER:N	3	0.46
(1,214)	1:381:A:VAL:H	1:457:A:ARG:HH12	16	0.46
(4,73)	1:493:A:LEU:O	1:497:A:LYS:H	10	0.45
(4,72)	1:493:A:LEU:O	1:497:A:LYS:N	14	0.45
(4,67)	1:491:A:ASN:O	1:495:A:PHE:H	8	0.45
(4,52)	1:486:A:ASN:O	1:490:A:GLN:H	17	0.45
(4,18)	1:466:A:HIS:O	1:470:A:ALA:H	14	0.45
(4,18)	1:466:A:HIS:O	1:470:A:ALA:H	18	0.45
(2,127)	1:463:A:GLN:O	1:466:A:HIS:N	12	0.45
(1,566)	1:396:A:TRP:H	1:395:A:TYR:HB2	18	0.45
(4,63)	1:490:A:GLN:O	1:494:A:SER:N	17	0.44
(4,45)	1:484:A:SER:O	1:488:A:GLU:N	17	0.44
(4,28)	1:470:A:ALA:O	1:473:A:LEU:H	8	0.44
(4,14)	1:465:A:ALA:O	1:469:A:ALA:N	1	0.44
(1,408)	1:378:A:TYR:H	1:378:A:TYR:HE2	11	0.44
(4,69)	1:492:A:ILE:O	1:496:A:LEU:N	20	0.43
(4,65)	1:491:A:ASN:O	1:494:A:SER:H	3	0.43
(4,64)	1:490:A:GLN:O	1:494:A:SER:H	13	0.43
(4,53)	1:487:A:LEU:O	1:490:A:GLN:H	2	0.43
(2,136)	1:472:A:ARG:O	1:475:A:SER:N	14	0.43
(1,872)	1:428:A:VAL:HG11	1:472:A:ARG:HA	9	0.43
(1,872)	1:428:A:VAL:HG12	1:472:A:ARG:HA	9	0.43
(1,872)	1:428:A:VAL:HG13	1:472:A:ARG:HA	9	0.43
(1,872)	1:428:A:VAL:HG21	1:472:A:ARG:HA	9	0.43
(1,872)	1:428:A:VAL:HG22	1:472:A:ARG:HA	9	0.43
(1,872)	1:428:A:VAL:HG23	1:472:A:ARG:HA	9	0.43
(4,73)	1:493:A:LEU:O	1:497:A:LYS:H	3	0.42
(4,71)	1:493:A:LEU:O	1:496:A:LEU:H	15	0.42
(4,67)	1:491:A:ASN:O	1:495:A:PHE:H	16	0.42
(4,64)	1:490:A:GLN:O	1:494:A:SER:H	5	0.42
(4,35)	1:472:A:ARG:O	1:476:A:LYS:N	10	0.42
(4,35)	1:472:A:ARG:O	1:476:A:LYS:N	17	0.42
(4,6)	1:462:A:LYS:O	1:466:A:HIS:H	1	0.42
(2,151)	1:495:A:PHE:O	1:498:A:MET:N	20	0.42
(2,144)	1:488:A:GLU:O	1:491:A:ASN:N	10	0.42
(2,141)	1:485:A:TYR:O	1:488:A:GLU:N	3	0.42
(2,103)	1:463:A:GLN:H	1:464:A:TYR:HD1	9	0.42
(1,1502)	1:485:A:TYR:H	1:485:A:TYR:HD1	18	0.42

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,872)	1:428:A:VAL:HG11	1:472:A:ARG:HA	6	0.42
(1,872)	1:428:A:VAL:HG12	1:472:A:ARG:HA	6	0.42
(1,872)	1:428:A:VAL:HG13	1:472:A:ARG:HA	6	0.42
(1,872)	1:428:A:VAL:HG21	1:472:A:ARG:HA	6	0.42
(1,872)	1:428:A:VAL:HG22	1:472:A:ARG:HA	6	0.42
(1,872)	1:428:A:VAL:HG23	1:472:A:ARG:HA	6	0.42
(4,72)	1:493:A:LEU:O	1:497:A:LYS:N	20	0.41
(4,61)	1:489:A:VAL:O	1:493:A:LEU:H	11	0.41
(4,52)	1:486:A:ASN:O	1:490:A:GLN:H	8	0.41
(4,38)	1:473:A:LEU:O	1:477:A:GLY:N	7	0.41
(4,35)	1:472:A:ARG:O	1:476:A:LYS:N	9	0.41
(4,27)	1:469:A:ALA:O	1:473:A:LEU:H	8	0.41
(4,14)	1:465:A:ALA:O	1:469:A:ALA:N	16	0.41
(2,142)	1:486:A:ASN:O	1:489:A:VAL:N	4	0.41
(2,137)	1:473:A:LEU:O	1:476:A:LYS:N	5	0.41
(1,970)	1:438:A:LYS:H	1:439:A:PHE:HD1	20	0.41
(1,246)	1:436:A:GLY:H	1:437:A:GLN:HG2	15	0.41
(4,73)	1:493:A:LEU:O	1:497:A:LYS:H	4	0.4
(4,63)	1:490:A:GLN:O	1:494:A:SER:N	6	0.4
(4,57)	1:488:A:GLU:O	1:492:A:ILE:N	5	0.4
(4,57)	1:488:A:GLU:O	1:492:A:ILE:N	15	0.4
(4,55)	1:487:A:LEU:O	1:491:A:ASN:H	13	0.4
(4,53)	1:487:A:LEU:O	1:490:A:GLN:H	5	0.4
(4,53)	1:487:A:LEU:O	1:490:A:GLN:H	10	0.4
(4,35)	1:472:A:ARG:O	1:476:A:LYS:N	16	0.4
(4,16)	1:466:A:HIS:O	1:469:A:ALA:H	1	0.4
(4,10)	1:464:A:TYR:O	1:467:A:TRP:H	3	0.4
(4,9)	1:463:A:GLN:O	1:467:A:TRP:H	1	0.4
(2,148)	1:492:A:ILE:O	1:495:A:PHE:N	14	0.4
(1,473)	1:385:A:LYS:H	1:385:A:LYS:HB2	12	0.4
(1,211)	1:385:A:LYS:H	1:453:A:GLU:HG2	14	0.4
(4,55)	1:487:A:LEU:O	1:491:A:ASN:H	20	0.39
(4,50)	1:486:A:ASN:O	1:489:A:VAL:H	2	0.39
(4,39)	1:473:A:LEU:O	1:477:A:GLY:H	19	0.39
(4,35)	1:472:A:ARG:O	1:476:A:LYS:N	8	0.39
(4,35)	1:472:A:ARG:O	1:476:A:LYS:N	12	0.39
(4,33)	1:471:A:CYS:O	1:475:A:SER:H	4	0.39
(4,10)	1:464:A:TYR:O	1:467:A:TRP:H	17	0.39
(4,9)	1:463:A:GLN:O	1:467:A:TRP:H	8	0.39
(4,8)	1:463:A:GLN:O	1:467:A:TRP:N	20	0.39
(1,1690)	1:390:A:LYS:HE2	2:1228:A:4IP:H2	11	0.39
(1,1690)	1:390:A:LYS:HE3	2:1228:A:4IP:H2	11	0.39

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1685)	1:408:A:LYS:HD2	2:1228:A:4IP:H4	19	0.39
(1,1685)	1:408:A:LYS:HD3	2:1228:A:4IP:H4	19	0.39
(1,566)	1:396:A:TRP:H	1:395:A:TYR:HB2	17	0.39
(1,505)	1:389:A:LEU:H	1:389:A:LEU:HD12	20	0.39
(1,408)	1:378:A:TYR:H	1:378:A:TYR:HE2	4	0.39
(1,211)	1:385:A:LYS:H	1:453:A:GLU:HG2	19	0.39
(1,46)	1:379:A:ILE:HD12	1:379:A:ILE:HB	10	0.39
(1,3)	1:389:A:LEU:HB2	1:389:A:LEU:HA	4	0.39
(4,72)	1:493:A:LEU:O	1:497:A:LYS:N	9	0.38
(4,46)	1:484:A:SER:O	1:488:A:GLU:H	1	0.38
(4,14)	1:465:A:ALA:O	1:469:A:ALA:N	8	0.38
(4,14)	1:465:A:ALA:O	1:469:A:ALA:N	9	0.38
(2,147)	1:491:A:ASN:O	1:494:A:SER:N	10	0.38
(2,137)	1:473:A:LEU:O	1:476:A:LYS:N	1	0.38
(1,1689)	1:386:A:LYS:HE3	2:1228:A:4IP:H4	20	0.38
(1,999)	1:441:A:ILE:H	1:441:A:ILE:HD12	7	0.38
(1,999)	1:441:A:ILE:H	1:441:A:ILE:HD12	10	0.38
(1,999)	1:441:A:ILE:H	1:441:A:ILE:HD12	12	0.38
(1,566)	1:396:A:TRP:H	1:395:A:TYR:HB2	12	0.38
(1,522)	1:390:A:LYS:H	1:391:A:GLY:H	12	0.38
(1,3)	1:389:A:LEU:HB2	1:389:A:LEU:HA	9	0.38
(1,3)	1:389:A:LEU:HB2	1:389:A:LEU:HA	13	0.38
(4,58)	1:488:A:GLU:O	1:492:A:ILE:H	11	0.37
(4,46)	1:484:A:SER:O	1:488:A:GLU:H	5	0.37
(4,33)	1:471:A:CYS:O	1:475:A:SER:H	2	0.37
(4,22)	1:468:A:MET:O	1:471:A:CYS:H	1	0.37
(4,14)	1:465:A:ALA:O	1:469:A:ALA:N	4	0.37
(4,6)	1:462:A:LYS:O	1:466:A:HIS:H	4	0.37
(2,147)	1:491:A:ASN:O	1:494:A:SER:N	9	0.37
(2,133)	1:469:A:ALA:O	1:472:A:ARG:N	9	0.37
(1,1680)	1:383:A:LYS:HD2	2:1228:A:4IP:H4	19	0.37
(1,1680)	1:383:A:LYS:HD3	2:1228:A:4IP:H4	19	0.37
(1,1193)	1:456:A:LEU:H	1:456:A:LEU:HD22	8	0.37
(1,872)	1:428:A:VAL:HG11	1:472:A:ARG:HA	1	0.37
(1,872)	1:428:A:VAL:HG12	1:472:A:ARG:HA	1	0.37
(1,872)	1:428:A:VAL:HG13	1:472:A:ARG:HA	1	0.37
(1,872)	1:428:A:VAL:HG21	1:472:A:ARG:HA	1	0.37
(1,872)	1:428:A:VAL:HG22	1:472:A:ARG:HA	1	0.37
(1,872)	1:428:A:VAL:HG23	1:472:A:ARG:HA	1	0.37
(1,473)	1:385:A:LYS:H	1:385:A:LYS:HB2	10	0.37
(1,211)	1:385:A:LYS:H	1:453:A:GLU:HG2	12	0.37
(1,99)	1:438:A:LYS:HB2	1:434:A:ILE:HA	19	0.37

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,3)	1:389:A:LEU:HB2	1:389:A:LEU:HA	1	0.37
(1,3)	1:389:A:LEU:HB2	1:389:A:LEU:HA	14	0.37
(4,75)	1:494:A:SER:O	1:498:A:MET:N	20	0.36
(4,66)	1:491:A:ASN:O	1:495:A:PHE:N	12	0.36
(4,60)	1:489:A:VAL:O	1:493:A:LEU:N	18	0.36
(4,35)	1:472:A:ARG:O	1:476:A:LYS:N	4	0.36
(4,35)	1:472:A:ARG:O	1:476:A:LYS:N	20	0.36
(4,24)	1:468:A:MET:O	1:472:A:ARG:H	17	0.36
(4,16)	1:466:A:HIS:O	1:469:A:ALA:H	13	0.36
(4,15)	1:465:A:ALA:O	1:469:A:ALA:H	12	0.36
(4,14)	1:465:A:ALA:O	1:469:A:ALA:N	5	0.36
(4,14)	1:465:A:ALA:O	1:469:A:ALA:N	13	0.36
(4,6)	1:462:A:LYS:O	1:466:A:HIS:H	18	0.36
(2,137)	1:473:A:LEU:O	1:476:A:LYS:N	19	0.36
(2,136)	1:472:A:ARG:O	1:475:A:SER:N	6	0.36
(2,131)	1:467:A:TRP:O	1:470:A:ALA:N	15	0.36
(1,1689)	1:385:A:LYS:HE3	2:1228:A:4IP:H4	1	0.36
(1,473)	1:385:A:LYS:H	1:385:A:LYS:HB2	4	0.36
(1,408)	1:378:A:TYR:H	1:378:A:TYR:HE2	14	0.36
(1,211)	1:385:A:LYS:H	1:453:A:GLU:HG2	16	0.36
(1,42)	1:451:A:MET:HA	1:451:A:MET:HG3	9	0.36
(4,69)	1:492:A:ILE:O	1:496:A:LEU:N	10	0.35
(4,35)	1:472:A:ARG:O	1:476:A:LYS:N	5	0.35
(4,14)	1:465:A:ALA:O	1:469:A:ALA:N	10	0.35
(4,14)	1:465:A:ALA:O	1:469:A:ALA:N	14	0.35
(4,4)	1:462:A:LYS:O	1:465:A:ALA:H	1	0.35
(2,150)	1:494:A:SER:O	1:497:A:LYS:N	4	0.35
(2,148)	1:492:A:ILE:O	1:495:A:PHE:N	8	0.35
(2,147)	1:491:A:ASN:O	1:494:A:SER:N	11	0.35
(2,141)	1:485:A:TYR:O	1:488:A:GLU:N	11	0.35
(2,131)	1:467:A:TRP:O	1:470:A:ALA:N	12	0.35
(1,1690)	1:390:A:LYS:HE2	2:1228:A:4IP:H2	13	0.35
(1,1690)	1:390:A:LYS:HE3	2:1228:A:4IP:H2	13	0.35
(1,1654)	1:498:A:MET:H	1:496:A:LEU:HB3	3	0.35
(1,522)	1:390:A:LYS:H	1:391:A:GLY:H	8	0.35
(1,247)	1:433:A:ASN:H	1:439:A:PHE:HD1	7	0.35
(1,211)	1:385:A:LYS:H	1:453:A:GLU:HG2	15	0.35
(1,171)	1:383:A:LYS:HA	1:391:A:GLY:HA2	12	0.35
(4,76)	1:494:A:SER:O	1:498:A:MET:H	10	0.34
(4,63)	1:490:A:GLN:O	1:494:A:SER:N	2	0.34
(4,63)	1:490:A:GLN:O	1:494:A:SER:N	16	0.34
(4,58)	1:488:A:GLU:O	1:492:A:ILE:H	12	0.34

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(4,35)	1:472:A:ARG:O	1:476:A:LYS:N	2	0.34
(4,25)	1:469:A:ALA:O	1:472:A:ARG:H	4	0.34
(4,14)	1:465:A:ALA:O	1:469:A:ALA:N	15	0.34
(4,9)	1:463:A:GLN:O	1:467:A:TRP:H	3	0.34
(4,6)	1:462:A:LYS:O	1:466:A:HIS:H	2	0.34
(1,1683)	1:408:A:LYS:HE2	2:1228:A:4IP:H4	7	0.34
(1,1683)	1:408:A:LYS:HE3	2:1228:A:4IP:H4	7	0.34
(1,999)	1:441:A:ILE:H	1:441:A:ILE:HD12	9	0.34
(1,566)	1:396:A:TRP:H	1:395:A:TYR:HB2	11	0.34
(1,505)	1:389:A:LEU:H	1:389:A:LEU:HD12	6	0.34
(1,133)	1:376:A:ALA:HA	1:377:A:ASP:HB3	20	0.34
(1,46)	1:379:A:ILE:HD12	1:379:A:ILE:HB	13	0.34
(4,70)	1:492:A:ILE:O	1:496:A:LEU:H	12	0.33
(4,66)	1:491:A:ASN:O	1:495:A:PHE:N	19	0.33
(4,59)	1:489:A:VAL:O	1:492:A:ILE:H	18	0.33
(4,49)	1:485:A:TYR:O	1:489:A:VAL:H	5	0.33
(4,46)	1:484:A:SER:O	1:488:A:GLU:H	15	0.33
(4,6)	1:462:A:LYS:O	1:466:A:HIS:H	3	0.33
(2,148)	1:492:A:ILE:O	1:495:A:PHE:N	12	0.33
(2,142)	1:486:A:ASN:O	1:489:A:VAL:N	20	0.33
(2,140)	1:484:A:SER:O	1:487:A:LEU:N	3	0.33
(2,137)	1:473:A:LEU:O	1:476:A:LYS:N	9	0.33
(2,136)	1:472:A:ARG:O	1:475:A:SER:N	1	0.33
(2,136)	1:472:A:ARG:O	1:475:A:SER:N	9	0.33
(2,133)	1:469:A:ALA:O	1:472:A:ARG:N	11	0.33
(2,131)	1:467:A:TRP:O	1:470:A:ALA:N	4	0.33
(2,131)	1:467:A:TRP:O	1:470:A:ALA:N	11	0.33
(2,131)	1:467:A:TRP:O	1:470:A:ALA:N	13	0.33
(2,127)	1:463:A:GLN:O	1:466:A:HIS:N	2	0.33
(1,872)	1:428:A:VAL:HG11	1:472:A:ARG:HA	7	0.33
(1,872)	1:428:A:VAL:HG12	1:472:A:ARG:HA	7	0.33
(1,872)	1:428:A:VAL:HG13	1:472:A:ARG:HA	7	0.33
(1,872)	1:428:A:VAL:HG21	1:472:A:ARG:HA	7	0.33
(1,872)	1:428:A:VAL:HG22	1:472:A:ARG:HA	7	0.33
(1,872)	1:428:A:VAL:HG23	1:472:A:ARG:HA	7	0.33
(1,473)	1:385:A:LYS:H	1:385:A:LYS:HB2	1	0.33
(1,377)	1:375:A:LEU:H	1:374:A:GLU:HG3	11	0.33
(4,76)	1:494:A:SER:O	1:498:A:MET:H	11	0.32
(4,73)	1:493:A:LEU:O	1:497:A:LYS:H	17	0.32
(4,66)	1:491:A:ASN:O	1:495:A:PHE:N	20	0.32
(4,50)	1:486:A:ASN:O	1:489:A:VAL:H	10	0.32
(4,35)	1:472:A:ARG:O	1:476:A:LYS:N	13	0.32

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(4,27)	1:469:A:ALA:O	1:473:A:LEU:H	18	0.32
(4,24)	1:468:A:MET:O	1:472:A:ARG:H	2	0.32
(4,14)	1:465:A:ALA:O	1:469:A:ALA:N	17	0.32
(4,14)	1:465:A:ALA:O	1:469:A:ALA:N	18	0.32
(2,148)	1:492:A:ILE:O	1:495:A:PHE:N	1	0.32
(2,141)	1:485:A:TYR:O	1:488:A:GLU:N	19	0.32
(2,136)	1:472:A:ARG:O	1:475:A:SER:N	2	0.32
(2,44)	1:388:A:THR:H	1:389:A:LEU:HG	10	0.32
(1,1690)	1:390:A:LYS:HE2	2:1228:A:4IP:H2	19	0.32
(1,1690)	1:390:A:LYS:HE3	2:1228:A:4IP:H2	19	0.32
(1,1602)	1:491:A:ASN:H	1:491:A:ASN:HD22	9	0.32
(1,1478)	1:480:A:MET:H	1:480:A:MET:HG2	6	0.32
(1,965)	1:438:A:LYS:H	1:438:A:LYS:HD2	20	0.32
(1,872)	1:428:A:VAL:HG11	1:472:A:ARG:HA	13	0.32
(1,872)	1:428:A:VAL:HG12	1:472:A:ARG:HA	13	0.32
(1,872)	1:428:A:VAL:HG13	1:472:A:ARG:HA	13	0.32
(1,872)	1:428:A:VAL:HG21	1:472:A:ARG:HA	13	0.32
(1,872)	1:428:A:VAL:HG22	1:472:A:ARG:HA	13	0.32
(1,872)	1:428:A:VAL:HG23	1:472:A:ARG:HA	13	0.32
(1,444)	1:381:A:VAL:H	1:393:A:LYS:HB2	13	0.32
(1,377)	1:375:A:LEU:H	1:374:A:GLU:HG3	16	0.32
(1,366)	1:372:A:ILE:H	1:372:A:ILE:HG13	6	0.32
(1,357)	1:371:A:SER:H	1:370:A:THR:HA	6	0.32
(1,246)	1:436:A:GLY:H	1:437:A:GLN:HG2	5	0.32
(4,63)	1:490:A:GLN:O	1:494:A:SER:N	4	0.31
(4,58)	1:488:A:GLU:O	1:492:A:ILE:H	16	0.31
(4,53)	1:487:A:LEU:O	1:490:A:GLN:H	15	0.31
(4,46)	1:484:A:SER:O	1:488:A:GLU:H	20	0.31
(4,14)	1:465:A:ALA:O	1:469:A:ALA:N	7	0.31
(4,9)	1:463:A:GLN:O	1:467:A:TRP:H	13	0.31
(2,145)	1:489:A:VAL:O	1:492:A:ILE:N	17	0.31
(2,141)	1:485:A:TYR:O	1:488:A:GLU:N	1	0.31
(2,131)	1:467:A:TRP:O	1:470:A:ALA:N	10	0.31
(2,129)	1:465:A:ALA:O	1:468:A:MET:N	1	0.31
(1,1685)	1:408:A:LYS:HD2	2:1228:A:4IP:H4	17	0.31
(1,1685)	1:408:A:LYS:HD3	2:1228:A:4IP:H4	17	0.31
(1,922)	1:433:A:ASN:H	1:438:A:LYS:HG2	9	0.31
(1,858)	1:427:A:GLU:H	1:444:A:LEU:HD12	17	0.31
(1,792)	1:422:A:ASN:H	1:421:A:MET:HB3	18	0.31
(1,566)	1:396:A:TRP:H	1:395:A:TYR:HB2	4	0.31
(1,246)	1:436:A:GLY:H	1:437:A:GLN:HG2	13	0.31
(1,46)	1:379:A:ILE:HD12	1:379:A:ILE:HB	3	0.31

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(4,69)	1:492:A:ILE:O	1:496:A:LEU:N	4	0.3
(4,63)	1:490:A:GLN:O	1:494:A:SER:N	10	0.3
(4,62)	1:490:A:GLN:O	1:493:A:LEU:H	19	0.3
(4,47)	1:485:A:TYR:O	1:488:A:GLU:H	8	0.3
(4,47)	1:485:A:TYR:O	1:488:A:GLU:H	12	0.3
(4,38)	1:473:A:LEU:O	1:477:A:GLY:N	15	0.3
(4,35)	1:472:A:ARG:O	1:476:A:LYS:N	6	0.3
(4,32)	1:471:A:CYS:O	1:475:A:SER:N	14	0.3
(4,23)	1:468:A:MET:O	1:472:A:ARG:N	9	0.3
(4,18)	1:466:A:HIS:O	1:470:A:ALA:H	2	0.3
(4,14)	1:465:A:ALA:O	1:469:A:ALA:N	19	0.3
(4,9)	1:463:A:GLN:O	1:467:A:TRP:H	11	0.3
(4,5)	1:462:A:LYS:O	1:466:A:HIS:N	20	0.3
(4,1)	1:461:A:GLU:O	1:464:A:TYR:H	15	0.3
(2,151)	1:495:A:PHE:O	1:498:A:MET:N	19	0.3
(2,142)	1:486:A:ASN:O	1:489:A:VAL:N	5	0.3
(2,137)	1:473:A:LEU:O	1:476:A:LYS:N	4	0.3
(2,134)	1:470:A:ALA:O	1:473:A:LEU:N	2	0.3
(2,134)	1:470:A:ALA:O	1:473:A:LEU:N	16	0.3
(2,133)	1:469:A:ALA:O	1:472:A:ARG:N	6	0.3
(2,127)	1:463:A:GLN:O	1:466:A:HIS:N	8	0.3
(2,127)	1:463:A:GLN:O	1:466:A:HIS:N	16	0.3
(2,89)	1:458:A:CYS:H	1:380:A:LYS:HG2	20	0.3
(1,1478)	1:480:A:MET:H	1:480:A:MET:HG2	2	0.3
(1,1478)	1:480:A:MET:H	1:480:A:MET:HG2	14	0.3
(1,959)	1:438:A:LYS:H	1:434:A:ILE:HD12	1	0.3
(1,477)	1:385:A:LYS:H	1:385:A:LYS:HG2	17	0.3
(1,357)	1:371:A:SER:H	1:370:A:THR:HA	9	0.3
(1,331)	1:471:A:CYS:H	1:474:A:ALA:HB2	3	0.3
(1,246)	1:436:A:GLY:H	1:437:A:GLN:HG2	10	0.3
(1,99)	1:438:A:LYS:HB2	1:434:A:ILE:HA	20	0.3
(4,77)	1:495:A:PHE:O	1:498:A:MET:H	11	0.29
(4,70)	1:492:A:ILE:O	1:496:A:LEU:H	9	0.29
(4,61)	1:489:A:VAL:O	1:493:A:LEU:H	3	0.29
(4,58)	1:488:A:GLU:O	1:492:A:ILE:H	13	0.29
(4,58)	1:488:A:GLU:O	1:492:A:ILE:H	20	0.29
(4,57)	1:488:A:GLU:O	1:492:A:ILE:N	17	0.29
(4,50)	1:486:A:ASN:O	1:489:A:VAL:H	19	0.29
(4,47)	1:485:A:TYR:O	1:488:A:GLU:H	14	0.29
(4,38)	1:473:A:LEU:O	1:477:A:GLY:N	4	0.29
(4,36)	1:472:A:ARG:O	1:476:A:LYS:H	3	0.29
(4,35)	1:472:A:ARG:O	1:476:A:LYS:N	7	0.29

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(4,25)	1:469:A:ALA:O	1:472:A:ARG:H	12	0.29
(4,16)	1:466:A:HIS:O	1:469:A:ALA:H	19	0.29
(4,11)	1:464:A:TYR:O	1:468:A:MET:N	20	0.29
(4,8)	1:463:A:GLN:O	1:467:A:TRP:N	6	0.29
(2,140)	1:484:A:SER:O	1:487:A:LEU:N	12	0.29
(2,137)	1:473:A:LEU:O	1:476:A:LYS:N	17	0.29
(2,127)	1:463:A:GLN:O	1:466:A:HIS:N	5	0.29
(1,1610)	1:492:A:ILE:H	1:492:A:ILE:HD12	13	0.29
(1,1610)	1:492:A:ILE:H	1:492:A:ILE:HD12	14	0.29
(1,981)	1:440:A:ASN:H	1:432:A:VAL:HG22	5	0.29
(1,959)	1:438:A:LYS:H	1:434:A:ILE:HD12	7	0.29
(1,789)	1:421:A:MET:H	1:421:A:MET:HG3	12	0.29
(1,488)	1:386:A:LYS:H	1:386:A:LYS:HG2	16	0.29
(1,481)	1:386:A:LYS:H	1:384:A:PRO:HD2	18	0.29
(1,478)	1:385:A:LYS:H	1:385:A:LYS:HG3	17	0.29
(4,75)	1:494:A:SER:O	1:498:A:MET:N	3	0.28
(4,75)	1:494:A:SER:O	1:498:A:MET:N	7	0.28
(4,72)	1:493:A:LEU:O	1:497:A:LYS:N	11	0.28
(4,69)	1:492:A:ILE:O	1:496:A:LEU:N	1	0.28
(4,63)	1:490:A:GLN:O	1:494:A:SER:N	9	0.28
(4,61)	1:489:A:VAL:O	1:493:A:LEU:H	10	0.28
(4,58)	1:488:A:GLU:O	1:492:A:ILE:H	1	0.28
(4,46)	1:484:A:SER:O	1:488:A:GLU:H	10	0.28
(4,31)	1:471:A:CYS:O	1:474:A:ALA:H	4	0.28
(4,31)	1:471:A:CYS:O	1:474:A:ALA:H	9	0.28
(4,31)	1:471:A:CYS:O	1:474:A:ALA:H	11	0.28
(4,9)	1:463:A:GLN:O	1:467:A:TRP:H	4	0.28
(4,8)	1:463:A:GLN:O	1:467:A:TRP:N	2	0.28
(4,1)	1:461:A:GLU:O	1:464:A:TYR:H	10	0.28
(2,141)	1:485:A:TYR:O	1:488:A:GLU:N	2	0.28
(2,136)	1:472:A:ARG:O	1:475:A:SER:N	18	0.28
(2,133)	1:469:A:ALA:O	1:472:A:ARG:N	18	0.28
(2,127)	1:463:A:GLN:O	1:466:A:HIS:N	1	0.28
(2,127)	1:463:A:GLN:O	1:466:A:HIS:N	19	0.28
(1,1478)	1:480:A:MET:H	1:480:A:MET:HG2	7	0.28
(1,1463)	1:479:A:THR:H	1:478:A:LYS:HB2	5	0.28
(1,1099)	1:451:A:MET:H	1:444:A:LEU:HD12	16	0.28
(1,999)	1:441:A:ILE:H	1:441:A:ILE:HD12	1	0.28
(1,965)	1:438:A:LYS:H	1:438:A:LYS:HD2	16	0.28
(1,144)	1:411:A:GLU:HA	1:410:A:LYS:HG2	6	0.28
(1,46)	1:379:A:ILE:HD12	1:379:A:ILE:HB	8	0.28
(4,75)	1:494:A:SER:O	1:498:A:MET:N	8	0.27

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(4,67)	1:491:A:ASN:O	1:495:A:PHE:H	2	0.27
(4,66)	1:491:A:ASN:O	1:495:A:PHE:N	17	0.27
(4,63)	1:490:A:GLN:O	1:494:A:SER:N	3	0.27
(4,53)	1:487:A:LEU:O	1:490:A:GLN:H	13	0.27
(4,48)	1:485:A:TYR:O	1:489:A:VAL:N	12	0.27
(4,46)	1:484:A:SER:O	1:488:A:GLU:H	11	0.27
(4,32)	1:471:A:CYS:O	1:475:A:SER:N	3	0.27
(4,31)	1:471:A:CYS:O	1:474:A:ALA:H	15	0.27
(4,23)	1:468:A:MET:O	1:472:A:ARG:N	15	0.27
(4,8)	1:463:A:GLN:O	1:467:A:TRP:N	12	0.27
(4,8)	1:463:A:GLN:O	1:467:A:TRP:N	17	0.27
(4,3)	1:461:A:GLU:O	1:465:A:ALA:H	5	0.27
(2,145)	1:489:A:VAL:O	1:492:A:ILE:N	8	0.27
(2,137)	1:473:A:LEU:O	1:476:A:LYS:N	11	0.27
(2,129)	1:465:A:ALA:O	1:468:A:MET:N	18	0.27
(1,1690)	1:390:A:LYS:HE2	2:1228:A:4IP:H2	20	0.27
(1,1690)	1:390:A:LYS:HE3	2:1228:A:4IP:H2	20	0.27
(1,1664)	1:498:A:MET:H	1:498:A:MET:HG3	9	0.27
(1,1661)	1:498:A:MET:H	1:498:A:MET:HB2	7	0.27
(1,1657)	1:498:A:MET:H	1:497:A:LYS:HB3	16	0.27
(1,960)	1:438:A:LYS:H	1:437:A:GLN:HA	9	0.27
(1,598)	1:399:A:PHE:H	1:375:A:LEU:HD22	3	0.27
(1,504)	1:389:A:LEU:H	1:389:A:LEU:HB2	13	0.27
(1,479)	1:385:A:LYS:H	1:386:A:LYS:HE2	10	0.27
(1,374)	1:374:A:GLU:H	1:374:A:GLU:HG2	12	0.27
(1,263)	1:390:A:LYS:H	1:389:A:LEU:HG	13	0.27
(4,74)	1:494:A:SER:O	1:497:A:LYS:H	5	0.26
(4,66)	1:491:A:ASN:O	1:495:A:PHE:N	1	0.26
(4,63)	1:490:A:GLN:O	1:494:A:SER:N	20	0.26
(4,61)	1:489:A:VAL:O	1:493:A:LEU:H	19	0.26
(4,53)	1:487:A:LEU:O	1:490:A:GLN:H	11	0.26
(4,52)	1:486:A:ASN:O	1:490:A:GLN:H	18	0.26
(4,50)	1:486:A:ASN:O	1:489:A:VAL:H	16	0.26
(4,50)	1:486:A:ASN:O	1:489:A:VAL:H	18	0.26
(4,35)	1:472:A:ARG:O	1:476:A:LYS:N	1	0.26
(4,35)	1:472:A:ARG:O	1:476:A:LYS:N	15	0.26
(4,32)	1:471:A:CYS:O	1:475:A:SER:N	5	0.26
(4,23)	1:468:A:MET:O	1:472:A:ARG:N	14	0.26
(4,23)	1:468:A:MET:O	1:472:A:ARG:N	18	0.26
(4,16)	1:466:A:HIS:O	1:469:A:ALA:H	10	0.26
(4,16)	1:466:A:HIS:O	1:469:A:ALA:H	12	0.26
(2,140)	1:484:A:SER:O	1:487:A:LEU:N	1	0.26

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,138)	1:474:A:ALA:O	1:477:A:GLY:N	2	0.26
(2,131)	1:467:A:TRP:O	1:470:A:ALA:N	18	0.26
(2,127)	1:463:A:GLN:O	1:466:A:HIS:N	10	0.26
(1,1690)	1:390:A:LYS:HE2	2:1228:A:4IP:H2	15	0.26
(1,1690)	1:390:A:LYS:HE3	2:1228:A:4IP:H2	15	0.26
(1,1678)	1:389:A:LEU:H	2:1228:A:4IP:H6	2	0.26
(1,1657)	1:498:A:MET:H	1:497:A:LYS:HB3	3	0.26
(1,1654)	1:498:A:MET:H	1:496:A:LEU:HB3	13	0.26
(1,1610)	1:492:A:ILE:H	1:492:A:ILE:HD12	16	0.26
(1,1184)	1:456:A:LEU:H	1:379:A:ILE:HG12	12	0.26
(1,952)	1:437:A:GLN:H	1:437:A:GLN:HG2	5	0.26
(1,914)	1:433:A:ASN:H	1:432:A:VAL:HG22	19	0.26
(1,872)	1:428:A:VAL:HG11	1:472:A:ARG:HA	12	0.26
(1,872)	1:428:A:VAL:HG12	1:472:A:ARG:HA	12	0.26
(1,872)	1:428:A:VAL:HG13	1:472:A:ARG:HA	12	0.26
(1,872)	1:428:A:VAL:HG21	1:472:A:ARG:HA	12	0.26
(1,872)	1:428:A:VAL:HG22	1:472:A:ARG:HA	12	0.26
(1,872)	1:428:A:VAL:HG23	1:472:A:ARG:HA	12	0.26
(1,687)	1:409:A:SER:H	1:408:A:LYS:HE3	12	0.26
(1,507)	1:389:A:LEU:H	1:389:A:LEU:HG	2	0.26
(1,506)	1:389:A:LEU:H	1:389:A:LEU:HD22	10	0.26
(1,489)	1:386:A:LYS:H	1:386:A:LYS:HG3	10	0.26
(1,476)	1:385:A:LYS:H	1:385:A:LYS:HE2	11	0.26
(1,456)	1:382:A:PHE:H	1:455:A:TRP:HB2	7	0.26
(1,346)	1:369:A:ILE:H	1:368:A:ASP:HA	6	0.26
(1,114)	1:404:A:ILE:HD12	1:399:A:PHE:HB3	19	0.26
(4,75)	1:494:A:SER:O	1:498:A:MET:N	2	0.25
(4,75)	1:494:A:SER:O	1:498:A:MET:N	17	0.25
(4,69)	1:492:A:ILE:O	1:496:A:LEU:N	7	0.25
(4,58)	1:488:A:GLU:O	1:492:A:ILE:H	9	0.25
(4,53)	1:487:A:LEU:O	1:490:A:GLN:H	19	0.25
(4,38)	1:473:A:LEU:O	1:477:A:GLY:N	8	0.25
(4,22)	1:468:A:MET:O	1:471:A:CYS:H	16	0.25
(4,17)	1:466:A:HIS:O	1:470:A:ALA:N	6	0.25
(4,8)	1:463:A:GLN:O	1:467:A:TRP:N	10	0.25
(2,137)	1:473:A:LEU:O	1:476:A:LYS:N	16	0.25
(2,127)	1:463:A:GLN:O	1:466:A:HIS:N	6	0.25
(1,1560)	1:489:A:VAL:H	1:489:A:VAL:HG22	15	0.25
(1,1184)	1:456:A:LEU:H	1:379:A:ILE:HG12	16	0.25
(1,1099)	1:451:A:MET:H	1:444:A:LEU:HD12	14	0.25
(1,872)	1:428:A:VAL:HG11	1:472:A:ARG:HA	4	0.25
(1,872)	1:428:A:VAL:HG12	1:472:A:ARG:HA	4	0.25

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,872)	1:428:A:VAL:HG13	1:472:A:ARG:HA	4	0.25
(1,872)	1:428:A:VAL:HG21	1:472:A:ARG:HA	4	0.25
(1,872)	1:428:A:VAL:HG22	1:472:A:ARG:HA	4	0.25
(1,872)	1:428:A:VAL:HG23	1:472:A:ARG:HA	4	0.25
(1,872)	1:428:A:VAL:HG11	1:472:A:ARG:HA	18	0.25
(1,872)	1:428:A:VAL:HG12	1:472:A:ARG:HA	18	0.25
(1,872)	1:428:A:VAL:HG13	1:472:A:ARG:HA	18	0.25
(1,872)	1:428:A:VAL:HG21	1:472:A:ARG:HA	18	0.25
(1,872)	1:428:A:VAL:HG22	1:472:A:ARG:HA	18	0.25
(1,872)	1:428:A:VAL:HG23	1:472:A:ARG:HA	18	0.25
(1,598)	1:399:A:PHE:H	1:375:A:LEU:HD22	2	0.25
(1,509)	1:390:A:LYS:H	1:389:A:LEU:HB2	17	0.25
(1,477)	1:385:A:LYS:H	1:385:A:LYS:HG2	16	0.25
(1,474)	1:385:A:LYS:H	1:385:A:LYS:HB3	15	0.25
(1,473)	1:385:A:LYS:H	1:385:A:LYS:HB2	3	0.25
(1,473)	1:385:A:LYS:H	1:385:A:LYS:HB2	6	0.25
(1,465)	1:383:A:LYS:H	1:383:A:LYS:HB3	2	0.25
(1,465)	1:383:A:LYS:H	1:383:A:LYS:HB3	14	0.25
(1,225)	1:421:A:MET:H	1:404:A:ILE:HG22	9	0.25
(1,170)	1:408:A:LYS:HD2	1:407:A:TYR:HA	16	0.25
(1,46)	1:379:A:ILE:HD12	1:379:A:ILE:HB	19	0.25
(4,63)	1:490:A:GLN:O	1:494:A:SER:N	11	0.24
(4,58)	1:488:A:GLU:O	1:492:A:ILE:H	2	0.24
(4,58)	1:488:A:GLU:O	1:492:A:ILE:H	4	0.24
(4,53)	1:487:A:LEU:O	1:490:A:GLN:H	14	0.24
(4,48)	1:485:A:TYR:O	1:489:A:VAL:N	14	0.24
(4,46)	1:484:A:SER:O	1:488:A:GLU:H	3	0.24
(4,33)	1:471:A:CYS:O	1:475:A:SER:H	16	0.24
(4,32)	1:471:A:CYS:O	1:475:A:SER:N	19	0.24
(4,23)	1:468:A:MET:O	1:472:A:ARG:N	7	0.24
(4,15)	1:465:A:ALA:O	1:469:A:ALA:H	6	0.24
(4,14)	1:465:A:ALA:O	1:469:A:ALA:N	20	0.24
(4,8)	1:463:A:GLN:O	1:467:A:TRP:N	5	0.24
(2,134)	1:470:A:ALA:O	1:473:A:LEU:N	14	0.24
(2,131)	1:467:A:TRP:O	1:470:A:ALA:N	5	0.24
(2,129)	1:465:A:ALA:O	1:468:A:MET:N	4	0.24
(2,128)	1:464:A:TYR:O	1:467:A:TRP:N	20	0.24
(2,44)	1:388:A:THR:H	1:389:A:LEU:HG	20	0.24
(1,1638)	1:496:A:LEU:H	1:495:A:PHE:HD1	15	0.24
(1,1616)	1:493:A:LEU:H	1:493:A:LEU:HD12	7	0.24
(1,1602)	1:491:A:ASN:H	1:491:A:ASN:HD22	18	0.24
(1,1566)	1:490:A:GLN:H	1:489:A:VAL:HG12	14	0.24

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1188)	1:456:A:LEU:H	1:455:A:TRP:HE3	1	0.24
(1,1175)	1:455:A:TRP:H	1:455:A:TRP:HE3	14	0.24
(1,1032)	1:444:A:LEU:H	1:443:A:LEU:HD22	17	0.24
(1,999)	1:441:A:ILE:H	1:441:A:ILE:HD12	19	0.24
(1,952)	1:437:A:GLN:H	1:437:A:GLN:HG2	11	0.24
(1,669)	1:407:A:TYR:H	1:407:A:TYR:HB2	11	0.24
(1,505)	1:389:A:LEU:H	1:389:A:LEU:HD12	12	0.24
(1,505)	1:389:A:LEU:H	1:389:A:LEU:HD12	19	0.24
(1,488)	1:386:A:LYS:H	1:386:A:LYS:HG2	4	0.24
(1,422)	1:380:A:LYS:H	1:379:A:ILE:HG12	12	0.24
(1,408)	1:378:A:TYR:H	1:378:A:TYR:HE2	8	0.24
(1,46)	1:379:A:ILE:HD12	1:379:A:ILE:HB	11	0.24
(1,46)	1:379:A:ILE:HD12	1:379:A:ILE:HB	14	0.24
(4,69)	1:492:A:ILE:O	1:496:A:LEU:N	17	0.23
(4,66)	1:491:A:ASN:O	1:495:A:PHE:N	6	0.23
(4,58)	1:488:A:GLU:O	1:492:A:ILE:H	10	0.23
(4,32)	1:471:A:CYS:O	1:475:A:SER:N	9	0.23
(4,27)	1:469:A:ALA:O	1:473:A:LEU:H	20	0.23
(4,14)	1:465:A:ALA:O	1:469:A:ALA:N	2	0.23
(4,9)	1:463:A:GLN:O	1:467:A:TRP:H	14	0.23
(4,3)	1:461:A:GLU:O	1:465:A:ALA:H	8	0.23
(2,140)	1:484:A:SER:O	1:487:A:LEU:N	16	0.23
(2,136)	1:472:A:ARG:O	1:475:A:SER:N	12	0.23
(2,132)	1:468:A:MET:O	1:471:A:CYS:N	10	0.23
(2,129)	1:465:A:ALA:O	1:468:A:MET:N	17	0.23
(2,125)	1:461:A:GLU:O	1:464:A:TYR:N	4	0.23
(2,81)	1:443:A:LEU:H	1:455:A:TRP:HE3	11	0.23
(1,1690)	1:390:A:LYS:HE2	2:1228:A:4IP:H2	14	0.23
(1,1690)	1:390:A:LYS:HE3	2:1228:A:4IP:H2	14	0.23
(1,1685)	1:408:A:LYS:HD2	2:1228:A:4IP:H4	2	0.23
(1,1685)	1:408:A:LYS:HD3	2:1228:A:4IP:H4	2	0.23
(1,1463)	1:479:A:THR:H	1:478:A:LYS:HB2	3	0.23
(1,1398)	1:473:A:LEU:H	1:473:A:LEU:HB2	17	0.23
(1,1182)	1:455:A:TRP:HE1	1:455:A:TRP:HA	19	0.23
(1,1099)	1:451:A:MET:H	1:444:A:LEU:HD12	13	0.23
(1,965)	1:438:A:LYS:H	1:438:A:LYS:HD2	19	0.23
(1,957)	1:438:A:LYS:H	1:433:A:ASN:HB2	18	0.23
(1,952)	1:437:A:GLN:H	1:437:A:GLN:HG2	13	0.23
(1,952)	1:437:A:GLN:H	1:437:A:GLN:HG2	15	0.23
(1,707)	1:411:A:GLU:H	1:410:A:LYS:HD2	10	0.23
(1,625)	1:402:A:THR:H	1:401:A:ASP:HB2	6	0.23
(1,566)	1:396:A:TRP:H	1:395:A:TYR:HB2	15	0.23

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,546)	1:394:A:GLN:H	1:393:A:LYS:HG2	7	0.23
(1,513)	1:390:A:LYS:H	1:390:A:LYS:HG3	8	0.23
(1,505)	1:389:A:LEU:H	1:389:A:LEU:HD12	10	0.23
(1,493)	1:387:A:LEU:H	1:386:A:LYS:HG3	4	0.23
(1,409)	1:378:A:TYR:H	1:379:A:ILE:HD12	14	0.23
(1,225)	1:421:A:MET:H	1:404:A:ILE:HG22	12	0.23
(1,222)	1:491:A:ASN:H	1:489:A:VAL:HG12	13	0.23
(1,171)	1:383:A:LYS:HA	1:391:A:GLY:HA2	11	0.23
(1,114)	1:404:A:ILE:HD12	1:399:A:PHE:HB3	14	0.23
(1,114)	1:404:A:ILE:HD12	1:399:A:PHE:HB3	16	0.23
(1,98)	1:420:A:GLN:HA	1:420:A:GLN:HG3	17	0.23
(4,69)	1:492:A:ILE:O	1:496:A:LEU:N	19	0.22
(4,58)	1:488:A:GLU:O	1:492:A:ILE:H	7	0.22
(4,53)	1:487:A:LEU:O	1:490:A:GLN:H	12	0.22
(4,52)	1:486:A:ASN:O	1:490:A:GLN:H	6	0.22
(4,51)	1:486:A:ASN:O	1:490:A:GLN:N	17	0.22
(4,46)	1:484:A:SER:O	1:488:A:GLU:H	19	0.22
(4,38)	1:473:A:LEU:O	1:477:A:GLY:N	17	0.22
(4,33)	1:471:A:CYS:O	1:475:A:SER:H	1	0.22
(4,32)	1:471:A:CYS:O	1:475:A:SER:N	18	0.22
(4,24)	1:468:A:MET:O	1:472:A:ARG:H	16	0.22
(4,24)	1:468:A:MET:O	1:472:A:ARG:H	19	0.22
(4,12)	1:464:A:TYR:O	1:468:A:MET:H	1	0.22
(4,5)	1:462:A:LYS:O	1:466:A:HIS:N	5	0.22
(4,5)	1:462:A:LYS:O	1:466:A:HIS:N	13	0.22
(2,151)	1:495:A:PHE:O	1:498:A:MET:N	17	0.22
(2,148)	1:492:A:ILE:O	1:495:A:PHE:N	2	0.22
(2,141)	1:485:A:TYR:O	1:488:A:GLU:N	17	0.22
(2,137)	1:473:A:LEU:O	1:476:A:LYS:N	3	0.22
(2,129)	1:465:A:ALA:O	1:468:A:MET:N	16	0.22
(2,127)	1:463:A:GLN:O	1:466:A:HIS:N	14	0.22
(1,1680)	1:383:A:LYS:HD2	2:1228:A:4IP:H4	8	0.22
(1,1680)	1:383:A:LYS:HD3	2:1228:A:4IP:H4	8	0.22
(1,1654)	1:498:A:MET:H	1:496:A:LEU:HB3	8	0.22
(1,1654)	1:498:A:MET:H	1:496:A:LEU:HB3	11	0.22
(1,1603)	1:492:A:ILE:H	1:465:A:ALA:HB2	4	0.22
(1,1487)	1:482:A:ASP:H	1:481:A:ALA:HB2	15	0.22
(1,1208)	1:457:A:ARG:H	1:457:A:ARG:HD2	8	0.22
(1,1197)	1:457:A:ARG:H	1:379:A:ILE:HG12	10	0.22
(1,1184)	1:456:A:LEU:H	1:379:A:ILE:HG12	5	0.22
(1,1184)	1:456:A:LEU:H	1:379:A:ILE:HG12	19	0.22
(1,1182)	1:455:A:TRP:HE1	1:455:A:TRP:HA	8	0.22

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1032)	1:444:A:LEU:H	1:443:A:LEU:HD22	2	0.22
(1,1003)	1:442:A:LYS:H	1:441:A:ILE:HB	12	0.22
(1,999)	1:441:A:ILE:H	1:441:A:ILE:HD12	17	0.22
(1,973)	1:439:A:PHE:H	1:438:A:LYS:HG2	7	0.22
(1,905)	1:432:A:VAL:H	1:432:A:VAL:HB	3	0.22
(1,788)	1:421:A:MET:H	1:421:A:MET:HG2	6	0.22
(1,731)	1:413:A:SER:H	1:412:A:GLU:HB3	18	0.22
(1,669)	1:407:A:TYR:H	1:407:A:TYR:HB2	20	0.22
(1,643)	1:404:A:ILE:H	1:404:A:ILE:HG12	15	0.22
(1,510)	1:390:A:LYS:H	1:389:A:LEU:HD12	20	0.22
(1,507)	1:389:A:LEU:H	1:389:A:LEU:HG	6	0.22
(1,496)	1:387:A:LEU:H	1:387:A:LEU:HB3	9	0.22
(1,479)	1:385:A:LYS:H	1:386:A:LYS:HE2	14	0.22
(1,465)	1:383:A:LYS:H	1:383:A:LYS:HB3	4	0.22
(1,427)	1:380:A:LYS:H	1:380:A:LYS:HE2	15	0.22
(1,263)	1:390:A:LYS:H	1:389:A:LEU:HG	4	0.22
(1,263)	1:390:A:LYS:H	1:389:A:LEU:HG	11	0.22
(1,226)	1:482:A:ASP:H	1:476:A:LYS:HD2	5	0.22
(1,222)	1:491:A:ASN:H	1:489:A:VAL:HG12	10	0.22
(1,99)	1:438:A:LYS:HB2	1:434:A:ILE:HA	18	0.22
(1,11)	1:379:A:ILE:HD12	1:379:A:ILE:HG12	3	0.22
(1,11)	1:379:A:ILE:HD12	1:379:A:ILE:HG12	9	0.22
(1,3)	1:389:A:LEU:HB2	1:389:A:LEU:HA	3	0.22
(4,61)	1:489:A:VAL:O	1:493:A:LEU:H	1	0.21
(4,57)	1:488:A:GLU:O	1:492:A:ILE:N	8	0.21
(4,32)	1:471:A:CYS:O	1:475:A:SER:N	11	0.21
(4,8)	1:463:A:GLN:O	1:467:A:TRP:N	18	0.21
(4,1)	1:461:A:GLU:O	1:464:A:TYR:H	12	0.21
(2,149)	1:493:A:LEU:O	1:496:A:LEU:N	20	0.21
(2,81)	1:443:A:LEU:H	1:455:A:TRP:HE3	7	0.21
(2,81)	1:443:A:LEU:H	1:455:A:TRP:HE3	15	0.21
(2,44)	1:388:A:THR:H	1:389:A:LEU:HG	13	0.21
(1,1690)	1:390:A:LYS:HE2	2:1228:A:4IP:H2	2	0.21
(1,1690)	1:390:A:LYS:HE3	2:1228:A:4IP:H2	2	0.21
(1,1645)	1:496:A:LEU:H	1:496:A:LEU:HG	1	0.21
(1,1502)	1:485:A:TYR:H	1:485:A:TYR:HD1	20	0.21
(1,1345)	1:468:A:MET:H	1:468:A:MET:HB2	3	0.21
(1,1222)	1:459:A:ASP:H	1:439:A:PHE:HZ	10	0.21
(1,1032)	1:444:A:LEU:H	1:443:A:LEU:HD22	5	0.21
(1,999)	1:441:A:ILE:H	1:441:A:ILE:HD12	15	0.21
(1,973)	1:439:A:PHE:H	1:438:A:LYS:HG2	1	0.21
(1,973)	1:439:A:PHE:H	1:438:A:LYS:HG2	19	0.21

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,965)	1:438:A:LYS:H	1:438:A:LYS:HD2	4	0.21
(1,849)	1:427:A:GLU:H	1:426:A:CYS:HB3	17	0.21
(1,642)	1:404:A:ILE:H	1:404:A:ILE:HD12	13	0.21
(1,619)	1:401:A:ASP:H	1:400:A:LYS:HD2	1	0.21
(1,522)	1:390:A:LYS:H	1:391:A:GLY:H	20	0.21
(1,492)	1:387:A:LEU:H	1:386:A:LYS:HG2	2	0.21
(1,489)	1:386:A:LYS:H	1:386:A:LYS:HG3	7	0.21
(1,465)	1:383:A:LYS:H	1:383:A:LYS:HB3	3	0.21
(1,416)	1:379:A:ILE:H	1:379:A:ILE:HG12	15	0.21
(1,285)	1:388:A:THR:H	1:389:A:LEU:H	20	0.21
(1,211)	1:385:A:LYS:H	1:453:A:GLU:HG2	4	0.21
(1,144)	1:411:A:GLU:HA	1:410:A:LYS:HG2	8	0.21
(1,139)	1:482:A:ASP:HB2	1:481:A:ALA:HA	20	0.21
(1,118)	1:383:A:LYS:HB2	1:383:A:LYS:HE2	10	0.21
(1,77)	1:417:A:PRO:HB2	1:406:A:CYS:HB3	10	0.21
(1,3)	1:389:A:LEU:HB2	1:389:A:LEU:HA	6	0.21
(4,75)	1:494:A:SER:O	1:498:A:MET:N	16	0.2
(4,55)	1:487:A:LEU:O	1:491:A:ASN:H	11	0.2
(4,53)	1:487:A:LEU:O	1:490:A:GLN:H	9	0.2
(4,52)	1:486:A:ASN:O	1:490:A:GLN:H	11	0.2
(4,50)	1:486:A:ASN:O	1:489:A:VAL:H	14	0.2
(4,46)	1:484:A:SER:O	1:488:A:GLU:H	7	0.2
(2,148)	1:492:A:ILE:O	1:495:A:PHE:N	4	0.2
(2,141)	1:485:A:TYR:O	1:488:A:GLU:N	7	0.2
(2,137)	1:473:A:LEU:O	1:476:A:LYS:N	20	0.2
(2,136)	1:472:A:ARG:O	1:475:A:SER:N	8	0.2
(2,129)	1:465:A:ALA:O	1:468:A:MET:N	19	0.2
(2,127)	1:463:A:GLN:O	1:466:A:HIS:N	13	0.2
(2,24)	1:494:A:SER:H	1:492:A:ILE:HG12	19	0.2
(1,1683)	1:408:A:LYS:HE2	2:1228:A:4IP:H4	13	0.2
(1,1683)	1:408:A:LYS:HE3	2:1228:A:4IP:H4	13	0.2
(1,1655)	1:498:A:MET:H	1:496:A:LEU:HD12	4	0.2
(1,1654)	1:498:A:MET:H	1:496:A:LEU:HB3	19	0.2
(1,1573)	1:490:A:GLN:H	1:491:A:ASN:HB2	9	0.2
(1,1566)	1:490:A:GLN:H	1:489:A:VAL:HG12	8	0.2
(1,1437)	1:476:A:LYS:H	1:476:A:LYS:HE2	5	0.2
(1,1269)	1:463:A:GLN:H	1:462:A:LYS:HD2	6	0.2
(1,1233)	1:460:A:ASN:H	1:460:A:ASN:HD22	3	0.2
(1,1233)	1:460:A:ASN:H	1:460:A:ASN:HD22	17	0.2
(1,1184)	1:456:A:LEU:H	1:379:A:ILE:HG12	18	0.2
(1,999)	1:441:A:ILE:H	1:441:A:ILE:HD12	4	0.2
(1,970)	1:438:A:LYS:H	1:439:A:PHE:HD1	14	0.2

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,965)	1:438:A:LYS:H	1:438:A:LYS:HD2	8	0.2
(1,952)	1:437:A:GLN:H	1:437:A:GLN:HG2	10	0.2
(1,861)	1:427:A:GLU:H	1:445:A:ILE:HD12	17	0.2
(1,858)	1:427:A:GLU:H	1:444:A:LEU:HD12	10	0.2
(1,858)	1:427:A:GLU:H	1:444:A:LEU:HD12	18	0.2
(1,846)	1:426:A:CYS:H	1:445:A:ILE:HD12	17	0.2
(1,669)	1:407:A:TYR:H	1:407:A:TYR:HB2	9	0.2
(1,477)	1:385:A:LYS:H	1:385:A:LYS:HG2	14	0.2
(1,475)	1:385:A:LYS:H	1:385:A:LYS:HD2	20	0.2
(1,474)	1:385:A:LYS:H	1:385:A:LYS:HB3	2	0.2
(1,444)	1:381:A:VAL:H	1:393:A:LYS:HB2	12	0.2
(1,427)	1:380:A:LYS:H	1:380:A:LYS:HE2	13	0.2
(1,366)	1:372:A:ILE:H	1:372:A:ILE:HG13	3	0.2
(1,357)	1:371:A:SER:H	1:370:A:THR:HA	14	0.2
(1,246)	1:436:A:GLY:H	1:437:A:GLN:HG2	11	0.2
(1,226)	1:482:A:ASP:H	1:476:A:LYS:HD2	15	0.2
(1,222)	1:491:A:ASN:H	1:489:A:VAL:HG12	2	0.2
(1,139)	1:482:A:ASP:HB2	1:481:A:ALA:HA	11	0.2
(1,114)	1:404:A:ILE:HD12	1:399:A:PHE:HB3	15	0.2
(1,11)	1:379:A:ILE:HD12	1:379:A:ILE:HG12	19	0.2
(4,75)	1:494:A:SER:O	1:498:A:MET:N	5	0.19
(4,72)	1:493:A:LEU:O	1:497:A:LYS:N	10	0.19
(4,52)	1:486:A:ASN:O	1:490:A:GLN:H	9	0.19
(4,50)	1:486:A:ASN:O	1:489:A:VAL:H	8	0.19
(4,31)	1:471:A:CYS:O	1:474:A:ALA:H	6	0.19
(4,26)	1:469:A:ALA:O	1:473:A:LEU:N	10	0.19
(4,10)	1:464:A:TYR:O	1:467:A:TRP:H	12	0.19
(4,4)	1:462:A:LYS:O	1:465:A:ALA:H	19	0.19
(4,3)	1:461:A:GLU:O	1:465:A:ALA:H	14	0.19
(4,3)	1:461:A:GLU:O	1:465:A:ALA:H	18	0.19
(2,148)	1:492:A:ILE:O	1:495:A:PHE:N	18	0.19
(2,133)	1:469:A:ALA:O	1:472:A:ARG:N	1	0.19
(2,131)	1:467:A:TRP:O	1:470:A:ALA:N	7	0.19
(2,131)	1:467:A:TRP:O	1:470:A:ALA:N	17	0.19
(2,25)	1:491:A:ASN:H	1:492:A:ILE:HB	18	0.19
(1,1645)	1:496:A:LEU:H	1:496:A:LEU:HG	10	0.19
(1,1645)	1:496:A:LEU:H	1:496:A:LEU:HG	17	0.19
(1,1644)	1:496:A:LEU:H	1:496:A:LEU:HD22	6	0.19
(1,1472)	1:482:A:ASP:H	1:375:A:LEU:HB2	6	0.19
(1,1471)	1:481:A:ALA:H	1:375:A:LEU:HB2	10	0.19
(1,1444)	1:477:A:GLY:H	1:426:A:CYS:H	18	0.19
(1,1247)	1:461:A:GLU:H	1:460:A:ASN:HB2	9	0.19

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1208)	1:457:A:ARG:H	1:457:A:ARG:HD2	16	0.19
(1,1197)	1:457:A:ARG:H	1:379:A:ILE:HG12	19	0.19
(1,1184)	1:456:A:LEU:H	1:379:A:ILE:HG12	1	0.19
(1,1163)	1:454:A:ILE:H	1:455:A:TRP:HE3	1	0.19
(1,1163)	1:454:A:ILE:H	1:455:A:TRP:HE3	20	0.19
(1,1150)	1:454:A:ILE:H	1:444:A:LEU:HD12	13	0.19
(1,1032)	1:444:A:LEU:H	1:443:A:LEU:HD22	18	0.19
(1,968)	1:438:A:LYS:H	1:438:A:LYS:HG2	20	0.19
(1,957)	1:438:A:LYS:H	1:433:A:ASN:HB2	20	0.19
(1,905)	1:432:A:VAL:H	1:432:A:VAL:HB	5	0.19
(1,883)	1:429:A:THR:H	1:442:A:LYS:HD2	4	0.19
(1,858)	1:427:A:GLU:H	1:444:A:LEU:HD12	15	0.19
(1,858)	1:427:A:GLU:H	1:444:A:LEU:HD12	20	0.19
(1,669)	1:407:A:TYR:H	1:407:A:TYR:HB2	2	0.19
(1,566)	1:396:A:TRP:H	1:395:A:TYR:HB2	9	0.19
(1,559)	1:395:A:TYR:H	1:394:A:GLN:HB3	4	0.19
(1,517)	1:391:A:GLY:H	1:390:A:LYS:HB2	8	0.19
(1,496)	1:387:A:LEU:H	1:387:A:LEU:HB3	13	0.19
(1,492)	1:387:A:LEU:H	1:386:A:LYS:HG2	3	0.19
(1,481)	1:386:A:LYS:H	1:384:A:PRO:HD2	3	0.19
(1,478)	1:385:A:LYS:H	1:385:A:LYS:HG3	13	0.19
(1,477)	1:385:A:LYS:H	1:385:A:LYS:HG2	20	0.19
(1,473)	1:385:A:LYS:H	1:385:A:LYS:HB2	17	0.19
(1,429)	1:380:A:LYS:H	1:381:A:VAL:HG12	8	0.19
(1,278)	1:392:A:TYR:H	1:391:A:GLY:HA2	11	0.19
(1,274)	1:412:A:GLU:H	1:411:A:GLU:HB3	20	0.19
(1,263)	1:390:A:LYS:H	1:389:A:LEU:HG	5	0.19
(1,245)	1:441:A:ILE:H	1:456:A:LEU:HD12	2	0.19
(1,222)	1:491:A:ASN:H	1:489:A:VAL:HG12	6	0.19
(1,211)	1:385:A:LYS:H	1:453:A:GLU:HG2	17	0.19
(1,181)	1:399:A:PHE:HB3	1:371:A:SER:HB2	12	0.19
(1,139)	1:482:A:ASP:HB2	1:481:A:ALA:HA	1	0.19
(1,139)	1:482:A:ASP:HB2	1:481:A:ALA:HA	3	0.19
(1,139)	1:482:A:ASP:HB2	1:481:A:ALA:HA	9	0.19
(1,77)	1:417:A:PRO:HB2	1:406:A:CYS:HB3	9	0.19
(4,74)	1:494:A:SER:O	1:497:A:LYS:H	14	0.18
(4,66)	1:491:A:ASN:O	1:495:A:PHE:N	7	0.18
(4,63)	1:490:A:GLN:O	1:494:A:SER:N	12	0.18
(4,61)	1:489:A:VAL:O	1:493:A:LEU:H	5	0.18
(4,60)	1:489:A:VAL:O	1:493:A:LEU:N	17	0.18
(4,58)	1:488:A:GLU:O	1:492:A:ILE:H	14	0.18
(4,57)	1:488:A:GLU:O	1:492:A:ILE:N	6	0.18

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(4,52)	1:486:A:ASN:O	1:490:A:GLN:H	7	0.18
(4,50)	1:486:A:ASN:O	1:489:A:VAL:H	9	0.18
(4,49)	1:485:A:TYR:O	1:489:A:VAL:H	15	0.18
(4,38)	1:473:A:LEU:O	1:477:A:GLY:N	13	0.18
(4,32)	1:471:A:CYS:O	1:475:A:SER:N	10	0.18
(4,30)	1:470:A:ALA:O	1:474:A:ALA:H	3	0.18
(4,18)	1:466:A:HIS:O	1:470:A:ALA:H	16	0.18
(4,17)	1:466:A:HIS:O	1:470:A:ALA:N	18	0.18
(4,8)	1:463:A:GLN:O	1:467:A:TRP:N	9	0.18
(4,3)	1:461:A:GLU:O	1:465:A:ALA:H	4	0.18
(4,3)	1:461:A:GLU:O	1:465:A:ALA:H	20	0.18
(2,146)	1:490:A:GLN:O	1:493:A:LEU:N	16	0.18
(2,140)	1:484:A:SER:O	1:487:A:LEU:N	2	0.18
(2,127)	1:463:A:GLN:O	1:466:A:HIS:N	17	0.18
(2,81)	1:443:A:LEU:H	1:455:A:TRP:HE3	1	0.18
(2,81)	1:443:A:LEU:H	1:455:A:TRP:HE3	20	0.18
(2,70)	1:426:A:CYS:H	1:446:A:PRO:HD2	17	0.18
(2,22)	1:434:A:ILE:HA	1:432:A:VAL:HG12	9	0.18
(1,1657)	1:498:A:MET:H	1:497:A:LYS:HB3	20	0.18
(1,1651)	1:497:A:LYS:H	1:497:A:LYS:HD2	17	0.18
(1,1645)	1:496:A:LEU:H	1:496:A:LEU:HG	7	0.18
(1,1638)	1:496:A:LEU:H	1:495:A:PHE:HD1	4	0.18
(1,1638)	1:496:A:LEU:H	1:495:A:PHE:HD1	14	0.18
(1,1560)	1:489:A:VAL:H	1:489:A:VAL:HG22	9	0.18
(1,1494)	1:484:A:SER:H	1:484:A:SER:HB2	20	0.18
(1,1472)	1:482:A:ASP:H	1:375:A:LEU:HB2	3	0.18
(1,1472)	1:482:A:ASP:H	1:375:A:LEU:HB2	14	0.18
(1,1420)	1:475:A:SER:H	1:474:A:ALA:HB2	3	0.18
(1,1347)	1:468:A:MET:H	1:468:A:MET:HG2	8	0.18
(1,1289)	1:465:A:ALA:H	1:461:A:GLU:HA	4	0.18
(1,1237)	1:460:A:ASN:H	1:464:A:TYR:HE1	14	0.18
(1,1222)	1:459:A:ASP:H	1:439:A:PHE:HZ	11	0.18
(1,1221)	1:459:A:ASP:H	1:439:A:PHE:HD1	3	0.18
(1,1221)	1:459:A:ASP:H	1:439:A:PHE:HD2	3	0.18
(1,1220)	1:459:A:ASP:H	1:459:A:ASP:HB2	3	0.18
(1,1193)	1:456:A:LEU:H	1:456:A:LEU:HD22	2	0.18
(1,1032)	1:444:A:LEU:H	1:443:A:LEU:HD22	19	0.18
(1,1003)	1:442:A:LYS:H	1:441:A:ILE:HB	19	0.18
(1,973)	1:439:A:PHE:H	1:438:A:LYS:HG2	2	0.18
(1,959)	1:438:A:LYS:H	1:434:A:ILE:HD12	9	0.18
(1,957)	1:438:A:LYS:H	1:433:A:ASN:HB2	19	0.18
(1,747)	1:415:A:GLY:H	1:416:A:THR:HB	19	0.18

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,663)	1:407:A:TYR:H	1:396:A:TRP:HB2	18	0.18
(1,620)	1:401:A:ASP:H	1:400:A:LYS:HG2	19	0.18
(1,605)	1:399:A:PHE:H	1:400:A:LYS:HZ2	12	0.18
(1,566)	1:396:A:TRP:H	1:395:A:TYR:HB2	10	0.18
(1,546)	1:394:A:GLN:H	1:393:A:LYS:HG2	15	0.18
(1,545)	1:394:A:GLN:H	1:393:A:LYS:HD2	11	0.18
(1,533)	1:393:A:LYS:H	1:392:A:TYR:HB2	8	0.18
(1,522)	1:390:A:LYS:H	1:391:A:GLY:H	17	0.18
(1,510)	1:390:A:LYS:H	1:389:A:LEU:HD12	1	0.18
(1,505)	1:389:A:LEU:H	1:389:A:LEU:HD12	18	0.18
(1,492)	1:387:A:LEU:H	1:386:A:LYS:HG2	6	0.18
(1,482)	1:385:A:LYS:H	1:386:A:LYS:H	11	0.18
(1,476)	1:385:A:LYS:H	1:385:A:LYS:HE2	16	0.18
(1,474)	1:385:A:LYS:H	1:385:A:LYS:HB3	17	0.18
(1,474)	1:385:A:LYS:H	1:385:A:LYS:HB3	19	0.18
(1,409)	1:378:A:TYR:H	1:379:A:ILE:HD12	8	0.18
(1,374)	1:374:A:GLU:H	1:374:A:GLU:HG2	18	0.18
(1,322)	1:454:A:ILE:H	1:443:A:LEU:HB2	10	0.18
(1,276)	1:370:A:THR:H	1:371:A:SER:HA	15	0.18
(1,245)	1:441:A:ILE:H	1:456:A:LEU:HD12	17	0.18
(1,226)	1:482:A:ASP:H	1:476:A:LYS:HD2	8	0.18
(1,222)	1:491:A:ASN:H	1:489:A:VAL:HG12	5	0.18
(1,211)	1:385:A:LYS:H	1:453:A:GLU:HG2	1	0.18
(1,184)	1:436:A:GLY:HA3	1:437:A:GLN:HG2	13	0.18
(1,170)	1:408:A:LYS:HD2	1:407:A:TYR:HA	3	0.18
(1,168)	1:442:A:LYS:HE2	1:453:A:GLU:HB2	19	0.18
(1,130)	1:401:A:ASP:HB2	1:400:A:LYS:HB2	10	0.18
(1,114)	1:404:A:ILE:HD12	1:399:A:PHE:HB3	11	0.18
(1,46)	1:379:A:ILE:HD12	1:379:A:ILE:HB	15	0.18
(1,11)	1:379:A:ILE:HD12	1:379:A:ILE:HG12	1	0.18
(1,7)	1:376:A:ALA:HA	1:376:A:ALA:HB2	15	0.18
(4,64)	1:490:A:GLN:O	1:494:A:SER:H	15	0.17
(4,60)	1:489:A:VAL:O	1:493:A:LEU:N	16	0.17
(4,58)	1:488:A:GLU:O	1:492:A:ILE:H	18	0.17
(4,55)	1:487:A:LEU:O	1:491:A:ASN:H	1	0.17
(4,48)	1:485:A:TYR:O	1:489:A:VAL:N	20	0.17
(4,28)	1:470:A:ALA:O	1:473:A:LEU:H	13	0.17
(4,10)	1:464:A:TYR:O	1:467:A:TRP:H	2	0.17
(4,5)	1:462:A:LYS:O	1:466:A:HIS:N	10	0.17
(2,151)	1:495:A:PHE:O	1:498:A:MET:N	13	0.17
(2,143)	1:487:A:LEU:O	1:490:A:GLN:N	17	0.17
(2,140)	1:484:A:SER:O	1:487:A:LEU:N	10	0.17

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(2,129)	1:465:A:ALA:O	1:468:A:MET:N	5	0.17
(2,129)	1:465:A:ALA:O	1:468:A:MET:N	15	0.17
(2,127)	1:463:A:GLN:O	1:466:A:HIS:N	20	0.17
(2,56)	1:408:A:LYS:H	1:396:A:TRP:HZ2	20	0.17
(2,26)	1:388:A:THR:H	1:385:A:LYS:HD2	11	0.17
(2,26)	1:388:A:THR:H	1:385:A:LYS:HD2	16	0.17
(2,25)	1:491:A:ASN:H	1:492:A:ILE:HB	20	0.17
(1,1657)	1:498:A:MET:H	1:497:A:LYS:HB3	11	0.17
(1,1654)	1:498:A:MET:H	1:496:A:LEU:HB3	14	0.17
(1,1638)	1:496:A:LEU:H	1:495:A:PHE:HD1	18	0.17
(1,1611)	1:492:A:ILE:H	1:492:A:ILE:HG12	17	0.17
(1,1487)	1:482:A:ASP:H	1:481:A:ALA:HB2	9	0.17
(1,1423)	1:475:A:SER:H	1:475:A:SER:HB2	20	0.17
(1,1197)	1:457:A:ARG:H	1:379:A:ILE:HG12	8	0.17
(1,1184)	1:456:A:LEU:H	1:379:A:ILE:HG12	20	0.17
(1,1179)	1:455:A:TRP:HE1	1:453:A:GLU:HG2	15	0.17
(1,1163)	1:454:A:ILE:H	1:455:A:TRP:HE3	7	0.17
(1,1150)	1:454:A:ILE:H	1:444:A:LEU:HD12	16	0.17
(1,1105)	1:451:A:MET:H	1:451:A:MET:HB2	9	0.17
(1,1099)	1:451:A:MET:H	1:444:A:LEU:HD12	7	0.17
(1,1003)	1:442:A:LYS:H	1:441:A:ILE:HB	15	0.17
(1,999)	1:441:A:ILE:H	1:441:A:ILE:HD12	16	0.17
(1,970)	1:438:A:LYS:H	1:439:A:PHE:HD1	4	0.17
(1,903)	1:432:A:VAL:H	1:431:A:ASP:HB3	1	0.17
(1,903)	1:432:A:VAL:H	1:431:A:ASP:HB3	8	0.17
(1,862)	1:427:A:GLU:H	1:445:A:ILE:HG12	20	0.17
(1,858)	1:427:A:GLU:H	1:444:A:LEU:HD12	11	0.17
(1,787)	1:421:A:MET:H	1:421:A:MET:HB2	8	0.17
(1,787)	1:421:A:MET:H	1:421:A:MET:HB2	15	0.17
(1,677)	1:408:A:LYS:H	1:408:A:LYS:HE2	4	0.17
(1,663)	1:407:A:TYR:H	1:396:A:TRP:HB2	14	0.17
(1,620)	1:401:A:ASP:H	1:400:A:LYS:HG2	10	0.17
(1,582)	1:397:A:CYS:H	1:379:A:ILE:HG22	6	0.17
(1,582)	1:397:A:CYS:H	1:379:A:ILE:HG22	17	0.17
(1,566)	1:396:A:TRP:H	1:395:A:TYR:HB2	20	0.17
(1,543)	1:394:A:GLN:H	1:393:A:LYS:HB2	1	0.17
(1,520)	1:391:A:GLY:H	1:390:A:LYS:HG2	17	0.17
(1,515)	1:391:A:GLY:H	1:389:A:LEU:HD12	9	0.17
(1,479)	1:385:A:LYS:H	1:386:A:LYS:HE2	13	0.17
(1,468)	1:383:A:LYS:H	1:383:A:LYS:HG2	13	0.17
(1,465)	1:383:A:LYS:H	1:383:A:LYS:HB3	11	0.17
(1,444)	1:381:A:VAL:H	1:393:A:LYS:HB2	11	0.17

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,409)	1:378:A:TYR:H	1:379:A:ILE:HD12	13	0.17
(1,364)	1:372:A:ILE:H	1:372:A:ILE:HD12	1	0.17
(1,259)	1:479:A:THR:H	1:478:A:LYS:HE2	14	0.17
(1,230)	1:475:A:SER:H	1:425:A:GLY:H	17	0.17
(1,208)	1:395:A:TYR:H	1:393:A:LYS:HD2	15	0.17
(1,139)	1:482:A:ASP:HB2	1:481:A:ALA:HA	17	0.17
(1,139)	1:482:A:ASP:HB2	1:481:A:ALA:HA	19	0.17
(1,119)	1:496:A:LEU:HD22	1:496:A:LEU:HA	7	0.17
(1,114)	1:404:A:ILE:HD12	1:399:A:PHE:HB3	20	0.17
(1,34)	1:381:A:VAL:HA	1:381:A:VAL:HG22	1	0.17
(1,16)	1:379:A:ILE:HD12	1:379:A:ILE:HG22	13	0.17
(1,3)	1:389:A:LEU:HB2	1:389:A:LEU:HA	16	0.17
(4,63)	1:490:A:GLN:O	1:494:A:SER:N	7	0.16
(4,50)	1:486:A:ASN:O	1:489:A:VAL:H	12	0.16
(4,46)	1:484:A:SER:O	1:488:A:GLU:H	4	0.16
(4,31)	1:471:A:CYS:O	1:474:A:ALA:H	10	0.16
(4,27)	1:469:A:ALA:O	1:473:A:LEU:H	5	0.16
(4,25)	1:469:A:ALA:O	1:472:A:ARG:H	3	0.16
(4,10)	1:464:A:TYR:O	1:467:A:TRP:H	4	0.16
(4,10)	1:464:A:TYR:O	1:467:A:TRP:H	18	0.16
(4,3)	1:461:A:GLU:O	1:465:A:ALA:H	1	0.16
(2,140)	1:484:A:SER:O	1:487:A:LEU:N	19	0.16
(2,137)	1:473:A:LEU:O	1:476:A:LYS:N	18	0.16
(2,133)	1:469:A:ALA:O	1:472:A:ARG:N	7	0.16
(2,120)	1:496:A:LEU:H	1:497:A:LYS:HB3	10	0.16
(2,89)	1:458:A:CYS:H	1:380:A:LYS:HG2	16	0.16
(2,67)	1:421:A:MET:H	1:406:A:CYS:HB3	10	0.16
(2,42)	1:381:A:VAL:H	1:393:A:LYS:HD2	9	0.16
(2,12)	1:445:A:ILE:HD12	1:452:A:ASN:HB3	17	0.16
(2,12)	1:445:A:ILE:HD12	1:452:A:ASN:HB3	20	0.16
(1,1690)	1:390:A:LYS:HE2	2:1228:A:4IP:H2	6	0.16
(1,1690)	1:390:A:LYS:HE3	2:1228:A:4IP:H2	6	0.16
(1,1654)	1:498:A:MET:H	1:496:A:LEU:HB3	9	0.16
(1,1651)	1:497:A:LYS:H	1:497:A:LYS:HD2	7	0.16
(1,1651)	1:497:A:LYS:H	1:497:A:LYS:HD2	8	0.16
(1,1616)	1:493:A:LEU:H	1:493:A:LEU:HD12	19	0.16
(1,1582)	1:491:A:ASN:H	1:489:A:VAL:HG22	4	0.16
(1,1566)	1:490:A:GLN:H	1:489:A:VAL:HG12	18	0.16
(1,1563)	1:490:A:GLN:H	1:469:A:ALA:HB2	5	0.16
(1,1563)	1:490:A:GLN:H	1:469:A:ALA:HB2	6	0.16
(1,1563)	1:490:A:GLN:H	1:469:A:ALA:HB2	18	0.16
(1,1490)	1:482:A:ASP:H	1:482:A:ASP:HB2	6	0.16

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1437)	1:476:A:LYS:H	1:476:A:LYS:HE2	1	0.16
(1,1437)	1:476:A:LYS:H	1:476:A:LYS:HE2	18	0.16
(1,1255)	1:462:A:LYS:H	1:460:A:ASN:HB2	17	0.16
(1,1247)	1:461:A:GLU:H	1:460:A:ASN:HB2	19	0.16
(1,1222)	1:459:A:ASP:H	1:439:A:PHE:HZ	9	0.16
(1,1222)	1:459:A:ASP:H	1:439:A:PHE:HZ	15	0.16
(1,1220)	1:459:A:ASP:H	1:459:A:ASP:HB2	14	0.16
(1,1220)	1:459:A:ASP:H	1:459:A:ASP:HB2	15	0.16
(1,1193)	1:456:A:LEU:H	1:456:A:LEU:HD22	19	0.16
(1,1184)	1:456:A:LEU:H	1:379:A:ILE:HG12	9	0.16
(1,1150)	1:454:A:ILE:H	1:444:A:LEU:HD12	6	0.16
(1,1150)	1:454:A:ILE:H	1:444:A:LEU:HD12	14	0.16
(1,1150)	1:454:A:ILE:H	1:444:A:LEU:HD12	17	0.16
(1,1099)	1:451:A:MET:H	1:444:A:LEU:HD12	3	0.16
(1,1008)	1:442:A:LYS:H	1:442:A:LYS:HD3	8	0.16
(1,1003)	1:442:A:LYS:H	1:441:A:ILE:HB	3	0.16
(1,1003)	1:442:A:LYS:H	1:441:A:ILE:HB	16	0.16
(1,999)	1:441:A:ILE:H	1:441:A:ILE:HD12	3	0.16
(1,903)	1:432:A:VAL:H	1:431:A:ASP:HB3	16	0.16
(1,865)	1:428:A:VAL:H	1:427:A:GLU:HG2	11	0.16
(1,858)	1:427:A:GLU:H	1:444:A:LEU:HD12	6	0.16
(1,858)	1:427:A:GLU:H	1:444:A:LEU:HD12	12	0.16
(1,849)	1:427:A:GLU:H	1:426:A:CYS:HB3	18	0.16
(1,826)	1:424:A:ARG:H	1:425:A:GLY:H	1	0.16
(1,826)	1:424:A:ARG:H	1:425:A:GLY:H	20	0.16
(1,651)	1:405:A:SER:H	1:404:A:ILE:HG13	7	0.16
(1,651)	1:405:A:SER:H	1:404:A:ILE:HG13	14	0.16
(1,613)	1:400:A:LYS:H	1:400:A:LYS:HG2	10	0.16
(1,605)	1:399:A:PHE:H	1:400:A:LYS:HZ2	1	0.16
(1,605)	1:399:A:PHE:H	1:400:A:LYS:HZ2	2	0.16
(1,605)	1:399:A:PHE:H	1:400:A:LYS:HZ2	5	0.16
(1,555)	1:395:A:TYR:H	1:379:A:ILE:HG12	14	0.16
(1,533)	1:393:A:LYS:H	1:392:A:TYR:HB2	16	0.16
(1,505)	1:389:A:LEU:H	1:389:A:LEU:HD12	5	0.16
(1,489)	1:386:A:LYS:H	1:386:A:LYS:HG3	17	0.16
(1,476)	1:385:A:LYS:H	1:385:A:LYS:HE2	20	0.16
(1,474)	1:385:A:LYS:H	1:385:A:LYS:HB3	5	0.16
(1,428)	1:380:A:LYS:H	1:380:A:LYS:HG2	18	0.16
(1,422)	1:380:A:LYS:H	1:379:A:ILE:HG12	9	0.16
(1,422)	1:380:A:LYS:H	1:379:A:ILE:HG12	16	0.16
(1,225)	1:421:A:MET:H	1:404:A:ILE:HG22	14	0.16
(1,222)	1:491:A:ASN:H	1:489:A:VAL:HG12	3	0.16

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,222)	1:491:A:ASN:H	1:489:A:VAL:HG12	7	0.16
(1,222)	1:491:A:ASN:H	1:489:A:VAL:HG12	14	0.16
(1,211)	1:385:A:LYS:H	1:453:A:GLU:HG2	10	0.16
(1,211)	1:385:A:LYS:H	1:453:A:GLU:HG2	20	0.16
(1,183)	1:438:A:LYS:HE3	1:434:A:ILE:HA	9	0.16
(1,171)	1:383:A:LYS:HA	1:391:A:GLY:HA2	16	0.16
(1,171)	1:383:A:LYS:HA	1:391:A:GLY:HA2	19	0.16
(1,124)	1:405:A:SER:HB3	1:420:A:GLN:HA	11	0.16
(1,77)	1:417:A:PRO:HB2	1:406:A:CYS:HB3	3	0.16
(1,14)	1:430:A:PRO:HA	1:430:A:PRO:HB2	16	0.16
(1,11)	1:379:A:ILE:HD12	1:379:A:ILE:HG12	18	0.16
(1,3)	1:389:A:LEU:HB2	1:389:A:LEU:HA	15	0.16
(4,76)	1:494:A:SER:O	1:498:A:MET:H	1	0.15
(4,73)	1:493:A:LEU:O	1:497:A:LYS:H	13	0.15
(4,70)	1:492:A:ILE:O	1:496:A:LEU:H	11	0.15
(4,61)	1:489:A:VAL:O	1:493:A:LEU:H	6	0.15
(4,61)	1:489:A:VAL:O	1:493:A:LEU:H	20	0.15
(4,48)	1:485:A:TYR:O	1:489:A:VAL:N	8	0.15
(4,32)	1:471:A:CYS:O	1:475:A:SER:N	7	0.15
(4,27)	1:469:A:ALA:O	1:473:A:LEU:H	19	0.15
(4,22)	1:468:A:MET:O	1:471:A:CYS:H	18	0.15
(4,10)	1:464:A:TYR:O	1:467:A:TRP:H	15	0.15
(4,10)	1:464:A:TYR:O	1:467:A:TRP:H	19	0.15
(4,4)	1:462:A:LYS:O	1:465:A:ALA:H	17	0.15
(4,1)	1:461:A:GLU:O	1:464:A:TYR:H	5	0.15
(2,140)	1:484:A:SER:O	1:487:A:LEU:N	8	0.15
(2,138)	1:474:A:ALA:O	1:477:A:GLY:N	18	0.15
(2,131)	1:467:A:TRP:O	1:470:A:ALA:N	6	0.15
(2,129)	1:465:A:ALA:O	1:468:A:MET:N	14	0.15
(2,127)	1:463:A:GLN:O	1:466:A:HIS:N	9	0.15
(2,120)	1:496:A:LEU:H	1:497:A:LYS:HB3	1	0.15
(2,89)	1:458:A:CYS:H	1:380:A:LYS:HG2	13	0.15
(1,1690)	1:390:A:LYS:HE2	2:1228:A:4IP:H2	9	0.15
(1,1690)	1:390:A:LYS:HE3	2:1228:A:4IP:H2	9	0.15
(1,1661)	1:498:A:MET:H	1:498:A:MET:HB2	13	0.15
(1,1657)	1:498:A:MET:H	1:497:A:LYS:HB3	4	0.15
(1,1651)	1:497:A:LYS:H	1:497:A:LYS:HD2	19	0.15
(1,1643)	1:496:A:LEU:H	1:496:A:LEU:HD12	6	0.15
(1,1616)	1:493:A:LEU:H	1:493:A:LEU:HD12	18	0.15
(1,1566)	1:490:A:GLN:H	1:489:A:VAL:HG12	19	0.15
(1,1479)	1:480:A:MET:H	1:480:A:MET:HG3	4	0.15
(1,1444)	1:477:A:GLY:H	1:426:A:CYS:H	5	0.15

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1409)	1:474:A:ALA:H	1:473:A:LEU:HG	1	0.15
(1,1289)	1:465:A:ALA:H	1:461:A:GLU:HA	8	0.15
(1,1269)	1:463:A:GLN:H	1:462:A:LYS:HD2	12	0.15
(1,1222)	1:459:A:ASP:H	1:439:A:PHE:HZ	17	0.15
(1,1220)	1:459:A:ASP:H	1:459:A:ASP:HB2	18	0.15
(1,1184)	1:456:A:LEU:H	1:379:A:ILE:HG12	2	0.15
(1,1184)	1:456:A:LEU:H	1:379:A:ILE:HG12	17	0.15
(1,1179)	1:455:A:TRP:HE1	1:453:A:GLU:HG2	11	0.15
(1,1150)	1:454:A:ILE:H	1:444:A:LEU:HD12	15	0.15
(1,1032)	1:444:A:LEU:H	1:443:A:LEU:HD22	14	0.15
(1,1008)	1:442:A:LYS:H	1:442:A:LYS:HD3	19	0.15
(1,999)	1:441:A:ILE:H	1:441:A:ILE:HD12	5	0.15
(1,970)	1:438:A:LYS:H	1:439:A:PHE:HD1	19	0.15
(1,952)	1:437:A:GLN:H	1:437:A:GLN:HG2	20	0.15
(1,950)	1:437:A:GLN:H	1:437:A:GLN:HA	9	0.15
(1,903)	1:432:A:VAL:H	1:431:A:ASP:HB3	15	0.15
(1,895)	1:431:A:ASP:H	1:440:A:ASN:HB2	9	0.15
(1,895)	1:431:A:ASP:H	1:440:A:ASN:HB2	13	0.15
(1,849)	1:427:A:GLU:H	1:426:A:CYS:HB3	1	0.15
(1,828)	1:425:A:GLY:H	1:424:A:ARG:HB2	6	0.15
(1,828)	1:425:A:GLY:H	1:424:A:ARG:HB2	8	0.15
(1,787)	1:421:A:MET:H	1:421:A:MET:HB2	5	0.15
(1,787)	1:421:A:MET:H	1:421:A:MET:HB2	17	0.15
(1,747)	1:415:A:GLY:H	1:416:A:THR:HB	7	0.15
(1,683)	1:409:A:SER:H	1:396:A:TRP:H	10	0.15
(1,651)	1:405:A:SER:H	1:404:A:ILE:HG13	11	0.15
(1,620)	1:401:A:ASP:H	1:400:A:LYS:HG2	6	0.15
(1,605)	1:399:A:PHE:H	1:400:A:LYS:HZ2	4	0.15
(1,598)	1:399:A:PHE:H	1:375:A:LEU:HD22	7	0.15
(1,582)	1:397:A:CYS:H	1:379:A:ILE:HG22	5	0.15
(1,582)	1:397:A:CYS:H	1:379:A:ILE:HG22	18	0.15
(1,555)	1:395:A:TYR:H	1:379:A:ILE:HG12	7	0.15
(1,545)	1:394:A:GLN:H	1:393:A:LYS:HD2	2	0.15
(1,543)	1:394:A:GLN:H	1:393:A:LYS:HB2	5	0.15
(1,543)	1:394:A:GLN:H	1:393:A:LYS:HB2	14	0.15
(1,533)	1:393:A:LYS:H	1:392:A:TYR:HB2	4	0.15
(1,533)	1:393:A:LYS:H	1:392:A:TYR:HB2	19	0.15
(1,524)	1:392:A:TYR:H	1:391:A:GLY:H	8	0.15
(1,516)	1:391:A:GLY:H	1:389:A:LEU:HG	2	0.15
(1,513)	1:390:A:LYS:H	1:390:A:LYS:HG3	11	0.15
(1,513)	1:390:A:LYS:H	1:390:A:LYS:HG3	12	0.15
(1,509)	1:390:A:LYS:H	1:389:A:LEU:HB2	10	0.15

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,492)	1:387:A:LEU:H	1:386:A:LYS:HG2	12	0.15
(1,492)	1:387:A:LEU:H	1:386:A:LYS:HG2	19	0.15
(1,492)	1:387:A:LEU:H	1:386:A:LYS:HG2	20	0.15
(1,484)	1:386:A:LYS:H	1:386:A:LYS:HB2	5	0.15
(1,479)	1:385:A:LYS:H	1:386:A:LYS:HE2	4	0.15
(1,475)	1:385:A:LYS:H	1:385:A:LYS:HD2	7	0.15
(1,474)	1:385:A:LYS:H	1:385:A:LYS:HB3	4	0.15
(1,377)	1:375:A:LEU:H	1:374:A:GLU:HG3	18	0.15
(1,349)	1:369:A:ILE:H	1:369:A:ILE:HD12	1	0.15
(1,349)	1:369:A:ILE:H	1:369:A:ILE:HD12	7	0.15
(1,349)	1:369:A:ILE:H	1:369:A:ILE:HD12	11	0.15
(1,322)	1:454:A:ILE:H	1:443:A:LEU:HB2	12	0.15
(1,226)	1:482:A:ASP:H	1:476:A:LYS:HD2	12	0.15
(1,222)	1:491:A:ASN:H	1:489:A:VAL:HG12	1	0.15
(1,222)	1:491:A:ASN:H	1:489:A:VAL:HG12	16	0.15
(1,222)	1:491:A:ASN:H	1:489:A:VAL:HG12	20	0.15
(1,214)	1:381:A:VAL:H	1:457:A:ARG:HH12	8	0.15
(1,139)	1:482:A:ASP:HB2	1:481:A:ALA:HA	15	0.15
(1,119)	1:496:A:LEU:HD22	1:496:A:LEU:HA	5	0.15
(1,119)	1:496:A:LEU:HD22	1:496:A:LEU:HA	18	0.15
(1,116)	1:457:A:ARG:HA	1:457:A:ARG:HD2	15	0.15
(1,114)	1:404:A:ILE:HD12	1:399:A:PHE:HB3	4	0.15
(1,114)	1:404:A:ILE:HD12	1:399:A:PHE:HB3	5	0.15
(1,113)	1:457:A:ARG:HA	1:457:A:ARG:HD2	15	0.15
(1,102)	1:375:A:LEU:HD12	1:473:A:LEU:HG	14	0.15
(4,75)	1:494:A:SER:O	1:498:A:MET:N	9	0.14
(4,75)	1:494:A:SER:O	1:498:A:MET:N	14	0.14
(4,72)	1:493:A:LEU:O	1:497:A:LYS:N	7	0.14
(4,71)	1:493:A:LEU:O	1:496:A:LEU:H	5	0.14
(4,70)	1:492:A:ILE:O	1:496:A:LEU:H	6	0.14
(4,63)	1:490:A:GLN:O	1:494:A:SER:N	8	0.14
(4,53)	1:487:A:LEU:O	1:490:A:GLN:H	20	0.14
(4,51)	1:486:A:ASN:O	1:490:A:GLN:N	8	0.14
(4,48)	1:485:A:TYR:O	1:489:A:VAL:N	17	0.14
(4,40)	1:474:A:ALA:O	1:477:A:GLY:H	5	0.14
(4,38)	1:473:A:LEU:O	1:477:A:GLY:N	12	0.14
(4,32)	1:471:A:CYS:O	1:475:A:SER:N	8	0.14
(4,26)	1:469:A:ALA:O	1:473:A:LEU:N	8	0.14
(4,10)	1:464:A:TYR:O	1:467:A:TRP:H	10	0.14
(4,10)	1:464:A:TYR:O	1:467:A:TRP:H	16	0.14
(4,5)	1:462:A:LYS:O	1:466:A:HIS:N	17	0.14
(4,3)	1:461:A:GLU:O	1:465:A:ALA:H	13	0.14

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(4,1)	1:461:A:GLU:O	1:464:A:TYR:H	1	0.14
(2,149)	1:493:A:LEU:O	1:496:A:LEU:N	6	0.14
(2,148)	1:492:A:ILE:O	1:495:A:PHE:N	6	0.14
(2,127)	1:463:A:GLN:O	1:466:A:HIS:N	4	0.14
(2,81)	1:443:A:LEU:H	1:455:A:TRP:HE3	14	0.14
(1,1689)	1:385:A:LYS:HE2	2:1228:A:4IP:H4	13	0.14
(1,1683)	1:408:A:LYS:HE2	2:1228:A:4IP:H4	6	0.14
(1,1683)	1:408:A:LYS:HE3	2:1228:A:4IP:H4	6	0.14
(1,1657)	1:498:A:MET:H	1:497:A:LYS:HB3	14	0.14
(1,1655)	1:498:A:MET:H	1:496:A:LEU:HD12	7	0.14
(1,1654)	1:498:A:MET:H	1:496:A:LEU:HB3	17	0.14
(1,1651)	1:497:A:LYS:H	1:497:A:LYS:HD2	15	0.14
(1,1645)	1:496:A:LEU:H	1:496:A:LEU:HG	12	0.14
(1,1645)	1:496:A:LEU:H	1:496:A:LEU:HG	20	0.14
(1,1626)	1:494:A:SER:H	1:497:A:LYS:HE2	20	0.14
(1,1582)	1:491:A:ASN:H	1:489:A:VAL:HG22	8	0.14
(1,1582)	1:491:A:ASN:H	1:489:A:VAL:HG22	19	0.14
(1,1566)	1:490:A:GLN:H	1:489:A:VAL:HG12	12	0.14
(1,1563)	1:490:A:GLN:H	1:469:A:ALA:HB2	7	0.14
(1,1502)	1:485:A:TYR:H	1:485:A:TYR:HD1	7	0.14
(1,1487)	1:482:A:ASP:H	1:481:A:ALA:HB2	20	0.14
(1,1474)	1:480:A:MET:H	1:479:A:THR:HG21	7	0.14
(1,1463)	1:479:A:THR:H	1:478:A:LYS:HB2	10	0.14
(1,1460)	1:478:A:LYS:H	1:478:A:LYS:HE2	3	0.14
(1,1420)	1:475:A:SER:H	1:474:A:ALA:HB2	5	0.14
(1,1401)	1:473:A:LEU:H	1:473:A:LEU:HG	15	0.14
(1,1316)	1:467:A:TRP:H	1:468:A:MET:HG2	18	0.14
(1,1269)	1:463:A:GLN:H	1:462:A:LYS:HD2	3	0.14
(1,1269)	1:463:A:GLN:H	1:462:A:LYS:HD2	16	0.14
(1,1261)	1:462:A:LYS:H	1:462:A:LYS:HB2	17	0.14
(1,1222)	1:459:A:ASP:H	1:439:A:PHE:HZ	19	0.14
(1,1188)	1:456:A:LEU:H	1:455:A:TRP:HE3	7	0.14
(1,1179)	1:455:A:TRP:HE1	1:453:A:GLU:HG2	7	0.14
(1,1177)	1:455:A:TRP:HE1	1:442:A:LYS:HE2	9	0.14
(1,1150)	1:454:A:ILE:H	1:444:A:LEU:HD12	8	0.14
(1,1150)	1:454:A:ILE:H	1:444:A:LEU:HD12	12	0.14
(1,1032)	1:444:A:LEU:H	1:443:A:LEU:HD22	16	0.14
(1,1029)	1:444:A:LEU:H	1:428:A:VAL:HA	3	0.14
(1,1029)	1:444:A:LEU:H	1:428:A:VAL:HA	18	0.14
(1,1003)	1:442:A:LYS:H	1:441:A:ILE:HB	1	0.14
(1,978)	1:439:A:PHE:H	1:439:A:PHE:HD1	16	0.14
(1,965)	1:438:A:LYS:H	1:438:A:LYS:HD2	12	0.14

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,903)	1:432:A:VAL:H	1:431:A:ASP:HB3	19	0.14
(1,883)	1:429:A:THR:H	1:442:A:LYS:HD2	8	0.14
(1,858)	1:427:A:GLU:H	1:444:A:LEU:HD12	2	0.14
(1,858)	1:427:A:GLU:H	1:444:A:LEU:HD12	4	0.14
(1,849)	1:427:A:GLU:H	1:426:A:CYS:HB3	15	0.14
(1,787)	1:421:A:MET:H	1:421:A:MET:HB2	1	0.14
(1,729)	1:413:A:SER:H	1:412:A:GLU:HA	11	0.14
(1,642)	1:404:A:ILE:H	1:404:A:ILE:HD12	14	0.14
(1,620)	1:401:A:ASP:H	1:400:A:LYS:HG2	5	0.14
(1,620)	1:401:A:ASP:H	1:400:A:LYS:HG2	20	0.14
(1,611)	1:400:A:LYS:H	1:400:A:LYS:HD2	18	0.14
(1,546)	1:394:A:GLN:H	1:393:A:LYS:HG2	12	0.14
(1,546)	1:394:A:GLN:H	1:393:A:LYS:HG2	16	0.14
(1,541)	1:394:A:GLN:H	1:381:A:VAL:H	5	0.14
(1,533)	1:393:A:LYS:H	1:392:A:TYR:HB2	6	0.14
(1,521)	1:391:A:GLY:H	1:390:A:LYS:HG3	5	0.14
(1,507)	1:389:A:LEU:H	1:389:A:LEU:HG	12	0.14
(1,504)	1:389:A:LEU:H	1:389:A:LEU:HB2	6	0.14
(1,493)	1:387:A:LEU:H	1:386:A:LYS:HG3	3	0.14
(1,492)	1:387:A:LEU:H	1:386:A:LYS:HG2	11	0.14
(1,474)	1:385:A:LYS:H	1:385:A:LYS:HB3	10	0.14
(1,464)	1:383:A:LYS:H	1:383:A:LYS:HB2	17	0.14
(1,464)	1:383:A:LYS:H	1:383:A:LYS:HB2	19	0.14
(1,429)	1:380:A:LYS:H	1:381:A:VAL:HG12	16	0.14
(1,409)	1:378:A:TYR:H	1:379:A:ILE:HD12	7	0.14
(1,409)	1:378:A:TYR:H	1:379:A:ILE:HD12	10	0.14
(1,377)	1:375:A:LEU:H	1:374:A:GLU:HG3	6	0.14
(1,366)	1:372:A:ILE:H	1:372:A:ILE:HG13	5	0.14
(1,361)	1:372:A:ILE:H	1:370:A:THR:HA	12	0.14
(1,331)	1:471:A:CYS:H	1:474:A:ALA:HB2	5	0.14
(1,323)	1:457:A:ARG:H	1:381:A:VAL:HG12	4	0.14
(1,298)	1:409:A:SER:H	1:412:A:GLU:HG2	18	0.14
(1,281)	1:491:A:ASN:H	1:489:A:VAL:HB	9	0.14
(1,281)	1:491:A:ASN:H	1:489:A:VAL:HB	15	0.14
(1,263)	1:390:A:LYS:H	1:389:A:LEU:HG	14	0.14
(1,226)	1:482:A:ASP:H	1:476:A:LYS:HD2	10	0.14
(1,226)	1:482:A:ASP:H	1:476:A:LYS:HD2	14	0.14
(1,226)	1:482:A:ASP:H	1:476:A:LYS:HD2	18	0.14
(1,222)	1:491:A:ASN:H	1:489:A:VAL:HG12	11	0.14
(1,170)	1:408:A:LYS:HD2	1:407:A:TYR:HA	9	0.14
(1,162)	1:414:A:SER:HA	1:412:A:GLU:HB3	5	0.14
(1,139)	1:482:A:ASP:HB2	1:481:A:ALA:HA	16	0.14

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,119)	1:496:A:LEU:HD22	1:496:A:LEU:HA	2	0.14
(1,119)	1:496:A:LEU:HD22	1:496:A:LEU:HA	15	0.14
(1,119)	1:496:A:LEU:HD22	1:496:A:LEU:HA	17	0.14
(1,114)	1:404:A:ILE:HD12	1:399:A:PHE:HB3	1	0.14
(1,77)	1:417:A:PRO:HB2	1:406:A:CYS:HB3	8	0.14
(1,77)	1:417:A:PRO:HB2	1:406:A:CYS:HB3	11	0.14
(1,77)	1:417:A:PRO:HB2	1:406:A:CYS:HB3	13	0.14
(1,58)	1:461:A:GLU:HA	1:461:A:GLU:HG2	11	0.14
(1,11)	1:379:A:ILE:HD12	1:379:A:ILE:HG12	17	0.14
(4,75)	1:494:A:SER:O	1:498:A:MET:N	6	0.13
(4,71)	1:493:A:LEU:O	1:496:A:LEU:H	9	0.13
(4,65)	1:491:A:ASN:O	1:494:A:SER:H	13	0.13
(4,63)	1:490:A:GLN:O	1:494:A:SER:N	19	0.13
(4,52)	1:486:A:ASN:O	1:490:A:GLN:H	14	0.13
(4,49)	1:485:A:TYR:O	1:489:A:VAL:H	10	0.13
(4,38)	1:473:A:LEU:O	1:477:A:GLY:N	3	0.13
(4,31)	1:471:A:CYS:O	1:474:A:ALA:H	19	0.13
(4,28)	1:470:A:ALA:O	1:473:A:LEU:H	7	0.13
(4,27)	1:469:A:ALA:O	1:473:A:LEU:H	2	0.13
(4,23)	1:468:A:MET:O	1:472:A:ARG:N	5	0.13
(4,18)	1:466:A:HIS:O	1:470:A:ALA:H	5	0.13
(4,16)	1:466:A:HIS:O	1:469:A:ALA:H	15	0.13
(4,4)	1:462:A:LYS:O	1:465:A:ALA:H	4	0.13
(4,4)	1:462:A:LYS:O	1:465:A:ALA:H	13	0.13
(4,1)	1:461:A:GLU:O	1:464:A:TYR:H	7	0.13
(4,1)	1:461:A:GLU:O	1:464:A:TYR:H	11	0.13
(2,145)	1:489:A:VAL:O	1:492:A:ILE:N	12	0.13
(2,132)	1:468:A:MET:O	1:471:A:CYS:N	3	0.13
(2,44)	1:388:A:THR:H	1:389:A:LEU:HG	11	0.13
(2,26)	1:388:A:THR:H	1:385:A:LYS:HD2	17	0.13
(2,12)	1:445:A:ILE:HD12	1:452:A:ASN:HB3	15	0.13
(2,7)	1:401:A:ASP:HB2	1:372:A:ILE:HG13	5	0.13
(2,7)	1:401:A:ASP:HB2	1:372:A:ILE:HG13	12	0.13
(1,1689)	1:385:A:LYS:HE2	2:1228:A:4IP:H4	5	0.13
(1,1689)	1:386:A:LYS:HE2	2:1228:A:4IP:H4	15	0.13
(1,1689)	1:385:A:LYS:HE2	2:1228:A:4IP:H4	18	0.13
(1,1678)	1:389:A:LEU:H	2:1228:A:4IP:H6	7	0.13
(1,1654)	1:498:A:MET:H	1:496:A:LEU:HB3	2	0.13
(1,1654)	1:498:A:MET:H	1:496:A:LEU:HB3	15	0.13
(1,1644)	1:496:A:LEU:H	1:496:A:LEU:HD22	14	0.13
(1,1610)	1:492:A:ILE:H	1:492:A:ILE:HD12	19	0.13
(1,1582)	1:491:A:ASN:H	1:489:A:VAL:HG22	12	0.13

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1581)	1:491:A:ASN:H	1:488:A:GLU:HA	15	0.13
(1,1424)	1:475:A:SER:H	1:475:A:SER:HB3	14	0.13
(1,1404)	1:474:A:ALA:H	1:470:A:ALA:HB2	3	0.13
(1,1351)	1:468:A:MET:H	1:441:A:ILE:HB	13	0.13
(1,1281)	1:464:A:TYR:H	1:439:A:PHE:HD1	20	0.13
(1,1281)	1:464:A:TYR:H	1:439:A:PHE:HD2	20	0.13
(1,1269)	1:463:A:GLN:H	1:462:A:LYS:HD2	2	0.13
(1,1269)	1:463:A:GLN:H	1:462:A:LYS:HD2	4	0.13
(1,1269)	1:463:A:GLN:H	1:462:A:LYS:HD2	8	0.13
(1,1261)	1:462:A:LYS:H	1:462:A:LYS:HB2	3	0.13
(1,1228)	1:460:A:ASN:H	1:459:A:ASP:HB2	3	0.13
(1,1222)	1:459:A:ASP:H	1:439:A:PHE:HZ	12	0.13
(1,1220)	1:459:A:ASP:H	1:459:A:ASP:HB2	5	0.13
(1,1220)	1:459:A:ASP:H	1:459:A:ASP:HB2	13	0.13
(1,1197)	1:457:A:ARG:H	1:379:A:ILE:HG12	16	0.13
(1,1188)	1:456:A:LEU:H	1:455:A:TRP:HE3	11	0.13
(1,1188)	1:456:A:LEU:H	1:455:A:TRP:HE3	20	0.13
(1,1184)	1:456:A:LEU:H	1:379:A:ILE:HG12	4	0.13
(1,1177)	1:455:A:TRP:HE1	1:442:A:LYS:HE2	12	0.13
(1,1167)	1:455:A:TRP:H	1:454:A:ILE:HD12	20	0.13
(1,1163)	1:454:A:ILE:H	1:455:A:TRP:HE3	15	0.13
(1,1152)	1:454:A:ILE:H	1:453:A:GLU:HB2	15	0.13
(1,1150)	1:454:A:ILE:H	1:444:A:LEU:HD12	1	0.13
(1,1150)	1:454:A:ILE:H	1:444:A:LEU:HD12	5	0.13
(1,1150)	1:454:A:ILE:H	1:444:A:LEU:HD12	10	0.13
(1,1086)	1:450:A:GLY:H	1:447:A:VAL:HG12	15	0.13
(1,1032)	1:444:A:LEU:H	1:443:A:LEU:HD22	4	0.13
(1,1008)	1:442:A:LYS:H	1:442:A:LYS:HD3	17	0.13
(1,978)	1:439:A:PHE:H	1:439:A:PHE:HD1	7	0.13
(1,974)	1:439:A:PHE:H	1:438:A:LYS:HG3	1	0.13
(1,962)	1:437:A:GLN:H	1:438:A:LYS:H	10	0.13
(1,895)	1:431:A:ASP:H	1:440:A:ASN:HB2	3	0.13
(1,895)	1:431:A:ASP:H	1:440:A:ASN:HB2	8	0.13
(1,895)	1:431:A:ASP:H	1:440:A:ASN:HB2	16	0.13
(1,858)	1:427:A:GLU:H	1:444:A:LEU:HD12	5	0.13
(1,787)	1:421:A:MET:H	1:421:A:MET:HB2	9	0.13
(1,787)	1:421:A:MET:H	1:421:A:MET:HB2	16	0.13
(1,651)	1:405:A:SER:H	1:404:A:ILE:HG13	18	0.13
(1,620)	1:401:A:ASP:H	1:400:A:LYS:HG2	14	0.13
(1,605)	1:399:A:PHE:H	1:400:A:LYS:HZ2	6	0.13
(1,582)	1:397:A:CYS:H	1:379:A:ILE:HG22	9	0.13
(1,546)	1:394:A:GLN:H	1:393:A:LYS:HG2	6	0.13

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,546)	1:394:A:GLN:H	1:393:A:LYS:HG2	8	0.13
(1,543)	1:394:A:GLN:H	1:393:A:LYS:HB2	12	0.13
(1,533)	1:393:A:LYS:H	1:392:A:TYR:HB2	7	0.13
(1,533)	1:393:A:LYS:H	1:392:A:TYR:HB2	9	0.13
(1,533)	1:393:A:LYS:H	1:392:A:TYR:HB2	11	0.13
(1,533)	1:393:A:LYS:H	1:392:A:TYR:HB2	15	0.13
(1,533)	1:393:A:LYS:H	1:392:A:TYR:HB2	20	0.13
(1,519)	1:391:A:GLY:H	1:390:A:LYS:HD2	2	0.13
(1,517)	1:391:A:GLY:H	1:390:A:LYS:HB2	20	0.13
(1,515)	1:391:A:GLY:H	1:389:A:LEU:HD12	1	0.13
(1,515)	1:391:A:GLY:H	1:389:A:LEU:HD12	12	0.13
(1,504)	1:389:A:LEU:H	1:389:A:LEU:HB2	5	0.13
(1,493)	1:387:A:LEU:H	1:386:A:LYS:HG3	10	0.13
(1,493)	1:387:A:LEU:H	1:386:A:LYS:HG3	18	0.13
(1,481)	1:386:A:LYS:H	1:384:A:PRO:HD2	9	0.13
(1,481)	1:386:A:LYS:H	1:384:A:PRO:HD2	11	0.13
(1,479)	1:385:A:LYS:H	1:386:A:LYS:HE2	3	0.13
(1,477)	1:385:A:LYS:H	1:385:A:LYS:HG2	3	0.13
(1,476)	1:385:A:LYS:H	1:385:A:LYS:HE2	10	0.13
(1,476)	1:385:A:LYS:H	1:385:A:LYS:HE2	17	0.13
(1,468)	1:383:A:LYS:H	1:383:A:LYS:HG2	9	0.13
(1,468)	1:383:A:LYS:H	1:383:A:LYS:HG2	15	0.13
(1,465)	1:383:A:LYS:H	1:383:A:LYS:HB3	5	0.13
(1,444)	1:381:A:VAL:H	1:393:A:LYS:HB2	8	0.13
(1,444)	1:381:A:VAL:H	1:393:A:LYS:HB2	19	0.13
(1,409)	1:378:A:TYR:H	1:379:A:ILE:HD12	11	0.13
(1,409)	1:378:A:TYR:H	1:379:A:ILE:HD12	15	0.13
(1,394)	1:377:A:ASP:H	1:376:A:ALA:H	2	0.13
(1,394)	1:377:A:ASP:H	1:376:A:ALA:H	13	0.13
(1,376)	1:375:A:LEU:H	1:374:A:GLU:HB2	19	0.13
(1,366)	1:372:A:ILE:H	1:372:A:ILE:HG13	16	0.13
(1,349)	1:369:A:ILE:H	1:369:A:ILE:HD12	12	0.13
(1,346)	1:369:A:ILE:H	1:368:A:ASP:HA	14	0.13
(1,334)	1:485:A:TYR:H	1:482:A:ASP:H	9	0.13
(1,279)	1:496:A:LEU:H	1:492:A:ILE:HA	10	0.13
(1,259)	1:479:A:THR:H	1:478:A:LYS:HE2	7	0.13
(1,222)	1:491:A:ASN:H	1:489:A:VAL:HG12	8	0.13
(1,222)	1:491:A:ASN:H	1:489:A:VAL:HG12	18	0.13
(1,211)	1:385:A:LYS:H	1:453:A:GLU:HG2	8	0.13
(1,209)	1:393:A:LYS:H	1:382:A:PHE:HB2	14	0.13
(1,170)	1:408:A:LYS:HD2	1:407:A:TYR:HA	8	0.13
(1,165)	1:370:A:THR:HB	1:369:A:ILE:HB	6	0.13

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,114)	1:404:A:ILE:HD12	1:399:A:PHE:HB3	13	0.13
(1,99)	1:438:A:LYS:HB2	1:434:A:ILE:HA	5	0.13
(1,77)	1:417:A:PRO:HB2	1:406:A:CYS:HB3	4	0.13
(1,77)	1:417:A:PRO:HB2	1:406:A:CYS:HB3	20	0.13
(1,58)	1:461:A:GLU:HA	1:461:A:GLU:HG2	14	0.13
(4,72)	1:493:A:LEU:O	1:497:A:LYS:N	3	0.12
(4,72)	1:493:A:LEU:O	1:497:A:LYS:N	4	0.12
(4,60)	1:489:A:VAL:O	1:493:A:LEU:N	11	0.12
(4,57)	1:488:A:GLU:O	1:492:A:ILE:N	3	0.12
(4,57)	1:488:A:GLU:O	1:492:A:ILE:N	11	0.12
(4,50)	1:486:A:ASN:O	1:489:A:VAL:H	7	0.12
(4,48)	1:485:A:TYR:O	1:489:A:VAL:N	4	0.12
(4,44)	1:484:A:SER:O	1:487:A:LEU:H	4	0.12
(4,17)	1:466:A:HIS:O	1:470:A:ALA:N	8	0.12
(4,17)	1:466:A:HIS:O	1:470:A:ALA:N	14	0.12
(4,12)	1:464:A:TYR:O	1:468:A:MET:H	6	0.12
(4,12)	1:464:A:TYR:O	1:468:A:MET:H	13	0.12
(4,10)	1:464:A:TYR:O	1:467:A:TRP:H	7	0.12
(4,9)	1:463:A:GLN:O	1:467:A:TRP:H	16	0.12
(4,6)	1:462:A:LYS:O	1:466:A:HIS:H	15	0.12
(2,144)	1:488:A:GLU:O	1:491:A:ASN:N	13	0.12
(2,137)	1:473:A:LEU:O	1:476:A:LYS:N	14	0.12
(2,133)	1:469:A:ALA:O	1:472:A:ARG:N	14	0.12
(2,133)	1:469:A:ALA:O	1:472:A:ARG:N	19	0.12
(2,127)	1:463:A:GLN:O	1:466:A:HIS:N	18	0.12
(2,69)	1:426:A:CYS:H	1:443:A:LEU:HD12	14	0.12
(2,67)	1:421:A:MET:H	1:406:A:CYS:HB3	3	0.12
(1,1685)	1:408:A:LYS:HD2	2:1228:A:4IP:H4	14	0.12
(1,1685)	1:408:A:LYS:HD3	2:1228:A:4IP:H4	14	0.12
(1,1658)	1:498:A:MET:H	1:497:A:LYS:HD2	4	0.12
(1,1654)	1:498:A:MET:H	1:496:A:LEU:HB3	5	0.12
(1,1654)	1:498:A:MET:H	1:496:A:LEU:HB3	10	0.12
(1,1654)	1:498:A:MET:H	1:496:A:LEU:HB3	18	0.12
(1,1651)	1:497:A:LYS:H	1:497:A:LYS:HD2	5	0.12
(1,1638)	1:496:A:LEU:H	1:495:A:PHE:HD1	5	0.12
(1,1637)	1:496:A:LEU:H	1:495:A:PHE:HB2	3	0.12
(1,1616)	1:493:A:LEU:H	1:493:A:LEU:HD12	9	0.12
(1,1616)	1:493:A:LEU:H	1:493:A:LEU:HD12	11	0.12
(1,1616)	1:493:A:LEU:H	1:493:A:LEU:HD12	14	0.12
(1,1581)	1:491:A:ASN:H	1:488:A:GLU:HA	12	0.12
(1,1580)	1:490:A:GLN:HE22	1:490:A:GLN:HG2	3	0.12
(1,1580)	1:490:A:GLN:HE22	1:490:A:GLN:HG2	9	0.12

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1573)	1:490:A:GLN:H	1:491:A:ASN:HB2	18	0.12
(1,1566)	1:490:A:GLN:H	1:489:A:VAL:HG12	6	0.12
(1,1566)	1:490:A:GLN:H	1:489:A:VAL:HG12	16	0.12
(1,1487)	1:482:A:ASP:H	1:481:A:ALA:HB2	11	0.12
(1,1487)	1:482:A:ASP:H	1:481:A:ALA:HB2	17	0.12
(1,1479)	1:480:A:MET:H	1:480:A:MET:HG3	8	0.12
(1,1472)	1:482:A:ASP:H	1:375:A:LEU:HB2	5	0.12
(1,1471)	1:481:A:ALA:H	1:375:A:LEU:HB2	7	0.12
(1,1470)	1:479:A:THR:H	1:375:A:LEU:HB2	7	0.12
(1,1351)	1:468:A:MET:H	1:441:A:ILE:HB	3	0.12
(1,1289)	1:465:A:ALA:H	1:461:A:GLU:HA	18	0.12
(1,1275)	1:463:A:GLN:H	1:463:A:GLN:HB3	16	0.12
(1,1269)	1:463:A:GLN:H	1:462:A:LYS:HD2	10	0.12
(1,1247)	1:461:A:GLU:H	1:460:A:ASN:HB2	6	0.12
(1,1237)	1:460:A:ASN:H	1:464:A:TYR:HE1	10	0.12
(1,1222)	1:459:A:ASP:H	1:439:A:PHE:HZ	14	0.12
(1,1220)	1:459:A:ASP:H	1:459:A:ASP:HB2	1	0.12
(1,1217)	1:459:A:ASP:H	1:458:A:CYS:HB2	10	0.12
(1,1197)	1:457:A:ARG:H	1:379:A:ILE:HG12	11	0.12
(1,1184)	1:456:A:LEU:H	1:379:A:ILE:HG12	6	0.12
(1,1164)	1:453:A:GLU:H	1:452:A:ASN:HB2	13	0.12
(1,1163)	1:454:A:ILE:H	1:455:A:TRP:HE3	11	0.12
(1,1150)	1:454:A:ILE:H	1:444:A:LEU:HD12	20	0.12
(1,1032)	1:444:A:LEU:H	1:443:A:LEU:HD22	1	0.12
(1,1032)	1:444:A:LEU:H	1:443:A:LEU:HD22	6	0.12
(1,974)	1:439:A:PHE:H	1:438:A:LYS:HG3	3	0.12
(1,973)	1:439:A:PHE:H	1:438:A:LYS:HG2	11	0.12
(1,959)	1:438:A:LYS:H	1:434:A:ILE:HD12	16	0.12
(1,959)	1:438:A:LYS:H	1:434:A:ILE:HD12	20	0.12
(1,888)	1:429:A:THR:H	1:472:A:ARG:HA	3	0.12
(1,880)	1:429:A:THR:H	1:429:A:THR:HG21	11	0.12
(1,880)	1:429:A:THR:H	1:429:A:THR:HG21	14	0.12
(1,867)	1:428:A:VAL:H	1:427:A:GLU:H	10	0.12
(1,865)	1:428:A:VAL:H	1:427:A:GLU:HG2	17	0.12
(1,858)	1:427:A:GLU:H	1:444:A:LEU:HD12	8	0.12
(1,848)	1:427:A:GLU:H	1:426:A:CYS:HB2	17	0.12
(1,826)	1:424:A:ARG:H	1:425:A:GLY:H	11	0.12
(1,826)	1:424:A:ARG:H	1:425:A:GLY:H	14	0.12
(1,814)	1:424:A:ARG:H	1:403:A:SER:HA	15	0.12
(1,811)	1:423:A:LEU:H	1:423:A:LEU:HD22	9	0.12
(1,731)	1:413:A:SER:H	1:412:A:GLU:HB3	13	0.12
(1,729)	1:413:A:SER:H	1:412:A:GLU:HA	4	0.12

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,729)	1:413:A:SER:H	1:412:A:GLU:HA	12	0.12
(1,687)	1:409:A:SER:H	1:408:A:LYS:HE3	17	0.12
(1,674)	1:395:A:TYR:H	1:408:A:LYS:HG2	16	0.12
(1,651)	1:405:A:SER:H	1:404:A:ILE:HG13	2	0.12
(1,651)	1:405:A:SER:H	1:404:A:ILE:HG13	16	0.12
(1,651)	1:405:A:SER:H	1:404:A:ILE:HG13	20	0.12
(1,642)	1:404:A:ILE:H	1:404:A:ILE:HD12	18	0.12
(1,582)	1:397:A:CYS:H	1:379:A:ILE:HG22	4	0.12
(1,566)	1:396:A:TRP:H	1:395:A:TYR:HB2	16	0.12
(1,543)	1:394:A:GLN:H	1:393:A:LYS:HB2	9	0.12
(1,543)	1:394:A:GLN:H	1:393:A:LYS:HB2	10	0.12
(1,533)	1:393:A:LYS:H	1:392:A:TYR:HB2	3	0.12
(1,533)	1:393:A:LYS:H	1:392:A:TYR:HB2	13	0.12
(1,507)	1:389:A:LEU:H	1:389:A:LEU:HG	19	0.12
(1,504)	1:389:A:LEU:H	1:389:A:LEU:HB2	11	0.12
(1,496)	1:387:A:LEU:H	1:387:A:LEU:HB3	16	0.12
(1,491)	1:387:A:LEU:H	1:386:A:LYS:HB3	8	0.12
(1,489)	1:386:A:LYS:H	1:386:A:LYS:HG3	2	0.12
(1,489)	1:386:A:LYS:H	1:386:A:LYS:HG3	14	0.12
(1,482)	1:385:A:LYS:H	1:386:A:LYS:H	1	0.12
(1,482)	1:385:A:LYS:H	1:386:A:LYS:H	6	0.12
(1,478)	1:385:A:LYS:H	1:385:A:LYS:HG3	18	0.12
(1,474)	1:385:A:LYS:H	1:385:A:LYS:HB3	20	0.12
(1,456)	1:382:A:PHE:H	1:455:A:TRP:HB2	1	0.12
(1,444)	1:381:A:VAL:H	1:393:A:LYS:HB2	17	0.12
(1,429)	1:380:A:LYS:H	1:381:A:VAL:HG12	20	0.12
(1,422)	1:380:A:LYS:H	1:379:A:ILE:HG12	14	0.12
(1,394)	1:377:A:ASP:H	1:376:A:ALA:H	7	0.12
(1,394)	1:377:A:ASP:H	1:376:A:ALA:H	12	0.12
(1,394)	1:377:A:ASP:H	1:376:A:ALA:H	14	0.12
(1,377)	1:375:A:LEU:H	1:374:A:GLU:HG3	5	0.12
(1,374)	1:374:A:GLU:H	1:374:A:GLU:HG2	11	0.12
(1,368)	1:372:A:ILE:H	1:373:A:PRO:HD2	12	0.12
(1,349)	1:369:A:ILE:H	1:369:A:ILE:HD12	15	0.12
(1,322)	1:454:A:ILE:H	1:443:A:LEU:HB2	8	0.12
(1,286)	1:389:A:LEU:H	1:390:A:LYS:H	16	0.12
(1,281)	1:491:A:ASN:H	1:489:A:VAL:HB	18	0.12
(1,277)	1:496:A:LEU:H	1:493:A:LEU:HD22	8	0.12
(1,276)	1:370:A:THR:H	1:371:A:SER:HA	9	0.12
(1,222)	1:491:A:ASN:H	1:489:A:VAL:HG12	12	0.12
(1,208)	1:395:A:TYR:H	1:393:A:LYS:HD2	16	0.12
(1,206)	1:400:A:LYS:H	1:404:A:ILE:HG22	7	0.12

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,171)	1:383:A:LYS:HA	1:391:A:GLY:HA2	4	0.12
(1,162)	1:414:A:SER:HA	1:412:A:GLU:HB3	16	0.12
(1,107)	1:486:A:ASN:HB2	1:487:A:LEU:HB2	1	0.12
(1,107)	1:486:A:ASN:HB2	1:487:A:LEU:HB2	13	0.12
(1,77)	1:417:A:PRO:HB2	1:406:A:CYS:HB3	6	0.12
(1,58)	1:461:A:GLU:HA	1:461:A:GLU:HG2	3	0.12
(1,58)	1:461:A:GLU:HA	1:461:A:GLU:HG2	15	0.12
(1,58)	1:461:A:GLU:HA	1:461:A:GLU:HG2	16	0.12
(1,58)	1:461:A:GLU:HA	1:461:A:GLU:HG2	20	0.12
(1,57)	1:447:A:VAL:HG12	1:451:A:MET:HA	3	0.12
(1,46)	1:379:A:ILE:HD12	1:379:A:ILE:HB	7	0.12
(4,67)	1:491:A:ASN:O	1:495:A:PHE:H	11	0.11
(4,67)	1:491:A:ASN:O	1:495:A:PHE:H	13	0.11
(4,67)	1:491:A:ASN:O	1:495:A:PHE:H	18	0.11
(4,61)	1:489:A:VAL:O	1:493:A:LEU:H	13	0.11
(4,39)	1:473:A:LEU:O	1:477:A:GLY:H	16	0.11
(4,30)	1:470:A:ALA:O	1:474:A:ALA:H	19	0.11
(4,23)	1:468:A:MET:O	1:472:A:ARG:N	17	0.11
(4,18)	1:466:A:HIS:O	1:470:A:ALA:H	12	0.11
(4,11)	1:464:A:TYR:O	1:468:A:MET:N	10	0.11
(4,5)	1:462:A:LYS:O	1:466:A:HIS:N	1	0.11
(2,148)	1:492:A:ILE:O	1:495:A:PHE:N	5	0.11
(2,144)	1:488:A:GLU:O	1:491:A:ASN:N	2	0.11
(2,131)	1:467:A:TRP:O	1:470:A:ALA:N	14	0.11
(2,129)	1:465:A:ALA:O	1:468:A:MET:N	9	0.11
(2,89)	1:458:A:CYS:H	1:380:A:LYS:HG2	12	0.11
(2,35)	1:374:A:GLU:H	1:372:A:ILE:HG22	12	0.11
(2,28)	1:409:A:SER:H	1:412:A:GLU:HB2	7	0.11
(2,12)	1:445:A:ILE:HD12	1:452:A:ASN:HB3	4	0.11
(2,1)	1:446:A:PRO:HD2	1:427:A:GLU:HB3	9	0.11
(2,1)	1:446:A:PRO:HD2	1:427:A:GLU:HB3	11	0.11
(1,1654)	1:498:A:MET:H	1:496:A:LEU:HB3	1	0.11
(1,1654)	1:498:A:MET:H	1:496:A:LEU:HB3	6	0.11
(1,1644)	1:496:A:LEU:H	1:496:A:LEU:HD22	19	0.11
(1,1641)	1:496:A:LEU:H	1:496:A:LEU:HB2	8	0.11
(1,1638)	1:496:A:LEU:H	1:495:A:PHE:HD1	10	0.11
(1,1616)	1:493:A:LEU:H	1:493:A:LEU:HD12	13	0.11
(1,1603)	1:492:A:ILE:H	1:465:A:ALA:HB2	18	0.11
(1,1603)	1:492:A:ILE:H	1:465:A:ALA:HB2	19	0.11
(1,1580)	1:490:A:GLN:HE22	1:490:A:GLN:HG2	2	0.11
(1,1566)	1:490:A:GLN:H	1:489:A:VAL:HG12	3	0.11
(1,1566)	1:490:A:GLN:H	1:489:A:VAL:HG12	11	0.11

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1543)	1:488:A:GLU:H	1:488:A:GLU:HG3	10	0.11
(1,1532)	1:487:A:LEU:H	1:489:A:VAL:H	13	0.11
(1,1531)	1:487:A:LEU:H	1:489:A:VAL:HG12	6	0.11
(1,1531)	1:487:A:LEU:H	1:489:A:VAL:HG12	13	0.11
(1,1531)	1:487:A:LEU:H	1:489:A:VAL:HG12	14	0.11
(1,1471)	1:481:A:ALA:H	1:375:A:LEU:HB2	20	0.11
(1,1464)	1:479:A:THR:H	1:478:A:LYS:HD2	17	0.11
(1,1454)	1:478:A:LYS:H	1:476:A:LYS:H	15	0.11
(1,1414)	1:474:A:ALA:H	1:476:A:LYS:H	1	0.11
(1,1409)	1:474:A:ALA:H	1:473:A:LEU:HG	10	0.11
(1,1404)	1:474:A:ALA:H	1:470:A:ALA:HB2	11	0.11
(1,1289)	1:465:A:ALA:H	1:461:A:GLU:HA	5	0.11
(1,1269)	1:463:A:GLN:H	1:462:A:LYS:HD2	5	0.11
(1,1269)	1:463:A:GLN:H	1:462:A:LYS:HD2	11	0.11
(1,1269)	1:463:A:GLN:H	1:462:A:LYS:HD2	14	0.11
(1,1269)	1:463:A:GLN:H	1:462:A:LYS:HD2	19	0.11
(1,1261)	1:462:A:LYS:H	1:462:A:LYS:HB2	6	0.11
(1,1261)	1:462:A:LYS:H	1:462:A:LYS:HB2	9	0.11
(1,1237)	1:460:A:ASN:H	1:464:A:TYR:HE1	5	0.11
(1,1237)	1:460:A:ASN:H	1:464:A:TYR:HE1	16	0.11
(1,1237)	1:460:A:ASN:H	1:464:A:TYR:HE1	17	0.11
(1,1222)	1:459:A:ASP:H	1:439:A:PHE:HZ	3	0.11
(1,1220)	1:459:A:ASP:H	1:459:A:ASP:HB2	20	0.11
(1,1199)	1:457:A:ARG:H	1:380:A:LYS:HG2	10	0.11
(1,1179)	1:455:A:TRP:HE1	1:453:A:GLU:HG2	1	0.11
(1,1177)	1:455:A:TRP:HE1	1:442:A:LYS:HE2	3	0.11
(1,1150)	1:454:A:ILE:H	1:444:A:LEU:HD12	4	0.11
(1,1150)	1:454:A:ILE:H	1:444:A:LEU:HD12	7	0.11
(1,1150)	1:454:A:ILE:H	1:444:A:LEU:HD12	11	0.11
(1,1117)	1:452:A:ASN:H	1:451:A:MET:HG2	9	0.11
(1,1027)	1:444:A:LEU:H	1:427:A:GLU:HB2	9	0.11
(1,1011)	1:442:A:LYS:H	1:442:A:LYS:HG3	14	0.11
(1,1003)	1:442:A:LYS:H	1:441:A:ILE:HB	5	0.11
(1,973)	1:439:A:PHE:H	1:438:A:LYS:HG2	8	0.11
(1,965)	1:438:A:LYS:H	1:438:A:LYS:HD2	1	0.11
(1,957)	1:438:A:LYS:H	1:433:A:ASN:HB2	7	0.11
(1,906)	1:432:A:VAL:H	1:432:A:VAL:HG12	6	0.11
(1,903)	1:432:A:VAL:H	1:431:A:ASP:HB3	17	0.11
(1,896)	1:431:A:ASP:H	1:440:A:ASN:HB3	2	0.11
(1,886)	1:429:A:THR:H	1:443:A:LEU:HD12	8	0.11
(1,867)	1:428:A:VAL:H	1:427:A:GLU:H	6	0.11
(1,858)	1:427:A:GLU:H	1:444:A:LEU:HD12	1	0.11

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,826)	1:424:A:ARG:H	1:425:A:GLY:H	9	0.11
(1,814)	1:424:A:ARG:H	1:403:A:SER:HA	16	0.11
(1,787)	1:421:A:MET:H	1:421:A:MET:HB2	10	0.11
(1,787)	1:421:A:MET:H	1:421:A:MET:HB2	14	0.11
(1,785)	1:421:A:MET:H	1:420:A:GLN:HB3	8	0.11
(1,749)	1:416:A:THR:H	1:415:A:GLY:HA2	2	0.11
(1,747)	1:415:A:GLY:H	1:416:A:THR:HB	3	0.11
(1,684)	1:409:A:SER:H	1:407:A:TYR:HA	13	0.11
(1,683)	1:409:A:SER:H	1:396:A:TRP:H	2	0.11
(1,674)	1:395:A:TYR:H	1:408:A:LYS:HG2	17	0.11
(1,663)	1:407:A:TYR:H	1:396:A:TRP:HB2	4	0.11
(1,651)	1:405:A:SER:H	1:404:A:ILE:HG13	13	0.11
(1,620)	1:401:A:ASP:H	1:400:A:LYS:HG2	17	0.11
(1,582)	1:397:A:CYS:H	1:379:A:ILE:HG22	16	0.11
(1,566)	1:396:A:TRP:H	1:395:A:TYR:HB2	7	0.11
(1,560)	1:395:A:TYR:H	1:394:A:GLN:HG2	15	0.11
(1,545)	1:394:A:GLN:H	1:393:A:LYS:HD2	17	0.11
(1,533)	1:393:A:LYS:H	1:392:A:TYR:HB2	14	0.11
(1,517)	1:391:A:GLY:H	1:390:A:LYS:HB2	4	0.11
(1,513)	1:390:A:LYS:H	1:390:A:LYS:HG3	15	0.11
(1,507)	1:389:A:LEU:H	1:389:A:LEU:HG	18	0.11
(1,493)	1:387:A:LEU:H	1:386:A:LYS:HG3	13	0.11
(1,491)	1:387:A:LEU:H	1:386:A:LYS:HB3	4	0.11
(1,481)	1:386:A:LYS:H	1:384:A:PRO:HD2	14	0.11
(1,479)	1:385:A:LYS:H	1:386:A:LYS:HE2	17	0.11
(1,477)	1:385:A:LYS:H	1:385:A:LYS:HG2	7	0.11
(1,465)	1:383:A:LYS:H	1:383:A:LYS:HB3	6	0.11
(1,456)	1:382:A:PHE:H	1:455:A:TRP:HB2	11	0.11
(1,444)	1:381:A:VAL:H	1:393:A:LYS:HB2	4	0.11
(1,422)	1:380:A:LYS:H	1:379:A:ILE:HG12	4	0.11
(1,422)	1:380:A:LYS:H	1:379:A:ILE:HG12	6	0.11
(1,417)	1:379:A:ILE:H	1:379:A:ILE:HG13	10	0.11
(1,394)	1:377:A:ASP:H	1:376:A:ALA:H	8	0.11
(1,394)	1:377:A:ASP:H	1:376:A:ALA:H	15	0.11
(1,394)	1:377:A:ASP:H	1:376:A:ALA:H	19	0.11
(1,364)	1:372:A:ILE:H	1:372:A:ILE:HD12	4	0.11
(1,323)	1:457:A:ARG:H	1:381:A:VAL:HG12	1	0.11
(1,323)	1:457:A:ARG:H	1:381:A:VAL:HG12	7	0.11
(1,323)	1:457:A:ARG:H	1:381:A:VAL:HG12	14	0.11
(1,323)	1:457:A:ARG:H	1:381:A:VAL:HG12	19	0.11
(1,279)	1:496:A:LEU:H	1:492:A:ILE:HA	1	0.11
(1,277)	1:496:A:LEU:H	1:493:A:LEU:HD22	16	0.11

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,275)	1:437:A:GLN:HE22	1:437:A:GLN:HE21	10	0.11
(1,245)	1:441:A:ILE:H	1:456:A:LEU:HD12	15	0.11
(1,225)	1:421:A:MET:H	1:404:A:ILE:HG22	8	0.11
(1,225)	1:421:A:MET:H	1:404:A:ILE:HG22	13	0.11
(1,222)	1:491:A:ASN:H	1:489:A:VAL:HG12	19	0.11
(1,211)	1:385:A:LYS:H	1:453:A:GLU:HG2	13	0.11
(1,205)	1:400:A:LYS:H	1:404:A:ILE:HG13	18	0.11
(1,183)	1:438:A:LYS:HE3	1:434:A:ILE:HA	15	0.11
(1,170)	1:408:A:LYS:HD2	1:407:A:TYR:HA	18	0.11
(1,166)	1:381:A:VAL:HG12	1:391:A:GLY:HA2	4	0.11
(1,159)	1:456:A:LEU:HG	1:441:A:ILE:HA	13	0.11
(1,124)	1:405:A:SER:HB3	1:420:A:GLN:HA	15	0.11
(1,124)	1:405:A:SER:HB3	1:420:A:GLN:HA	18	0.11
(1,119)	1:496:A:LEU:HD22	1:496:A:LEU:HA	9	0.11
(1,109)	1:417:A:PRO:HB3	1:406:A:CYS:HA	1	0.11
(1,102)	1:375:A:LEU:HD12	1:473:A:LEU:HG	2	0.11
(1,58)	1:461:A:GLU:HA	1:461:A:GLU:HG2	2	0.11
(1,58)	1:461:A:GLU:HA	1:461:A:GLU:HG2	4	0.11
(1,58)	1:461:A:GLU:HA	1:461:A:GLU:HG2	5	0.11
(1,58)	1:461:A:GLU:HA	1:461:A:GLU:HG2	7	0.11
(1,58)	1:461:A:GLU:HA	1:461:A:GLU:HG2	9	0.11
(1,58)	1:461:A:GLU:HA	1:461:A:GLU:HG2	10	0.11
(1,58)	1:461:A:GLU:HA	1:461:A:GLU:HG2	12	0.11
(1,58)	1:461:A:GLU:HA	1:461:A:GLU:HG2	13	0.11
(1,58)	1:461:A:GLU:HA	1:461:A:GLU:HG2	18	0.11
(1,57)	1:447:A:VAL:HG12	1:451:A:MET:HA	13	0.11
(1,18)	1:395:A:TYR:HA	1:395:A:TYR:HB3	14	0.11
(1,16)	1:379:A:ILE:HD12	1:379:A:ILE:HG22	19	0.11
(1,11)	1:379:A:ILE:HD12	1:379:A:ILE:HG12	10	0.11
(4,63)	1:490:A:GLN:O	1:494:A:SER:N	1	0.1
(4,54)	1:487:A:LEU:O	1:491:A:ASN:N	15	0.1
(4,18)	1:466:A:HIS:O	1:470:A:ALA:H	9	0.1
(4,1)	1:461:A:GLU:O	1:464:A:TYR:H	17	0.1
(2,145)	1:489:A:VAL:O	1:492:A:ILE:N	6	0.1
(2,136)	1:472:A:ARG:O	1:475:A:SER:N	4	0.1
(2,89)	1:458:A:CYS:H	1:380:A:LYS:HG2	15	0.1
(2,69)	1:426:A:CYS:H	1:443:A:LEU:HD12	18	0.1
(2,25)	1:491:A:ASN:H	1:492:A:ILE:HB	17	0.1
(2,25)	1:491:A:ASN:H	1:492:A:ILE:HB	19	0.1
(2,7)	1:401:A:ASP:HB2	1:372:A:ILE:HG13	13	0.1
(1,1651)	1:497:A:LYS:H	1:497:A:LYS:HD2	11	0.1
(1,1643)	1:496:A:LEU:H	1:496:A:LEU:HD12	14	0.1

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,1616)	1:493:A:LEU:H	1:493:A:LEU:HD12	8	0.1
(1,1581)	1:491:A:ASN:H	1:488:A:GLU:HA	1	0.1
(1,1580)	1:490:A:GLN:HE22	1:490:A:GLN:HG2	10	0.1
(1,1563)	1:490:A:GLN:H	1:469:A:ALA:HB2	3	0.1
(1,1548)	1:488:A:GLU:H	1:491:A:ASN:HB2	7	0.1
(1,1541)	1:488:A:GLU:H	1:488:A:GLU:HB2	7	0.1
(1,1480)	1:481:A:ALA:H	1:479:A:THR:HG21	14	0.1
(1,1478)	1:480:A:MET:H	1:480:A:MET:HG2	18	0.1
(1,1472)	1:482:A:ASP:H	1:375:A:LEU:HB2	9	0.1
(1,1464)	1:479:A:THR:H	1:478:A:LYS:HD2	2	0.1
(1,1425)	1:475:A:SER:H	1:476:A:LYS:HG2	12	0.1
(1,1370)	1:471:A:CYS:H	1:469:A:ALA:HA	5	0.1
(1,1281)	1:464:A:TYR:H	1:439:A:PHE:HD1	13	0.1
(1,1281)	1:464:A:TYR:H	1:439:A:PHE:HD2	13	0.1
(1,1247)	1:461:A:GLU:H	1:460:A:ASN:HB2	10	0.1
(1,1220)	1:459:A:ASP:H	1:459:A:ASP:HB2	7	0.1
(1,1182)	1:455:A:TRP:HE1	1:455:A:TRP:HA	14	0.1
(1,1177)	1:455:A:TRP:HE1	1:442:A:LYS:HE2	19	0.1
(1,1150)	1:454:A:ILE:H	1:444:A:LEU:HD12	3	0.1
(1,1150)	1:454:A:ILE:H	1:444:A:LEU:HD12	18	0.1
(1,1147)	1:443:A:LEU:H	1:454:A:ILE:H	8	0.1
(1,1099)	1:451:A:MET:H	1:444:A:LEU:HD12	8	0.1
(1,1055)	1:447:A:VAL:H	1:447:A:VAL:HG22	8	0.1
(1,1030)	1:429:A:THR:H	1:444:A:LEU:H	16	0.1
(1,1008)	1:442:A:LYS:H	1:442:A:LYS:HD3	16	0.1
(1,906)	1:432:A:VAL:H	1:432:A:VAL:HG12	3	0.1
(1,906)	1:432:A:VAL:H	1:432:A:VAL:HG12	20	0.1
(1,867)	1:428:A:VAL:H	1:427:A:GLU:H	15	0.1
(1,865)	1:428:A:VAL:H	1:427:A:GLU:HG2	15	0.1
(1,830)	1:425:A:GLY:H	1:424:A:ARG:HG2	2	0.1
(1,826)	1:424:A:ARG:H	1:425:A:GLY:H	13	0.1
(1,750)	1:416:A:THR:H	1:415:A:GLY:HA3	6	0.1
(1,737)	1:413:A:SER:H	1:414:A:SER:H	4	0.1
(1,718)	1:412:A:GLU:H	1:409:A:SER:H	18	0.1
(1,702)	1:410:A:LYS:H	1:410:A:LYS:HG3	5	0.1
(1,683)	1:409:A:SER:H	1:396:A:TRP:H	20	0.1
(1,651)	1:405:A:SER:H	1:404:A:ILE:HG13	6	0.1
(1,605)	1:399:A:PHE:H	1:400:A:LYS:HZ2	8	0.1
(1,582)	1:397:A:CYS:H	1:379:A:ILE:HG22	1	0.1
(1,543)	1:394:A:GLN:H	1:393:A:LYS:HB2	7	0.1
(1,543)	1:394:A:GLN:H	1:393:A:LYS:HB2	20	0.1
(1,540)	1:394:A:GLN:H	1:380:A:LYS:HE2	1	0.1

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,536)	1:393:A:LYS:H	1:393:A:LYS:HB2	11	0.1
(1,533)	1:393:A:LYS:H	1:392:A:TYR:HB2	1	0.1
(1,533)	1:393:A:LYS:H	1:392:A:TYR:HB2	17	0.1
(1,512)	1:390:A:LYS:H	1:390:A:LYS:HB3	2	0.1
(1,509)	1:390:A:LYS:H	1:389:A:LEU:HB2	20	0.1
(1,504)	1:389:A:LEU:H	1:389:A:LEU:HB2	17	0.1
(1,503)	1:389:A:LEU:H	1:388:A:THR:HB	7	0.1
(1,486)	1:386:A:LYS:H	1:386:A:LYS:HD2	6	0.1
(1,482)	1:385:A:LYS:H	1:386:A:LYS:H	4	0.1
(1,474)	1:385:A:LYS:H	1:385:A:LYS:HB3	6	0.1
(1,474)	1:385:A:LYS:H	1:385:A:LYS:HB3	12	0.1
(1,416)	1:379:A:ILE:H	1:379:A:ILE:HG12	7	0.1
(1,399)	1:378:A:TYR:H	1:377:A:ASP:HB2	1	0.1
(1,394)	1:377:A:ASP:H	1:376:A:ALA:H	4	0.1
(1,394)	1:377:A:ASP:H	1:376:A:ALA:H	6	0.1
(1,377)	1:375:A:LEU:H	1:374:A:GLU:HG3	7	0.1
(1,327)	1:462:A:LYS:H	1:463:A:GLN:HB2	8	0.1
(1,300)	1:413:A:SER:H	1:412:A:GLU:HG3	5	0.1
(1,300)	1:413:A:SER:H	1:412:A:GLU:HG3	7	0.1
(1,277)	1:496:A:LEU:H	1:493:A:LEU:HD22	13	0.1
(1,275)	1:437:A:GLN:HE22	1:437:A:GLN:HE21	4	0.1
(1,275)	1:437:A:GLN:HE22	1:437:A:GLN:HE21	9	0.1
(1,275)	1:437:A:GLN:HE22	1:437:A:GLN:HE21	11	0.1
(1,275)	1:437:A:GLN:HE22	1:437:A:GLN:HE21	12	0.1
(1,275)	1:437:A:GLN:HE22	1:437:A:GLN:HE21	13	0.1
(1,275)	1:437:A:GLN:HE22	1:437:A:GLN:HE21	15	0.1
(1,275)	1:437:A:GLN:HE22	1:437:A:GLN:HE21	16	0.1
(1,275)	1:437:A:GLN:HE22	1:437:A:GLN:HE21	18	0.1
(1,275)	1:437:A:GLN:HE22	1:437:A:GLN:HE21	20	0.1
(1,211)	1:385:A:LYS:H	1:453:A:GLU:HG2	11	0.1
(1,183)	1:438:A:LYS:HE3	1:434:A:ILE:HA	16	0.1
(1,165)	1:370:A:THR:HB	1:369:A:ILE:HB	15	0.1
(1,130)	1:401:A:ASP:HB2	1:400:A:LYS:HB2	19	0.1
(1,118)	1:383:A:LYS:HB2	1:383:A:LYS:HE2	3	0.1
(1,118)	1:383:A:LYS:HB2	1:383:A:LYS:HE2	11	0.1
(1,114)	1:404:A:ILE:HD12	1:399:A:PHE:HB3	7	0.1
(1,114)	1:404:A:ILE:HD12	1:399:A:PHE:HB3	9	0.1
(1,114)	1:404:A:ILE:HD12	1:399:A:PHE:HB3	17	0.1
(1,109)	1:417:A:PRO:HB3	1:406:A:CYS:HA	8	0.1
(1,109)	1:417:A:PRO:HB3	1:406:A:CYS:HA	15	0.1
(1,107)	1:486:A:ASN:HB2	1:487:A:LEU:HB2	14	0.1
(1,103)	1:397:A:CYS:HB2	1:406:A:CYS:HA	13	0.1

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Key	Atom-1	Atom-2	Model ID	Violation (Å)
(1,102)	1:375:A:LEU:HD12	1:473:A:LEU:HG	13	0.1
(1,99)	1:438:A:LYS:HB2	1:434:A:ILE:HA	12	0.1
(1,77)	1:417:A:PRO:HB2	1:406:A:CYS:HB3	1	0.1
(1,58)	1:461:A:GLU:HA	1:461:A:GLU:HG2	1	0.1
(1,58)	1:461:A:GLU:HA	1:461:A:GLU:HG2	19	0.1
(1,53)	1:489:A:VAL:HA	1:489:A:VAL:HG12	15	0.1

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

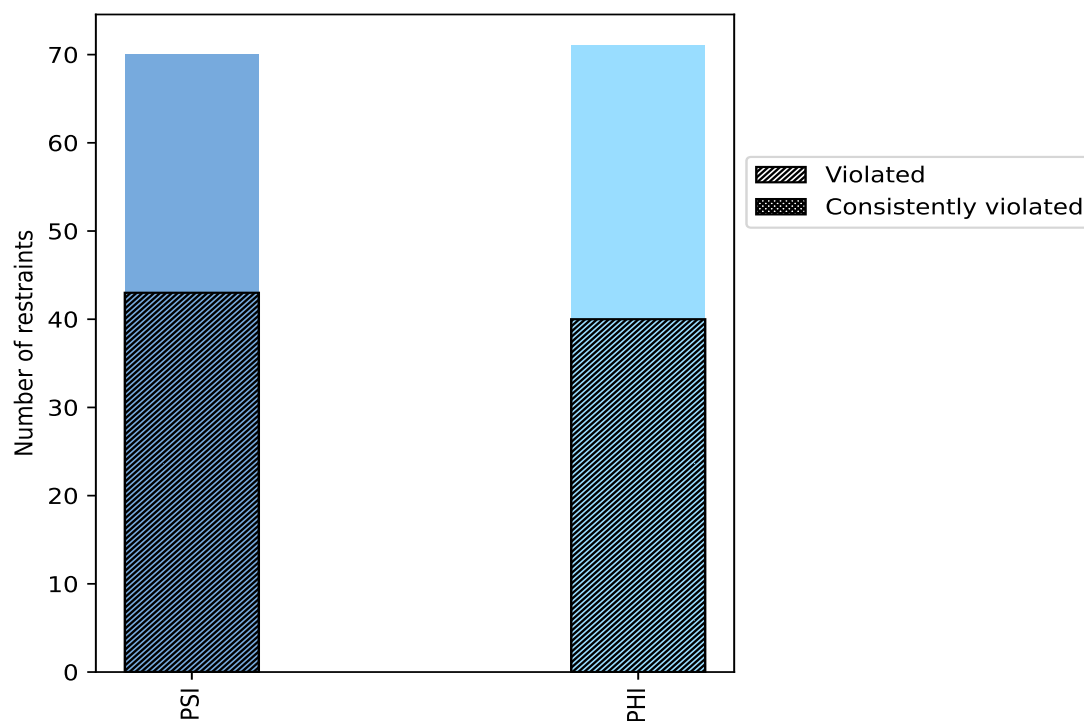
10.1 Summary of dihedral-angle violations [i](#)

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

Angle type	Count	% ¹	Violated ³			Consistently Violated ⁴		
			Count	% ²	% ¹	Count	% ²	% ¹
PSI	70	49.6	43	61.4	30.5	0	0.0	0.0
PHI	71	50.4	40	56.3	28.4	0	0.0	0.0
Total	141	100.0	83	58.9	58.9	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 [i](#)



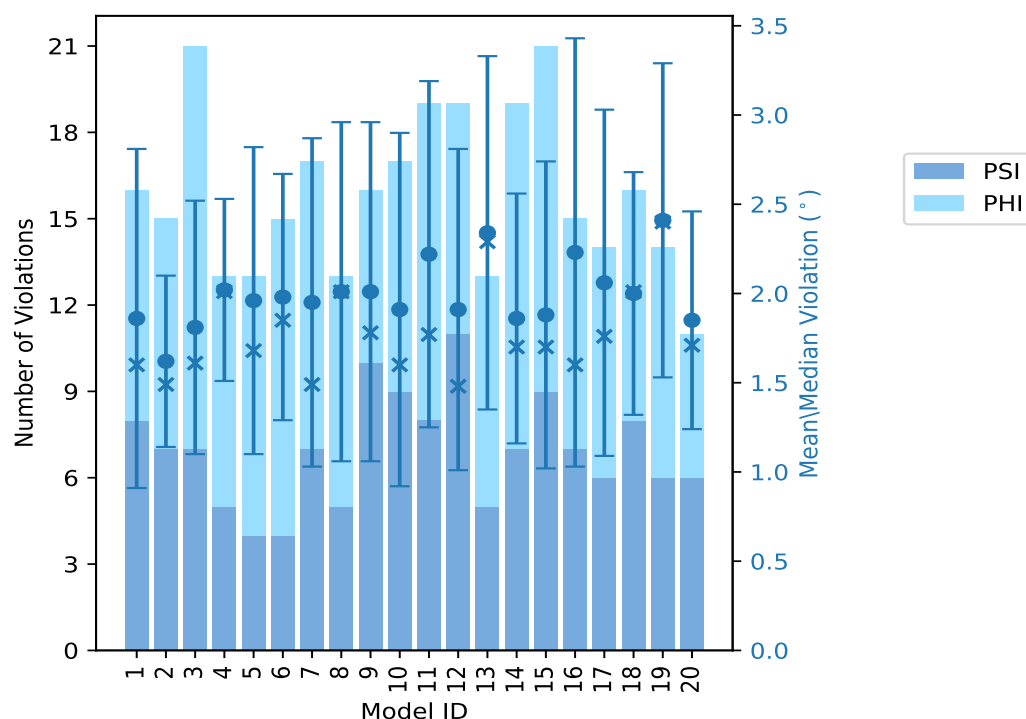
Violated and consistently violated restraints are shown using different hatch patterns in their respective categories

10.2 Dihedral-angle violation statistics for each model

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

Model ID	Number of violations			Mean (°)	Max (°)	SD (°)	Median (°)
	PSI	PHI	Total				
1	8	8	16	1.86	4.71	0.95	1.6
2	7	8	15	1.62	2.74	0.48	1.49
3	7	14	21	1.81	3.9	0.71	1.61
4	5	8	13	2.02	2.87	0.51	2.01
5	4	9	13	1.96	3.99	0.86	1.68
6	4	11	15	1.98	3.32	0.69	1.85
7	7	10	17	1.95	4.23	0.92	1.49
8	5	8	13	2.01	3.88	0.95	2.01
9	10	6	16	2.01	4.6	0.95	1.78
10	9	8	17	1.91	4.39	0.99	1.6
11	8	11	19	2.22	4.17	0.97	1.77
12	11	8	19	1.91	4.17	0.9	1.48
13	5	8	13	2.34	4.12	0.99	2.29
14	7	12	19	1.86	3.65	0.7	1.7
15	9	12	21	1.88	4.99	0.86	1.7
16	7	8	15	2.23	4.87	1.2	1.6
17	6	8	14	2.06	4.57	0.97	1.76
18	8	8	16	2.0	3.65	0.68	2.01
19	6	8	14	2.41	4.69	0.88	2.4
20	6	5	11	1.85	3.6	0.61	1.71

10.2.1 Bar graph : Dihedral violation statistics for each model [i](#)



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

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

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

Number of violated restraints			Fraction of the ensemble	
PSI	PHI	Total	Count ¹	%
21	10	31	1	5.0
5	7	12	2	10.0
4	4	8	3	15.0
2	6	8	4	20.0
0	1	1	5	25.0
3	3	6	6	30.0
1	2	3	7	35.0
4	1	5	8	40.0
0	2	2	9	45.0
2	0	2	10	50.0
1	1	2	11	55.0

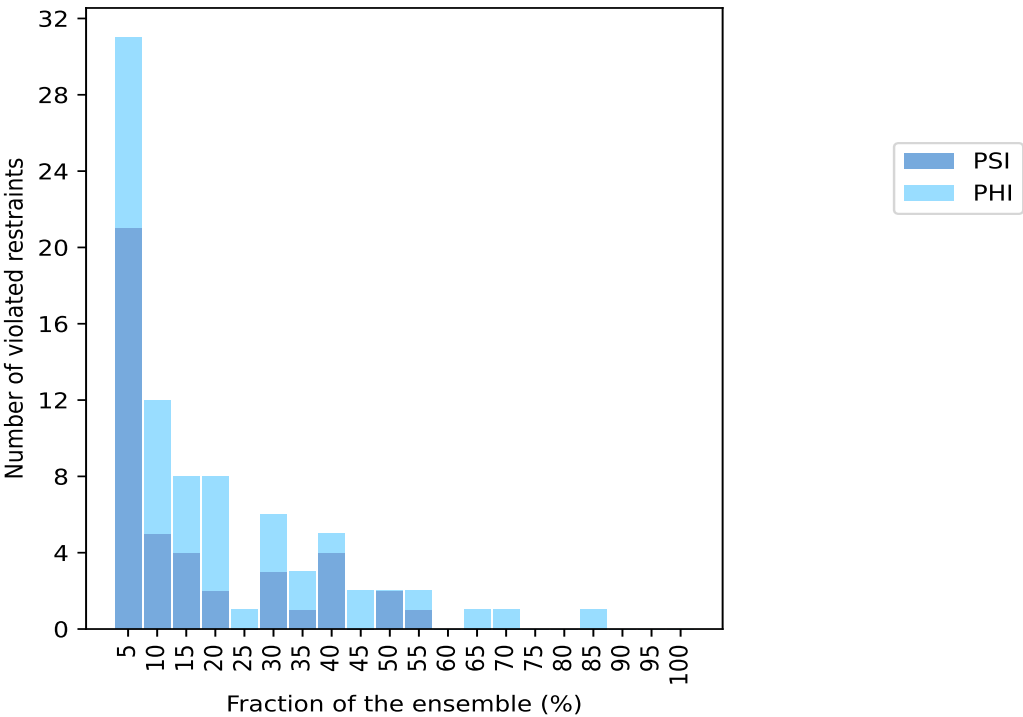
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Number of violated restraints			Fraction of the ensemble	
PSI	PHI	Total	Count ¹	%
0	0	0	12	60.0
0	1	1	13	65.0
0	1	1	14	70.0
0	0	0	15	75.0
0	0	0	16	80.0
0	1	1	17	85.0
0	0	0	18	90.0
0	0	0	19	95.0
0	0	0	20	100.0

¹ Number of models with violations

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

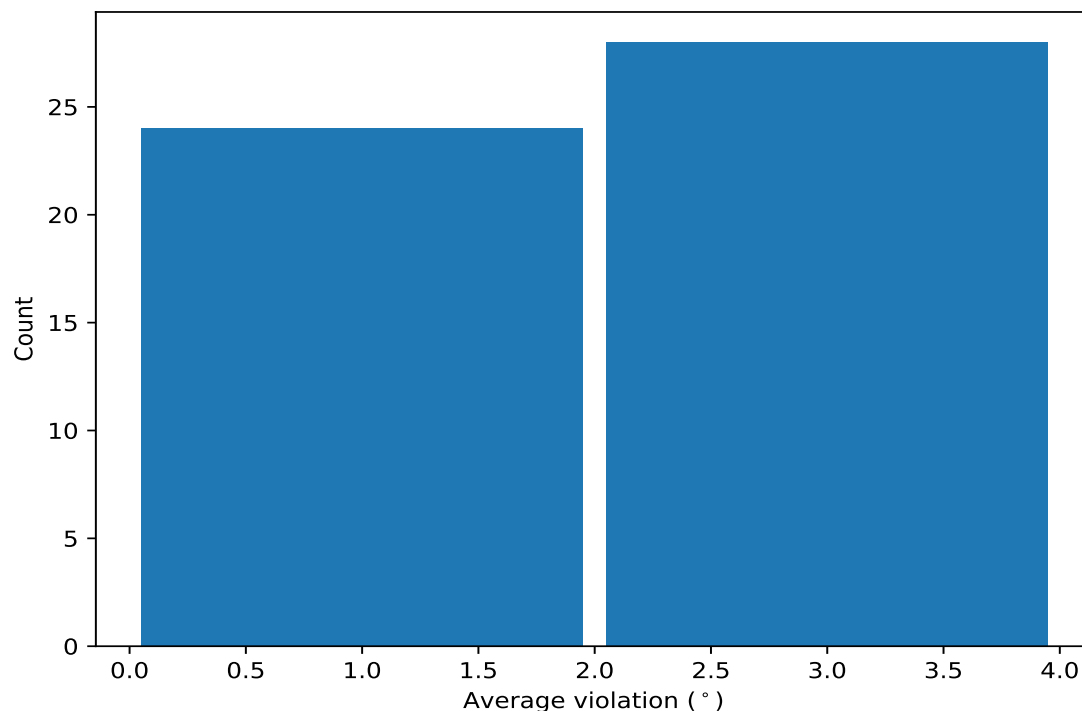


10.4 Most violated dihedral-angle restraints in the ensemble ⓘ

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 [i](#)

The following table provides the mean and the standard deviation of the violation for each restraint sorted by number of violated models and the mean value. The Key (restraint list ID, restraint ID) is the unique identifier for a given restraint.

Key	Atom-1	Atom-2	Atom-3	Atom-4	Models ¹	Mean	SD ²	Median
(1,17)	1:380:A:LYS:C	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	17	2.36	0.92	2.06
(1,119)	1:451:A:MET:C	1:452:A:ASN:N	1:452:A:ASN:CA	1:452:A:ASN:C	14	1.7	0.5	1.59
(1,5)	1:374:A:GLU:C	1:375:A:LEU:N	1:375:A:LEU:CA	1:375:A:LEU:C	13	2.29	0.83	1.93
(1,50)	1:407:A:TYR:N	1:407:A:TYR:CA	1:407:A:TYR:C	1:408:A:LYS:N	11	1.82	0.61	1.69
(1,37)	1:398:A:THR:C	1:399:A:PHE:N	1:399:A:PHE:CA	1:399:A:PHE:C	11	1.67	0.49	1.85
(1,32)	1:396:A:TRP:N	1:396:A:TRP:CA	1:396:A:TRP:C	1:397:A:CYS:N	10	2.09	0.64	2.08
(1,74)	1:423:A:LEU:N	1:423:A:LEU:CA	1:423:A:LEU:C	1:424:A:ARG:N	10	2.07	0.5	2.11
(1,95)	1:435:A:SER:C	1:436:A:GLY:N	1:436:A:GLY:CA	1:436:A:GLY:C	9	3.01	1.17	2.84
(1,129)	1:456:A:LEU:C	1:457:A:ARG:N	1:457:A:ARG:CA	1:457:A:ARG:C	9	2.07	0.69	1.91
(1,132)	1:458:A:CYS:N	1:458:A:CYS:CA	1:458:A:CYS:C	1:459:A:ASP:N	8	2.82	0.96	2.67
(1,51)	1:407:A:TYR:C	1:408:A:LYS:N	1:408:A:LYS:CA	1:408:A:LYS:C	8	2.68	1.12	2.52
(1,100)	1:440:A:ASN:N	1:440:A:ASN:CA	1:440:A:ASN:C	1:441:A:ILE:N	8	2.14	0.68	2.24
(1,18)	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	1:382:A:PHE:N	8	2.07	1.01	1.62
(1,10)	1:377:A:ASP:N	1:377:A:ASP:CA	1:377:A:ASP:C	1:378:A:TYR:N	8	1.21	0.13	1.2
(1,40)	1:400:A:LYS:N	1:400:A:LYS:CA	1:400:A:LYS:C	1:401:A:ASP:N	7	3.06	1.21	2.78
(1,99)	1:439:A:PHE:C	1:440:A:ASN:N	1:440:A:ASN:CA	1:440:A:ASN:C	7	2.09	0.74	2.04
(1,89)	1:432:A:VAL:C	1:433:A:ASN:N	1:433:A:ASN:CA	1:433:A:ASN:C	7	1.61	0.59	1.26
(1,97)	1:438:A:LYS:C	1:439:A:PHE:N	1:439:A:PHE:CA	1:439:A:PHE:C	6	2.13	0.63	2.32
(1,31)	1:395:A:TYR:C	1:396:A:TRP:N	1:396:A:TRP:CA	1:396:A:TRP:C	6	2.1	0.4	2.04
(1,68)	1:420:A:GLN:N	1:420:A:GLN:CA	1:420:A:GLN:C	1:421:A:MET:N	6	1.93	0.52	1.86

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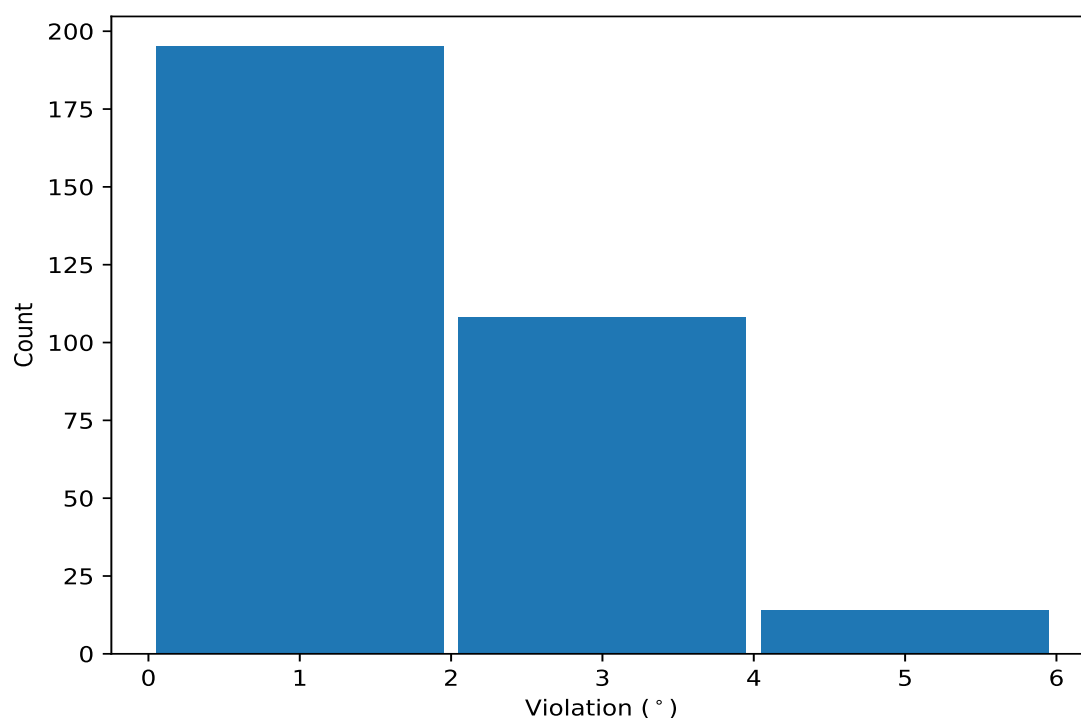
Key	Atom-1	Atom-2	Atom-3	Atom-4	Models ¹	Mean	SD ²	Median
(1,140)	1:464:A:TYR:N	1:464:A:TYR:CA	1:464:A:TYR:C	1:465:A:ALA:N	6	1.87	0.82	1.65
(1,127)	1:455:A:TRP:C	1:456:A:LEU:N	1:456:A:LEU:CA	1:456:A:LEU:C	6	1.63	0.67	1.26
(1,86)	1:431:A:ASP:N	1:431:A:ASP:CA	1:431:A:ASP:C	1:432:A:VAL:N	6	1.54	0.22	1.46
(1,125)	1:454:A:ILE:C	1:455:A:TRP:N	1:455:A:TRP:CA	1:455:A:TRP:C	5	2.55	0.9	2.11
(1,82)	1:429:A:THR:N	1:429:A:THR:CA	1:429:A:THR:C	1:430:A:PRO:N	4	2.89	1.12	2.89
(1,29)	1:394:A:GLN:C	1:395:A:TYR:N	1:395:A:TYR:CA	1:395:A:TYR:C	4	2.24	0.87	2.09
(1,19)	1:381:A:VAL:C	1:382:A:PHE:N	1:382:A:PHE:CA	1:382:A:PHE:C	4	2.1	1.5	1.34
(1,26)	1:393:A:LYS:N	1:393:A:LYS:CA	1:393:A:LYS:C	1:394:A:GLN:N	4	1.76	0.52	1.62
(1,115)	1:448:A:ALA:C	1:449:A:GLU:N	1:449:A:GLU:CA	1:449:A:GLU:C	4	1.5	0.67	1.14
(1,131)	1:457:A:ARG:C	1:458:A:CYS:N	1:458:A:CYS:CA	1:458:A:CYS:C	4	1.47	0.13	1.44
(1,81)	1:428:A:VAL:C	1:429:A:THR:N	1:429:A:THR:CA	1:429:A:THR:C	4	1.32	0.37	1.17
(1,121)	1:452:A:ASN:C	1:453:A:GLU:N	1:453:A:GLU:CA	1:453:A:GLU:C	4	1.2	0.11	1.24
(1,22)	1:386:A:LYS:N	1:386:A:LYS:CA	1:386:A:LYS:C	1:387:A:LEU:N	3	2.26	1.19	1.77
(1,93)	1:434:A:ILE:C	1:435:A:SER:N	1:435:A:SER:CA	1:435:A:SER:C	3	2.09	0.65	2.47
(1,94)	1:435:A:SER:N	1:435:A:SER:CA	1:435:A:SER:C	1:436:A:GLY:N	3	2.03	0.4	2.24
(1,20)	1:382:A:PHE:N	1:382:A:PHE:CA	1:382:A:PHE:C	1:383:A:LYS:N	3	1.56	0.2	1.56
(1,58)	1:414:A:SER:N	1:414:A:SER:CA	1:414:A:SER:C	1:415:A:GLY:N	3	1.48	0.06	1.49
(1,25)	1:392:A:TYR:C	1:393:A:LYS:N	1:393:A:LYS:CA	1:393:A:LYS:C	3	1.21	0.2	1.11
(1,9)	1:376:A:ALA:C	1:377:A:ASP:N	1:377:A:ASP:CA	1:377:A:ASP:C	3	1.16	0.19	1.06
(1,59)	1:415:A:GLY:C	1:416:A:THR:N	1:416:A:THR:CA	1:416:A:THR:C	3	1.15	0.03	1.14
(1,75)	1:425:A:GLY:C	1:426:A:CYS:N	1:426:A:CYS:CA	1:426:A:CYS:C	2	3.33	1.24	3.33
(1,101)	1:441:A:ILE:C	1:442:A:LYS:N	1:442:A:LYS:CA	1:442:A:LYS:C	2	2.95	0.27	2.95
(1,52)	1:408:A:LYS:N	1:408:A:LYS:CA	1:408:A:LYS:C	1:409:A:SER:N	2	2.82	1.05	2.82
(1,23)	1:386:A:LYS:C	1:387:A:LEU:N	1:387:A:LEU:CA	1:387:A:LEU:C	2	2.69	1.48	2.69
(1,27)	1:393:A:LYS:C	1:394:A:GLN:N	1:394:A:GLN:CA	1:394:A:GLN:C	2	2.24	0.12	2.24
(1,56)	1:411:A:GLU:N	1:411:A:GLU:CA	1:411:A:GLU:C	1:412:A:GLU:N	2	2.09	0.9	2.09
(1,48)	1:406:A:CYS:N	1:406:A:CYS:CA	1:406:A:CYS:C	1:407:A:TYR:N	2	2.01	0.24	2.01
(1,21)	1:385:A:LYS:C	1:386:A:LYS:N	1:386:A:LYS:CA	1:386:A:LYS:C	2	1.58	0.32	1.58
(1,130)	1:457:A:ARG:N	1:457:A:ARG:CA	1:457:A:ARG:C	1:458:A:CYS:N	2	1.45	0.34	1.45
(1,139)	1:463:A:GLN:C	1:464:A:TYR:N	1:464:A:TYR:CA	1:464:A:TYR:C	2	1.36	0.02	1.36
(1,57)	1:413:A:SER:C	1:414:A:SER:N	1:414:A:SER:CA	1:414:A:SER:C	2	1.23	0.19	1.23
(1,90)	1:433:A:ASN:N	1:433:A:ASN:CA	1:433:A:ASN:C	1:434:A:ILE:N	2	1.02	0.03	1.02

¹ Number of violated models, ²Standard 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 [i](#)

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

Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,95)	1:435:A:SER:C	1:436:A:GLY:N	1:436:A:GLY:CA	1:436:A:GLY:C	15	4.99
(1,51)	1:407:A:TYR:C	1:408:A:LYS:N	1:408:A:LYS:CA	1:408:A:LYS:C	16	4.87
(1,40)	1:400:A:LYS:N	1:400:A:LYS:CA	1:400:A:LYS:C	1:401:A:ASP:N	1	4.71
(1,19)	1:381:A:VAL:C	1:382:A:PHE:N	1:382:A:PHE:CA	1:382:A:PHE:C	19	4.69
(1,40)	1:400:A:LYS:N	1:400:A:LYS:CA	1:400:A:LYS:C	1:401:A:ASP:N	9	4.6
(1,75)	1:425:A:GLY:C	1:426:A:CYS:N	1:426:A:CYS:CA	1:426:A:CYS:C	17	4.57
(1,82)	1:429:A:THR:N	1:429:A:THR:CA	1:429:A:THR:C	1:430:A:PRO:N	16	4.44
(1,132)	1:458:A:CYS:N	1:458:A:CYS:CA	1:458:A:CYS:C	1:459:A:ASP:N	10	4.39
(1,95)	1:435:A:SER:C	1:436:A:GLY:N	1:436:A:GLY:CA	1:436:A:GLY:C	10	4.39
(1,18)	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	1:382:A:PHE:N	7	4.23
(1,23)	1:386:A:LYS:C	1:387:A:LEU:N	1:387:A:LEU:CA	1:387:A:LEU:C	11	4.17
(1,17)	1:380:A:LYS:C	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	12	4.17
(1,95)	1:435:A:SER:C	1:436:A:GLY:N	1:436:A:GLY:CA	1:436:A:GLY:C	13	4.12
(1,132)	1:458:A:CYS:N	1:458:A:CYS:CA	1:458:A:CYS:C	1:459:A:ASP:N	11	4.03
(1,5)	1:374:A:GLU:C	1:375:A:LEU:N	1:375:A:LEU:CA	1:375:A:LEU:C	5	3.99
(1,22)	1:386:A:LYS:N	1:386:A:LYS:CA	1:386:A:LYS:C	1:387:A:LEU:N	3	3.9
(1,17)	1:380:A:LYS:C	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	8	3.88
(1,52)	1:408:A:LYS:N	1:408:A:LYS:CA	1:408:A:LYS:C	1:409:A:SER:N	12	3.87
(1,40)	1:400:A:LYS:N	1:400:A:LYS:CA	1:400:A:LYS:C	1:401:A:ASP:N	11	3.76
(1,17)	1:380:A:LYS:C	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	13	3.7
(1,140)	1:464:A:TYR:N	1:464:A:TYR:CA	1:464:A:TYR:C	1:465:A:ALA:N	18	3.65

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,125)	1:454:A:ILE:C	1:455:A:TRP:N	1:455:A:TRP:CA	1:455:A:TRP:C	14	3.65
(1,125)	1:454:A:ILE:C	1:455:A:TRP:N	1:455:A:TRP:CA	1:455:A:TRP:C	20	3.6
(1,129)	1:456:A:LEU:C	1:457:A:ARG:N	1:457:A:ARG:CA	1:457:A:ARG:C	8	3.58
(1,99)	1:439:A:PHE:C	1:440:A:ASN:N	1:440:A:ASN:CA	1:440:A:ASN:C	9	3.56
(1,29)	1:394:A:GLN:C	1:395:A:TYR:N	1:395:A:TYR:CA	1:395:A:TYR:C	16	3.54
(1,51)	1:407:A:TYR:C	1:408:A:LYS:N	1:408:A:LYS:CA	1:408:A:LYS:C	13	3.51
(1,17)	1:380:A:LYS:C	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	19	3.42
(1,50)	1:407:A:TYR:N	1:407:A:TYR:CA	1:407:A:TYR:C	1:408:A:LYS:N	7	3.4
(1,32)	1:396:A:TRP:N	1:396:A:TRP:CA	1:396:A:TRP:C	1:397:A:CYS:N	7	3.38
(1,5)	1:374:A:GLU:C	1:375:A:LEU:N	1:375:A:LEU:CA	1:375:A:LEU:C	16	3.38
(1,100)	1:440:A:ASN:N	1:440:A:ASN:CA	1:440:A:ASN:C	1:441:A:ILE:N	6	3.32
(1,82)	1:429:A:THR:N	1:429:A:THR:CA	1:429:A:THR:C	1:430:A:PRO:N	17	3.26
(1,51)	1:407:A:TYR:C	1:408:A:LYS:N	1:408:A:LYS:CA	1:408:A:LYS:C	17	3.26
(1,132)	1:458:A:CYS:N	1:458:A:CYS:CA	1:458:A:CYS:C	1:459:A:ASP:N	19	3.25
(1,101)	1:441:A:ILE:C	1:442:A:LYS:N	1:442:A:LYS:CA	1:442:A:LYS:C	11	3.22
(1,18)	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	1:382:A:PHE:N	13	3.21
(1,5)	1:374:A:GLU:C	1:375:A:LEU:N	1:375:A:LEU:CA	1:375:A:LEU:C	11	3.12
(1,17)	1:380:A:LYS:C	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	5	3.1
(1,56)	1:411:A:GLU:N	1:411:A:GLU:CA	1:411:A:GLU:C	1:412:A:GLU:N	1	3.0
(1,5)	1:374:A:GLU:C	1:375:A:LEU:N	1:375:A:LEU:CA	1:375:A:LEU:C	6	2.98
(1,49)	1:406:A:CYS:C	1:407:A:TYR:N	1:407:A:TYR:CA	1:407:A:TYR:C	8	2.9
(1,129)	1:456:A:LEU:C	1:457:A:ARG:N	1:457:A:ARG:CA	1:457:A:ARG:C	14	2.88
(1,97)	1:438:A:LYS:C	1:439:A:PHE:N	1:439:A:PHE:CA	1:439:A:PHE:C	3	2.88
(1,74)	1:423:A:LEU:N	1:423:A:LEU:CA	1:423:A:LEU:C	1:424:A:ARG:N	4	2.87
(1,32)	1:396:A:TRP:N	1:396:A:TRP:CA	1:396:A:TRP:C	1:397:A:CYS:N	12	2.87
(1,95)	1:435:A:SER:C	1:436:A:GLY:N	1:436:A:GLY:CA	1:436:A:GLY:C	4	2.86
(1,95)	1:435:A:SER:C	1:436:A:GLY:N	1:436:A:GLY:CA	1:436:A:GLY:C	5	2.84
(1,68)	1:420:A:GLN:N	1:420:A:GLN:CA	1:420:A:GLN:C	1:421:A:MET:N	12	2.83
(1,40)	1:400:A:LYS:N	1:400:A:LYS:CA	1:400:A:LYS:C	1:401:A:ASP:N	15	2.78
(1,132)	1:458:A:CYS:N	1:458:A:CYS:CA	1:458:A:CYS:C	1:459:A:ASP:N	6	2.76
(1,74)	1:423:A:LEU:N	1:423:A:LEU:CA	1:423:A:LEU:C	1:424:A:ARG:N	2	2.74
(1,5)	1:374:A:GLU:C	1:375:A:LEU:N	1:375:A:LEU:CA	1:375:A:LEU:C	18	2.71
(1,37)	1:398:A:THR:C	1:399:A:PHE:N	1:399:A:PHE:CA	1:399:A:PHE:C	13	2.7
(1,101)	1:441:A:ILE:C	1:442:A:LYS:N	1:442:A:LYS:CA	1:442:A:LYS:C	6	2.68
(1,97)	1:438:A:LYS:C	1:439:A:PHE:N	1:439:A:PHE:CA	1:439:A:PHE:C	9	2.68
(1,31)	1:395:A:TYR:C	1:396:A:TRP:N	1:396:A:TRP:CA	1:396:A:TRP:C	11	2.65
(1,115)	1:448:A:ALA:C	1:449:A:GLU:N	1:449:A:GLU:CA	1:449:A:GLU:C	3	2.64
(1,119)	1:451:A:MET:C	1:452:A:ASN:N	1:452:A:ASN:CA	1:452:A:ASN:C	14	2.63
(1,93)	1:434:A:ILE:C	1:435:A:SER:N	1:435:A:SER:CA	1:435:A:SER:C	1	2.62
(1,51)	1:407:A:TYR:C	1:408:A:LYS:N	1:408:A:LYS:CA	1:408:A:LYS:C	18	2.61
(1,26)	1:393:A:LYS:N	1:393:A:LYS:CA	1:393:A:LYS:C	1:394:A:GLN:N	15	2.61
(1,100)	1:440:A:ASN:N	1:440:A:ASN:CA	1:440:A:ASN:C	1:441:A:ILE:N	1	2.6
(1,127)	1:455:A:TRP:C	1:456:A:LEU:N	1:456:A:LEU:CA	1:456:A:LEU:C	12	2.59
(1,132)	1:458:A:CYS:N	1:458:A:CYS:CA	1:458:A:CYS:C	1:459:A:ASP:N	17	2.58
(1,127)	1:455:A:TRP:C	1:456:A:LEU:N	1:456:A:LEU:CA	1:456:A:LEU:C	18	2.54
(1,89)	1:432:A:VAL:C	1:433:A:ASN:N	1:433:A:ASN:CA	1:433:A:ASN:C	8	2.53
(1,89)	1:432:A:VAL:C	1:433:A:ASN:N	1:433:A:ASN:CA	1:433:A:ASN:C	19	2.53
(1,119)	1:451:A:MET:C	1:452:A:ASN:N	1:452:A:ASN:CA	1:452:A:ASN:C	7	2.52
(1,82)	1:429:A:THR:N	1:429:A:THR:CA	1:429:A:THR:C	1:430:A:PRO:N	13	2.52
(1,50)	1:407:A:TYR:N	1:407:A:TYR:CA	1:407:A:TYR:C	1:408:A:LYS:N	16	2.52
(1,102)	1:442:A:LYS:N	1:442:A:LYS:CA	1:442:A:LYS:C	1:443:A:LEU:N	9	2.51

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,95)	1:435:A:SER:C	1:436:A:GLY:N	1:436:A:GLY:CA	1:436:A:GLY:C	11	2.51
(1,70)	1:421:A:MET:N	1:421:A:MET:CA	1:421:A:MET:C	1:422:A:ASN:N	18	2.5
(1,100)	1:440:A:ASN:N	1:440:A:ASN:CA	1:440:A:ASN:C	1:441:A:ILE:N	19	2.49
(1,31)	1:395:A:TYR:C	1:396:A:TRP:N	1:396:A:TRP:CA	1:396:A:TRP:C	14	2.49
(1,29)	1:394:A:GLN:C	1:395:A:TYR:N	1:395:A:TYR:CA	1:395:A:TYR:C	19	2.49
(1,93)	1:434:A:ILE:C	1:435:A:SER:N	1:435:A:SER:CA	1:435:A:SER:C	19	2.47
(1,100)	1:440:A:ASN:N	1:440:A:ASN:CA	1:440:A:ASN:C	1:441:A:ILE:N	3	2.46
(1,97)	1:438:A:LYS:C	1:439:A:PHE:N	1:439:A:PHE:CA	1:439:A:PHE:C	5	2.46
(1,51)	1:407:A:TYR:C	1:408:A:LYS:N	1:408:A:LYS:CA	1:408:A:LYS:C	7	2.44
(1,94)	1:435:A:SER:N	1:435:A:SER:CA	1:435:A:SER:C	1:436:A:GLY:N	2	2.38
(1,27)	1:393:A:LYS:C	1:394:A:GLN:N	1:394:A:GLN:CA	1:394:A:GLN:C	3	2.37
(1,32)	1:396:A:TRP:N	1:396:A:TRP:CA	1:396:A:TRP:C	1:397:A:CYS:N	4	2.36
(1,17)	1:380:A:LYS:C	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	10	2.36
(1,17)	1:380:A:LYS:C	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	15	2.36
(1,99)	1:439:A:PHE:C	1:440:A:ASN:N	1:440:A:ASN:CA	1:440:A:ASN:C	4	2.34
(1,92)	1:434:A:ILE:N	1:434:A:ILE:CA	1:434:A:ILE:C	1:435:A:SER:N	19	2.33
(1,68)	1:420:A:GLN:N	1:420:A:GLN:CA	1:420:A:GLN:C	1:421:A:MET:N	8	2.31
(1,5)	1:374:A:GLU:C	1:375:A:LEU:N	1:375:A:LEU:CA	1:375:A:LEU:C	13	2.29
(1,99)	1:439:A:PHE:C	1:440:A:ASN:N	1:440:A:ASN:CA	1:440:A:ASN:C	11	2.27
(1,132)	1:458:A:CYS:N	1:458:A:CYS:CA	1:458:A:CYS:C	1:459:A:ASP:N	9	2.26
(1,74)	1:423:A:LEU:N	1:423:A:LEU:CA	1:423:A:LEU:C	1:424:A:ARG:N	6	2.26
(1,48)	1:406:A:CYS:N	1:406:A:CYS:CA	1:406:A:CYS:C	1:407:A:TYR:N	10	2.26
(1,17)	1:380:A:LYS:C	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	14	2.26
(1,94)	1:435:A:SER:N	1:435:A:SER:CA	1:435:A:SER:C	1:436:A:GLY:N	4	2.24
(1,95)	1:435:A:SER:C	1:436:A:GLY:N	1:436:A:GLY:CA	1:436:A:GLY:C	14	2.19
(1,97)	1:438:A:LYS:C	1:439:A:PHE:N	1:439:A:PHE:CA	1:439:A:PHE:C	6	2.18
(1,32)	1:396:A:TRP:N	1:396:A:TRP:CA	1:396:A:TRP:C	1:397:A:CYS:N	9	2.18
(1,129)	1:456:A:LEU:C	1:457:A:ARG:N	1:457:A:ARG:CA	1:457:A:ARG:C	18	2.16
(1,74)	1:423:A:LEU:N	1:423:A:LEU:CA	1:423:A:LEU:C	1:424:A:ARG:N	15	2.16
(1,96)	1:436:A:GLY:N	1:436:A:GLY:CA	1:436:A:GLY:C	1:437:A:GLN:N	20	2.15
(1,119)	1:451:A:MET:C	1:452:A:ASN:N	1:452:A:ASN:CA	1:452:A:ASN:C	18	2.14
(1,74)	1:423:A:LEU:N	1:423:A:LEU:CA	1:423:A:LEU:C	1:424:A:ARG:N	14	2.14
(1,51)	1:407:A:TYR:C	1:408:A:LYS:N	1:408:A:LYS:CA	1:408:A:LYS:C	3	2.14
(1,60)	1:416:A:THR:N	1:416:A:THR:CA	1:416:A:THR:C	1:417:A:PRO:N	9	2.13
(1,40)	1:400:A:LYS:N	1:400:A:LYS:CA	1:400:A:LYS:C	1:401:A:ASP:N	16	2.13
(1,31)	1:395:A:TYR:C	1:396:A:TRP:N	1:396:A:TRP:CA	1:396:A:TRP:C	18	2.12
(1,27)	1:393:A:LYS:C	1:394:A:GLN:N	1:394:A:GLN:CA	1:394:A:GLN:C	6	2.12
(1,125)	1:454:A:ILE:C	1:455:A:TRP:N	1:455:A:TRP:CA	1:455:A:TRP:C	7	2.11
(1,32)	1:396:A:TRP:N	1:396:A:TRP:CA	1:396:A:TRP:C	1:397:A:CYS:N	15	2.11
(1,75)	1:425:A:GLY:C	1:426:A:CYS:N	1:426:A:CYS:CA	1:426:A:CYS:C	15	2.09
(1,74)	1:423:A:LEU:N	1:423:A:LEU:CA	1:423:A:LEU:C	1:424:A:ARG:N	8	2.08
(1,37)	1:398:A:THR:C	1:399:A:PHE:N	1:399:A:PHE:CA	1:399:A:PHE:C	10	2.08
(1,119)	1:451:A:MET:C	1:452:A:ASN:N	1:452:A:ASN:CA	1:452:A:ASN:C	3	2.07
(1,17)	1:380:A:LYS:C	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	4	2.06
(1,74)	1:423:A:LEU:N	1:423:A:LEU:CA	1:423:A:LEU:C	1:424:A:ARG:N	9	2.05
(1,32)	1:396:A:TRP:N	1:396:A:TRP:CA	1:396:A:TRP:C	1:397:A:CYS:N	20	2.05
(1,99)	1:439:A:PHE:C	1:440:A:ASN:N	1:440:A:ASN:CA	1:440:A:ASN:C	15	2.04
(1,100)	1:440:A:ASN:N	1:440:A:ASN:CA	1:440:A:ASN:C	1:441:A:ILE:N	17	2.03
(1,128)	1:456:A:LEU:N	1:456:A:LEU:CA	1:456:A:LEU:C	1:457:A:ARG:N	8	2.01
(1,61)	1:416:A:THR:C	1:417:A:PRO:N	1:417:A:PRO:CA	1:417:A:PRO:C	4	2.01
(1,119)	1:451:A:MET:C	1:452:A:ASN:N	1:452:A:ASN:CA	1:452:A:ASN:C	15	1.99

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,50)	1:407:A:TYR:N	1:407:A:TYR:CA	1:407:A:TYR:C	1:408:A:LYS:N	19	1.98
(1,95)	1:435:A:SER:C	1:436:A:GLY:N	1:436:A:GLY:CA	1:436:A:GLY:C	2	1.97
(1,64)	1:418:A:ALA:N	1:418:A:ALA:CA	1:418:A:ALA:C	1:419:A:HIS:N	14	1.97
(1,31)	1:395:A:TYR:C	1:396:A:TRP:N	1:396:A:TRP:CA	1:396:A:TRP:C	15	1.97
(1,99)	1:439:A:PHE:C	1:440:A:ASN:N	1:440:A:ASN:CA	1:440:A:ASN:C	19	1.96
(1,31)	1:395:A:TYR:C	1:396:A:TRP:N	1:396:A:TRP:CA	1:396:A:TRP:C	12	1.96
(1,18)	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	1:382:A:PHE:N	5	1.96
(1,81)	1:428:A:VAL:C	1:429:A:THR:N	1:429:A:THR:CA	1:429:A:THR:C	2	1.95
(1,5)	1:374:A:GLU:C	1:375:A:LEU:N	1:375:A:LEU:CA	1:375:A:LEU:C	1	1.93
(1,5)	1:374:A:GLU:C	1:375:A:LEU:N	1:375:A:LEU:CA	1:375:A:LEU:C	14	1.93
(1,129)	1:456:A:LEU:C	1:457:A:ARG:N	1:457:A:ARG:CA	1:457:A:ARG:C	3	1.92
(1,37)	1:398:A:THR:C	1:399:A:PHE:N	1:399:A:PHE:CA	1:399:A:PHE:C	19	1.92
(1,129)	1:456:A:LEU:C	1:457:A:ARG:N	1:457:A:ARG:CA	1:457:A:ARG:C	4	1.91
(1,119)	1:451:A:MET:C	1:452:A:ASN:N	1:452:A:ASN:CA	1:452:A:ASN:C	2	1.91
(1,21)	1:385:A:LYS:C	1:386:A:LYS:N	1:386:A:LYS:CA	1:386:A:LYS:C	3	1.91
(1,86)	1:431:A:ASP:N	1:431:A:ASP:CA	1:431:A:ASP:C	1:432:A:VAL:N	18	1.9
(1,68)	1:420:A:GLN:N	1:420:A:GLN:CA	1:420:A:GLN:C	1:421:A:MET:N	17	1.89
(1,37)	1:398:A:THR:C	1:399:A:PHE:N	1:399:A:PHE:CA	1:399:A:PHE:C	7	1.89
(1,74)	1:423:A:LEU:N	1:423:A:LEU:CA	1:423:A:LEU:C	1:424:A:ARG:N	5	1.87
(1,37)	1:398:A:THR:C	1:399:A:PHE:N	1:399:A:PHE:CA	1:399:A:PHE:C	12	1.87
(1,17)	1:380:A:LYS:C	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	1	1.86
(1,37)	1:398:A:THR:C	1:399:A:PHE:N	1:399:A:PHE:CA	1:399:A:PHE:C	4	1.85
(1,17)	1:380:A:LYS:C	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	6	1.85
(1,68)	1:420:A:GLN:N	1:420:A:GLN:CA	1:420:A:GLN:C	1:421:A:MET:N	10	1.84
(1,132)	1:458:A:CYS:N	1:458:A:CYS:CA	1:458:A:CYS:C	1:459:A:ASP:N	2	1.83
(1,40)	1:400:A:LYS:N	1:400:A:LYS:CA	1:400:A:LYS:C	1:401:A:ASP:N	18	1.81
(1,17)	1:380:A:LYS:C	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	7	1.81
(1,20)	1:382:A:PHE:N	1:382:A:PHE:CA	1:382:A:PHE:C	1:383:A:LYS:N	20	1.8
(1,130)	1:457:A:ARG:N	1:457:A:ARG:CA	1:457:A:ARG:C	1:458:A:CYS:N	20	1.79
(1,125)	1:454:A:ILE:C	1:455:A:TRP:N	1:455:A:TRP:CA	1:455:A:TRP:C	1	1.79
(1,52)	1:408:A:LYS:N	1:408:A:LYS:CA	1:408:A:LYS:C	1:409:A:SER:N	4	1.77
(1,50)	1:407:A:TYR:N	1:407:A:TYR:CA	1:407:A:TYR:C	1:408:A:LYS:N	10	1.77
(1,50)	1:407:A:TYR:N	1:407:A:TYR:CA	1:407:A:TYR:C	1:408:A:LYS:N	17	1.77
(1,48)	1:406:A:CYS:N	1:406:A:CYS:CA	1:406:A:CYS:C	1:407:A:TYR:N	3	1.77
(1,22)	1:386:A:LYS:N	1:386:A:LYS:CA	1:386:A:LYS:C	1:387:A:LEU:N	11	1.77
(1,17)	1:380:A:LYS:C	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	11	1.77
(1,53)	1:409:A:SER:C	1:410:A:LYS:N	1:410:A:LYS:CA	1:410:A:LYS:C	6	1.76
(1,32)	1:396:A:TRP:N	1:396:A:TRP:CA	1:396:A:TRP:C	1:397:A:CYS:N	17	1.76
(1,86)	1:431:A:ASP:N	1:431:A:ASP:CA	1:431:A:ASP:C	1:432:A:VAL:N	1	1.74
(1,44)	1:404:A:ILE:N	1:404:A:ILE:CA	1:404:A:ILE:C	1:405:A:SER:N	11	1.74
(1,100)	1:440:A:ASN:N	1:440:A:ASN:CA	1:440:A:ASN:C	1:441:A:ILE:N	10	1.73
(1,129)	1:456:A:LEU:C	1:457:A:ARG:N	1:457:A:ARG:CA	1:457:A:ARG:C	16	1.72
(1,32)	1:396:A:TRP:N	1:396:A:TRP:CA	1:396:A:TRP:C	1:397:A:CYS:N	11	1.72
(1,129)	1:456:A:LEU:C	1:457:A:ARG:N	1:457:A:ARG:CA	1:457:A:ARG:C	20	1.71
(1,140)	1:464:A:TYR:N	1:464:A:TYR:CA	1:464:A:TYR:C	1:465:A:ALA:N	14	1.7
(1,140)	1:464:A:TYR:N	1:464:A:TYR:CA	1:464:A:TYR:C	1:465:A:ALA:N	15	1.7
(1,18)	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	1:382:A:PHE:N	20	1.7
(1,50)	1:407:A:TYR:N	1:407:A:TYR:CA	1:407:A:TYR:C	1:408:A:LYS:N	14	1.69
(1,29)	1:394:A:GLN:C	1:395:A:TYR:N	1:395:A:TYR:CA	1:395:A:TYR:C	15	1.69
(1,54)	1:410:A:LYS:N	1:410:A:LYS:CA	1:410:A:LYS:C	1:411:A:GLU:N	5	1.68
(1,131)	1:457:A:ARG:C	1:458:A:CYS:N	1:458:A:CYS:CA	1:458:A:CYS:C	6	1.67

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,65)	1:418:A:ALA:C	1:419:A:HIS:N	1:419:A:HIS:CA	1:419:A:HIS:C	14	1.63
(1,26)	1:393:A:LYS:N	1:393:A:LYS:CA	1:393:A:LYS:C	1:394:A:GLN:N	18	1.63
(1,40)	1:400:A:LYS:N	1:400:A:LYS:CA	1:400:A:LYS:C	1:401:A:ASP:N	3	1.61
(1,140)	1:464:A:TYR:N	1:464:A:TYR:CA	1:464:A:TYR:C	1:465:A:ALA:N	10	1.6
(1,119)	1:451:A:MET:C	1:452:A:ASN:N	1:452:A:ASN:CA	1:452:A:ASN:C	16	1.6
(1,33)	1:396:A:TRP:C	1:397:A:CYS:N	1:397:A:CYS:CA	1:397:A:CYS:C	13	1.6
(1,26)	1:393:A:LYS:N	1:393:A:LYS:CA	1:393:A:LYS:C	1:394:A:GLN:N	16	1.6
(1,5)	1:374:A:GLU:C	1:375:A:LEU:N	1:375:A:LEU:CA	1:375:A:LEU:C	20	1.59
(1,125)	1:454:A:ILE:C	1:455:A:TRP:N	1:455:A:TRP:CA	1:455:A:TRP:C	5	1.58
(1,119)	1:451:A:MET:C	1:452:A:ASN:N	1:452:A:ASN:CA	1:452:A:ASN:C	11	1.58
(1,5)	1:374:A:GLU:C	1:375:A:LEU:N	1:375:A:LEU:CA	1:375:A:LEU:C	3	1.58
(1,5)	1:374:A:GLU:C	1:375:A:LEU:N	1:375:A:LEU:CA	1:375:A:LEU:C	19	1.58
(1,129)	1:456:A:LEU:C	1:457:A:ARG:N	1:457:A:ARG:CA	1:457:A:ARG:C	13	1.56
(1,20)	1:382:A:PHE:N	1:382:A:PHE:CA	1:382:A:PHE:C	1:383:A:LYS:N	15	1.56
(1,58)	1:414:A:SER:N	1:414:A:SER:CA	1:414:A:SER:C	1:415:A:GLY:N	19	1.55
(1,19)	1:381:A:VAL:C	1:382:A:PHE:N	1:382:A:PHE:CA	1:382:A:PHE:C	10	1.55
(1,86)	1:431:A:ASP:N	1:431:A:ASP:CA	1:431:A:ASP:C	1:432:A:VAL:N	11	1.54
(1,17)	1:380:A:LYS:C	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	16	1.54
(1,51)	1:407:A:TYR:C	1:408:A:LYS:N	1:408:A:LYS:CA	1:408:A:LYS:C	2	1.53
(1,18)	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	1:382:A:PHE:N	12	1.53
(1,50)	1:407:A:TYR:N	1:407:A:TYR:CA	1:407:A:TYR:C	1:408:A:LYS:N	9	1.52
(1,119)	1:451:A:MET:C	1:452:A:ASN:N	1:452:A:ASN:CA	1:452:A:ASN:C	12	1.51
(1,140)	1:464:A:TYR:N	1:464:A:TYR:CA	1:464:A:TYR:C	1:465:A:ALA:N	2	1.49
(1,58)	1:414:A:SER:N	1:414:A:SER:CA	1:414:A:SER:C	1:415:A:GLY:N	3	1.49
(1,50)	1:407:A:TYR:N	1:407:A:TYR:CA	1:407:A:TYR:C	1:408:A:LYS:N	2	1.49
(1,25)	1:392:A:TYR:C	1:393:A:LYS:N	1:393:A:LYS:CA	1:393:A:LYS:C	7	1.49
(1,131)	1:457:A:ARG:C	1:458:A:CYS:N	1:458:A:CYS:CA	1:458:A:CYS:C	12	1.48
(1,94)	1:435:A:SER:N	1:435:A:SER:CA	1:435:A:SER:C	1:436:A:GLY:N	14	1.48
(1,5)	1:374:A:GLU:C	1:375:A:LEU:N	1:375:A:LEU:CA	1:375:A:LEU:C	4	1.48
(1,72)	1:422:A:ASN:N	1:422:A:ASN:CA	1:422:A:ASN:C	1:423:A:LEU:N	12	1.46
(1,34)	1:397:A:CYS:N	1:397:A:CYS:CA	1:397:A:CYS:C	1:398:A:THR:N	7	1.46
(1,97)	1:438:A:LYS:C	1:439:A:PHE:N	1:439:A:PHE:CA	1:439:A:PHE:C	10	1.45
(1,68)	1:420:A:GLN:N	1:420:A:GLN:CA	1:420:A:GLN:C	1:421:A:MET:N	1	1.45
(1,38)	1:399:A:PHE:N	1:399:A:PHE:CA	1:399:A:PHE:C	1:400:A:LYS:N	12	1.45
(1,10)	1:377:A:ASP:N	1:377:A:ASP:CA	1:377:A:ASP:C	1:378:A:TYR:N	12	1.44
(1,57)	1:413:A:SER:C	1:414:A:SER:N	1:414:A:SER:CA	1:414:A:SER:C	7	1.43
(1,32)	1:396:A:TRP:N	1:396:A:TRP:CA	1:396:A:TRP:C	1:397:A:CYS:N	16	1.43
(1,31)	1:395:A:TYR:C	1:396:A:TRP:N	1:396:A:TRP:CA	1:396:A:TRP:C	17	1.43
(1,18)	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	1:382:A:PHE:N	11	1.43
(1,9)	1:376:A:ALA:C	1:377:A:ASP:N	1:377:A:ASP:CA	1:377:A:ASP:C	13	1.43
(1,132)	1:458:A:CYS:N	1:458:A:CYS:CA	1:458:A:CYS:C	1:459:A:ASP:N	12	1.42
(1,89)	1:432:A:VAL:C	1:433:A:ASN:N	1:433:A:ASN:CA	1:433:A:ASN:C	17	1.41
(1,58)	1:414:A:SER:N	1:414:A:SER:CA	1:414:A:SER:C	1:415:A:GLY:N	13	1.41
(1,37)	1:398:A:THR:C	1:399:A:PHE:N	1:399:A:PHE:CA	1:399:A:PHE:C	5	1.41
(1,131)	1:457:A:ARG:C	1:458:A:CYS:N	1:458:A:CYS:CA	1:458:A:CYS:C	9	1.4
(1,17)	1:380:A:LYS:C	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	9	1.4
(1,139)	1:463:A:GLN:C	1:464:A:TYR:N	1:464:A:TYR:CA	1:464:A:TYR:C	6	1.39
(1,99)	1:439:A:PHE:C	1:440:A:ASN:N	1:440:A:ASN:CA	1:440:A:ASN:C	20	1.39
(1,18)	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	1:382:A:PHE:N	2	1.39
(1,86)	1:431:A:ASP:N	1:431:A:ASP:CA	1:431:A:ASP:C	1:432:A:VAL:N	20	1.38
(1,138)	1:463:A:GLN:N	1:463:A:GLN:CA	1:463:A:GLN:C	1:464:A:TYR:N	9	1.37

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,86)	1:431:A:ASP:N	1:431:A:ASP:CA	1:431:A:ASP:C	1:432:A:VAL:N	12	1.36
(1,74)	1:423:A:LEU:N	1:423:A:LEU:CA	1:423:A:LEU:C	1:424:A:ARG:N	10	1.36
(1,50)	1:407:A:TYR:N	1:407:A:TYR:CA	1:407:A:TYR:C	1:408:A:LYS:N	15	1.36
(1,100)	1:440:A:ASN:N	1:440:A:ASN:CA	1:440:A:ASN:C	1:441:A:ILE:N	15	1.35
(1,82)	1:429:A:THR:N	1:429:A:THR:CA	1:429:A:THR:C	1:430:A:PRO:N	4	1.35
(1,139)	1:463:A:GLN:C	1:464:A:TYR:N	1:464:A:TYR:CA	1:464:A:TYR:C	11	1.34
(1,37)	1:398:A:THR:C	1:399:A:PHE:N	1:399:A:PHE:CA	1:399:A:PHE:C	17	1.34
(1,131)	1:457:A:ARG:C	1:458:A:CYS:N	1:458:A:CYS:CA	1:458:A:CYS:C	17	1.32
(1,20)	1:382:A:PHE:N	1:382:A:PHE:CA	1:382:A:PHE:C	1:383:A:LYS:N	13	1.31
(1,10)	1:377:A:ASP:N	1:377:A:ASP:CA	1:377:A:ASP:C	1:378:A:TYR:N	5	1.31
(1,121)	1:452:A:ASN:C	1:453:A:GLU:N	1:453:A:GLU:CA	1:453:A:GLU:C	10	1.3
(1,110)	1:446:A:PRO:N	1:446:A:PRO:CA	1:446:A:PRO:C	1:447:A:VAL:N	8	1.3
(1,86)	1:431:A:ASP:N	1:431:A:ASP:CA	1:431:A:ASP:C	1:432:A:VAL:N	7	1.3
(1,119)	1:451:A:MET:C	1:452:A:ASN:N	1:452:A:ASN:CA	1:452:A:ASN:C	1	1.29
(1,68)	1:420:A:GLN:N	1:420:A:GLN:CA	1:420:A:GLN:C	1:421:A:MET:N	11	1.29
(1,10)	1:377:A:ASP:N	1:377:A:ASP:CA	1:377:A:ASP:C	1:378:A:TYR:N	6	1.29
(1,121)	1:452:A:ASN:C	1:453:A:GLU:N	1:453:A:GLU:CA	1:453:A:GLU:C	18	1.28
(1,91)	1:433:A:ASN:C	1:434:A:ILE:N	1:434:A:ILE:CA	1:434:A:ILE:C	15	1.28
(1,28)	1:394:A:GLN:N	1:394:A:GLN:CA	1:394:A:GLN:C	1:395:A:TYR:N	18	1.27
(1,127)	1:455:A:TRP:C	1:456:A:LEU:N	1:456:A:LEU:CA	1:456:A:LEU:C	3	1.26
(1,127)	1:455:A:TRP:C	1:456:A:LEU:N	1:456:A:LEU:CA	1:456:A:LEU:C	16	1.26
(1,89)	1:432:A:VAL:C	1:433:A:ASN:N	1:433:A:ASN:CA	1:433:A:ASN:C	16	1.26
(1,21)	1:385:A:LYS:C	1:386:A:LYS:N	1:386:A:LYS:CA	1:386:A:LYS:C	18	1.26
(1,89)	1:432:A:VAL:C	1:433:A:ASN:N	1:433:A:ASN:CA	1:433:A:ASN:C	9	1.25
(1,50)	1:407:A:TYR:N	1:407:A:TYR:CA	1:407:A:TYR:C	1:408:A:LYS:N	18	1.25
(1,29)	1:394:A:GLN:C	1:395:A:TYR:N	1:395:A:TYR:CA	1:395:A:TYR:C	1	1.25
(1,17)	1:380:A:LYS:C	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	2	1.25
(1,17)	1:380:A:LYS:C	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	3	1.25
(1,141)	1:464:A:TYR:C	1:465:A:ALA:N	1:465:A:ALA:CA	1:465:A:ALA:C	20	1.24
(1,115)	1:448:A:ALA:C	1:449:A:GLU:N	1:449:A:GLU:CA	1:449:A:GLU:C	11	1.24
(1,10)	1:377:A:ASP:N	1:377:A:ASP:CA	1:377:A:ASP:C	1:378:A:TYR:N	7	1.24
(1,119)	1:451:A:MET:C	1:452:A:ASN:N	1:452:A:ASN:CA	1:452:A:ASN:C	10	1.23
(1,6)	1:375:A:LEU:N	1:375:A:LEU:CA	1:375:A:LEU:C	1:376:A:ALA:N	8	1.23
(1,95)	1:435:A:SER:C	1:436:A:GLY:N	1:436:A:GLY:CA	1:436:A:GLY:C	6	1.22
(1,89)	1:432:A:VAL:C	1:433:A:ASN:N	1:433:A:ASN:CA	1:433:A:ASN:C	5	1.22
(1,81)	1:428:A:VAL:C	1:429:A:THR:N	1:429:A:THR:CA	1:429:A:THR:C	3	1.22
(1,50)	1:407:A:TYR:N	1:407:A:TYR:CA	1:407:A:TYR:C	1:408:A:LYS:N	1	1.22
(1,23)	1:386:A:LYS:C	1:387:A:LEU:N	1:387:A:LEU:CA	1:387:A:LEU:C	14	1.21
(1,5)	1:374:A:GLU:C	1:375:A:LEU:N	1:375:A:LEU:CA	1:375:A:LEU:C	8	1.21
(1,121)	1:452:A:ASN:C	1:453:A:GLU:N	1:453:A:GLU:CA	1:453:A:GLU:C	1	1.2
(1,119)	1:451:A:MET:C	1:452:A:ASN:N	1:452:A:ASN:CA	1:452:A:ASN:C	17	1.2
(1,74)	1:423:A:LEU:N	1:423:A:LEU:CA	1:423:A:LEU:C	1:424:A:ARG:N	3	1.19
(1,59)	1:415:A:GLY:C	1:416:A:THR:N	1:416:A:THR:CA	1:416:A:THR:C	7	1.19
(1,56)	1:411:A:GLU:N	1:411:A:GLU:CA	1:411:A:GLU:C	1:412:A:GLU:N	2	1.19
(1,26)	1:393:A:LYS:N	1:393:A:LYS:CA	1:393:A:LYS:C	1:394:A:GLN:N	12	1.18
(1,93)	1:434:A:ILE:C	1:435:A:SER:N	1:435:A:SER:CA	1:435:A:SER:C	7	1.17
(1,4)	1:374:A:GLU:N	1:374:A:GLU:CA	1:374:A:GLU:C	1:375:A:LEU:N	12	1.17
(1,129)	1:456:A:LEU:C	1:457:A:ARG:N	1:457:A:ARG:CA	1:457:A:ARG:C	7	1.16
(1,97)	1:438:A:LYS:C	1:439:A:PHE:N	1:439:A:PHE:CA	1:439:A:PHE:C	12	1.16
(1,10)	1:377:A:ASP:N	1:377:A:ASP:CA	1:377:A:ASP:C	1:378:A:TYR:N	15	1.16
(1,59)	1:415:A:GLY:C	1:416:A:THR:N	1:416:A:THR:CA	1:416:A:THR:C	15	1.14

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Key	Atom-1	Atom-2	Atom-3	Atom-4	Model ID	Violation (°)
(1,46)	1:405:A:SER:N	1:405:A:SER:CA	1:405:A:SER:C	1:406:A:CYS:N	3	1.14
(1,37)	1:398:A:THR:C	1:399:A:PHE:N	1:399:A:PHE:CA	1:399:A:PHE:C	14	1.14
(1,100)	1:440:A:ASN:N	1:440:A:ASN:CA	1:440:A:ASN:C	1:441:A:ILE:N	16	1.13
(1,81)	1:428:A:VAL:C	1:429:A:THR:N	1:429:A:THR:CA	1:429:A:THR:C	6	1.12
(1,59)	1:415:A:GLY:C	1:416:A:THR:N	1:416:A:THR:CA	1:416:A:THR:C	4	1.12
(1,19)	1:381:A:VAL:C	1:382:A:PHE:N	1:382:A:PHE:CA	1:382:A:PHE:C	3	1.12
(1,18)	1:381:A:VAL:N	1:381:A:VAL:CA	1:381:A:VAL:C	1:382:A:PHE:N	18	1.12
(1,10)	1:377:A:ASP:N	1:377:A:ASP:CA	1:377:A:ASP:C	1:378:A:TYR:N	10	1.12
(1,130)	1:457:A:ARG:N	1:457:A:ARG:CA	1:457:A:ARG:C	1:458:A:CYS:N	13	1.11
(1,42)	1:403:A:SER:N	1:403:A:SER:CA	1:403:A:SER:C	1:404:A:ILE:N	9	1.11
(1,25)	1:392:A:TYR:C	1:393:A:LYS:N	1:393:A:LYS:CA	1:393:A:LYS:C	15	1.11
(1,22)	1:386:A:LYS:N	1:386:A:LYS:CA	1:386:A:LYS:C	1:387:A:LEU:N	9	1.11
(1,10)	1:377:A:ASP:N	1:377:A:ASP:CA	1:377:A:ASP:C	1:378:A:TYR:N	14	1.1
(1,140)	1:464:A:TYR:N	1:464:A:TYR:CA	1:464:A:TYR:C	1:465:A:ALA:N	19	1.09
(1,127)	1:455:A:TRP:C	1:456:A:LEU:N	1:456:A:LEU:CA	1:456:A:LEU:C	2	1.09
(1,51)	1:407:A:TYR:C	1:408:A:LYS:N	1:408:A:LYS:CA	1:408:A:LYS:C	6	1.09
(1,99)	1:439:A:PHE:C	1:440:A:ASN:N	1:440:A:ASN:CA	1:440:A:ASN:C	2	1.08
(1,37)	1:398:A:THR:C	1:399:A:PHE:N	1:399:A:PHE:CA	1:399:A:PHE:C	3	1.08
(1,47)	1:405:A:SER:C	1:406:A:CYS:N	1:406:A:CYS:CA	1:406:A:CYS:C	2	1.07
(1,119)	1:451:A:MET:C	1:452:A:ASN:N	1:452:A:ASN:CA	1:452:A:ASN:C	8	1.06
(1,43)	1:403:A:SER:C	1:404:A:ILE:N	1:404:A:ILE:CA	1:404:A:ILE:C	14	1.06
(1,37)	1:398:A:THR:C	1:399:A:PHE:N	1:399:A:PHE:CA	1:399:A:PHE:C	15	1.06
(1,19)	1:381:A:VAL:C	1:382:A:PHE:N	1:382:A:PHE:CA	1:382:A:PHE:C	17	1.06
(1,9)	1:376:A:ALA:C	1:377:A:ASP:N	1:377:A:ASP:CA	1:377:A:ASP:C	11	1.06
(1,8)	1:376:A:ALA:N	1:376:A:ALA:CA	1:376:A:ALA:C	1:377:A:ASP:N	14	1.06
(1,119)	1:451:A:MET:C	1:452:A:ASN:N	1:452:A:ASN:CA	1:452:A:ASN:C	5	1.05
(1,115)	1:448:A:ALA:C	1:449:A:GLU:N	1:449:A:GLU:CA	1:449:A:GLU:C	12	1.05
(1,115)	1:448:A:ALA:C	1:449:A:GLU:N	1:449:A:GLU:CA	1:449:A:GLU:C	15	1.05
(1,90)	1:433:A:ASN:N	1:433:A:ASN:CA	1:433:A:ASN:C	1:434:A:ILE:N	16	1.05
(1,32)	1:396:A:TRP:N	1:396:A:TRP:CA	1:396:A:TRP:C	1:397:A:CYS:N	1	1.05
(1,89)	1:432:A:VAL:C	1:433:A:ASN:N	1:433:A:ASN:CA	1:433:A:ASN:C	3	1.04
(1,57)	1:413:A:SER:C	1:414:A:SER:N	1:414:A:SER:CA	1:414:A:SER:C	14	1.04
(1,25)	1:392:A:TYR:C	1:393:A:LYS:N	1:393:A:LYS:CA	1:393:A:LYS:C	1	1.04
(1,10)	1:377:A:ASP:N	1:377:A:ASP:CA	1:377:A:ASP:C	1:378:A:TYR:N	1	1.03
(1,127)	1:455:A:TRP:C	1:456:A:LEU:N	1:456:A:LEU:CA	1:456:A:LEU:C	5	1.02
(1,121)	1:452:A:ASN:C	1:453:A:GLU:N	1:453:A:GLU:CA	1:453:A:GLU:C	8	1.02
(1,41)	1:402:A:THR:C	1:403:A:SER:N	1:403:A:SER:CA	1:403:A:SER:C	9	1.01
(1,112)	1:447:A:VAL:N	1:447:A:VAL:CA	1:447:A:VAL:C	1:448:A:ALA:N	10	1.0
(1,90)	1:433:A:ASN:N	1:433:A:ASN:CA	1:433:A:ASN:C	1:434:A:ILE:N	7	1.0
(1,81)	1:428:A:VAL:C	1:429:A:THR:N	1:429:A:THR:CA	1:429:A:THR:C	10	1.0
(1,9)	1:376:A:ALA:C	1:377:A:ASP:N	1:377:A:ASP:CA	1:377:A:ASP:C	8	1.0