



Full wwPDB EM Validation Report ⓘ

Nov 19, 2022 – 02:19 pm GMT

PDB ID : 5IJO
EMDB ID : EMD-8085
Title : Alternative composite structure of the inner ring of the human nuclear pore complex (16 copies of Nup188, 16 copies of Nup205)
Authors : Kosinski, J.; Mosalaganti, S.; von Appen, A.; Beck, M.
Deposited on : 2016-03-02
Resolution : 21.40 Å(reported)

This is a Full wwPDB EM 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/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

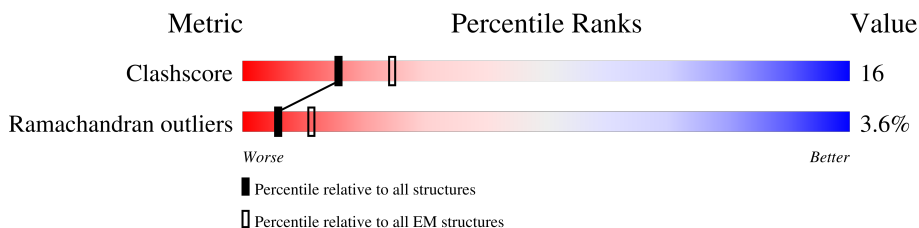
EMDB validation analysis : 0.0.1.dev43
MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.9
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.31.2

1 Overall quality at a glance

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 21.40 Å.

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)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. 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 $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	1391	
1	B	1391	
1	E	1391	
1	K	1391	
1	Q	1391	
1	W	1391	
2	C	819	
2	I	819	
2	O	819	

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Mol	Chain	Length	Quality of chain
2	U	819	
3	D	2012	
3	P	2012	
4	F	507	
4	L	507	
4	R	507	
4	X	507	
5	G	599	
5	M	599	
5	S	599	
5	Y	599	
6	H	522	
6	N	522	
6	T	522	
6	Z	522	
7	J	1749	
7	V	1749	

2 Entry composition

There are 7 unique types of molecules in this entry. The entry contains 76526 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Nuclear pore complex protein Nup155.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
1	A	650	3214	1914	650	650	0	0
1	B	650	3214	1914	650	650	0	0
1	E	1083	5366	3200	1083	1083	0	0
1	K	1083	5366	3200	1083	1083	0	0
1	Q	1083	5366	3200	1083	1083	0	0
1	W	1083	5366	3200	1083	1083	0	0

- Molecule 2 is a protein called Nuclear pore complex protein Nup93.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
2	C	636	3152	1880	636	636	0	0
2	I	636	3152	1880	636	636	0	0
2	O	636	3152	1880	636	636	0	0
2	U	636	3152	1880	636	636	0	0

- Molecule 3 is a protein called Nuclear pore complex protein Nup205.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
3	D	1028	5094	3038	1028	1028	0	0
3	P	1028	5094	3038	1028	1028	0	0

- Molecule 4 is a protein called Nucleoporin p54.

Mol	Chain	Residues	Atoms				AltConf	Trace
4	F	335	Total	C	N	O	0	0
			1658	988	335	335		
4	L	335	Total	C	N	O	0	0
			1658	988	335	335		
4	R	335	Total	C	N	O	0	0
			1658	988	335	335		
4	X	335	Total	C	N	O	0	0
			1658	988	335	335		

- Molecule 5 is a protein called Nucleoporin p58/p45.

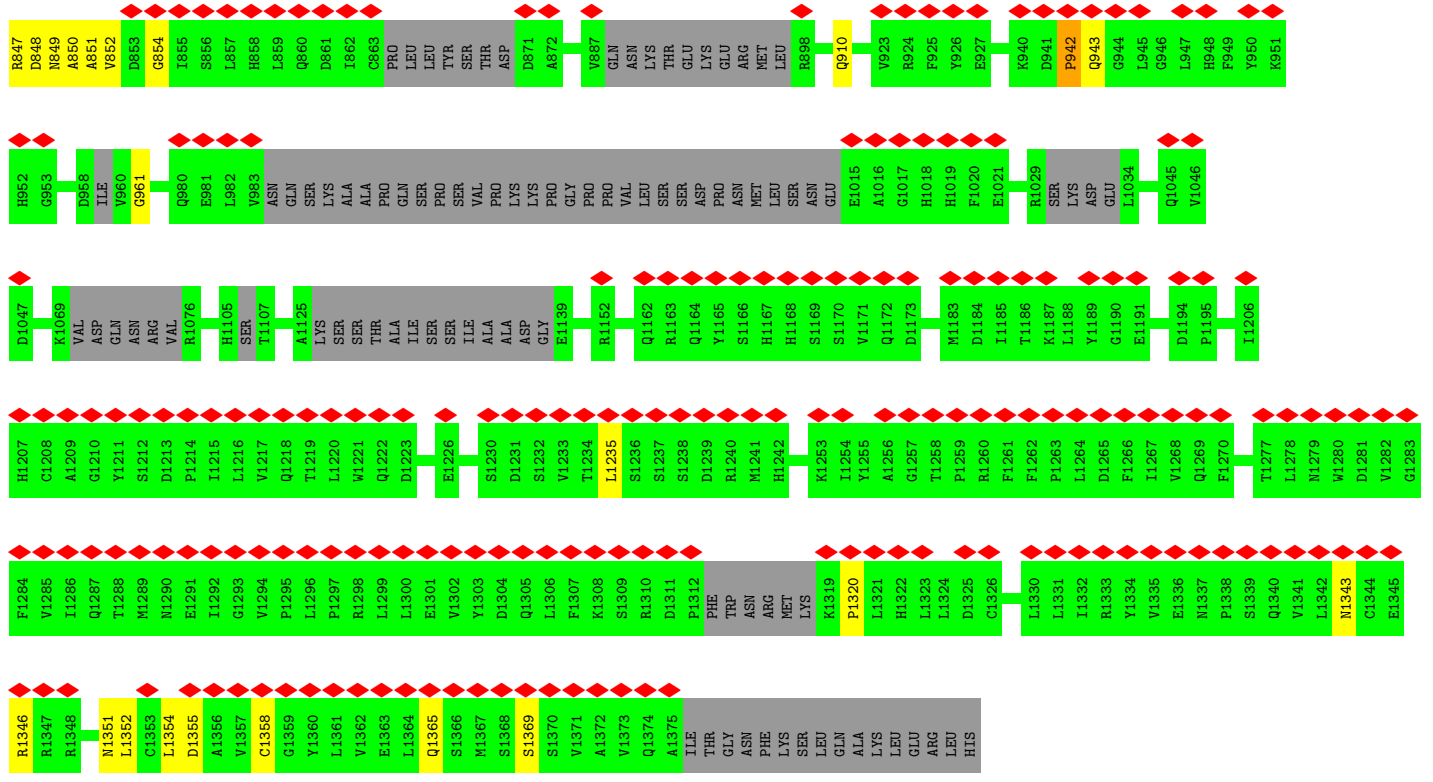
Mol	Chain	Residues	Atoms				AltConf	Trace
5	G	171	Total	C	N	O	0	0
			853	511	171	171		
5	M	171	Total	C	N	O	0	0
			853	511	171	171		
5	S	171	Total	C	N	O	0	0
			853	511	171	171		
5	Y	171	Total	C	N	O	0	0
			853	511	171	171		

- Molecule 6 is a protein called Nuclear pore glycoprotein p62.

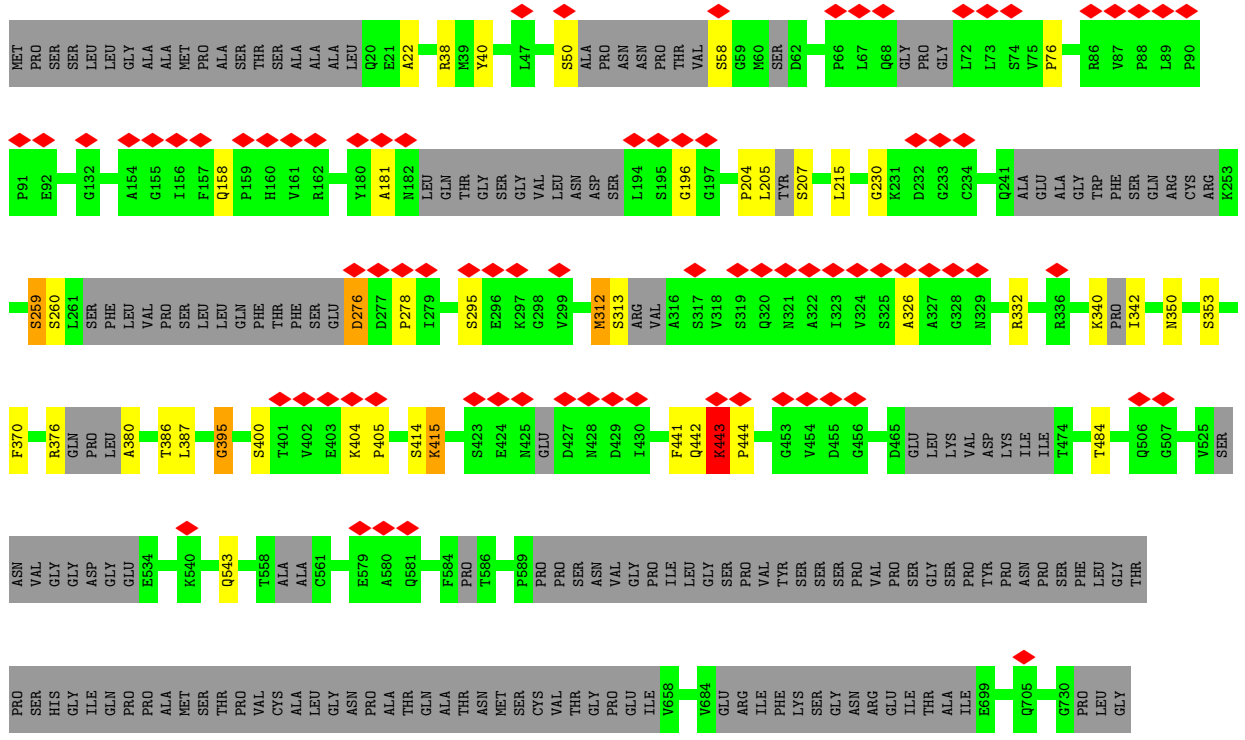
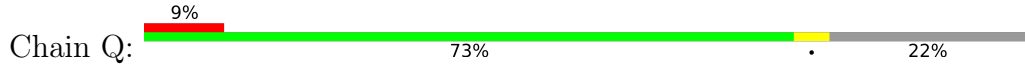
Mol	Chain	Residues	Atoms				AltConf	Trace
6	H	169	Total	C	N	O	0	0
			842	504	169	169		
6	N	169	Total	C	N	O	0	0
			842	504	169	169		
6	T	169	Total	C	N	O	0	0
			842	504	169	169		
6	Z	169	Total	C	N	O	0	0
			842	504	169	169		

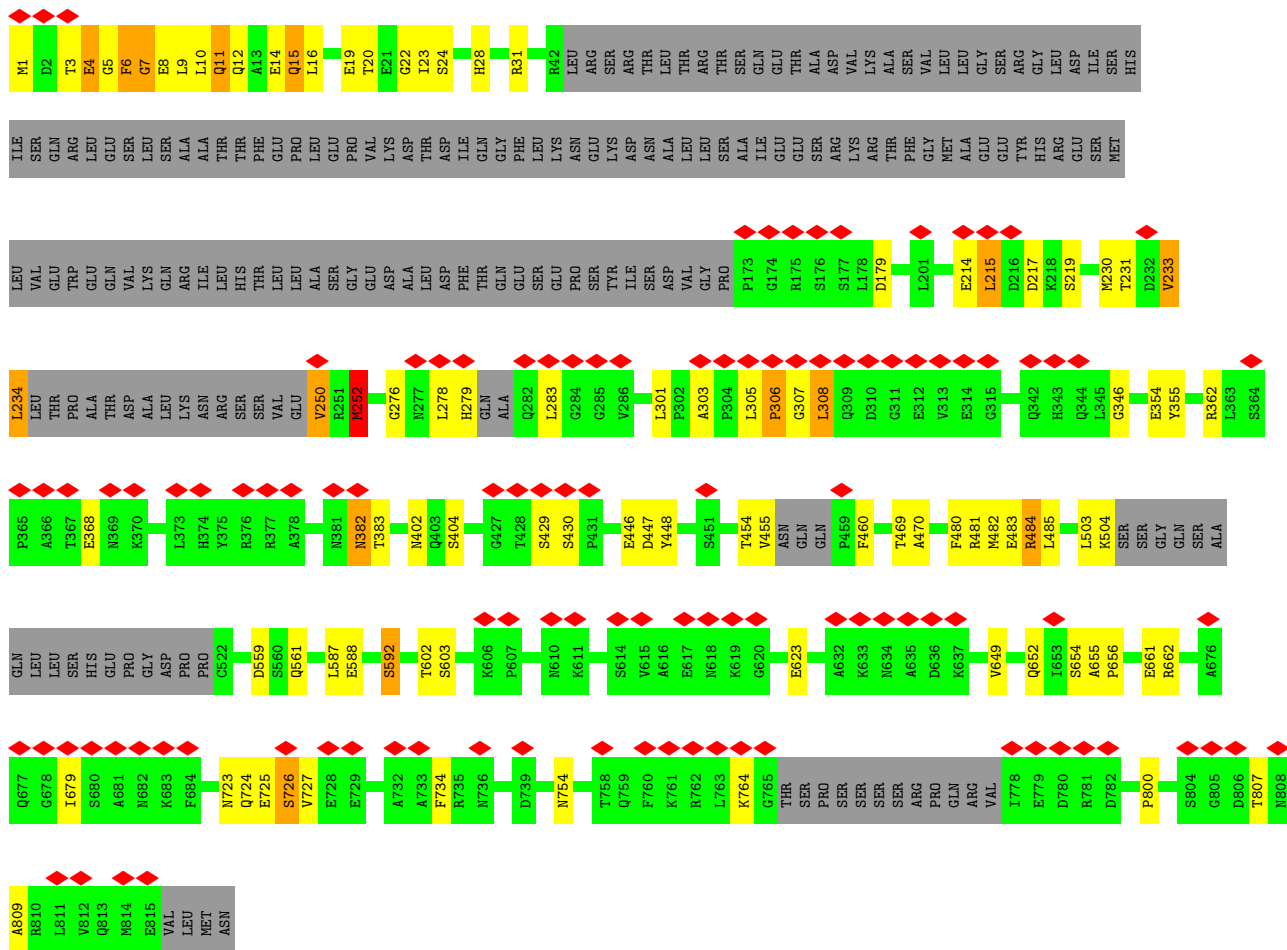
- Molecule 7 is a protein called Nucleoporin NUP188 homolog.

Mol	Chain	Residues	Atoms				AltConf	Trace
7	J	1256	Total	C	N	O	0	0
			6213	3701	1256	1256		
7	V	1256	Total	C	N	O	0	0
			6213	3701	1256	1256		

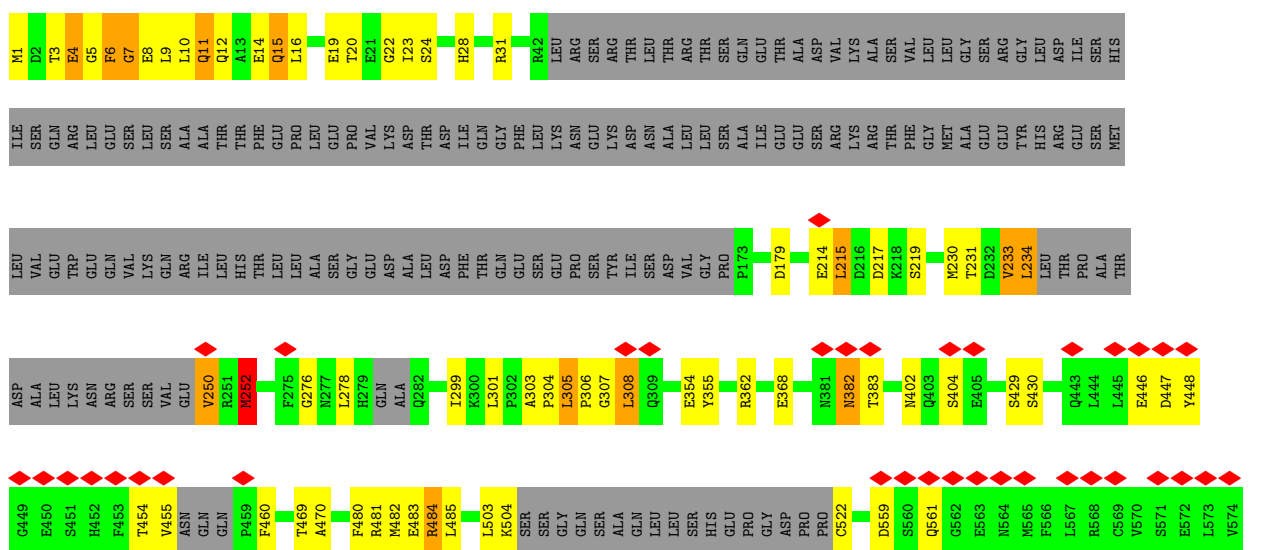


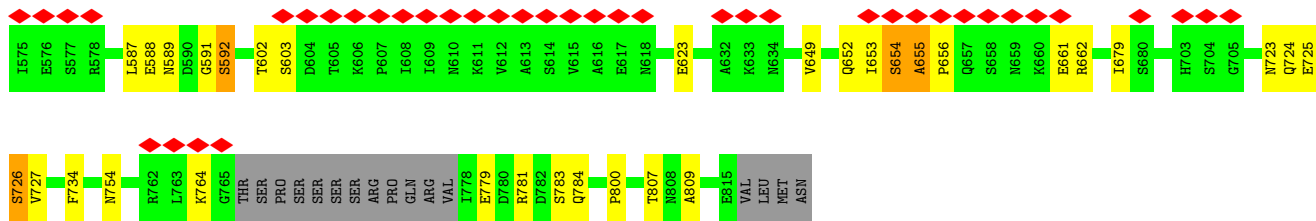
• Molecule 1: Nuclear pore complex protein Nup155



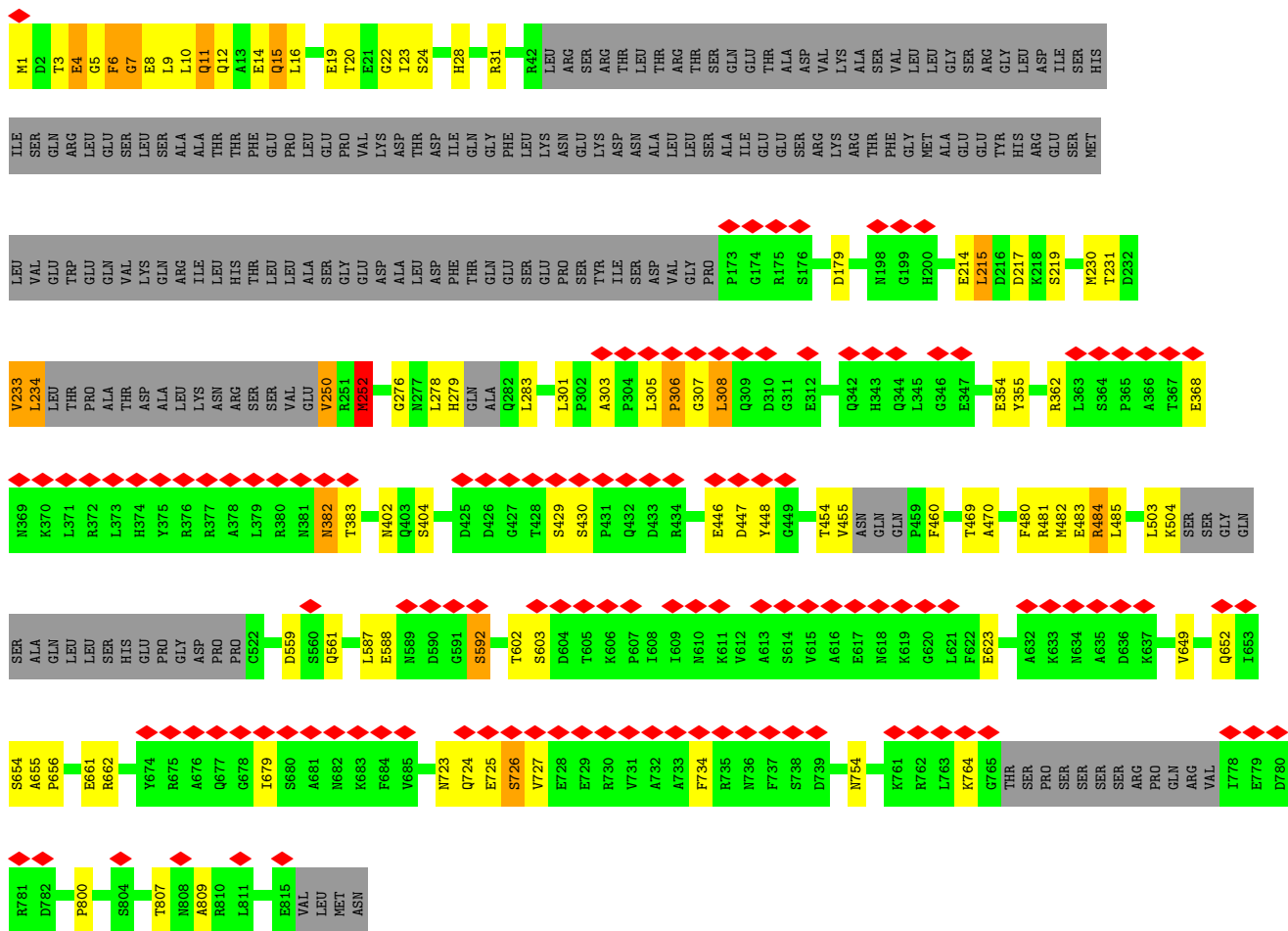


• Molecule 2: Nuclear pore complex protein Nup93

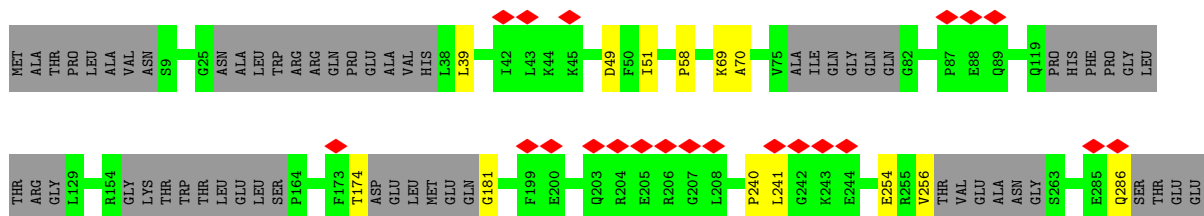


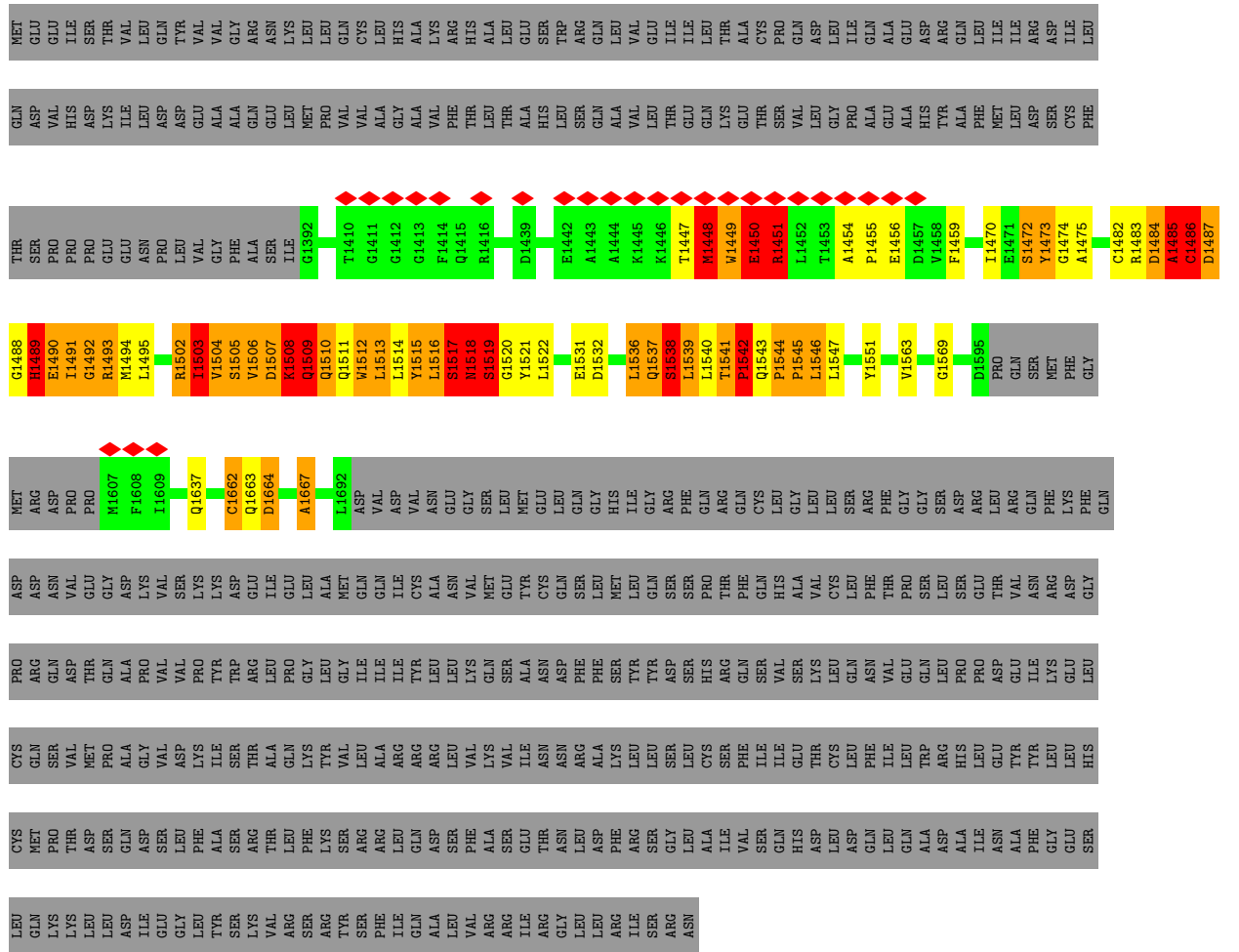


● Molecule 2: Nuclear pore complex protein Nup93

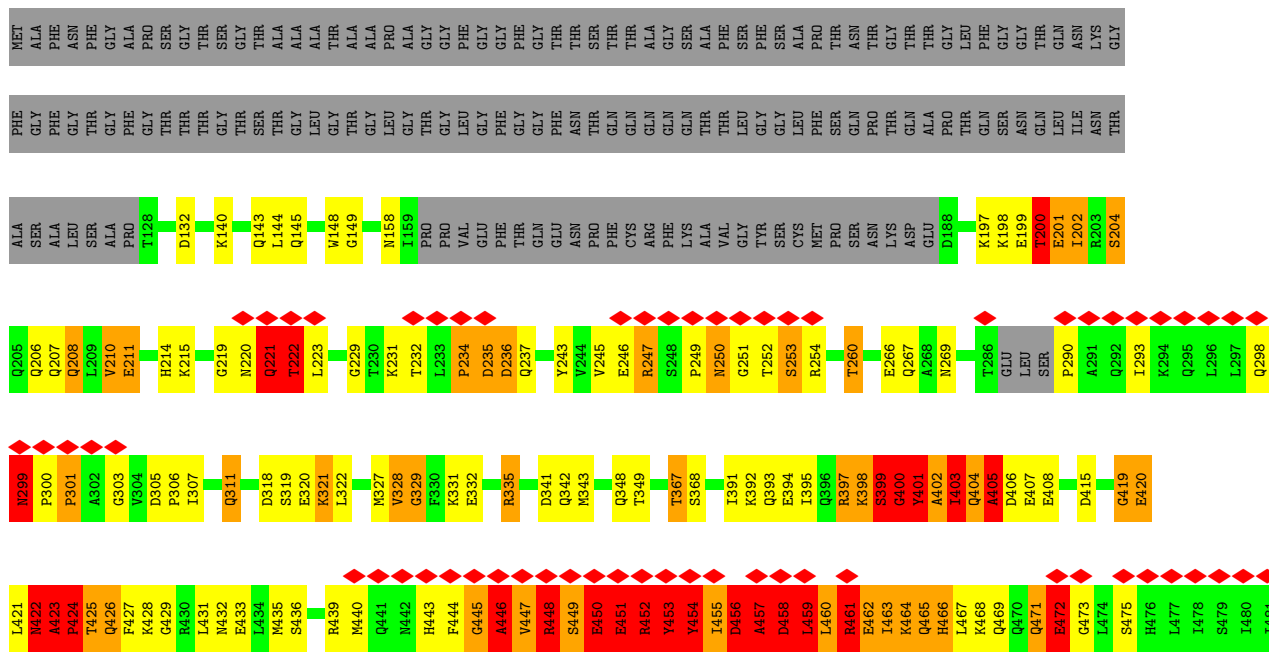
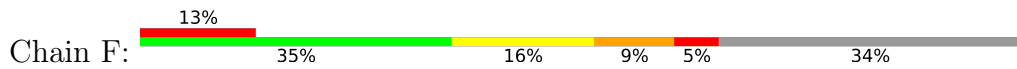


● Molecule 3: Nuclear pore complex protein Nup205





● Molecule 4: Nucleoporin p54



4 Experimental information

Property	Value	Source
EM reconstruction method	SUBTOMOGRAM AVERAGING	Depositor
Imposed symmetry	POINT, Not provided	
Number of subtomograms used	8400	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING ONLY	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	3	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 QUANTUM (4k x 4k)	Depositor
Maximum map value	315.784	Depositor
Minimum map value	0.000	Depositor
Average map value	1.328	Depositor
Map value standard deviation	10.659	Depositor
Recommended contour level	36.6	Depositor
Map size (\AA)	964.8, 964.8, 964.8	wwPDB
Map dimensions	144, 144, 144	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (\AA)	6.7, 6.7, 6.7	Depositor

5 Model quality i

5.1 Standard geometry i

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the 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	0.94	0/3195	1.25	10/4421 (0.2%)
1	B	0.94	0/3195	1.25	10/4421 (0.2%)
1	E	0.93	0/5338	1.17	10/7399 (0.1%)
1	K	0.93	0/5338	1.18	10/7399 (0.1%)
1	Q	0.93	0/5338	1.17	10/7399 (0.1%)
1	W	0.93	0/5338	1.17	10/7399 (0.1%)
2	C	1.13	13/3143 (0.4%)	1.44	45/4369 (1.0%)
2	I	1.13	13/3143 (0.4%)	1.44	45/4369 (1.0%)
2	O	1.13	13/3143 (0.4%)	1.44	45/4369 (1.0%)
2	U	1.13	13/3143 (0.4%)	1.44	45/4369 (1.0%)
3	D	1.22	38/5066 (0.8%)	1.74	122/7020 (1.7%)
3	P	1.22	38/5066 (0.8%)	1.74	121/7020 (1.7%)
4	F	4.14	197/1655 (11.9%)	4.03	272/2302 (11.8%)
4	L	4.14	197/1655 (11.9%)	4.03	272/2302 (11.8%)
4	R	4.14	197/1655 (11.9%)	4.03	272/2302 (11.8%)
4	X	4.14	199/1655 (12.0%)	4.03	273/2302 (11.9%)
5	G	3.95	84/852 (9.9%)	3.81	121/1190 (10.2%)
5	M	3.95	84/852 (9.9%)	3.81	121/1190 (10.2%)
5	S	3.95	84/852 (9.9%)	3.81	121/1190 (10.2%)
5	Y	3.95	85/852 (10.0%)	3.81	120/1190 (10.1%)
6	H	3.44	83/841 (9.9%)	3.10	110/1174 (9.4%)
6	N	3.44	83/841 (9.9%)	3.10	110/1174 (9.4%)
6	T	3.44	83/841 (9.9%)	3.09	109/1174 (9.3%)
6	Z	3.44	83/841 (9.9%)	3.10	110/1174 (9.4%)
7	J	0.92	0/6201	1.20	27/8622 (0.3%)
7	V	0.92	0/6201	1.20	27/8622 (0.3%)
All	All	1.89	1587/76240 (2.1%)	2.00	2548/105862 (2.4%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	1
1	B	0	1
1	E	0	1
1	K	0	1
1	Q	0	1
1	W	0	1
2	C	1	4
2	I	1	4
2	O	1	4
2	U	1	4
3	D	0	21
3	P	0	20
4	F	10	40
4	L	10	40
4	R	10	40
4	X	10	40
5	G	9	10
5	M	9	10
5	S	9	10
5	Y	9	10
6	H	5	5
6	N	5	5
6	T	5	4
6	Z	5	5
7	J	0	3
7	V	0	3
All	All	100	288

All (1587) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	S	380	ILE	N-CA	38.58	2.23	1.46
5	M	380	ILE	N-CA	38.56	2.23	1.46
5	G	380	ILE	N-CA	38.55	2.23	1.46
5	Y	380	ILE	N-CA	38.48	2.23	1.46
5	M	379	HIS	CA-C	37.09	2.49	1.52
5	S	379	HIS	CA-C	37.09	2.49	1.52
5	G	379	HIS	CA-C	37.07	2.49	1.52
5	Y	379	HIS	CA-C	37.05	2.49	1.52
4	F	453	TYR	CA-C	36.23	2.47	1.52
4	X	453	TYR	CA-C	36.23	2.47	1.52
4	R	453	TYR	CA-C	36.18	2.47	1.52
4	L	453	TYR	CA-C	36.17	2.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	R	493	HIS	CA-CB	32.64	2.25	1.53
4	X	493	HIS	CA-CB	32.63	2.25	1.53
4	F	493	HIS	CA-CB	32.60	2.25	1.53
4	L	493	HIS	CA-CB	32.59	2.25	1.53
4	L	493	HIS	CA-C	-31.42	0.71	1.52
4	X	493	HIS	CA-C	-31.39	0.71	1.52
4	F	493	HIS	CA-C	-31.38	0.71	1.52
4	R	493	HIS	CA-C	-31.34	0.71	1.52
6	N	374	SER	CA-CB	29.08	1.96	1.52
6	Z	374	SER	CA-CB	29.04	1.96	1.52
6	H	374	SER	CA-CB	29.02	1.96	1.52
6	T	374	SER	CA-CB	29.00	1.96	1.52
5	M	379	HIS	C-N	28.26	1.99	1.34
5	Y	379	HIS	C-N	28.25	1.99	1.34
5	S	379	HIS	C-N	28.21	1.99	1.34
5	G	379	HIS	C-N	28.21	1.99	1.34
6	T	411	GLU	CA-C	28.19	2.26	1.52
6	N	411	GLU	CA-C	28.18	2.26	1.52
6	H	411	GLU	CA-C	28.16	2.26	1.52
6	Z	411	GLU	CA-C	28.16	2.26	1.52
4	L	222	THR	N-CA	26.75	1.99	1.46
4	R	222	THR	N-CA	26.74	1.99	1.46
4	X	222	THR	N-CA	26.73	1.99	1.46
4	F	222	THR	N-CA	26.66	1.99	1.46
4	L	450	GLU	CA-C	24.57	2.16	1.52
4	F	450	GLU	CA-C	24.57	2.16	1.52
4	X	450	GLU	CA-C	24.57	2.16	1.52
4	R	450	GLU	CA-C	24.54	2.16	1.52
4	X	400	GLY	N-CA	24.30	1.82	1.46
4	F	400	GLY	N-CA	24.30	1.82	1.46
4	L	400	GLY	N-CA	24.28	1.82	1.46
4	R	400	GLY	N-CA	24.27	1.82	1.46
5	G	341	ALA	N-CA	23.84	1.94	1.46
5	Y	341	ALA	N-CA	23.83	1.94	1.46
5	S	341	ALA	N-CA	23.80	1.94	1.46
5	M	341	ALA	N-CA	23.77	1.93	1.46
4	R	487	ASP	CA-C	23.16	2.13	1.52
4	F	487	ASP	CA-C	23.15	2.13	1.52
4	L	487	ASP	CA-C	23.12	2.13	1.52
4	X	487	ASP	CA-C	23.11	2.13	1.52
4	L	401	TYR	N-CA	21.90	1.90	1.46
4	X	401	TYR	N-CA	21.89	1.90	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	R	401	TYR	N-CA	21.88	1.90	1.46
4	F	401	TYR	N-CA	21.86	1.90	1.46
4	R	450	GLU	C-O	21.44	1.64	1.23
4	X	450	GLU	C-O	21.42	1.64	1.23
4	F	450	GLU	C-O	21.41	1.64	1.23
4	L	450	GLU	C-O	21.39	1.64	1.23
6	N	462	GLY	CA-C	21.17	1.85	1.51
6	T	462	GLY	CA-C	21.14	1.85	1.51
4	R	458	ASP	C-N	21.12	1.82	1.34
6	H	462	GLY	CA-C	21.12	1.85	1.51
6	Z	462	GLY	CA-C	21.11	1.85	1.51
4	X	458	ASP	C-N	21.08	1.82	1.34
4	L	458	ASP	C-N	21.06	1.82	1.34
4	F	458	ASP	C-N	21.05	1.82	1.34
4	R	453	TYR	CA-CB	19.94	1.97	1.53
5	Y	341	ALA	CA-CB	-19.92	1.10	1.52
5	S	341	ALA	CA-CB	-19.90	1.10	1.52
5	G	341	ALA	CA-CB	-19.90	1.10	1.52
4	L	453	TYR	CA-CB	19.90	1.97	1.53
4	F	453	TYR	CA-CB	19.89	1.97	1.53
5	M	341	ALA	CA-CB	-19.88	1.10	1.52
4	X	453	TYR	CA-CB	19.88	1.97	1.53
4	X	451	GLU	CA-C	18.97	2.02	1.52
4	F	451	GLU	CA-C	18.94	2.02	1.52
4	R	451	GLU	CA-C	18.91	2.02	1.52
5	S	327	ARG	CA-C	18.91	2.02	1.52
5	M	327	ARG	CA-C	18.89	2.02	1.52
4	L	451	GLU	CA-C	18.86	2.02	1.52
5	G	327	ARG	CA-C	18.86	2.02	1.52
5	Y	327	ARG	CA-C	18.84	2.02	1.52
4	X	457	ALA	N-CA	-18.74	1.08	1.46
4	F	457	ALA	N-CA	-18.71	1.08	1.46
4	L	457	ALA	N-CA	-18.68	1.08	1.46
4	R	457	ALA	N-CA	-18.62	1.09	1.46
4	R	343	MET	N-CA	-18.31	1.09	1.46
4	L	343	MET	N-CA	-18.30	1.09	1.46
4	F	343	MET	N-CA	-18.29	1.09	1.46
4	X	343	MET	N-CA	-18.25	1.09	1.46
4	L	451	GLU	C-O	17.85	1.57	1.23
4	F	451	GLU	C-O	17.84	1.57	1.23
4	R	451	GLU	C-O	17.75	1.57	1.23
6	T	409	PRO	CA-C	17.74	1.88	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	X	451	GLU	C-O	17.74	1.57	1.23
6	N	409	PRO	CA-C	17.73	1.88	1.52
6	H	409	PRO	CA-C	17.72	1.88	1.52
6	Z	409	PRO	CA-C	17.71	1.88	1.52
4	F	229	GLY	CA-C	-17.44	1.24	1.51
4	R	229	GLY	CA-C	-17.41	1.24	1.51
4	X	229	GLY	CA-C	-17.38	1.24	1.51
4	L	229	GLY	CA-C	-17.32	1.24	1.51
4	F	329	GLY	N-CA	17.28	1.72	1.46
4	L	329	GLY	N-CA	17.21	1.71	1.46
4	X	329	GLY	N-CA	17.21	1.71	1.46
4	R	329	GLY	N-CA	17.18	1.71	1.46
5	M	326	LEU	N-CA	17.03	1.80	1.46
5	S	326	LEU	N-CA	17.01	1.80	1.46
5	G	326	LEU	N-CA	17.00	1.80	1.46
5	Y	326	LEU	N-CA	17.00	1.80	1.46
5	M	339	TYR	C-N	16.75	1.72	1.34
5	S	339	TYR	C-N	16.73	1.72	1.34
5	Y	339	TYR	C-N	16.73	1.72	1.34
5	G	339	TYR	C-N	16.68	1.72	1.34
4	L	458	ASP	CA-C	16.08	1.94	1.52
4	X	458	ASP	CA-C	16.07	1.94	1.52
4	F	458	ASP	CA-C	16.05	1.94	1.52
4	R	458	ASP	CA-C	16.05	1.94	1.52
5	S	352	GLN	N-CA	-15.77	1.14	1.46
5	G	352	GLN	N-CA	-15.77	1.14	1.46
5	M	352	GLN	N-CA	-15.77	1.14	1.46
5	Y	352	GLN	N-CA	-15.76	1.14	1.46
6	Z	341	SER	CA-CB	-15.62	1.29	1.52
6	T	341	SER	CA-CB	-15.60	1.29	1.52
6	N	341	SER	CA-CB	-15.57	1.29	1.52
6	H	341	SER	CA-CB	-15.55	1.29	1.52
4	F	492	GLU	C-N	15.52	1.69	1.34
4	L	492	GLU	C-N	15.51	1.69	1.34
5	S	327	ARG	N-CA	15.50	1.77	1.46
5	M	327	ARG	N-CA	15.49	1.77	1.46
4	R	492	GLU	C-N	15.49	1.69	1.34
5	Y	327	ARG	N-CA	15.49	1.77	1.46
4	X	492	GLU	C-N	15.47	1.69	1.34
5	G	327	ARG	N-CA	15.46	1.77	1.46
4	F	459	LEU	C-N	-15.40	0.98	1.34
4	R	459	LEU	C-N	-15.38	0.98	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	L	459	LEU	C-N	-15.37	0.98	1.34
4	X	459	LEU	C-N	-15.37	0.98	1.34
6	H	411	GLU	C-N	15.34	1.69	1.34
6	N	411	GLU	C-N	15.31	1.69	1.34
6	Z	411	GLU	C-N	15.30	1.69	1.34
6	T	411	GLU	C-N	15.26	1.69	1.34
5	S	327	ARG	CA-CB	15.24	1.87	1.53
5	G	327	ARG	CA-CB	15.23	1.87	1.53
5	M	327	ARG	CA-CB	15.22	1.87	1.53
5	Y	327	ARG	CA-CB	15.21	1.87	1.53
4	L	493	HIS	N-CA	15.15	1.76	1.46
4	X	493	HIS	N-CA	15.14	1.76	1.46
4	R	493	HIS	N-CA	15.10	1.76	1.46
4	R	458	ASP	CA-CB	15.07	1.87	1.53
4	F	493	HIS	N-CA	15.06	1.76	1.46
4	F	458	ASP	CA-CB	15.04	1.87	1.53
5	S	379	HIS	N-CA	15.04	1.76	1.46
4	L	458	ASP	CA-CB	15.03	1.87	1.53
4	X	458	ASP	CA-CB	15.03	1.87	1.53
5	G	379	HIS	N-CA	15.02	1.76	1.46
4	L	472	GLU	N-CA	15.02	1.76	1.46
5	Y	379	HIS	N-CA	14.99	1.76	1.46
4	R	472	GLU	N-CA	14.97	1.76	1.46
4	R	455	ILE	C-N	-14.97	0.99	1.34
4	X	472	GLU	N-CA	14.97	1.76	1.46
4	F	472	GLU	N-CA	14.96	1.76	1.46
5	M	379	HIS	N-CA	14.96	1.76	1.46
4	L	455	ILE	C-N	-14.95	0.99	1.34
4	X	455	ILE	C-N	-14.92	0.99	1.34
4	F	455	ILE	C-N	-14.90	0.99	1.34
2	I	6	PHE	CA-CB	-14.78	1.21	1.53
2	O	6	PHE	CA-CB	-14.77	1.21	1.53
2	C	6	PHE	CA-CB	-14.74	1.21	1.53
5	Y	340	ALA	N-CA	-14.71	1.17	1.46
2	U	6	PHE	CA-CB	-14.69	1.21	1.53
5	G	340	ALA	N-CA	-14.68	1.17	1.46
5	M	340	ALA	N-CA	-14.68	1.17	1.46
5	S	340	ALA	N-CA	-14.66	1.17	1.46
4	L	457	ALA	CA-CB	14.61	1.83	1.52
4	R	457	ALA	CA-CB	14.60	1.83	1.52
4	F	457	ALA	CA-CB	14.58	1.83	1.52
4	X	453	TYR	N-CA	14.58	1.75	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	F	453	TYR	N-CA	14.58	1.75	1.46
4	L	453	TYR	N-CA	14.55	1.75	1.46
4	X	457	ALA	CA-CB	14.55	1.83	1.52
4	R	453	TYR	N-CA	14.55	1.75	1.46
4	L	453	TYR	C-O	14.52	1.50	1.23
4	R	453	TYR	C-O	14.48	1.50	1.23
4	X	453	TYR	C-O	14.46	1.50	1.23
4	F	453	TYR	C-O	14.44	1.50	1.23
4	F	231	LYS	CA-C	-14.22	1.16	1.52
4	X	231	LYS	CA-C	-14.22	1.16	1.52
4	R	231	LYS	CA-C	-14.21	1.16	1.52
4	L	231	LYS	CA-C	-14.20	1.16	1.52
4	X	483	ASP	CA-CB	14.19	1.85	1.53
4	L	483	ASP	CA-CB	14.16	1.85	1.53
4	F	483	ASP	CA-CB	14.15	1.85	1.53
4	R	483	ASP	CA-CB	14.13	1.85	1.53
4	X	402	ALA	CA-C	14.11	1.89	1.52
4	R	402	ALA	CA-C	14.11	1.89	1.52
6	Z	463	ALA	N-CA	14.09	1.74	1.46
4	L	402	ALA	CA-C	14.08	1.89	1.52
4	F	402	ALA	CA-C	14.06	1.89	1.52
6	T	463	ALA	N-CA	14.00	1.74	1.46
6	H	463	ALA	N-CA	14.00	1.74	1.46
6	N	463	ALA	N-CA	13.96	1.74	1.46
4	R	200	THR	N-CA	-13.90	1.18	1.46
4	L	200	THR	N-CA	-13.88	1.18	1.46
5	G	378	SER	CA-C	13.85	1.89	1.52
5	S	378	SER	CA-C	13.85	1.89	1.52
4	X	200	THR	N-CA	-13.85	1.18	1.46
4	F	200	THR	N-CA	-13.85	1.18	1.46
5	Y	378	SER	CA-C	13.84	1.89	1.52
5	M	378	SER	CA-C	13.82	1.88	1.52
4	X	328	VAL	C-N	13.60	1.57	1.33
4	L	328	VAL	C-N	13.59	1.57	1.33
4	R	328	VAL	C-N	13.59	1.57	1.33
3	D	1508	LYS	CA-C	-13.53	1.17	1.52
3	P	1508	LYS	CA-C	-13.51	1.17	1.52
4	F	328	VAL	C-N	13.49	1.57	1.33
4	R	472	GLU	CA-CB	-13.36	1.24	1.53
4	X	472	GLU	CA-CB	-13.32	1.24	1.53
4	L	472	GLU	CA-CB	-13.29	1.24	1.53
4	F	472	GLU	CA-CB	-13.29	1.24	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	F	222	THR	CA-C	13.23	1.87	1.52
4	R	222	THR	CA-C	13.22	1.87	1.52
4	X	222	THR	CA-C	13.19	1.87	1.52
4	L	222	THR	CA-C	13.17	1.87	1.52
4	R	208	GLN	CA-CB	-13.10	1.25	1.53
4	X	208	GLN	CA-CB	-13.09	1.25	1.53
4	F	208	GLN	CA-CB	-13.09	1.25	1.53
4	L	208	GLN	CA-CB	-13.08	1.25	1.53
4	R	459	LEU	CA-C	13.08	1.86	1.52
4	F	459	LEU	CA-C	13.08	1.86	1.52
4	X	459	LEU	CA-C	13.06	1.86	1.52
4	F	211	GLU	CA-C	-13.04	1.19	1.52
4	F	445	GLY	N-CA	-13.04	1.26	1.46
4	L	402	ALA	CA-CB	-13.04	1.25	1.52
4	L	459	LEU	CA-C	13.04	1.86	1.52
4	X	402	ALA	CA-CB	-13.03	1.25	1.52
4	X	211	GLU	CA-C	-13.01	1.19	1.52
4	F	454	TYR	C-N	13.01	1.64	1.34
4	R	454	TYR	C-N	13.01	1.64	1.34
4	R	211	GLU	CA-C	-13.01	1.19	1.52
4	F	402	ALA	CA-CB	-13.00	1.25	1.52
4	L	454	TYR	C-N	13.00	1.64	1.34
4	R	402	ALA	CA-CB	-12.99	1.25	1.52
4	L	211	GLU	CA-C	-12.99	1.19	1.52
4	X	445	GLY	N-CA	-12.99	1.26	1.46
4	R	445	GLY	N-CA	-12.97	1.26	1.46
4	X	454	TYR	C-N	12.95	1.63	1.34
4	L	445	GLY	N-CA	-12.92	1.26	1.46
6	Z	381	LYS	N-CA	12.79	1.72	1.46
4	L	450	GLU	N-CA	12.78	1.72	1.46
4	F	450	GLU	N-CA	12.77	1.71	1.46
6	H	381	LYS	N-CA	12.75	1.71	1.46
4	L	455	ILE	CA-CB	12.75	1.84	1.54
4	X	455	ILE	CA-CB	12.74	1.84	1.54
4	R	455	ILE	CA-CB	12.73	1.84	1.54
4	F	251	GLY	N-CA	-12.73	1.26	1.46
4	R	210	VAL	CA-CB	-12.73	1.28	1.54
6	T	381	LYS	N-CA	12.73	1.71	1.46
4	X	450	GLU	N-CA	12.72	1.71	1.46
4	R	450	GLU	N-CA	12.71	1.71	1.46
4	F	455	ILE	CA-CB	12.71	1.84	1.54
6	N	381	LYS	N-CA	12.70	1.71	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	G	405	SER	CA-CB	-12.69	1.33	1.52
4	X	210	VAL	CA-CB	-12.69	1.28	1.54
4	F	210	VAL	CA-CB	-12.65	1.28	1.54
4	L	210	VAL	CA-CB	-12.65	1.28	1.54
4	L	251	GLY	N-CA	-12.65	1.27	1.46
5	M	405	SER	CA-CB	-12.63	1.34	1.52
4	X	251	GLY	N-CA	-12.61	1.27	1.46
5	Y	405	SER	CA-CB	-12.61	1.34	1.52
5	M	343	ALA	CA-C	12.59	1.85	1.52
4	R	251	GLY	N-CA	-12.57	1.27	1.46
5	S	405	SER	CA-CB	-12.57	1.34	1.52
5	Y	343	ALA	CA-C	12.57	1.85	1.52
5	S	343	ALA	CA-C	12.57	1.85	1.52
4	L	367	THR	CA-C	12.55	1.85	1.52
5	G	343	ALA	CA-C	12.54	1.85	1.52
4	R	367	THR	CA-C	12.54	1.85	1.52
4	X	367	THR	CA-C	12.54	1.85	1.52
4	F	367	THR	CA-C	12.51	1.85	1.52
6	N	413	LEU	N-CA	-12.39	1.21	1.46
5	M	344	ASP	CA-C	-12.36	1.20	1.52
6	Z	413	LEU	N-CA	-12.36	1.21	1.46
6	H	413	LEU	N-CA	-12.34	1.21	1.46
5	G	344	ASP	CA-C	-12.31	1.21	1.52
5	S	344	ASP	CA-C	-12.31	1.21	1.52
6	N	494	LEU	CA-C	-12.30	1.21	1.52
6	T	413	LEU	N-CA	-12.30	1.21	1.46
5	Y	344	ASP	CA-C	-12.29	1.21	1.52
6	H	494	LEU	CA-C	-12.29	1.21	1.52
4	L	299	ASN	CA-C	12.27	1.84	1.52
4	F	299	ASN	CA-C	12.26	1.84	1.52
4	R	299	ASN	CA-C	12.26	1.84	1.52
4	X	299	ASN	CA-C	12.26	1.84	1.52
6	Z	494	LEU	CA-C	-12.26	1.21	1.52
6	T	494	LEU	CA-C	-12.24	1.21	1.52
2	O	15	GLN	CA-C	12.23	1.84	1.52
2	C	15	GLN	CA-C	12.21	1.84	1.52
2	I	15	GLN	CA-C	12.20	1.84	1.52
2	U	15	GLN	CA-C	12.20	1.84	1.52
4	L	229	GLY	N-CA	12.09	1.64	1.46
4	F	221	GLN	C-N	12.07	1.61	1.34
4	F	229	GLY	N-CA	12.06	1.64	1.46
4	X	221	GLN	C-N	12.06	1.61	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	R	229	GLY	N-CA	12.05	1.64	1.46
4	L	221	GLN	C-N	12.03	1.61	1.34
4	R	221	GLN	C-N	12.03	1.61	1.34
4	X	229	GLY	N-CA	12.03	1.64	1.46
4	R	454	TYR	CA-C	11.90	1.83	1.52
4	X	454	TYR	CA-C	11.89	1.83	1.52
6	H	408	SER	CA-C	-11.87	1.22	1.52
4	L	454	TYR	CA-C	11.87	1.83	1.52
4	F	454	TYR	CA-C	11.87	1.83	1.52
6	T	408	SER	CA-C	-11.85	1.22	1.52
6	N	408	SER	CA-C	-11.84	1.22	1.52
6	Z	408	SER	CA-C	-11.82	1.22	1.52
6	H	497	ARG	N-CA	11.76	1.69	1.46
6	Z	497	ARG	N-CA	11.75	1.69	1.46
6	N	497	ARG	N-CA	11.71	1.69	1.46
6	T	497	ARG	N-CA	11.71	1.69	1.46
5	Y	378	SER	C-N	11.66	1.60	1.34
5	M	378	SER	C-N	11.65	1.60	1.34
5	G	378	SER	C-N	11.59	1.60	1.34
5	S	378	SER	C-N	11.59	1.60	1.34
5	G	328	THR	CA-C	-11.55	1.23	1.52
5	S	328	THR	CA-C	-11.55	1.23	1.52
5	Y	328	THR	CA-C	-11.52	1.23	1.52
5	M	328	THR	CA-C	-11.52	1.23	1.52
6	H	374	SER	N-CA	-11.47	1.23	1.46
6	N	374	SER	N-CA	-11.47	1.23	1.46
6	T	374	SER	N-CA	-11.44	1.23	1.46
6	Z	374	SER	N-CA	-11.44	1.23	1.46
4	L	235	ASP	CA-CB	11.42	1.79	1.53
4	F	235	ASP	CA-CB	11.40	1.79	1.53
4	R	235	ASP	CA-CB	11.40	1.79	1.53
4	R	456	ASP	N-CA	-11.39	1.23	1.46
6	H	497	ARG	CA-CB	-11.39	1.28	1.53
6	Z	497	ARG	CA-CB	-11.37	1.28	1.53
5	G	276	SER	CA-C	11.37	1.82	1.52
5	M	276	SER	CA-C	11.36	1.82	1.52
6	T	497	ARG	CA-CB	-11.36	1.28	1.53
4	X	235	ASP	CA-CB	11.36	1.78	1.53
6	T	363	ARG	CA-C	-11.35	1.23	1.52
5	S	276	SER	CA-C	11.35	1.82	1.52
5	Y	320	LYS	N-CA	-11.35	1.23	1.46
5	M	320	LYS	N-CA	-11.34	1.23	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	S	320	LYS	N-CA	-11.34	1.23	1.46
4	L	456	ASP	N-CA	-11.34	1.23	1.46
6	N	363	ARG	CA-C	-11.34	1.23	1.52
6	H	363	ARG	CA-C	-11.33	1.23	1.52
6	N	497	ARG	CA-CB	-11.32	1.29	1.53
4	F	456	ASP	N-CA	-11.32	1.23	1.46
5	G	320	LYS	N-CA	-11.32	1.23	1.46
5	Y	276	SER	CA-C	11.31	1.82	1.52
4	X	456	ASP	N-CA	-11.31	1.23	1.46
6	Z	363	ARG	CA-C	-11.30	1.23	1.52
4	X	305	ASP	CA-CB	-11.30	1.29	1.53
4	X	447	VAL	CA-CB	11.28	1.78	1.54
4	R	305	ASP	CA-CB	-11.28	1.29	1.53
4	L	305	ASP	CA-CB	-11.27	1.29	1.53
4	F	305	ASP	CA-CB	-11.26	1.29	1.53
4	L	447	VAL	CA-CB	11.26	1.78	1.54
4	R	447	VAL	CA-CB	11.26	1.78	1.54
3	D	1520	GLY	CA-C	-11.24	1.33	1.51
3	P	1520	GLY	CA-C	-11.22	1.33	1.51
4	F	447	VAL	CA-CB	11.20	1.78	1.54
4	L	249	PRO	N-CA	-11.18	1.28	1.47
4	X	249	PRO	N-CA	-11.16	1.28	1.47
3	D	1520	GLY	N-CA	-11.15	1.29	1.46
3	P	1520	GLY	N-CA	-11.13	1.29	1.46
4	R	249	PRO	N-CA	-11.12	1.28	1.47
4	F	249	PRO	N-CA	-11.11	1.28	1.47
3	D	1517	SER	CA-C	-11.09	1.24	1.52
3	P	1517	SER	CA-C	-11.09	1.24	1.52
4	F	260	THR	CA-CB	11.03	1.82	1.53
4	R	260	THR	CA-CB	11.03	1.82	1.53
4	X	260	THR	CA-CB	11.02	1.81	1.53
4	L	260	THR	CA-CB	11.01	1.81	1.53
6	Z	408	SER	C-N	-10.98	1.13	1.34
6	H	408	SER	C-N	-10.96	1.13	1.34
6	T	408	SER	C-N	-10.96	1.13	1.34
6	N	408	SER	C-N	-10.93	1.13	1.34
4	L	232	THR	CA-C	-10.86	1.24	1.52
4	R	232	THR	CA-C	-10.86	1.24	1.52
4	X	232	THR	CA-C	-10.86	1.24	1.52
4	F	232	THR	CA-C	-10.84	1.24	1.52
2	U	28	HIS	CA-C	-10.74	1.25	1.52
4	R	454	TYR	CA-CB	10.74	1.77	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	R	488	ILE	N-CA	10.74	1.67	1.46
4	F	454	TYR	CA-CB	10.74	1.77	1.53
2	C	28	HIS	CA-C	-10.73	1.25	1.52
3	D	1542	PRO	N-CA	-10.73	1.29	1.47
4	X	488	ILE	N-CA	10.73	1.67	1.46
4	L	451	GLU	CA-CB	10.72	1.77	1.53
2	I	28	HIS	CA-C	-10.72	1.25	1.52
4	R	451	GLU	CA-CB	10.72	1.77	1.53
4	X	454	TYR	CA-CB	10.72	1.77	1.53
4	F	488	ILE	N-CA	10.71	1.67	1.46
2	O	28	HIS	CA-C	-10.71	1.25	1.52
4	L	454	TYR	CA-CB	10.71	1.77	1.53
4	F	451	GLU	CA-CB	10.68	1.77	1.53
4	L	488	ILE	N-CA	10.68	1.67	1.46
3	P	1542	PRO	N-CA	-10.68	1.29	1.47
4	F	335	ARG	CA-C	-10.66	1.25	1.52
4	X	451	GLU	CA-CB	10.65	1.77	1.53
4	L	335	ARG	CA-C	-10.65	1.25	1.52
4	X	335	ARG	CA-C	-10.65	1.25	1.52
4	R	335	ARG	CA-C	-10.61	1.25	1.52
2	C	7	GLY	N-CA	-10.55	1.30	1.46
2	I	7	GLY	N-CA	-10.49	1.30	1.46
2	O	7	GLY	N-CA	-10.48	1.30	1.46
2	U	7	GLY	N-CA	-10.47	1.30	1.46
6	N	377	ARG	CA-C	-10.47	1.25	1.52
6	T	377	ARG	CA-C	-10.43	1.25	1.52
5	Y	393	TYR	N-CA	10.43	1.67	1.46
6	Z	377	ARG	CA-C	-10.43	1.25	1.52
6	H	377	ARG	CA-C	-10.41	1.25	1.52
5	M	313	ILE	CA-CB	-10.40	1.30	1.54
5	S	393	TYR	N-CA	10.40	1.67	1.46
5	G	393	TYR	N-CA	10.40	1.67	1.46
5	G	313	ILE	CA-CB	-10.39	1.30	1.54
6	T	462	GLY	C-N	10.39	1.57	1.34
4	F	464	LYS	CA-C	-10.38	1.25	1.52
6	H	462	GLY	C-N	10.37	1.57	1.34
4	X	464	LYS	CA-C	-10.37	1.25	1.52
6	N	462	GLY	C-N	10.37	1.57	1.34
5	S	313	ILE	CA-CB	-10.37	1.31	1.54
6	Z	462	GLY	C-N	10.35	1.57	1.34
5	M	393	TYR	N-CA	10.35	1.67	1.46
3	P	1488	GLY	CA-C	-10.35	1.35	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	R	464	LYS	CA-C	-10.33	1.26	1.52
3	D	1488	GLY	CA-C	-10.32	1.35	1.51
4	L	464	LYS	CA-C	-10.32	1.26	1.52
5	Y	313	ILE	CA-CB	-10.32	1.31	1.54
5	Y	366	GLU	CA-CB	10.30	1.76	1.53
5	G	366	GLU	CA-CB	10.29	1.76	1.53
5	S	366	GLU	CA-CB	10.27	1.76	1.53
4	R	461	ARG	CA-CB	-10.26	1.31	1.53
6	T	487	TRP	N-CA	-10.26	1.25	1.46
4	L	486	GLU	CA-CB	-10.25	1.31	1.53
5	S	331	THR	CA-C	-10.24	1.26	1.52
5	M	366	GLU	CA-CB	10.24	1.76	1.53
6	N	487	TRP	N-CA	-10.24	1.25	1.46
5	M	331	THR	CA-C	-10.23	1.26	1.52
4	X	461	ARG	CA-CB	-10.23	1.31	1.53
6	H	373	THR	CA-CB	-10.22	1.26	1.53
6	T	373	THR	CA-CB	-10.22	1.26	1.53
6	H	487	TRP	N-CA	-10.22	1.25	1.46
4	X	486	GLU	CA-CB	-10.22	1.31	1.53
6	Z	487	TRP	N-CA	-10.22	1.25	1.46
6	Z	373	THR	CA-CB	-10.22	1.26	1.53
4	R	486	GLU	CA-CB	-10.21	1.31	1.53
4	F	461	ARG	CA-CB	-10.21	1.31	1.53
4	F	486	GLU	CA-CB	-10.21	1.31	1.53
4	R	461	ARG	N-CA	10.20	1.66	1.46
5	Y	331	THR	CA-C	-10.21	1.26	1.52
5	G	331	THR	CA-C	-10.19	1.26	1.52
4	L	461	ARG	CA-CB	-10.18	1.31	1.53
6	N	373	THR	CA-CB	-10.18	1.26	1.53
4	F	368	SER	N-CA	10.15	1.66	1.46
4	L	461	ARG	N-CA	10.15	1.66	1.46
4	X	368	SER	N-CA	10.15	1.66	1.46
4	X	461	ARG	N-CA	10.15	1.66	1.46
4	F	461	ARG	N-CA	10.15	1.66	1.46
4	L	368	SER	N-CA	10.10	1.66	1.46
4	R	368	SER	N-CA	10.10	1.66	1.46
5	S	326	LEU	CA-C	10.08	1.79	1.52
5	G	326	LEU	CA-C	10.07	1.79	1.52
5	M	326	LEU	CA-C	10.07	1.79	1.52
5	Y	326	LEU	CA-C	10.06	1.79	1.52
6	Z	490	GLN	CA-CB	9.97	1.75	1.53
6	N	387	LYS	CA-C	-9.96	1.27	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	H	490	GLN	CA-CB	9.96	1.75	1.53
6	T	387	LYS	CA-C	-9.94	1.27	1.52
6	T	490	GLN	CA-CB	9.94	1.75	1.53
6	H	387	LYS	CA-C	-9.94	1.27	1.52
6	N	411	GLU	C-O	-9.93	1.04	1.23
6	Z	387	LYS	CA-C	-9.93	1.27	1.52
6	N	490	GLN	CA-CB	9.93	1.75	1.53
5	S	327	ARG	C-N	9.92	1.56	1.34
4	R	400	GLY	CA-C	-9.91	1.35	1.51
6	H	411	GLU	C-O	-9.91	1.04	1.23
5	G	327	ARG	C-N	9.90	1.56	1.34
5	M	327	ARG	C-N	9.90	1.56	1.34
6	T	411	GLU	C-O	-9.90	1.04	1.23
5	Y	327	ARG	C-N	9.90	1.56	1.34
4	F	400	GLY	CA-C	-9.88	1.36	1.51
4	X	400	GLY	CA-C	-9.88	1.36	1.51
6	Z	411	GLU	C-O	-9.87	1.04	1.23
4	L	400	GLY	CA-C	-9.84	1.36	1.51
4	F	424	PRO	CA-C	-9.77	1.33	1.52
4	X	424	PRO	CA-C	-9.73	1.33	1.52
4	F	311	GLN	CA-CB	-9.73	1.32	1.53
3	D	1512	TRP	N-CA	-9.70	1.26	1.46
4	R	424	PRO	CA-C	-9.70	1.33	1.52
4	X	311	GLN	CA-CB	-9.69	1.32	1.53
3	P	1512	TRP	N-CA	-9.69	1.26	1.46
4	L	424	PRO	CA-C	-9.68	1.33	1.52
4	F	436	SER	CA-CB	9.66	1.67	1.52
4	R	311	GLN	CA-CB	-9.66	1.32	1.53
4	L	311	GLN	CA-CB	-9.65	1.32	1.53
5	S	325	ALA	CA-C	9.64	1.78	1.52
5	G	325	ALA	CA-C	9.64	1.78	1.52
4	L	220	ASN	C-O	9.63	1.41	1.23
5	Y	325	ALA	CA-C	9.63	1.77	1.52
4	X	220	ASN	C-O	9.61	1.41	1.23
5	M	325	ALA	CA-C	9.61	1.77	1.52
4	L	436	SER	CA-CB	9.60	1.67	1.52
4	R	220	ASN	C-O	9.60	1.41	1.23
6	N	490	GLN	N-CA	-9.59	1.27	1.46
4	F	220	ASN	C-O	9.58	1.41	1.23
4	R	436	SER	CA-CB	9.58	1.67	1.52
4	X	436	SER	CA-CB	9.58	1.67	1.52
6	T	490	GLN	N-CA	-9.57	1.27	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	H	490	GLN	N-CA	-9.57	1.27	1.46
6	Z	490	GLN	N-CA	-9.54	1.27	1.46
4	R	201	GLU	CA-C	-9.50	1.28	1.52
4	F	201	GLU	CA-C	-9.49	1.28	1.52
2	C	12	GLN	CA-C	-9.49	1.28	1.52
4	L	201	GLU	CA-C	-9.49	1.28	1.52
2	I	12	GLN	CA-C	-9.48	1.28	1.52
4	X	201	GLU	CA-C	-9.47	1.28	1.52
2	U	12	GLN	CA-C	-9.46	1.28	1.52
2	O	12	GLN	CA-C	-9.44	1.28	1.52
4	X	311	GLN	CA-C	9.38	1.77	1.52
4	F	311	GLN	CA-C	9.38	1.77	1.52
4	L	311	GLN	CA-C	9.36	1.77	1.52
4	R	311	GLN	CA-C	9.34	1.77	1.52
4	X	243	TYR	CA-CB	-9.32	1.33	1.53
4	F	243	TYR	CA-CB	-9.29	1.33	1.53
4	L	243	TYR	CA-CB	-9.27	1.33	1.53
4	R	243	TYR	CA-CB	-9.26	1.33	1.53
4	X	207	GLN	N-CA	9.22	1.64	1.46
4	F	207	GLN	N-CA	9.21	1.64	1.46
4	L	207	GLN	N-CA	9.21	1.64	1.46
4	R	207	GLN	N-CA	9.20	1.64	1.46
6	T	411	GLU	N-CA	9.10	1.64	1.46
6	N	411	GLU	N-CA	9.09	1.64	1.46
4	R	367	THR	C-N	9.09	1.54	1.34
6	H	411	GLU	N-CA	9.09	1.64	1.46
6	Z	411	GLU	N-CA	9.07	1.64	1.46
4	F	367	THR	C-N	9.06	1.54	1.34
4	L	367	THR	C-N	9.05	1.54	1.34
4	X	367	THR	C-N	9.05	1.54	1.34
6	H	388	ARG	N-CA	-9.04	1.28	1.46
6	Z	388	ARG	N-CA	-9.04	1.28	1.46
4	F	468	LYS	CA-C	-9.04	1.29	1.52
4	X	452	ARG	C-N	9.03	1.54	1.34
4	R	452	ARG	C-N	9.02	1.54	1.34
4	R	468	LYS	CA-C	-9.02	1.29	1.52
4	F	452	ARG	C-N	9.00	1.54	1.34
4	L	452	ARG	C-N	9.00	1.54	1.34
4	L	468	LYS	CA-C	-9.00	1.29	1.52
4	X	468	LYS	CA-C	-9.00	1.29	1.52
6	T	388	ARG	N-CA	-8.99	1.28	1.46
6	H	409	PRO	CA-CB	-8.99	1.35	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	F	456	ASP	CA-C	8.98	1.76	1.52
4	X	267	GLN	CA-C	-8.98	1.29	1.52
4	R	267	GLN	CA-C	-8.98	1.29	1.52
4	R	456	ASP	CA-C	8.98	1.76	1.52
6	N	409	PRO	CA-CB	-8.97	1.35	1.53
4	L	267	GLN	CA-C	-8.97	1.29	1.52
4	L	452	ARG	C-O	8.96	1.40	1.23
4	L	456	ASP	CA-C	8.96	1.76	1.52
4	X	456	ASP	CA-C	8.96	1.76	1.52
4	X	452	ARG	C-O	8.95	1.40	1.23
4	L	201	GLU	CA-CB	8.95	1.73	1.53
4	R	201	GLU	CA-CB	8.95	1.73	1.53
4	F	267	GLN	CA-C	-8.95	1.29	1.52
6	N	388	ARG	N-CA	-8.95	1.28	1.46
4	F	201	GLU	CA-CB	8.94	1.73	1.53
6	T	409	PRO	CA-CB	-8.94	1.35	1.53
6	Z	409	PRO	CA-CB	-8.93	1.35	1.53
4	L	471	GLN	CA-C	-8.93	1.29	1.52
4	F	452	ARG	C-O	8.91	1.40	1.23
4	R	452	ARG	C-O	8.91	1.40	1.23
4	R	471	GLN	CA-C	-8.91	1.29	1.52
3	D	1474	GLY	CA-C	-8.91	1.37	1.51
4	X	201	GLU	CA-CB	8.89	1.73	1.53
4	X	471	GLN	CA-C	-8.89	1.29	1.52
6	H	408	SER	N-CA	-8.88	1.28	1.46
5	S	348	ILE	CA-CB	-8.88	1.34	1.54
4	F	471	GLN	CA-C	-8.88	1.29	1.52
3	P	1474	GLY	CA-C	-8.87	1.37	1.51
6	Z	408	SER	N-CA	-8.87	1.28	1.46
5	Y	348	ILE	CA-CB	-8.86	1.34	1.54
5	M	348	ILE	CA-CB	-8.84	1.34	1.54
5	G	348	ILE	CA-CB	-8.84	1.34	1.54
6	T	356	THR	N-CA	-8.84	1.28	1.46
4	R	487	ASP	CA-CB	8.84	1.73	1.53
4	L	487	ASP	CA-CB	8.83	1.73	1.53
6	N	408	SER	N-CA	-8.83	1.28	1.46
4	F	487	ASP	N-CA	-8.83	1.28	1.46
6	T	408	SER	N-CA	-8.83	1.28	1.46
4	X	487	ASP	CA-CB	8.83	1.73	1.53
6	H	356	THR	N-CA	-8.82	1.28	1.46
4	F	487	ASP	CA-CB	8.82	1.73	1.53
3	D	1521	TYR	N-CA	-8.82	1.28	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	X	487	ASP	N-CA	-8.81	1.28	1.46
4	L	487	ASP	N-CA	-8.80	1.28	1.46
4	R	487	ASP	N-CA	-8.80	1.28	1.46
6	N	356	THR	N-CA	-8.78	1.28	1.46
6	Z	356	THR	N-CA	-8.77	1.28	1.46
4	F	328	VAL	CA-C	8.76	1.75	1.52
3	P	1521	TYR	N-CA	-8.75	1.28	1.46
4	X	328	VAL	CA-C	8.74	1.75	1.52
4	L	328	VAL	CA-C	8.73	1.75	1.52
4	L	143	GLN	N-CA	8.70	1.63	1.46
4	X	143	GLN	N-CA	8.70	1.63	1.46
4	R	328	VAL	CA-C	8.69	1.75	1.52
4	F	143	GLN	N-CA	8.69	1.63	1.46
5	G	339	TYR	CA-CB	-8.67	1.34	1.53
6	Z	468	SER	CA-CB	-8.67	1.40	1.52
6	N	468	SER	CA-CB	-8.65	1.40	1.52
4	F	427	PHE	CA-C	-8.64	1.30	1.52
4	R	143	GLN	N-CA	8.64	1.63	1.46
5	Y	339	TYR	CA-CB	-8.64	1.34	1.53
2	U	7	GLY	C-N	-8.63	1.14	1.34
4	L	440	MET	CA-CB	-8.63	1.34	1.53
4	F	440	MET	CA-CB	-8.63	1.34	1.53
4	R	440	MET	CA-CB	-8.63	1.34	1.53
6	H	468	SER	CA-CB	-8.62	1.40	1.52
4	L	144	LEU	CA-CB	8.62	1.73	1.53
4	R	427	PHE	CA-C	-8.62	1.30	1.52
4	F	449	SER	CA-CB	-8.62	1.40	1.52
2	I	7	GLY	C-N	-8.62	1.14	1.34
4	L	449	SER	CA-CB	-8.62	1.40	1.52
4	R	449	SER	CA-CB	-8.62	1.40	1.52
4	X	427	PHE	CA-C	-8.62	1.30	1.52
4	X	440	MET	CA-CB	-8.61	1.35	1.53
4	L	427	PHE	CA-C	-8.61	1.30	1.52
6	T	468	SER	CA-CB	-8.61	1.40	1.52
4	X	144	LEU	CA-CB	8.61	1.73	1.53
5	M	339	TYR	CA-CB	-8.60	1.35	1.53
5	S	329	GLN	CA-C	-8.60	1.30	1.52
5	G	329	GLN	CA-C	-8.60	1.30	1.52
2	O	7	GLY	C-N	-8.60	1.14	1.34
2	C	7	GLY	C-N	-8.59	1.14	1.34
4	R	144	LEU	CA-CB	8.59	1.73	1.53
6	H	408	SER	CA-CB	8.59	1.65	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	Z	408	SER	CA-CB	8.59	1.65	1.52
5	M	329	GLN	CA-C	-8.59	1.30	1.52
5	S	339	TYR	CA-CB	-8.58	1.35	1.53
4	F	144	LEU	CA-CB	8.57	1.73	1.53
5	Y	329	GLN	CA-C	-8.57	1.30	1.52
4	R	458	ASP	N-CA	8.56	1.63	1.46
4	F	458	ASP	N-CA	8.55	1.63	1.46
4	X	449	SER	CA-CB	-8.55	1.40	1.52
4	F	403	ILE	CA-CB	-8.55	1.35	1.54
6	T	408	SER	CA-CB	8.55	1.65	1.52
4	X	458	ASP	N-CA	8.55	1.63	1.46
4	L	458	ASP	N-CA	8.54	1.63	1.46
4	X	403	ILE	CA-CB	-8.54	1.35	1.54
4	R	403	ILE	CA-CB	-8.53	1.35	1.54
4	X	485	LEU	N-CA	8.53	1.63	1.46
6	N	408	SER	CA-CB	8.52	1.65	1.52
4	L	403	ILE	CA-CB	-8.52	1.35	1.54
4	X	492	GLU	CA-C	8.51	1.75	1.52
4	R	492	GLU	CA-C	8.50	1.75	1.52
4	F	492	GLU	CA-C	8.48	1.75	1.52
4	F	485	LEU	N-CA	8.48	1.63	1.46
4	X	463	ILE	N-CA	-8.47	1.29	1.46
4	L	492	GLU	CA-C	8.47	1.75	1.52
6	T	445	LYS	N-CA	-8.46	1.29	1.46
4	F	463	ILE	N-CA	-8.46	1.29	1.46
4	R	485	LEU	N-CA	8.46	1.63	1.46
4	L	485	LEU	N-CA	8.45	1.63	1.46
6	H	445	LYS	N-CA	-8.45	1.29	1.46
6	T	380	GLU	CA-CB	8.44	1.72	1.53
4	L	463	ILE	N-CA	-8.44	1.29	1.46
6	N	445	LYS	N-CA	-8.44	1.29	1.46
6	Z	380	GLU	CA-CB	8.43	1.72	1.53
6	Z	445	LYS	N-CA	-8.42	1.29	1.46
6	H	380	GLU	CA-CB	8.40	1.72	1.53
4	R	463	ILE	N-CA	-8.40	1.29	1.46
6	N	380	GLU	CA-CB	8.39	1.72	1.53
4	R	254	ARG	N-CA	-8.37	1.29	1.46
4	F	254	ARG	N-CA	-8.35	1.29	1.46
4	F	432	ASN	N-CA	-8.34	1.29	1.46
4	L	432	ASN	N-CA	-8.34	1.29	1.46
4	X	254	ARG	N-CA	-8.34	1.29	1.46
4	F	221	GLN	N-CA	-8.33	1.29	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	X	221	GLN	N-CA	-8.32	1.29	1.46
4	L	221	GLN	N-CA	-8.32	1.29	1.46
4	L	254	ARG	N-CA	-8.32	1.29	1.46
4	R	221	GLN	N-CA	-8.31	1.29	1.46
4	X	432	ASN	N-CA	-8.30	1.29	1.46
4	R	432	ASN	N-CA	-8.29	1.29	1.46
3	D	1488	GLY	N-CA	-8.23	1.33	1.46
5	G	369	ASN	CA-C	-8.22	1.31	1.52
3	P	1488	GLY	N-CA	-8.20	1.33	1.46
6	T	495	LEU	N-CA	-8.20	1.29	1.46
5	Y	369	ASN	CA-C	-8.19	1.31	1.52
4	R	463	ILE	CA-C	8.19	1.74	1.52
4	X	223	LEU	N-CA	8.19	1.62	1.46
4	X	463	ILE	CA-C	8.18	1.74	1.52
6	H	495	LEU	N-CA	-8.18	1.29	1.46
6	N	495	LEU	N-CA	-8.16	1.30	1.46
4	L	463	ILE	CA-C	8.16	1.74	1.52
5	Y	338	GLU	C-N	8.16	1.52	1.34
6	Z	495	LEU	N-CA	-8.16	1.30	1.46
5	G	343	ALA	CA-CB	-8.16	1.35	1.52
4	F	223	LEU	N-CA	8.16	1.62	1.46
4	R	223	LEU	N-CA	8.16	1.62	1.46
5	S	369	ASN	CA-C	-8.16	1.31	1.52
5	M	369	ASN	CA-C	-8.15	1.31	1.52
5	G	338	GLU	C-N	8.15	1.52	1.34
4	L	223	LEU	N-CA	8.15	1.62	1.46
5	M	338	GLU	C-N	8.15	1.52	1.34
5	Y	343	ALA	CA-CB	-8.14	1.35	1.52
4	F	463	ILE	CA-C	8.13	1.74	1.52
4	F	423	ALA	CA-C	-8.13	1.31	1.52
5	S	343	ALA	CA-CB	-8.12	1.35	1.52
6	N	420	THR	CA-C	-8.11	1.31	1.52
5	S	338	GLU	C-N	8.11	1.52	1.34
4	X	331	LYS	CA-C	-8.09	1.31	1.52
4	L	423	ALA	CA-C	-8.09	1.31	1.52
5	M	343	ALA	CA-CB	-8.09	1.35	1.52
5	S	333	PRO	N-CA	-8.08	1.33	1.47
6	T	420	THR	CA-C	-8.08	1.31	1.52
6	Z	420	THR	CA-C	-8.08	1.31	1.52
6	H	420	THR	CA-C	-8.07	1.31	1.52
4	R	423	ALA	CA-C	-8.07	1.31	1.52
3	D	1507	ASP	N-CA	-8.07	1.30	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	F	331	LYS	CA-C	-8.07	1.31	1.52
4	X	423	ALA	CA-C	-8.07	1.31	1.52
5	G	333	PRO	N-CA	-8.06	1.33	1.47
3	P	1507	ASP	N-CA	-8.06	1.30	1.46
5	Y	333	PRO	N-CA	-8.06	1.33	1.47
4	R	331	LYS	CA-C	-8.03	1.32	1.52
4	F	484	ASP	CA-C	-8.03	1.32	1.52
4	R	484	ASP	CA-C	-8.01	1.32	1.52
4	L	484	ASP	CA-C	-8.01	1.32	1.52
5	M	333	PRO	N-CA	-8.01	1.33	1.47
4	L	331	LYS	CA-C	-7.99	1.32	1.52
4	X	484	ASP	CA-C	-7.97	1.32	1.52
5	Y	249	PRO	N-CA	7.97	1.60	1.47
5	S	352	GLN	CA-CB	7.96	1.71	1.53
5	G	249	PRO	N-CA	7.94	1.60	1.47
5	Y	352	GLN	CA-CB	7.94	1.71	1.53
4	L	449	SER	C-N	7.92	1.52	1.34
5	S	328	THR	CA-CB	7.92	1.74	1.53
4	R	299	ASN	C-N	7.92	1.49	1.34
5	G	328	THR	CA-CB	7.92	1.74	1.53
3	D	1511	GLN	CA-C	-7.91	1.32	1.52
5	Y	328	THR	CA-CB	7.91	1.74	1.53
4	F	299	ASN	C-N	7.91	1.49	1.34
5	M	328	THR	CA-CB	7.91	1.74	1.53
4	X	299	ASN	C-N	7.91	1.49	1.34
4	X	449	SER	C-N	7.91	1.52	1.34
5	G	352	GLN	CA-CB	7.91	1.71	1.53
5	S	249	PRO	N-CA	7.90	1.60	1.47
4	L	299	ASN	C-N	7.90	1.49	1.34
6	T	385	ASP	CA-C	-7.90	1.32	1.52
5	M	249	PRO	N-CA	7.90	1.60	1.47
5	M	352	GLN	CA-CB	7.90	1.71	1.53
4	F	452	ARG	CA-C	7.90	1.73	1.52
5	M	343	ALA	N-CA	-7.89	1.30	1.46
4	R	449	SER	C-N	7.88	1.52	1.34
4	X	452	ARG	CA-C	7.88	1.73	1.52
5	Y	343	ALA	N-CA	-7.87	1.30	1.46
6	N	385	ASP	CA-C	-7.87	1.32	1.52
4	X	235	ASP	N-CA	7.87	1.62	1.46
3	P	1511	GLN	CA-C	-7.87	1.32	1.52
4	F	235	ASP	N-CA	7.87	1.62	1.46
5	S	343	ALA	N-CA	-7.87	1.30	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	Z	385	ASP	CA-C	-7.87	1.32	1.52
6	H	381	LYS	CA-CB	7.86	1.71	1.53
6	H	414	VAL	CA-CB	7.86	1.71	1.54
4	L	452	ARG	CA-C	7.86	1.73	1.52
4	F	449	SER	C-N	7.85	1.52	1.34
6	H	385	ASP	CA-C	-7.85	1.32	1.52
6	H	412	GLU	C-N	-7.85	1.16	1.34
6	T	414	VAL	CA-CB	7.85	1.71	1.54
6	Z	414	VAL	CA-CB	7.85	1.71	1.54
5	G	343	ALA	N-CA	-7.85	1.30	1.46
6	N	381	LYS	CA-CB	7.84	1.71	1.53
6	Z	381	LYS	CA-CB	7.84	1.71	1.53
6	H	487	TRP	CA-C	-7.84	1.32	1.52
6	T	412	GLU	C-N	-7.84	1.16	1.34
6	N	414	VAL	CA-CB	7.83	1.71	1.54
6	Z	487	TRP	CA-C	-7.82	1.32	1.52
4	R	452	ARG	CA-C	7.82	1.73	1.52
5	M	313	ILE	N-CA	7.80	1.61	1.46
5	G	313	ILE	N-CA	7.79	1.61	1.46
6	Z	412	GLU	C-N	-7.79	1.16	1.34
5	Y	313	ILE	N-CA	7.79	1.61	1.46
4	R	235	ASP	N-CA	7.79	1.61	1.46
6	N	487	TRP	CA-C	-7.78	1.32	1.52
6	T	381	LYS	CA-CB	7.78	1.71	1.53
6	T	487	TRP	CA-C	-7.78	1.32	1.52
6	N	412	GLU	C-N	-7.78	1.16	1.34
4	L	235	ASP	N-CA	7.78	1.61	1.46
4	L	144	LEU	N-CA	-7.77	1.30	1.46
4	R	144	LEU	N-CA	-7.76	1.30	1.46
4	F	485	LEU	CA-CB	-7.75	1.35	1.53
6	H	410	LEU	C-N	7.75	1.51	1.34
4	F	144	LEU	N-CA	-7.74	1.30	1.46
4	X	144	LEU	N-CA	-7.73	1.30	1.46
6	N	410	LEU	C-N	7.73	1.51	1.34
4	L	485	LEU	CA-CB	-7.73	1.35	1.53
5	S	313	ILE	N-CA	7.73	1.61	1.46
4	X	485	LEU	CA-CB	-7.72	1.35	1.53
4	R	485	LEU	CA-CB	-7.71	1.36	1.53
6	Z	335	SER	CA-C	-7.71	1.32	1.52
6	Z	410	LEU	C-N	7.70	1.51	1.34
4	F	306	PRO	CA-C	7.69	1.68	1.52
4	R	306	PRO	CA-C	7.68	1.68	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	T	410	LEU	C-N	7.68	1.51	1.34
4	X	306	PRO	CA-C	7.67	1.68	1.52
6	Z	402	GLU	CA-C	-7.66	1.33	1.52
6	H	402	GLU	CA-C	-7.65	1.33	1.52
6	T	335	SER	CA-C	-7.65	1.33	1.52
2	U	15	GLN	N-CA	-7.64	1.31	1.46
6	H	335	SER	CA-C	-7.64	1.33	1.52
6	N	335	SER	CA-C	-7.64	1.33	1.52
2	C	15	GLN	N-CA	-7.63	1.31	1.46
6	T	402	GLU	CA-C	-7.63	1.33	1.52
6	N	402	GLU	CA-C	-7.62	1.33	1.52
2	I	15	GLN	N-CA	-7.61	1.31	1.46
2	O	15	GLN	N-CA	-7.61	1.31	1.46
4	F	231	LYS	CA-CB	7.61	1.70	1.53
4	F	448	ARG	N-CA	7.61	1.61	1.46
4	R	231	LYS	CA-CB	7.61	1.70	1.53
4	X	448	ARG	N-CA	7.61	1.61	1.46
4	L	306	PRO	CA-C	7.60	1.68	1.52
5	Y	346	PHE	CA-C	-7.59	1.33	1.52
4	L	448	ARG	N-CA	7.59	1.61	1.46
4	R	448	ARG	N-CA	7.58	1.61	1.46
4	L	252	THR	CA-CB	7.58	1.73	1.53
5	G	346	PHE	CA-C	-7.58	1.33	1.52
6	T	370	GLU	CA-CB	-7.58	1.37	1.53
6	H	370	GLU	CA-CB	-7.57	1.37	1.53
4	L	321	LYS	N-CA	-7.57	1.31	1.46
4	L	231	LYS	CA-CB	7.57	1.70	1.53
6	N	370	GLU	CA-CB	-7.57	1.37	1.53
5	S	340	ALA	CA-C	7.57	1.72	1.52
4	R	321	LYS	N-CA	-7.56	1.31	1.46
4	F	321	LYS	N-CA	-7.56	1.31	1.46
4	X	231	LYS	CA-CB	7.56	1.70	1.53
5	M	346	PHE	CA-C	-7.56	1.33	1.52
5	Y	340	ALA	CA-C	7.56	1.72	1.52
5	S	346	PHE	CA-C	-7.55	1.33	1.52
4	R	252	THR	CA-CB	7.55	1.73	1.53
5	M	340	ALA	CA-C	7.55	1.72	1.52
3	D	1542	PRO	CA-C	7.55	1.68	1.52
4	X	321	LYS	N-CA	-7.54	1.31	1.46
4	X	252	THR	CA-CB	7.54	1.73	1.53
5	Y	377	ASN	N-CA	-7.54	1.31	1.46
4	F	252	THR	CA-CB	7.53	1.73	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	Z	370	GLU	CA-CB	-7.52	1.37	1.53
6	H	446	ARG	CA-CB	-7.52	1.37	1.53
5	M	401	ALA	CA-CB	-7.52	1.36	1.52
5	G	340	ALA	CA-C	7.52	1.72	1.52
4	R	420	GLU	CA-C	-7.51	1.33	1.52
6	T	446	ARG	CA-CB	-7.51	1.37	1.53
4	X	420	GLU	CA-C	-7.51	1.33	1.52
5	G	401	ALA	CA-CB	-7.51	1.36	1.52
3	P	1542	PRO	CA-C	7.51	1.67	1.52
5	G	377	ASN	N-CA	-7.51	1.31	1.46
4	L	420	GLU	CA-C	-7.51	1.33	1.52
5	M	377	ASN	N-CA	-7.51	1.31	1.46
5	S	341	ALA	CA-C	7.51	1.72	1.52
6	N	446	ARG	CA-CB	-7.50	1.37	1.53
5	Y	341	ALA	CA-C	7.50	1.72	1.52
5	Y	401	ALA	CA-CB	-7.50	1.36	1.52
4	F	420	GLU	CA-C	-7.49	1.33	1.52
6	Z	446	ARG	CA-CB	-7.49	1.37	1.53
4	L	450	GLU	CA-CB	-7.49	1.37	1.53
3	D	1489	HIS	N-CA	-7.49	1.31	1.46
4	F	450	GLU	CA-CB	-7.48	1.37	1.53
5	S	377	ASN	N-CA	-7.48	1.31	1.46
3	P	1489	HIS	N-CA	-7.47	1.31	1.46
5	S	401	ALA	CA-CB	-7.47	1.36	1.52
5	G	341	ALA	CA-C	7.46	1.72	1.52
6	T	394	ASP	CA-C	-7.46	1.33	1.52
6	Z	394	ASP	CA-C	-7.46	1.33	1.52
6	N	394	ASP	CA-C	-7.45	1.33	1.52
4	X	450	GLU	CA-CB	-7.45	1.37	1.53
4	X	199	GLU	CA-C	-7.45	1.33	1.52
5	M	341	ALA	CA-C	7.45	1.72	1.52
6	H	394	ASP	CA-C	-7.44	1.33	1.52
4	L	349	THR	CA-C	-7.42	1.33	1.52
4	R	450	GLU	CA-CB	-7.42	1.37	1.53
4	X	444	PHE	CA-C	7.42	1.72	1.52
4	L	199	GLU	CA-C	-7.42	1.33	1.52
4	F	349	THR	CA-C	-7.40	1.33	1.52
4	F	444	PHE	CA-C	7.40	1.72	1.52
4	F	199	GLU	CA-C	-7.38	1.33	1.52
4	X	349	THR	CA-C	-7.38	1.33	1.52
4	R	199	GLU	CA-C	-7.37	1.33	1.52
5	S	340	ALA	C-O	-7.37	1.09	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	R	349	THR	CA-C	-7.36	1.33	1.52
5	M	340	ALA	C-O	-7.35	1.09	1.23
5	Y	340	ALA	C-O	-7.35	1.09	1.23
4	R	444	PHE	CA-C	7.34	1.72	1.52
4	L	444	PHE	CA-C	7.34	1.72	1.52
4	R	405	ALA	CA-CB	7.33	1.67	1.52
6	T	392	GLU	N-CA	7.33	1.61	1.46
6	H	392	GLU	N-CA	7.33	1.61	1.46
4	L	429	GLY	CA-C	-7.32	1.40	1.51
4	R	446	ALA	CA-CB	7.32	1.67	1.52
4	F	429	GLY	CA-C	-7.32	1.40	1.51
6	N	392	GLU	N-CA	7.32	1.60	1.46
4	F	446	ALA	CA-CB	7.31	1.67	1.52
4	R	429	GLY	CA-C	-7.30	1.40	1.51
5	G	340	ALA	C-O	-7.30	1.09	1.23
6	Z	392	GLU	N-CA	7.29	1.60	1.46
4	F	405	ALA	CA-CB	7.29	1.67	1.52
4	X	405	ALA	CA-CB	7.29	1.67	1.52
6	T	414	VAL	CA-C	7.27	1.71	1.52
4	L	446	ALA	CA-CB	7.27	1.67	1.52
4	R	439	ARG	N-CA	-7.27	1.31	1.46
5	S	248	PRO	CA-CB	7.27	1.68	1.53
6	Z	414	VAL	CA-C	7.26	1.71	1.52
4	L	405	ALA	CA-CB	7.26	1.67	1.52
6	N	414	VAL	CA-C	7.26	1.71	1.52
4	X	446	ALA	CA-CB	7.26	1.67	1.52
6	H	414	VAL	CA-C	7.25	1.71	1.52
5	M	248	PRO	CA-CB	7.24	1.68	1.53
4	F	439	ARG	N-CA	-7.24	1.31	1.46
5	G	248	PRO	CA-CB	7.23	1.68	1.53
4	X	429	GLY	CA-C	-7.23	1.40	1.51
5	M	277	SER	N-CA	7.22	1.60	1.46
4	X	439	ARG	N-CA	-7.21	1.31	1.46
5	Y	248	PRO	CA-CB	7.21	1.68	1.53
5	G	277	SER	N-CA	7.18	1.60	1.46
3	P	1485	ALA	CA-C	-7.18	1.34	1.52
4	R	435	MET	CA-C	7.18	1.71	1.52
4	X	235	ASP	C-N	7.18	1.50	1.34
5	Y	277	SER	N-CA	7.17	1.60	1.46
5	S	277	SER	N-CA	7.17	1.60	1.46
4	L	435	MET	CA-C	7.16	1.71	1.52
3	D	1485	ALA	CA-C	-7.16	1.34	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	L	235	ASP	C-N	7.16	1.50	1.34
4	F	435	MET	CA-C	7.16	1.71	1.52
4	L	439	ARG	N-CA	-7.16	1.32	1.46
4	F	235	ASP	C-N	7.15	1.50	1.34
4	X	435	MET	CA-C	7.15	1.71	1.52
4	R	235	ASP	C-N	7.13	1.50	1.34
3	P	1511	GLN	N-CA	-7.11	1.32	1.46
5	M	330	LYS	CA-CB	-7.09	1.38	1.53
5	S	330	LYS	CA-CB	-7.09	1.38	1.53
4	X	320	GLU	CA-CB	-7.08	1.38	1.53
5	G	334	GLY	CA-C	7.08	1.63	1.51
5	S	334	GLY	CA-C	7.08	1.63	1.51
3	D	1511	GLN	N-CA	-7.08	1.32	1.46
4	R	320	GLU	CA-CB	-7.08	1.38	1.53
5	Y	361	ARG	N-CA	7.07	1.60	1.46
5	G	330	LYS	CA-CB	-7.07	1.38	1.53
4	L	320	GLU	CA-CB	-7.06	1.38	1.53
5	M	334	GLY	CA-C	7.06	1.63	1.51
4	F	320	GLU	CA-CB	-7.04	1.38	1.53
5	Y	329	GLN	N-CA	-7.03	1.32	1.46
5	Y	330	LYS	CA-CB	-7.03	1.38	1.53
5	Y	334	GLY	CA-C	7.03	1.63	1.51
5	S	329	GLN	N-CA	-7.02	1.32	1.46
5	M	361	ARG	N-CA	7.02	1.60	1.46
5	S	361	ARG	N-CA	7.01	1.60	1.46
5	G	329	GLN	N-CA	-7.01	1.32	1.46
5	G	361	ARG	N-CA	7.00	1.60	1.46
4	X	457	ALA	CA-C	7.00	1.71	1.52
5	M	329	GLN	N-CA	-6.99	1.32	1.46
6	N	491	ASN	N-CA	-6.98	1.32	1.46
5	G	332	PRO	CA-CB	6.97	1.67	1.53
5	M	332	PRO	CA-CB	6.96	1.67	1.53
6	Z	491	ASN	N-CA	-6.96	1.32	1.46
4	L	457	ALA	CA-C	6.95	1.71	1.52
4	L	428	LYS	CA-C	-6.95	1.34	1.52
4	X	452	ARG	CA-CB	6.95	1.69	1.53
4	F	457	ALA	CA-C	6.95	1.71	1.52
5	M	322	ALA	CA-CB	6.93	1.67	1.52
4	F	452	ARG	CA-CB	6.93	1.69	1.53
4	R	452	ARG	CA-CB	6.93	1.69	1.53
4	X	428	LYS	CA-C	-6.93	1.34	1.52
4	F	428	LYS	CA-C	-6.93	1.34	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	R	457	ALA	CA-C	6.92	1.71	1.52
6	Z	490	GLN	CA-C	6.92	1.71	1.52
4	F	220	ASN	C-N	6.91	1.50	1.34
4	X	220	ASN	C-N	6.91	1.50	1.34
5	Y	332	PRO	CA-CB	6.91	1.67	1.53
6	H	491	ASN	N-CA	-6.91	1.32	1.46
4	R	220	ASN	C-N	6.91	1.50	1.34
5	G	322	ALA	CA-CB	6.90	1.67	1.52
4	R	428	LYS	CA-C	-6.90	1.35	1.52
4	L	220	ASN	C-N	6.89	1.50	1.34
4	L	452	ARG	CA-CB	6.89	1.69	1.53
6	N	490	GLN	CA-C	6.89	1.70	1.52
6	T	412	GLU	CA-C	-6.89	1.35	1.52
3	D	1450	GLU	N-CA	-6.89	1.32	1.46
6	Z	412	GLU	CA-C	-6.89	1.35	1.52
6	T	491	ASN	N-CA	-6.89	1.32	1.46
6	H	490	GLN	CA-C	6.88	1.70	1.52
5	Y	322	ALA	CA-CB	6.88	1.67	1.52
6	T	490	GLN	CA-C	6.88	1.70	1.52
5	S	332	PRO	CA-CB	6.88	1.67	1.53
4	X	454	TYR	C-O	6.88	1.36	1.23
5	S	322	ALA	CA-CB	6.88	1.66	1.52
3	P	1450	GLU	N-CA	-6.87	1.32	1.46
6	N	412	GLU	CA-C	-6.87	1.35	1.52
4	R	269	ASN	CA-CB	-6.87	1.35	1.53
4	F	454	TYR	C-O	6.86	1.36	1.23
6	H	412	GLU	CA-C	-6.86	1.35	1.52
4	L	454	TYR	C-O	6.86	1.36	1.23
4	R	454	TYR	C-O	6.86	1.36	1.23
5	M	324	ILE	C-O	6.85	1.36	1.23
4	X	269	ASN	CA-CB	-6.84	1.35	1.53
4	L	269	ASN	CA-CB	-6.84	1.35	1.53
5	M	341	ALA	C-O	-6.83	1.10	1.23
5	S	264	GLU	N-CA	6.83	1.60	1.46
4	L	429	GLY	N-CA	-6.83	1.35	1.46
5	S	341	ALA	C-O	-6.82	1.10	1.23
3	D	1546	LEU	CA-C	-6.82	1.35	1.52
4	L	459	LEU	CA-CB	6.82	1.69	1.53
4	F	269	ASN	CA-CB	-6.82	1.35	1.53
5	G	324	ILE	C-O	6.81	1.36	1.23
4	R	459	LEU	CA-CB	6.81	1.69	1.53
5	M	264	GLU	N-CA	6.81	1.59	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	P	1546	LEU	CA-C	-6.81	1.35	1.52
6	Z	487	TRP	CA-CB	6.80	1.69	1.53
4	F	459	LEU	CA-CB	6.80	1.69	1.53
4	X	429	GLY	N-CA	-6.80	1.35	1.46
4	F	429	GLY	N-CA	-6.80	1.35	1.46
3	D	1519	SER	N-CA	-6.79	1.32	1.46
5	Y	324	ILE	C-O	6.79	1.36	1.23
4	R	320	GLU	N-CA	6.79	1.59	1.46
6	N	416	GLU	CA-C	-6.79	1.35	1.52
5	S	324	ILE	C-O	6.79	1.36	1.23
5	Y	264	GLU	N-CA	6.79	1.59	1.46
3	P	1519	SER	N-CA	-6.78	1.32	1.46
5	G	264	GLU	N-CA	6.77	1.59	1.46
6	H	416	GLU	CA-C	-6.77	1.35	1.52
6	N	487	TRP	CA-CB	6.77	1.68	1.53
5	Y	341	ALA	C-O	-6.77	1.10	1.23
4	F	215	LYS	CA-CB	6.77	1.68	1.53
6	H	487	TRP	CA-CB	6.76	1.68	1.53
4	X	320	GLU	N-CA	6.76	1.59	1.46
6	Z	416	GLU	CA-C	-6.76	1.35	1.52
6	T	487	TRP	CA-CB	6.75	1.68	1.53
3	D	1489	HIS	CA-CB	6.75	1.68	1.53
4	X	459	LEU	CA-CB	6.75	1.69	1.53
4	L	215	LYS	CA-CB	6.74	1.68	1.53
3	P	1489	HIS	CA-CB	6.74	1.68	1.53
6	T	416	GLU	CA-C	-6.74	1.35	1.52
6	Z	402	GLU	CA-CB	-6.74	1.39	1.53
4	X	450	GLU	C-N	6.74	1.49	1.34
4	L	320	GLU	N-CA	6.74	1.59	1.46
4	R	215	LYS	CA-CB	6.73	1.68	1.53
5	G	341	ALA	C-O	-6.73	1.10	1.23
6	T	402	GLU	CA-CB	-6.73	1.39	1.53
4	F	450	GLU	C-N	6.72	1.49	1.34
4	L	450	GLU	C-N	6.72	1.49	1.34
2	U	28	HIS	N-CA	6.72	1.59	1.46
6	H	402	GLU	CA-CB	-6.71	1.39	1.53
4	R	450	GLU	C-N	6.71	1.49	1.34
6	H	415	LYS	N-CA	6.71	1.59	1.46
4	F	320	GLU	N-CA	6.70	1.59	1.46
6	N	415	LYS	N-CA	6.70	1.59	1.46
4	R	429	GLY	N-CA	-6.70	1.35	1.46
4	X	215	LYS	CA-CB	6.70	1.68	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	Z	391	GLN	C-N	6.69	1.49	1.34
4	L	211	GLU	CA-CB	6.69	1.68	1.53
6	N	391	GLN	C-N	6.69	1.49	1.34
2	O	28	HIS	N-CA	6.68	1.59	1.46
6	N	402	GLU	CA-CB	-6.68	1.39	1.53
6	T	391	GLN	C-N	6.67	1.49	1.34
2	I	28	HIS	N-CA	6.67	1.59	1.46
4	X	211	GLU	CA-CB	6.67	1.68	1.53
6	T	493	ALA	CA-C	6.66	1.70	1.52
4	F	211	GLU	CA-CB	6.66	1.68	1.53
6	Z	415	LYS	N-CA	6.66	1.59	1.46
6	H	493	ALA	CA-C	6.66	1.70	1.52
4	R	211	GLU	CA-CB	6.65	1.68	1.53
6	H	453	ASP	CA-CB	6.65	1.68	1.53
6	T	415	LYS	N-CA	6.65	1.59	1.46
2	C	28	HIS	N-CA	6.64	1.59	1.46
4	F	303	GLY	CA-C	6.64	1.62	1.51
6	Z	453	ASP	CA-CB	6.63	1.68	1.53
6	H	391	GLN	C-N	6.63	1.49	1.34
6	N	493	ALA	CA-C	6.63	1.70	1.52
4	X	303	GLY	CA-C	6.63	1.62	1.51
4	L	303	GLY	CA-C	6.62	1.62	1.51
6	N	453	ASP	CA-CB	6.61	1.68	1.53
3	P	1510	GLN	N-CA	-6.60	1.33	1.46
5	M	366	GLU	CA-C	-6.59	1.35	1.52
5	Y	342	PRO	CA-CB	6.59	1.66	1.53
5	Y	366	GLU	CA-C	-6.59	1.35	1.52
6	Z	493	ALA	CA-C	6.59	1.70	1.52
4	L	335	ARG	CA-CB	6.59	1.68	1.53
5	S	366	GLU	CA-C	-6.58	1.35	1.52
6	T	453	ASP	CA-CB	6.57	1.68	1.53
4	X	335	ARG	CA-CB	6.57	1.68	1.53
4	F	335	ARG	CA-CB	6.56	1.68	1.53
5	M	342	PRO	CA-CB	6.56	1.66	1.53
5	S	342	PRO	CA-CB	6.56	1.66	1.53
4	F	250	ASN	CA-CB	6.56	1.70	1.53
3	D	1510	GLN	N-CA	-6.55	1.33	1.46
4	R	303	GLY	CA-C	6.55	1.62	1.51
5	M	252	CYS	CA-CB	6.55	1.68	1.53
5	G	366	GLU	CA-C	-6.54	1.35	1.52
4	L	250	ASN	CA-CB	6.54	1.70	1.53
4	R	335	ARG	CA-CB	6.53	1.68	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	P	1509	GLN	N-CA	-6.52	1.33	1.46
5	S	252	CYS	CA-CB	6.52	1.68	1.53
3	D	1509	GLN	N-CA	-6.52	1.33	1.46
5	Y	252	CYS	CA-CB	6.51	1.68	1.53
5	G	342	PRO	CA-CB	6.51	1.66	1.53
4	R	250	ASN	CA-CB	6.50	1.70	1.53
4	R	267	GLN	CA-CB	6.49	1.68	1.53
4	L	422	ASN	CA-C	-6.49	1.36	1.52
4	X	250	ASN	CA-CB	6.48	1.70	1.53
4	L	267	GLN	CA-CB	6.48	1.68	1.53
4	X	267	GLN	CA-CB	6.48	1.68	1.53
4	L	419	GLY	N-CA	6.47	1.55	1.46
6	T	409	PRO	C-N	6.46	1.49	1.34
4	X	419	GLY	N-CA	6.46	1.55	1.46
4	F	343	MET	CA-C	6.46	1.69	1.52
5	G	252	CYS	CA-CB	6.46	1.68	1.53
4	L	343	MET	CA-C	6.46	1.69	1.52
4	F	449	SER	C-O	6.46	1.35	1.23
4	R	426	GLN	CA-C	-6.46	1.36	1.52
6	N	409	PRO	C-N	6.45	1.48	1.34
4	F	419	GLY	N-CA	6.45	1.55	1.46
3	D	1541	THR	C-N	-6.45	1.22	1.34
6	H	409	PRO	C-N	6.45	1.48	1.34
4	F	267	GLN	CA-CB	6.45	1.68	1.53
6	Z	409	PRO	C-N	6.44	1.48	1.34
4	F	422	ASN	CA-C	-6.44	1.36	1.52
2	O	5	GLY	CA-C	-6.44	1.41	1.51
4	F	426	GLN	CA-C	-6.43	1.36	1.52
4	R	343	MET	CA-C	6.43	1.69	1.52
4	X	423	ALA	N-CA	-6.43	1.33	1.46
2	I	5	GLY	CA-C	-6.43	1.41	1.51
4	X	422	ASN	CA-C	-6.43	1.36	1.52
3	D	1547	LEU	N-CA	-6.43	1.33	1.46
3	P	1541	THR	C-N	-6.43	1.22	1.34
4	L	456	ASP	C-N	6.43	1.48	1.34
4	R	449	SER	C-O	6.43	1.35	1.23
4	X	456	ASP	C-N	6.42	1.48	1.34
2	C	5	GLY	CA-C	-6.42	1.41	1.51
4	F	456	ASP	C-N	6.42	1.48	1.34
4	R	422	ASN	CA-C	-6.42	1.36	1.52
4	X	343	MET	CA-C	6.42	1.69	1.52
4	X	426	GLN	CA-C	-6.42	1.36	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	L	426	GLN	CA-C	-6.41	1.36	1.52
2	U	5	GLY	CA-C	-6.40	1.41	1.51
3	P	1547	LEU	N-CA	-6.39	1.33	1.46
4	R	423	ALA	N-CA	-6.39	1.33	1.46
4	F	423	ALA	N-CA	-6.39	1.33	1.46
6	T	488	ILE	N-CA	-6.39	1.33	1.46
4	L	449	SER	C-O	6.38	1.35	1.23
6	N	488	ILE	N-CA	-6.38	1.33	1.46
4	X	449	SER	C-O	6.38	1.35	1.23
4	L	423	ALA	N-CA	-6.38	1.33	1.46
6	H	488	ILE	N-CA	-6.37	1.33	1.46
4	R	456	ASP	C-N	6.37	1.48	1.34
4	R	419	GLY	N-CA	6.35	1.55	1.46
6	Z	488	ILE	N-CA	-6.33	1.33	1.46
6	H	370	GLU	CA-C	6.32	1.69	1.52
4	F	443	HIS	CA-CB	-6.32	1.40	1.53
5	S	340	ALA	C-N	6.32	1.48	1.34
4	L	443	HIS	CA-CB	-6.32	1.40	1.53
5	M	254	ASP	N-CA	-6.32	1.33	1.46
6	N	370	GLU	CA-C	6.31	1.69	1.52
5	Y	254	ASP	N-CA	-6.31	1.33	1.46
4	F	307	ILE	N-CA	6.30	1.58	1.46
4	X	443	HIS	CA-CB	-6.30	1.40	1.53
5	G	254	ASP	N-CA	-6.29	1.33	1.46
4	F	300	PRO	N-CA	6.28	1.57	1.47
4	X	307	ILE	N-CA	6.28	1.58	1.46
5	G	340	ALA	C-N	6.28	1.48	1.34
3	P	1516	LEU	CA-C	-6.28	1.36	1.52
4	R	443	HIS	CA-CB	-6.28	1.40	1.53
6	T	370	GLU	CA-C	6.28	1.69	1.52
4	L	204	SER	CA-CB	6.28	1.62	1.52
4	R	300	PRO	N-CA	6.28	1.57	1.47
4	R	307	ILE	N-CA	6.27	1.58	1.46
5	S	254	ASP	N-CA	-6.27	1.33	1.46
6	Z	370	GLU	CA-C	6.27	1.69	1.52
5	M	340	ALA	C-N	6.26	1.48	1.34
4	L	307	ILE	N-CA	6.26	1.58	1.46
4	X	300	PRO	N-CA	6.26	1.57	1.47
4	X	204	SER	CA-CB	6.26	1.62	1.52
4	L	425	THR	N-CA	-6.26	1.33	1.46
3	D	1516	LEU	CA-C	-6.25	1.36	1.52
4	F	204	SER	CA-CB	6.25	1.62	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	R	204	SER	CA-CB	6.25	1.62	1.52
4	L	300	PRO	N-CA	6.24	1.57	1.47
4	X	449	SER	N-CA	6.24	1.58	1.46
4	X	425	THR	N-CA	-6.24	1.33	1.46
4	F	483	ASP	N-CA	-6.24	1.33	1.46
5	S	393	TYR	CA-C	6.24	1.69	1.52
4	R	483	ASP	N-CA	-6.23	1.33	1.46
3	D	1512	TRP	CA-C	-6.23	1.36	1.52
4	F	425	THR	N-CA	-6.23	1.33	1.46
5	Y	393	TYR	CA-C	6.23	1.69	1.52
5	G	393	TYR	CA-C	6.22	1.69	1.52
3	P	1512	TRP	CA-C	-6.22	1.36	1.52
5	M	393	TYR	CA-C	6.22	1.69	1.52
4	X	221	GLN	CA-CB	6.22	1.67	1.53
4	X	465	GLN	CA-CB	6.22	1.67	1.53
6	N	497	ARG	CA-C	-6.21	1.36	1.52
5	Y	340	ALA	C-N	6.21	1.48	1.34
4	R	449	SER	N-CA	6.20	1.58	1.46
4	X	483	ASP	N-CA	-6.20	1.33	1.46
4	L	483	ASP	N-CA	-6.20	1.33	1.46
4	F	465	GLN	CA-CB	6.20	1.67	1.53
6	Z	497	ARG	CA-C	-6.19	1.36	1.52
4	L	449	SER	N-CA	6.18	1.58	1.46
3	D	1475	ALA	N-CA	-6.18	1.33	1.46
4	L	436	SER	C-O	6.18	1.35	1.23
4	L	465	GLN	CA-CB	6.18	1.67	1.53
4	F	449	SER	N-CA	6.18	1.58	1.46
4	R	425	THR	N-CA	-6.18	1.33	1.46
4	X	436	SER	C-O	6.18	1.35	1.23
4	L	221	GLN	CA-CB	6.18	1.67	1.53
3	P	1544	PRO	CA-C	6.17	1.65	1.52
6	T	497	ARG	CA-C	-6.17	1.36	1.52
6	H	497	ARG	CA-C	-6.17	1.36	1.52
4	R	465	GLN	CA-CB	6.17	1.67	1.53
4	R	221	GLN	CA-CB	6.17	1.67	1.53
4	F	404	GLN	CA-CB	6.16	1.67	1.53
4	L	404	GLN	CA-CB	6.16	1.67	1.53
4	F	436	SER	C-O	6.16	1.35	1.23
5	S	380	ILE	C-N	6.16	1.48	1.34
3	P	1475	ALA	N-CA	-6.16	1.34	1.46
4	F	221	GLN	CA-CB	6.15	1.67	1.53
5	G	380	ILE	C-N	6.15	1.48	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	R	436	SER	C-O	6.15	1.35	1.23
5	G	338	GLU	CA-C	-6.13	1.37	1.52
5	Y	338	GLU	CA-C	-6.12	1.37	1.52
5	M	380	ILE	C-N	6.11	1.48	1.34
3	D	1544	PRO	CA-C	6.11	1.65	1.52
6	H	494	LEU	CA-CB	6.11	1.67	1.53
4	R	404	GLN	CA-CB	6.10	1.67	1.53
5	Y	380	ILE	C-N	6.10	1.48	1.34
4	F	222	THR	C-N	6.10	1.48	1.34
5	M	338	GLU	CA-C	-6.10	1.37	1.52
6	N	371	LYS	N-CA	-6.09	1.34	1.46
4	X	404	GLN	CA-CB	6.09	1.67	1.53
3	P	1451	ARG	CA-C	-6.09	1.37	1.52
4	R	222	THR	C-N	6.09	1.48	1.34
4	L	222	THR	C-N	6.08	1.48	1.34
6	Z	494	LEU	CA-CB	6.08	1.67	1.53
5	S	338	GLU	CA-C	-6.08	1.37	1.52
3	D	1451	ARG	CA-C	-6.07	1.37	1.52
6	N	494	LEU	CA-CB	6.07	1.67	1.53
4	R	405	ALA	N-CA	-6.07	1.34	1.46
4	X	222	THR	C-N	6.07	1.48	1.34
4	X	305	ASP	C-N	-6.07	1.22	1.34
4	F	405	ALA	N-CA	-6.07	1.34	1.46
6	H	371	LYS	N-CA	-6.06	1.34	1.46
6	T	371	LYS	N-CA	-6.05	1.34	1.46
6	T	494	LEU	CA-CB	6.04	1.67	1.53
4	X	405	ALA	N-CA	-6.04	1.34	1.46
6	Z	371	LYS	N-CA	-6.03	1.34	1.46
4	R	305	ASP	C-N	-6.03	1.22	1.34
4	L	305	ASP	C-N	-6.02	1.22	1.34
5	G	276	SER	N-CA	6.02	1.58	1.46
6	N	366	ILE	N-CA	-6.02	1.34	1.46
6	N	353	GLN	CA-CB	6.02	1.67	1.53
4	L	405	ALA	N-CA	-6.01	1.34	1.46
4	X	428	LYS	N-CA	-6.01	1.34	1.46
6	Z	391	GLN	CA-C	6.01	1.68	1.52
5	M	276	SER	N-CA	6.00	1.58	1.46
6	T	353	GLN	CA-CB	6.00	1.67	1.53
6	H	391	GLN	CA-C	6.00	1.68	1.52
6	H	353	GLN	CA-CB	5.99	1.67	1.53
6	N	391	GLN	CA-C	5.99	1.68	1.52
2	C	11	GLN	CA-CB	-5.99	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	H	366	ILE	N-CA	-5.99	1.34	1.46
2	U	11	GLN	CA-CB	-5.98	1.40	1.53
5	Y	276	SER	N-CA	5.98	1.58	1.46
4	F	305	ASP	C-N	-5.98	1.22	1.34
6	T	391	GLN	CA-C	5.97	1.68	1.52
6	Z	353	GLN	CA-CB	5.97	1.67	1.53
4	X	408	GLU	CA-CB	5.96	1.67	1.53
4	F	401	TYR	CA-CB	5.96	1.67	1.53
4	R	401	TYR	CA-CB	5.96	1.67	1.53
3	D	1521	TYR	CA-C	-5.96	1.37	1.52
4	L	401	TYR	CA-CB	5.96	1.67	1.53
4	R	428	LYS	N-CA	-5.96	1.34	1.46
3	P	1521	TYR	CA-C	-5.95	1.37	1.52
6	Z	366	ILE	N-CA	-5.95	1.34	1.46
6	Z	366	ILE	CA-CB	-5.95	1.41	1.54
4	L	408	GLU	CA-CB	5.95	1.67	1.53
4	L	428	LYS	N-CA	-5.95	1.34	1.46
3	P	1543	GLN	C-N	-5.95	1.23	1.34
4	R	408	GLU	CA-CB	5.95	1.67	1.53
6	N	388	ARG	CA-C	-5.94	1.37	1.52
5	S	276	SER	N-CA	5.94	1.58	1.46
6	T	366	ILE	N-CA	-5.94	1.34	1.46
4	X	237	GLN	N-CA	-5.93	1.34	1.46
2	O	11	GLN	CA-CB	-5.93	1.41	1.53
6	H	366	ILE	CA-CB	-5.92	1.41	1.54
4	F	428	LYS	N-CA	-5.92	1.34	1.46
4	F	408	GLU	CA-CB	5.92	1.67	1.53
6	T	366	ILE	CA-CB	-5.92	1.41	1.54
3	D	1543	GLN	C-N	-5.92	1.23	1.34
4	R	237	GLN	N-CA	-5.91	1.34	1.46
4	X	401	TYR	CA-CB	5.91	1.67	1.53
4	L	237	GLN	N-CA	-5.91	1.34	1.46
2	I	11	GLN	CA-CB	-5.91	1.41	1.53
5	G	404	GLN	CA-C	-5.90	1.37	1.52
6	T	388	ARG	CA-C	-5.90	1.37	1.52
4	F	237	GLN	N-CA	-5.90	1.34	1.46
5	Y	404	GLN	CA-C	-5.89	1.37	1.52
6	H	388	ARG	CA-C	-5.89	1.37	1.52
5	M	404	GLN	CA-C	-5.88	1.37	1.52
5	G	332	PRO	CA-C	-5.87	1.41	1.52
6	N	366	ILE	CA-CB	-5.87	1.41	1.54
6	N	412	GLU	CA-CB	5.87	1.66	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	T	412	GLU	CA-CB	5.87	1.66	1.53
5	S	404	GLN	CA-C	-5.87	1.37	1.52
6	Z	412	GLU	CA-CB	5.86	1.66	1.53
6	Z	388	ARG	CA-C	-5.86	1.37	1.52
5	Y	332	PRO	CA-C	-5.86	1.41	1.52
4	R	132	ASP	CA-CB	5.85	1.66	1.53
5	Y	381	THR	N-CA	5.84	1.58	1.46
5	M	381	THR	N-CA	5.83	1.58	1.46
5	S	381	THR	N-CA	5.83	1.58	1.46
6	H	412	GLU	CA-CB	5.83	1.66	1.53
5	M	332	PRO	CA-C	-5.82	1.41	1.52
4	L	482	LYS	N-CA	-5.81	1.34	1.46
5	G	381	THR	N-CA	5.80	1.57	1.46
4	F	132	ASP	CA-CB	5.80	1.66	1.53
4	X	132	ASP	CA-CB	5.80	1.66	1.53
4	X	482	LYS	N-CA	-5.80	1.34	1.46
4	R	482	LYS	N-CA	-5.80	1.34	1.46
4	F	482	LYS	N-CA	-5.79	1.34	1.46
4	L	132	ASP	CA-CB	5.79	1.66	1.53
3	P	1484	ASP	N-CA	-5.79	1.34	1.46
4	L	460	LEU	N-CA	-5.78	1.34	1.46
5	S	332	PRO	CA-C	-5.78	1.41	1.52
3	D	1518	ASN	N-CA	-5.77	1.34	1.46
3	D	1484	ASP	N-CA	-5.77	1.34	1.46
3	P	1518	ASN	N-CA	-5.75	1.34	1.46
4	F	466	HIS	CA-C	-5.75	1.38	1.52
4	X	460	LEU	N-CA	-5.75	1.34	1.46
4	X	402	ALA	N-CA	5.75	1.57	1.46
4	F	460	LEU	N-CA	-5.73	1.34	1.46
4	L	466	HIS	CA-C	-5.72	1.38	1.52
4	R	466	HIS	CA-C	-5.71	1.38	1.52
4	X	466	HIS	CA-C	-5.71	1.38	1.52
4	L	402	ALA	N-CA	5.70	1.57	1.46
4	R	460	LEU	N-CA	-5.70	1.34	1.46
4	F	402	ALA	N-CA	5.70	1.57	1.46
4	R	402	ALA	N-CA	5.66	1.57	1.46
6	T	402	GLU	N-CA	5.64	1.57	1.46
6	Z	402	GLU	N-CA	5.63	1.57	1.46
4	L	408	GLU	CA-C	-5.62	1.38	1.52
4	F	408	GLU	CA-C	-5.62	1.38	1.52
4	R	221	GLN	CA-C	5.62	1.67	1.52
4	F	221	GLN	CA-C	5.61	1.67	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	X	221	GLN	CA-C	5.60	1.67	1.52
4	F	306	PRO	CA-CB	-5.60	1.42	1.53
6	T	410	LEU	CA-C	5.58	1.67	1.52
4	R	394	GLU	C-N	5.58	1.46	1.34
6	N	402	GLU	N-CA	5.58	1.57	1.46
4	L	221	GLN	CA-C	5.58	1.67	1.52
6	H	402	GLU	N-CA	5.57	1.57	1.46
4	X	408	GLU	CA-C	-5.57	1.38	1.52
4	R	408	GLU	CA-C	-5.56	1.38	1.52
4	X	394	GLU	C-N	5.55	1.46	1.34
6	H	410	LEU	CA-C	5.55	1.67	1.52
4	X	306	PRO	CA-CB	-5.55	1.42	1.53
4	R	400	GLY	C-N	-5.54	1.21	1.34
4	F	400	GLY	C-N	-5.54	1.21	1.34
4	L	460	LEU	CA-CB	5.54	1.66	1.53
4	L	306	PRO	CA-CB	-5.53	1.42	1.53
6	N	410	LEU	CA-C	5.52	1.67	1.52
6	Z	410	LEU	CA-C	5.52	1.67	1.52
4	L	394	GLU	C-N	5.52	1.46	1.34
6	T	403	LEU	CA-C	-5.52	1.38	1.52
4	F	420	GLU	N-CA	5.51	1.57	1.46
4	X	420	GLU	N-CA	5.51	1.57	1.46
4	F	394	GLU	CA-C	5.51	1.67	1.52
4	R	306	PRO	CA-CB	-5.51	1.42	1.53
4	F	394	GLU	C-N	5.50	1.46	1.34
4	X	400	GLY	C-N	-5.50	1.21	1.34
4	F	460	LEU	CA-CB	5.50	1.66	1.53
4	L	400	GLY	C-N	-5.50	1.21	1.34
4	X	394	GLU	CA-C	5.50	1.67	1.52
4	X	492	GLU	CA-CB	5.50	1.66	1.53
4	X	460	LEU	CA-CB	5.50	1.66	1.53
4	R	492	GLU	CA-CB	5.50	1.66	1.53
5	S	302	GLN	CA-CB	-5.50	1.41	1.53
4	X	435	MET	C-N	5.50	1.46	1.34
4	R	420	GLU	N-CA	5.49	1.57	1.46
5	S	317	GLN	CA-CB	5.49	1.66	1.53
4	R	491	VAL	CA-CB	5.49	1.66	1.54
4	X	491	VAL	CA-CB	5.49	1.66	1.54
5	M	302	GLN	CA-CB	-5.48	1.41	1.53
5	M	252	CYS	CA-C	-5.48	1.38	1.52
6	T	467	THR	C-N	5.48	1.46	1.34
4	F	435	MET	C-N	5.48	1.46	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	P	1516	LEU	N-CA	-5.48	1.35	1.46
3	D	1516	LEU	N-CA	-5.47	1.35	1.46
4	L	394	GLU	CA-C	5.47	1.67	1.52
4	L	420	GLU	N-CA	5.47	1.57	1.46
6	N	403	LEU	CA-C	-5.47	1.38	1.52
4	R	394	GLU	CA-C	5.47	1.67	1.52
4	R	435	MET	C-N	5.47	1.46	1.34
4	L	473	GLY	CA-C	-5.47	1.43	1.51
4	L	491	VAL	CA-CB	5.47	1.66	1.54
4	R	460	LEU	CA-CB	5.47	1.66	1.53
4	F	492	GLU	CA-CB	5.46	1.66	1.53
5	M	317	GLN	CA-CB	5.46	1.66	1.53
5	G	302	GLN	CA-CB	-5.46	1.42	1.53
6	N	494	LEU	C-N	-5.46	1.21	1.34
3	D	1507	ASP	C-N	5.46	1.46	1.34
6	Z	403	LEU	CA-C	-5.45	1.38	1.52
5	G	252	CYS	CA-C	-5.45	1.38	1.52
5	S	252	CYS	CA-C	-5.45	1.38	1.52
5	Y	317	GLN	CA-CB	5.45	1.66	1.53
4	L	469	GLN	CA-CB	-5.45	1.42	1.53
6	Z	467	THR	C-N	5.44	1.46	1.34
6	H	403	LEU	CA-C	-5.44	1.38	1.52
6	H	386	GLN	N-CA	-5.44	1.35	1.46
5	Y	302	GLN	CA-CB	-5.44	1.42	1.53
6	H	467	THR	C-N	5.43	1.46	1.34
4	L	492	GLU	CA-CB	5.43	1.66	1.53
5	Y	252	CYS	CA-C	-5.43	1.38	1.52
5	S	325	ALA	C-O	5.42	1.33	1.23
3	P	1507	ASP	C-N	5.42	1.46	1.34
5	G	317	GLN	CA-CB	5.42	1.65	1.53
4	L	435	MET	C-N	5.42	1.46	1.34
6	N	467	THR	C-N	5.42	1.46	1.34
6	Z	386	GLN	N-CA	-5.42	1.35	1.46
4	F	473	GLY	CA-C	-5.41	1.43	1.51
6	H	494	LEU	C-N	-5.41	1.21	1.34
4	X	473	GLY	CA-C	-5.41	1.43	1.51
4	F	469	GLN	CA-CB	-5.41	1.42	1.53
5	G	325	ALA	C-O	5.41	1.33	1.23
6	T	494	LEU	C-N	-5.41	1.21	1.34
6	Z	494	LEU	C-N	-5.41	1.21	1.34
5	M	321	ASN	C-N	5.41	1.46	1.34
4	R	469	GLN	CA-CB	-5.40	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	M	325	ALA	C-O	5.40	1.33	1.23
5	Y	321	ASN	C-N	5.40	1.46	1.34
4	F	491	VAL	CA-CB	5.40	1.66	1.54
5	S	326	LEU	CA-CB	5.39	1.66	1.53
6	T	386	GLN	N-CA	-5.39	1.35	1.46
4	X	469	GLN	CA-CB	-5.39	1.42	1.53
6	N	386	GLN	N-CA	-5.39	1.35	1.46
4	L	328	VAL	CA-CB	-5.39	1.43	1.54
6	N	472	GLN	N-CA	-5.39	1.35	1.46
4	X	231	LYS	N-CA	5.38	1.57	1.46
6	T	467	THR	CA-C	-5.38	1.39	1.52
4	F	419	GLY	C-N	5.38	1.46	1.34
5	Y	325	ALA	C-O	5.38	1.33	1.23
5	Y	326	LEU	CA-CB	5.37	1.66	1.53
6	H	472	GLN	N-CA	-5.37	1.35	1.46
6	T	472	GLN	N-CA	-5.37	1.35	1.46
5	G	321	ASN	C-N	5.37	1.46	1.34
4	R	419	GLY	C-N	5.37	1.46	1.34
4	L	419	GLY	C-N	5.37	1.46	1.34
5	S	321	ASN	C-N	5.37	1.46	1.34
4	X	328	VAL	CA-CB	-5.37	1.43	1.54
2	O	9	LEU	N-CA	-5.36	1.35	1.46
6	Z	472	GLN	N-CA	-5.36	1.35	1.46
2	I	9	LEU	N-CA	-5.36	1.35	1.46
4	R	473	GLY	CA-C	-5.36	1.43	1.51
4	F	231	LYS	N-CA	5.35	1.57	1.46
2	U	9	LEU	N-CA	-5.35	1.35	1.46
4	X	419	GLY	C-N	5.35	1.46	1.34
6	Z	403	LEU	N-CA	5.35	1.57	1.46
2	C	9	LEU	N-CA	-5.34	1.35	1.46
4	R	328	VAL	CA-CB	-5.34	1.43	1.54
5	G	274	ARG	CA-C	-5.34	1.39	1.52
6	H	467	THR	CA-C	-5.34	1.39	1.52
5	M	326	LEU	CA-CB	5.34	1.66	1.53
4	L	231	LYS	N-CA	5.34	1.57	1.46
4	R	231	LYS	N-CA	5.34	1.57	1.46
5	Y	274	ARG	CA-C	-5.33	1.39	1.52
6	H	403	LEU	N-CA	5.32	1.56	1.46
4	F	328	VAL	CA-CB	-5.32	1.43	1.54
6	N	403	LEU	N-CA	5.32	1.56	1.46
6	N	467	THR	CA-C	-5.32	1.39	1.52
5	G	326	LEU	CA-CB	5.31	1.66	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	G	276	SER	C-N	5.31	1.46	1.34
6	Z	467	THR	CA-C	-5.30	1.39	1.52
5	M	276	SER	C-N	5.30	1.46	1.34
5	G	325	ALA	N-CA	5.30	1.56	1.46
5	Y	276	SER	C-N	5.29	1.46	1.34
6	T	403	LEU	N-CA	5.29	1.56	1.46
5	Y	325	ALA	N-CA	5.29	1.56	1.46
4	R	253	SER	CA-C	5.28	1.66	1.52
4	F	253	SER	CA-C	5.28	1.66	1.52
4	X	253	SER	CA-C	5.27	1.66	1.52
5	S	276	SER	C-N	5.27	1.46	1.34
4	X	252	THR	N-CA	5.27	1.56	1.46
5	M	274	ARG	CA-C	-5.27	1.39	1.52
4	F	252	THR	N-CA	5.27	1.56	1.46
5	M	325	ALA	N-CA	5.27	1.56	1.46
5	S	325	ALA	N-CA	5.26	1.56	1.46
5	S	274	ARG	CA-C	-5.26	1.39	1.52
4	L	253	SER	CA-C	5.26	1.66	1.52
5	G	327	ARG	C-O	5.25	1.33	1.23
4	R	252	THR	N-CA	5.25	1.56	1.46
4	L	443	HIS	CA-C	5.25	1.66	1.52
5	M	327	ARG	C-O	5.25	1.33	1.23
4	F	443	HIS	CA-C	5.24	1.66	1.52
4	L	404	GLN	N-CA	-5.24	1.35	1.46
5	Y	327	ARG	C-O	5.23	1.33	1.23
4	L	252	THR	N-CA	5.23	1.56	1.46
4	X	443	HIS	CA-C	5.22	1.66	1.52
5	Y	380	ILE	CA-C	5.22	1.66	1.52
5	G	380	ILE	CA-C	5.22	1.66	1.52
5	S	380	ILE	CA-C	5.21	1.66	1.52
2	C	234	LEU	N-CA	-5.20	1.35	1.46
6	T	469	ASP	C-N	-5.20	1.24	1.34
4	R	443	HIS	CA-C	5.20	1.66	1.52
5	M	332	PRO	N-CA	5.20	1.56	1.47
2	O	234	LEU	N-CA	-5.19	1.35	1.46
5	M	380	ILE	CA-C	5.19	1.66	1.52
4	F	219	GLY	C-N	5.18	1.46	1.34
5	S	332	PRO	N-CA	5.18	1.56	1.47
6	T	335	SER	CA-CB	5.18	1.60	1.52
6	H	469	ASP	C-N	-5.18	1.24	1.34
2	U	234	LEU	N-CA	-5.18	1.35	1.46
4	X	404	GLN	N-CA	-5.18	1.35	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	Z	469	ASP	C-N	-5.18	1.24	1.34
4	F	404	GLN	N-CA	-5.17	1.36	1.46
2	I	234	LEU	N-CA	-5.17	1.36	1.46
5	Y	332	PRO	N-CA	5.17	1.56	1.47
4	R	404	GLN	N-CA	-5.17	1.36	1.46
3	D	1493	ARG	CA-C	-5.16	1.39	1.52
4	X	426	GLN	N-CA	-5.16	1.36	1.46
6	N	469	ASP	C-N	-5.16	1.24	1.34
2	I	6	PHE	C-N	-5.15	1.23	1.33
5	S	327	ARG	C-O	5.14	1.33	1.23
2	C	6	PHE	C-N	-5.14	1.23	1.33
6	H	335	SER	CA-CB	5.14	1.60	1.52
5	G	332	PRO	N-CA	5.14	1.55	1.47
2	O	6	PHE	C-N	-5.13	1.23	1.33
4	R	132	ASP	CA-C	-5.13	1.39	1.52
4	L	219	GLY	C-N	5.13	1.45	1.34
6	Z	335	SER	CA-CB	5.13	1.60	1.52
4	L	426	GLN	N-CA	-5.12	1.36	1.46
4	X	219	GLY	C-N	5.12	1.45	1.34
6	T	467	THR	N-CA	5.12	1.56	1.46
4	F	426	GLN	N-CA	-5.12	1.36	1.46
6	H	357	GLN	CA-C	-5.12	1.39	1.52
4	R	219	GLY	C-N	5.11	1.45	1.34
6	Z	467	THR	N-CA	5.11	1.56	1.46
6	Z	357	GLN	CA-C	-5.11	1.39	1.52
6	N	467	THR	N-CA	5.10	1.56	1.46
6	N	335	SER	CA-CB	5.10	1.60	1.52
3	P	1493	ARG	CA-C	-5.10	1.39	1.52
4	R	460	LEU	C-O	5.09	1.33	1.23
4	X	398	LYS	C-O	-5.09	1.13	1.23
4	L	132	ASP	CA-C	-5.09	1.39	1.52
6	N	357	GLN	CA-C	-5.08	1.39	1.52
4	F	132	ASP	CA-C	-5.08	1.39	1.52
4	X	132	ASP	CA-C	-5.08	1.39	1.52
4	R	426	GLN	N-CA	-5.08	1.36	1.46
4	X	204	SER	N-CA	5.08	1.56	1.46
5	G	372	ALA	N-CA	-5.07	1.36	1.46
6	H	467	THR	N-CA	5.07	1.56	1.46
6	T	357	GLN	CA-C	-5.07	1.39	1.52
3	D	1448	MET	C-N	5.07	1.45	1.34
5	M	372	ALA	N-CA	-5.07	1.36	1.46
2	U	6	PHE	C-N	-5.06	1.24	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	F	398	LYS	C-O	-5.05	1.13	1.23
3	P	1448	MET	C-N	5.05	1.45	1.34
4	X	460	LEU	C-O	5.05	1.32	1.23
4	R	398	LYS	C-O	-5.04	1.13	1.23
5	G	398	ALA	N-CA	5.04	1.56	1.46
5	S	372	ALA	N-CA	-5.04	1.36	1.46
5	M	343	ALA	C-N	5.03	1.45	1.34
5	Y	325	ALA	C-N	5.03	1.45	1.34
3	D	1491	ILE	C-O	5.03	1.32	1.23
4	L	460	LEU	C-O	5.03	1.32	1.23
5	Y	372	ALA	N-CA	-5.03	1.36	1.46
5	S	398	ALA	N-CA	5.02	1.56	1.46
5	Y	343	ALA	C-N	5.02	1.45	1.34
4	F	460	LEU	C-O	5.02	1.32	1.23
3	P	1449	TRP	N-CA	5.01	1.56	1.46
4	X	421	LEU	N-CA	-5.01	1.36	1.46
5	S	325	ALA	C-N	5.01	1.45	1.34
5	M	325	ALA	C-N	5.01	1.45	1.34
4	L	398	LYS	C-O	-5.00	1.13	1.23
5	Y	398	ALA	N-CA	5.00	1.56	1.46
5	G	325	ALA	C-N	5.00	1.45	1.34

All (2548) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	X	452	ARG	CA-C-N	-39.55	30.19	117.20
4	F	452	ARG	CA-C-N	-39.54	30.20	117.20
4	R	452	ARG	CA-C-N	-39.54	30.20	117.20
4	L	452	ARG	CA-C-N	-39.53	30.24	117.20
5	G	343	ALA	CB-CA-C	-36.23	55.76	110.10
5	M	343	ALA	CB-CA-C	-36.20	55.80	110.10
5	Y	343	ALA	CB-CA-C	-36.20	55.80	110.10
5	S	343	ALA	CB-CA-C	-36.19	55.82	110.10
3	P	1449	TRP	CA-C-N	-32.78	45.09	117.20
3	D	1449	TRP	CA-C-N	-32.76	45.12	117.20
5	Y	340	ALA	CB-CA-C	31.37	157.15	110.10
5	M	340	ALA	CB-CA-C	31.36	157.14	110.10
5	S	340	ALA	CB-CA-C	31.35	157.12	110.10
5	G	340	ALA	CB-CA-C	31.35	157.12	110.10
4	F	450	GLU	CA-C-N	-29.89	51.43	117.20
4	L	450	GLU	CA-C-N	-29.88	51.47	117.20
4	X	450	GLU	CA-C-N	-29.87	51.48	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	R	450	GLU	CA-C-N	-29.86	51.51	117.20
3	D	1488	GLY	C-N-CA	-29.72	47.39	121.70
3	P	1488	GLY	C-N-CA	-29.71	47.42	121.70
5	M	340	ALA	N-CA-C	-29.70	30.81	111.00
5	G	340	ALA	N-CA-C	-29.70	30.82	111.00
5	S	340	ALA	N-CA-C	-29.68	30.85	111.00
5	Y	340	ALA	N-CA-C	-29.67	30.88	111.00
4	R	454	TYR	C-N-CA	-27.32	53.40	121.70
4	F	454	TYR	C-N-CA	-27.31	53.44	121.70
4	L	454	TYR	C-N-CA	-27.30	53.45	121.70
4	X	454	TYR	C-N-CA	-27.30	53.45	121.70
4	R	462	GLU	C-N-CA	-24.72	59.90	121.70
4	L	462	GLU	C-N-CA	-24.72	59.91	121.70
4	F	462	GLU	C-N-CA	-24.70	59.95	121.70
4	X	462	GLU	C-N-CA	-24.69	59.97	121.70
4	X	450	GLU	N-CA-CB	24.34	154.41	110.60
4	F	450	GLU	N-CA-CB	24.34	154.41	110.60
5	S	338	GLU	CA-C-O	-24.33	69.00	120.10
4	L	450	GLU	N-CA-CB	24.32	154.38	110.60
5	M	338	GLU	CA-C-O	-24.31	69.04	120.10
4	R	450	GLU	N-CA-CB	24.30	154.34	110.60
5	Y	338	GLU	CA-C-O	-24.30	69.08	120.10
5	G	338	GLU	CA-C-O	-24.29	69.09	120.10
4	R	453	TYR	O-C-N	-23.36	85.33	122.70
4	L	453	TYR	O-C-N	-23.36	85.33	122.70
4	X	453	TYR	O-C-N	-23.36	85.33	122.70
4	F	453	TYR	O-C-N	-23.33	85.38	122.70
4	X	400	GLY	CA-C-N	-22.77	67.10	117.20
4	L	400	GLY	CA-C-N	-22.77	67.11	117.20
4	R	400	GLY	CA-C-N	-22.77	67.11	117.20
4	F	400	GLY	CA-C-N	-22.76	67.12	117.20
4	F	450	GLU	CA-C-O	22.69	167.74	120.10
4	X	450	GLU	CA-C-O	22.68	167.74	120.10
4	L	450	GLU	CA-C-O	22.66	167.69	120.10
4	R	450	GLU	CA-C-O	22.66	167.68	120.10
5	M	340	ALA	N-CA-CB	22.42	141.49	110.10
5	Y	340	ALA	N-CA-CB	22.40	141.46	110.10
5	G	340	ALA	N-CA-CB	22.32	141.35	110.10
5	S	340	ALA	N-CA-CB	22.31	141.34	110.10
1	K	276	ASP	O-C-N	21.70	157.42	122.70
1	A	276	ASP	O-C-N	21.70	157.42	122.70
1	E	276	ASP	O-C-N	21.69	157.40	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Q	276	ASP	O-C-N	21.69	157.40	122.70
1	B	276	ASP	O-C-N	21.68	157.38	122.70
1	W	276	ASP	O-C-N	21.67	157.38	122.70
4	L	449	SER	O-C-N	21.64	157.33	122.70
4	X	449	SER	O-C-N	21.64	157.32	122.70
4	F	449	SER	O-C-N	21.61	157.27	122.70
4	R	449	SER	O-C-N	21.58	157.23	122.70
4	L	399	SER	C-N-CA	-21.32	77.52	122.30
4	X	399	SER	C-N-CA	-21.31	77.55	122.30
4	F	399	SER	C-N-CA	-21.29	77.59	122.30
4	R	399	SER	C-N-CA	-21.29	77.60	122.30
4	R	400	GLY	O-C-N	21.04	156.37	122.70
4	X	400	GLY	O-C-N	21.03	156.35	122.70
4	F	400	GLY	O-C-N	21.02	156.33	122.70
4	L	400	GLY	O-C-N	21.00	156.31	122.70
4	R	422	ASN	C-N-CA	-20.44	70.61	121.70
4	F	422	ASN	C-N-CA	-20.43	70.62	121.70
4	L	422	ASN	C-N-CA	-20.43	70.61	121.70
4	X	422	ASN	C-N-CA	-20.41	70.67	121.70
4	X	402	ALA	N-CA-C	-20.40	55.91	111.00
4	R	402	ALA	N-CA-C	-20.38	55.97	111.00
4	L	402	ALA	N-CA-C	-20.38	55.98	111.00
4	F	402	ALA	N-CA-C	-20.38	55.99	111.00
4	L	448	ARG	CA-C-N	-20.34	72.46	117.20
4	X	448	ARG	CA-C-N	-20.34	72.46	117.20
4	F	448	ARG	CA-C-N	-20.33	72.47	117.20
4	R	448	ARG	CA-C-N	-20.33	72.48	117.20
5	M	338	GLU	O-C-N	19.89	154.52	122.70
5	S	338	GLU	O-C-N	19.87	154.50	122.70
4	L	450	GLU	C-N-CA	-19.83	72.12	121.70
5	G	338	GLU	O-C-N	19.83	154.43	122.70
5	Y	338	GLU	O-C-N	19.82	154.42	122.70
4	R	450	GLU	C-N-CA	-19.82	72.16	121.70
4	F	450	GLU	C-N-CA	-19.81	72.17	121.70
4	X	450	GLU	C-N-CA	-19.81	72.18	121.70
4	F	455	ILE	C-N-CA	-19.37	73.28	121.70
4	L	455	ILE	C-N-CA	-19.36	73.30	121.70
4	X	455	ILE	C-N-CA	-19.35	73.32	121.70
4	R	455	ILE	C-N-CA	-19.32	73.39	121.70
4	X	402	ALA	CB-CA-C	-18.85	81.82	110.10
4	F	402	ALA	CB-CA-C	-18.83	81.85	110.10
4	L	402	ALA	CB-CA-C	-18.83	81.85	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	R	402	ALA	CB-CA-C	-18.81	81.88	110.10
4	R	398	LYS	O-C-N	-18.72	92.74	122.70
4	F	398	LYS	O-C-N	-18.72	92.75	122.70
4	L	398	LYS	O-C-N	-18.71	92.76	122.70
4	X	398	LYS	O-C-N	-18.65	92.85	122.70
6	H	494	LEU	CA-C-N	-18.45	76.62	117.20
6	Z	494	LEU	CA-C-N	-18.44	76.64	117.20
6	T	494	LEU	CA-C-N	-18.41	76.69	117.20
6	N	494	LEU	CA-C-N	-18.39	76.74	117.20
1	K	276	ASP	CA-C-N	-18.34	76.84	117.20
1	A	276	ASP	CA-C-N	-18.34	76.85	117.20
1	B	276	ASP	CA-C-N	-18.33	76.87	117.20
1	Q	276	ASP	CA-C-N	-18.33	76.86	117.20
1	E	276	ASP	CA-C-N	-18.33	76.87	117.20
1	W	276	ASP	CA-C-N	-18.32	76.89	117.20
3	P	1519	SER	C-N-CA	-18.04	84.43	122.30
3	D	1519	SER	C-N-CA	-18.03	84.44	122.30
5	S	341	ALA	CA-C-O	-18.02	82.26	120.10
5	G	341	ALA	CA-C-O	-18.01	82.28	120.10
5	Y	341	ALA	CA-C-O	-18.00	82.30	120.10
5	M	341	ALA	CA-C-O	-17.97	82.36	120.10
4	L	457	ALA	N-CA-CB	-17.68	85.35	110.10
5	S	326	LEU	CA-C-O	-17.66	83.02	120.10
4	F	457	ALA	N-CA-CB	-17.64	85.40	110.10
5	M	326	LEU	CA-C-O	-17.64	83.06	120.10
4	R	457	ALA	N-CA-CB	-17.64	85.41	110.10
4	X	458	ASP	CA-C-N	-17.63	78.41	117.20
5	Y	326	LEU	CA-C-O	-17.63	83.07	120.10
5	G	326	LEU	CA-C-O	-17.63	83.08	120.10
4	L	458	ASP	CA-C-N	-17.62	78.43	117.20
4	R	458	ASP	CA-C-N	-17.62	78.44	117.20
4	F	458	ASP	CA-C-N	-17.61	78.45	117.20
4	X	457	ALA	N-CA-CB	-17.59	85.47	110.10
3	D	1508	LYS	C-N-CA	-17.52	77.91	121.70
3	P	1508	LYS	C-N-CA	-17.52	77.91	121.70
4	L	449	SER	CA-C-N	-17.22	79.31	117.20
4	X	449	SER	CA-C-N	-17.21	79.33	117.20
4	R	449	SER	CA-C-N	-17.20	79.36	117.20
4	F	449	SER	CA-C-N	-17.20	79.37	117.20
4	X	461	ARG	CB-CA-C	-17.11	76.19	110.40
4	L	453	TYR	CA-C-O	17.10	156.02	120.10
4	X	453	TYR	CA-C-O	17.10	156.02	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	F	453	TYR	CA-C-O	17.10	156.01	120.10
4	R	461	ARG	CB-CA-C	-17.10	76.21	110.40
4	R	453	TYR	CA-C-O	17.09	155.99	120.10
4	F	461	ARG	CB-CA-C	-17.09	76.22	110.40
4	L	461	ARG	CB-CA-C	-17.09	76.22	110.40
5	Y	379	HIS	CA-C-N	16.54	153.60	117.20
5	M	379	HIS	CA-C-N	16.54	153.58	117.20
5	G	379	HIS	CA-C-N	16.53	153.57	117.20
5	S	379	HIS	CA-C-N	16.52	153.55	117.20
5	S	326	LEU	CB-CA-C	-16.46	78.93	110.20
5	G	326	LEU	CB-CA-C	-16.45	78.95	110.20
5	M	326	LEU	CB-CA-C	-16.45	78.95	110.20
5	G	379	HIS	C-N-CA	16.44	162.81	121.70
5	Y	326	LEU	CB-CA-C	-16.44	78.97	110.20
5	Y	379	HIS	C-N-CA	16.44	162.79	121.70
5	M	379	HIS	C-N-CA	16.43	162.79	121.70
5	S	379	HIS	C-N-CA	16.43	162.76	121.70
4	R	454	TYR	N-CA-C	16.33	155.09	111.00
4	F	454	TYR	N-CA-C	16.33	155.09	111.00
4	X	454	TYR	N-CA-C	16.32	155.08	111.00
4	L	454	TYR	N-CA-C	16.31	155.05	111.00
4	L	448	ARG	O-C-N	-16.26	96.68	122.70
4	F	448	ARG	O-C-N	-16.26	96.69	122.70
4	R	448	ARG	O-C-N	-16.25	96.70	122.70
4	X	448	ARG	O-C-N	-16.22	96.74	122.70
4	F	457	ALA	CB-CA-C	16.01	134.12	110.10
4	R	457	ALA	CB-CA-C	16.01	134.12	110.10
4	X	457	ALA	CB-CA-C	16.00	134.10	110.10
4	L	457	ALA	CB-CA-C	15.99	134.08	110.10
4	F	454	TYR	N-CA-CB	-15.97	81.86	110.60
4	X	454	TYR	N-CA-CB	-15.96	81.88	110.60
4	L	454	TYR	N-CA-CB	-15.95	81.88	110.60
4	R	454	TYR	N-CA-CB	-15.95	81.90	110.60
5	M	342	PRO	O-C-N	15.90	148.14	122.70
5	G	342	PRO	O-C-N	15.87	148.09	122.70
5	Y	342	PRO	O-C-N	15.85	148.06	122.70
5	S	342	PRO	O-C-N	15.84	148.04	122.70
3	D	1506	VAL	C-N-CA	-15.70	82.46	121.70
3	P	1506	VAL	C-N-CA	-15.69	82.47	121.70
4	R	464	LYS	CB-CA-C	-15.66	79.08	110.40
3	D	1509	GLN	C-N-CA	-15.64	82.60	121.70
4	F	464	LYS	CB-CA-C	-15.64	79.13	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	L	464	LYS	CB-CA-C	-15.63	79.14	110.40
4	X	464	LYS	CB-CA-C	-15.63	79.14	110.40
3	P	1509	GLN	C-N-CA	-15.62	82.65	121.70
4	F	455	ILE	CA-C-O	15.54	152.74	120.10
4	L	455	ILE	CA-C-O	15.54	152.72	120.10
4	X	455	ILE	CA-C-O	15.53	152.72	120.10
4	R	455	ILE	CA-C-O	15.50	152.66	120.10
6	N	490	GLN	CB-CA-C	-15.44	79.51	110.40
6	H	490	GLN	CB-CA-C	-15.44	79.53	110.40
6	Z	490	GLN	CB-CA-C	-15.44	79.53	110.40
6	T	490	GLN	CB-CA-C	-15.42	79.55	110.40
5	M	340	ALA	O-C-N	-15.30	98.22	122.70
5	G	340	ALA	O-C-N	-15.26	98.28	122.70
6	H	411	GLU	O-C-N	-15.26	98.29	122.70
6	N	412	GLU	O-C-N	15.25	147.10	122.70
6	T	411	GLU	O-C-N	-15.24	98.32	122.70
6	H	412	GLU	O-C-N	15.23	147.07	122.70
6	T	412	GLU	O-C-N	15.23	147.07	122.70
6	Z	412	GLU	O-C-N	15.23	147.06	122.70
5	S	340	ALA	O-C-N	-15.22	98.35	122.70
5	Y	340	ALA	O-C-N	-15.22	98.35	122.70
6	Z	411	GLU	O-C-N	-15.21	98.37	122.70
6	N	411	GLU	O-C-N	-15.21	98.37	122.70
3	P	1519	SER	CA-C-N	-15.12	85.96	116.20
3	D	1519	SER	CA-C-N	-15.11	85.97	116.20
5	Y	328	THR	N-CA-CB	14.91	138.62	110.30
5	G	343	ALA	O-C-N	-14.89	98.88	122.70
5	G	328	THR	N-CA-CB	14.88	138.58	110.30
5	Y	343	ALA	O-C-N	-14.88	98.89	122.70
5	S	328	THR	N-CA-CB	14.88	138.58	110.30
5	M	328	THR	N-CA-CB	14.88	138.56	110.30
5	M	343	ALA	O-C-N	-14.87	98.91	122.70
5	S	343	ALA	O-C-N	-14.86	98.93	122.70
5	S	333	PRO	N-CA-CB	14.79	121.05	103.30
5	Y	333	PRO	N-CA-CB	14.76	121.01	103.30
5	G	333	PRO	N-CA-CB	14.76	121.01	103.30
5	M	333	PRO	N-CA-CB	14.71	120.96	103.30
5	S	326	LEU	O-C-N	14.63	146.11	122.70
5	M	326	LEU	O-C-N	14.58	146.03	122.70
5	G	326	LEU	O-C-N	14.58	146.02	122.70
5	Y	326	LEU	O-C-N	14.57	146.01	122.70
4	R	451	GLU	CA-C-N	-14.55	85.20	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	X	451	GLU	CA-C-N	-14.54	85.21	117.20
4	F	451	GLU	CA-C-N	-14.53	85.23	117.20
4	L	451	GLU	CA-C-N	-14.50	85.30	117.20
4	X	457	ALA	CA-C-N	-14.47	85.37	117.20
4	F	457	ALA	CA-C-N	-14.45	85.40	117.20
4	L	457	ALA	CA-C-N	-14.46	85.40	117.20
4	R	457	ALA	CA-C-N	-14.45	85.40	117.20
4	F	456	ASP	CB-CA-C	-14.44	81.52	110.40
4	L	456	ASP	CB-CA-C	-14.43	81.54	110.40
4	R	456	ASP	CB-CA-C	-14.43	81.55	110.40
4	X	456	ASP	CB-CA-C	-14.42	81.56	110.40
3	P	1546	LEU	C-N-CA	-14.32	85.89	121.70
3	D	1546	LEU	C-N-CA	-14.30	85.94	121.70
4	R	424	PRO	C-N-CA	-14.26	86.06	121.70
4	F	424	PRO	C-N-CA	-14.25	86.07	121.70
4	X	424	PRO	C-N-CA	-14.24	86.09	121.70
4	L	424	PRO	C-N-CA	-14.24	86.10	121.70
6	H	341	SER	N-CA-CB	14.12	131.68	110.50
6	Z	341	SER	N-CA-CB	14.12	131.68	110.50
6	N	341	SER	N-CA-CB	14.10	131.65	110.50
6	T	341	SER	N-CA-CB	14.08	131.62	110.50
3	P	1539	LEU	C-N-CA	-13.99	86.72	121.70
3	D	1539	LEU	C-N-CA	-13.96	86.80	121.70
5	Y	341	ALA	C-N-CA	-13.94	63.45	122.00
5	S	341	ALA	C-N-CA	-13.94	63.47	122.00
5	G	341	ALA	C-N-CA	-13.92	63.52	122.00
5	M	341	ALA	C-N-CA	-13.91	63.56	122.00
5	S	330	LYS	N-CA-CB	13.91	135.65	110.60
5	Y	330	LYS	N-CA-CB	13.91	135.65	110.60
5	G	330	LYS	N-CA-CB	13.90	135.62	110.60
5	M	342	PRO	CA-C-N	-13.89	86.65	117.20
5	G	342	PRO	CA-C-N	-13.88	86.67	117.20
5	M	330	LYS	N-CA-CB	13.87	135.56	110.60
5	Y	342	PRO	CA-C-N	-13.86	86.70	117.20
5	S	342	PRO	CA-C-N	-13.86	86.72	117.20
4	L	399	SER	CA-C-N	-13.79	88.63	116.20
4	R	399	SER	CA-C-N	-13.79	88.63	116.20
4	X	399	SER	CA-C-N	-13.78	88.64	116.20
4	F	399	SER	CA-C-N	-13.78	88.64	116.20
4	R	400	GLY	CA-C-O	-13.76	95.84	120.60
4	L	252	THR	CB-CA-C	-13.74	74.49	111.60
4	L	400	GLY	CA-C-O	-13.74	95.86	120.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	X	400	GLY	CA-C-O	-13.74	95.86	120.60
4	R	252	THR	CB-CA-C	-13.74	74.50	111.60
4	F	252	THR	CB-CA-C	-13.73	74.52	111.60
4	F	400	GLY	CA-C-O	-13.73	95.88	120.60
4	X	252	THR	CB-CA-C	-13.73	74.52	111.60
5	S	327	ARG	N-CA-CB	13.71	135.28	110.60
5	M	327	ARG	N-CA-CB	13.70	135.26	110.60
5	G	327	ARG	N-CA-CB	13.70	135.25	110.60
5	Y	327	ARG	N-CA-CB	13.68	135.23	110.60
4	F	448	ARG	CB-CA-C	-13.66	83.08	110.40
4	X	459	LEU	N-CA-CB	13.65	137.71	110.40
4	R	448	ARG	CB-CA-C	-13.65	83.11	110.40
4	L	448	ARG	CB-CA-C	-13.64	83.11	110.40
4	X	448	ARG	CB-CA-C	-13.64	83.11	110.40
4	R	459	LEU	N-CA-CB	13.63	137.66	110.40
6	N	446	ARG	CB-CA-C	13.61	137.63	110.40
4	L	459	LEU	N-CA-CB	13.61	137.62	110.40
4	F	459	LEU	N-CA-CB	13.60	137.60	110.40
6	T	446	ARG	CB-CA-C	13.59	137.58	110.40
6	H	446	ARG	CB-CA-C	13.58	137.57	110.40
6	Z	446	ARG	CB-CA-C	13.57	137.53	110.40
4	R	463	ILE	N-CA-CB	-13.39	80.01	110.80
4	L	463	ILE	N-CA-CB	-13.38	80.02	110.80
4	X	463	ILE	N-CA-CB	-13.37	80.04	110.80
4	F	463	ILE	N-CA-CB	-13.37	80.06	110.80
3	D	1449	TRP	O-C-N	-13.32	101.39	122.70
4	L	487	ASP	O-C-N	-13.29	101.44	122.70
4	R	487	ASP	O-C-N	-13.28	101.45	122.70
3	P	1449	TRP	O-C-N	-13.28	101.46	122.70
4	X	487	ASP	O-C-N	-13.28	101.46	122.70
4	F	487	ASP	O-C-N	-13.26	101.48	122.70
4	L	452	ARG	CA-C-O	13.15	147.72	120.10
4	R	452	ARG	CA-C-O	13.15	147.71	120.10
4	F	452	ARG	CA-C-O	13.13	147.67	120.10
4	X	452	ARG	CA-C-O	13.13	147.66	120.10
4	F	452	ARG	N-CA-CB	13.05	134.08	110.60
4	L	452	ARG	N-CA-CB	13.03	134.05	110.60
4	X	452	ARG	N-CA-CB	13.02	134.04	110.60
4	R	452	ARG	N-CA-CB	13.02	134.03	110.60
5	S	341	ALA	CA-C-N	-12.97	80.77	117.10
5	Y	341	ALA	CA-C-N	-12.97	80.79	117.10
5	G	341	ALA	CA-C-N	-12.96	80.81	117.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	M	341	ALA	CA-C-N	-12.96	80.82	117.10
6	Z	408	SER	C-N-CA	-12.91	67.77	122.00
6	N	408	SER	C-N-CA	-12.91	67.80	122.00
6	T	408	SER	C-N-CA	-12.91	67.80	122.00
3	D	1541	THR	C-N-CA	-12.90	67.81	122.00
3	P	1541	THR	C-N-CA	-12.90	67.82	122.00
6	H	408	SER	C-N-CA	-12.89	67.87	122.00
4	F	450	GLU	N-CA-C	-12.63	76.90	111.00
4	F	221	GLN	CB-CA-C	-12.62	85.15	110.40
4	L	221	GLN	CB-CA-C	-12.62	85.16	110.40
4	L	450	GLU	N-CA-C	-12.62	76.93	111.00
4	R	450	GLU	N-CA-C	-12.62	76.93	111.00
4	X	450	GLU	N-CA-C	-12.61	76.94	111.00
4	X	221	GLN	CB-CA-C	-12.61	85.17	110.40
4	R	221	GLN	CB-CA-C	-12.60	85.19	110.40
5	G	339	TYR	O-C-N	12.52	142.72	122.70
5	S	339	TYR	O-C-N	12.50	142.71	122.70
5	Y	339	TYR	O-C-N	12.50	142.69	122.70
5	M	339	TYR	O-C-N	12.49	142.69	122.70
4	L	400	GLY	C-N-CA	-12.49	90.48	121.70
4	X	400	GLY	C-N-CA	-12.49	90.47	121.70
4	R	400	GLY	C-N-CA	-12.49	90.48	121.70
4	F	400	GLY	C-N-CA	-12.48	90.51	121.70
4	L	401	TYR	O-C-N	-12.45	102.78	122.70
4	R	401	TYR	O-C-N	-12.42	102.82	122.70
4	X	453	TYR	N-CA-C	-12.38	77.59	111.00
4	F	401	TYR	O-C-N	-12.37	102.91	122.70
4	X	401	TYR	O-C-N	-12.37	102.91	122.70
4	L	453	TYR	N-CA-C	-12.37	77.61	111.00
4	F	453	TYR	N-CA-C	-12.37	77.62	111.00
4	R	453	TYR	N-CA-C	-12.35	77.64	111.00
3	P	1504	VAL	C-N-CA	-12.22	91.15	121.70
3	D	1504	VAL	C-N-CA	-12.22	91.16	121.70
5	M	343	ALA	CA-C-O	12.13	145.58	120.10
4	L	456	ASP	CA-C-O	12.13	145.58	120.10
4	R	456	ASP	CA-C-O	12.13	145.57	120.10
4	X	456	ASP	CA-C-O	12.13	145.58	120.10
4	F	456	ASP	CA-C-O	12.12	145.56	120.10
5	S	343	ALA	CA-C-O	12.12	145.55	120.10
5	Y	343	ALA	CA-C-O	12.11	145.54	120.10
5	G	343	ALA	CA-C-O	12.10	145.51	120.10
6	H	494	LEU	CA-C-O	12.05	145.41	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	T	494	LEU	CA-C-O	12.01	145.33	120.10
6	Z	494	LEU	CA-C-O	12.00	145.30	120.10
6	N	494	LEU	CA-C-O	11.98	145.27	120.10
3	D	1493	ARG	C-N-CA	-11.92	91.90	121.70
3	P	1493	ARG	C-N-CA	-11.92	91.90	121.70
4	F	452	ARG	CB-CA-C	-11.88	86.64	110.40
4	F	456	ASP	O-C-N	-11.88	103.70	122.70
4	L	452	ARG	CB-CA-C	-11.87	86.65	110.40
4	L	456	ASP	O-C-N	-11.87	103.71	122.70
3	D	1541	THR	CA-C-N	-11.86	83.89	117.10
4	R	452	ARG	CB-CA-C	-11.86	86.68	110.40
3	P	1541	THR	CA-C-N	-11.85	83.92	117.10
4	X	456	ASP	O-C-N	-11.85	103.74	122.70
4	X	452	ARG	CB-CA-C	-11.85	86.70	110.40
4	R	456	ASP	O-C-N	-11.84	103.75	122.70
4	R	493	HIS	N-CA-C	11.77	142.76	111.00
4	X	493	HIS	N-CA-C	11.76	142.76	111.00
4	L	493	HIS	N-CA-C	11.76	142.76	111.00
4	F	493	HIS	N-CA-C	11.76	142.75	111.00
4	L	293	ILE	CB-CA-C	-11.74	88.12	111.60
4	X	293	ILE	CB-CA-C	-11.73	88.15	111.60
4	F	293	ILE	CB-CA-C	-11.71	88.18	111.60
4	R	293	ILE	CB-CA-C	-11.71	88.18	111.60
6	N	467	THR	C-N-CA	11.68	150.89	121.70
3	P	1449	TRP	CA-C-O	11.67	144.61	120.10
4	X	455	ILE	CA-C-N	-11.67	91.53	117.20
6	T	467	THR	C-N-CA	11.66	150.84	121.70
6	H	467	THR	C-N-CA	11.65	150.83	121.70
4	L	455	ILE	CA-C-N	-11.65	91.57	117.20
3	D	1449	TRP	CA-C-O	11.64	144.56	120.10
4	F	455	ILE	CA-C-N	-11.64	91.58	117.20
6	Z	467	THR	C-N-CA	11.62	150.76	121.70
4	X	423	ALA	CA-C-N	-11.62	84.57	117.10
4	R	423	ALA	CA-C-N	-11.62	84.57	117.10
4	L	423	ALA	CA-C-N	-11.61	84.59	117.10
4	F	423	ALA	CA-C-N	-11.61	84.60	117.10
4	R	455	ILE	CA-C-N	-11.59	91.70	117.20
6	T	410	LEU	O-C-N	11.59	141.25	122.70
4	F	456	ASP	CA-C-N	-11.58	91.72	117.20
4	X	455	ILE	N-CA-C	11.58	142.26	111.00
3	P	1544	PRO	N-CA-C	11.58	142.20	112.10
4	L	455	ILE	N-CA-C	11.57	142.25	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	1544	PRO	N-CA-C	11.57	142.19	112.10
4	F	455	ILE	N-CA-C	11.57	142.24	111.00
4	R	455	ILE	N-CA-C	11.57	142.24	111.00
4	L	456	ASP	CA-C-N	-11.56	91.76	117.20
4	R	456	ASP	CA-C-N	-11.56	91.76	117.20
4	R	220	ASN	O-C-N	11.55	141.19	122.70
4	X	456	ASP	CA-C-N	-11.55	91.78	117.20
4	F	220	ASN	O-C-N	11.54	141.17	122.70
7	V	1473	LEU	C-N-CA	11.54	150.55	121.70
6	N	410	LEU	O-C-N	11.53	141.16	122.70
6	H	410	LEU	O-C-N	11.53	141.14	122.70
7	J	1473	LEU	C-N-CA	11.52	150.51	121.70
4	X	220	ASN	O-C-N	11.52	141.14	122.70
4	L	220	ASN	O-C-N	11.51	141.12	122.70
6	Z	410	LEU	CB-CA-C	11.50	132.05	110.20
6	Z	410	LEU	O-C-N	11.50	141.10	122.70
6	H	410	LEU	CB-CA-C	11.49	132.03	110.20
6	N	410	LEU	CB-CA-C	11.48	132.01	110.20
6	T	410	LEU	CB-CA-C	11.46	131.97	110.20
4	F	458	ASP	C-N-CA	-11.46	93.06	121.70
4	R	458	ASP	C-N-CA	-11.45	93.07	121.70
4	X	458	ASP	C-N-CA	-11.45	93.07	121.70
4	L	458	ASP	C-N-CA	-11.43	93.13	121.70
4	L	460	LEU	N-CA-CB	11.42	133.25	110.40
4	X	460	LEU	N-CA-CB	11.41	133.22	110.40
4	R	460	LEU	N-CA-CB	11.40	133.20	110.40
3	D	1518	ASN	CA-C-N	-11.39	92.13	117.20
5	M	339	TYR	C-N-CA	-11.39	93.23	121.70
4	F	460	LEU	N-CA-CB	11.39	133.17	110.40
3	P	1518	ASN	CA-C-N	-11.38	92.16	117.20
5	Y	334	GLY	C-N-CA	11.38	150.14	121.70
5	G	334	GLY	C-N-CA	11.37	150.13	121.70
5	Y	339	TYR	C-N-CA	-11.37	93.27	121.70
5	S	339	TYR	C-N-CA	-11.36	93.29	121.70
5	G	339	TYR	C-N-CA	-11.36	93.31	121.70
5	S	334	GLY	C-N-CA	11.36	150.09	121.70
5	M	334	GLY	C-N-CA	11.35	150.08	121.70
2	U	15	GLN	CB-CA-C	-11.35	87.70	110.40
2	O	15	GLN	CB-CA-C	-11.33	87.74	110.40
4	R	487	ASP	CB-CA-C	-11.33	87.75	110.40
2	C	15	GLN	CB-CA-C	-11.32	87.75	110.40
2	I	15	GLN	CB-CA-C	-11.32	87.75	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	L	487	ASP	CB-CA-C	-11.32	87.77	110.40
4	L	420	GLU	O-C-N	11.31	140.80	122.70
4	X	487	ASP	CB-CA-C	-11.31	87.78	110.40
4	F	487	ASP	CB-CA-C	-11.30	87.79	110.40
4	X	420	GLU	O-C-N	11.29	140.76	122.70
4	F	420	GLU	O-C-N	11.29	140.76	122.70
4	X	249	PRO	N-CA-CB	11.27	116.83	103.30
4	R	249	PRO	N-CA-CB	11.27	116.82	103.30
4	R	420	GLU	O-C-N	11.26	140.71	122.70
4	F	249	PRO	N-CA-CB	11.26	116.81	103.30
3	D	400	LEU	CB-CA-C	-11.25	88.82	110.20
3	D	1487	ASP	CA-C-N	-11.22	93.76	116.20
3	P	1487	ASP	CA-C-N	-11.22	93.77	116.20
3	P	400	LEU	CB-CA-C	-11.21	88.90	110.20
5	M	405	SER	CB-CA-C	11.19	131.37	110.10
4	L	249	PRO	N-CA-CB	11.19	116.73	103.30
6	H	373	THR	N-CA-CB	11.18	131.53	110.30
5	G	405	SER	CB-CA-C	11.17	131.33	110.10
5	S	405	SER	CB-CA-C	11.17	131.33	110.10
5	Y	405	SER	CB-CA-C	11.15	131.29	110.10
6	T	373	THR	N-CA-CB	11.15	131.48	110.30
3	P	1520	GLY	CA-C-N	-11.15	92.68	117.20
3	D	1520	GLY	CA-C-N	-11.14	92.69	117.20
6	N	373	THR	N-CA-CB	11.14	131.46	110.30
6	Z	373	THR	N-CA-CB	11.14	131.46	110.30
4	R	424	PRO	CA-C-N	-11.13	92.71	117.20
4	L	424	PRO	CA-C-N	-11.13	92.72	117.20
4	X	424	PRO	CA-C-N	-11.12	92.73	117.20
6	H	462	GLY	CA-C-N	11.12	141.66	117.20
4	L	450	GLU	O-C-N	11.11	140.48	122.70
6	T	462	GLY	CA-C-N	11.11	141.65	117.20
6	Z	462	GLY	CA-C-N	11.11	141.64	117.20
4	F	424	PRO	CA-C-N	-11.11	92.77	117.20
4	F	450	GLU	O-C-N	11.11	140.47	122.70
6	N	462	GLY	CA-C-N	11.10	141.62	117.20
4	R	460	LEU	CA-C-O	-11.10	96.79	120.10
4	R	450	GLU	O-C-N	11.09	140.44	122.70
5	M	327	ARG	CB-CA-C	-11.09	88.23	110.40
4	X	343	MET	N-CA-CB	11.09	130.56	110.60
4	F	460	LEU	CA-C-O	-11.09	96.82	120.10
5	S	327	ARG	CB-CA-C	-11.08	88.23	110.40
4	X	450	GLU	O-C-N	11.08	140.43	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	G	327	ARG	CB-CA-C	-11.08	88.24	110.40
4	R	343	MET	N-CA-CB	11.08	130.55	110.60
4	L	343	MET	N-CA-CB	11.08	130.54	110.60
4	X	460	LEU	CA-C-O	-11.08	96.83	120.10
5	Y	327	ARG	CB-CA-C	-11.08	88.25	110.40
4	L	486	GLU	N-CA-CB	11.06	130.52	110.60
4	L	243	TYR	N-CA-CB	11.06	130.51	110.60
4	F	343	MET	N-CA-CB	11.05	130.50	110.60
4	L	460	LEU	CA-C-O	-11.05	96.89	120.10
4	X	486	GLU	N-CA-CB	11.05	130.49	110.60
4	X	243	TYR	N-CA-CB	11.04	130.48	110.60
4	F	243	TYR	N-CA-CB	11.04	130.46	110.60
4	L	451	GLU	CA-C-O	11.03	143.26	120.10
4	X	451	GLU	CA-C-O	11.03	143.26	120.10
4	R	243	TYR	N-CA-CB	11.03	130.45	110.60
4	F	451	GLU	CA-C-O	11.02	143.24	120.10
4	R	486	GLU	N-CA-CB	11.02	130.43	110.60
4	R	451	GLU	CA-C-O	11.01	143.23	120.10
4	F	486	GLU	N-CA-CB	11.01	130.42	110.60
6	Z	494	LEU	C-N-CA	-11.00	94.20	121.70
6	H	494	LEU	C-N-CA	-10.99	94.22	121.70
6	N	494	LEU	C-N-CA	-10.98	94.24	121.70
6	T	494	LEU	C-N-CA	-10.98	94.24	121.70
3	P	1491	ILE	N-CA-C	10.96	140.59	111.00
3	D	1491	ILE	N-CA-C	10.96	140.59	111.00
4	R	420	GLU	CA-C-N	-10.93	93.15	117.20
4	F	235	ASP	C-N-CA	10.92	149.00	121.70
4	L	420	GLU	CA-C-N	-10.92	93.17	117.20
4	F	420	GLU	CA-C-N	-10.92	93.18	117.20
4	X	420	GLU	CA-C-N	-10.91	93.19	117.20
4	X	235	ASP	C-N-CA	10.90	148.96	121.70
4	R	235	ASP	C-N-CA	10.90	148.94	121.70
4	L	235	ASP	C-N-CA	10.89	148.92	121.70
4	R	328	VAL	CA-C-N	10.88	137.97	116.20
4	L	328	VAL	CA-C-N	10.87	137.93	116.20
4	X	328	VAL	CA-C-N	10.85	137.91	116.20
4	F	328	VAL	CA-C-N	10.84	137.88	116.20
4	X	423	ALA	C-N-CA	-10.84	76.49	122.00
4	R	423	ALA	C-N-CA	-10.83	76.50	122.00
4	F	423	ALA	C-N-CA	-10.83	76.51	122.00
4	L	423	ALA	C-N-CA	-10.83	76.51	122.00
5	G	379	HIS	O-C-N	-10.81	105.40	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	M	379	HIS	O-C-N	-10.81	105.40	122.70
5	Y	379	HIS	O-C-N	-10.80	105.42	122.70
2	U	6	PHE	CB-CA-C	10.80	132.00	110.40
5	S	379	HIS	O-C-N	-10.80	105.42	122.70
2	C	6	PHE	CB-CA-C	10.79	131.99	110.40
2	I	6	PHE	CB-CA-C	10.79	131.98	110.40
2	O	6	PHE	CB-CA-C	10.78	131.97	110.40
4	L	462	GLU	N-CA-CB	10.77	129.99	110.60
4	F	462	GLU	N-CA-CB	10.76	129.97	110.60
4	X	462	GLU	N-CA-CB	10.74	129.94	110.60
4	R	462	GLU	N-CA-CB	10.73	129.92	110.60
2	O	11	GLN	CB-CA-C	10.72	131.85	110.40
2	C	11	GLN	CB-CA-C	10.71	131.82	110.40
2	I	11	GLN	CB-CA-C	10.71	131.81	110.40
2	U	11	GLN	CB-CA-C	10.69	131.78	110.40
4	L	144	LEU	CB-CA-C	-10.69	89.89	110.20
4	R	144	LEU	CB-CA-C	-10.67	89.93	110.20
5	Y	378	SER	CA-C-N	10.66	140.66	117.20
4	F	144	LEU	CB-CA-C	-10.66	89.95	110.20
5	M	378	SER	CA-C-N	10.65	140.64	117.20
5	S	378	SER	CA-C-N	10.65	140.64	117.20
5	G	378	SER	CA-C-N	10.65	140.63	117.20
4	X	144	LEU	CB-CA-C	-10.65	89.97	110.20
2	U	7	GLY	CA-C-O	-10.60	101.52	120.60
2	I	7	GLY	CA-C-O	-10.59	101.54	120.60
2	C	7	GLY	CA-C-O	-10.56	101.59	120.60
2	O	7	GLY	CA-C-O	-10.55	101.62	120.60
4	X	208	GLN	N-CA-CB	10.54	129.57	110.60
4	L	208	GLN	N-CA-CB	10.54	129.57	110.60
6	Z	405	ASP	CB-CA-C	-10.54	89.33	110.40
6	N	405	ASP	CB-CA-C	-10.53	89.34	110.40
6	H	405	ASP	CB-CA-C	-10.52	89.37	110.40
6	T	405	ASP	CB-CA-C	-10.52	89.37	110.40
4	R	208	GLN	N-CA-CB	10.48	129.46	110.60
4	F	208	GLN	N-CA-CB	10.47	129.45	110.60
3	P	1508	LYS	CA-C-N	-10.46	94.18	117.20
5	Y	341	ALA	O-C-N	10.46	140.98	121.10
3	D	1508	LYS	CA-C-N	-10.46	94.19	117.20
4	L	466	HIS	C-N-CA	-10.46	95.56	121.70
4	X	448	ARG	CA-C-O	10.45	142.05	120.10
4	R	466	HIS	C-N-CA	-10.45	95.58	121.70
4	F	448	ARG	CA-C-O	10.44	142.03	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	M	341	ALA	O-C-N	10.44	140.94	121.10
4	F	466	HIS	C-N-CA	-10.44	95.60	121.70
4	X	466	HIS	C-N-CA	-10.43	95.62	121.70
5	G	341	ALA	O-C-N	10.43	140.91	121.10
4	R	448	ARG	CA-C-O	10.42	141.99	120.10
4	L	448	ARG	CA-C-O	10.42	141.98	120.10
6	Z	493	ALA	C-N-CA	10.42	147.75	121.70
6	N	493	ALA	C-N-CA	10.41	147.73	121.70
6	T	493	ALA	C-N-CA	10.40	147.71	121.70
6	H	493	ALA	C-N-CA	10.40	147.69	121.70
5	S	341	ALA	O-C-N	10.39	140.85	121.10
4	L	222	THR	C-N-CA	10.30	147.46	121.70
4	R	222	THR	C-N-CA	10.30	147.46	121.70
4	L	402	ALA	CA-C-O	10.30	141.73	120.10
4	F	222	THR	C-N-CA	10.29	147.42	121.70
4	X	222	THR	C-N-CA	10.29	147.42	121.70
4	X	402	ALA	CA-C-O	10.28	141.69	120.10
4	R	402	ALA	CA-C-O	10.25	141.63	120.10
4	X	484	ASP	C-N-CA	-10.25	96.07	121.70
4	F	402	ALA	CA-C-O	10.24	141.62	120.10
4	L	484	ASP	C-N-CA	-10.23	96.12	121.70
4	F	484	ASP	C-N-CA	-10.23	96.14	121.70
4	R	484	ASP	C-N-CA	-10.22	96.14	121.70
3	P	1541	THR	CA-C-O	10.21	141.54	120.10
3	D	1541	THR	CA-C-O	10.20	141.53	120.10
4	X	235	ASP	CA-C-N	10.17	139.57	117.20
4	F	235	ASP	CA-C-N	10.15	139.54	117.20
4	L	235	ASP	CA-C-N	10.15	139.53	117.20
6	Z	487	TRP	CA-C-N	-10.12	94.93	117.20
6	N	487	TRP	CA-C-N	-10.12	94.94	117.20
3	P	1486	CYS	C-N-CA	-10.11	96.43	121.70
3	D	1486	CYS	C-N-CA	-10.10	96.44	121.70
4	R	397	ARG	O-C-N	-10.10	106.54	122.70
4	R	235	ASP	CA-C-N	10.09	139.41	117.20
6	H	487	TRP	CA-C-N	-10.09	95.00	117.20
6	T	487	TRP	CA-C-N	-10.09	95.00	117.20
4	L	397	ARG	O-C-N	-10.08	106.58	122.70
1	K	259	SER	O-C-N	-10.07	106.59	122.70
4	X	397	ARG	O-C-N	-10.07	106.59	122.70
3	D	1520	GLY	O-C-N	10.07	138.81	122.70
3	P	1520	GLY	O-C-N	10.06	138.80	122.70
1	B	259	SER	O-C-N	-10.06	106.60	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	F	397	ARG	O-C-N	-10.06	106.60	122.70
4	R	320	GLU	C-N-CA	-10.06	96.55	121.70
1	E	259	SER	O-C-N	-10.06	106.61	122.70
4	F	320	GLU	C-N-CA	-10.05	96.58	121.70
4	X	320	GLU	C-N-CA	-10.05	96.58	121.70
1	W	259	SER	O-C-N	-10.05	106.62	122.70
1	Q	259	SER	O-C-N	-10.04	106.63	122.70
4	L	320	GLU	C-N-CA	-10.03	96.62	121.70
1	A	259	SER	O-C-N	-10.03	106.65	122.70
4	R	443	HIS	CA-C-O	10.02	141.13	120.10
4	X	305	ASP	CB-CA-C	10.01	130.42	110.40
5	G	330	LYS	O-C-N	-10.00	106.70	122.70
4	X	443	HIS	CA-C-O	10.00	141.10	120.10
5	S	330	LYS	O-C-N	-10.00	106.70	122.70
5	Y	330	LYS	O-C-N	-9.99	106.71	122.70
4	F	443	HIS	CA-C-O	9.99	141.08	120.10
4	L	443	HIS	CA-C-O	9.99	141.07	120.10
3	P	1513	LEU	C-N-CA	-9.99	96.74	121.70
3	D	1513	LEU	C-N-CA	-9.98	96.74	121.70
4	L	305	ASP	CB-CA-C	9.98	130.36	110.40
4	L	456	ASP	C-N-CA	-9.98	96.75	121.70
4	R	305	ASP	CB-CA-C	9.98	130.36	110.40
4	F	305	ASP	CB-CA-C	9.98	130.36	110.40
5	M	330	LYS	O-C-N	-9.98	106.73	122.70
4	F	456	ASP	C-N-CA	-9.97	96.78	121.70
4	R	456	ASP	C-N-CA	-9.96	96.80	121.70
4	X	456	ASP	C-N-CA	-9.96	96.80	121.70
4	X	399	SER	CA-C-O	9.95	140.99	120.10
4	F	399	SER	CA-C-O	9.94	140.97	120.10
4	L	399	SER	CA-C-O	9.93	140.96	120.10
4	R	399	SER	CA-C-O	9.93	140.94	120.10
6	T	490	GLN	C-N-CA	-9.91	96.93	121.70
4	R	328	VAL	C-N-CA	9.90	143.10	122.30
6	Z	490	GLN	C-N-CA	-9.90	96.94	121.70
6	N	490	GLN	C-N-CA	-9.90	96.95	121.70
6	H	490	GLN	C-N-CA	-9.89	96.97	121.70
4	X	328	VAL	C-N-CA	9.89	143.06	122.30
4	L	328	VAL	C-N-CA	9.88	143.05	122.30
4	F	328	VAL	C-N-CA	9.88	143.05	122.30
6	N	356	THR	N-CA-CB	9.85	129.02	110.30
6	H	356	THR	N-CA-CB	9.85	129.01	110.30
6	T	356	THR	N-CA-CB	9.85	129.01	110.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	Z	356	THR	N-CA-CB	9.84	128.99	110.30
6	H	409	PRO	N-CA-CB	9.83	115.10	103.30
6	Z	409	PRO	N-CA-CB	9.83	115.10	103.30
3	D	1510	GLN	CA-C-N	-9.82	95.59	117.20
6	T	409	PRO	N-CA-CB	9.82	115.08	103.30
3	P	1510	GLN	CA-C-N	-9.82	95.60	117.20
6	N	409	PRO	N-CA-CB	9.80	115.06	103.30
5	G	339	TYR	N-CA-CB	9.79	128.22	110.60
5	S	339	TYR	N-CA-CB	9.78	128.21	110.60
5	Y	339	TYR	N-CA-CB	9.78	128.21	110.60
4	R	395	ILE	O-C-N	-9.76	107.09	122.70
4	F	395	ILE	O-C-N	-9.75	107.10	122.70
5	M	339	TYR	N-CA-CB	9.75	128.15	110.60
4	L	395	ILE	O-C-N	-9.75	107.10	122.70
4	X	395	ILE	O-C-N	-9.74	107.11	122.70
4	L	235	ASP	N-CA-CB	-9.72	93.10	110.60
4	X	235	ASP	N-CA-CB	-9.72	93.11	110.60
3	D	1488	GLY	CA-C-N	-9.71	95.83	117.20
4	F	235	ASP	N-CA-CB	-9.71	93.12	110.60
3	P	1488	GLY	CA-C-N	-9.71	95.84	117.20
4	F	394	GLU	CB-CA-C	-9.70	91.00	110.40
4	R	235	ASP	N-CA-CB	-9.69	93.16	110.60
4	R	394	GLU	CB-CA-C	-9.69	91.02	110.40
4	X	394	GLU	CB-CA-C	-9.68	91.03	110.40
6	H	411	GLU	C-N-CA	9.68	145.90	121.70
6	N	411	GLU	C-N-CA	9.68	145.90	121.70
4	L	394	GLU	CB-CA-C	-9.68	91.05	110.40
6	T	411	GLU	C-N-CA	9.67	145.88	121.70
3	P	1511	GLN	O-C-N	9.67	138.17	122.70
5	Y	320	LYS	N-CA-C	9.67	137.10	111.00
5	M	320	LYS	N-CA-C	9.66	137.09	111.00
5	S	320	LYS	N-CA-C	9.66	137.08	111.00
6	Z	411	GLU	C-N-CA	9.66	145.84	121.70
5	G	320	LYS	N-CA-C	9.65	137.05	111.00
3	D	1511	GLN	O-C-N	9.64	138.13	122.70
6	Z	462	GLY	C-N-CA	9.61	145.72	121.70
4	R	487	ASP	N-CA-C	-9.61	85.06	111.00
4	F	487	ASP	N-CA-C	-9.61	85.07	111.00
4	X	487	ASP	N-CA-C	-9.60	85.07	111.00
6	H	462	GLY	C-N-CA	9.60	145.69	121.70
6	T	462	GLY	C-N-CA	9.60	145.69	121.70
6	N	462	GLY	C-N-CA	9.59	145.69	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	L	487	ASP	N-CA-C	-9.59	85.11	111.00
6	N	374	SER	CB-CA-C	-9.56	91.93	110.10
6	H	374	SER	CB-CA-C	-9.55	91.96	110.10
6	Z	374	SER	CB-CA-C	-9.54	91.97	110.10
5	G	339	TYR	CA-C-O	-9.53	100.09	120.10
6	T	374	SER	CB-CA-C	-9.53	92.00	110.10
3	D	1506	VAL	CA-C-N	-9.52	96.27	117.20
3	P	1511	GLN	CA-C-N	-9.51	96.28	117.20
3	P	1485	ALA	C-N-CA	-9.51	97.93	121.70
3	D	1485	ALA	C-N-CA	-9.51	97.94	121.70
3	D	1511	GLN	CA-C-N	-9.50	96.29	117.20
4	L	462	GLU	CB-CA-C	-9.49	91.41	110.40
5	S	339	TYR	CA-C-O	-9.49	100.17	120.10
4	F	462	GLU	CB-CA-C	-9.49	91.42	110.40
3	P	1506	VAL	CA-C-N	-9.49	96.32	117.20
5	M	339	TYR	CA-C-O	-9.48	100.19	120.10
5	Y	339	TYR	CA-C-O	-9.48	100.19	120.10
3	P	1484	ASP	O-C-N	9.47	137.85	122.70
4	R	462	GLU	CB-CA-C	-9.47	91.46	110.40
3	D	1484	ASP	O-C-N	9.46	137.84	122.70
4	X	462	GLU	CB-CA-C	-9.44	91.52	110.40
4	R	327	MET	CB-CA-C	-9.43	91.54	110.40
6	Z	405	ASP	N-CA-C	-9.43	85.55	111.00
4	X	398	LYS	C-N-CA	-9.43	98.13	121.70
6	N	405	ASP	N-CA-C	-9.43	85.55	111.00
6	T	405	ASP	N-CA-C	-9.42	85.56	111.00
4	X	327	MET	CB-CA-C	-9.42	91.56	110.40
4	F	327	MET	CB-CA-C	-9.41	91.57	110.40
4	L	327	MET	CB-CA-C	-9.41	91.58	110.40
4	L	367	THR	CA-C-N	9.41	137.91	117.20
4	F	367	THR	CA-C-N	9.41	137.90	117.20
6	H	405	ASP	N-CA-C	-9.41	85.60	111.00
4	X	367	THR	CA-C-N	9.41	137.90	117.20
4	F	398	LYS	C-N-CA	-9.40	98.19	121.70
4	R	398	LYS	C-N-CA	-9.40	98.19	121.70
4	X	221	GLN	N-CA-C	9.40	136.38	111.00
4	L	221	GLN	N-CA-C	9.39	136.36	111.00
4	R	367	THR	CA-C-N	9.39	137.86	117.20
4	L	398	LYS	C-N-CA	-9.38	98.24	121.70
4	F	423	ALA	N-CA-C	9.38	136.32	111.00
4	R	221	GLN	N-CA-C	9.38	136.32	111.00
3	P	1474	GLY	C-N-CA	-9.37	98.27	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	L	423	ALA	N-CA-C	9.37	136.29	111.00
4	F	221	GLN	N-CA-C	9.36	136.28	111.00
3	D	1474	GLY	C-N-CA	-9.36	98.29	121.70
4	X	210	VAL	CB-CA-C	9.36	129.19	111.40
4	R	210	VAL	CB-CA-C	9.35	129.17	111.40
4	X	423	ALA	N-CA-C	9.35	136.25	111.00
4	F	210	VAL	CB-CA-C	9.33	129.13	111.40
4	R	423	ALA	N-CA-C	9.33	136.19	111.00
4	X	419	GLY	CA-C-O	-9.33	103.81	120.60
4	L	210	VAL	CB-CA-C	9.32	129.10	111.40
4	R	402	ALA	CA-C-N	-9.31	96.71	117.20
4	X	402	ALA	CA-C-N	-9.31	96.71	117.20
5	Y	401	ALA	N-CA-CB	9.31	123.14	110.10
4	L	402	ALA	CA-C-N	-9.31	96.73	117.20
4	F	221	GLN	CA-C-O	-9.30	100.57	120.10
4	L	419	GLY	CA-C-O	-9.30	103.86	120.60
4	F	419	GLY	CA-C-O	-9.30	103.86	120.60
4	R	419	GLY	CA-C-O	-9.29	103.88	120.60
4	X	221	GLN	CA-C-O	-9.29	100.59	120.10
4	L	221	GLN	CA-C-O	-9.29	100.60	120.10
4	R	405	ALA	CB-CA-C	-9.29	96.17	110.10
4	F	402	ALA	CA-C-N	-9.28	96.78	117.20
4	R	221	GLN	CA-C-O	-9.28	100.60	120.10
5	S	401	ALA	N-CA-CB	9.28	123.09	110.10
4	F	405	ALA	CB-CA-C	-9.28	96.19	110.10
4	X	405	ALA	CB-CA-C	-9.27	96.20	110.10
5	M	401	ALA	N-CA-CB	9.26	123.06	110.10
5	G	401	ALA	N-CA-CB	9.25	123.05	110.10
4	L	405	ALA	CB-CA-C	-9.24	96.23	110.10
5	G	385	LEU	CB-CA-C	-9.21	92.71	110.20
5	M	385	LEU	CB-CA-C	-9.19	92.74	110.20
5	S	385	LEU	CB-CA-C	-9.17	92.77	110.20
5	Y	385	LEU	CB-CA-C	-9.17	92.78	110.20
6	H	412	GLU	CB-CA-C	-9.16	92.07	110.40
6	N	412	GLU	CB-CA-C	-9.15	92.11	110.40
6	Z	412	GLU	CB-CA-C	-9.14	92.11	110.40
6	T	412	GLU	CB-CA-C	-9.13	92.13	110.40
6	N	366	ILE	N-CA-CB	9.12	131.77	110.80
6	H	374	SER	N-CA-CB	-9.11	96.83	110.50
6	H	366	ILE	N-CA-CB	9.10	131.73	110.80
5	Y	379	HIS	CA-C-O	-9.10	100.99	120.10
6	N	374	SER	N-CA-CB	-9.10	96.86	110.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	Z	366	ILE	N-CA-CB	9.09	131.72	110.80
6	Z	374	SER	N-CA-CB	-9.09	96.86	110.50
6	T	366	ILE	N-CA-CB	9.09	131.70	110.80
5	M	379	HIS	CA-C-O	-9.09	101.02	120.10
7	V	1387	SER	N-CA-C	-9.09	86.47	111.00
5	S	379	HIS	CA-C-O	-9.08	101.03	120.10
5	G	379	HIS	CA-C-O	-9.08	101.03	120.10
7	J	1387	SER	N-CA-C	-9.07	86.51	111.00
5	Y	337	HIS	O-C-N	-9.04	108.23	122.70
4	F	303	GLY	N-CA-C	-9.03	90.53	113.10
5	S	337	HIS	O-C-N	-9.02	108.26	122.70
4	X	303	GLY	N-CA-C	-9.02	90.55	113.10
5	G	337	HIS	O-C-N	-9.02	108.28	122.70
2	I	5	GLY	O-C-N	-9.02	108.28	122.70
6	T	374	SER	N-CA-CB	-9.02	96.97	110.50
2	U	5	GLY	O-C-N	-9.02	108.27	122.70
5	M	337	HIS	O-C-N	-9.01	108.28	122.70
4	R	303	GLY	N-CA-C	-9.00	90.59	113.10
4	F	401	TYR	N-CA-CB	8.99	126.79	110.60
2	O	5	GLY	O-C-N	-8.99	108.31	122.70
4	X	486	GLU	O-C-N	8.99	137.09	122.70
2	C	5	GLY	O-C-N	-8.99	108.32	122.70
4	L	451	GLU	N-CA-C	8.98	135.26	111.00
4	R	451	GLU	N-CA-C	8.98	135.26	111.00
4	F	486	GLU	O-C-N	8.98	137.07	122.70
4	L	303	GLY	N-CA-C	-8.98	90.65	113.10
4	X	401	TYR	N-CA-CB	8.98	126.77	110.60
4	R	486	GLU	O-C-N	8.98	137.06	122.70
4	L	486	GLU	O-C-N	8.97	137.06	122.70
4	L	401	TYR	N-CA-CB	8.97	126.75	110.60
4	R	401	TYR	N-CA-CB	8.97	126.75	110.60
4	L	424	PRO	O-C-N	8.96	137.04	122.70
4	R	423	ALA	O-C-N	8.96	138.13	121.10
4	F	451	GLU	N-CA-C	8.95	135.17	111.00
6	Z	411	GLU	CA-C-O	-8.95	101.30	120.10
4	X	451	GLU	N-CA-C	8.95	135.17	111.00
5	M	347	ARG	C-N-CA	-8.94	99.35	121.70
6	T	411	GLU	CA-C-O	-8.94	101.33	120.10
6	N	411	GLU	CA-C-O	-8.94	101.33	120.10
5	S	347	ARG	C-N-CA	-8.94	99.36	121.70
5	G	347	ARG	C-N-CA	-8.93	99.37	121.70
4	F	305	ASP	N-CA-CB	8.93	126.67	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	L	305	ASP	N-CA-CB	8.93	126.67	110.60
4	X	424	PRO	O-C-N	8.93	136.99	122.70
5	Y	347	ARG	C-N-CA	-8.93	99.38	121.70
4	R	424	PRO	O-C-N	8.93	136.98	122.70
4	X	423	ALA	O-C-N	8.93	138.06	121.10
4	F	424	PRO	O-C-N	8.92	136.98	122.70
6	H	411	GLU	CA-C-O	-8.92	101.36	120.10
4	R	305	ASP	N-CA-CB	8.92	126.66	110.60
4	X	305	ASP	N-CA-CB	8.92	126.66	110.60
4	L	423	ALA	O-C-N	8.90	138.01	121.10
5	S	324	ILE	CB-CA-C	-8.90	93.80	111.60
3	P	1509	GLN	CA-C-N	-8.90	97.63	117.20
3	D	1509	GLN	CA-C-N	-8.89	97.63	117.20
5	M	324	ILE	CB-CA-C	-8.89	93.81	111.60
5	G	324	ILE	CB-CA-C	-8.89	93.82	111.60
2	I	5	GLY	N-CA-C	8.89	135.32	113.10
4	F	423	ALA	O-C-N	8.88	137.98	121.10
5	Y	324	ILE	CB-CA-C	-8.88	93.84	111.60
5	G	329	GLN	CA-C-O	-8.88	101.45	120.10
4	R	454	TYR	CA-C-N	-8.88	97.67	117.20
5	S	324	ILE	O-C-N	8.88	136.91	122.70
5	Y	329	GLN	CA-C-O	-8.88	101.46	120.10
2	C	5	GLY	N-CA-C	8.88	135.29	113.10
5	M	329	GLN	CA-C-O	-8.88	101.46	120.10
5	S	329	GLN	CA-C-O	-8.87	101.46	120.10
3	P	1511	GLN	C-N-CA	-8.87	99.52	121.70
3	D	1511	GLN	C-N-CA	-8.87	99.53	121.70
2	O	5	GLY	N-CA-C	8.87	135.27	113.10
4	F	454	TYR	CA-C-N	-8.86	97.70	117.20
2	U	5	GLY	N-CA-C	8.86	135.25	113.10
5	G	324	ILE	O-C-N	8.85	136.86	122.70
4	L	454	TYR	CA-C-N	-8.85	97.73	117.20
4	R	431	LEU	C-N-CA	-8.85	99.57	121.70
4	L	431	LEU	C-N-CA	-8.85	99.58	121.70
4	F	431	LEU	C-N-CA	-8.85	99.58	121.70
4	X	454	TYR	CA-C-N	-8.85	97.74	117.20
5	Y	324	ILE	O-C-N	8.84	136.84	122.70
5	M	324	ILE	O-C-N	8.84	136.84	122.70
4	X	431	LEU	C-N-CA	-8.83	99.62	121.70
4	X	493	HIS	N-CA-CB	-8.78	94.80	110.60
4	F	341	ASP	N-CA-CB	8.77	126.39	110.60
4	L	341	ASP	N-CA-CB	8.77	126.39	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	P	1542	PRO	CA-C-O	-8.77	99.16	120.20
3	D	1542	PRO	CA-C-O	-8.76	99.17	120.20
4	R	341	ASP	N-CA-CB	8.76	126.37	110.60
4	F	493	HIS	N-CA-CB	-8.76	94.83	110.60
4	X	341	ASP	N-CA-CB	8.76	126.36	110.60
4	L	493	HIS	N-CA-CB	-8.75	94.85	110.60
4	R	493	HIS	N-CA-CB	-8.75	94.85	110.60
4	L	425	THR	O-C-N	8.73	136.66	122.70
6	H	487	TRP	N-CA-C	8.71	134.52	111.00
4	F	220	ASN	CA-C-O	-8.71	101.81	120.10
4	L	220	ASN	CA-C-O	-8.70	101.82	120.10
6	Z	487	TRP	N-CA-C	8.70	134.50	111.00
4	F	425	THR	O-C-N	8.70	136.61	122.70
6	N	487	TRP	N-CA-C	8.69	134.46	111.00
4	R	425	THR	O-C-N	8.68	136.59	122.70
6	T	487	TRP	N-CA-C	8.68	134.43	111.00
4	X	220	ASN	CA-C-O	-8.68	101.88	120.10
4	R	220	ASN	CA-C-O	-8.67	101.89	120.10
4	X	425	THR	O-C-N	8.66	136.56	122.70
3	D	1510	GLN	C-N-CA	-8.65	100.07	121.70
3	P	1510	GLN	C-N-CA	-8.64	100.10	121.70
6	H	352	LEU	N-CA-CB	8.64	127.67	110.40
5	S	330	LYS	CB-CA-C	8.62	127.65	110.40
5	M	330	LYS	CB-CA-C	8.62	127.64	110.40
6	N	352	LEU	N-CA-CB	8.60	127.61	110.40
6	T	352	LEU	N-CA-CB	8.60	127.60	110.40
5	Y	330	LYS	CB-CA-C	8.59	127.59	110.40
5	G	330	LYS	CB-CA-C	8.59	127.58	110.40
3	D	1490	GLU	C-N-CA	-8.59	100.23	121.70
2	C	234	LEU	N-CA-C	-8.58	87.83	111.00
3	P	1490	GLU	C-N-CA	-8.58	100.24	121.70
2	I	234	LEU	N-CA-C	-8.58	87.83	111.00
2	U	234	LEU	N-CA-C	-8.58	87.83	111.00
2	O	234	LEU	N-CA-C	-8.58	87.84	111.00
6	Z	352	LEU	N-CA-CB	8.58	127.56	110.40
5	S	335	LEU	O-C-N	-8.56	109.01	122.70
2	C	15	GLN	N-CA-CB	8.54	125.98	110.60
3	D	1472	SER	CA-C-N	-8.54	98.40	117.20
2	O	28	HIS	CB-CA-C	8.54	127.48	110.40
2	U	28	HIS	CB-CA-C	8.54	127.48	110.40
2	O	15	GLN	N-CA-CB	8.54	125.97	110.60
3	P	1472	SER	CA-C-N	-8.54	98.41	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	28	HIS	CB-CA-C	8.54	127.47	110.40
2	I	28	HIS	CB-CA-C	8.53	127.47	110.40
2	I	15	GLN	N-CA-CB	8.53	125.96	110.60
5	Y	378	SER	C-N-CA	8.52	143.01	121.70
4	F	199	GLU	CA-C-N	-8.52	98.45	117.20
5	G	335	LEU	O-C-N	-8.52	109.06	122.70
5	M	335	LEU	O-C-N	-8.52	109.07	122.70
4	R	199	GLU	CA-C-N	-8.52	98.46	117.20
2	U	15	GLN	N-CA-CB	8.52	125.93	110.60
5	G	378	SER	C-N-CA	8.52	142.99	121.70
5	S	378	SER	C-N-CA	8.52	142.99	121.70
5	Y	335	LEU	O-C-N	-8.50	109.10	122.70
5	M	378	SER	C-N-CA	8.49	142.94	121.70
4	X	199	GLU	CA-C-N	-8.49	98.52	117.20
4	L	199	GLU	CA-C-N	-8.48	98.54	117.20
5	M	331	THR	CA-C-O	8.48	137.91	120.10
3	D	1519	SER	CA-C-O	8.47	137.90	120.10
3	D	1538	SER	C-N-CA	8.47	142.89	121.70
2	I	250	VAL	N-CA-CB	-8.47	92.86	111.50
2	C	250	VAL	N-CA-CB	-8.46	92.88	111.50
2	O	250	VAL	N-CA-CB	-8.46	92.89	111.50
3	P	1519	SER	CA-C-O	8.46	137.85	120.10
5	Y	331	THR	CA-C-O	8.46	137.86	120.10
2	U	250	VAL	N-CA-CB	-8.45	92.91	111.50
6	T	387	LYS	C-N-CA	-8.45	100.59	121.70
5	G	331	THR	CA-C-O	8.44	137.83	120.10
4	F	485	LEU	O-C-N	-8.43	109.21	122.70
6	N	387	LYS	C-N-CA	-8.43	100.62	121.70
3	P	1538	SER	C-N-CA	8.42	142.76	121.70
6	Z	497	ARG	CB-CA-C	8.42	127.25	110.40
5	S	331	THR	CA-C-O	8.42	137.78	120.10
6	H	387	LYS	C-N-CA	-8.41	100.67	121.70
4	X	485	LEU	O-C-N	-8.41	109.24	122.70
6	H	497	ARG	CB-CA-C	8.41	127.21	110.40
4	L	485	LEU	O-C-N	-8.41	109.25	122.70
4	R	485	LEU	O-C-N	-8.40	109.26	122.70
3	P	1506	VAL	CA-C-O	8.40	137.73	120.10
6	T	497	ARG	CB-CA-C	8.40	127.20	110.40
6	N	497	ARG	CB-CA-C	8.39	127.18	110.40
3	D	1506	VAL	CA-C-O	8.39	137.71	120.10
3	P	1450	GLU	C-N-CA	8.39	142.67	121.70
3	D	1450	GLU	C-N-CA	8.39	142.66	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	Z	387	LYS	C-N-CA	-8.39	100.73	121.70
2	C	382	ASN	C-N-CA	8.38	142.64	121.70
4	L	367	THR	C-N-CA	8.37	142.62	121.70
3	D	1520	GLY	C-N-CA	-8.37	100.79	121.70
4	R	367	THR	C-N-CA	8.37	142.61	121.70
4	F	367	THR	C-N-CA	8.36	142.61	121.70
2	U	382	ASN	C-N-CA	8.36	142.60	121.70
3	P	1492	GLY	C-N-CA	8.35	142.58	121.70
3	P	1520	GLY	C-N-CA	-8.35	100.81	121.70
6	N	412	GLU	CA-C-N	-8.35	98.83	117.20
2	O	382	ASN	C-N-CA	8.35	142.58	121.70
3	D	1492	GLY	C-N-CA	8.35	142.57	121.70
4	X	367	THR	C-N-CA	8.35	142.57	121.70
2	U	7	GLY	N-CA-C	-8.35	92.24	113.10
4	X	484	ASP	O-C-N	8.35	136.05	122.70
2	I	382	ASN	C-N-CA	8.34	142.56	121.70
4	F	222	THR	CB-CA-C	-8.34	89.09	111.60
2	O	7	GLY	N-CA-C	-8.34	92.26	113.10
2	I	7	GLY	N-CA-C	-8.34	92.26	113.10
6	Z	412	GLU	CA-C-N	-8.33	98.87	117.20
6	H	412	GLU	CA-C-N	-8.33	98.88	117.20
6	T	412	GLU	CA-C-N	-8.33	98.87	117.20
4	R	222	THR	CB-CA-C	-8.32	89.14	111.60
2	C	7	GLY	N-CA-C	-8.31	92.33	113.10
4	R	484	ASP	O-C-N	8.31	135.99	122.70
4	X	222	THR	CB-CA-C	-8.30	89.18	111.60
4	L	484	ASP	O-C-N	8.30	135.98	122.70
4	F	484	ASP	O-C-N	8.29	135.97	122.70
4	L	222	THR	CB-CA-C	-8.29	89.22	111.60
6	N	416	GLU	N-CA-CB	8.21	125.37	110.60
6	H	416	GLU	N-CA-CB	8.20	125.35	110.60
6	H	468	SER	N-CA-CB	8.19	122.78	110.50
6	T	416	GLU	N-CA-CB	8.18	125.33	110.60
6	Z	416	GLU	N-CA-CB	8.17	125.31	110.60
6	T	468	SER	N-CA-CB	8.17	122.75	110.50
3	P	1517	SER	C-N-CA	-8.17	101.28	121.70
3	D	1517	SER	C-N-CA	-8.16	101.29	121.70
6	N	468	SER	N-CA-CB	8.15	122.73	110.50
6	Z	468	SER	N-CA-CB	8.13	122.70	110.50
6	H	494	LEU	N-CA-C	8.13	132.95	111.00
6	Z	494	LEU	N-CA-C	8.12	132.93	111.00
6	N	494	LEU	N-CA-C	8.12	132.91	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	T	494	LEU	N-CA-C	8.11	132.89	111.00
3	D	1507	ASP	CA-C-O	-8.10	103.08	120.10
3	P	1507	ASP	CA-C-O	-8.10	103.09	120.10
4	R	443	HIS	O-C-N	-8.06	109.80	122.70
6	H	408	SER	N-CA-C	8.06	132.76	111.00
6	Z	408	SER	N-CA-C	8.05	132.74	111.00
6	T	408	SER	N-CA-C	8.04	132.72	111.00
4	X	443	HIS	O-C-N	-8.04	109.83	122.70
3	P	1488	GLY	CA-C-O	8.04	135.07	120.60
3	P	1545	PRO	C-N-CA	8.04	141.79	121.70
4	L	427	PHE	C-N-CA	-8.03	101.62	121.70
3	P	1510	GLN	N-CA-C	8.03	132.69	111.00
4	F	443	HIS	O-C-N	-8.03	109.86	122.70
3	D	1510	GLN	N-CA-C	8.03	132.67	111.00
3	D	1545	PRO	C-N-CA	8.02	141.76	121.70
4	F	427	PHE	C-N-CA	-8.02	101.64	121.70
6	T	473	GLN	CB-CA-C	-8.02	94.35	110.40
3	D	1488	GLY	CA-C-O	8.02	135.04	120.60
3	D	1487	ASP	N-CA-C	8.02	132.64	111.00
6	H	473	GLN	CB-CA-C	-8.02	94.37	110.40
3	P	1489	HIS	CA-C-O	-8.02	103.27	120.10
3	D	1489	HIS	N-CA-CB	-8.01	96.17	110.60
3	D	1489	HIS	CA-C-O	-8.01	103.27	120.10
6	N	408	SER	N-CA-C	8.01	132.63	111.00
4	R	427	PHE	C-N-CA	-8.01	101.67	121.70
6	Z	473	GLN	CB-CA-C	-8.01	94.38	110.40
3	P	1489	HIS	N-CA-CB	-8.01	96.19	110.60
4	L	443	HIS	O-C-N	-8.00	109.89	122.70
6	N	473	GLN	CB-CA-C	-8.00	94.39	110.40
5	S	331	THR	CB-CA-C	8.00	133.21	111.60
4	R	252	THR	N-CA-CB	8.00	125.50	110.30
4	X	427	PHE	C-N-CA	-8.00	101.70	121.70
6	N	411	GLU	CA-C-N	8.00	134.80	117.20
3	P	1487	ASP	N-CA-C	8.00	132.60	111.00
5	G	331	THR	CB-CA-C	7.99	133.19	111.60
6	T	411	GLU	CA-C-N	7.99	134.78	117.20
5	M	331	THR	CB-CA-C	7.99	133.16	111.60
5	Y	328	THR	C-N-CA	7.99	141.66	121.70
4	X	252	THR	N-CA-CB	7.98	125.47	110.30
6	Z	411	GLU	CA-C-N	7.98	134.76	117.20
4	L	252	THR	N-CA-CB	7.98	125.46	110.30
4	X	493	HIS	CA-C-O	-7.98	103.35	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	H	411	GLU	CA-C-N	7.97	134.74	117.20
4	L	221	GLN	C-N-CA	7.97	141.63	121.70
5	Y	331	THR	CB-CA-C	7.97	133.12	111.60
4	F	221	GLN	C-N-CA	7.96	141.60	121.70
4	X	221	GLN	C-N-CA	7.96	141.60	121.70
5	G	328	THR	C-N-CA	7.95	141.58	121.70
1	Q	259	SER	C-N-CA	7.95	141.58	121.70
4	R	221	GLN	C-N-CA	7.95	141.57	121.70
5	S	328	THR	C-N-CA	7.94	141.56	121.70
4	F	252	THR	N-CA-CB	7.94	125.39	110.30
4	R	493	HIS	CA-C-O	-7.94	103.42	120.10
1	B	259	SER	C-N-CA	7.94	141.55	121.70
5	M	328	THR	C-N-CA	7.94	141.55	121.70
1	W	259	SER	C-N-CA	7.94	141.55	121.70
1	K	259	SER	C-N-CA	7.94	141.54	121.70
1	E	259	SER	C-N-CA	7.94	141.54	121.70
1	A	259	SER	C-N-CA	7.93	141.54	121.70
6	Z	381	LYS	N-CA-CB	-7.93	96.32	110.60
6	N	381	LYS	N-CA-CB	-7.93	96.32	110.60
4	X	439	ARG	N-CA-CB	7.93	124.88	110.60
6	H	381	LYS	N-CA-CB	-7.93	96.33	110.60
4	F	439	ARG	N-CA-CB	7.92	124.86	110.60
4	R	439	ARG	N-CA-CB	7.92	124.86	110.60
6	T	381	LYS	N-CA-CB	-7.92	96.35	110.60
4	X	485	LEU	N-CA-CB	-7.91	94.57	110.40
4	L	493	HIS	CA-C-O	-7.91	103.49	120.10
5	S	338	GLU	CA-C-N	7.91	134.59	117.20
5	Y	338	GLU	CA-C-N	7.89	134.57	117.20
4	F	485	LEU	N-CA-CB	-7.89	94.63	110.40
4	F	493	HIS	CA-C-O	-7.88	103.54	120.10
4	L	439	ARG	N-CA-CB	7.88	124.79	110.60
5	G	338	GLU	CA-C-N	7.88	134.53	117.20
4	L	426	GLN	O-C-N	7.87	135.29	122.70
4	R	485	LEU	N-CA-CB	-7.87	94.66	110.40
4	L	485	LEU	N-CA-CB	-7.87	94.66	110.40
5	M	338	GLU	CA-C-N	7.87	134.51	117.20
2	C	455	VAL	N-CA-C	-7.87	89.76	111.00
6	N	462	GLY	N-CA-C	7.86	132.75	113.10
4	L	425	THR	CA-C-N	-7.86	99.91	117.20
4	R	425	THR	CA-C-N	-7.86	99.91	117.20
4	X	426	GLN	O-C-N	7.86	135.27	122.70
2	I	455	VAL	N-CA-C	-7.84	89.82	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	O	455	VAL	N-CA-C	-7.84	89.82	111.00
4	F	433	GLU	CB-CA-C	-7.84	94.72	110.40
2	U	455	VAL	N-CA-C	-7.84	89.83	111.00
6	H	462	GLY	N-CA-C	7.84	132.69	113.10
5	G	326	LEU	C-N-CA	-7.83	102.12	121.70
4	X	433	GLU	CB-CA-C	-7.83	94.73	110.40
6	Z	462	GLY	N-CA-C	7.83	132.68	113.10
6	T	462	GLY	N-CA-C	7.83	132.68	113.10
4	X	425	THR	CA-C-N	-7.83	99.97	117.20
5	Y	326	LEU	C-N-CA	-7.83	102.13	121.70
3	D	1518	ASN	C-N-CA	-7.83	102.13	121.70
4	F	425	THR	CA-C-N	-7.83	99.98	117.20
5	G	366	GLU	CB-CA-C	-7.82	94.75	110.40
4	L	433	GLU	CB-CA-C	-7.82	94.75	110.40
4	F	426	GLN	O-C-N	7.82	135.21	122.70
5	M	326	LEU	C-N-CA	-7.82	102.15	121.70
3	P	1518	ASN	C-N-CA	-7.82	102.15	121.70
5	S	326	LEU	C-N-CA	-7.81	102.17	121.70
4	R	426	GLN	O-C-N	7.80	135.19	122.70
5	Y	366	GLU	CB-CA-C	-7.80	94.79	110.40
4	R	433	GLU	CB-CA-C	-7.80	94.80	110.40
5	M	366	GLU	CB-CA-C	-7.78	94.84	110.40
3	D	1449	TRP	C-N-CA	7.78	141.14	121.70
3	P	1449	TRP	C-N-CA	7.78	141.14	121.70
5	S	366	GLU	CB-CA-C	-7.77	94.85	110.40
5	S	324	ILE	CA-C-N	-7.77	100.11	117.20
5	Y	324	ILE	CA-C-N	-7.77	100.11	117.20
5	G	324	ILE	CA-C-N	-7.76	100.12	117.20
5	M	324	ILE	CA-C-N	-7.73	100.19	117.20
4	L	436	SER	CA-C-O	7.73	136.32	120.10
5	S	342	PRO	C-N-CA	-7.72	102.39	121.70
5	M	342	PRO	C-N-CA	-7.71	102.42	121.70
5	G	342	PRO	C-N-CA	-7.71	102.43	121.70
4	F	436	SER	CA-C-O	7.71	136.28	120.10
5	Y	342	PRO	C-N-CA	-7.70	102.45	121.70
4	L	482	LYS	N-CA-CB	7.70	124.45	110.60
4	F	482	LYS	N-CA-CB	7.70	124.45	110.60
4	X	436	SER	CA-C-O	7.69	136.25	120.10
4	R	422	ASN	CA-C-N	-7.68	100.31	117.20
4	L	422	ASN	CA-C-N	-7.67	100.32	117.20
4	R	436	SER	CA-C-O	7.67	136.22	120.10
4	X	482	LYS	N-CA-CB	7.67	124.42	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	R	482	LYS	N-CA-CB	7.67	124.41	110.60
4	F	422	ASN	CA-C-N	-7.66	100.35	117.20
4	L	211	GLU	CA-C-N	-7.65	100.36	117.20
4	X	422	ASN	CA-C-N	-7.65	100.36	117.20
4	X	211	GLU	CA-C-N	-7.64	100.38	117.20
6	Z	487	TRP	C-N-CA	-7.62	102.64	121.70
6	N	487	TRP	C-N-CA	-7.62	102.65	121.70
4	R	320	GLU	CB-CA-C	7.62	125.63	110.40
4	F	320	GLU	CB-CA-C	7.61	125.62	110.40
4	F	211	GLU	CA-C-N	-7.61	100.47	117.20
6	T	410	LEU	CA-C-O	-7.61	104.12	120.10
4	R	211	GLU	CA-C-N	-7.59	100.50	117.20
4	R	457	ALA	CA-C-O	-7.59	104.16	120.10
4	L	211	GLU	N-CA-C	7.58	131.48	111.00
5	S	331	THR	N-CA-CB	-7.58	95.89	110.30
4	X	320	GLU	CB-CA-C	7.58	125.57	110.40
4	X	457	ALA	CA-C-O	-7.58	104.17	120.10
6	H	487	TRP	C-N-CA	-7.58	102.75	121.70
6	T	487	TRP	C-N-CA	-7.58	102.75	121.70
4	L	448	ARG	N-CA-C	7.58	131.46	111.00
4	L	457	ALA	CA-C-O	-7.58	104.19	120.10
4	F	448	ARG	N-CA-C	7.58	131.46	111.00
3	P	1542	PRO	CA-C-N	7.58	133.87	117.20
4	R	448	ARG	N-CA-C	7.57	131.45	111.00
4	F	211	GLU	N-CA-C	7.57	131.45	111.00
4	X	211	GLU	N-CA-C	7.57	131.44	111.00
6	H	410	LEU	CA-C-O	-7.57	104.20	120.10
6	Z	410	LEU	CA-C-O	-7.57	104.20	120.10
4	L	320	GLU	CB-CA-C	7.57	125.53	110.40
6	N	410	LEU	CA-C-O	-7.57	104.21	120.10
5	Y	331	THR	N-CA-CB	-7.57	95.93	110.30
5	G	333	PRO	CB-CA-C	-7.56	93.09	112.00
5	M	333	PRO	CB-CA-C	-7.56	93.10	112.00
4	F	457	ALA	CA-C-O	-7.56	104.23	120.10
4	R	211	GLU	N-CA-C	7.55	131.39	111.00
4	X	448	ARG	N-CA-C	7.55	131.39	111.00
5	S	333	PRO	CB-CA-C	-7.55	93.13	112.00
5	Y	333	PRO	CB-CA-C	-7.55	93.13	112.00
3	D	1542	PRO	CA-C-N	7.54	133.79	117.20
3	D	1510	GLN	O-C-N	7.54	134.76	122.70
5	G	331	THR	N-CA-CB	-7.54	95.98	110.30
5	M	331	THR	N-CA-CB	-7.54	95.98	110.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	Z	384	LEU	N-CA-C	-7.54	90.65	111.00
6	N	384	LEU	N-CA-C	-7.54	90.66	111.00
3	P	1510	GLN	O-C-N	7.53	134.75	122.70
6	Z	462	GLY	CA-C-O	-7.53	107.05	120.60
6	T	384	LEU	N-CA-C	-7.52	90.69	111.00
6	H	462	GLY	CA-C-O	-7.52	107.07	120.60
6	T	462	GLY	CA-C-O	-7.52	107.06	120.60
6	H	384	LEU	N-CA-C	-7.51	90.71	111.00
6	Z	409	PRO	CB-CA-C	-7.51	93.21	112.00
5	M	253	GLN	CA-C-N	-7.51	100.68	117.20
6	H	409	PRO	CB-CA-C	-7.51	93.23	112.00
6	N	409	PRO	CB-CA-C	-7.51	93.23	112.00
6	N	487	TRP	O-C-N	7.50	134.70	122.70
6	T	409	PRO	CB-CA-C	-7.50	93.25	112.00
6	N	462	GLY	CA-C-O	-7.50	107.10	120.60
5	G	253	GLN	CA-C-N	-7.48	100.74	117.20
5	S	253	GLN	CA-C-N	-7.48	100.74	117.20
5	Y	253	GLN	CA-C-N	-7.47	100.76	117.20
6	T	487	TRP	O-C-N	7.46	134.64	122.70
6	Z	487	TRP	O-C-N	7.45	134.62	122.70
3	D	1487	ASP	CA-C-O	7.45	135.74	120.10
3	P	1487	ASP	CA-C-O	7.45	135.73	120.10
5	M	406	ILE	CB-CA-C	-7.44	96.72	111.60
4	R	398	LYS	N-CA-CB	7.43	123.98	110.60
4	X	398	LYS	N-CA-CB	7.42	123.96	110.60
6	H	487	TRP	O-C-N	7.41	134.56	122.70
4	L	398	LYS	N-CA-CB	7.41	123.93	110.60
4	F	398	LYS	N-CA-CB	7.40	123.93	110.60
5	G	406	ILE	CB-CA-C	-7.40	96.79	111.60
4	R	394	GLU	O-C-N	-7.40	110.86	122.70
2	U	454	THR	C-N-CA	7.40	140.21	121.70
6	Z	494	LEU	O-C-N	7.40	134.54	122.70
5	S	406	ILE	CB-CA-C	-7.39	96.81	111.60
2	I	454	THR	C-N-CA	7.39	140.17	121.70
2	O	454	THR	C-N-CA	7.39	140.17	121.70
4	X	394	GLU	O-C-N	-7.39	110.88	122.70
2	C	454	THR	C-N-CA	7.38	140.14	121.70
4	L	215	LYS	CB-CA-C	-7.37	95.66	110.40
6	H	418	SER	CB-CA-C	7.37	124.10	110.10
4	L	394	GLU	O-C-N	-7.37	110.91	122.70
6	N	494	LEU	O-C-N	7.36	134.48	122.70
4	X	215	LYS	CB-CA-C	-7.36	95.67	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	F	399	SER	N-CA-CB	-7.36	99.46	110.50
6	N	418	SER	CB-CA-C	7.36	124.09	110.10
4	R	399	SER	N-CA-CB	-7.36	99.47	110.50
5	Y	406	ILE	CB-CA-C	-7.36	96.89	111.60
6	Z	418	SER	CB-CA-C	7.35	124.07	110.10
6	T	494	LEU	O-C-N	7.35	134.46	122.70
6	T	418	SER	CB-CA-C	7.34	124.05	110.10
4	F	215	LYS	CB-CA-C	-7.34	95.72	110.40
4	F	394	GLU	O-C-N	-7.34	110.96	122.70
4	L	399	SER	N-CA-CB	-7.33	99.50	110.50
4	R	215	LYS	CB-CA-C	-7.33	95.73	110.40
4	X	399	SER	N-CA-CB	-7.33	99.50	110.50
6	Z	408	SER	CB-CA-C	-7.33	96.18	110.10
6	H	494	LEU	O-C-N	7.33	134.42	122.70
5	Y	393	TYR	CA-C-O	-7.33	104.71	120.10
6	H	408	SER	CB-CA-C	-7.32	96.19	110.10
3	P	1546	LEU	CA-C-N	-7.31	101.11	117.20
6	T	408	SER	CB-CA-C	-7.31	96.21	110.10
4	X	487	ASP	C-N-CA	7.31	139.97	121.70
5	G	393	TYR	CA-C-O	-7.30	104.76	120.10
4	R	487	ASP	C-N-CA	7.30	139.96	121.70
5	S	393	TYR	CA-C-O	-7.30	104.76	120.10
4	L	487	ASP	C-N-CA	7.30	139.94	121.70
6	N	338	ASN	CB-CA-C	-7.30	95.81	110.40
4	F	487	ASP	C-N-CA	7.29	139.94	121.70
6	Z	338	ASN	CB-CA-C	-7.29	95.82	110.40
6	T	477	ILE	CB-CA-C	7.29	126.18	111.60
6	N	408	SER	CB-CA-C	-7.29	96.25	110.10
5	M	344	ASP	CB-CA-C	7.29	124.97	110.40
4	X	454	TYR	O-C-N	7.28	134.35	122.70
3	D	1546	LEU	CA-C-N	-7.28	101.18	117.20
6	Z	477	ILE	CB-CA-C	7.28	126.16	111.60
3	P	1487	ASP	C-N-CA	-7.28	107.01	122.30
2	C	4	GLU	C-N-CA	-7.28	107.02	122.30
6	H	477	ILE	CB-CA-C	7.28	126.16	111.60
6	T	338	ASN	CB-CA-C	-7.28	95.85	110.40
6	N	477	ILE	CB-CA-C	7.28	126.15	111.60
6	H	338	ASN	CB-CA-C	-7.27	95.85	110.40
3	D	1487	ASP	C-N-CA	-7.27	107.03	122.30
2	I	4	GLU	C-N-CA	-7.27	107.03	122.30
5	M	296	LEU	CB-CA-C	-7.27	96.38	110.20
2	O	4	GLU	C-N-CA	-7.27	107.03	122.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	M	393	TYR	CA-C-O	-7.27	104.83	120.10
4	R	454	TYR	O-C-N	7.27	134.33	122.70
3	P	1512	TRP	CA-C-O	-7.27	104.84	120.10
2	U	4	GLU	C-N-CA	-7.26	107.05	122.30
6	Z	406	LEU	O-C-N	-7.26	111.09	122.70
4	F	467	LEU	CA-C-O	-7.26	104.86	120.10
5	G	344	ASP	CB-CA-C	7.26	124.91	110.40
5	S	344	ASP	CB-CA-C	7.25	124.91	110.40
3	D	878	PRO	C-N-CA	7.25	139.82	121.70
3	P	1473	TYR	C-N-CA	7.25	137.52	122.30
5	Y	344	ASP	CB-CA-C	7.25	124.89	110.40
4	F	454	TYR	O-C-N	7.25	134.29	122.70
3	D	1512	TRP	CA-C-O	-7.24	104.89	120.10
5	Y	296	LEU	CB-CA-C	-7.24	96.44	110.20
5	S	296	LEU	CB-CA-C	-7.24	96.44	110.20
3	P	878	PRO	C-N-CA	7.24	139.80	121.70
4	X	467	LEU	CA-C-O	-7.24	104.90	120.10
5	G	296	LEU	CB-CA-C	-7.23	96.46	110.20
6	T	406	LEU	O-C-N	-7.23	111.13	122.70
4	L	454	TYR	O-C-N	7.22	134.26	122.70
6	N	406	LEU	O-C-N	-7.22	111.14	122.70
3	D	1473	TYR	C-N-CA	7.21	137.44	122.30
6	H	406	LEU	O-C-N	-7.21	111.17	122.70
6	H	462	GLY	O-C-N	-7.20	111.18	122.70
4	L	235	ASP	CA-C-O	-7.20	104.98	120.10
4	L	467	LEU	CA-C-O	-7.20	104.98	120.10
4	F	460	LEU	O-C-N	7.20	134.22	122.70
4	R	460	LEU	O-C-N	7.20	134.22	122.70
6	N	462	GLY	O-C-N	-7.20	111.18	122.70
6	T	462	GLY	O-C-N	-7.19	111.19	122.70
4	X	235	ASP	CA-C-O	-7.19	104.99	120.10
4	R	341	ASP	CB-CA-C	7.19	124.78	110.40
4	R	467	LEU	CA-C-O	-7.19	105.00	120.10
4	L	464	LYS	O-C-N	7.18	134.19	122.70
6	Z	462	GLY	O-C-N	-7.18	111.21	122.70
4	F	475	SER	N-CA-CB	7.18	121.27	110.50
4	X	460	LEU	O-C-N	7.18	134.19	122.70
4	L	341	ASP	CB-CA-C	7.17	124.75	110.40
4	R	475	SER	N-CA-CB	7.17	121.26	110.50
4	L	460	LEU	O-C-N	7.17	134.17	122.70
4	X	475	SER	N-CA-CB	7.17	121.25	110.50
4	F	235	ASP	CA-C-O	-7.16	105.06	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	F	341	ASP	CB-CA-C	7.16	124.72	110.40
4	L	475	SER	N-CA-CB	7.15	121.23	110.50
6	Z	394	ASP	C-N-CA	-7.14	103.84	121.70
4	R	235	ASP	CA-C-O	-7.14	105.11	120.10
4	R	464	LYS	O-C-N	7.14	134.12	122.70
4	X	341	ASP	CB-CA-C	7.14	124.68	110.40
4	X	464	LYS	O-C-N	7.13	134.12	122.70
4	R	452	ARG	N-CA-C	7.13	130.26	111.00
4	R	492	GLU	N-CA-CB	7.13	123.44	110.60
4	F	464	LYS	O-C-N	7.13	134.11	122.70
7	V	157	GLU	N-CA-CB	7.13	123.43	110.60
4	F	452	ARG	N-CA-C	7.12	130.23	111.00
4	X	492	GLU	N-CA-CB	7.12	123.42	110.60
7	J	157	GLU	N-CA-CB	7.12	123.42	110.60
4	L	398	LYS	CB-CA-C	-7.12	96.16	110.40
4	F	492	GLU	N-CA-CB	7.12	123.41	110.60
6	H	394	ASP	C-N-CA	-7.12	103.91	121.70
4	L	452	ARG	N-CA-C	7.12	130.21	111.00
6	N	394	ASP	C-N-CA	-7.11	103.92	121.70
6	N	407	LEU	CB-CA-C	-7.11	96.68	110.20
6	H	407	LEU	CB-CA-C	-7.11	96.69	110.20
6	Z	407	LEU	CB-CA-C	-7.11	96.69	110.20
4	F	398	LYS	CB-CA-C	-7.11	96.19	110.40
4	L	427	PHE	O-C-N	7.11	134.07	122.70
4	X	452	ARG	N-CA-C	7.11	130.19	111.00
4	L	492	GLU	N-CA-CB	7.10	123.38	110.60
6	T	394	ASP	C-N-CA	-7.09	103.97	121.70
4	R	132	ASP	N-CA-CB	-7.08	97.86	110.60
4	R	398	LYS	CB-CA-C	-7.08	96.24	110.40
6	T	387	LYS	CA-C-N	-7.08	101.63	117.20
4	X	398	LYS	CB-CA-C	-7.07	96.25	110.40
6	H	381	LYS	CA-C-N	7.07	132.75	117.20
6	T	407	LEU	CB-CA-C	-7.07	96.77	110.20
4	X	132	ASP	N-CA-CB	-7.07	97.88	110.60
4	F	399	SER	CB-CA-C	-7.07	96.68	110.10
4	F	427	PHE	O-C-N	7.06	134.00	122.70
4	R	427	PHE	O-C-N	7.06	134.00	122.70
4	L	132	ASP	N-CA-CB	-7.06	97.89	110.60
4	L	399	SER	CB-CA-C	-7.06	96.69	110.10
4	R	399	SER	CB-CA-C	-7.06	96.69	110.10
6	Z	381	LYS	CA-C-N	7.06	132.73	117.20
6	Z	414	VAL	CA-C-N	7.06	132.72	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	X	399	SER	CB-CA-C	-7.05	96.70	110.10
6	Z	387	LYS	CA-C-N	-7.05	101.68	117.20
4	F	132	ASP	N-CA-CB	-7.05	97.91	110.60
6	Z	471	LEU	CA-C-O	7.05	134.90	120.10
6	N	414	VAL	CA-C-N	7.05	132.71	117.20
6	T	414	VAL	CA-C-N	7.04	132.70	117.20
5	Y	274	ARG	O-C-N	-7.04	111.43	122.70
6	H	387	LYS	CA-C-N	-7.04	101.72	117.20
6	N	381	LYS	CA-C-N	7.04	132.68	117.20
6	N	471	LEU	CA-C-O	7.04	134.88	120.10
6	H	414	VAL	CA-C-N	7.03	132.67	117.20
6	N	387	LYS	CA-C-N	-7.03	101.74	117.20
6	T	381	LYS	CA-C-N	7.02	132.65	117.20
4	X	427	PHE	O-C-N	7.02	133.93	122.70
6	H	471	LEU	CA-C-O	7.02	134.84	120.10
3	P	1512	TRP	O-C-N	7.02	133.93	122.70
6	T	471	LEU	CA-C-O	7.01	134.83	120.10
4	F	299	ASN	N-CA-C	-7.00	92.09	111.00
6	T	377	ARG	CA-C-N	-7.00	101.79	117.20
4	L	299	ASN	N-CA-C	-7.00	92.10	111.00
5	S	274	ARG	O-C-N	-7.00	111.50	122.70
5	G	274	ARG	O-C-N	-6.99	111.51	122.70
2	I	3	THR	CA-C-N	-6.99	101.82	117.20
2	O	3	THR	CA-C-N	-6.99	101.82	117.20
4	R	299	ASN	N-CA-C	-6.99	92.13	111.00
4	X	299	ASN	N-CA-C	-6.99	92.12	111.00
2	C	3	THR	CA-C-N	-6.99	101.83	117.20
3	D	1543	GLN	C-N-CA	-6.99	92.66	122.00
6	N	377	ARG	CA-C-N	-6.99	101.83	117.20
4	R	433	GLU	N-CA-C	-6.99	92.14	111.00
3	D	1512	TRP	O-C-N	6.98	133.87	122.70
6	H	377	ARG	CA-C-N	-6.98	101.84	117.20
4	X	433	GLU	N-CA-C	-6.98	92.15	111.00
5	M	274	ARG	O-C-N	-6.98	111.53	122.70
6	Z	377	ARG	CA-C-N	-6.98	101.84	117.20
3	P	1543	GLN	C-N-CA	-6.97	92.71	122.00
4	L	433	GLU	N-CA-C	-6.97	92.17	111.00
2	U	3	THR	CA-C-N	-6.97	101.86	117.20
4	F	433	GLU	N-CA-C	-6.97	92.18	111.00
4	X	455	ILE	CB-CA-C	-6.95	97.70	111.60
4	R	455	ILE	CB-CA-C	-6.94	97.72	111.60
2	O	484	ARG	N-CA-CB	-6.93	98.13	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	484	ARG	N-CA-CB	-6.92	98.14	110.60
4	F	455	ILE	CB-CA-C	-6.92	97.77	111.60
4	L	455	ILE	CB-CA-C	-6.92	97.77	111.60
2	I	484	ARG	N-CA-CB	-6.91	98.16	110.60
4	R	211	GLU	CB-CA-C	6.91	124.22	110.40
2	U	484	ARG	N-CA-CB	-6.91	98.16	110.60
4	F	211	GLU	CB-CA-C	6.91	124.21	110.40
4	L	211	GLU	CB-CA-C	6.90	124.20	110.40
4	X	211	GLU	CB-CA-C	6.89	124.18	110.40
5	G	392	ILE	C-N-CA	-6.89	104.47	121.70
5	S	392	ILE	C-N-CA	-6.89	104.48	121.70
3	P	879	LEU	N-CA-C	6.89	129.60	111.00
5	Y	392	ILE	C-N-CA	-6.89	104.48	121.70
5	M	392	ILE	C-N-CA	-6.89	104.48	121.70
5	Y	372	ALA	N-CA-CB	6.88	119.73	110.10
3	D	879	LEU	N-CA-C	6.88	129.58	111.00
5	Y	331	THR	CA-C-N	-6.88	97.83	117.10
4	R	451	GLU	C-N-CA	-6.87	104.52	121.70
5	M	331	THR	CA-C-N	-6.87	97.86	117.10
5	M	372	ALA	N-CA-CB	6.86	119.71	110.10
5	G	331	THR	CA-C-N	-6.86	97.89	117.10
4	L	451	GLU	C-N-CA	-6.86	104.55	121.70
4	X	451	GLU	C-N-CA	-6.86	104.55	121.70
6	N	413	LEU	N-CA-CB	6.86	124.12	110.40
4	F	451	GLU	C-N-CA	-6.85	104.57	121.70
5	S	331	THR	CA-C-N	-6.85	97.91	117.10
2	O	481	ARG	N-CA-C	6.85	129.50	111.00
5	G	372	ALA	N-CA-CB	6.85	119.69	110.10
6	H	413	LEU	N-CA-CB	6.85	124.09	110.40
3	D	1517	SER	O-C-N	6.84	133.65	122.70
5	S	372	ALA	N-CA-CB	6.84	119.68	110.10
2	C	481	ARG	N-CA-C	6.84	129.47	111.00
6	T	413	LEU	N-CA-CB	6.84	124.08	110.40
2	U	481	ARG	N-CA-C	6.84	129.47	111.00
2	I	481	ARG	N-CA-C	6.84	129.46	111.00
6	Z	413	LEU	N-CA-CB	6.83	124.06	110.40
4	X	461	ARG	O-C-N	-6.83	111.77	122.70
3	P	1517	SER	O-C-N	6.83	133.63	122.70
6	T	481	HIS	CB-CA-C	-6.83	96.74	110.40
5	S	378	SER	CA-C-O	-6.82	105.77	120.10
6	H	481	HIS	CB-CA-C	-6.82	96.76	110.40
6	N	481	HIS	CB-CA-C	-6.82	96.76	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	F	461	ARG	O-C-N	-6.82	111.79	122.70
5	M	378	SER	CA-C-O	-6.82	105.78	120.10
4	R	465	GLN	CA-C-N	6.82	132.20	117.20
5	Y	378	SER	CA-C-O	-6.82	105.78	120.10
5	G	378	SER	CA-C-O	-6.81	105.79	120.10
4	X	465	GLN	CA-C-N	6.81	132.18	117.20
4	F	465	GLN	CA-C-N	6.80	132.16	117.20
4	L	461	ARG	O-C-N	-6.80	111.83	122.70
5	M	381	THR	N-CA-C	6.79	129.35	111.00
6	Z	481	HIS	CB-CA-C	-6.79	96.81	110.40
5	Y	381	THR	N-CA-C	6.79	129.33	111.00
4	R	461	ARG	O-C-N	-6.79	111.84	122.70
4	L	465	GLN	CA-C-N	6.78	132.11	117.20
5	S	381	THR	N-CA-C	6.78	129.30	111.00
4	L	492	GLU	CB-CA-C	-6.77	96.86	110.40
3	P	1508	LYS	O-C-N	6.77	133.53	122.70
3	P	328	THR	CB-CA-C	-6.77	93.33	111.60
3	D	328	THR	CB-CA-C	-6.76	93.34	111.60
4	F	492	GLU	CB-CA-C	-6.76	96.88	110.40
5	G	381	THR	N-CA-C	6.76	129.25	111.00
4	R	492	GLU	CB-CA-C	-6.76	96.89	110.40
4	X	492	GLU	CB-CA-C	-6.75	96.91	110.40
4	R	428	LYS	O-C-N	6.75	134.67	123.20
3	P	1493	ARG	CA-C-N	-6.74	102.37	117.20
3	D	1459	PHE	N-CA-CB	6.74	122.73	110.60
4	F	428	LYS	O-C-N	6.72	134.63	123.20
3	D	1493	ARG	CA-C-N	-6.72	102.41	117.20
3	D	1508	LYS	O-C-N	6.72	133.45	122.70
3	P	1459	PHE	N-CA-CB	6.72	122.69	110.60
6	Z	485	LEU	CB-CA-C	-6.71	97.44	110.20
4	L	221	GLN	CA-C-N	6.71	131.96	117.20
4	X	453	TYR	CB-CA-C	-6.71	96.98	110.40
4	X	428	LYS	O-C-N	6.70	134.60	123.20
4	R	453	TYR	CB-CA-C	-6.70	97.00	110.40
4	X	404	GLN	N-CA-CB	6.70	122.66	110.60
3	P	1507	ASP	C-N-CA	6.70	138.44	121.70
6	T	485	LEU	CB-CA-C	-6.70	97.48	110.20
5	Y	253	GLN	N-CA-C	-6.70	92.92	111.00
5	G	253	GLN	N-CA-C	-6.69	92.93	111.00
6	H	485	LEU	CB-CA-C	-6.69	97.48	110.20
4	F	221	GLN	CA-C-N	6.69	131.92	117.20
4	F	453	TYR	CB-CA-C	-6.69	97.02	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	1507	ASP	C-N-CA	6.69	138.42	121.70
5	S	253	GLN	N-CA-C	-6.68	92.95	111.00
4	X	221	GLN	CA-C-N	6.68	131.90	117.20
4	L	453	TYR	CB-CA-C	-6.68	97.04	110.40
6	N	485	LEU	CB-CA-C	-6.68	97.51	110.20
4	R	215	LYS	N-CA-CB	-6.68	98.58	110.60
4	L	215	LYS	N-CA-CB	-6.68	98.58	110.60
4	L	428	LYS	O-C-N	6.67	134.54	123.20
4	R	404	GLN	N-CA-CB	6.67	122.61	110.60
5	Y	346	PHE	N-CA-CB	6.67	122.61	110.60
5	M	253	GLN	N-CA-C	-6.67	93.00	111.00
4	R	221	GLN	CA-C-N	6.66	131.84	117.20
4	L	404	GLN	N-CA-CB	6.66	122.58	110.60
4	X	215	LYS	N-CA-CB	-6.65	98.63	110.60
4	F	215	LYS	N-CA-CB	-6.65	98.64	110.60
6	Z	349	ARG	CB-CA-C	-6.65	97.11	110.40
5	G	346	PHE	N-CA-CB	6.64	122.56	110.60
6	T	349	ARG	CB-CA-C	-6.64	97.11	110.40
6	N	349	ARG	CB-CA-C	-6.64	97.12	110.40
4	X	311	GLN	N-CA-C	-6.64	93.07	111.00
4	R	311	GLN	N-CA-C	-6.64	93.07	111.00
6	T	370	GLU	N-CA-CB	6.64	122.55	110.60
4	F	404	GLN	N-CA-CB	6.64	122.55	110.60
5	S	346	PHE	N-CA-CB	6.64	122.55	110.60
6	H	349	ARG	CB-CA-C	-6.63	97.13	110.40
6	H	370	GLU	N-CA-CB	6.63	122.54	110.60
3	P	1448	MET	CA-C-O	-6.63	106.17	120.10
5	Y	393	TYR	N-CA-C	-6.63	93.09	111.00
4	F	311	GLN	N-CA-C	-6.63	93.11	111.00
6	N	370	GLU	N-CA-CB	6.62	122.52	110.60
6	Z	370	GLU	N-CA-CB	6.62	122.52	110.60
6	Z	405	ASP	O-C-N	6.62	133.29	122.70
4	L	311	GLN	N-CA-C	-6.62	93.13	111.00
5	M	346	PHE	N-CA-CB	6.62	122.51	110.60
5	S	393	TYR	N-CA-C	-6.62	93.13	111.00
3	D	1448	MET	CA-C-O	-6.62	106.21	120.10
5	G	393	TYR	N-CA-C	-6.62	93.14	111.00
4	F	484	ASP	CA-C-N	-6.59	102.69	117.20
5	M	393	TYR	N-CA-C	-6.59	93.20	111.00
6	N	407	LEU	N-CA-CB	6.59	123.58	110.40
6	Z	407	LEU	N-CA-CB	6.59	123.58	110.40
4	L	419	GLY	CA-C-N	6.58	131.68	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	N	405	ASP	O-C-N	6.58	133.23	122.70
4	X	484	ASP	CA-C-N	-6.58	102.72	117.20
4	L	484	ASP	CA-C-N	-6.57	102.74	117.20
6	T	407	LEU	N-CA-CB	6.57	123.54	110.40
4	X	419	GLY	CA-C-N	6.57	131.65	117.20
6	N	405	ASP	N-CA-CB	6.57	122.42	110.60
6	T	405	ASP	N-CA-CB	6.57	122.42	110.60
4	R	425	THR	C-N-CA	-6.56	105.30	121.70
6	Z	405	ASP	N-CA-CB	6.56	122.41	110.60
6	H	405	ASP	N-CA-CB	6.56	122.40	110.60
6	H	405	ASP	O-C-N	6.55	133.18	122.70
4	L	425	THR	C-N-CA	-6.55	105.32	121.70
6	T	405	ASP	O-C-N	6.55	133.18	122.70
6	H	407	LEU	N-CA-CB	6.55	123.50	110.40
2	I	7	GLY	CA-C-N	6.55	131.60	117.20
3	P	1503	ILE	O-C-N	6.54	133.17	122.70
4	R	484	ASP	CA-C-N	-6.54	102.81	117.20
6	Z	406	LEU	CA-C-N	6.54	131.59	117.20
4	R	419	GLY	CA-C-N	6.54	131.59	117.20
2	U	7	GLY	CA-C-N	6.54	131.58	117.20
4	F	425	THR	C-N-CA	-6.54	105.36	121.70
2	C	8	GLU	O-C-N	6.53	133.15	122.70
2	O	7	GLY	CA-C-N	6.53	131.57	117.20
3	D	1503	ILE	O-C-N	6.53	133.15	122.70
7	J	156	VAL	C-N-CA	6.53	138.03	121.70
2	C	7	GLY	CA-C-N	6.53	131.56	117.20
4	X	425	THR	C-N-CA	-6.53	105.38	121.70
6	H	406	LEU	CA-C-N	6.52	131.55	117.20
6	Z	501	GLU	CA-C-N	-6.52	102.85	117.20
4	F	419	GLY	CA-C-N	6.52	131.54	117.20
5	M	344	ASP	CA-C-O	6.52	133.78	120.10
3	D	1451	ARG	CA-C-N	-6.51	102.87	117.20
4	L	452	ARG	C-N-CA	6.51	137.98	121.70
5	Y	344	ASP	CA-C-O	6.51	133.78	120.10
7	V	156	VAL	C-N-CA	6.51	137.98	121.70
6	N	501	GLU	CA-C-N	-6.51	102.88	117.20
6	N	498	LYS	N-CA-CB	6.50	122.31	110.60
4	X	452	ARG	C-N-CA	6.50	137.95	121.70
2	U	8	GLU	O-C-N	6.50	133.10	122.70
2	I	8	GLU	O-C-N	6.50	133.10	122.70
6	T	501	GLU	CA-C-N	-6.50	102.90	117.20
3	D	446	ILE	CB-CA-C	-6.50	98.61	111.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	F	452	ARG	C-N-CA	6.50	137.94	121.70
2	O	8	GLU	O-C-N	6.50	133.09	122.70
3	P	1451	ARG	CA-C-N	-6.50	102.91	117.20
3	P	1484	ASP	CA-C-O	-6.50	106.46	120.10
6	T	406	LEU	CA-C-N	6.50	131.49	117.20
3	D	1484	ASP	CA-C-O	-6.49	106.46	120.10
6	N	406	LEU	CA-C-N	6.49	131.49	117.20
3	P	446	ILE	CB-CA-C	-6.49	98.61	111.60
6	H	501	GLU	CA-C-N	-6.49	102.92	117.20
6	Z	498	LYS	N-CA-CB	6.49	122.28	110.60
5	G	344	ASP	CA-C-O	6.49	133.73	120.10
4	R	452	ARG	C-N-CA	6.49	137.93	121.70
5	S	344	ASP	CA-C-O	6.47	133.69	120.10
1	E	395	GLY	N-CA-C	-6.47	96.93	113.10
6	H	391	GLN	C-N-CA	6.47	137.87	121.70
6	H	498	LYS	N-CA-CB	6.47	122.25	110.60
6	N	391	GLN	C-N-CA	6.47	137.87	121.70
6	T	498	LYS	N-CA-CB	6.47	122.24	110.60
4	F	328	VAL	CA-C-O	-6.47	106.52	120.10
1	A	395	GLY	N-CA-C	-6.46	96.95	113.10
1	W	395	GLY	N-CA-C	-6.46	96.96	113.10
6	Z	405	ASP	CA-C-N	-6.46	103.00	117.20
6	N	406	LEU	CB-CA-C	-6.45	97.94	110.20
1	B	395	GLY	N-CA-C	-6.45	96.97	113.10
6	H	405	ASP	CA-C-N	-6.45	103.01	117.20
4	L	320	GLU	N-CA-CB	6.45	122.21	110.60
1	Q	395	GLY	N-CA-C	-6.45	96.97	113.10
4	R	328	VAL	CA-C-O	-6.45	106.56	120.10
6	N	408	SER	O-C-N	6.44	133.34	121.10
1	K	395	GLY	N-CA-C	-6.44	97.00	113.10
6	T	405	ASP	CA-C-N	-6.44	103.04	117.20
4	L	328	VAL	CA-C-O	-6.43	106.59	120.10
6	T	391	GLN	C-N-CA	6.43	137.79	121.70
6	Z	408	SER	O-C-N	6.43	133.32	121.10
6	N	405	ASP	CA-C-N	-6.43	103.05	117.20
6	T	406	LEU	CB-CA-C	-6.43	97.99	110.20
6	Z	406	LEU	CB-CA-C	-6.43	97.99	110.20
6	H	406	LEU	CB-CA-C	-6.42	97.99	110.20
4	X	328	VAL	CA-C-O	-6.42	106.61	120.10
5	M	313	ILE	N-CA-C	-6.42	93.66	111.00
6	Z	391	GLN	C-N-CA	6.42	137.75	121.70
4	L	398	LYS	CA-C-N	6.41	131.31	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	S	338	GLU	CB-CA-C	6.41	123.22	110.40
6	H	408	SER	O-C-N	6.41	133.28	121.10
4	R	398	LYS	CA-C-N	6.41	131.30	117.20
5	S	352	GLN	CB-CA-C	-6.41	97.58	110.40
5	M	352	GLN	CB-CA-C	-6.41	97.59	110.40
6	T	408	SER	O-C-N	6.41	133.27	121.10
4	X	398	LYS	CA-C-N	6.41	131.29	117.20
4	F	320	GLU	N-CA-CB	6.40	122.12	110.60
5	S	313	ILE	N-CA-C	-6.40	93.71	111.00
5	Y	313	ILE	N-CA-C	-6.40	93.71	111.00
5	G	313	ILE	N-CA-C	-6.40	93.72	111.00
5	G	352	GLN	CB-CA-C	-6.40	97.60	110.40
4	X	305	ASP	CA-C-N	-6.40	99.19	117.10
4	F	236	ASP	N-CA-CB	6.39	122.11	110.60
5	Y	352	GLN	CB-CA-C	-6.39	97.62	110.40
4	F	305	ASP	CA-C-N	-6.39	99.20	117.10
4	F	398	LYS	CA-C-N	6.39	131.26	117.20
5	M	338	GLU	CB-CA-C	6.38	123.17	110.40
4	R	236	ASP	N-CA-CB	6.38	122.09	110.60
4	R	305	ASP	CA-C-N	-6.38	99.23	117.10
4	X	320	GLU	N-CA-CB	6.38	122.09	110.60
4	L	305	ASP	CA-C-N	-6.38	99.24	117.10
4	F	299	ASN	O-C-N	-6.38	108.98	121.10
4	L	299	ASN	O-C-N	-6.38	108.98	121.10
4	X	236	ASP	N-CA-CB	6.38	122.08	110.60
5	G	338	GLU	CB-CA-C	6.38	123.15	110.40
4	L	236	ASP	N-CA-CB	6.38	122.08	110.60
5	Y	373	THR	N-CA-CB	6.37	122.41	110.30
4	R	320	GLU	N-CA-CB	6.37	122.07	110.60
5	Y	338	GLU	CB-CA-C	6.37	123.14	110.40
4	F	301	PRO	C-N-CA	6.37	137.62	121.70
4	L	301	PRO	C-N-CA	6.37	137.62	121.70
5	S	373	THR	N-CA-CB	6.37	122.40	110.30
4	R	299	ASN	O-C-N	-6.36	109.01	121.10
4	X	301	PRO	C-N-CA	6.36	137.60	121.70
4	X	299	ASN	O-C-N	-6.36	109.02	121.10
5	M	373	THR	N-CA-CB	6.35	122.37	110.30
4	R	301	PRO	C-N-CA	6.35	137.57	121.70
3	D	1518	ASN	O-C-N	6.34	132.85	122.70
5	G	373	THR	N-CA-CB	6.34	122.34	110.30
7	V	161	CYS	C-N-CA	6.33	137.53	121.70
3	P	1518	ASN	O-C-N	6.33	132.83	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	414	SER	C-N-CA	6.33	137.51	121.70
1	K	414	SER	C-N-CA	6.33	137.51	121.70
1	E	414	SER	C-N-CA	6.32	137.49	121.70
1	K	415	LYS	N-CA-CB	6.32	121.97	110.60
1	A	415	LYS	N-CA-CB	6.31	121.96	110.60
1	A	414	SER	C-N-CA	6.31	137.48	121.70
7	J	161	CYS	C-N-CA	6.31	137.47	121.70
1	Q	415	LYS	N-CA-CB	6.31	121.95	110.60
4	F	221	GLN	N-CA-CB	-6.31	99.25	110.60
5	Y	329	GLN	N-CA-CB	6.31	121.95	110.60
1	Q	414	SER	C-N-CA	6.31	137.47	121.70
1	W	414	SER	C-N-CA	6.30	137.45	121.70
1	W	415	LYS	N-CA-CB	6.30	121.94	110.60
1	E	415	LYS	N-CA-CB	6.30	121.94	110.60
3	D	1516	LEU	O-C-N	6.30	132.77	122.70
5	M	329	GLN	N-CA-CB	6.29	121.92	110.60
3	P	1522	LEU	C-N-CA	-6.29	105.97	121.70
6	N	407	LEU	N-CA-C	-6.29	94.03	111.00
6	H	407	LEU	N-CA-C	-6.29	94.03	111.00
4	L	419	GLY	N-CA-C	-6.29	97.39	113.10
4	X	221	GLN	N-CA-CB	-6.29	99.28	110.60
4	X	419	GLY	N-CA-C	-6.29	97.38	113.10
3	D	1522	LEU	C-N-CA	-6.28	105.99	121.70
5	G	329	GLN	N-CA-CB	6.28	121.91	110.60
6	N	415	LYS	N-CA-CB	6.28	121.91	110.60
4	R	221	GLN	N-CA-CB	-6.28	99.29	110.60
6	Z	407	LEU	N-CA-C	-6.28	94.05	111.00
1	B	415	LYS	N-CA-CB	6.28	121.90	110.60
5	S	329	GLN	N-CA-CB	6.28	121.90	110.60
6	T	407	LEU	N-CA-C	-6.28	94.06	111.00
3	P	1516	LEU	O-C-N	6.27	132.74	122.70
3	D	1538	SER	CA-C-O	-6.27	106.93	120.10
6	H	415	LYS	N-CA-CB	6.27	121.89	110.60
4	R	455	ILE	O-C-N	-6.27	112.67	122.70
5	Y	344	ASP	N-CA-CB	6.27	121.88	110.60
6	H	413	LEU	O-C-N	-6.26	112.67	122.70
4	R	419	GLY	N-CA-C	-6.26	97.44	113.10
4	L	221	GLN	N-CA-CB	-6.26	99.33	110.60
3	P	1538	SER	CA-C-O	-6.26	106.95	120.10
6	T	415	LYS	N-CA-CB	6.26	121.87	110.60
4	X	211	GLU	CA-C-O	6.26	133.24	120.10
4	F	419	GLY	N-CA-C	-6.26	97.46	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	F	455	ILE	O-C-N	-6.25	112.69	122.70
4	L	211	GLU	CA-C-O	6.25	133.23	120.10
4	R	251	GLY	C-N-CA	6.25	137.33	121.70
4	F	211	GLU	CA-C-O	6.25	133.22	120.10
4	L	251	GLY	C-N-CA	6.25	137.31	121.70
4	L	290	PRO	N-CA-C	6.25	128.34	112.10
7	V	1466	TRP	N-CA-C	6.25	127.86	111.00
6	Z	415	LYS	N-CA-CB	6.25	121.84	110.60
6	T	413	LEU	O-C-N	-6.24	112.71	122.70
4	X	290	PRO	N-CA-C	6.24	128.32	112.10
5	S	344	ASP	N-CA-CB	6.24	121.83	110.60
5	Y	379	HIS	N-CA-C	6.24	127.84	111.00
4	F	290	PRO	N-CA-C	6.23	128.31	112.10
6	Z	413	LEU	O-C-N	-6.23	112.72	122.70
5	G	379	HIS	N-CA-C	6.23	127.83	111.00
7	J	1466	TRP	N-CA-C	6.23	127.83	111.00
4	X	251	GLY	C-N-CA	6.23	137.27	121.70
4	R	290	PRO	N-CA-C	6.23	128.29	112.10
5	Y	341	ALA	N-CA-C	-6.23	94.18	111.00
5	S	379	HIS	N-CA-C	6.23	127.81	111.00
4	X	455	ILE	O-C-N	-6.23	112.74	122.70
4	F	251	GLY	C-N-CA	6.22	137.26	121.70
5	G	344	ASP	N-CA-CB	6.22	121.80	110.60
5	S	341	ALA	N-CA-C	-6.22	94.20	111.00
5	Y	330	LYS	CA-C-O	6.22	133.16	120.10
5	G	341	ALA	N-CA-C	-6.22	94.21	111.00
5	M	379	HIS	N-CA-C	6.22	127.79	111.00
3	P	1667	ALA	CB-CA-C	-6.22	100.77	110.10
4	L	247	ARG	C-N-CA	-6.22	106.15	121.70
5	G	330	LYS	CA-C-O	6.22	133.15	120.10
6	N	413	LEU	O-C-N	-6.22	112.75	122.70
4	F	247	ARG	C-N-CA	-6.21	106.16	121.70
5	M	341	ALA	N-CA-C	-6.21	94.23	111.00
4	X	247	ARG	C-N-CA	-6.21	106.17	121.70
3	D	1667	ALA	CB-CA-C	-6.21	100.79	110.10
7	J	1466	TRP	C-N-CA	-6.20	106.19	121.70
4	R	247	ARG	C-N-CA	-6.20	106.20	121.70
4	L	455	ILE	O-C-N	-6.20	112.78	122.70
6	H	412	GLU	N-CA-CB	6.20	121.75	110.60
4	R	211	GLU	CA-C-O	6.20	133.11	120.10
5	M	330	LYS	CA-C-O	6.19	133.10	120.10
5	M	344	ASP	N-CA-CB	6.19	121.74	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	V	1466	TRP	C-N-CA	-6.19	106.22	121.70
5	S	330	LYS	CA-C-O	6.18	133.09	120.10
6	N	412	GLU	N-CA-CB	6.17	121.72	110.60
3	P	1519	SER	O-C-N	6.17	133.69	123.20
4	R	469	GLN	C-N-CA	-6.17	106.27	121.70
6	T	412	GLU	N-CA-CB	6.17	121.70	110.60
4	X	469	GLN	C-N-CA	-6.17	106.29	121.70
4	L	469	GLN	C-N-CA	-6.17	106.29	121.70
6	N	414	VAL	O-C-N	-6.16	112.84	122.70
6	T	414	VAL	O-C-N	-6.16	112.84	122.70
6	Z	414	VAL	O-C-N	-6.16	112.85	122.70
3	D	1519	SER	O-C-N	6.15	133.66	123.20
4	F	343	MET	CB-CA-C	-6.15	98.09	110.40
4	F	469	GLN	C-N-CA	-6.15	106.32	121.70
4	L	343	MET	CB-CA-C	-6.15	98.10	110.40
6	Z	340	TRP	C-N-CA	6.15	137.08	121.70
5	S	264	GLU	CB-CA-C	6.15	122.69	110.40
6	T	340	TRP	C-N-CA	6.15	137.07	121.70
6	H	340	TRP	C-N-CA	6.15	137.06	121.70
2	U	28	HIS	N-CA-CB	-6.14	99.54	110.60
6	H	414	VAL	O-C-N	-6.14	112.88	122.70
4	R	343	MET	CB-CA-C	-6.13	98.13	110.40
6	Z	412	GLU	N-CA-CB	6.13	121.64	110.60
2	O	28	HIS	N-CA-CB	-6.13	99.56	110.60
5	Y	264	GLU	CB-CA-C	6.13	122.66	110.40
7	J	1482	GLY	N-CA-C	6.13	128.42	113.10
4	F	311	GLN	CB-CA-C	-6.12	98.15	110.40
4	X	343	MET	CB-CA-C	-6.12	98.16	110.40
7	V	1482	GLY	N-CA-C	6.12	128.39	113.10
5	M	264	GLU	CB-CA-C	6.11	122.63	110.40
6	N	340	TRP	C-N-CA	6.11	136.97	121.70
5	G	264	GLU	CB-CA-C	6.10	122.61	110.40
2	I	28	HIS	N-CA-CB	-6.10	99.61	110.60
4	R	311	GLN	CB-CA-C	-6.10	98.19	110.40
5	G	330	LYS	C-N-CA	6.10	136.95	121.70
5	S	330	LYS	C-N-CA	6.10	136.95	121.70
4	X	311	GLN	CB-CA-C	-6.10	98.20	110.40
6	T	388	ARG	N-CA-C	6.09	127.45	111.00
2	C	28	HIS	N-CA-CB	-6.09	99.64	110.60
5	M	330	LYS	C-N-CA	6.08	136.90	121.70
3	P	1531	GLU	C-N-CA	6.08	136.90	121.70
5	Y	330	LYS	C-N-CA	6.08	136.91	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	N	384	LEU	CB-CA-C	-6.08	98.65	110.20
3	D	1531	GLU	C-N-CA	6.08	136.89	121.70
5	S	348	ILE	CB-CA-C	6.08	123.75	111.60
6	T	384	LEU	CB-CA-C	-6.08	98.66	110.20
6	H	388	ARG	N-CA-C	6.07	127.40	111.00
6	Z	384	LEU	CB-CA-C	-6.07	98.66	110.20
4	L	311	GLN	CB-CA-C	-6.07	98.26	110.40
4	L	489	LYS	C-N-CA	-6.07	106.53	121.70
4	F	202	ILE	N-CA-C	6.07	127.38	111.00
6	H	384	LEU	CB-CA-C	-6.07	98.68	110.20
4	L	202	ILE	N-CA-C	6.06	127.37	111.00
4	R	489	LYS	C-N-CA	-6.06	106.55	121.70
5	M	348	ILE	CB-CA-C	6.06	123.71	111.60
4	F	489	LYS	C-N-CA	-6.05	106.56	121.70
4	L	468	LYS	O-C-N	6.05	132.38	122.70
6	Z	388	ARG	N-CA-C	6.05	127.33	111.00
4	X	489	LYS	C-N-CA	-6.05	106.58	121.70
5	G	348	ILE	CB-CA-C	6.04	123.69	111.60
6	N	388	ARG	N-CA-C	6.04	127.32	111.00
4	X	202	ILE	N-CA-C	6.04	127.32	111.00
5	Y	398	ALA	CB-CA-C	-6.04	101.04	110.10
5	Y	348	ILE	CB-CA-C	6.03	123.67	111.60
2	O	308	LEU	C-N-CA	6.03	136.78	121.70
5	S	398	ALA	CB-CA-C	-6.03	101.06	110.10
5	Y	251	ILE	C-N-CA	-6.03	106.62	121.70
3	D	1536	LEU	O-C-N	-6.03	113.06	122.70
3	P	1472	SER	CA-C-O	6.03	132.75	120.10
5	M	251	ILE	C-N-CA	-6.02	106.64	121.70
2	U	308	LEU	C-N-CA	6.02	136.76	121.70
4	R	468	LYS	O-C-N	6.02	132.34	122.70
3	D	1472	SER	CA-C-O	6.02	132.74	120.10
4	R	202	ILE	N-CA-C	6.02	127.25	111.00
4	L	236	ASP	C-N-CA	-6.02	106.66	121.70
4	R	236	ASP	C-N-CA	-6.02	106.65	121.70
4	X	448	ARG	C-N-CA	-6.01	106.66	121.70
4	F	236	ASP	C-N-CA	-6.01	106.67	121.70
2	I	308	LEU	C-N-CA	6.01	136.73	121.70
3	P	1536	LEU	O-C-N	-6.01	113.08	122.70
5	G	398	ALA	CB-CA-C	-6.00	101.09	110.10
5	M	398	ALA	CB-CA-C	-6.00	101.09	110.10
5	S	251	ILE	C-N-CA	-6.00	106.69	121.70
4	X	468	LYS	O-C-N	6.00	132.30	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	1448	MET	C-N-CA	5.99	136.69	121.70
4	L	448	ARG	C-N-CA	-5.99	106.72	121.70
4	X	236	ASP	C-N-CA	-5.99	106.72	121.70
2	C	308	LEU	C-N-CA	5.99	136.68	121.70
4	F	468	LYS	O-C-N	5.99	132.28	122.70
4	F	199	GLU	CA-C-O	5.99	132.67	120.10
4	R	448	ARG	C-N-CA	-5.99	106.73	121.70
5	G	327	ARG	N-CA-C	5.99	127.16	111.00
5	G	251	ILE	C-N-CA	-5.98	106.74	121.70
3	P	1448	MET	C-N-CA	5.98	136.65	121.70
4	R	199	GLU	CA-C-O	5.98	132.66	120.10
4	F	491	VAL	CA-C-O	5.98	132.66	120.10
4	R	222	THR	N-CA-CB	5.98	121.66	110.30
4	X	199	GLU	CA-C-O	5.98	132.66	120.10
4	X	491	VAL	CA-C-O	5.98	132.65	120.10
4	F	448	ARG	C-N-CA	-5.97	106.76	121.70
4	R	207	GLN	O-C-N	5.97	132.26	122.70
4	R	491	VAL	CA-C-O	5.97	132.64	120.10
5	Y	327	ARG	N-CA-C	5.97	127.12	111.00
5	S	327	ARG	N-CA-C	5.97	127.11	111.00
4	L	207	GLN	O-C-N	5.96	132.24	122.70
5	M	327	ARG	N-CA-C	5.96	127.08	111.00
4	L	394	GLU	C-N-CA	-5.95	106.82	121.70
4	X	207	GLN	O-C-N	5.95	132.22	122.70
4	F	222	THR	N-CA-CB	5.95	121.60	110.30
7	J	157	GLU	N-CA-C	-5.95	94.94	111.00
4	X	394	GLU	C-N-CA	-5.95	106.83	121.70
4	L	222	THR	N-CA-CB	5.95	121.59	110.30
4	F	207	GLN	O-C-N	5.94	132.21	122.70
4	L	491	VAL	CA-C-O	5.94	132.57	120.10
4	R	394	GLU	C-N-CA	-5.94	106.85	121.70
7	V	157	GLU	N-CA-C	-5.94	94.96	111.00
4	L	199	GLU	CA-C-O	5.94	132.57	120.10
4	F	394	GLU	C-N-CA	-5.94	106.86	121.70
4	F	461	ARG	N-CA-CB	5.93	121.28	110.60
4	X	222	THR	N-CA-CB	5.93	121.58	110.30
4	R	253	SER	CB-CA-C	5.93	121.37	110.10
4	X	461	ARG	N-CA-CB	5.93	121.28	110.60
4	F	253	SER	CB-CA-C	5.93	121.37	110.10
4	L	461	ARG	N-CA-CB	5.93	121.27	110.60
4	L	253	SER	CB-CA-C	5.92	121.35	110.10
3	D	1503	ILE	C-N-CA	5.92	136.50	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	R	463	ILE	N-CA-C	-5.92	95.03	111.00
6	Z	394	ASP	CA-C-N	-5.91	104.19	117.20
3	P	1503	ILE	C-N-CA	5.91	136.48	121.70
6	H	394	ASP	CA-C-N	-5.91	104.20	117.20
6	T	501	GLU	N-CA-CB	5.91	121.24	110.60
4	L	463	ILE	N-CA-C	-5.91	95.05	111.00
4	R	461	ARG	N-CA-CB	5.91	121.23	110.60
4	X	463	ILE	N-CA-C	-5.91	95.05	111.00
4	X	253	SER	CB-CA-C	5.91	121.32	110.10
6	Z	501	GLU	N-CA-CB	5.90	121.22	110.60
6	N	394	ASP	CA-C-N	-5.90	104.22	117.20
5	Y	345	TYR	O-C-N	-5.90	113.26	122.70
4	F	463	ILE	N-CA-C	-5.90	95.08	111.00
5	Y	361	ARG	N-CA-C	-5.89	95.09	111.00
4	X	306	PRO	CA-C-N	5.89	130.16	117.20
6	N	352	LEU	CB-CA-C	5.89	121.39	110.20
4	F	306	PRO	CA-C-N	5.89	130.15	117.20
4	L	453	TYR	N-CA-CB	5.88	121.19	110.60
5	M	345	TYR	O-C-N	-5.88	113.28	122.70
5	M	342	PRO	N-CA-C	5.88	127.39	112.10
4	R	453	TYR	N-CA-CB	5.88	121.19	110.60
6	Z	352	LEU	CB-CA-C	5.88	121.38	110.20
4	F	453	TYR	N-CA-CB	5.88	121.18	110.60
6	H	501	GLU	N-CA-CB	5.88	121.18	110.60
4	X	446	ALA	N-CA-CB	5.88	118.33	110.10
5	S	361	ARG	N-CA-C	-5.88	95.13	111.00
5	Y	342	PRO	N-CA-C	5.88	127.38	112.10
4	R	306	PRO	CA-C-N	5.87	130.12	117.20
6	T	352	LEU	CB-CA-C	5.87	121.36	110.20
5	G	361	ARG	N-CA-C	-5.87	95.15	111.00
5	G	345	TYR	O-C-N	-5.87	113.31	122.70
5	S	342	PRO	N-CA-C	5.87	127.36	112.10
4	X	453	TYR	N-CA-CB	5.87	121.17	110.60
5	S	345	TYR	O-C-N	-5.87	113.31	122.70
4	L	306	PRO	CA-C-N	5.87	130.10	117.20
5	G	342	PRO	N-CA-C	5.86	127.35	112.10
5	M	361	ARG	N-CA-C	-5.86	95.17	111.00
6	N	501	GLU	N-CA-CB	5.86	121.15	110.60
6	T	394	ASP	CA-C-N	-5.86	104.30	117.20
4	L	446	ALA	N-CA-CB	5.85	118.29	110.10
4	L	457	ALA	C-N-CA	-5.84	107.10	121.70
6	H	352	LEU	CB-CA-C	5.84	121.30	110.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	X	457	ALA	C-N-CA	-5.84	107.10	121.70
6	Z	410	LEU	C-N-CA	5.84	136.30	121.70
4	R	457	ALA	C-N-CA	-5.84	107.11	121.70
4	F	457	ALA	C-N-CA	-5.83	107.13	121.70
6	T	470	PRO	O-C-N	-5.83	113.38	122.70
4	F	488	ILE	N-CA-C	5.83	126.73	111.00
6	T	415	LYS	C-N-CA	-5.83	107.14	121.70
6	Z	473	GLN	N-CA-CB	5.82	121.08	110.60
6	T	473	GLN	N-CA-CB	5.82	121.07	110.60
6	N	410	LEU	C-N-CA	5.82	136.24	121.70
6	N	470	PRO	O-C-N	-5.82	113.39	122.70
4	R	343	MET	CA-C-O	5.82	132.31	120.10
2	O	6	PHE	C-N-CA	5.81	134.51	122.30
7	J	161	CYS	CB-CA-C	-5.81	98.78	110.40
4	R	488	ILE	N-CA-C	5.81	126.69	111.00
2	C	6	PHE	C-N-CA	5.81	134.50	122.30
6	N	415	LYS	C-N-CA	-5.81	107.18	121.70
6	T	410	LEU	C-N-CA	5.81	136.22	121.70
4	X	490	LEU	CA-C-O	5.81	132.29	120.10
5	Y	312	LYS	CA-C-N	-5.81	104.42	117.20
4	L	488	ILE	N-CA-C	5.81	126.68	111.00
4	F	446	ALA	N-CA-CB	5.80	118.23	110.10
6	H	410	LEU	C-N-CA	5.80	136.21	121.70
6	N	473	GLN	N-CA-CB	5.80	121.05	110.60
6	Z	415	LYS	C-N-CA	-5.80	107.19	121.70
4	X	343	MET	CA-C-O	5.80	132.29	120.10
6	Z	470	PRO	O-C-N	-5.80	113.42	122.70
4	F	343	MET	CA-C-O	5.80	132.28	120.10
5	M	312	LYS	CA-C-N	-5.80	104.44	117.20
2	U	6	PHE	C-N-CA	5.80	134.48	122.30
5	G	312	LYS	CA-C-N	-5.80	104.44	117.20
4	X	488	ILE	N-CA-C	5.80	126.65	111.00
2	C	14	GLU	C-N-CA	5.79	136.18	121.70
2	O	14	GLU	C-N-CA	5.79	136.18	121.70
7	V	161	CYS	CB-CA-C	-5.79	98.82	110.40
2	I	14	GLU	C-N-CA	5.79	136.17	121.70
4	R	446	ALA	N-CA-CB	5.79	118.21	110.10
4	L	343	MET	CA-C-O	5.79	132.25	120.10
5	S	312	LYS	CA-C-N	-5.78	104.47	117.20
5	G	343	ALA	C-N-CA	5.78	136.16	121.70
6	H	473	GLN	N-CA-CB	5.78	121.01	110.60
4	R	490	LEU	CA-C-O	5.78	132.24	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	V	1440	VAL	C-N-CA	-5.78	107.25	121.70
7	J	1440	VAL	C-N-CA	-5.78	107.25	121.70
4	L	490	LEU	CA-C-O	5.78	132.23	120.10
5	S	343	ALA	C-N-CA	5.78	136.14	121.70
6	H	415	LYS	C-N-CA	-5.78	107.26	121.70
2	I	6	PHE	C-N-CA	5.78	134.43	122.30
2	C	8	GLU	N-CA-CB	5.77	120.99	110.60
6	H	470	PRO	O-C-N	-5.77	113.47	122.70
4	L	454	TYR	CB-CA-C	5.77	121.93	110.40
5	Y	343	ALA	C-N-CA	5.77	136.11	121.70
5	S	338	GLU	N-CA-CB	5.76	120.97	110.60
5	M	343	ALA	C-N-CA	5.76	136.10	121.70
2	U	14	GLU	C-N-CA	5.76	136.10	121.70
2	C	484	ARG	CA-C-N	-5.76	104.53	117.20
2	O	8	GLU	N-CA-CB	5.76	120.97	110.60
4	F	397	ARG	CB-CA-C	-5.76	98.88	110.40
4	R	397	ARG	CB-CA-C	-5.76	98.89	110.40
4	X	397	ARG	CB-CA-C	-5.76	98.89	110.40
4	X	454	TYR	CB-CA-C	5.76	121.92	110.40
3	D	1540	LEU	C-N-CA	-5.75	107.31	121.70
4	F	454	TYR	CB-CA-C	5.75	121.91	110.40
2	I	8	GLU	N-CA-CB	5.75	120.95	110.60
2	I	484	ARG	CA-C-N	-5.75	104.54	117.20
3	P	1540	LEU	C-N-CA	-5.75	107.31	121.70
2	U	8	GLU	N-CA-CB	5.75	120.96	110.60
5	Y	338	GLU	N-CA-CB	5.75	120.96	110.60
4	F	490	LEU	CA-C-O	5.75	132.18	120.10
5	G	338	GLU	N-CA-CB	5.75	120.95	110.60
5	G	393	TYR	CA-C-N	5.75	129.85	117.20
4	L	397	ARG	CB-CA-C	-5.75	98.90	110.40
5	Y	393	TYR	CA-C-N	5.75	129.84	117.20
5	Y	378	SER	O-C-N	-5.74	113.51	122.70
4	R	454	TYR	CB-CA-C	5.74	121.88	110.40
2	U	6	PHE	N-CA-CB	-5.74	100.27	110.60
2	U	484	ARG	CA-C-N	-5.74	104.57	117.20
5	M	338	GLU	N-CA-CB	5.74	120.93	110.60
5	S	393	TYR	CA-C-N	5.74	129.83	117.20
2	O	15	GLN	N-CA-C	-5.73	95.53	111.00
2	O	484	ARG	CA-C-N	-5.73	104.59	117.20
2	C	6	PHE	N-CA-CB	-5.73	100.29	110.60
2	C	15	GLN	N-CA-C	-5.73	95.53	111.00
2	I	15	GLN	N-CA-C	-5.73	95.53	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	M	344	ASP	O-C-N	-5.73	113.53	122.70
5	M	378	SER	O-C-N	-5.73	113.53	122.70
5	G	378	SER	O-C-N	-5.73	113.53	122.70
4	L	269	ASN	N-CA-C	-5.73	95.54	111.00
2	U	15	GLN	N-CA-C	-5.72	95.55	111.00
5	S	378	SER	O-C-N	-5.72	113.55	122.70
4	F	269	ASN	N-CA-C	-5.72	95.56	111.00
5	M	393	TYR	CA-C-N	5.71	129.77	117.20
1	W	395	GLY	C-N-CA	5.71	135.98	121.70
5	S	341	ALA	N-CA-CB	5.71	118.10	110.10
2	I	6	PHE	N-CA-CB	-5.71	100.33	110.60
6	N	493	ALA	CA-C-N	5.71	129.75	117.20
1	B	395	GLY	C-N-CA	5.70	135.96	121.70
2	O	6	PHE	N-CA-CB	-5.70	100.34	110.60
4	X	269	ASN	N-CA-C	-5.70	95.61	111.00
1	E	395	GLY	C-N-CA	5.70	135.95	121.70
4	R	269	ASN	N-CA-C	-5.70	95.61	111.00
5	Y	344	ASP	O-C-N	-5.70	113.58	122.70
1	Q	395	GLY	C-N-CA	5.70	135.94	121.70
6	Z	493	ALA	CA-C-N	5.70	129.73	117.20
5	G	344	ASP	O-C-N	-5.69	113.59	122.70
4	F	200	THR	N-CA-C	5.69	126.37	111.00
5	M	312	LYS	O-C-N	5.69	131.81	122.70
4	F	453	TYR	C-N-CA	-5.69	107.48	121.70
1	K	395	GLY	C-N-CA	5.69	135.92	121.70
5	S	344	ASP	O-C-N	-5.69	113.60	122.70
4	F	486	GLU	CB-CA-C	5.68	121.76	110.40
4	L	200	THR	N-CA-C	5.68	126.34	111.00
3	P	1485	ALA	N-CA-C	-5.68	95.67	111.00
3	D	1485	ALA	N-CA-C	-5.68	95.67	111.00
4	L	486	GLU	CB-CA-C	5.68	121.76	110.40
4	R	200	THR	N-CA-C	5.68	126.33	111.00
4	X	486	GLU	CB-CA-C	5.68	121.76	110.40
3	P	1537	GLN	CA-C-O	5.68	132.02	120.10
4	X	200	THR	N-CA-C	5.67	126.32	111.00
1	A	395	GLY	C-N-CA	5.67	135.88	121.70
3	P	1491	ILE	CB-CA-C	-5.67	100.26	111.60
5	G	312	LYS	O-C-N	5.67	131.77	122.70
4	X	453	TYR	C-N-CA	-5.67	107.53	121.70
5	M	341	ALA	N-CA-CB	5.67	118.03	110.10
4	R	453	TYR	C-N-CA	-5.67	107.54	121.70
4	R	486	GLU	CB-CA-C	5.67	121.73	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	G	253	GLN	O-C-N	5.66	131.76	122.70
6	H	493	ALA	CA-C-N	5.66	129.66	117.20
4	L	453	TYR	C-N-CA	-5.66	107.54	121.70
5	S	253	GLN	O-C-N	5.66	131.76	122.70
6	T	493	ALA	CA-C-N	5.66	129.66	117.20
5	Y	312	LYS	O-C-N	5.66	131.76	122.70
3	P	878	PRO	N-CA-C	5.66	126.82	112.10
3	D	1491	ILE	CB-CA-C	-5.66	100.28	111.60
5	G	341	ALA	N-CA-CB	5.66	118.03	110.10
5	Y	341	ALA	N-CA-CB	5.66	118.02	110.10
3	D	1537	GLN	CA-C-O	5.66	131.98	120.10
4	X	403	ILE	CA-C-O	5.65	131.97	120.10
4	X	472	GLU	N-CA-C	-5.65	95.74	111.00
3	D	878	PRO	N-CA-C	5.65	126.78	112.10
3	D	1517	SER	CA-C-N	-5.65	104.78	117.20
5	Y	253	GLN	O-C-N	5.64	131.72	122.70
4	F	232	THR	CA-C-O	-5.63	108.27	120.10
4	L	401	TYR	CA-C-O	5.63	131.92	120.10
3	P	1517	SER	CA-C-N	-5.63	104.81	117.20
4	L	472	GLU	N-CA-C	-5.63	95.80	111.00
4	X	367	THR	CA-C-O	-5.63	108.28	120.10
6	Z	385	ASP	C-N-CA	-5.62	107.64	121.70
4	F	403	ILE	CA-C-O	5.62	131.90	120.10
4	L	367	THR	CA-C-O	-5.62	108.30	120.10
4	R	403	ILE	CA-C-O	5.62	131.91	120.10
4	R	472	GLU	N-CA-C	-5.62	95.82	111.00
6	N	385	ASP	C-N-CA	-5.62	107.65	121.70
4	F	367	THR	O-C-N	-5.62	113.71	122.70
4	X	403	ILE	N-CA-C	5.62	126.17	111.00
4	F	472	GLU	N-CA-C	-5.62	95.83	111.00
4	F	403	ILE	N-CA-C	5.62	126.16	111.00
4	L	403	ILE	CA-C-O	5.62	131.89	120.10
5	M	253	GLN	O-C-N	5.62	131.69	122.70
4	R	403	ILE	N-CA-C	5.62	126.16	111.00
4	R	367	THR	CA-C-O	-5.61	108.31	120.10
7	V	1474	MET	N-CA-C	5.61	126.15	111.00
5	S	312	LYS	O-C-N	5.61	131.68	122.70
3	D	1505	SER	C-N-CA	-5.61	107.68	121.70
4	R	232	THR	CA-C-O	-5.61	108.33	120.10
7	J	1474	MET	N-CA-C	5.60	126.13	111.00
4	R	401	TYR	CA-C-O	5.60	131.87	120.10
4	R	463	ILE	CA-C-O	-5.60	108.33	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	L	232	THR	CA-C-O	-5.60	108.33	120.10
5	Y	384	ASP	CB-CA-C	-5.60	99.20	110.40
3	D	1448	MET	O-C-N	5.60	131.66	122.70
4	F	367	THR	CA-C-O	-5.60	108.35	120.10
3	P	1448	MET	O-C-N	5.60	131.66	122.70
3	P	1505	SER	C-N-CA	-5.60	107.71	121.70
4	L	403	ILE	N-CA-C	5.59	126.11	111.00
4	L	464	LYS	CA-C-N	-5.59	104.89	117.20
6	N	353	GLN	CB-CA-C	-5.59	99.21	110.40
6	H	385	ASP	C-N-CA	-5.59	107.72	121.70
4	L	367	THR	O-C-N	-5.59	113.75	122.70
5	G	384	ASP	CB-CA-C	-5.59	99.22	110.40
4	X	401	TYR	CA-C-O	5.59	131.84	120.10
5	M	384	ASP	CB-CA-C	-5.59	99.22	110.40
4	F	343	MET	CA-C-N	-5.59	104.91	117.20
4	F	401	TYR	CA-C-O	5.58	131.83	120.10
5	S	384	ASP	CB-CA-C	-5.58	99.23	110.40
6	T	385	ASP	C-N-CA	-5.58	107.74	121.70
4	X	232	THR	CA-C-O	-5.58	108.37	120.10
4	L	343	MET	CA-C-N	-5.58	104.93	117.20
6	H	353	GLN	CB-CA-C	-5.58	99.25	110.40
6	T	353	GLN	CB-CA-C	-5.58	99.25	110.40
4	X	367	THR	O-C-N	-5.58	113.78	122.70
4	L	463	ILE	CA-C-O	-5.57	108.40	120.10
7	V	292	GLU	CB-CA-C	-5.57	99.26	110.40
6	Z	353	GLN	CB-CA-C	-5.57	99.26	110.40
5	G	302	GLN	N-CA-CB	5.57	120.62	110.60
4	R	367	THR	O-C-N	-5.57	113.79	122.70
4	R	464	LYS	CA-C-N	-5.57	104.95	117.20
4	X	464	LYS	CA-C-N	-5.56	104.96	117.20
7	J	292	GLU	CB-CA-C	-5.56	99.27	110.40
4	R	343	MET	CA-C-N	-5.56	104.96	117.20
4	X	463	ILE	CA-C-O	-5.56	108.42	120.10
2	I	252	MET	N-CA-CB	5.56	120.60	110.60
4	X	343	MET	CA-C-N	-5.56	104.98	117.20
4	F	464	LYS	CA-C-N	-5.55	104.98	117.20
4	F	463	ILE	CA-C-O	-5.55	108.44	120.10
5	S	302	GLN	N-CA-CB	5.55	120.59	110.60
5	M	302	GLN	N-CA-CB	5.55	120.59	110.60
2	C	252	MET	N-CA-CB	5.54	120.58	110.60
3	D	1517	SER	N-CA-CB	5.54	118.82	110.50
2	U	252	MET	N-CA-CB	5.54	120.58	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	Z	490	GLN	CA-C-N	-5.54	105.00	117.20
1	E	442	GLN	C-N-CA	5.54	135.55	121.70
6	N	490	GLN	CA-C-N	-5.54	105.02	117.20
6	T	490	GLN	CA-C-N	-5.54	105.02	117.20
6	H	490	GLN	CA-C-N	-5.54	105.02	117.20
2	O	252	MET	N-CA-CB	5.54	120.56	110.60
4	F	397	ARG	CA-C-O	5.53	131.72	120.10
6	H	428	GLU	C-N-CA	-5.53	107.87	121.70
1	Q	442	GLN	C-N-CA	5.53	135.53	121.70
1	W	442	GLN	C-N-CA	5.53	135.53	121.70
1	B	442	GLN	C-N-CA	5.53	135.53	121.70
5	Y	302	GLN	N-CA-CB	5.53	120.55	110.60
1	K	442	GLN	C-N-CA	5.52	135.51	121.70
1	A	442	GLN	C-N-CA	5.52	135.50	121.70
4	L	397	ARG	CA-C-O	5.52	131.70	120.10
3	P	1667	ALA	N-CA-CB	5.52	117.83	110.10
4	L	443	HIS	CB-CA-C	5.52	121.44	110.40
3	P	1489	HIS	CA-C-N	5.52	129.35	117.20
6	Z	428	GLU	C-N-CA	-5.52	107.90	121.70
4	R	415	ASP	O-C-N	5.52	131.53	122.70
3	D	1489	HIS	CA-C-N	5.51	129.33	117.20
4	F	443	HIS	CB-CA-C	5.51	121.43	110.40
4	R	443	HIS	CB-CA-C	5.51	121.43	110.40
3	P	1517	SER	N-CA-CB	5.51	118.77	110.50
4	X	443	HIS	CB-CA-C	5.51	121.42	110.40
4	X	397	ARG	CA-C-O	5.51	131.67	120.10
3	D	1489	HIS	N-CA-C	-5.51	96.13	111.00
6	T	428	GLU	C-N-CA	-5.51	107.93	121.70
6	Z	377	ARG	C-N-CA	-5.51	107.93	121.70
3	P	1489	HIS	N-CA-C	-5.50	96.14	111.00
2	U	1	MET	CB-CA-C	-5.50	99.39	110.40
5	G	352	GLN	N-CA-C	5.50	125.86	111.00
5	S	264	GLU	N-CA-C	-5.50	96.14	111.00
4	X	415	ASP	O-C-N	5.50	131.50	122.70
5	M	264	GLU	N-CA-C	-5.50	96.15	111.00
6	N	428	GLU	C-N-CA	-5.50	107.95	121.70
4	R	397	ARG	CA-C-O	5.50	131.65	120.10
6	T	377	ARG	C-N-CA	-5.50	107.96	121.70
7	V	708	MET	N-CA-CB	5.50	120.49	110.60
2	I	1	MET	CB-CA-C	-5.49	99.41	110.40
3	P	1538	SER	O-C-N	5.49	131.48	122.70
4	R	207	GLN	N-CA-CB	-5.49	100.72	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	N	408	SER	CA-C-O	-5.49	108.57	120.10
5	M	352	GLN	N-CA-C	5.49	125.82	111.00
7	J	708	MET	N-CA-CB	5.49	120.47	110.60
6	N	377	ARG	C-N-CA	-5.49	107.98	121.70
5	S	322	ALA	O-C-N	5.48	131.47	122.70
3	D	1667	ALA	N-CA-CB	5.48	117.78	110.10
2	O	1	MET	CB-CA-C	-5.48	99.43	110.40
5	S	352	GLN	N-CA-C	5.48	125.80	111.00
5	G	322	ALA	O-C-N	5.48	131.47	122.70
5	Y	352	GLN	N-CA-C	5.48	125.80	111.00
6	T	466	ASP	CA-C-N	5.48	129.25	117.20
6	H	377	ARG	C-N-CA	-5.48	108.01	121.70
4	X	207	GLN	N-CA-CB	-5.47	100.74	110.60
6	Z	408	SER	CA-C-O	-5.47	108.61	120.10
5	Y	322	ALA	O-C-N	5.47	131.45	122.70
5	M	322	ALA	O-C-N	5.47	131.45	122.70
5	Y	264	GLU	N-CA-C	-5.47	96.23	111.00
4	L	415	ASP	O-C-N	5.47	131.45	122.70
5	M	333	PRO	O-C-N	-5.47	113.90	123.20
4	L	207	GLN	N-CA-CB	-5.47	100.76	110.60
3	P	241	LEU	N-CA-C	5.46	125.75	111.00
6	H	408	SER	CA-C-O	-5.46	108.64	120.10
6	T	408	SER	CA-C-O	-5.46	108.64	120.10
3	D	241	LEU	N-CA-C	5.46	125.73	111.00
4	R	451	GLU	O-C-N	5.46	131.43	122.70
6	T	500	GLU	C-N-CA	5.46	135.34	121.70
5	G	264	GLU	N-CA-C	-5.46	96.27	111.00
2	O	305	LEU	CB-CA-C	5.45	120.56	110.20
4	F	207	GLN	N-CA-CB	-5.45	100.79	110.60
2	C	1	MET	CB-CA-C	-5.45	99.51	110.40
3	D	1532	ASP	C-N-CA	-5.45	108.09	121.70
3	D	1538	SER	O-C-N	5.45	131.41	122.70
5	G	380	ILE	CA-C-N	5.44	129.17	117.20
6	Z	466	ASP	CA-C-N	5.44	129.17	117.20
5	G	249	PRO	CB-CA-C	5.44	125.60	112.00
2	U	233	VAL	N-CA-CB	5.44	123.47	111.50
4	F	415	ASP	O-C-N	5.44	131.40	122.70
6	H	500	GLU	C-N-CA	5.44	135.30	121.70
6	N	500	GLU	C-N-CA	5.43	135.28	121.70
3	P	1483	ARG	CA-C-N	-5.43	105.24	117.20
3	P	1532	ASP	C-N-CA	-5.43	108.12	121.70
5	Y	380	ILE	CA-C-N	5.43	129.15	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	1474	GLY	N-CA-C	5.43	126.67	113.10
6	H	466	ASP	CA-C-N	5.43	129.15	117.20
4	X	451	GLU	O-C-N	5.43	131.39	122.70
6	Z	500	GLU	C-N-CA	5.43	135.27	121.70
4	F	451	GLU	O-C-N	5.43	131.38	122.70
4	R	306	PRO	N-CA-CB	5.43	109.81	103.30
2	I	233	VAL	N-CA-CB	5.43	123.44	111.50
7	V	868	PRO	N-CA-C	5.43	126.21	112.10
6	N	466	ASP	CA-C-N	5.42	129.14	117.20
2	U	28	HIS	CA-C-N	-5.42	105.27	117.20
4	X	306	PRO	N-CA-CB	5.42	109.81	103.30
5	M	249	PRO	CB-CA-C	5.42	125.56	112.00
4	F	458	ASP	CB-CA-C	-5.42	99.56	110.40
3	P	1515	TYR	CA-C-N	-5.42	105.27	117.20
5	G	369	ASN	N-CA-CB	-5.42	100.84	110.60
5	M	380	ILE	CA-C-N	5.42	129.12	117.20
2	O	233	VAL	N-CA-CB	5.42	123.42	111.50
2	I	305	LEU	CB-CA-C	5.42	120.49	110.20
2	U	305	LEU	CB-CA-C	5.42	120.50	110.20
7	J	868	PRO	N-CA-C	5.42	126.18	112.10
5	M	369	ASN	N-CA-CB	-5.42	100.85	110.60
5	Y	333	PRO	O-C-N	-5.42	113.99	123.20
2	O	28	HIS	CA-C-N	-5.42	105.29	117.20
2	C	305	LEU	CB-CA-C	5.41	120.48	110.20
2	C	233	VAL	N-CA-CB	5.41	123.41	111.50
3	D	1515	TYR	CA-C-N	-5.41	105.29	117.20
4	F	306	PRO	N-CA-CB	5.41	109.79	103.30
3	D	1483	ARG	CA-C-N	-5.41	105.30	117.20
4	F	398	LYS	CA-C-O	5.41	131.46	120.10
2	I	28	HIS	CA-C-N	-5.41	105.30	117.20
4	L	306	PRO	N-CA-CB	5.41	109.79	103.30
4	X	392	LYS	CB-CA-C	5.41	121.22	110.40
5	Y	369	ASN	N-CA-CB	-5.41	100.86	110.60
5	G	377	ASN	N-CA-C	5.41	125.60	111.00
4	L	458	ASP	CB-CA-C	-5.41	99.59	110.40
4	R	342	GLN	C-N-CA	5.41	135.21	121.70
2	O	485	LEU	N-CA-C	-5.40	96.41	111.00
4	X	342	GLN	C-N-CA	5.40	135.21	121.70
7	J	1465	GLU	N-CA-CB	5.40	120.33	110.60
4	R	458	ASP	CB-CA-C	-5.40	99.59	110.40
2	U	485	LEU	N-CA-C	-5.40	96.41	111.00
5	Y	249	PRO	CB-CA-C	5.40	125.51	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	R	392	LYS	CB-CA-C	5.40	121.20	110.40
5	S	369	ASN	N-CA-CB	-5.40	100.88	110.60
4	L	392	LYS	CB-CA-C	5.40	121.19	110.40
4	F	392	LYS	CB-CA-C	5.40	121.19	110.40
5	G	333	PRO	O-C-N	-5.40	114.03	123.20
5	S	380	ILE	CA-C-N	5.40	129.07	117.20
4	R	398	LYS	CA-C-O	5.39	131.43	120.10
2	I	485	LEU	N-CA-C	-5.39	96.44	111.00
6	N	366	ILE	CB-CA-C	-5.39	100.81	111.60
5	S	249	PRO	CB-CA-C	5.39	125.48	112.00
5	S	333	PRO	O-C-N	-5.39	114.04	123.20
2	C	28	HIS	CA-C-N	-5.39	105.34	117.20
2	C	485	LEU	N-CA-C	-5.39	96.45	111.00
3	P	1474	GLY	N-CA-C	5.39	126.57	113.10
4	X	458	ASP	CB-CA-C	-5.39	99.62	110.40
4	L	342	GLN	C-N-CA	5.39	135.17	121.70
5	M	377	ASN	N-CA-C	5.39	125.54	111.00
4	X	398	LYS	CA-C-O	5.39	131.41	120.10
4	R	266	GLU	C-N-CA	-5.38	108.24	121.70
5	S	377	ASN	N-CA-C	5.38	125.54	111.00
4	L	451	GLU	O-C-N	5.38	131.31	122.70
3	P	400	LEU	N-CA-CB	5.38	121.16	110.40
3	D	240	PRO	N-CA-C	-5.38	98.12	112.10
4	L	398	LYS	CA-C-O	5.38	131.40	120.10
3	D	400	LEU	N-CA-CB	5.38	121.15	110.40
6	H	366	ILE	CB-CA-C	-5.38	100.85	111.60
1	K	443	LYS	N-CA-CB	5.38	120.28	110.60
5	Y	331	THR	N-CA-C	5.38	125.52	111.00
5	Y	377	ASN	N-CA-C	5.38	125.51	111.00
4	X	407	GLU	N-CA-CB	5.38	120.28	110.60
6	T	366	ILE	CB-CA-C	-5.37	100.85	111.60
4	L	266	GLU	C-N-CA	-5.37	108.27	121.70
4	L	436	SER	CA-C-N	-5.37	105.39	117.20
2	U	250	VAL	CB-CA-C	5.37	121.60	111.40
4	X	208	GLN	CA-C-N	-5.37	105.39	117.20
3	P	240	PRO	N-CA-C	-5.37	98.15	112.10
3	P	1502	ARG	CA-C-N	-5.37	105.39	117.20
4	F	342	GLN	C-N-CA	5.36	135.11	121.70
4	R	436	SER	CA-C-N	-5.36	105.40	117.20
4	X	436	SER	CA-C-N	-5.36	105.40	117.20
4	F	407	GLU	N-CA-CB	5.36	120.25	110.60
5	G	322	ALA	CA-C-O	-5.36	108.84	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	X	266	GLU	C-N-CA	-5.36	108.30	121.70
1	E	443	LYS	N-CA-CB	5.36	120.25	110.60
1	B	443	LYS	N-CA-CB	5.36	120.24	110.60
2	O	3	THR	CA-C-O	5.36	131.35	120.10
7	V	1465	GLU	N-CA-CB	5.36	120.24	110.60
4	L	407	GLU	N-CA-CB	5.36	120.24	110.60
5	M	322	ALA	CA-C-O	-5.36	108.86	120.10
5	M	331	THR	N-CA-C	5.36	125.46	111.00
1	Q	443	LYS	N-CA-CB	5.36	120.24	110.60
1	W	443	LYS	N-CA-CB	5.36	120.24	110.60
5	Y	322	ALA	CA-C-O	-5.36	108.85	120.10
2	O	250	VAL	CB-CA-C	5.35	121.57	111.40
1	A	443	LYS	N-CA-CB	5.35	120.24	110.60
2	C	250	VAL	CB-CA-C	5.35	121.57	111.40
2	C	3	THR	CA-C-O	5.35	131.34	120.10
2	I	250	VAL	CB-CA-C	5.35	121.57	111.40
4	R	407	GLU	N-CA-CB	5.35	120.23	110.60
5	S	331	THR	N-CA-C	5.35	125.44	111.00
4	F	266	GLU	C-N-CA	-5.35	108.33	121.70
3	D	1502	ARG	CA-C-N	-5.34	105.44	117.20
4	F	208	GLN	CA-C-N	-5.34	105.45	117.20
4	F	436	SER	CA-C-N	-5.34	105.45	117.20
3	P	1470	ILE	CA-C-O	-5.34	108.88	120.10
4	X	462	GLU	O-C-N	-5.34	114.15	122.70
6	Z	405	ASP	C-N-CA	-5.34	108.34	121.70
3	D	1470	ILE	CA-C-O	-5.34	108.89	120.10
4	F	465	GLN	CA-C-O	-5.34	108.89	120.10
5	G	352	GLN	CA-C-N	-5.34	105.45	117.20
4	L	208	GLN	CA-C-N	-5.34	105.45	117.20
4	L	462	GLU	O-C-N	-5.34	114.16	122.70
2	O	484	ARG	CB-CA-C	-5.34	99.72	110.40
3	P	1491	ILE	CA-C-O	5.34	131.31	120.10
5	G	331	THR	N-CA-C	5.34	125.41	111.00
6	N	405	ASP	C-N-CA	-5.34	108.36	121.70
5	S	322	ALA	CA-C-O	-5.34	108.89	120.10
2	C	484	ARG	CB-CA-C	-5.33	99.73	110.40
2	I	484	ARG	CB-CA-C	-5.33	99.73	110.40
6	Z	366	ILE	CB-CA-C	-5.33	100.93	111.60
4	R	465	GLN	CA-C-O	-5.33	108.91	120.10
6	H	405	ASP	C-N-CA	-5.33	108.38	121.70
6	T	405	ASP	C-N-CA	-5.33	108.39	121.70
2	U	484	ARG	CB-CA-C	-5.33	99.75	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	H	406	LEU	C-N-CA	-5.32	108.39	121.70
2	I	3	THR	CA-C-O	5.32	131.28	120.10
5	M	352	GLN	CA-C-N	-5.32	105.50	117.20
6	Z	501	GLU	CA-C-O	5.32	131.26	120.10
3	D	1491	ILE	CA-C-O	5.32	131.26	120.10
4	X	367	THR	N-CA-C	-5.32	96.65	111.00
4	L	465	GLN	CA-C-O	-5.31	108.94	120.10
4	L	367	THR	N-CA-C	-5.31	96.66	111.00
4	R	462	GLU	O-C-N	-5.31	114.20	122.70
5	S	352	GLN	CA-C-N	-5.31	105.51	117.20
6	T	406	LEU	C-N-CA	-5.31	108.42	121.70
5	Y	352	GLN	CA-C-N	-5.31	105.51	117.20
4	R	208	GLN	CA-C-N	-5.31	105.52	117.20
4	F	367	THR	N-CA-C	-5.31	96.67	111.00
4	F	462	GLU	O-C-N	-5.31	114.21	122.70
2	U	3	THR	CA-C-O	5.30	131.24	120.10
6	N	406	LEU	C-N-CA	-5.30	108.45	121.70
5	S	332	PRO	CB-CA-C	5.30	125.25	112.00
3	D	1521	TYR	O-C-N	5.30	131.18	122.70
4	X	465	GLN	CA-C-O	-5.30	108.97	120.10
5	G	332	PRO	CB-CA-C	5.30	125.24	112.00
5	Y	332	PRO	CB-CA-C	5.30	125.24	112.00
6	H	501	GLU	CA-C-O	5.29	131.22	120.10
4	R	367	THR	N-CA-C	-5.29	96.71	111.00
5	S	330	LYS	N-CA-C	-5.29	96.71	111.00
7	J	708	MET	CB-CA-C	-5.29	99.82	110.40
6	T	501	GLU	CA-C-O	5.29	131.21	120.10
6	Z	406	LEU	C-N-CA	-5.29	108.49	121.70
5	M	332	PRO	CB-CA-C	5.28	125.19	112.00
6	N	501	GLU	CA-C-O	5.28	131.18	120.10
2	I	233	VAL	CA-C-N	-5.27	105.60	117.20
7	V	708	MET	CB-CA-C	-5.27	99.86	110.40
5	Y	330	LYS	N-CA-C	-5.27	96.77	111.00
2	O	233	VAL	CA-C-N	-5.27	105.61	117.20
4	L	220	ASN	N-CA-CB	5.26	120.07	110.60
4	L	253	SER	O-C-N	5.26	131.12	122.70
4	R	460	LEU	CA-C-N	5.26	128.78	117.20
5	G	330	LYS	N-CA-C	-5.26	96.80	111.00
5	M	330	LYS	N-CA-C	-5.26	96.80	111.00
5	M	337	HIS	CA-C-N	5.26	128.77	117.20
4	F	491	VAL	CA-C-N	-5.26	105.64	117.20
3	P	1521	TYR	O-C-N	5.26	131.11	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	X	491	VAL	CA-C-N	-5.26	105.64	117.20
6	H	495	LEU	CB-CA-C	-5.25	100.22	110.20
4	R	447	VAL	CA-C-N	-5.25	105.64	117.20
3	D	717	SER	CA-C-N	5.25	128.75	117.20
5	S	337	HIS	CA-C-N	5.25	128.75	117.20
2	U	233	VAL	CA-C-N	-5.25	105.65	117.20
4	X	460	LEU	CA-C-N	5.25	128.75	117.20
2	C	233	VAL	CA-C-N	-5.25	105.65	117.20
4	F	253	SER	O-C-N	5.25	131.09	122.70
4	F	460	LEU	CA-C-N	5.24	128.74	117.20
5	Y	337	HIS	CA-C-N	5.24	128.74	117.20
4	F	220	ASN	N-CA-CB	5.24	120.03	110.60
4	F	253	SER	N-CA-CB	5.24	118.36	110.50
5	S	328	THR	N-CA-C	-5.24	96.85	111.00
4	X	447	VAL	CA-C-N	-5.24	105.67	117.20
5	Y	328	THR	N-CA-C	-5.24	96.85	111.00
3	D	1504	VAL	N-CA-CB	5.24	123.03	111.50
4	L	447	VAL	CA-C-N	-5.24	105.68	117.20
4	L	460	LEU	CA-C-N	5.24	128.72	117.20
4	R	491	VAL	CA-C-N	-5.24	105.67	117.20
5	G	328	THR	N-CA-C	-5.24	96.86	111.00
4	R	253	SER	O-C-N	5.24	131.08	122.70
4	F	447	VAL	CA-C-N	-5.24	105.68	117.20
4	L	491	VAL	CA-C-N	-5.23	105.69	117.20
5	M	338	GLU	C-N-CA	-5.23	108.62	121.70
5	G	337	HIS	CA-C-N	5.23	128.70	117.20
6	N	495	LEU	CB-CA-C	-5.23	100.27	110.20
3	P	717	SER	CA-C-N	5.23	128.70	117.20
4	R	253	SER	N-CA-CB	5.23	118.34	110.50
4	X	220	ASN	N-CA-CB	5.23	120.01	110.60
4	F	484	ASP	N-CA-CB	-5.23	101.19	110.60
4	R	220	ASN	N-CA-CB	5.22	120.00	110.60
6	T	495	LEU	CB-CA-C	-5.22	100.27	110.20
6	Z	495	LEU	CB-CA-C	-5.22	100.28	110.20
4	X	458	ASP	O-C-N	-5.22	114.34	122.70
5	Y	319	LEU	CA-C-N	-5.22	105.71	117.20
4	X	253	SER	N-CA-CB	5.22	118.33	110.50
4	X	484	ASP	N-CA-CB	-5.22	101.20	110.60
4	R	484	ASP	N-CA-CB	-5.22	101.20	110.60
7	J	1465	GLU	CB-CA-C	-5.22	99.96	110.40
3	P	1504	VAL	N-CA-CB	5.22	122.98	111.50
4	X	253	SER	O-C-N	5.22	131.05	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	L	484	ASP	N-CA-CB	-5.22	101.21	110.60
5	Y	338	GLU	C-N-CA	-5.22	108.66	121.70
5	G	338	GLU	C-N-CA	-5.21	108.66	121.70
5	M	328	THR	N-CA-C	-5.21	96.92	111.00
7	V	1465	GLU	CB-CA-C	-5.21	99.97	110.40
4	R	267	GLN	N-CA-CB	-5.21	101.22	110.60
3	D	1490	GLU	CA-C-O	5.21	131.03	120.10
5	S	319	LEU	CA-C-N	-5.21	105.75	117.20
4	L	253	SER	N-CA-CB	5.20	118.30	110.50
3	P	1490	GLU	CA-C-O	5.20	131.02	120.10
5	S	338	GLU	C-N-CA	-5.20	108.70	121.70
3	D	494	LEU	CB-CA-C	-5.19	100.33	110.20
4	X	234	PRO	N-CA-C	5.19	125.60	112.10
5	G	319	LEU	CA-C-N	-5.19	105.78	117.20
3	D	1516	LEU	CA-C-O	-5.19	109.20	120.10
3	P	494	LEU	CB-CA-C	-5.19	100.34	110.20
7	J	1467	HIS	N-CA-CB	5.19	119.94	110.60
4	L	468	LYS	CA-C-O	-5.18	109.21	120.10
3	P	1516	LEU	CA-C-O	-5.18	109.21	120.10
4	R	234	PRO	N-CA-C	5.18	125.57	112.10
7	V	1467	HIS	N-CA-CB	5.18	119.92	110.60
4	X	267	GLN	N-CA-CB	-5.18	101.28	110.60
4	X	408	GLU	N-CA-C	5.18	124.98	111.00
5	M	319	LEU	CA-C-N	-5.17	105.82	117.20
4	X	348	GLN	C-N-CA	-5.17	108.77	121.70
4	R	408	GLU	N-CA-C	5.17	124.97	111.00
4	R	458	ASP	O-C-N	-5.17	114.43	122.70
6	N	391	GLN	CA-C-N	5.17	128.56	117.20
4	R	467	LEU	CB-CA-C	-5.17	100.39	110.20
2	U	10	LEU	O-C-N	5.17	130.96	122.70
4	X	468	LYS	CA-C-O	-5.17	109.25	120.10
2	C	10	LEU	O-C-N	5.16	130.96	122.70
2	O	10	LEU	O-C-N	5.16	130.96	122.70
7	V	425	PRO	C-N-CA	5.16	134.61	121.70
4	L	408	GLU	N-CA-C	5.16	124.94	111.00
4	F	234	PRO	N-CA-C	5.16	125.52	112.10
4	L	234	PRO	N-CA-C	5.16	125.52	112.10
4	X	428	LYS	C-N-CA	-5.16	111.46	122.30
4	F	408	GLU	N-CA-C	5.16	124.93	111.00
4	R	428	LYS	C-N-CA	-5.16	111.47	122.30
4	F	458	ASP	O-C-N	-5.16	114.45	122.70
4	L	267	GLN	N-CA-CB	-5.15	101.32	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	L	458	ASP	O-C-N	-5.15	114.45	122.70
4	F	468	LYS	CA-C-O	-5.15	109.28	120.10
4	R	348	GLN	C-N-CA	-5.15	108.82	121.70
5	S	277	SER	N-CA-C	5.15	124.91	111.00
3	D	1486	CYS	CA-C-N	-5.15	105.87	117.20
4	R	468	LYS	CA-C-O	-5.15	109.29	120.10
3	P	1486	CYS	CA-C-N	-5.15	105.88	117.20
6	H	391	GLN	CA-C-N	5.14	128.52	117.20
4	F	428	LYS	C-N-CA	-5.14	111.50	122.30
4	L	428	LYS	C-N-CA	-5.14	111.50	122.30
4	F	267	GLN	N-CA-CB	-5.14	101.35	110.60
4	L	348	GLN	C-N-CA	-5.14	108.85	121.70
7	J	317	PRO	N-CA-C	5.14	125.47	112.10
7	J	425	PRO	C-N-CA	5.14	134.55	121.70
6	T	391	GLN	CA-C-N	5.14	128.51	117.20
4	F	467	LEU	CB-CA-C	-5.14	100.44	110.20
4	L	319	SER	CA-C-N	5.14	128.50	117.20
4	L	467	LEU	CB-CA-C	-5.14	100.44	110.20
2	I	10	LEU	O-C-N	5.13	130.91	122.70
4	F	319	SER	CA-C-N	5.13	128.48	117.20
6	H	391	GLN	N-CA-CB	5.13	119.83	110.60
7	V	317	PRO	N-CA-C	5.13	125.43	112.10
4	F	432	ASN	CB-CA-C	-5.13	100.15	110.40
6	Z	373	THR	C-N-CA	-5.13	108.88	121.70
6	Z	391	GLN	CA-C-N	5.12	128.47	117.20
5	G	323	GLU	CB-CA-C	5.12	120.65	110.40
7	J	159	ALA	N-CA-C	-5.12	97.17	111.00
4	F	467	LEU	CA-C-N	5.12	128.47	117.20
4	X	428	LYS	CA-C-N	-5.12	105.96	116.20
4	F	348	GLN	C-N-CA	-5.12	108.90	121.70
2	I	455	VAL	CB-CA-C	-5.12	101.68	111.40
6	N	373	THR	C-N-CA	-5.12	108.91	121.70
5	Y	277	SER	N-CA-C	5.11	124.81	111.00
6	H	373	THR	C-N-CA	-5.11	108.92	121.70
2	I	3	THR	C-N-CA	-5.11	108.92	121.70
4	R	319	SER	CA-C-N	5.11	128.45	117.20
4	R	428	LYS	CA-C-N	-5.11	105.98	116.20
7	V	159	ALA	N-CA-C	-5.11	97.20	111.00
5	M	274	ARG	N-CA-CB	5.11	119.80	110.60
2	C	307	GLY	C-N-CA	5.11	134.47	121.70
4	L	207	GLN	CB-CA-C	-5.11	100.18	110.40
4	L	231	LYS	C-N-CA	5.11	134.47	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	O	3	THR	C-N-CA	-5.11	108.93	121.70
2	O	455	VAL	CB-CA-C	-5.11	101.69	111.40
5	S	274	ARG	N-CA-CB	5.11	119.79	110.60
2	U	307	GLY	C-N-CA	5.11	134.47	121.70
4	X	319	SER	CA-C-N	5.11	128.44	117.20
4	X	432	ASN	CB-CA-C	-5.11	100.18	110.40
4	R	432	ASN	CB-CA-C	-5.11	100.19	110.40
6	Z	391	GLN	N-CA-CB	5.11	119.79	110.60
7	V	95	CYS	C-N-CA	5.10	134.46	121.70
2	I	307	GLY	C-N-CA	5.10	134.46	121.70
5	M	277	SER	N-CA-C	5.10	124.78	111.00
2	U	3	THR	C-N-CA	-5.10	108.94	121.70
4	X	467	LEU	CA-C-N	5.10	128.43	117.20
5	G	277	SER	N-CA-C	5.10	124.77	111.00
4	L	432	ASN	CB-CA-C	-5.10	100.20	110.40
2	O	307	GLY	C-N-CA	5.10	134.45	121.70
5	Y	274	ARG	N-CA-CB	5.10	119.78	110.60
6	N	391	GLN	N-CA-CB	5.10	119.78	110.60
4	L	428	LYS	CA-C-N	-5.10	106.00	116.20
4	X	467	LEU	CB-CA-C	-5.10	100.51	110.20
4	F	428	LYS	CA-C-N	-5.09	106.01	116.20
5	G	274	ARG	N-CA-CB	5.09	119.77	110.60
4	R	468	LYS	C-N-CA	-5.09	108.97	121.70
4	L	467	LEU	CA-C-N	5.09	128.40	117.20
6	T	391	GLN	N-CA-CB	5.09	119.76	110.60
7	J	95	CYS	C-N-CA	5.09	134.42	121.70
5	M	323	GLU	CB-CA-C	5.09	120.57	110.40
2	U	455	VAL	CB-CA-C	-5.09	101.74	111.40
2	C	3	THR	C-N-CA	-5.08	108.99	121.70
2	C	455	VAL	CB-CA-C	-5.08	101.74	111.40
2	O	654	SER	C-N-CA	5.08	134.41	121.70
2	U	654	SER	C-N-CA	5.08	134.41	121.70
5	S	323	GLU	CB-CA-C	5.08	120.56	110.40
2	C	654	SER	C-N-CA	5.08	134.40	121.70
6	Z	474	ILE	N-CA-CB	5.08	122.48	110.80
4	R	207	GLN	CB-CA-C	-5.08	100.25	110.40
2	I	654	SER	C-N-CA	5.07	134.38	121.70
4	R	467	LEU	CA-C-N	5.07	128.36	117.20
7	J	1371	GLN	CB-CA-C	-5.07	100.26	110.40
7	J	1465	GLU	CA-C-O	-5.07	109.45	120.10
4	L	468	LYS	C-N-CA	-5.07	109.02	121.70
6	N	474	ILE	N-CA-CB	5.07	122.46	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	R	231	LYS	C-N-CA	5.07	134.37	121.70
6	T	474	ILE	N-CA-CB	5.07	122.46	110.80
7	V	1371	GLN	CB-CA-C	-5.07	100.26	110.40
7	V	1465	GLU	CA-C-O	-5.07	109.46	120.10
6	H	474	ILE	N-CA-CB	5.07	122.45	110.80
6	T	373	THR	C-N-CA	-5.07	109.03	121.70
4	X	231	LYS	C-N-CA	5.07	134.36	121.70
4	F	231	LYS	C-N-CA	5.06	134.36	121.70
4	X	207	GLN	CB-CA-C	-5.06	100.28	110.40
4	F	207	GLN	CB-CA-C	-5.06	100.28	110.40
4	X	468	LYS	C-N-CA	-5.06	109.06	121.70
4	F	447	VAL	CA-C-O	5.05	130.72	120.10
5	Y	323	GLU	CB-CA-C	5.05	120.50	110.40
2	C	306	PRO	N-CA-C	5.05	125.22	112.10
4	F	468	LYS	C-N-CA	-5.05	109.08	121.70
3	D	1491	ILE	CA-C-N	-5.04	106.11	116.20
2	O	10	LEU	CA-C-N	-5.04	106.11	117.20
3	P	1491	ILE	CA-C-N	-5.04	106.12	116.20
4	R	401	TYR	CB-CA-C	-5.04	100.33	110.40
4	X	391	ILE	C-N-CA	-5.04	109.11	121.70
2	C	10	LEU	CA-C-N	-5.03	106.12	117.20
2	I	306	PRO	N-CA-C	5.03	125.18	112.10
7	J	162	VAL	N-CA-C	-5.03	97.41	111.00
2	U	10	LEU	CA-C-N	-5.03	106.13	117.20
2	U	306	PRO	N-CA-C	5.03	125.18	112.10
4	X	447	VAL	CA-C-O	5.03	130.66	120.10
5	G	304	ASN	N-CA-CB	5.03	119.65	110.60
5	M	304	ASN	N-CA-CB	5.03	119.65	110.60
2	O	306	PRO	N-CA-C	5.03	125.17	112.10
4	L	299	ASN	CA-C-N	5.03	131.18	117.10
4	L	447	VAL	CA-C-O	5.03	130.66	120.10
4	R	447	VAL	CA-C-O	5.03	130.66	120.10
6	H	446	ARG	C-N-CA	5.03	134.26	121.70
4	L	401	TYR	CB-CA-C	-5.03	100.35	110.40
4	X	305	ASP	O-C-N	5.02	130.65	121.10
3	P	650	LEU	CB-CA-C	-5.02	100.66	110.20
7	V	162	VAL	N-CA-C	-5.02	97.44	111.00
4	X	299	ASN	CA-C-N	5.02	131.16	117.10
4	X	401	TYR	CB-CA-C	-5.02	100.36	110.40
4	F	299	ASN	CA-C-N	5.02	131.15	117.10
2	I	10	LEU	CA-C-N	-5.02	106.16	117.20
4	R	391	ILE	C-N-CA	-5.02	109.16	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	S	304	ASN	N-CA-CB	5.02	119.63	110.60
7	V	867	LEU	N-CA-C	5.02	124.54	111.00
3	D	1521	TYR	C-N-CA	-5.01	109.17	121.70
4	F	401	TYR	CB-CA-C	-5.01	100.38	110.40
4	R	299	ASN	CA-C-N	5.01	131.12	117.10
6	Z	446	ARG	C-N-CA	5.01	134.22	121.70
4	L	391	ILE	C-N-CA	-5.01	109.18	121.70
6	N	446	ARG	C-N-CA	5.01	134.22	121.70
3	D	650	LEU	CB-CA-C	-5.01	100.69	110.20
4	F	391	ILE	C-N-CA	-5.00	109.19	121.70
7	J	867	LEU	N-CA-C	5.00	124.51	111.00

All (100) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
2	C	11	GLN	CA
4	F	200	THR	CA
4	F	210	VAL	CA
4	F	211	GLU	CA
4	F	305	ASP	CA
4	F	341	ASP	CA
4	F	423	ALA	CA
4	F	454	TYR	CA
4	F	459	LEU	CA
4	F	460	LEU	CA
4	F	486	GLU	CA
5	G	327	ARG	CA
5	G	330	LYS	CA
5	G	338	GLU	CA
5	G	339	TYR	CA
5	G	340	ALA	CA
5	G	341	ALA	CA
5	G	344	ASP	CA
5	G	373	THR	CA
5	G	405	SER	CA
6	H	352	LEU	CA
6	H	356	THR	CA
6	H	387	LYS	CA
6	H	446	ARG	CA
6	H	494	LEU	CA
2	I	11	GLN	CA
4	L	200	THR	CA

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Mol	Chain	Res	Type	Atom
4	L	210	VAL	CA
4	L	211	GLU	CA
4	L	305	ASP	CA
4	L	341	ASP	CA
4	L	423	ALA	CA
4	L	454	TYR	CA
4	L	459	LEU	CA
4	L	460	LEU	CA
4	L	486	GLU	CA
5	M	327	ARG	CA
5	M	330	LYS	CA
5	M	338	GLU	CA
5	M	339	TYR	CA
5	M	340	ALA	CA
5	M	341	ALA	CA
5	M	344	ASP	CA
5	M	373	THR	CA
5	M	405	SER	CA
6	N	352	LEU	CA
6	N	356	THR	CA
6	N	387	LYS	CA
6	N	446	ARG	CA
6	N	494	LEU	CA
2	O	11	GLN	CA
4	R	200	THR	CA
4	R	210	VAL	CA
4	R	211	GLU	CA
4	R	305	ASP	CA
4	R	341	ASP	CA
4	R	423	ALA	CA
4	R	454	TYR	CA
4	R	459	LEU	CA
4	R	460	LEU	CA
4	R	486	GLU	CA
5	S	327	ARG	CA
5	S	330	LYS	CA
5	S	338	GLU	CA
5	S	339	TYR	CA
5	S	340	ALA	CA
5	S	341	ALA	CA
5	S	344	ASP	CA
5	S	373	THR	CA

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Mol	Chain	Res	Type	Atom
5	S	405	SER	CA
6	T	352	LEU	CA
6	T	356	THR	CA
6	T	387	LYS	CA
6	T	446	ARG	CA
6	T	494	LEU	CA
2	U	11	GLN	CA
4	X	200	THR	CA
4	X	210	VAL	CA
4	X	211	GLU	CA
4	X	305	ASP	CA
4	X	341	ASP	CA
4	X	423	ALA	CA
4	X	454	TYR	CA
4	X	459	LEU	CA
4	X	460	LEU	CA
4	X	486	GLU	CA
5	Y	327	ARG	CA
5	Y	330	LYS	CA
5	Y	338	GLU	CA
5	Y	339	TYR	CA
5	Y	340	ALA	CA
5	Y	341	ALA	CA
5	Y	344	ASP	CA
5	Y	373	THR	CA
5	Y	405	SER	CA
6	Z	352	LEU	CA
6	Z	356	THR	CA
6	Z	387	LYS	CA
6	Z	446	ARG	CA
6	Z	494	LEU	CA

All (288) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	259	SER	Mainchain
1	B	259	SER	Mainchain
2	C	11	GLN	Mainchain
2	C	4	GLU	Mainchain
2	C	6	PHE	Mainchain
2	C	7	GLY	Mainchain
3	D	1448	MET	Mainchain

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Mol	Chain	Res	Type	Group
3	D	1449	TRP	Peptide
3	D	1450	GLU	Peptide
3	D	1484	ASP	Mainchain
3	D	1485	ALA	Mainchain
3	D	1486	CYS	Mainchain
3	D	1489	HIS	Mainchain
3	D	1503	ILE	Mainchain
3	D	1507	ASP	Mainchain
3	D	1508	LYS	Mainchain,Peptide
3	D	1509	GLN	Mainchain
3	D	1512	TRP	Mainchain
3	D	1516	LEU	Mainchain
3	D	1517	SER	Mainchain,Peptide
3	D	1518	ASN	Mainchain
3	D	1519	SER	Peptide
3	D	1538	SER	Mainchain
3	D	1541	THR	Mainchain
3	D	1542	PRO	Mainchain
1	E	259	SER	Mainchain
4	F	200	THR	Mainchain
4	F	208	GLN	Mainchain
4	F	210	VAL	Mainchain
4	F	221	GLN	Mainchain,Peptide
4	F	236	ASP	Mainchain
4	F	245	VAL	Mainchain
4	F	250	ASN	Mainchain
4	F	253	SER	Mainchain
4	F	393	GLN	Mainchain
4	F	397	ARG	Mainchain
4	F	398	LYS	Mainchain,Peptide
4	F	399	SER	Peptide
4	F	400	GLY	Mainchain
4	F	401	TYR	Mainchain
4	F	403	ILE	Peptide
4	F	419	GLY	Mainchain
4	F	420	GLU	Mainchain
4	F	421	LEU	Mainchain
4	F	422	ASN	Mainchain,Peptide
4	F	423	ALA	Mainchain
4	F	424	PRO	Mainchain,Peptide
4	F	425	THR	Mainchain
4	F	426	GLN	Mainchain

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Mol	Chain	Res	Type	Group
4	F	445	GLY	Mainchain
4	F	446	ALA	Mainchain
4	F	448	ARG	Mainchain
4	F	452	ARG	Mainchain
4	F	454	TYR	Mainchain,Peptide
4	F	456	ASP	Mainchain
4	F	457	ALA	Mainchain
4	F	459	LEU	Mainchain
4	F	462	GLU	Mainchain
4	F	463	ILE	Peptide
4	F	472	GLU	Mainchain
4	F	487	ASP	Mainchain
5	G	321	ASN	Mainchain
5	G	325	ALA	Mainchain
5	G	326	LEU	Mainchain,Peptide
5	G	329	GLN	Mainchain
5	G	330	LYS	Mainchain
5	G	340	ALA	Mainchain,Peptide
5	G	341	ALA	Mainchain
5	G	343	ALA	Mainchain
6	H	374	SER	Mainchain
6	H	407	LEU	Mainchain
6	H	408	SER	Peptide
6	H	493	ALA	Peptide
6	H	497	ARG	Mainchain
2	I	11	GLN	Mainchain
2	I	4	GLU	Mainchain
2	I	6	PHE	Mainchain
2	I	7	GLY	Mainchain
7	J	1386	LYS	Peptide
7	J	1387	SER	Peptide
7	J	1465	GLU	Mainchain
1	K	259	SER	Mainchain
4	L	200	THR	Mainchain
4	L	208	GLN	Mainchain
4	L	210	VAL	Mainchain
4	L	221	GLN	Mainchain,Peptide
4	L	236	ASP	Mainchain
4	L	245	VAL	Mainchain
4	L	250	ASN	Mainchain
4	L	253	SER	Mainchain
4	L	393	GLN	Mainchain

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Mol	Chain	Res	Type	Group
4	L	397	ARG	Mainchain
4	L	398	LYS	Mainchain,Peptide
4	L	399	SER	Peptide
4	L	400	GLY	Mainchain
4	L	401	TYR	Mainchain
4	L	403	ILE	Peptide
4	L	419	GLY	Mainchain
4	L	420	GLU	Mainchain
4	L	421	LEU	Mainchain
4	L	422	ASN	Mainchain,Peptide
4	L	423	ALA	Mainchain
4	L	424	PRO	Mainchain,Peptide
4	L	425	THR	Mainchain
4	L	426	GLN	Mainchain
4	L	445	GLY	Mainchain
4	L	446	ALA	Mainchain
4	L	448	ARG	Mainchain
4	L	452	ARG	Mainchain
4	L	454	TYR	Mainchain,Peptide
4	L	456	ASP	Mainchain
4	L	457	ALA	Mainchain
4	L	459	LEU	Mainchain
4	L	462	GLU	Mainchain
4	L	463	ILE	Peptide
4	L	472	GLU	Mainchain
4	L	487	ASP	Mainchain
5	M	321	ASN	Mainchain
5	M	325	ALA	Mainchain
5	M	326	LEU	Mainchain,Peptide
5	M	329	GLN	Mainchain
5	M	330	LYS	Mainchain
5	M	340	ALA	Mainchain,Peptide
5	M	341	ALA	Mainchain
5	M	343	ALA	Mainchain
6	N	374	SER	Mainchain
6	N	407	LEU	Mainchain
6	N	408	SER	Peptide
6	N	493	ALA	Peptide
6	N	497	ARG	Mainchain
2	O	11	GLN	Mainchain
2	O	4	GLU	Mainchain
2	O	6	PHE	Mainchain

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Mol	Chain	Res	Type	Group
2	O	7	GLY	Mainchain
3	P	1448	MET	Mainchain
3	P	1449	TRP	Peptide
3	P	1450	GLU	Peptide
3	P	1484	ASP	Mainchain
3	P	1485	ALA	Mainchain
3	P	1486	CYS	Mainchain
3	P	1489	HIS	Mainchain
3	P	1503	ILE	Mainchain
3	P	1507	ASP	Mainchain
3	P	1508	LYS	Mainchain,Peptide
3	P	1509	GLN	Mainchain
3	P	1516	LEU	Mainchain
3	P	1517	SER	Mainchain,Peptide
3	P	1518	ASN	Mainchain
3	P	1519	SER	Peptide
3	P	1538	SER	Mainchain
3	P	1541	THR	Mainchain
3	P	1542	PRO	Mainchain
1	Q	259	SER	Mainchain
4	R	200	THR	Mainchain
4	R	208	GLN	Mainchain
4	R	210	VAL	Mainchain
4	R	221	GLN	Mainchain,Peptide
4	R	236	ASP	Mainchain
4	R	245	VAL	Mainchain
4	R	250	ASN	Mainchain
4	R	253	SER	Mainchain
4	R	393	GLN	Mainchain
4	R	397	ARG	Mainchain
4	R	398	LYS	Mainchain,Peptide
4	R	399	SER	Peptide
4	R	400	GLY	Mainchain
4	R	401	TYR	Mainchain
4	R	403	ILE	Peptide
4	R	419	GLY	Mainchain
4	R	420	GLU	Mainchain
4	R	421	LEU	Mainchain
4	R	422	ASN	Mainchain,Peptide
4	R	423	ALA	Mainchain
4	R	424	PRO	Mainchain,Peptide
4	R	425	THR	Mainchain

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Mol	Chain	Res	Type	Group
4	R	426	GLN	Mainchain
4	R	445	GLY	Mainchain
4	R	446	ALA	Mainchain
4	R	448	ARG	Mainchain
4	R	452	ARG	Mainchain
4	R	454	TYR	Mainchain,Peptide
4	R	456	ASP	Mainchain
4	R	457	ALA	Mainchain
4	R	459	LEU	Mainchain
4	R	462	GLU	Mainchain
4	R	463	ILE	Peptide
4	R	472	GLU	Mainchain
4	R	487	ASP	Mainchain
5	S	321	ASN	Mainchain
5	S	325	ALA	Mainchain
5	S	326	LEU	Mainchain,Peptide
5	S	329	GLN	Mainchain
5	S	330	LYS	Mainchain
5	S	340	ALA	Mainchain,Peptide
5	S	341	ALA	Mainchain
5	S	343	ALA	Mainchain
6	T	374	SER	Mainchain
6	T	407	LEU	Mainchain
6	T	408	SER	Peptide
6	T	493	ALA	Peptide
2	U	11	GLN	Mainchain
2	U	4	GLU	Mainchain
2	U	6	PHE	Mainchain
2	U	7	GLY	Mainchain
7	V	1386	LYS	Peptide
7	V	1387	SER	Peptide
7	V	1465	GLU	Mainchain
1	W	259	SER	Mainchain
4	X	200	THR	Mainchain
4	X	208	GLN	Mainchain
4	X	210	VAL	Mainchain
4	X	221	GLN	Mainchain,Peptide
4	X	236	ASP	Mainchain
4	X	245	VAL	Mainchain
4	X	250	ASN	Mainchain
4	X	253	SER	Mainchain
4	X	393	GLN	Mainchain

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Mol	Chain	Res	Type	Group
4	X	397	ARG	Mainchain
4	X	398	LYS	Mainchain,Peptide
4	X	399	SER	Peptide
4	X	400	GLY	Mainchain
4	X	401	TYR	Mainchain
4	X	403	ILE	Peptide
4	X	419	GLY	Mainchain
4	X	420	GLU	Mainchain
4	X	421	LEU	Mainchain
4	X	422	ASN	Mainchain,Peptide
4	X	423	ALA	Mainchain
4	X	424	PRO	Mainchain,Peptide
4	X	425	THR	Mainchain
4	X	426	GLN	Mainchain
4	X	445	GLY	Mainchain
4	X	446	ALA	Mainchain
4	X	448	ARG	Mainchain
4	X	452	ARG	Mainchain
4	X	454	TYR	Mainchain,Peptide
4	X	456	ASP	Mainchain
4	X	457	ALA	Mainchain
4	X	459	LEU	Mainchain
4	X	462	GLU	Mainchain
4	X	463	ILE	Peptide
4	X	472	GLU	Mainchain
4	X	487	ASP	Mainchain
5	Y	321	ASN	Mainchain
5	Y	325	ALA	Mainchain
5	Y	326	LEU	Mainchain,Peptide
5	Y	329	GLN	Mainchain
5	Y	330	LYS	Mainchain
5	Y	340	ALA	Mainchain,Peptide
5	Y	341	ALA	Mainchain
5	Y	343	ALA	Mainchain
6	Z	374	SER	Mainchain
6	Z	407	LEU	Mainchain
6	Z	408	SER	Peptide
6	Z	493	ALA	Peptide
6	Z	497	ARG	Mainchain

5.2 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 the 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 within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3214	0	1424	23	0
1	B	3214	0	1424	23	0
1	E	5366	0	2364	58	0
1	K	5366	0	2360	73	0
1	Q	5366	0	2364	63	0
1	W	5366	0	2364	56	0
2	C	3152	0	1401	155	0
2	I	3152	0	1406	30	0
2	O	3152	0	1403	88	0
2	U	3152	0	1406	30	0
3	D	5094	0	2272	121	0
3	P	5094	0	2273	77	0
4	F	1658	0	715	168	0
4	L	1658	0	715	169	0
4	R	1658	0	714	169	0
4	X	1658	0	715	168	0
5	G	853	0	384	57	0
5	M	853	0	384	55	0
5	S	853	0	384	55	0
5	Y	853	0	384	57	0
6	H	842	0	365	36	0
6	N	842	0	365	39	0
6	T	842	0	365	38	0
6	Z	842	0	365	38	0
7	J	6213	0	2770	79	0
7	V	6213	0	2770	78	0
All	All	76526	0	33856	1791	0

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 16.

All (1791) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S:366:GLU:CA	5:S:366:GLU:CB	1.76	1.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:F:451:GLU:CA	4:F:451:GLU:CB	1.77	1.63
6:N:490:GLN:CA	6:N:490:GLN:CB	1.75	1.62
4:F:454:TYR:CA	4:F:454:TYR:CB	1.77	1.62
4:X:447:VAL:CA	4:X:447:VAL:CB	1.78	1.62
6:T:490:GLN:CA	6:T:490:GLN:CB	1.75	1.62
1:E:1165:TYR:CA	1:K:727:PHE:HA	1.19	1.61
6:H:490:GLN:CA	6:H:490:GLN:CB	1.75	1.61
2:O:783:SER:CB	1:W:92:GLU:H	1.05	1.61
4:X:454:TYR:CB	4:X:454:TYR:CA	1.77	1.60
2:O:783:SER:H	1:W:92:GLU:CB	1.13	1.60
4:X:451:GLU:CA	4:X:451:GLU:CB	1.77	1.60
2:C:678:GLY:H	1:K:847:ARG:CB	0.97	1.59
6:Z:490:GLN:CB	6:Z:490:GLN:CA	1.75	1.59
4:L:235:ASP:CA	4:L:235:ASP:CB	1.79	1.59
4:L:454:TYR:CA	4:L:454:TYR:CB	1.77	1.59
4:L:447:VAL:CA	4:L:447:VAL:CB	1.78	1.58
4:F:235:ASP:CB	4:F:235:ASP:CA	1.79	1.58
5:Y:366:GLU:CA	5:Y:366:GLU:CB	1.76	1.58
4:X:260:THR:CA	4:X:260:THR:CB	1.82	1.58
4:R:488:ILE:N	4:R:488:ILE:CA	1.67	1.58
4:X:457:ALA:CA	4:X:457:ALA:CB	1.83	1.57
4:X:488:ILE:N	4:X:488:ILE:CA	1.67	1.57
5:M:366:GLU:CB	5:M:366:GLU:CA	1.76	1.57
4:R:454:TYR:CA	4:R:454:TYR:CB	1.77	1.57
4:F:447:VAL:CB	4:F:447:VAL:CA	1.78	1.56
4:R:447:VAL:CA	4:R:447:VAL:CB	1.78	1.56
4:F:455:ILE:CA	4:F:455:ILE:CB	1.84	1.56
4:R:451:GLU:CA	4:R:451:GLU:CB	1.77	1.56
4:X:235:ASP:CA	4:X:235:ASP:CB	1.78	1.56
4:L:455:ILE:CA	4:L:455:ILE:CB	1.84	1.56
4:R:260:THR:CB	4:R:260:THR:CA	1.82	1.55
4:R:483:ASP:CA	4:R:483:ASP:CB	1.85	1.55
4:L:488:ILE:N	4:L:488:ILE:CA	1.67	1.55
2:C:303:ALA:HB1	1:Q:849:ASN:CA	1.10	1.55
4:L:457:ALA:CB	4:L:457:ALA:CA	1.83	1.55
2:C:303:ALA:CB	1:Q:849:ASN:CA	1.75	1.54
5:G:366:GLU:CB	5:G:366:GLU:CA	1.76	1.54
4:R:455:ILE:CB	4:R:455:ILE:CA	1.84	1.54
6:T:497:ARG:CA	6:T:497:ARG:N	1.69	1.54
4:L:450:GLU:CA	4:L:451:GLU:N	1.70	1.54
4:L:260:THR:CA	4:L:260:THR:CB	1.82	1.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:X:455:ILE:CB	4:X:455:ILE:CA	1.84	1.54
4:L:328:VAL:CA	4:L:328:VAL:C	1.75	1.54
4:L:451:GLU:CB	4:L:451:GLU:CA	1.77	1.54
4:R:450:GLU:N	4:R:450:GLU:CA	1.71	1.54
6:H:497:ARG:N	6:H:497:ARG:CA	1.69	1.53
4:L:492:GLU:C	4:L:492:GLU:CA	1.75	1.53
4:X:328:VAL:C	4:X:328:VAL:CA	1.75	1.53
4:X:456:ASP:CA	4:X:456:ASP:C	1.76	1.53
4:X:483:ASP:CA	4:X:483:ASP:CB	1.85	1.53
4:R:235:ASP:CA	4:R:235:ASP:CB	1.79	1.53
4:X:450:GLU:CA	4:X:451:GLU:N	1.70	1.53
4:F:488:ILE:N	4:F:488:ILE:CA	1.67	1.53
4:L:483:ASP:CB	4:L:483:ASP:CA	1.85	1.53
4:F:328:VAL:CA	4:F:328:VAL:C	1.75	1.53
2:C:303:ALA:CA	1:Q:849:ASN:HA	1.29	1.52
6:H:381:LYS:N	6:H:381:LYS:CA	1.71	1.52
4:L:450:GLU:CA	4:L:450:GLU:N	1.71	1.52
4:L:456:ASP:C	4:L:456:ASP:CA	1.76	1.52
4:L:458:ASP:CA	4:L:458:ASP:CB	1.87	1.52
4:X:450:GLU:CA	4:X:450:GLU:N	1.71	1.52
4:F:329:GLY:N	4:F:329:GLY:CA	1.72	1.52
4:X:492:GLU:CA	4:X:492:GLU:C	1.75	1.52
5:Y:327:ARG:CB	5:Y:327:ARG:CA	1.87	1.52
5:S:327:ARG:CA	5:S:327:ARG:CB	1.87	1.52
4:R:450:GLU:CA	4:R:451:GLU:N	1.70	1.51
4:R:328:VAL:C	4:R:328:VAL:CA	1.75	1.51
2:C:303:ALA:C	1:Q:849:ASN:HA	1.22	1.51
4:R:492:GLU:C	4:R:492:GLU:CA	1.75	1.51
4:R:456:ASP:C	4:R:456:ASP:CA	1.76	1.51
5:Y:325:ALA:CA	5:Y:325:ALA:C	1.78	1.51
2:C:534:LEU:CB	3:D:1667:ALA:H	1.21	1.51
4:F:260:THR:CA	4:F:260:THR:CB	1.82	1.51
4:X:329:GLY:N	4:X:329:GLY:CA	1.71	1.51
5:Y:326:LEU:CA	5:Y:326:LEU:C	1.79	1.51
6:Z:463:ALA:N	6:Z:463:ALA:CA	1.74	1.51
2:C:303:ALA:CB	1:Q:849:ASN:CB	1.87	1.50
4:F:457:ALA:CA	4:F:457:ALA:CB	1.83	1.50
4:L:311:GLN:CA	4:L:311:GLN:C	1.77	1.50
4:R:329:GLY:N	4:R:329:GLY:CA	1.71	1.50
4:F:450:GLU:N	4:F:450:GLU:CA	1.71	1.50
4:F:456:ASP:CA	4:F:456:ASP:C	1.76	1.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:F:483:ASP:CA	4:F:483:ASP:CB	1.85	1.50
6:H:463:ALA:N	6:H:463:ALA:CA	1.74	1.50
6:N:463:ALA:N	6:N:463:ALA:CA	1.74	1.50
4:F:450:GLU:CA	4:F:451:GLU:N	1.70	1.50
4:R:311:GLN:CA	4:R:311:GLN:C	1.77	1.50
4:X:453:TYR:N	4:X:453:TYR:CA	1.75	1.50
2:O:783:SER:CB	1:W:92:GLU:N	1.72	1.50
4:R:457:ALA:CA	4:R:457:ALA:CB	1.83	1.50
6:T:381:LYS:N	6:T:381:LYS:CA	1.71	1.50
4:F:492:GLU:CA	4:F:492:GLU:C	1.75	1.50
6:Z:381:LYS:N	6:Z:381:LYS:CA	1.71	1.50
5:G:325:ALA:CA	5:G:325:ALA:C	1.78	1.49
5:G:327:ARG:CA	5:G:327:ARG:CB	1.87	1.49
2:C:306:PRO:HA	1:Q:849:ASN:CB	1.04	1.49
2:C:678:GLY:N	1:K:847:ARG:CB	1.74	1.49
5:G:326:LEU:CA	5:G:326:LEU:C	1.79	1.49
4:L:329:GLY:N	4:L:329:GLY:CA	1.71	1.49
5:S:326:LEU:C	5:S:326:LEU:CA	1.79	1.49
4:X:311:GLN:C	4:X:311:GLN:CA	1.77	1.49
4:F:458:ASP:CB	4:F:458:ASP:CA	1.87	1.49
4:F:472:GLU:N	4:F:472:GLU:CA	1.76	1.49
6:N:381:LYS:N	6:N:381:LYS:CA	1.71	1.49
4:L:453:TYR:N	4:L:453:TYR:CA	1.75	1.49
5:M:326:LEU:C	5:M:326:LEU:CA	1.79	1.49
1:E:1165:TYR:HA	1:K:727:PHE:CA	1.36	1.49
4:L:493:HIS:N	4:L:493:HIS:CA	1.76	1.49
5:S:325:ALA:C	5:S:325:ALA:CA	1.78	1.49
5:G:379:HIS:N	5:G:379:HIS:CA	1.76	1.48
6:Z:497:ARG:N	6:Z:497:ARG:CA	1.69	1.48
5:M:325:ALA:C	5:M:325:ALA:CA	1.77	1.48
6:N:497:ARG:N	6:N:497:ARG:CA	1.69	1.48
4:X:472:GLU:N	4:X:472:GLU:CA	1.76	1.48
4:F:311:GLN:C	4:F:311:GLN:CA	1.77	1.48
4:R:458:ASP:CA	4:R:458:ASP:CB	1.87	1.48
4:X:458:ASP:CA	4:X:458:ASP:CB	1.87	1.48
5:S:327:ARG:CA	5:S:327:ARG:N	1.77	1.48
5:S:379:HIS:N	5:S:379:HIS:CA	1.76	1.48
5:Y:379:HIS:N	5:Y:379:HIS:CA	1.76	1.48
6:T:463:ALA:N	6:T:463:ALA:CA	1.74	1.48
5:Y:276:SER:C	5:Y:276:SER:CA	1.82	1.48
5:G:276:SER:CA	5:G:276:SER:C	1.82	1.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:327:ARG:CA	5:M:327:ARG:CB	1.87	1.47
5:M:327:ARG:CA	5:M:327:ARG:N	1.77	1.47
4:F:493:HIS:N	4:F:493:HIS:CA	1.76	1.47
4:R:472:GLU:N	4:R:472:GLU:CA	1.76	1.47
5:G:327:ARG:CA	5:G:327:ARG:N	1.77	1.47
5:S:276:SER:C	5:S:276:SER:CA	1.82	1.47
4:X:400:GLY:N	4:X:401:TYR:N	1.63	1.47
4:R:454:TYR:CA	4:R:454:TYR:C	1.83	1.46
6:T:411:GLU:C	6:T:412:GLU:N	1.69	1.46
6:Z:411:GLU:C	6:Z:412:GLU:N	1.69	1.46
4:F:453:TYR:N	4:F:453:TYR:CA	1.75	1.46
5:M:276:SER:CA	5:M:276:SER:C	1.82	1.46
5:M:379:HIS:N	5:M:379:HIS:CA	1.76	1.46
6:N:411:GLU:C	6:N:412:GLU:N	1.69	1.46
4:R:453:TYR:N	4:R:453:TYR:CA	1.75	1.46
4:R:493:HIS:N	4:R:493:HIS:CA	1.76	1.46
4:X:493:HIS:N	4:X:493:HIS:CA	1.76	1.46
4:X:492:GLU:C	4:X:493:HIS:N	1.69	1.45
4:R:299:ASN:CA	4:R:299:ASN:C	1.84	1.45
4:R:367:THR:C	4:R:367:THR:CA	1.85	1.45
4:L:472:GLU:N	4:L:472:GLU:CA	1.76	1.45
4:R:492:GLU:C	4:R:493:HIS:N	1.69	1.45
4:F:299:ASN:C	4:F:299:ASN:CA	1.84	1.45
6:H:462:GLY:CA	6:H:462:GLY:C	1.85	1.45
4:L:299:ASN:CA	4:L:299:ASN:C	1.84	1.45
4:L:367:THR:C	4:L:367:THR:CA	1.85	1.45
5:M:326:LEU:CA	5:M:326:LEU:N	1.80	1.45
4:X:454:TYR:CA	4:X:454:TYR:C	1.83	1.45
4:F:454:TYR:CA	4:F:454:TYR:C	1.83	1.44
2:C:524:ARG:CB	3:D:1609:ILE:C	1.86	1.44
4:F:367:THR:CA	4:F:367:THR:C	1.85	1.44
4:F:454:TYR:C	4:F:454:TYR:HA	1.38	1.44
2:I:15:GLN:CA	2:I:15:GLN:C	1.84	1.44
5:S:326:LEU:CA	5:S:326:LEU:N	1.80	1.44
4:X:299:ASN:C	4:X:299:ASN:CA	1.84	1.44
4:L:454:TYR:CA	4:L:454:TYR:C	1.83	1.44
2:U:15:GLN:C	2:U:15:GLN:CA	1.84	1.44
2:C:15:GLN:C	2:C:15:GLN:CA	1.84	1.44
4:F:400:GLY:N	4:F:401:TYR:N	1.63	1.44
6:T:374:SER:CA	6:T:374:SER:CB	1.96	1.44
4:L:492:GLU:C	4:L:493:HIS:N	1.69	1.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Z:462:GLY:C	6:Z:462:GLY:CA	1.85	1.43
4:R:222:THR:C	4:R:222:THR:CA	1.87	1.43
6:T:462:GLY:C	6:T:462:GLY:CA	1.85	1.43
5:Y:327:ARG:CA	5:Y:327:ARG:N	1.77	1.43
6:H:411:GLU:C	6:H:412:GLU:N	1.69	1.43
4:L:400:GLY:N	4:L:400:GLY:CA	1.82	1.43
4:R:400:GLY:N	4:R:400:GLY:CA	1.82	1.43
5:G:326:LEU:CA	5:G:326:LEU:N	1.80	1.43
4:R:400:GLY:N	4:R:401:TYR:N	1.63	1.43
4:X:367:THR:CA	4:X:367:THR:C	1.85	1.43
5:Y:326:LEU:CA	5:Y:326:LEU:N	1.80	1.43
4:L:400:GLY:N	4:L:401:TYR:N	1.63	1.43
6:N:462:GLY:CA	6:N:462:GLY:C	1.85	1.43
6:Z:374:SER:CB	6:Z:374:SER:CA	1.96	1.43
2:C:303:ALA:CB	1:Q:849:ASN:N	1.75	1.42
4:F:492:GLU:C	4:F:493:HIS:N	1.69	1.42
6:H:409:PRO:CA	6:H:409:PRO:C	1.88	1.42
5:M:339:TYR:C	5:M:340:ALA:N	1.72	1.42
6:N:374:SER:CA	6:N:374:SER:CB	1.96	1.42
2:C:487:CYS:CB	3:D:1661:ARG:CB	1.95	1.42
4:F:453:TYR:CA	4:F:453:TYR:CB	1.97	1.42
2:O:15:GLN:CA	2:O:15:GLN:C	1.84	1.42
5:S:339:TYR:C	5:S:340:ALA:N	1.72	1.42
4:F:459:LEU:CA	4:F:459:LEU:C	1.86	1.42
5:M:378:SER:CA	5:M:378:SER:C	1.88	1.42
4:F:222:THR:CA	4:F:222:THR:C	1.87	1.41
4:L:459:LEU:CA	4:L:459:LEU:C	1.86	1.41
4:X:400:GLY:N	4:X:400:GLY:CA	1.82	1.41
4:X:459:LEU:C	4:X:459:LEU:CA	1.86	1.41
5:Y:378:SER:C	5:Y:378:SER:CA	1.88	1.41
4:L:222:THR:CA	4:L:222:THR:C	1.87	1.41
5:S:378:SER:CA	5:S:378:SER:C	1.89	1.41
6:T:409:PRO:CA	6:T:409:PRO:C	1.88	1.41
4:X:222:THR:CA	4:X:222:THR:C	1.87	1.41
5:G:339:TYR:C	5:G:340:ALA:N	1.72	1.41
6:H:374:SER:CA	6:H:374:SER:CB	1.96	1.41
5:Y:339:TYR:C	5:Y:340:ALA:N	1.72	1.41
4:F:400:GLY:N	4:F:400:GLY:CA	1.82	1.41
6:N:409:PRO:CA	6:N:409:PRO:C	1.88	1.41
6:Z:409:PRO:C	6:Z:409:PRO:CA	1.88	1.41
4:L:453:TYR:CA	4:L:453:TYR:CB	1.97	1.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:R:459:LEU:C	4:R:459:LEU:CA	1.87	1.40
4:X:453:TYR:CA	4:X:453:TYR:CB	1.97	1.40
5:G:378:SER:CA	5:G:378:SER:C	1.89	1.39
4:R:453:TYR:CA	4:R:453:TYR:CB	1.97	1.39
2:O:783:SER:CB	1:W:91:PRO:N	1.84	1.39
2:C:303:ALA:HB1	1:Q:849:ASN:N	1.09	1.38
2:C:306:PRO:CA	1:Q:849:ASN:CB	2.00	1.38
2:C:674:TYR:CB	1:K:849:ASN:HA	1.47	1.36
4:L:454:TYR:C	4:L:454:TYR:HA	1.37	1.36
4:F:450:GLU:C	4:F:450:GLU:O	1.64	1.36
4:F:458:ASP:CA	4:F:458:ASP:C	1.94	1.36
4:R:450:GLU:C	4:R:450:GLU:O	1.64	1.35
4:F:401:TYR:N	4:F:401:TYR:CA	1.90	1.35
4:X:401:TYR:N	4:X:401:TYR:CA	1.90	1.35
2:C:483:GLU:CB	3:D:1658:ALA:HA	1.57	1.35
2:C:676:ALA:HB1	1:K:846:ILE:O	1.23	1.35
4:X:450:GLU:O	4:X:450:GLU:C	1.64	1.35
4:L:401:TYR:N	4:L:401:TYR:CA	1.90	1.34
4:R:454:TYR:C	4:R:454:TYR:HA	1.37	1.34
4:R:458:ASP:CA	4:R:458:ASP:C	1.94	1.34
4:L:458:ASP:CA	4:L:458:ASP:C	1.94	1.34
4:L:450:GLU:C	4:L:450:GLU:O	1.64	1.34
4:R:401:TYR:N	4:R:401:TYR:CA	1.90	1.34
2:C:303:ALA:CA	1:Q:849:ASN:CA	2.00	1.33
4:X:458:ASP:CA	4:X:458:ASP:C	1.94	1.33
4:R:458:ASP:C	4:R:459:LEU:N	1.82	1.33
4:X:454:TYR:C	4:X:454:TYR:HA	1.37	1.32
4:F:458:ASP:C	4:F:459:LEU:N	1.82	1.32
2:O:654:SER:C	3:P:1454:ALA:O	1.67	1.32
4:X:458:ASP:C	4:X:459:LEU:N	1.82	1.32
4:L:458:ASP:C	4:L:459:LEU:N	1.82	1.31
2:O:589:ASN:O	1:W:850:ALA:N	1.63	1.31
2:C:534:LEU:CB	3:D:1667:ALA:N	1.92	1.30
2:C:303:ALA:HB1	1:Q:849:ASN:CB	1.50	1.30
5:S:341:ALA:N	5:S:341:ALA:CA	1.94	1.30
5:G:341:ALA:N	5:G:341:ALA:CA	1.94	1.30
5:M:341:ALA:N	5:M:341:ALA:CA	1.93	1.29
2:C:530:ARG:O	3:D:1664:ASP:CA	1.77	1.29
5:Y:341:ALA:N	5:Y:341:ALA:CA	1.94	1.29
5:G:327:ARG:CA	5:G:327:ARG:C	2.02	1.28
4:L:451:GLU:CA	4:L:451:GLU:C	2.02	1.28

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:R:451:GLU:CA	4:R:451:GLU:C	2.02	1.28
4:X:451:GLU:CA	4:X:451:GLU:C	2.02	1.28
2:C:524:ARG:CB	3:D:1609:ILE:CB	2.11	1.28
4:F:451:GLU:CA	4:F:451:GLU:C	2.02	1.28
2:C:531:LEU:O	3:D:1663:GLN:CB	1.81	1.27
2:C:674:TYR:CB	1:K:849:ASN:CA	2.08	1.27
5:S:327:ARG:CA	5:S:327:ARG:C	2.02	1.26
5:Y:327:ARG:CA	5:Y:327:ARG:C	2.01	1.26
5:M:327:ARG:CA	5:M:327:ARG:C	2.02	1.26
4:R:399:SER:C	4:R:400:GLY:CA	2.04	1.25
4:X:399:SER:C	4:X:400:GLY:CA	2.04	1.25
4:R:222:THR:CA	4:R:222:THR:N	1.99	1.25
1:E:852:VAL:CB	2:O:304:PRO:CB	2.13	1.25
4:L:399:SER:C	4:L:400:GLY:CA	2.04	1.25
4:L:222:THR:CA	4:L:222:THR:N	1.99	1.25
4:F:399:SER:C	4:F:400:GLY:CA	2.04	1.25
4:X:222:THR:CA	4:X:222:THR:N	1.99	1.24
4:F:222:THR:CA	4:F:222:THR:N	1.99	1.24
4:L:402:ALA:HB3	4:L:403:ILE:N	1.11	1.24
4:L:450:GLU:CB	4:L:451:GLU:N	2.00	1.24
4:F:402:ALA:HB3	4:F:403:ILE:N	1.11	1.24
4:F:450:GLU:CB	4:F:451:GLU:N	2.00	1.24
4:X:450:GLU:CB	4:X:451:GLU:N	2.00	1.24
2:O:654:SER:O	3:P:1455:PRO:HA	1.06	1.23
4:R:450:GLU:CB	4:R:451:GLU:N	2.00	1.23
2:O:783:SER:N	1:W:92:GLU:CB	1.87	1.21
4:F:457:ALA:CB	4:F:457:ALA:N	2.05	1.20
2:O:654:SER:O	3:P:1455:PRO:CA	1.89	1.20
4:R:402:ALA:HB3	4:R:403:ILE:N	1.12	1.20
4:R:457:ALA:CB	4:R:457:ALA:N	2.05	1.20
4:X:455:ILE:O	4:X:457:ALA:N	1.76	1.19
4:X:450:GLU:O	4:X:451:GLU:HA	1.38	1.19
4:R:450:GLU:O	4:R:451:GLU:HA	1.37	1.19
4:X:457:ALA:CB	4:X:457:ALA:N	2.05	1.19
4:L:450:GLU:O	4:L:451:GLU:HA	1.37	1.18
4:L:455:ILE:O	4:L:457:ALA:N	1.76	1.18
5:M:341:ALA:N	5:M:342:PRO:N	1.92	1.18
4:R:487:ASP:CA	4:R:487:ASP:C	2.13	1.18
4:F:456:ASP:C	4:F:456:ASP:CB	2.12	1.17
5:G:341:ALA:N	5:G:342:PRO:N	1.92	1.17
5:S:341:ALA:N	5:S:342:PRO:N	1.92	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:X:487:ASP:CA	4:X:487:ASP:C	2.13	1.17
4:F:487:ASP:C	4:F:487:ASP:CA	2.13	1.17
5:G:339:TYR:C	5:G:340:ALA:CA	2.13	1.17
4:L:457:ALA:CB	4:L:457:ALA:N	2.05	1.17
4:L:487:ASP:C	4:L:487:ASP:CA	2.13	1.17
2:C:524:ARG:O	3:D:1610:PRO:N	1.77	1.17
4:R:456:ASP:C	4:R:456:ASP:CB	2.12	1.17
5:M:379:HIS:C	5:M:380:ILE:N	1.99	1.16
4:R:455:ILE:O	4:R:457:ALA:N	1.76	1.16
5:Y:339:TYR:C	5:Y:340:ALA:CA	2.13	1.16
2:C:304:PRO:N	1:Q:849:ASN:HA	1.60	1.16
4:F:455:ILE:O	4:F:457:ALA:N	1.76	1.16
5:G:379:HIS:C	5:G:380:ILE:N	1.98	1.16
4:L:456:ASP:C	4:L:456:ASP:CB	2.12	1.16
2:C:531:LEU:O	3:D:1664:ASP:N	1.79	1.16
1:E:1165:TYR:CA	1:K:727:PHE:CA	2.04	1.16
5:M:327:ARG:N	5:M:327:ARG:HA	1.56	1.16
5:M:339:TYR:C	5:M:340:ALA:CA	2.13	1.16
5:S:339:TYR:C	5:S:340:ALA:CA	2.13	1.16
5:Y:327:ARG:N	5:Y:327:ARG:HA	1.56	1.16
1:E:1169:SER:CB	1:K:575:ARG:CB	2.24	1.15
5:Y:341:ALA:N	5:Y:342:PRO:N	1.92	1.15
4:X:456:ASP:C	4:X:456:ASP:CB	2.12	1.15
2:O:654:SER:CA	3:P:1454:ALA:O	1.95	1.15
5:S:379:HIS:C	5:S:380:ILE:N	1.98	1.15
5:Y:379:HIS:C	5:Y:380:ILE:N	1.99	1.15
4:F:493:HIS:CA	4:F:493:HIS:CB	2.25	1.15
4:X:493:HIS:CA	4:X:493:HIS:CB	2.25	1.15
4:R:493:HIS:CA	4:R:493:HIS:CB	2.25	1.14
1:E:1165:TYR:CB	1:K:727:PHE:CA	2.21	1.14
4:L:493:HIS:CA	4:L:493:HIS:CB	2.25	1.14
4:X:402:ALA:HB3	4:X:403:ILE:N	1.11	1.13
4:R:450:GLU:CA	4:R:450:GLU:C	2.16	1.13
4:F:450:GLU:CA	4:F:450:GLU:C	2.16	1.13
4:L:402:ALA:CB	4:L:403:ILE:N	1.92	1.13
4:R:452:ARG:HA	4:R:453:TYR:CA	1.76	1.12
5:S:327:ARG:N	5:S:327:ARG:HA	1.56	1.12
2:O:779:GLU:CB	1:W:136:TYR:CB	2.27	1.12
2:C:530:ARG:O	3:D:1664:ASP:HA	0.95	1.11
4:L:450:GLU:CA	4:L:450:GLU:C	2.16	1.11
4:F:402:ALA:CB	4:F:403:ILE:H	1.56	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:F:450:GLU:O	4:F:451:GLU:HA	1.38	1.11
5:G:327:ARG:N	5:G:327:ARG:HA	1.56	1.11
5:M:326:LEU:C	5:M:326:LEU:CB	2.19	1.11
2:C:677:GLN:O	1:K:852:VAL:CB	1.97	1.11
5:G:326:LEU:C	5:G:326:LEU:CB	2.19	1.11
5:S:326:LEU:C	5:S:326:LEU:CB	2.19	1.11
4:X:450:GLU:CA	4:X:450:GLU:C	2.16	1.11
5:Y:326:LEU:C	5:Y:326:LEU:CB	2.19	1.10
2:C:303:ALA:C	1:Q:849:ASN:CA	2.12	1.10
2:C:674:TYR:CB	1:K:849:ASN:CB	2.29	1.10
1:E:848:ASP:HA	2:O:303:ALA:HB1	1.34	1.10
2:C:483:GLU:CB	3:D:1658:ALA:CA	2.30	1.09
4:L:452:ARG:HA	4:L:453:TYR:CA	1.77	1.09
6:Z:490:GLN:CB	6:Z:490:GLN:C	2.21	1.09
4:F:454:TYR:HA	4:F:455:ILE:N	1.67	1.09
2:C:676:ALA:CB	1:K:846:ILE:O	1.99	1.08
6:H:408:SER:HA	6:H:410:LEU:H	1.18	1.08
4:L:402:ALA:CB	4:L:403:ILE:H	1.56	1.08
4:L:454:TYR:HA	4:L:455:ILE:N	1.67	1.08
6:T:490:GLN:CB	6:T:490:GLN:C	2.21	1.08
4:X:402:ALA:CB	4:X:403:ILE:H	1.56	1.08
2:C:538:LYS:CB	3:D:1671:GLN:HA	1.78	1.08
6:N:490:GLN:CB	6:N:490:GLN:C	2.21	1.08
2:O:783:SER:CB	1:W:91:PRO:CA	2.31	1.08
4:X:452:ARG:HA	4:X:453:TYR:CA	1.76	1.08
4:X:454:TYR:CB	4:X:454:TYR:N	2.17	1.08
4:F:452:ARG:HA	4:F:453:TYR:CA	1.77	1.07
2:O:654:SER:O	3:P:1454:ALA:O	1.64	1.07
6:T:408:SER:HA	6:T:410:LEU:H	1.18	1.07
4:F:454:TYR:CB	4:F:454:TYR:N	2.17	1.07
6:H:490:GLN:CB	6:H:490:GLN:C	2.21	1.07
2:C:303:ALA:HB2	1:Q:849:ASN:CB	1.85	1.07
4:L:454:TYR:CB	4:L:454:TYR:N	2.17	1.07
4:R:454:TYR:HA	4:R:455:ILE:N	1.67	1.07
5:S:326:LEU:CA	5:S:326:LEU:O	2.03	1.07
7:V:846:ALA:HB3	7:V:852:ILE:H	1.14	1.07
4:X:454:TYR:HA	4:X:455:ILE:N	1.66	1.07
7:J:846:ALA:HB3	7:J:852:ILE:H	1.14	1.06
4:R:402:ALA:CB	4:R:403:ILE:H	1.56	1.06
5:Y:326:LEU:CA	5:Y:326:LEU:O	2.03	1.06
2:C:524:ARG:CB	3:D:1609:ILE:O	2.03	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:X:402:ALA:CB	4:X:403:ILE:N	1.92	1.06
5:M:326:LEU:CA	5:M:326:LEU:O	2.03	1.05
4:R:454:TYR:CB	4:R:454:TYR:N	2.17	1.05
6:Z:408:SER:HA	6:Z:410:LEU:H	1.18	1.05
4:F:402:ALA:CB	4:F:403:ILE:N	1.92	1.05
5:G:326:LEU:CA	5:G:326:LEU:O	2.03	1.04
3:D:1663:GLN:HA	3:D:1667:ALA:HB2	1.39	1.04
6:H:411:GLU:C	6:H:411:GLU:CA	2.26	1.04
4:R:400:GLY:C	4:R:401:TYR:CA	2.26	1.04
6:T:411:GLU:C	6:T:411:GLU:CA	2.26	1.04
6:Z:411:GLU:C	6:Z:411:GLU:CA	2.26	1.04
3:P:1663:GLN:HA	3:P:1667:ALA:HB2	1.39	1.03
4:L:400:GLY:C	4:L:401:TYR:CA	2.26	1.03
6:N:411:GLU:C	6:N:411:GLU:CA	2.26	1.03
4:F:400:GLY:C	4:F:401:TYR:CA	2.26	1.03
4:R:458:ASP:CB	4:R:459:LEU:N	2.22	1.03
4:L:458:ASP:CB	4:L:459:LEU:N	2.22	1.03
4:X:400:GLY:C	4:X:401:TYR:CA	2.26	1.03
4:L:458:ASP:O	4:L:460:LEU:N	1.92	1.03
4:R:458:ASP:O	4:R:460:LEU:N	1.92	1.02
4:X:458:ASP:O	4:X:460:LEU:N	1.92	1.02
4:L:451:GLU:C	4:L:451:GLU:HA	1.77	1.02
4:X:451:GLU:C	4:X:451:GLU:HA	1.78	1.02
5:M:380:ILE:N	5:M:380:ILE:CA	2.23	1.02
5:Y:380:ILE:N	5:Y:380:ILE:CA	2.23	1.02
4:F:458:ASP:CB	4:F:459:LEU:N	2.22	1.02
6:N:408:SER:HA	6:N:410:LEU:H	1.18	1.02
4:X:458:ASP:CB	4:X:459:LEU:N	2.22	1.02
4:F:458:ASP:O	4:F:460:LEU:N	1.92	1.01
5:G:380:ILE:N	5:G:380:ILE:CA	2.23	1.00
1:E:1165:TYR:CB	1:K:727:PHE:HA	1.89	1.00
2:C:524:ARG:CB	3:D:1609:ILE:CA	2.39	1.00
5:S:380:ILE:N	5:S:380:ILE:CA	2.23	0.99
1:E:847:ARG:O	2:O:303:ALA:HB1	1.61	0.99
4:R:402:ALA:CB	4:R:403:ILE:N	1.92	0.99
4:F:451:GLU:C	4:F:451:GLU:HA	1.77	0.99
5:Y:366:GLU:CB	5:Y:366:GLU:C	2.31	0.99
2:O:783:SER:H	1:W:92:GLU:CA	1.75	0.99
2:C:538:LYS:CB	3:D:1671:GLN:CA	2.27	0.99
5:S:366:GLU:CB	5:S:366:GLU:C	2.31	0.99
4:R:451:GLU:C	4:R:451:GLU:HA	1.77	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1165:TYR:CB	1:K:727:PHE:C	2.32	0.98
5:M:366:GLU:CB	5:M:366:GLU:C	2.31	0.98
2:O:589:ASN:CB	1:W:849:ASN:CB	2.43	0.97
5:G:366:GLU:CB	5:G:366:GLU:C	2.31	0.97
4:L:453:TYR:O	4:L:455:ILE:CB	2.13	0.97
4:R:452:ARG:CA	4:R:453:TYR:CA	2.41	0.97
2:O:783:SER:CB	1:W:91:PRO:C	2.32	0.96
4:X:222:THR:C	4:X:222:THR:CB	2.34	0.96
4:R:222:THR:C	4:R:222:THR:CB	2.34	0.96
4:F:453:TYR:O	4:F:455:ILE:CB	2.13	0.96
4:L:222:THR:C	4:L:222:THR:CB	2.34	0.95
2:C:303:ALA:CA	1:Q:849:ASN:CB	2.34	0.95
4:X:453:TYR:O	4:X:455:ILE:CB	2.13	0.95
4:R:453:TYR:O	4:R:455:ILE:CB	2.13	0.95
4:R:311:GLN:C	4:R:311:GLN:CB	2.35	0.95
4:X:452:ARG:CA	4:X:453:TYR:CA	2.41	0.95
4:X:458:ASP:C	4:X:459:LEU:CA	2.35	0.95
4:F:222:THR:C	4:F:222:THR:CB	2.34	0.95
2:C:304:PRO:N	1:Q:849:ASN:CA	2.29	0.94
4:F:458:ASP:C	4:F:459:LEU:CA	2.35	0.94
4:L:458:ASP:C	4:L:459:LEU:CA	2.35	0.94
4:F:311:GLN:C	4:F:311:GLN:CB	2.35	0.94
4:L:452:ARG:CA	4:L:453:TYR:CA	2.41	0.94
4:X:455:ILE:O	4:X:456:ASP:C	2.02	0.94
4:L:311:GLN:C	4:L:311:GLN:CB	2.36	0.94
4:R:458:ASP:C	4:R:459:LEU:CA	2.35	0.94
2:C:523:LEU:H	3:D:1613:VAL:CB	1.81	0.94
2:C:303:ALA:CB	1:Q:849:ASN:H	1.81	0.94
4:X:311:GLN:C	4:X:311:GLN:CB	2.35	0.93
4:R:455:ILE:O	4:R:456:ASP:C	2.02	0.93
4:F:452:ARG:CA	4:F:453:TYR:CA	2.41	0.93
1:E:848:ASP:HA	2:O:303:ALA:CB	1.99	0.93
4:L:455:ILE:O	4:L:456:ASP:C	2.02	0.92
2:C:675:ARG:N	1:K:849:ASN:CB	2.26	0.92
6:T:409:PRO:C	6:T:409:PRO:CB	2.38	0.92
6:Z:409:PRO:C	6:Z:409:PRO:CB	2.38	0.92
2:C:303:ALA:HB3	1:Q:849:ASN:N	1.81	0.92
2:C:523:LEU:CB	3:D:1613:VAL:CB	2.47	0.92
6:H:409:PRO:C	6:H:409:PRO:CB	2.37	0.92
2:C:15:GLN:C	2:C:15:GLN:CB	2.39	0.92
2:I:15:GLN:C	2:I:15:GLN:CB	2.39	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:409:PRO:C	6:N:409:PRO:CB	2.38	0.92
2:C:524:ARG:C	3:D:1610:PRO:CA	2.31	0.92
2:U:15:GLN:C	2:U:15:GLN:CB	2.38	0.91
4:L:450:GLU:O	4:L:451:GLU:C	2.09	0.91
2:C:483:GLU:CB	3:D:1658:ALA:CB	2.49	0.91
4:F:450:GLU:O	4:F:451:GLU:C	2.09	0.91
3:D:1663:GLN:CA	3:D:1667:ALA:HB2	2.01	0.91
4:R:450:GLU:O	4:R:451:GLU:C	2.09	0.90
2:O:15:GLN:C	2:O:15:GLN:CB	2.39	0.90
3:D:751:ALA:HB3	3:D:754:ARG:CB	2.02	0.90
2:O:654:SER:CB	3:P:1454:ALA:O	2.19	0.90
4:X:450:GLU:O	4:X:451:GLU:C	2.09	0.90
4:X:399:SER:C	4:X:400:GLY:HA3	1.93	0.90
2:C:535:TYR:CA	3:D:1663:GLN:HA	2.02	0.90
3:P:1663:GLN:CA	3:P:1667:ALA:HB2	2.01	0.90
3:P:751:ALA:HB3	3:P:754:ARG:CB	2.02	0.89
4:F:451:GLU:CA	4:F:452:ARG:N	2.36	0.89
4:L:451:GLU:CA	4:L:452:ARG:N	2.36	0.89
4:F:399:SER:C	4:F:400:GLY:HA3	1.93	0.89
2:C:303:ALA:HA	1:Q:849:ASN:CB	2.02	0.89
2:O:783:SER:CA	1:W:92:GLU:H	1.85	0.89
7:V:846:ALA:HB2	7:V:849:ASN:N	1.88	0.89
4:R:451:GLU:CA	4:R:452:ARG:N	2.36	0.89
7:J:846:ALA:HB2	7:J:849:ASN:N	1.88	0.88
4:L:399:SER:C	4:L:400:GLY:HA3	1.93	0.88
2:C:355:TYR:HA	2:C:362:ARG:CB	2.04	0.88
2:O:355:TYR:HA	2:O:362:ARG:CB	2.04	0.88
2:O:589:ASN:C	1:W:850:ALA:H	1.76	0.88
4:X:472:GLU:N	4:X:472:GLU:CB	2.37	0.87
2:I:355:TYR:HA	2:I:362:ARG:CB	2.04	0.87
1:E:1170:SER:H	1:K:576:TYR:CB	1.86	0.87
5:Y:326:LEU:C	5:Y:327:ARG:CA	2.43	0.87
5:M:326:LEU:C	5:M:327:ARG:CA	2.43	0.87
5:S:326:LEU:C	5:S:327:ARG:CA	2.43	0.87
4:R:458:ASP:CA	4:R:459:LEU:N	2.38	0.87
2:C:303:ALA:HB1	1:Q:848:ASP:C	1.95	0.87
2:U:355:TYR:HA	2:U:362:ARG:CB	2.04	0.87
2:C:534:LEU:CB	3:D:1666:SER:N	2.38	0.87
4:L:458:ASP:CA	4:L:459:LEU:N	2.38	0.87
4:F:458:ASP:CA	4:F:459:LEU:N	2.38	0.86
4:X:451:GLU:CA	4:X:452:ARG:N	2.36	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:X:458:ASP:CA	4:X:459:LEU:N	2.38	0.86
4:F:455:ILE:O	4:F:456:ASP:C	2.02	0.86
2:O:591:GLY:HA3	1:W:849:ASN:O	1.66	0.86
2:C:303:ALA:HA	1:Q:849:ASN:HA	1.52	0.86
4:R:399:SER:C	4:R:400:GLY:HA3	1.93	0.85
4:F:402:ALA:HB3	4:F:403:ILE:H	1.04	0.85
5:G:326:LEU:C	5:G:327:ARG:CA	2.43	0.85
4:L:472:GLU:N	4:L:472:GLU:CB	2.37	0.85
2:C:522:CYS:CB	3:D:1664:ASP:CB	2.54	0.85
4:F:472:GLU:N	4:F:472:GLU:CB	2.37	0.85
5:S:326:LEU:CB	5:S:327:ARG:N	2.39	0.85
5:M:326:LEU:CB	5:M:327:ARG:N	2.39	0.84
2:C:306:PRO:HA	1:Q:849:ASN:CA	2.05	0.84
2:C:677:GLN:C	1:K:852:VAL:CB	2.45	0.84
6:T:411:GLU:O	6:T:412:GLU:N	2.11	0.84
5:G:326:LEU:CB	5:G:327:ARG:N	2.39	0.84
6:N:411:GLU:O	6:N:412:GLU:N	2.11	0.84
2:C:524:ARG:C	3:D:1610:PRO:N	2.30	0.84
4:R:472:GLU:N	4:R:472:GLU:CB	2.37	0.84
2:C:486:ARG:CB	3:D:1661:ARG:C	2.39	0.84
1:E:852:VAL:CB	2:O:305:LEU:N	2.41	0.84
4:X:402:ALA:HB3	4:X:403:ILE:H	1.04	0.84
5:Y:326:LEU:CB	5:Y:327:ARG:N	2.39	0.84
2:C:535:TYR:CB	3:D:1663:GLN:CB	2.56	0.83
4:L:453:TYR:CA	4:L:453:TYR:C	2.47	0.83
1:E:1169:SER:CB	1:K:572:ALA:HA	2.07	0.83
4:X:453:TYR:CA	4:X:453:TYR:C	2.47	0.83
4:F:453:TYR:CA	4:F:453:TYR:C	2.47	0.83
2:C:679:ILE:O	1:K:854:GLY:N	1.98	0.83
4:R:402:ALA:HB3	4:R:403:ILE:H	1.04	0.83
6:Z:411:GLU:O	6:Z:412:GLU:N	2.11	0.83
7:V:1512:SER:O	7:V:1546:ALA:HB3	1.79	0.83
4:R:453:TYR:CA	4:R:453:TYR:C	2.47	0.83
4:R:456:ASP:CA	4:R:457:ALA:N	2.33	0.82
4:L:488:ILE:N	4:L:488:ILE:HA	1.94	0.82
7:J:1512:SER:O	7:J:1546:ALA:HB3	1.79	0.82
2:C:535:TYR:CB	3:D:1663:GLN:HA	2.10	0.82
4:L:402:ALA:HB3	4:L:403:ILE:H	1.04	0.82
6:H:374:SER:CB	6:H:374:SER:N	2.43	0.81
4:R:488:ILE:N	4:R:488:ILE:HA	1.94	0.81
7:J:1175:GLY:HA3	7:J:1197:GLN:H	1.44	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:535:TYR:H	3:D:1664:ASP:H	1.28	0.81
6:Z:374:SER:CB	6:Z:374:SER:N	2.44	0.81
6:N:497:ARG:N	6:N:497:ARG:CB	2.43	0.81
5:S:379:HIS:CA	5:S:379:HIS:C	2.49	0.81
6:N:374:SER:CB	6:N:374:SER:N	2.44	0.81
7:V:1175:GLY:HA3	7:V:1197:GLN:H	1.44	0.81
5:Y:379:HIS:CA	5:Y:379:HIS:C	2.49	0.81
6:Z:497:ARG:N	6:Z:497:ARG:CB	2.43	0.81
4:L:456:ASP:CA	4:L:457:ALA:N	2.33	0.81
5:G:379:HIS:CA	5:G:379:HIS:C	2.49	0.81
6:N:374:SER:CB	6:N:374:SER:C	2.50	0.81
6:H:411:GLU:O	6:H:412:GLU:N	2.11	0.80
4:R:158:ASN:HA	4:R:322:LEU:HA	1.62	0.80
6:T:374:SER:CB	6:T:374:SER:N	2.44	0.80
4:X:158:ASN:HA	4:X:322:LEU:HA	1.62	0.80
2:C:173:PRO:N	3:D:1686:PRO:C	2.19	0.80
4:F:158:ASN:HA	4:F:322:LEU:HA	1.62	0.80
2:C:524:ARG:CB	3:D:1610:PRO:N	2.44	0.80
3:D:286:GLN:CB	3:D:304:LYS:HA	2.11	0.80
4:F:455:ILE:CB	4:F:455:ILE:C	2.50	0.80
5:G:366:GLU:CB	5:G:366:GLU:N	2.45	0.80
4:X:455:ILE:CB	4:X:455:ILE:C	2.50	0.80
6:H:374:SER:CB	6:H:374:SER:C	2.50	0.80
3:P:286:GLN:CB	3:P:304:LYS:HA	2.11	0.80
5:S:366:GLU:CB	5:S:366:GLU:N	2.45	0.80
6:T:374:SER:CB	6:T:374:SER:C	2.50	0.80
4:L:158:ASN:HA	4:L:322:LEU:HA	1.62	0.80
5:M:379:HIS:CA	5:M:379:HIS:C	2.49	0.80
7:J:846:ALA:HB3	7:J:852:ILE:N	1.96	0.80
2:C:303:ALA:HA	1:Q:849:ASN:CA	2.08	0.79
4:L:455:ILE:CB	4:L:455:ILE:C	2.50	0.79
4:R:457:ALA:CB	4:R:457:ALA:H	1.95	0.79
2:I:15:GLN:C	2:I:15:GLN:N	2.36	0.79
6:T:497:ARG:N	6:T:497:ARG:CB	2.43	0.79
5:Y:366:GLU:CB	5:Y:366:GLU:N	2.45	0.79
3:D:647:LEU:CB	3:D:706:ALA:HB1	2.12	0.79
2:U:15:GLN:C	2:U:15:GLN:N	2.36	0.79
7:V:251:ARG:CB	7:V:256:GLU:HA	2.13	0.79
6:Z:374:SER:CB	6:Z:374:SER:C	2.50	0.79
4:R:455:ILE:CB	4:R:455:ILE:C	2.50	0.79
4:L:311:GLN:C	4:L:311:GLN:N	2.36	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:R:311:GLN:C	4:R:311:GLN:N	2.36	0.79
5:M:366:GLU:CB	5:M:366:GLU:N	2.45	0.79
3:P:647:LEU:CB	3:P:706:ALA:HB1	2.12	0.78
3:P:1663:GLN:C	3:P:1667:ALA:HB2	2.03	0.78
2:C:535:TYR:CB	3:D:1663:GLN:CA	2.62	0.78
3:D:1663:GLN:C	3:D:1667:ALA:HB2	2.03	0.78
4:F:456:ASP:CA	4:F:457:ALA:N	2.33	0.78
2:O:15:GLN:C	2:O:15:GLN:N	2.36	0.78
4:F:457:ALA:CB	4:F:457:ALA:H	1.95	0.78
7:J:251:ARG:CB	7:J:256:GLU:HA	2.13	0.78
7:V:493:LEU:O	7:V:520:GLN:HA	1.84	0.78
7:V:846:ALA:HB3	7:V:852:ILE:N	1.96	0.78
4:F:311:GLN:C	4:F:311:GLN:N	2.36	0.78
2:O:591:GLY:CA	1:W:849:ASN:O	2.32	0.78
4:X:311:GLN:C	4:X:311:GLN:N	2.36	0.78
4:R:235:ASP:CB	4:R:235:ASP:N	2.47	0.77
4:X:456:ASP:CA	4:X:457:ALA:N	2.34	0.77
7:J:493:LEU:O	7:J:520:GLN:HA	1.84	0.77
4:R:449:SER:C	4:R:450:GLU:C	2.43	0.77
4:X:235:ASP:CB	4:X:235:ASP:N	2.47	0.77
5:M:339:TYR:C	5:M:340:ALA:CB	2.53	0.77
2:C:15:GLN:C	2:C:15:GLN:N	2.36	0.77
6:T:408:SER:HA	6:T:410:LEU:N	1.97	0.77
4:L:235:ASP:CB	4:L:235:ASP:N	2.47	0.77
1:E:276:ASP:CB	1:E:295:SER:CB	2.63	0.77
1:W:276:ASP:CB	1:W:295:SER:CB	2.63	0.77
4:X:457:ALA:CB	4:X:457:ALA:H	1.95	0.77
4:R:456:ASP:O	4:R:457:ALA:C	2.18	0.77
2:C:523:LEU:N	3:D:1613:VAL:CB	2.48	0.77
6:H:497:ARG:N	6:H:497:ARG:CB	2.43	0.77
5:S:339:TYR:C	5:S:340:ALA:CB	2.53	0.77
1:K:276:ASP:CB	1:K:295:SER:CB	2.63	0.77
2:O:654:SER:O	3:P:1454:ALA:C	2.22	0.77
6:Z:408:SER:HA	6:Z:410:LEU:N	1.98	0.77
1:A:276:ASP:CB	1:A:295:SER:CB	2.63	0.76
5:G:339:TYR:C	5:G:340:ALA:CB	2.53	0.76
4:X:449:SER:C	4:X:450:GLU:C	2.43	0.76
4:R:487:ASP:C	4:R:487:ASP:N	2.39	0.76
2:C:531:LEU:O	3:D:1663:GLN:C	2.23	0.76
4:F:449:SER:C	4:F:450:GLU:C	2.43	0.76
5:Y:339:TYR:C	5:Y:340:ALA:CB	2.53	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:276:ASP:CB	1:Q:295:SER:CB	2.63	0.76
4:F:487:ASP:C	4:F:487:ASP:N	2.39	0.76
4:F:235:ASP:CB	4:F:235:ASP:N	2.47	0.76
4:L:449:SER:C	4:L:450:GLU:C	2.43	0.76
1:B:276:ASP:CB	1:B:295:SER:CB	2.63	0.76
4:F:456:ASP:O	4:F:457:ALA:C	2.18	0.76
6:H:408:SER:HA	6:H:410:LEU:N	1.98	0.76
1:E:1165:TYR:HA	1:K:727:PHE:N	2.00	0.75
4:F:471:GLN:C	4:F:472:GLU:CA	2.54	0.75
4:L:492:GLU:C	4:L:492:GLU:CB	2.54	0.75
4:X:471:GLN:C	4:X:472:GLU:CA	2.55	0.75
1:Q:326:ALA:HB1	1:Q:387:LEU:CB	2.17	0.75
4:X:487:ASP:C	4:X:487:ASP:N	2.39	0.75
4:F:488:ILE:N	4:F:488:ILE:HA	1.94	0.75
4:F:492:GLU:C	4:F:492:GLU:CB	2.55	0.75
4:L:487:ASP:C	4:L:487:ASP:N	2.39	0.75
2:C:530:ARG:C	3:D:1664:ASP:HA	2.02	0.75
1:K:326:ALA:HB1	1:K:387:LEU:CB	2.17	0.75
4:X:492:GLU:C	4:X:492:GLU:CB	2.55	0.75
1:A:326:ALA:HB1	1:A:387:LEU:CB	2.17	0.75
1:E:326:ALA:HB1	1:E:387:LEU:CB	2.17	0.75
6:N:408:SER:HA	6:N:410:LEU:N	1.97	0.75
1:W:326:ALA:HB1	1:W:387:LEU:CB	2.17	0.75
6:H:497:ARG:N	6:H:497:ARG:C	2.40	0.74
2:C:524:ARG:C	3:D:1610:PRO:HA	2.06	0.74
4:L:471:GLN:C	4:L:472:GLU:CA	2.55	0.74
2:O:589:ASN:O	1:W:849:ASN:CB	2.35	0.74
4:R:471:GLN:C	4:R:472:GLU:CA	2.55	0.74
4:R:492:GLU:C	4:R:492:GLU:CB	2.55	0.74
4:L:457:ALA:CB	4:L:457:ALA:H	1.95	0.74
1:B:326:ALA:HB1	1:B:387:LEU:CB	2.17	0.74
2:O:783:SER:CB	1:W:90:PRO:C	2.56	0.74
4:L:456:ASP:O	4:L:457:ALA:C	2.18	0.73
6:H:381:LYS:N	6:H:381:LYS:C	2.42	0.73
4:F:399:SER:O	4:F:400:GLY:CA	2.36	0.73
4:R:299:ASN:C	4:R:299:ASN:N	2.42	0.73
6:T:497:ARG:N	6:T:497:ARG:C	2.40	0.73
4:R:140:LYS:HA	4:R:149:GLY:H	1.54	0.73
4:R:456:ASP:C	4:R:456:ASP:N	2.39	0.73
4:L:456:ASP:C	4:L:456:ASP:N	2.39	0.73
5:M:341:ALA:H	5:M:342:PRO:N	1.87	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:534:LEU:CB	3:D:1665:VAL:C	2.52	0.73
4:R:399:SER:O	4:R:400:GLY:CA	2.36	0.73
4:X:299:ASN:C	4:X:299:ASN:N	2.42	0.73
4:F:140:LYS:HA	4:F:149:GLY:H	1.54	0.72
4:L:140:LYS:HA	4:L:149:GLY:H	1.54	0.72
4:F:299:ASN:C	4:F:299:ASN:N	2.42	0.72
4:X:399:SER:O	4:X:400:GLY:CA	2.36	0.72
3:D:1663:GLN:HA	3:D:1667:ALA:CB	2.18	0.72
4:R:446:ALA:O	4:R:449:SER:CB	2.38	0.72
7:V:1465:GLU:C	7:V:1473:LEU:HA	2.10	0.72
4:X:446:ALA:O	4:X:449:SER:CB	2.38	0.72
4:F:402:ALA:HB2	4:F:403:ILE:H	1.53	0.72
4:F:446:ALA:O	4:F:449:SER:CB	2.38	0.72
4:L:446:ALA:O	4:L:449:SER:CB	2.38	0.72
4:X:488:ILE:N	4:X:488:ILE:HA	1.94	0.72
7:J:1467:HIS:CB	7:J:1475:ARG:HA	2.20	0.72
4:X:456:ASP:O	4:X:457:ALA:C	2.18	0.72
2:C:676:ALA:C	1:K:846:ILE:O	2.28	0.72
1:K:22:ALA:HB1	1:K:780:ALA:HA	1.71	0.72
7:V:860:TYR:CB	7:V:869:ARG:H	2.02	0.72
6:Z:497:ARG:N	6:Z:497:ARG:C	2.40	0.72
1:B:22:ALA:HB1	1:B:780:ALA:HA	1.71	0.72
7:J:860:TYR:CB	7:J:869:ARG:H	2.02	0.72
4:L:299:ASN:C	4:L:299:ASN:N	2.42	0.72
4:X:140:LYS:HA	4:X:149:GLY:H	1.54	0.72
6:N:497:ARG:N	6:N:497:ARG:C	2.40	0.71
2:C:304:PRO:N	1:Q:849:ASN:C	2.39	0.71
4:L:399:SER:O	4:L:400:GLY:CA	2.36	0.71
4:L:450:GLU:N	4:L:450:GLU:C	2.44	0.71
4:R:450:GLU:N	4:R:450:GLU:C	2.44	0.71
7:V:1467:HIS:CB	7:V:1475:ARG:HA	2.20	0.71
4:F:450:GLU:N	4:F:450:GLU:C	2.44	0.71
4:X:450:GLU:N	4:X:450:GLU:C	2.44	0.71
4:X:455:ILE:CB	4:X:456:ASP:N	2.54	0.71
1:E:22:ALA:HB1	1:E:780:ALA:HA	1.71	0.71
4:F:456:ASP:C	4:F:456:ASP:N	2.39	0.71
4:R:455:ILE:CB	4:R:456:ASP:N	2.54	0.71
6:N:381:LYS:N	6:N:381:LYS:C	2.42	0.71
7:J:1465:GLU:C	7:J:1473:LEU:HA	2.10	0.71
1:Q:22:ALA:HB1	1:Q:780:ALA:HA	1.71	0.71
4:R:454:TYR:HA	4:R:455:ILE:CA	2.20	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:X:456:ASP:C	4:X:456:ASP:N	2.39	0.71
1:A:22:ALA:HB1	1:A:780:ALA:HA	1.71	0.71
7:J:1520:ARG:HA	7:J:1541:ALA:HB2	1.73	0.70
4:X:402:ALA:HB2	4:X:403:ILE:H	1.52	0.70
4:L:454:TYR:HA	4:L:455:ILE:CA	2.20	0.70
1:E:1165:TYR:CB	1:K:727:PHE:O	2.37	0.70
4:R:252:THR:CB	4:R:320:GLU:CB	2.70	0.70
7:V:643:ALA:HB1	7:V:658:MET:O	1.92	0.70
4:L:455:ILE:CB	4:L:456:ASP:N	2.54	0.70
4:X:454:TYR:HA	4:X:455:ILE:CA	2.20	0.70
6:N:408:SER:CA	6:N:410:LEU:H	2.01	0.70
4:R:455:ILE:C	4:R:457:ALA:N	2.45	0.70
6:Z:381:LYS:N	6:Z:381:LYS:CB	2.55	0.70
6:H:408:SER:CA	6:H:410:LEU:H	2.01	0.70
7:J:643:ALA:HB1	7:J:658:MET:O	1.92	0.70
4:F:455:ILE:CB	4:F:456:ASP:N	2.54	0.70
6:T:381:LYS:N	6:T:381:LYS:C	2.42	0.70
4:X:455:ILE:C	4:X:457:ALA:N	2.45	0.70
2:C:679:ILE:O	1:K:851:ALA:O	2.08	0.70
6:T:381:LYS:N	6:T:381:LYS:CB	2.55	0.70
6:T:408:SER:CA	6:T:410:LEU:H	2.01	0.70
1:W:22:ALA:HB1	1:W:780:ALA:HA	1.71	0.70
4:L:158:ASN:HA	4:L:321:LYS:O	1.92	0.69
4:L:455:ILE:C	4:L:457:ALA:N	2.45	0.69
6:N:381:LYS:N	6:N:381:LYS:CB	2.55	0.69
3:P:1663:GLN:HA	3:P:1667:ALA:CB	2.18	0.69
4:R:402:ALA:HB2	4:R:403:ILE:H	1.52	0.69
4:R:451:GLU:CB	4:R:451:GLU:N	2.55	0.69
6:Z:381:LYS:N	6:Z:381:LYS:C	2.42	0.69
4:X:158:ASN:HA	4:X:321:LYS:O	1.93	0.69
5:Y:342:PRO:C	5:Y:343:ALA:C	2.49	0.69
4:X:260:THR:CB	4:X:260:THR:C	2.61	0.69
4:L:402:ALA:HB2	4:L:403:ILE:H	1.52	0.69
4:R:399:SER:C	4:R:401:TYR:N	2.37	0.69
1:K:942:PRO:HA	1:K:943:GLN:CB	2.17	0.69
4:L:328:VAL:CA	4:L:328:VAL:O	2.40	0.69
2:O:522:CYS:N	3:P:1662:CYS:C	2.32	0.69
2:C:530:ARG:O	3:D:1664:ASP:CB	2.40	0.69
4:F:454:TYR:HA	4:F:455:ILE:CA	2.21	0.69
1:K:441:PHE:HA	1:K:444:PRO:O	1.93	0.69
4:R:158:ASN:HA	4:R:321:LYS:O	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:V:1520:ARG:HA	7:V:1541:ALA:HB2	1.74	0.69
4:X:451:GLU:CB	4:X:451:GLU:N	2.55	0.69
4:L:140:LYS:HA	4:L:149:GLY:N	2.08	0.69
4:X:140:LYS:HA	4:X:149:GLY:N	2.08	0.69
6:Z:408:SER:CA	6:Z:410:LEU:H	2.01	0.69
6:H:381:LYS:N	6:H:381:LYS:CB	2.55	0.69
5:S:341:ALA:H	5:S:342:PRO:N	1.87	0.69
1:A:441:PHE:HA	1:A:444:PRO:O	1.93	0.68
1:E:845:TYR:CB	2:O:299:ILE:HA	2.21	0.68
5:G:342:PRO:C	5:G:343:ALA:C	2.49	0.68
4:L:260:THR:CB	4:L:260:THR:C	2.60	0.68
4:F:140:LYS:HA	4:F:149:GLY:N	2.08	0.68
4:F:455:ILE:C	4:F:457:ALA:N	2.45	0.68
5:M:342:PRO:C	5:M:343:ALA:C	2.49	0.68
4:R:260:THR:CB	4:R:260:THR:C	2.60	0.68
1:W:441:PHE:HA	1:W:444:PRO:O	1.93	0.68
1:E:441:PHE:HA	1:E:444:PRO:O	1.93	0.68
4:L:451:GLU:N	4:L:451:GLU:CB	2.55	0.68
4:F:158:ASN:HA	4:F:321:LYS:O	1.92	0.68
4:F:451:GLU:CB	4:F:451:GLU:N	2.55	0.68
1:B:441:PHE:HA	1:B:444:PRO:O	1.93	0.68
4:R:140:LYS:HA	4:R:149:GLY:N	2.08	0.68
4:F:260:THR:CB	4:F:260:THR:C	2.61	0.68
5:G:341:ALA:H	5:G:342:PRO:N	1.87	0.68
2:C:676:ALA:CA	1:K:846:ILE:O	2.41	0.67
1:Q:441:PHE:HA	1:Q:444:PRO:O	1.93	0.67
2:C:535:TYR:N	3:D:1664:ASP:H	1.93	0.67
4:L:422:ASN:CB	4:L:423:ALA:HB2	2.24	0.67
7:J:643:ALA:HB1	7:J:658:MET:N	2.08	0.67
4:L:260:THR:CB	4:L:260:THR:N	2.57	0.67
4:F:422:ASN:CB	4:F:423:ALA:HB2	2.24	0.67
2:O:781:ARG:HA	1:W:92:GLU:C	2.15	0.67
1:Q:942:PRO:HA	1:Q:943:GLN:CB	2.17	0.67
4:L:448:ARG:O	4:L:449:SER:C	2.32	0.67
5:S:342:PRO:C	5:S:343:ALA:C	2.49	0.67
4:X:260:THR:CB	4:X:260:THR:N	2.57	0.67
4:R:328:VAL:CA	4:R:328:VAL:O	2.40	0.67
4:X:328:VAL:CA	4:X:328:VAL:O	2.40	0.67
3:D:644:ALA:CA	3:D:706:ALA:HB2	2.25	0.66
4:R:422:ASN:CB	4:R:423:ALA:HB2	2.24	0.66
4:R:260:THR:CB	4:R:260:THR:N	2.57	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:V:643:ALA:HB1	7:V:658:MET:N	2.08	0.66
2:C:535:TYR:HA	3:D:1663:GLN:HA	1.74	0.66
4:F:448:ARG:O	4:F:449:SER:C	2.32	0.66
4:F:486:GLU:C	4:F:487:ASP:C	2.54	0.66
4:R:486:GLU:C	4:R:487:ASP:C	2.54	0.66
7:V:858:TYR:CB	7:V:867:LEU:H	2.08	0.66
4:X:422:ASN:CB	4:X:423:ALA:HB2	2.24	0.66
2:C:305:LEU:HA	1:Q:848:ASP:C	2.16	0.66
1:E:852:VAL:N	2:O:305:LEU:O	2.27	0.66
4:L:486:GLU:C	4:L:487:ASP:C	2.54	0.66
5:Y:341:ALA:H	5:Y:342:PRO:N	1.87	0.66
4:F:260:THR:CB	4:F:260:THR:N	2.57	0.66
3:P:644:ALA:HA	3:P:706:ALA:CB	2.26	0.66
4:X:399:SER:C	4:X:401:TYR:N	2.37	0.66
4:X:486:GLU:C	4:X:487:ASP:C	2.54	0.66
5:Y:379:HIS:N	5:Y:379:HIS:HA	2.05	0.66
2:C:675:ARG:CA	1:K:849:ASN:CB	2.73	0.66
7:J:858:TYR:CB	7:J:867:LEU:H	2.08	0.65
3:P:644:ALA:CA	3:P:706:ALA:HB2	2.25	0.65
7:J:846:ALA:CB	7:J:852:ILE:H	2.01	0.65
4:X:299:ASN:C	4:X:299:ASN:CB	2.64	0.65
3:D:644:ALA:HA	3:D:706:ALA:CB	2.26	0.65
2:O:655:ALA:CB	3:P:1447:THR:O	2.45	0.65
7:J:643:ALA:HB1	7:J:658:MET:C	2.16	0.65
7:V:643:ALA:HB1	7:V:658:MET:C	2.15	0.65
2:C:483:GLU:CB	3:D:1658:ALA:HB2	2.27	0.65
7:V:251:ARG:HA	7:V:254:VAL:O	1.97	0.65
4:X:448:ARG:O	4:X:449:SER:C	2.32	0.64
4:F:299:ASN:C	4:F:299:ASN:CB	2.64	0.64
4:X:454:TYR:CB	4:X:454:TYR:H	2.10	0.64
7:J:251:ARG:HA	7:J:254:VAL:O	1.97	0.64
4:X:472:GLU:N	4:X:472:GLU:C	2.51	0.64
4:L:472:GLU:N	4:L:472:GLU:C	2.51	0.64
4:F:328:VAL:CA	4:F:328:VAL:O	2.40	0.64
4:R:400:GLY:C	4:R:401:TYR:C	2.56	0.64
1:E:942:PRO:HA	1:E:943:GLN:CB	2.17	0.64
4:F:400:GLY:C	4:F:401:TYR:C	2.56	0.64
3:P:1489:HIS:CB	3:P:1492:GLY:H	2.11	0.64
7:V:846:ALA:CB	7:V:852:ILE:H	2.01	0.64
2:C:523:LEU:CA	3:D:1613:VAL:CB	2.76	0.64
2:C:531:LEU:HA	3:D:1664:ASP:CB	2.27	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1489:HIS:CB	3:D:1492:GLY:H	2.11	0.64
4:L:400:GLY:C	4:L:401:TYR:C	2.56	0.64
4:R:472:GLU:N	4:R:472:GLU:C	2.51	0.64
7:V:1177:VAL:CB	7:V:1198:LEU:H	2.10	0.64
2:C:524:ARG:O	3:D:1610:PRO:CB	2.45	0.64
7:V:792:MET:HA	7:V:803:GLY:N	2.13	0.64
1:E:851:ALA:HB3	2:O:305:LEU:O	1.96	0.64
3:D:1664:ASP:N	3:D:1667:ALA:HB2	2.13	0.63
1:E:847:ARG:O	2:O:305:LEU:N	2.24	0.63
1:E:1165:TYR:C	1:K:727:PHE:HA	2.12	0.63
4:F:454:TYR:CB	4:F:454:TYR:H	2.10	0.63
4:L:299:ASN:C	4:L:299:ASN:CB	2.64	0.63
2:C:534:LEU:CA	3:D:1668:GLY:H	2.11	0.63
4:F:449:SER:O	4:F:451:GLU:C	2.37	0.63
5:G:378:SER:C	5:G:378:SER:CB	2.67	0.63
4:L:367:THR:C	4:L:367:THR:N	2.52	0.63
3:P:1664:ASP:N	3:P:1667:ALA:HB2	2.13	0.63
7:J:1177:VAL:CB	7:J:1198:LEU:H	2.10	0.63
2:O:784:GLN:CB	1:W:131:GLY:C	2.67	0.63
4:X:400:GLY:C	4:X:401:TYR:C	2.56	0.63
4:F:472:GLU:N	4:F:472:GLU:C	2.51	0.63
4:R:449:SER:O	4:R:451:GLU:C	2.37	0.63
1:W:942:PRO:HA	1:W:943:GLN:CB	2.17	0.63
5:Y:378:SER:C	5:Y:378:SER:CB	2.67	0.63
2:C:677:GLN:C	1:K:847:ARG:CB	2.51	0.63
4:R:299:ASN:C	4:R:299:ASN:CB	2.64	0.63
2:C:534:LEU:HA	3:D:1668:GLY:H	1.64	0.63
3:D:174:THR:HA	3:D:181:GLY:HA3	1.80	0.63
3:P:174:THR:HA	3:P:181:GLY:HA3	1.80	0.63
2:O:783:SER:CA	1:W:92:GLU:N	2.54	0.63
7:J:1177:VAL:N	7:J:1197:GLN:HA	2.15	0.62
2:O:19:GLU:CB	2:O:20:THR:HA	2.30	0.62
7:V:1177:VAL:N	7:V:1197:GLN:HA	2.14	0.62
2:C:305:LEU:CA	1:Q:848:ASP:C	2.67	0.62
2:C:306:PRO:O	1:Q:850:ALA:HB3	1.99	0.62
4:F:367:THR:C	4:F:367:THR:N	2.52	0.62
4:R:483:ASP:CB	4:R:483:ASP:N	2.60	0.62
2:U:19:GLU:CB	2:U:20:THR:HA	2.30	0.62
2:O:784:GLN:CB	1:W:132:GLY:HA2	2.29	0.62
1:W:50:SER:C	1:W:58:SER:HA	2.20	0.62
4:X:449:SER:O	4:X:451:GLU:C	2.37	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:50:SER:C	1:E:58:SER:HA	2.20	0.62
7:J:792:MET:HA	7:J:803:GLY:N	2.13	0.62
1:A:50:SER:C	1:A:58:SER:HA	2.20	0.62
5:G:379:HIS:N	5:G:379:HIS:HA	2.05	0.62
4:L:449:SER:O	4:L:451:GLU:C	2.37	0.62
4:R:367:THR:C	4:R:367:THR:N	2.52	0.62
4:F:399:SER:C	4:F:401:TYR:N	2.37	0.61
1:K:50:SER:C	1:K:58:SER:HA	2.20	0.61
1:B:50:SER:C	1:B:58:SER:HA	2.20	0.61
2:I:19:GLU:CB	2:I:20:THR:HA	2.30	0.61
1:E:1165:TYR:CA	1:K:727:PHE:N	2.47	0.61
5:M:378:SER:C	5:M:378:SER:CB	2.67	0.61
1:Q:50:SER:C	1:Q:58:SER:HA	2.20	0.61
4:L:487:ASP:C	4:L:487:ASP:CB	2.69	0.61
4:X:367:THR:C	4:X:367:THR:N	2.52	0.61
2:O:654:SER:N	3:P:1454:ALA:O	2.32	0.61
4:R:487:ASP:C	4:R:487:ASP:CB	2.69	0.61
7:J:794:ALA:HB3	7:J:804:GLN:HA	1.82	0.61
5:M:326:LEU:CB	5:M:327:ARG:HA	2.31	0.61
2:U:215:LEU:C	2:U:217:ASP:H	2.04	0.61
7:V:794:ALA:HB3	7:V:804:GLN:HA	1.82	0.61
2:I:215:LEU:C	2:I:217:ASP:H	2.04	0.61
5:S:276:SER:C	5:S:276:SER:CB	2.68	0.61
4:X:487:ASP:C	4:X:487:ASP:CB	2.69	0.61
5:S:342:PRO:C	5:S:344:ASP:N	2.55	0.61
5:Y:326:LEU:CB	5:Y:327:ARG:HA	2.31	0.61
4:F:487:ASP:C	4:F:487:ASP:CB	2.69	0.60
5:G:326:LEU:CB	5:G:327:ARG:HA	2.31	0.60
2:C:19:GLU:CB	2:C:20:THR:HA	2.30	0.60
3:P:1485:ALA:O	3:P:1486:CYS:C	2.34	0.60
5:Y:342:PRO:C	5:Y:344:ASP:N	2.55	0.60
5:G:342:PRO:C	5:G:344:ASP:N	2.54	0.60
4:L:453:TYR:O	4:L:454:TYR:C	2.40	0.60
7:V:363:GLN:O	7:V:366:ALA:HB3	2.01	0.60
1:B:312:MET:CB	1:B:313:SER:HA	2.32	0.60
3:D:644:ALA:HA	3:D:706:ALA:HB2	1.83	0.60
4:F:453:TYR:O	4:F:454:TYR:C	2.40	0.60
7:J:94:GLN:C	7:J:96:TYR:H	2.04	0.60
7:J:363:GLN:O	7:J:366:ALA:HB3	2.01	0.60
1:K:312:MET:CB	1:K:313:SER:HA	2.32	0.60
2:O:654:SER:O	3:P:1455:PRO:N	2.33	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:312:MET:CB	1:Q:313:SER:HA	2.32	0.60
4:R:448:ARG:O	4:R:449:SER:C	2.32	0.60
4:X:453:TYR:O	4:X:454:TYR:C	2.40	0.60
5:M:342:PRO:C	5:M:344:ASP:N	2.55	0.60
5:S:326:LEU:CB	5:S:327:ARG:HA	2.31	0.60
1:A:312:MET:CB	1:A:313:SER:HA	2.32	0.60
2:C:303:ALA:HB3	1:Q:849:ASN:H	1.50	0.60
7:J:846:ALA:HB1	7:J:852:ILE:CB	2.31	0.60
2:C:215:LEU:C	2:C:217:ASP:H	2.04	0.60
4:F:450:GLU:N	4:F:451:GLU:N	2.50	0.60
7:J:471:MET:O	7:J:535:SER:HA	2.01	0.60
5:M:327:ARG:CB	5:M:327:ARG:C	2.71	0.60
4:R:453:TYR:O	4:R:454:TYR:C	2.40	0.60
1:E:312:MET:CB	1:E:313:SER:HA	2.32	0.59
2:O:215:LEU:C	2:O:217:ASP:H	2.04	0.59
4:R:450:GLU:N	4:R:451:GLU:N	2.50	0.59
5:S:327:ARG:CB	5:S:327:ARG:C	2.71	0.59
7:V:471:MET:O	7:V:535:SER:HA	2.01	0.59
1:W:312:MET:CB	1:W:313:SER:HA	2.32	0.59
3:D:1485:ALA:O	3:D:1486:CYS:C	2.34	0.59
3:D:1542:PRO:O	3:D:1545:PRO:N	2.35	0.59
5:S:378:SER:C	5:S:378:SER:CB	2.67	0.59
7:V:846:ALA:HB1	7:V:852:ILE:CB	2.31	0.59
5:G:327:ARG:CB	5:G:327:ARG:C	2.71	0.59
3:P:644:ALA:HA	3:P:706:ALA:HB2	1.83	0.59
4:X:491:VAL:C	4:X:493:HIS:N	2.56	0.59
2:O:655:ALA:HB1	3:P:1447:THR:O	2.02	0.59
7:V:94:GLN:C	7:V:96:TYR:H	2.04	0.59
5:Y:327:ARG:CB	5:Y:327:ARG:C	2.71	0.59
2:C:306:PRO:C	1:Q:850:ALA:H	2.05	0.59
3:P:1542:PRO:O	3:P:1545:PRO:N	2.35	0.59
4:R:399:SER:O	4:R:400:GLY:HA3	2.00	0.59
4:R:491:VAL:C	4:R:493:HIS:N	2.56	0.59
4:X:450:GLU:N	4:X:451:GLU:N	2.50	0.59
1:A:441:PHE:C	1:A:443:LYS:H	2.06	0.59
1:B:441:PHE:C	1:B:443:LYS:H	2.06	0.59
4:F:483:ASP:CB	4:F:483:ASP:N	2.60	0.58
5:M:325:ALA:C	5:M:326:LEU:CA	2.70	0.58
1:Q:441:PHE:C	1:Q:443:LYS:H	2.06	0.58
5:Y:339:TYR:O	5:Y:340:ALA:CB	2.51	0.58
2:O:783:SER:H	1:W:92:GLU:N	2.00	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Y:276:SER:C	5:Y:276:SER:CB	2.68	0.58
4:F:491:VAL:C	4:F:493:HIS:N	2.56	0.58
2:C:524:ARG:O	3:D:1610:PRO:CA	2.40	0.58
1:E:441:PHE:C	1:E:443:LYS:H	2.06	0.58
5:G:325:ALA:C	5:G:326:LEU:CA	2.70	0.58
5:G:339:TYR:CB	5:G:341:ALA:H	2.16	0.58
7:J:1373:SER:CB	7:J:1426:HIS:HA	2.34	0.58
5:M:339:TYR:O	5:M:340:ALA:CB	2.51	0.58
5:S:339:TYR:CB	5:S:341:ALA:H	2.16	0.58
1:W:441:PHE:C	1:W:443:LYS:H	2.06	0.58
5:Y:339:TYR:CB	5:Y:341:ALA:H	2.16	0.58
4:L:491:VAL:C	4:L:493:HIS:N	2.56	0.58
4:L:450:GLU:N	4:L:451:GLU:N	2.50	0.58
1:A:205:LEU:C	1:A:207:SER:HA	2.24	0.58
1:E:852:VAL:CB	2:O:304:PRO:C	2.72	0.58
5:G:339:TYR:O	5:G:340:ALA:CB	2.51	0.58
7:J:485:VAL:HA	7:J:495:ARG:HA	1.86	0.58
1:K:441:PHE:C	1:K:443:LYS:H	2.06	0.58
5:M:276:SER:C	5:M:276:SER:CB	2.68	0.58
1:E:205:LEU:C	1:E:207:SER:HA	2.25	0.58
5:M:339:TYR:CB	5:M:341:ALA:H	2.16	0.58
5:S:325:ALA:C	5:S:326:LEU:CA	2.70	0.58
4:F:399:SER:O	4:F:400:GLY:HA3	2.00	0.57
7:V:485:VAL:HA	7:V:495:ARG:HA	1.86	0.57
5:G:342:PRO:O	5:G:343:ALA:C	2.43	0.57
1:K:205:LEU:C	1:K:207:SER:HA	2.25	0.57
1:Q:205:LEU:C	1:Q:207:SER:HA	2.25	0.57
7:V:1373:SER:CB	7:V:1426:HIS:HA	2.34	0.57
1:W:205:LEU:C	1:W:207:SER:HA	2.25	0.57
1:B:205:LEU:C	1:B:207:SER:HA	2.24	0.57
4:F:453:TYR:O	4:F:455:ILE:CA	2.53	0.57
5:M:342:PRO:O	5:M:343:ALA:C	2.43	0.57
4:X:453:TYR:O	4:X:455:ILE:CA	2.53	0.57
4:X:483:ASP:CB	4:X:483:ASP:N	2.60	0.57
2:C:534:LEU:CB	3:D:1667:ALA:CA	2.80	0.57
4:R:454:TYR:CB	4:R:454:TYR:H	2.10	0.57
5:S:339:TYR:O	5:S:340:ALA:CB	2.51	0.57
5:S:342:PRO:O	5:S:343:ALA:C	2.43	0.57
2:C:535:TYR:N	3:D:1664:ASP:N	2.52	0.57
2:C:681:ALA:H	1:K:850:ALA:HA	1.69	0.57
3:D:1489:HIS:O	3:D:1491:ILE:N	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S:379:HIS:N	5:S:379:HIS:HA	2.06	0.57
4:R:328:VAL:C	4:R:328:VAL:CB	2.67	0.57
7:J:1177:VAL:H	7:J:1197:GLN:HA	1.69	0.57
3:P:1664:ASP:O	3:P:1667:ALA:HB3	2.04	0.57
5:Y:342:PRO:O	5:Y:343:ALA:C	2.43	0.57
1:E:847:ARG:O	2:O:303:ALA:CB	2.47	0.57
7:V:498:THR:HA	7:V:515:GLN:CB	2.35	0.57
7:V:1463:MET:C	7:V:1465:GLU:H	2.08	0.57
2:C:681:ALA:HB3	1:K:850:ALA:HA	1.87	0.56
2:C:725:GLU:C	2:C:727:VAL:H	2.08	0.56
4:F:447:VAL:CB	4:F:447:VAL:N	2.62	0.56
2:I:725:GLU:C	2:I:727:VAL:H	2.08	0.56
3:P:1489:HIS:O	3:P:1491:ILE:N	2.38	0.56
4:R:453:TYR:O	4:R:455:ILE:CA	2.53	0.56
2:C:306:PRO:N	1:Q:849:ASN:CB	2.61	0.56
2:C:487:CYS:H	3:D:1661:ARG:CB	2.11	0.56
2:C:679:ILE:O	1:K:851:ALA:C	2.44	0.56
1:E:1165:TYR:HA	1:K:727:PHE:CB	2.29	0.56
4:L:453:TYR:O	4:L:455:ILE:CA	2.53	0.56
2:O:725:GLU:C	2:O:727:VAL:H	2.08	0.56
2:U:483:GLU:HA	2:U:484:ARG:N	2.20	0.56
2:U:725:GLU:C	2:U:727:VAL:H	2.08	0.56
2:C:676:ALA:O	1:K:846:ILE:O	2.21	0.56
1:E:1165:TYR:HA	1:K:727:PHE:HA	0.58	0.56
7:J:249:THR:HA	7:J:253:LEU:N	2.20	0.56
7:V:249:THR:HA	7:V:253:LEU:N	2.20	0.56
2:C:681:ALA:HB3	1:K:850:ALA:CB	2.35	0.56
2:C:483:GLU:HA	2:C:484:ARG:N	2.21	0.56
2:I:483:GLU:HA	2:I:484:ARG:N	2.21	0.56
4:L:454:TYR:CB	4:L:454:TYR:H	2.10	0.56
2:O:483:GLU:HA	2:O:484:ARG:N	2.20	0.56
1:A:205:LEU:O	1:A:207:SER:HA	2.06	0.56
1:B:205:LEU:O	1:B:207:SER:HA	2.06	0.56
4:F:449:SER:O	4:F:452:ARG:N	2.38	0.56
5:G:276:SER:C	5:G:276:SER:CB	2.68	0.56
4:R:449:SER:O	4:R:452:ARG:N	2.38	0.56
4:X:449:SER:O	4:X:452:ARG:N	2.39	0.56
4:L:483:ASP:CB	4:L:483:ASP:N	2.60	0.56
2:C:306:PRO:CA	1:Q:849:ASN:CA	2.70	0.56
1:Q:376:ARG:C	1:Q:380:ALA:HA	2.27	0.56
1:A:376:ARG:C	1:A:380:ALA:HA	2.27	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:376:ARG:C	1:E:380:ALA:HA	2.27	0.55
7:J:1463:MET:C	7:J:1465:GLU:H	2.08	0.55
7:V:1177:VAL:H	7:V:1197:GLN:HA	1.69	0.55
5:Y:325:ALA:C	5:Y:326:LEU:CA	2.70	0.55
1:B:376:ARG:C	1:B:380:ALA:HA	2.27	0.55
5:Y:313:ILE:O	5:Y:316:ALA:HB3	2.07	0.55
2:U:303:ALA:HB1	2:U:306:PRO:HA	1.87	0.55
4:X:328:VAL:C	4:X:328:VAL:CB	2.67	0.55
1:Q:205:LEU:O	1:Q:207:SER:HA	2.06	0.55
5:S:313:ILE:O	5:S:316:ALA:HB3	2.07	0.55
1:K:205:LEU:O	1:K:207:SER:HA	2.06	0.55
5:S:378:SER:CA	5:S:378:SER:O	2.51	0.55
1:W:205:LEU:O	1:W:207:SER:HA	2.06	0.55
1:K:376:ARG:C	1:K:380:ALA:HA	2.27	0.55
4:L:399:SER:C	4:L:401:TYR:N	2.37	0.55
4:L:455:ILE:C	4:L:456:ASP:C	2.56	0.55
2:O:783:SER:CB	1:W:91:PRO:CB	2.85	0.55
4:X:404:GLN:O	4:X:405:ALA:CB	2.55	0.55
2:I:303:ALA:HB1	2:I:306:PRO:HA	1.87	0.55
4:L:399:SER:O	4:L:400:GLY:HA3	2.00	0.55
5:M:313:ILE:O	5:M:316:ALA:HB3	2.07	0.55
7:V:846:ALA:HB2	7:V:849:ASN:CA	2.36	0.55
6:H:406:LEU:HA	6:H:409:PRO:N	2.22	0.55
2:C:522:CYS:CB	3:D:1663:GLN:O	2.55	0.55
2:C:679:ILE:O	1:K:850:ALA:O	2.24	0.55
3:D:1489:HIS:O	3:D:1490:GLU:C	2.44	0.55
7:J:498:THR:HA	7:J:515:GLN:CB	2.35	0.54
7:V:249:THR:HA	7:V:253:LEU:HA	1.89	0.54
4:F:404:GLN:O	4:F:405:ALA:CB	2.55	0.54
7:J:846:ALA:HB2	7:J:849:ASN:CA	2.36	0.54
4:R:404:GLN:O	4:R:405:ALA:CB	2.55	0.54
4:L:449:SER:O	4:L:452:ARG:N	2.38	0.54
6:T:406:LEU:HA	6:T:409:PRO:N	2.22	0.54
2:U:483:GLU:N	2:U:484:ARG:N	2.55	0.54
1:E:205:LEU:O	1:E:207:SER:HA	2.06	0.54
2:I:483:GLU:N	2:I:484:ARG:N	2.55	0.54
2:O:784:GLN:CB	1:W:132:GLY:N	2.70	0.54
2:C:483:GLU:N	2:C:484:ARG:N	2.56	0.54
6:N:406:LEU:HA	6:N:409:PRO:N	2.22	0.54
2:O:483:GLU:N	2:O:484:ARG:N	2.55	0.54
6:Z:406:LEU:HA	6:Z:409:PRO:N	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L:235:ASP:CB	4:L:235:ASP:C	2.68	0.54
6:N:462:GLY:CA	6:N:462:GLY:O	2.51	0.54
7:V:848:GLY:O	7:V:890:LEU:HA	2.08	0.54
2:C:534:LEU:CA	3:D:1668:GLY:N	2.70	0.54
4:F:298:GLN:C	4:F:299:ASN:C	2.67	0.54
7:J:644:HIS:C	7:J:660:ALA:H	2.11	0.54
4:L:404:GLN:O	4:L:405:ALA:CB	2.55	0.54
7:J:848:GLY:O	7:J:890:LEU:HA	2.08	0.54
7:V:829:PRO:HA	7:V:832:ASN:HA	1.90	0.54
1:W:376:ARG:C	1:W:380:ALA:HA	2.27	0.54
4:L:447:VAL:CB	4:L:447:VAL:N	2.62	0.54
7:V:644:HIS:C	7:V:660:ALA:H	2.11	0.54
1:B:22:ALA:HB1	1:B:780:ALA:CA	2.38	0.54
1:E:181:ALA:O	1:E:196:GLY:HA2	2.08	0.54
5:G:313:ILE:O	5:G:316:ALA:HB3	2.07	0.54
6:H:462:GLY:CA	6:H:462:GLY:O	2.51	0.53
4:L:298:GLN:C	4:L:299:ASN:C	2.67	0.53
2:O:589:ASN:O	1:W:850:ALA:CA	2.52	0.53
3:P:1489:HIS:O	3:P:1490:GLU:C	2.44	0.53
4:R:485:LEU:HA	4:R:488:ILE:CB	2.39	0.53
4:X:298:GLN:C	4:X:299:ASN:C	2.67	0.53
1:A:181:ALA:O	1:A:196:GLY:HA2	2.08	0.53
6:H:408:SER:CA	6:H:410:LEU:N	2.68	0.53
7:J:829:PRO:HA	7:J:832:ASN:HA	1.90	0.53
1:K:181:ALA:O	1:K:196:GLY:HA2	2.08	0.53
4:X:404:GLN:O	4:X:405:ALA:HB2	2.09	0.53
4:L:404:GLN:O	4:L:405:ALA:HB2	2.08	0.53
1:Q:181:ALA:O	1:Q:196:GLY:HA2	2.09	0.53
4:X:235:ASP:CB	4:X:235:ASP:C	2.68	0.53
4:L:485:LEU:HA	4:L:488:ILE:CB	2.38	0.53
1:Q:22:ALA:HB1	1:Q:780:ALA:CA	2.38	0.53
1:E:22:ALA:HB1	1:E:780:ALA:CA	2.38	0.53
5:Y:325:ALA:CA	5:Y:326:LEU:N	2.69	0.53
1:B:181:ALA:O	1:B:196:GLY:HA2	2.09	0.53
2:C:306:PRO:CB	1:Q:848:ASP:CB	2.87	0.53
4:F:485:LEU:HA	4:F:488:ILE:CB	2.38	0.53
6:T:409:PRO:CA	6:T:410:LEU:N	2.72	0.53
2:C:303:ALA:C	1:Q:849:ASN:N	2.56	0.53
5:G:339:TYR:CA	5:G:340:ALA:N	2.68	0.53
1:W:22:ALA:HB1	1:W:780:ALA:CB	2.39	0.53
4:X:399:SER:O	4:X:400:GLY:HA3	2.00	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:378:SER:CA	5:M:378:SER:O	2.51	0.53
4:R:404:GLN:O	4:R:405:ALA:HB2	2.09	0.53
4:X:459:LEU:CA	4:X:460:LEU:N	2.54	0.53
4:X:485:LEU:HA	4:X:488:ILE:CB	2.38	0.53
7:J:249:THR:HA	7:J:253:LEU:HA	1.89	0.52
3:P:1448:MET:C	3:P:1450:GLU:HA	2.29	0.52
1:Q:22:ALA:HB1	1:Q:780:ALA:CB	2.39	0.52
4:R:298:GLN:C	4:R:299:ASN:C	2.67	0.52
3:P:1664:ASP:C	3:P:1667:ALA:H	2.12	0.52
4:R:447:VAL:CB	4:R:447:VAL:N	2.62	0.52
4:R:159:ILE:CB	4:R:254:ARG:HA	2.40	0.52
4:F:404:GLN:O	4:F:405:ALA:HB2	2.08	0.52
6:H:408:SER:C	6:H:409:PRO:C	2.64	0.52
7:V:1519:GLN:O	7:V:1541:ALA:HB2	2.09	0.52
1:K:370:PHE:HA	1:K:386:THR:O	2.10	0.52
5:M:379:HIS:N	5:M:379:HIS:HA	2.05	0.52
2:O:653:ILE:CB	3:P:1456:GLU:HA	2.40	0.52
6:T:408:SER:CA	6:T:410:LEU:N	2.68	0.52
7:V:389:LEU:HA	7:V:397:LEU:O	2.10	0.52
1:W:370:PHE:HA	1:W:386:THR:O	2.10	0.52
1:A:22:ALA:HB1	1:A:780:ALA:CA	2.38	0.52
1:E:370:PHE:HA	1:E:386:THR:O	2.10	0.52
4:F:222:THR:O	4:F:246:GLU:HA	2.10	0.52
4:X:450:GLU:O	4:X:451:GLU:CA	2.33	0.52
1:B:22:ALA:HB1	1:B:780:ALA:CB	2.39	0.52
2:O:783:SER:N	1:W:92:GLU:N	2.55	0.52
4:R:235:ASP:CB	4:R:235:ASP:C	2.68	0.52
7:V:1175:GLY:CA	7:V:1197:GLN:H	2.19	0.52
1:K:22:ALA:HB1	1:K:780:ALA:CB	2.39	0.52
5:S:339:TYR:CA	5:S:340:ALA:N	2.68	0.52
1:W:181:ALA:O	1:W:196:GLY:HA2	2.08	0.52
2:C:531:LEU:O	3:D:1663:GLN:CA	2.53	0.52
7:J:1519:GLN:O	7:J:1541:ALA:HB2	2.09	0.52
3:P:1504:VAL:O	3:P:1505:SER:C	2.39	0.52
7:V:644:HIS:O	7:V:659:ASN:HA	2.10	0.52
1:A:370:PHE:HA	1:A:386:THR:O	2.10	0.51
1:E:22:ALA:HB1	1:E:780:ALA:CB	2.39	0.51
7:J:644:HIS:O	7:J:659:ASN:HA	2.10	0.51
2:C:306:PRO:C	1:Q:849:ASN:CB	2.76	0.51
1:Q:370:PHE:HA	1:Q:386:THR:O	2.10	0.51
4:R:458:ASP:O	4:R:460:LEU:CA	2.58	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Y:378:SER:CA	5:Y:378:SER:O	2.51	0.51
1:B:370:PHE:HA	1:B:386:THR:O	2.10	0.51
4:R:399:SER:CA	4:R:401:TYR:N	2.73	0.51
5:S:325:ALA:CA	5:S:326:LEU:N	2.69	0.51
6:T:462:GLY:CA	6:T:462:GLY:O	2.50	0.51
4:X:222:THR:O	4:X:246:GLU:HA	2.10	0.51
6:H:409:PRO:CA	6:H:410:LEU:N	2.72	0.51
7:J:389:LEU:HA	7:J:397:LEU:O	2.10	0.51
6:Z:462:GLY:CA	6:Z:462:GLY:O	2.50	0.51
1:A:22:ALA:HB1	1:A:780:ALA:CB	2.39	0.51
4:L:222:THR:O	4:L:246:GLU:HA	2.10	0.51
4:X:222:THR:C	4:X:247:ARG:H	2.14	0.51
7:J:1353:VAL:O	7:J:1356:ALA:HB3	2.10	0.51
1:K:22:ALA:HB1	1:K:780:ALA:CA	2.38	0.51
4:L:399:SER:CA	4:L:401:TYR:N	2.74	0.51
6:N:425:HIS:O	6:N:426:ALA:HB2	2.11	0.51
7:V:1353:VAL:O	7:V:1356:ALA:HB3	2.10	0.51
4:X:399:SER:CA	4:X:401:TYR:N	2.74	0.51
3:D:1448:MET:C	3:D:1450:GLU:HA	2.29	0.51
6:H:425:HIS:O	6:H:426:ALA:HB2	2.11	0.51
1:E:376:ARG:O	1:E:380:ALA:HA	2.11	0.51
6:H:490:GLN:CB	6:H:490:GLN:N	2.58	0.51
7:J:249:THR:HA	7:J:253:LEU:CA	2.41	0.51
5:Y:345:TYR:C	5:Y:348:ILE:H	2.14	0.51
5:M:339:TYR:CA	5:M:340:ALA:N	2.68	0.51
4:R:222:THR:O	4:R:246:GLU:HA	2.10	0.51
6:T:425:HIS:O	6:T:426:ALA:HB2	2.11	0.51
5:G:345:TYR:C	5:G:348:ILE:H	2.14	0.50
7:J:1175:GLY:HA2	7:J:1196:GLN:HA	1.93	0.50
6:N:409:PRO:CA	6:N:410:LEU:N	2.72	0.50
3:P:1448:MET:O	3:P:1451:ARG:N	2.44	0.50
7:V:250:ASN:N	7:V:253:LEU:HA	2.26	0.50
1:W:22:ALA:HB1	1:W:780:ALA:CA	2.38	0.50
6:Z:425:HIS:O	6:Z:426:ALA:HB2	2.11	0.50
3:D:1448:MET:O	3:D:1451:ARG:N	2.44	0.50
1:K:376:ARG:O	1:K:380:ALA:HA	2.11	0.50
4:F:399:SER:CA	4:F:401:TYR:N	2.74	0.50
1:K:215:LEU:HA	1:K:230:GLY:HA2	1.94	0.50
5:M:339:TYR:CB	5:M:341:ALA:N	2.75	0.50
2:O:784:GLN:CB	1:W:132:GLY:CA	2.88	0.50
7:V:249:THR:HA	7:V:253:LEU:CA	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Z:409:PRO:CA	6:Z:410:LEU:N	2.72	0.50
2:C:675:ARG:HA	1:K:849:ASN:CB	2.40	0.50
1:E:215:LEU:HA	1:E:230:GLY:HA2	1.94	0.50
4:L:328:VAL:C	4:L:328:VAL:CB	2.67	0.50
5:M:345:TYR:C	5:M:348:ILE:H	2.14	0.50
6:N:408:SER:C	6:N:409:PRO:C	2.65	0.50
4:X:447:VAL:CB	4:X:447:VAL:N	2.62	0.50
1:B:376:ARG:O	1:B:380:ALA:HA	2.11	0.50
4:F:458:ASP:O	4:F:460:LEU:CA	2.58	0.50
7:V:1175:GLY:HA2	7:V:1196:GLN:HA	1.93	0.50
1:W:376:ARG:O	1:W:380:ALA:HA	2.11	0.50
2:C:447:ASP:C	2:C:448:TYR:HA	2.32	0.50
5:G:326:LEU:N	5:G:326:LEU:CB	2.72	0.50
7:J:250:ASN:N	7:J:253:LEU:HA	2.26	0.50
7:J:1175:GLY:CA	7:J:1197:GLN:H	2.19	0.50
5:M:326:LEU:N	5:M:326:LEU:CB	2.72	0.50
1:Q:376:ARG:O	1:Q:380:ALA:HA	2.11	0.50
5:S:326:LEU:N	5:S:326:LEU:CB	2.72	0.50
2:U:15:GLN:CA	2:U:16:LEU:N	2.71	0.50
4:X:329:GLY:N	4:X:329:GLY:C	2.62	0.50
6:Z:408:SER:CA	6:Z:410:LEU:N	2.68	0.50
4:F:222:THR:C	4:F:247:ARG:H	2.14	0.50
5:M:325:ALA:CA	5:M:326:LEU:N	2.68	0.50
2:O:783:SER:N	1:W:92:GLU:H	2.10	0.50
1:Q:215:LEU:HA	1:Q:230:GLY:HA2	1.94	0.50
5:S:345:TYR:C	5:S:348:ILE:H	2.14	0.50
6:N:490:GLN:CB	6:N:490:GLN:N	2.58	0.50
2:O:447:ASP:C	2:O:448:TYR:HA	2.33	0.50
3:P:324:GLY:O	3:P:327:ALA:HB3	2.12	0.50
6:Z:490:GLN:CB	6:Z:490:GLN:N	2.59	0.50
4:L:459:LEU:CA	4:L:460:LEU:N	2.54	0.49
5:S:339:TYR:CB	5:S:341:ALA:N	2.75	0.49
6:Z:408:SER:C	6:Z:409:PRO:C	2.64	0.49
4:X:457:ALA:C	4:X:459:LEU:N	2.66	0.49
5:Y:339:TYR:CB	5:Y:341:ALA:N	2.75	0.49
2:C:469:THR:O	2:C:470:ALA:HB3	2.13	0.49
2:O:469:THR:O	2:O:470:ALA:HB3	2.12	0.49
6:T:380:GLU:C	6:T:381:LYS:CA	2.72	0.49
1:A:376:ARG:O	1:A:380:ALA:HA	2.11	0.49
2:C:675:ARG:O	1:K:851:ALA:HB3	2.12	0.49
3:P:1489:HIS:C	3:P:1491:ILE:N	2.61	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:G:339:TYR:CB	5:G:341:ALA:N	2.75	0.49
4:L:222:THR:C	4:L:247:ARG:H	2.14	0.49
4:R:222:THR:C	4:R:247:ARG:H	2.14	0.49
4:X:488:ILE:N	4:X:488:ILE:CB	2.66	0.49
2:C:306:PRO:CB	1:Q:848:ASP:C	2.74	0.49
4:F:458:ASP:O	4:F:459:LEU:C	2.45	0.49
1:K:312:MET:CB	1:K:313:SER:CA	2.91	0.49
4:L:457:ALA:C	4:L:459:LEU:N	2.66	0.49
4:R:457:ALA:C	4:R:459:LEU:N	2.66	0.49
4:F:457:ALA:C	4:F:459:LEU:N	2.66	0.49
3:D:1489:HIS:C	3:D:1491:ILE:N	2.61	0.49
5:G:325:ALA:CA	5:G:326:LEU:N	2.69	0.49
2:O:15:GLN:N	2:O:16:LEU:N	2.61	0.49
2:O:234:LEU:C	2:O:252:MET:HA	2.33	0.49
1:W:215:LEU:HA	1:W:230:GLY:HA2	1.94	0.49
4:X:458:ASP:O	4:X:460:LEU:CA	2.58	0.49
1:A:312:MET:CB	1:A:313:SER:CA	2.91	0.49
1:B:215:LEU:HA	1:B:230:GLY:HA2	1.94	0.49
3:D:324:GLY:O	3:D:327:ALA:HB3	2.12	0.49
2:I:447:ASP:C	2:I:448:TYR:HA	2.32	0.49
6:T:408:SER:C	6:T:409:PRO:C	2.64	0.49
2:U:469:THR:O	2:U:470:ALA:HB3	2.12	0.49
4:L:458:ASP:C	4:L:460:LEU:N	2.66	0.49
2:U:447:ASP:C	2:U:448:TYR:HA	2.33	0.49
2:C:234:LEU:C	2:C:252:MET:HA	2.33	0.48
3:D:1509:GLN:O	3:D:1510:GLN:C	2.45	0.48
2:O:653:ILE:CB	3:P:1456:GLU:CA	2.91	0.48
3:P:69:LYS:O	3:P:70:ALA:HB3	2.13	0.48
2:C:487:CYS:CB	3:D:1661:ARG:CA	2.85	0.48
5:M:378:SER:CB	5:M:378:SER:O	2.61	0.48
2:C:15:GLN:N	2:C:16:LEU:N	2.61	0.48
4:F:458:ASP:C	4:F:460:LEU:N	2.66	0.48
2:I:234:LEU:C	2:I:252:MET:HA	2.33	0.48
4:R:458:ASP:O	4:R:459:LEU:C	2.45	0.48
5:Y:326:LEU:N	5:Y:326:LEU:CB	2.72	0.48
5:Y:378:SER:CB	5:Y:378:SER:O	2.61	0.48
1:E:312:MET:CB	1:E:313:SER:CA	2.91	0.48
2:I:469:THR:O	2:I:470:ALA:HB3	2.12	0.48
7:J:147:PHE:C	7:J:149:ASP:H	2.17	0.48
1:A:215:LEU:HA	1:A:230:GLY:HA2	1.94	0.48
6:H:374:SER:CB	6:H:374:SER:H	2.25	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L:450:GLU:O	4:L:451:GLU:CA	2.33	0.48
3:P:644:ALA:HB2	3:P:702:PRO:O	2.14	0.48
1:Q:312:MET:CB	1:Q:313:SER:CA	2.91	0.48
4:X:493:HIS:CB	4:X:493:HIS:C	2.60	0.48
4:F:492:GLU:CA	4:F:492:GLU:O	2.53	0.48
5:G:378:SER:CA	5:G:378:SER:O	2.51	0.48
2:I:15:GLN:N	2:I:16:LEU:N	2.61	0.48
7:J:1175:GLY:HA3	7:J:1197:GLN:N	2.23	0.48
2:U:234:LEU:C	2:U:252:MET:HA	2.33	0.48
1:W:312:MET:CB	1:W:313:SER:CA	2.91	0.48
2:C:19:GLU:CB	2:C:20:THR:CA	2.92	0.48
5:G:378:SER:CB	5:G:378:SER:O	2.61	0.48
2:O:591:GLY:HA2	1:W:853:ASP:CB	2.44	0.48
4:X:455:ILE:C	4:X:457:ALA:H	2.15	0.48
4:F:490:LEU:O	4:F:493:HIS:N	2.43	0.48
5:G:325:ALA:C	5:G:325:ALA:CB	2.77	0.48
4:L:493:HIS:CB	4:L:493:HIS:C	2.60	0.48
2:O:231:THR:C	2:O:233:VAL:H	2.17	0.48
5:S:378:SER:CB	5:S:378:SER:O	2.61	0.48
7:V:1157:SER:CB	7:V:1222:SER:CB	2.92	0.48
7:V:1175:GLY:HA3	7:V:1197:GLN:N	2.23	0.48
1:E:852:VAL:CB	2:O:304:PRO:CA	2.89	0.48
4:F:235:ASP:CB	4:F:235:ASP:C	2.68	0.48
1:K:1352:LEU:C	1:K:1354:LEU:H	2.17	0.48
4:L:488:ILE:N	4:L:488:ILE:CB	2.66	0.48
7:V:1465:GLU:O	7:V:1474:MET:N	2.47	0.48
2:C:231:THR:C	2:C:233:VAL:H	2.18	0.48
3:D:69:LYS:O	3:D:70:ALA:HB3	2.13	0.48
7:J:1157:SER:CB	7:J:1222:SER:CB	2.92	0.48
4:R:367:THR:CA	4:R:367:THR:O	2.53	0.48
2:U:15:GLN:N	2:U:16:LEU:N	2.61	0.48
3:D:644:ALA:HB2	3:D:702:PRO:O	2.14	0.47
4:F:158:ASN:CA	4:F:321:LYS:O	2.62	0.47
2:U:807:THR:C	2:U:809:ALA:H	2.16	0.47
1:B:312:MET:CB	1:B:313:SER:CA	2.91	0.47
4:F:140:LYS:CA	4:F:149:GLY:HA2	2.45	0.47
2:I:807:THR:C	2:I:809:ALA:H	2.16	0.47
2:O:19:GLU:CB	2:O:20:THR:CA	2.92	0.47
7:V:147:PHE:C	7:V:149:ASP:H	2.17	0.47
5:Y:339:TYR:CA	5:Y:340:ALA:N	2.68	0.47
2:C:681:ALA:HB3	1:K:850:ALA:HB2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:F:328:VAL:C	4:F:328:VAL:CB	2.67	0.47
4:L:197:LYS:CB	4:L:201:GLU:CB	2.92	0.47
4:R:140:LYS:CA	4:R:149:GLY:HA2	2.45	0.47
6:T:477:ILE:O	6:T:480:ALA:HB3	2.14	0.47
3:D:644:ALA:HB2	3:D:702:PRO:C	2.35	0.47
6:N:408:SER:CA	6:N:410:LEU:N	2.68	0.47
2:O:807:THR:C	2:O:809:ALA:H	2.17	0.47
3:P:644:ALA:HB2	3:P:702:PRO:C	2.35	0.47
4:X:490:LEU:O	4:X:493:HIS:N	2.43	0.47
2:C:807:THR:C	2:C:809:ALA:H	2.16	0.47
2:I:19:GLU:CB	2:I:20:THR:CA	2.92	0.47
4:R:197:LYS:CB	4:R:201:GLU:CB	2.92	0.47
5:S:322:ALA:O	5:S:325:ALA:HB3	2.14	0.47
5:Y:322:ALA:O	5:Y:325:ALA:HB3	2.14	0.47
7:J:1386:LYS:CB	7:J:1388:LEU:HA	2.45	0.47
7:J:1465:GLU:O	7:J:1474:MET:N	2.47	0.47
5:M:340:ALA:O	5:M:341:ALA:CB	2.62	0.47
4:R:211:GLU:HA	4:R:214:HIS:CB	2.45	0.47
2:C:487:CYS:CA	3:D:1661:ARG:CB	2.87	0.47
3:D:49:ASP:C	3:D:51:ILE:H	2.18	0.47
3:D:1486:CYS:O	3:D:1487:ASP:C	2.50	0.47
3:D:1517:SER:O	3:D:1518:ASN:C	2.51	0.47
1:E:852:VAL:CB	2:O:305:LEU:H	2.25	0.47
4:F:197:LYS:CB	4:F:201:GLU:CB	2.92	0.47
4:F:488:ILE:N	4:F:488:ILE:CB	2.66	0.47
4:L:140:LYS:HA	4:L:149:GLY:CA	2.45	0.47
4:L:140:LYS:CA	4:L:149:GLY:HA2	2.45	0.47
4:L:458:ASP:O	4:L:460:LEU:CA	2.58	0.47
3:P:1489:HIS:O	3:P:1492:GLY:N	2.48	0.47
4:R:492:GLU:CB	4:R:492:GLU:O	2.63	0.47
7:V:1386:LYS:CB	7:V:1388:LEU:HA	2.45	0.47
1:W:1352:LEU:C	1:W:1354:LEU:H	2.17	0.47
5:Y:340:ALA:O	5:Y:341:ALA:CB	2.63	0.47
2:C:538:LYS:HA	3:D:1671:GLN:C	1.95	0.47
5:G:322:ALA:O	5:G:325:ALA:HB3	2.14	0.47
6:H:477:ILE:O	6:H:480:ALA:HB3	2.15	0.47
3:P:49:ASP:C	3:P:51:ILE:H	2.18	0.47
1:Q:1352:LEU:C	1:Q:1354:LEU:H	2.17	0.47
5:S:340:ALA:O	5:S:341:ALA:CB	2.63	0.47
1:W:340:LYS:C	1:W:342:ILE:HA	2.35	0.47
4:X:367:THR:C	4:X:367:THR:CB	2.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1352:LEU:C	1:E:1354:LEU:H	2.17	0.47
6:H:380:GLU:C	6:H:381:LYS:CA	2.72	0.47
7:J:1436:ALA:C	7:J:1438:ARG:H	2.18	0.47
2:U:19:GLU:CB	2:U:20:THR:CA	2.92	0.47
4:X:492:GLU:CB	4:X:492:GLU:O	2.63	0.47
6:Z:477:ILE:O	6:Z:480:ALA:HB3	2.14	0.47
1:A:38:ARG:HA	1:A:484:THR:CB	2.45	0.47
2:C:681:ALA:HB3	1:K:850:ALA:CA	2.45	0.47
4:F:492:GLU:CB	4:F:492:GLU:O	2.63	0.47
5:G:340:ALA:O	5:G:341:ALA:CB	2.63	0.47
4:L:490:LEU:O	4:L:493:HIS:N	2.43	0.47
1:Q:38:ARG:HA	1:Q:484:THR:CB	2.45	0.47
4:X:140:LYS:CA	4:X:149:GLY:HA2	2.44	0.47
1:A:340:LYS:C	1:A:342:ILE:HA	2.35	0.46
7:J:1373:SER:CB	7:J:1426:HIS:CB	2.93	0.46
3:P:1509:GLN:O	3:P:1510:GLN:C	2.45	0.46
1:B:38:ARG:HA	1:B:484:THR:CB	2.45	0.46
3:D:1542:PRO:C	3:D:1544:PRO:N	2.68	0.46
1:E:340:LYS:C	1:E:342:ILE:HA	2.35	0.46
6:N:406:LEU:C	6:N:408:SER:N	2.62	0.46
4:R:140:LYS:HA	4:R:149:GLY:CA	2.44	0.46
4:R:158:ASN:CA	4:R:321:LYS:O	2.62	0.46
4:R:458:ASP:C	4:R:460:LEU:N	2.66	0.46
1:W:38:ARG:HA	1:W:484:THR:CB	2.45	0.46
4:X:197:LYS:CB	4:X:201:GLU:CB	2.92	0.46
4:X:211:GLU:HA	4:X:214:HIS:CB	2.45	0.46
4:X:489:LYS:O	4:X:492:GLU:N	2.48	0.46
3:D:1489:HIS:O	3:D:1492:GLY:N	2.48	0.46
4:L:211:GLU:HA	4:L:214:HIS:CB	2.46	0.46
4:R:490:LEU:O	4:R:493:HIS:N	2.43	0.46
5:S:325:ALA:C	5:S:325:ALA:CB	2.77	0.46
7:V:1436:ALA:C	7:V:1438:ARG:H	2.18	0.46
4:X:140:LYS:HA	4:X:149:GLY:CA	2.44	0.46
2:C:535:TYR:CB	3:D:1662:CYS:O	2.63	0.46
4:F:140:LYS:HA	4:F:149:GLY:CA	2.44	0.46
5:M:322:ALA:O	5:M:325:ALA:HB3	2.14	0.46
5:M:374:GLN:HA	5:M:377:ASN:CB	2.46	0.46
3:P:1447:THR:O	3:P:1448:MET:C	2.53	0.46
2:U:231:THR:C	2:U:233:VAL:H	2.17	0.46
7:V:1437:VAL:O	7:V:1487:ALA:HB1	2.15	0.46
4:X:158:ASN:CA	4:X:321:LYS:O	2.62	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Z:374:SER:CB	6:Z:374:SER:H	2.25	0.46
4:F:452:ARG:C	4:F:453:TYR:C	2.74	0.46
4:F:489:LYS:O	4:F:492:GLU:N	2.48	0.46
1:K:340:LYS:C	1:K:342:ILE:HA	2.35	0.46
4:L:492:GLU:CB	4:L:492:GLU:O	2.63	0.46
1:Q:340:LYS:C	1:Q:342:ILE:HA	2.35	0.46
2:C:15:GLN:CA	2:C:16:LEU:N	2.71	0.46
7:J:469:ASP:O	7:J:537:SER:HA	2.16	0.46
5:S:374:GLN:HA	5:S:377:ASN:CB	2.46	0.46
7:V:469:ASP:O	7:V:537:SER:HA	2.16	0.46
7:V:1373:SER:CB	7:V:1426:HIS:CB	2.93	0.46
3:D:1493:ARG:O	3:D:1494:MET:C	2.47	0.46
1:E:38:ARG:HA	1:E:484:THR:CB	2.45	0.46
5:Y:374:GLN:HA	5:Y:377:ASN:CB	2.46	0.46
4:F:140:LYS:CA	4:F:149:GLY:CA	2.94	0.46
4:R:493:HIS:CB	4:R:493:HIS:C	2.61	0.46
5:Y:325:ALA:C	5:Y:325:ALA:CB	2.77	0.46
4:F:211:GLU:HA	4:F:214:HIS:CB	2.45	0.46
5:G:374:GLN:HA	5:G:377:ASN:CB	2.46	0.46
2:I:231:THR:C	2:I:233:VAL:H	2.17	0.46
2:O:15:GLN:CA	2:O:16:LEU:N	2.71	0.46
4:X:458:ASP:C	4:X:460:LEU:N	2.66	0.46
4:L:452:ARG:C	4:L:453:TYR:C	2.74	0.45
6:N:477:ILE:O	6:N:480:ALA:HB3	2.15	0.45
3:P:1482:CYS:O	3:P:1485:ALA:HB3	2.16	0.45
3:P:1542:PRO:C	3:P:1544:PRO:N	2.68	0.45
4:R:140:LYS:CA	4:R:149:GLY:CA	2.94	0.45
4:R:447:VAL:CB	4:R:447:VAL:C	2.77	0.45
4:X:367:THR:CA	4:X:367:THR:O	2.53	0.45
1:K:38:ARG:HA	1:K:484:THR:CB	2.45	0.45
3:P:1486:CYS:O	3:P:1487:ASP:C	2.50	0.45
4:R:489:LYS:O	4:R:492:GLU:N	2.48	0.45
4:X:452:ARG:C	4:X:453:TYR:C	2.74	0.45
4:L:450:GLU:C	4:L:451:GLU:C	2.73	0.45
2:C:307:GLY:N	1:Q:849:ASN:CB	2.79	0.45
4:L:140:LYS:CA	4:L:149:GLY:CA	2.94	0.45
4:L:367:THR:CA	4:L:367:THR:O	2.53	0.45
5:M:342:PRO:O	5:M:344:ASP:N	2.50	0.45
2:O:234:LEU:CB	2:O:250:VAL:O	2.65	0.45
3:P:1487:ASP:O	3:P:1490:GLU:N	2.49	0.45
3:P:1491:ILE:O	3:P:1492:GLY:C	2.53	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:R:452:ARG:C	4:R:453:TYR:C	2.74	0.45
4:R:459:LEU:CA	4:R:460:LEU:N	2.54	0.45
1:W:395:GLY:N	1:W:400:SER:CB	2.80	0.45
4:X:453:TYR:N	4:X:453:TYR:C	2.70	0.45
1:B:340:LYS:C	1:B:342:ILE:HA	2.35	0.45
3:D:1472:SER:O	3:D:1473:TYR:C	2.55	0.45
3:D:1537:GLN:C	3:D:1539:LEU:N	2.69	0.45
4:F:453:TYR:N	4:F:453:TYR:C	2.70	0.45
7:J:192:GLY:C	7:J:194:LEU:H	2.20	0.45
2:O:655:ALA:O	3:P:1447:THR:CB	2.64	0.45
3:P:1494:MET:CB	3:P:1551:TYR:CB	2.95	0.45
4:R:405:ALA:HB3	4:R:406:ASP:H	1.17	0.45
2:U:303:ALA:HB1	2:U:306:PRO:CA	2.46	0.45
4:X:140:LYS:CA	4:X:149:GLY:CA	2.94	0.45
1:A:395:GLY:N	1:A:400:SER:CB	2.80	0.45
2:C:234:LEU:CB	2:C:250:VAL:O	2.65	0.45
4:F:486:GLU:C	4:F:488:ILE:N	2.70	0.45
2:I:503:LEU:O	2:I:504:LYS:CB	2.64	0.45
7:J:1437:VAL:O	7:J:1487:ALA:HB1	2.15	0.45
4:L:486:GLU:C	4:L:488:ILE:N	2.70	0.45
6:N:374:SER:CB	6:N:374:SER:H	2.25	0.45
2:U:503:LEU:O	2:U:504:LYS:CB	2.64	0.45
3:D:1447:THR:O	3:D:1448:MET:C	2.53	0.45
3:D:1494:MET:CB	3:D:1551:TYR:CB	2.95	0.45
2:I:303:ALA:HB1	2:I:306:PRO:CA	2.46	0.45
4:L:489:LYS:O	4:L:492:GLU:N	2.48	0.45
1:B:395:GLY:N	1:B:400:SER:CB	2.80	0.45
1:B:404:LYS:HA	1:B:405:PRO:HA	1.70	0.45
2:C:524:ARG:CA	3:D:1610:PRO:HA	2.47	0.45
4:F:493:HIS:CB	4:F:493:HIS:C	2.61	0.45
4:L:453:TYR:N	4:L:453:TYR:C	2.70	0.45
2:O:653:ILE:CB	3:P:1456:GLU:CB	2.95	0.45
7:V:846:ALA:CB	7:V:852:ILE:CB	2.95	0.45
4:X:486:GLU:C	4:X:488:ILE:N	2.70	0.45
2:C:503:LEU:O	2:C:504:LYS:CB	2.64	0.45
1:E:1164:GLN:CA	1:K:726:GLN:CB	2.94	0.45
4:L:158:ASN:CA	4:L:321:LYS:O	2.62	0.45
5:M:332:PRO:O	5:M:335:LEU:HA	2.17	0.45
5:S:342:PRO:O	5:S:344:ASP:N	2.50	0.45
2:C:531:LEU:C	3:D:1664:ASP:N	2.62	0.45
2:C:675:ARG:CB	1:K:848:ASP:CB	2.83	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:G:342:PRO:O	5:G:344:ASP:N	2.49	0.45
7:J:1329:ASN:CB	7:J:1389:ASP:N	2.80	0.45
4:L:140:LYS:CB	4:L:149:GLY:HA2	2.47	0.45
7:V:794:ALA:C	7:V:807:GLY:H	2.20	0.45
7:V:1329:ASN:CB	7:V:1389:ASP:N	2.80	0.45
4:X:140:LYS:CB	4:X:149:GLY:HA2	2.47	0.45
7:J:250:ASN:H	7:J:253:LEU:HA	1.82	0.44
6:T:490:GLN:CB	6:T:490:GLN:N	2.58	0.44
2:U:234:LEU:CB	2:U:250:VAL:O	2.65	0.44
7:V:192:GLY:C	7:V:194:LEU:H	2.20	0.44
3:D:1518:ASN:O	3:D:1519:SER:C	2.55	0.44
4:F:329:GLY:N	4:F:329:GLY:C	2.62	0.44
2:I:234:LEU:CB	2:I:250:VAL:O	2.65	0.44
7:J:811:ILE:CB	7:J:866:ALA:HB1	2.47	0.44
4:L:447:VAL:O	4:L:450:GLU:CA	2.65	0.44
3:P:1513:LEU:O	3:P:1514:LEU:C	2.50	0.44
3:P:1517:SER:O	3:P:1518:ASN:C	2.51	0.44
3:P:1518:ASN:O	3:P:1519:SER:C	2.55	0.44
4:X:222:THR:CB	4:X:222:THR:O	2.62	0.44
4:X:450:GLU:C	4:X:451:GLU:C	2.73	0.44
5:Y:332:PRO:O	5:Y:335:LEU:HA	2.17	0.44
2:C:588:GLU:HA	2:C:592:SER:O	2.18	0.44
2:C:678:GLY:CA	1:K:847:ARG:CB	2.83	0.44
3:D:1491:ILE:O	3:D:1492:GLY:C	2.53	0.44
7:J:846:ALA:CB	7:J:852:ILE:CB	2.95	0.44
1:K:395:GLY:N	1:K:400:SER:CB	2.80	0.44
2:O:230:MET:HA	2:O:233:VAL:CB	2.48	0.44
4:R:492:GLU:C	4:R:493:HIS:CA	2.84	0.44
6:T:374:SER:CB	6:T:374:SER:H	2.26	0.44
4:X:447:VAL:O	4:X:450:GLU:CA	2.65	0.44
2:C:230:MET:HA	2:C:233:VAL:CB	2.48	0.44
1:E:395:GLY:N	1:E:400:SER:CB	2.80	0.44
2:O:588:GLU:HA	2:O:592:SER:O	2.18	0.44
4:R:488:ILE:N	4:R:488:ILE:CB	2.66	0.44
5:S:332:PRO:O	5:S:335:LEU:HA	2.17	0.44
1:A:404:LYS:HA	1:A:405:PRO:HA	1.70	0.44
2:C:303:ALA:HB1	2:C:306:PRO:CA	2.46	0.44
4:F:405:ALA:HB3	4:F:406:ASP:H	1.17	0.44
4:F:447:VAL:O	4:F:450:GLU:CA	2.65	0.44
7:J:1373:SER:CB	7:J:1426:HIS:CA	2.96	0.44
5:M:325:ALA:C	5:M:325:ALA:CB	2.77	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:R:453:TYR:N	4:R:453:TYR:C	2.70	0.44
7:V:811:ILE:CB	7:V:866:ALA:HB1	2.47	0.44
2:C:487:CYS:N	3:D:1661:ARG:CB	2.77	0.44
3:D:1482:CYS:O	3:D:1485:ALA:HB3	2.17	0.44
3:D:1536:LEU:O	3:D:1539:LEU:CB	2.66	0.44
4:F:367:THR:CA	4:F:367:THR:O	2.53	0.44
4:F:450:GLU:C	4:F:451:GLU:C	2.73	0.44
7:J:794:ALA:C	7:J:807:GLY:H	2.20	0.44
2:O:503:LEU:O	2:O:504:LYS:CB	2.64	0.44
3:P:1512:TRP:O	3:P:1515:TYR:N	2.51	0.44
1:Q:395:GLY:N	1:Q:400:SER:CB	2.80	0.44
4:R:486:GLU:C	4:R:488:ILE:N	2.70	0.44
5:Y:342:PRO:O	5:Y:344:ASP:N	2.49	0.44
4:F:459:LEU:CA	4:F:460:LEU:N	2.54	0.44
1:Q:1355:ASP:CB	1:Q:1358:CYS:CB	2.96	0.44
4:R:447:VAL:O	4:R:450:GLU:CA	2.65	0.44
1:W:1355:ASP:CB	1:W:1358:CYS:CB	2.96	0.44
4:F:140:LYS:CB	4:F:149:GLY:HA2	2.47	0.44
5:G:332:PRO:O	5:G:335:LEU:HA	2.17	0.44
4:L:222:THR:CB	4:L:222:THR:O	2.62	0.44
4:R:140:LYS:CB	4:R:149:GLY:HA2	2.47	0.44
3:D:1512:TRP:O	3:D:1515:TYR:N	2.51	0.44
1:K:1355:ASP:CB	1:K:1358:CYS:CB	2.96	0.44
4:R:367:THR:C	4:R:367:THR:CB	2.78	0.44
5:G:374:GLN:O	5:G:377:ASN:CB	2.66	0.43
1:K:942:PRO:HA	1:K:943:GLN:HA	1.48	0.43
5:M:374:GLN:O	5:M:377:ASN:CB	2.66	0.43
3:P:1536:LEU:O	3:P:1539:LEU:CB	2.66	0.43
5:S:374:GLN:O	5:S:377:ASN:CB	2.66	0.43
2:U:588:GLU:HA	2:U:592:SER:O	2.18	0.43
7:V:250:ASN:H	7:V:253:LEU:HA	1.82	0.43
5:Y:374:GLN:O	5:Y:377:ASN:CB	2.66	0.43
2:I:588:GLU:HA	2:I:592:SER:O	2.18	0.43
7:V:846:ALA:HB2	7:V:849:ASN:C	2.38	0.43
7:V:858:TYR:CB	7:V:865:PRO:N	2.81	0.43
5:Y:366:GLU:CB	5:Y:367:LEU:N	2.81	0.43
1:E:1355:ASP:CB	1:E:1358:CYS:CB	2.96	0.43
4:X:492:GLU:CA	4:X:492:GLU:O	2.53	0.43
7:J:520:GLN:O	7:J:530:VAL:HA	2.18	0.43
7:J:846:ALA:HB2	7:J:849:ASN:C	2.38	0.43
2:O:589:ASN:C	1:W:850:ALA:N	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:V:520:GLN:O	7:V:530:VAL:HA	2.19	0.43
7:V:1373:SER:CB	7:V:1426:HIS:CA	2.96	0.43
7:J:1519:GLN:CB	7:J:1539:THR:N	2.81	0.43
3:P:1542:PRO:O	3:P:1544:PRO:N	2.52	0.43
2:U:230:MET:HA	2:U:233:VAL:CB	2.48	0.43
4:X:450:GLU:O	4:X:451:GLU:O	2.36	0.43
4:F:492:GLU:C	4:F:493:HIS:CA	2.84	0.43
4:L:492:GLU:C	4:L:493:HIS:CA	2.84	0.43
4:R:222:THR:CB	4:R:222:THR:O	2.62	0.43
4:R:483:ASP:C	4:R:486:GLU:H	2.22	0.43
3:D:1542:PRO:O	3:D:1544:PRO:N	2.51	0.43
1:E:1170:SER:N	1:K:576:TYR:CB	2.68	0.43
1:K:404:LYS:HA	1:K:405:PRO:HA	1.70	0.43
4:L:200:THR:C	4:L:202:ILE:N	2.70	0.43
2:O:480:PHE:C	2:O:484:ARG:CB	2.87	0.43
3:P:1544:PRO:C	3:P:1546:LEU:N	2.72	0.43
7:V:1519:GLN:CB	7:V:1539:THR:N	2.81	0.43
6:Z:380:GLU:C	6:Z:381:LYS:CA	2.72	0.43
4:F:140:LYS:O	4:F:149:GLY:HA3	2.19	0.43
4:F:222:THR:CB	4:F:222:THR:O	2.62	0.43
5:G:318:GLU:C	5:G:320:LYS:N	2.71	0.43
2:I:230:MET:HA	2:I:233:VAL:CB	2.48	0.43
7:J:794:ALA:HB3	7:J:803:GLY:O	2.19	0.43
4:L:140:LYS:O	4:L:149:GLY:HA3	2.19	0.43
4:L:450:GLU:O	4:L:451:GLU:O	2.36	0.43
3:P:1493:ARG:O	3:P:1494:MET:C	2.47	0.43
3:P:1506:VAL:O	3:P:1508:LYS:N	2.47	0.43
7:V:1175:GLY:CA	7:V:1196:GLN:HA	2.49	0.43
4:X:140:LYS:O	4:X:149:GLY:HA3	2.19	0.43
2:C:480:PHE:C	2:C:484:ARG:CB	2.87	0.43
3:D:644:ALA:HB1	3:D:706:ALA:HB2	2.01	0.43
1:E:1170:SER:CB	1:K:576:TYR:CB	2.96	0.43
4:L:198:LYS:C	4:L:200:THR:N	2.58	0.43
6:N:380:GLU:C	6:N:381:LYS:CA	2.72	0.43
3:P:1537:GLN:C	3:P:1539:LEU:N	2.69	0.43
2:U:724:GLN:C	2:U:726:SER:H	2.22	0.43
7:V:829:PRO:C	7:V:832:ASN:H	2.22	0.43
4:X:447:VAL:O	4:X:450:GLU:N	2.52	0.43
3:D:1664:ASP:N	3:D:1667:ALA:CB	2.82	0.43
2:I:724:GLN:C	2:I:726:SER:H	2.23	0.43
4:R:447:VAL:O	4:R:450:GLU:N	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:X:483:ASP:C	4:X:486:GLU:H	2.22	0.43
3:D:1504:VAL:O	3:D:1505:SER:C	2.39	0.42
7:V:794:ALA:HB3	7:V:803:GLY:O	2.19	0.42
6:Z:463:ALA:N	6:Z:463:ALA:C	2.65	0.42
3:D:644:ALA:CB	3:D:706:ALA:HB2	2.49	0.42
3:D:1485:ALA:O	3:D:1487:ASP:N	2.52	0.42
4:F:455:ILE:C	4:F:457:ALA:H	2.15	0.42
4:F:483:ASP:C	4:F:486:GLU:H	2.22	0.42
3:P:1502:ARG:O	3:P:1503:ILE:C	2.58	0.42
7:V:1385:ARG:O	7:V:1390:ALA:HB3	2.18	0.42
7:V:1460:SER:C	7:V:1463:MET:H	2.22	0.42
4:X:198:LYS:C	4:X:200:THR:N	2.58	0.42
3:D:1544:PRO:C	3:D:1546:LEU:N	2.72	0.42
4:F:422:ASN:CB	4:F:423:ALA:CB	2.94	0.42
4:L:447:VAL:O	4:L:450:GLU:N	2.52	0.42
4:L:483:ASP:C	4:L:486:GLU:H	2.22	0.42
4:L:489:LYS:O	4:L:492:GLU:CB	2.67	0.42
3:P:1537:GLN:O	3:P:1538:SER:C	2.56	0.42
4:R:492:GLU:CA	4:R:492:GLU:O	2.53	0.42
6:T:406:LEU:C	6:T:408:SER:N	2.61	0.42
4:X:489:LYS:O	4:X:492:GLU:CB	2.68	0.42
6:Z:494:LEU:O	6:Z:498:LYS:CB	2.68	0.42
7:J:844:HIS:O	7:J:848:GLY:HA2	2.19	0.42
7:J:1385:ARG:O	7:J:1390:ALA:HB3	2.19	0.42
3:P:644:ALA:HB1	3:P:706:ALA:HB2	2.01	0.42
4:R:140:LYS:O	4:R:149:GLY:HA3	2.19	0.42
4:R:200:THR:C	4:R:202:ILE:N	2.70	0.42
4:R:450:GLU:O	4:R:451:GLU:O	2.36	0.42
4:X:422:ASN:CB	4:X:423:ALA:CB	2.94	0.42
3:D:1544:PRO:O	3:D:1546:LEU:N	2.52	0.42
2:I:480:PHE:C	2:I:484:ARG:CB	2.87	0.42
3:P:644:ALA:CB	3:P:706:ALA:HB2	2.49	0.42
3:P:1544:PRO:O	3:P:1546:LEU:N	2.52	0.42
4:R:489:LYS:O	4:R:492:GLU:CB	2.68	0.42
2:U:480:PHE:C	2:U:484:ARG:CB	2.87	0.42
7:V:844:HIS:O	7:V:848:GLY:HA2	2.19	0.42
1:B:326:ALA:CB	1:B:387:LEU:CB	2.95	0.42
4:F:465:GLN:O	4:F:466:HIS:C	2.57	0.42
7:J:858:TYR:CB	7:J:865:PRO:N	2.81	0.42
3:P:1472:SER:O	3:P:1473:TYR:C	2.55	0.42
4:R:458:ASP:C	4:R:459:LEU:C	2.79	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:481:ARG:HA	3:D:1593:GLU:CB	2.50	0.42
3:D:1487:ASP:O	3:D:1490:GLU:N	2.49	0.42
1:E:404:LYS:HA	1:E:405:PRO:HA	1.70	0.42
4:F:200:THR:C	4:F:202:ILE:N	2.70	0.42
6:H:494:LEU:O	6:H:498:LYS:CB	2.68	0.42
2:I:480:PHE:O	2:I:484:ARG:CB	2.68	0.42
6:N:494:LEU:O	6:N:498:LYS:CB	2.68	0.42
3:P:1485:ALA:O	3:P:1487:ASP:N	2.52	0.42
6:T:494:LEU:O	6:T:498:LYS:CB	2.68	0.42
2:U:480:PHE:O	2:U:484:ARG:CB	2.68	0.42
3:D:1513:LEU:O	3:D:1514:LEU:C	2.50	0.42
7:J:829:PRO:C	7:J:832:ASN:H	2.22	0.42
6:N:490:GLN:CB	6:N:490:GLN:O	2.66	0.42
2:O:784:GLN:CB	1:W:131:GLY:O	2.68	0.42
3:P:1664:ASP:N	3:P:1667:ALA:CB	2.82	0.42
7:V:581:SER:C	7:V:583:ALA:H	2.23	0.42
4:X:332:GLU:O	4:X:335:ARG:CB	2.68	0.42
4:X:492:GLU:C	4:X:493:HIS:CA	2.84	0.42
2:C:724:GLN:C	2:C:726:SER:H	2.23	0.42
3:D:1491:ILE:C	3:D:1493:ARG:N	2.72	0.42
4:F:458:ASP:C	4:F:459:LEU:C	2.79	0.42
7:J:1175:GLY:CA	7:J:1196:GLN:HA	2.49	0.42
4:L:332:GLU:O	4:L:335:ARG:CB	2.68	0.42
4:X:200:THR:C	4:X:202:ILE:N	2.70	0.42
6:Z:406:LEU:C	6:Z:408:SER:N	2.62	0.42
4:F:447:VAL:O	4:F:450:GLU:N	2.52	0.42
4:R:329:GLY:N	4:R:329:GLY:C	2.62	0.42
4:R:450:GLU:C	4:R:451:GLU:C	2.73	0.42
6:T:493:ALA:O	6:T:497:ARG:CB	2.68	0.42
2:U:279:HIS:HA	2:U:283:LEU:HA	2.02	0.42
7:V:859:ILE:H	7:V:865:PRO:CA	2.33	0.42
7:V:1175:GLY:CA	7:V:1197:GLN:N	2.82	0.42
2:C:234:LEU:C	2:C:252:MET:N	2.74	0.41
2:C:480:PHE:O	2:C:484:ARG:CB	2.68	0.41
4:F:450:GLU:O	4:F:451:GLU:O	2.36	0.41
5:G:379:HIS:N	5:G:379:HIS:CB	2.72	0.41
7:J:1460:SER:C	7:J:1463:MET:H	2.22	0.41
6:N:493:ALA:O	6:N:497:ARG:CB	2.68	0.41
2:O:724:GLN:C	2:O:726:SER:H	2.22	0.41
7:V:1465:GLU:O	7:V:1475:ARG:N	2.51	0.41
2:C:679:ILE:C	1:K:850:ALA:O	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:279:HIS:HA	2:I:283:LEU:HA	2.02	0.41
7:J:1246:PHE:CB	7:J:1275:HIS:N	2.83	0.41
4:L:447:VAL:CB	4:L:447:VAL:C	2.77	0.41
2:O:480:PHE:O	2:O:484:ARG:CB	2.68	0.41
4:R:255:ARG:O	4:R:292:GLN:CB	2.69	0.41
4:F:460:LEU:CB	6:H:470:PRO:C	2.89	0.41
5:G:366:GLU:CB	5:G:367:LEU:N	2.81	0.41
4:L:459:LEU:C	4:L:459:LEU:N	2.63	0.41
5:M:366:GLU:CB	5:M:367:LEU:N	2.81	0.41
3:P:1489:HIS:CB	3:P:1492:GLY:N	2.81	0.41
2:U:234:LEU:C	2:U:252:MET:N	2.74	0.41
4:F:367:THR:C	4:F:367:THR:CB	2.78	0.41
4:F:489:LYS:O	4:F:492:GLU:CB	2.68	0.41
2:I:234:LEU:C	2:I:252:MET:N	2.73	0.41
7:J:581:SER:C	7:J:583:ALA:H	2.23	0.41
4:L:458:ASP:O	4:L:459:LEU:C	2.45	0.41
4:L:460:LEU:O	4:L:461:ARG:O	2.39	0.41
3:P:1492:GLY:O	3:P:1495:LEU:N	2.53	0.41
4:R:422:ASN:CB	4:R:423:ALA:CB	2.94	0.41
5:S:366:GLU:CB	5:S:367:LEU:N	2.81	0.41
4:F:332:GLU:O	4:F:335:ARG:CB	2.68	0.41
6:H:463:ALA:N	6:H:463:ALA:C	2.65	0.41
4:R:332:GLU:O	4:R:335:ARG:CB	2.68	0.41
7:V:1246:PHE:CB	7:V:1275:HIS:N	2.83	0.41
4:X:460:LEU:CB	6:Z:470:PRO:C	2.89	0.41
6:Z:493:ALA:O	6:Z:497:ARG:CB	2.68	0.41
1:A:326:ALA:CB	1:A:387:LEU:CB	2.95	0.41
3:D:1544:PRO:C	3:D:1546:LEU:H	2.24	0.41
4:F:460:LEU:O	4:F:461:ARG:O	2.39	0.41
6:H:406:LEU:C	6:H:408:SER:N	2.61	0.41
4:L:458:ASP:C	4:L:459:LEU:C	2.79	0.41
2:O:234:LEU:C	2:O:252:MET:N	2.74	0.41
4:R:460:LEU:CB	6:T:470:PRO:C	2.89	0.41
7:V:551:HIS:C	7:V:553:VAL:H	2.24	0.41
7:V:1462:PHE:O	7:V:1465:GLU:CB	2.69	0.41
4:X:458:ASP:C	4:X:459:LEU:C	2.78	0.41
4:X:460:LEU:O	4:X:461:ARG:O	2.39	0.41
3:D:1502:ARG:O	3:D:1503:ILE:C	2.58	0.41
2:I:303:ALA:CB	2:I:306:PRO:HA	2.50	0.41
7:J:859:ILE:H	7:J:865:PRO:CA	2.33	0.41
6:N:463:ALA:N	6:N:463:ALA:C	2.65	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:T:408:SER:C	6:T:410:LEU:N	2.74	0.41
2:U:303:ALA:CB	2:U:306:PRO:HA	2.50	0.41
4:X:453:TYR:O	4:X:455:ILE:N	2.54	0.41
6:Z:408:SER:C	6:Z:410:LEU:N	2.74	0.41
3:D:1515:TYR:O	3:D:1516:LEU:C	2.57	0.41
7:J:1462:PHE:O	7:J:1465:GLU:CB	2.69	0.41
4:L:148:TRP:C	4:L:150:THR:N	2.74	0.41
4:L:460:LEU:CB	6:N:470:PRO:C	2.89	0.41
3:P:254:GLU:C	3:P:256:VAL:H	2.24	0.41
3:P:1563:VAL:O	3:P:1569:GLY:HA3	2.21	0.41
2:C:173:PRO:CB	3:D:1687:GLY:CA	2.90	0.41
2:C:214:GLU:O	2:C:215:LEU:CB	2.68	0.41
2:C:535:TYR:N	3:D:1663:GLN:HA	2.31	0.41
3:D:254:GLU:C	3:D:256:VAL:H	2.24	0.41
3:D:1506:VAL:O	3:D:1508:LYS:N	2.47	0.41
3:D:1537:GLN:O	3:D:1538:SER:C	2.56	0.41
4:F:198:LYS:C	4:F:200:THR:N	2.58	0.41
6:H:493:ALA:O	6:H:497:ARG:CB	2.68	0.41
2:I:214:GLU:O	2:I:215:LEU:CB	2.68	0.41
7:J:860:TYR:CB	7:J:868:PRO:N	2.84	0.41
4:L:453:TYR:O	4:L:455:ILE:N	2.54	0.41
4:L:465:GLN:O	4:L:466:HIS:C	2.57	0.41
5:M:344:ASP:O	5:M:348:ILE:N	2.54	0.41
6:N:360:ALA:O	6:N:363:ARG:CB	2.69	0.41
6:N:408:SER:C	6:N:410:LEU:N	2.74	0.41
2:O:214:GLU:O	2:O:215:LEU:CB	2.68	0.41
1:Q:404:LYS:HA	1:Q:405:PRO:HA	1.70	0.41
5:S:318:GLU:C	5:S:320:LYS:N	2.71	0.41
6:T:490:GLN:CB	6:T:490:GLN:O	2.66	0.41
2:U:214:GLU:O	2:U:215:LEU:CB	2.68	0.41
1:W:1170:SER:C	1:W:1172:GLN:H	2.24	0.41
7:J:551:HIS:C	7:J:553:VAL:H	2.24	0.41
1:K:542:HIS:O	1:K:543:GLN:CB	2.69	0.41
4:L:329:GLY:N	4:L:329:GLY:C	2.62	0.41
3:P:1544:PRO:C	3:P:1546:LEU:H	2.24	0.41
1:Q:350:ASN:HA	1:Q:353:SER:O	2.21	0.41
4:R:460:LEU:O	4:R:461:ARG:O	2.38	0.41
5:S:344:ASP:O	5:S:348:ILE:N	2.54	0.41
5:Y:344:ASP:O	5:Y:348:ILE:N	2.54	0.41
3:D:1492:GLY:O	3:D:1495:LEU:N	2.53	0.40
1:E:852:VAL:HA	2:O:305:LEU:CB	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:G:344:ASP:O	5:G:348:ILE:N	2.54	0.40
5:Y:379:HIS:N	5:Y:379:HIS:CB	2.72	0.40
6:Z:360:ALA:O	6:Z:363:ARG:CB	2.69	0.40
3:D:1539:LEU:O	3:D:1540:LEU:C	2.40	0.40
4:F:450:GLU:O	4:F:451:GLU:CA	2.33	0.40
5:M:318:GLU:C	5:M:320:LYS:N	2.71	0.40
4:R:455:ILE:C	4:R:457:ALA:H	2.15	0.40
7:V:860:TYR:CB	7:V:868:PRO:N	2.84	0.40
1:W:350:ASN:HA	1:W:353:SER:O	2.21	0.40
4:X:465:GLN:O	4:X:466:HIS:C	2.57	0.40
1:B:350:ASN:HA	1:B:353:SER:O	2.21	0.40
1:E:542:HIS:O	1:E:543:GLN:CB	2.69	0.40
5:G:325:ALA:C	5:G:325:ALA:HA	2.15	0.40
1:Q:1170:SER:C	1:Q:1172:GLN:H	2.24	0.40
6:T:490:GLN:HA	6:T:493:ALA:H	1.87	0.40
5:Y:318:GLU:C	5:Y:320:LYS:N	2.71	0.40
2:C:307:GLY:H	1:Q:849:ASN:CB	2.35	0.40
1:E:849:ASN:H	2:O:303:ALA:HA	1.87	0.40
7:J:155:ARG:CB	7:J:158:TYR:CB	3.00	0.40
7:J:1467:HIS:CB	7:J:1475:ARG:CA	2.96	0.40
3:P:1491:ILE:C	3:P:1493:ARG:N	2.72	0.40
4:X:459:LEU:C	4:X:459:LEU:N	2.63	0.40
5:Y:342:PRO:C	5:Y:344:ASP:H	2.25	0.40
1:A:542:HIS:O	1:A:543:GLN:CB	2.69	0.40
2:I:231:THR:C	2:I:233:VAL:N	2.75	0.40
7:J:1175:GLY:CA	7:J:1197:GLN:N	2.82	0.40
4:L:140:LYS:O	4:L:149:GLY:CA	2.70	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM 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	612/1391 (44%)	562 (92%)	38 (6%)	12 (2%)	7	38
1	B	612/1391 (44%)	562 (92%)	38 (6%)	12 (2%)	7	38
1	E	1027/1391 (74%)	947 (92%)	58 (6%)	22 (2%)	7	36
1	K	1027/1391 (74%)	947 (92%)	58 (6%)	22 (2%)	7	36
1	Q	1027/1391 (74%)	947 (92%)	58 (6%)	22 (2%)	7	36
1	W	1027/1391 (74%)	947 (92%)	58 (6%)	22 (2%)	7	36
2	C	618/819 (76%)	516 (84%)	59 (10%)	43 (7%)	1	14
2	I	618/819 (76%)	516 (84%)	58 (9%)	44 (7%)	1	14
2	O	618/819 (76%)	516 (84%)	59 (10%)	43 (7%)	1	14
2	U	618/819 (76%)	516 (84%)	59 (10%)	43 (7%)	1	14
3	D	972/2012 (48%)	899 (92%)	59 (6%)	14 (1%)	11	46
3	P	972/2012 (48%)	899 (92%)	59 (6%)	14 (1%)	11	46
4	F	329/507 (65%)	286 (87%)	21 (6%)	22 (7%)	1	15
4	L	329/507 (65%)	286 (87%)	21 (6%)	22 (7%)	1	15
4	R	329/507 (65%)	286 (87%)	21 (6%)	22 (7%)	1	15
4	X	329/507 (65%)	286 (87%)	21 (6%)	22 (7%)	1	15
5	G	169/599 (28%)	153 (90%)	10 (6%)	6 (4%)	3	25
5	M	169/599 (28%)	153 (90%)	11 (6%)	5 (3%)	4	28
5	S	169/599 (28%)	153 (90%)	11 (6%)	5 (3%)	4	28
5	Y	169/599 (28%)	153 (90%)	11 (6%)	5 (3%)	4	28
6	H	167/522 (32%)	152 (91%)	8 (5%)	7 (4%)	3	22
6	N	167/522 (32%)	152 (91%)	8 (5%)	7 (4%)	3	22
6	T	167/522 (32%)	152 (91%)	8 (5%)	7 (4%)	3	22
6	Z	167/522 (32%)	152 (91%)	8 (5%)	7 (4%)	3	22
7	J	1232/1749 (70%)	1111 (90%)	75 (6%)	46 (4%)	3	24
7	V	1232/1749 (70%)	1111 (90%)	75 (6%)	46 (4%)	3	24
All	All	14872/25656 (58%)	13360 (90%)	970 (6%)	542 (4%)	6	25

All (542) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	332	ARG
1	A	443	LYS
1	A	543	GLN

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Mol	Chain	Res	Type
1	A	802	GLN
1	B	332	ARG
1	B	443	LYS
1	B	543	GLN
1	B	802	GLN
2	C	24	SER
2	C	252	MET
2	C	278	LEU
2	C	301	LEU
2	C	382	ASN
2	C	383	THR
2	C	587	LEU
2	C	592	SER
2	C	603	SER
2	C	623	GLU
2	C	652	GLN
2	C	655	ALA
2	C	656	PRO
2	C	661	GLU
2	C	662	ARG
2	C	723	ASN
2	C	764	LYS
3	D	453	ASN
3	D	1451	ARG
3	D	1637	GLN
3	D	1662	CYS
3	D	1664	ASP
1	E	332	ARG
1	E	443	LYS
1	E	543	GLN
1	E	802	GLN
1	E	1320	PRO
1	E	1343	ASN
1	E	1351	ASN
1	E	1369	SER
4	F	148	TRP
4	F	222	THR
4	F	318	ASP
4	F	403	ILE
4	F	405	ALA
4	F	451	GLU
4	F	453	TYR

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Mol	Chain	Res	Type
4	F	454	TYR
4	F	458	ASP
4	F	464	LYS
5	G	276	SER
5	G	327	ARG
5	G	335	LEU
6	H	426	ALA
6	H	466	ASP
2	I	24	SER
2	I	252	MET
2	I	278	LEU
2	I	301	LEU
2	I	382	ASN
2	I	383	THR
2	I	587	LEU
2	I	592	SER
2	I	603	SER
2	I	623	GLU
2	I	652	GLN
2	I	655	ALA
2	I	656	PRO
2	I	661	GLU
2	I	662	ARG
2	I	723	ASN
2	I	764	LYS
7	J	30	SER
7	J	113	GLN
7	J	160	ASP
7	J	254	VAL
7	J	288	ASP
7	J	397	LEU
7	J	481	LYS
7	J	559	ILE
7	J	581	SER
7	J	660	ALA
7	J	755	SER
7	J	835	SER
7	J	883	PRO
7	J	1299	ASP
7	J	1388	LEU
7	J	1479	VAL
1	K	332	ARG

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Mol	Chain	Res	Type
1	K	443	LYS
1	K	543	GLN
1	K	802	GLN
1	K	1320	PRO
1	K	1343	ASN
1	K	1351	ASN
1	K	1369	SER
4	L	148	TRP
4	L	222	THR
4	L	318	ASP
4	L	403	ILE
4	L	405	ALA
4	L	451	GLU
4	L	453	TYR
4	L	454	TYR
4	L	458	ASP
4	L	464	LYS
5	M	276	SER
5	M	327	ARG
5	M	335	LEU
6	N	426	ALA
6	N	466	ASP
2	O	24	SER
2	O	252	MET
2	O	278	LEU
2	O	301	LEU
2	O	382	ASN
2	O	383	THR
2	O	587	LEU
2	O	592	SER
2	O	603	SER
2	O	623	GLU
2	O	652	GLN
2	O	655	ALA
2	O	656	PRO
2	O	661	GLU
2	O	662	ARG
2	O	723	ASN
2	O	764	LYS
3	P	453	ASN
3	P	1451	ARG
3	P	1637	GLN

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Continued from previous page...

Mol	Chain	Res	Type
3	P	1662	CYS
3	P	1664	ASP
1	Q	332	ARG
1	Q	443	LYS
1	Q	543	GLN
1	Q	802	GLN
1	Q	1320	PRO
1	Q	1343	ASN
1	Q	1351	ASN
1	Q	1369	SER
4	R	148	TRP
4	R	222	THR
4	R	318	ASP
4	R	403	ILE
4	R	405	ALA
4	R	451	GLU
4	R	453	TYR
4	R	454	TYR
4	R	458	ASP
4	R	464	LYS
5	S	276	SER
5	S	327	ARG
5	S	335	LEU
6	T	426	ALA
6	T	466	ASP
2	U	24	SER
2	U	252	MET
2	U	278	LEU
2	U	301	LEU
2	U	382	ASN
2	U	383	THR
2	U	587	LEU
2	U	592	SER
2	U	603	SER
2	U	623	GLU
2	U	652	GLN
2	U	655	ALA
2	U	656	PRO
2	U	661	GLU
2	U	662	ARG
2	U	723	ASN
2	U	764	LYS

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Mol	Chain	Res	Type
7	V	30	SER
7	V	113	GLN
7	V	160	ASP
7	V	254	VAL
7	V	288	ASP
7	V	397	LEU
7	V	481	LYS
7	V	559	ILE
7	V	581	SER
7	V	660	ALA
7	V	755	SER
7	V	835	SER
7	V	883	PRO
7	V	1299	ASP
7	V	1388	LEU
7	V	1479	VAL
1	W	332	ARG
1	W	443	LYS
1	W	543	GLN
1	W	802	GLN
1	W	1320	PRO
1	W	1343	ASN
1	W	1351	ASN
1	W	1369	SER
4	X	148	TRP
4	X	222	THR
4	X	318	ASP
4	X	403	ILE
4	X	405	ALA
4	X	451	GLU
4	X	453	TYR
4	X	454	TYR
4	X	458	ASP
4	X	464	LYS
5	Y	276	SER
5	Y	327	ARG
5	Y	335	LEU
6	Z	426	ALA
6	Z	466	ASP
1	A	260	SER
1	A	312	MET
1	A	415	LYS

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Mol	Chain	Res	Type
1	B	260	SER
1	B	312	MET
1	B	415	LYS
2	C	23	ILE
2	C	179	ASP
2	C	215	LEU
2	C	219	SER
2	C	354	GLU
2	C	368	GLU
2	C	402	ASN
2	C	404	SER
2	C	559	ASP
2	C	602	THR
2	C	649	VAL
2	C	679	ILE
2	C	726	SER
2	C	754	ASN
3	D	39	LEU
3	D	881	GLN
1	E	260	SER
1	E	312	MET
1	E	415	LYS
1	E	961	GLY
1	E	1235	LEU
1	E	1346	ARG
4	F	204	SER
4	F	221	GLN
4	F	301	PRO
4	F	461	ARG
4	F	492	GLU
5	G	326	LEU
5	G	378	SER
6	H	411	GLU
6	H	494	LEU
2	I	23	ILE
2	I	179	ASP
2	I	215	LEU
2	I	219	SER
2	I	354	GLU
2	I	368	GLU
2	I	402	ASN
2	I	404	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	I	559	ASP
2	I	602	THR
2	I	649	VAL
2	I	679	ILE
2	I	726	SER
2	I	754	ASN
7	J	157	GLU
7	J	367	SER
7	J	506	GLY
7	J	552	VAL
7	J	834	VAL
7	J	845	GLY
7	J	1245	LEU
7	J	1312	ILE
7	J	1323	SER
7	J	1519	GLN
1	K	260	SER
1	K	312	MET
1	K	415	LYS
1	K	961	GLY
1	K	1235	LEU
1	K	1346	ARG
4	L	204	SER
4	L	221	GLN
4	L	301	PRO
4	L	461	ARG
4	L	492	GLU
5	M	326	LEU
5	M	378	SER
6	N	411	GLU
6	N	494	LEU
2	O	23	ILE
2	O	179	ASP
2	O	215	LEU
2	O	219	SER
2	O	354	GLU
2	O	368	GLU
2	O	402	ASN
2	O	404	SER
2	O	559	ASP
2	O	602	THR
2	O	649	VAL

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Mol	Chain	Res	Type
2	O	679	ILE
2	O	726	SER
2	O	754	ASN
3	P	39	LEU
3	P	881	GLN
1	Q	260	SER
1	Q	312	MET
1	Q	415	LYS
1	Q	961	GLY
1	Q	1235	LEU
1	Q	1346	ARG
4	R	204	SER
4	R	221	GLN
4	R	301	PRO
4	R	461	ARG
4	R	492	GLU
5	S	326	LEU
5	S	378	SER
6	T	411	GLU
6	T	494	LEU
2	U	23	ILE
2	U	179	ASP
2	U	215	LEU
2	U	219	SER
2	U	354	GLU
2	U	368	GLU
2	U	402	ASN
2	U	404	SER
2	U	559	ASP
2	U	602	THR
2	U	649	VAL
2	U	679	ILE
2	U	726	SER
2	U	754	ASN
7	V	157	GLU
7	V	367	SER
7	V	506	GLY
7	V	552	VAL
7	V	834	VAL
7	V	845	GLY
7	V	1245	LEU
7	V	1312	ILE

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Mol	Chain	Res	Type
7	V	1323	SER
7	V	1519	GLN
1	W	260	SER
1	W	312	MET
1	W	415	LYS
1	W	961	GLY
1	W	1235	LEU
1	W	1346	ARG
4	X	204	SER
4	X	221	GLN
4	X	301	PRO
4	X	461	ARG
4	X	492	GLU
5	Y	326	LEU
5	Y	378	SER
6	Z	411	GLU
6	Z	494	LEU
1	A	204	PRO
1	B	204	PRO
2	C	308	LEU
2	C	482	MET
2	C	734	PHE
3	D	437	ARG
1	E	204	PRO
1	E	1365	GLN
4	F	299	ASN
6	H	465	ALA
2	I	308	LEU
2	I	482	MET
2	I	734	PHE
7	J	425	PRO
7	J	697	SER
7	J	1220	LYS
7	J	1328	GLN
7	J	1373	SER
7	J	1377	THR
7	J	1466	TRP
1	K	204	PRO
1	K	1365	GLN
4	L	299	ASN
6	N	465	ALA
2	O	308	LEU

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Mol	Chain	Res	Type
2	O	482	MET
2	O	734	PHE
3	P	437	ARG
1	Q	204	PRO
1	Q	1365	GLN
4	R	299	ASN
6	T	465	ALA
2	U	308	LEU
2	U	482	MET
2	U	734	PHE
7	V	425	PRO
7	V	697	SER
7	V	1220	LYS
7	V	1328	GLN
7	V	1373	SER
7	V	1377	THR
7	V	1466	TRP
1	W	204	PRO
1	W	1365	GLN
4	X	299	ASN
6	Z	465	ALA
1	A	40	TYR
1	B	40	TYR
2	C	446	GLU
2	C	561	GLN
3	D	637	SER
3	D	1450	GLU
1	E	40	TYR
4	F	206	GLN
4	F	234	PRO
4	F	450	GLU
4	F	459	LEU
2	I	446	GLU
2	I	561	GLN
7	J	414	PRO
7	J	420	PHE
7	J	640	PRO
7	J	1325	ARG
7	J	1542	SER
1	K	40	TYR
4	L	206	GLN
4	L	234	PRO

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Mol	Chain	Res	Type
4	L	450	GLU
4	L	459	LEU
2	O	446	GLU
2	O	561	GLN
3	P	637	SER
3	P	1450	GLU
1	Q	40	TYR
4	R	206	GLN
4	R	234	PRO
4	R	450	GLU
4	R	459	LEU
2	U	446	GLU
2	U	561	GLN
7	V	414	PRO
7	V	420	PHE
7	V	640	PRO
7	V	1325	ARG
7	V	1542	SER
1	W	40	TYR
4	X	234	PRO
4	X	450	GLU
4	X	459	LEU
6	Z	497	ARG
1	A	278	PRO
1	B	278	PRO
2	C	460	PHE
2	C	800	PRO
3	D	58	PRO
3	D	536	VAL
3	D	659	ILE
3	D	1519	SER
1	E	278	PRO
1	E	910	GLN
4	F	145	GLN
6	H	464	PRO
6	H	497	ARG
2	I	460	PHE
2	I	800	PRO
7	J	151	ARG
7	J	1437	VAL
1	K	278	PRO
1	K	910	GLN

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Mol	Chain	Res	Type
6	N	464	PRO
6	N	497	ARG
2	O	460	PHE
2	O	800	PRO
3	P	58	PRO
3	P	536	VAL
3	P	659	ILE
3	P	1519	SER
1	Q	278	PRO
1	Q	910	GLN
6	T	464	PRO
6	T	497	ARG
2	U	460	PHE
2	U	800	PRO
7	V	151	ARG
7	V	1437	VAL
1	W	278	PRO
1	W	910	GLN
4	X	206	GLN
6	Z	464	PRO
1	A	158	GLN
1	B	158	GLN
2	C	22	GLY
2	C	31	ARG
2	C	429	SER
1	E	158	GLN
5	G	377	ASN
2	I	22	GLY
2	I	31	ARG
2	I	429	SER
7	J	482	PRO
7	J	1176	SER
1	K	158	GLN
4	L	145	GLN
2	O	22	GLY
2	O	31	ARG
2	O	429	SER
1	Q	158	GLN
4	R	145	GLN
2	U	22	GLY
2	U	31	ARG
2	U	429	SER

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Mol	Chain	Res	Type
7	V	482	PRO
7	V	1176	SER
1	W	158	GLN
4	X	145	GLN
2	C	430	SER
2	I	430	SER
2	O	430	SER
2	U	430	SER
7	J	156	VAL
7	J	582	ILE
7	V	156	VAL
7	V	582	ILE
1	E	942	PRO
1	K	942	PRO
1	Q	942	PRO
1	W	942	PRO
1	A	76	PRO
1	B	76	PRO
2	C	276	GLY
1	E	76	PRO
2	I	276	GLY
7	J	368	GLY
7	J	1221	VAL
1	K	76	PRO
2	O	276	GLY
1	Q	76	PRO
2	U	276	GLY
7	V	368	GLY
7	V	1221	VAL
1	W	76	PRO
4	F	424	PRO
2	I	346	GLY
4	L	424	PRO
4	R	424	PRO
4	X	424	PRO

5.3.2 Protein sidechains [i](#)

There are no protein residues with a non-rotameric sidechain to report in this entry.

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
4	F	6
4	L	6
4	R	6
4	X	6
2	C	3
2	I	3
2	O	3
2	U	3
5	M	3
5	Y	3
5	G	3
5	S	3
6	H	3
6	N	3
6	T	3
6	Z	3

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	C	483:GLU	C	484:ARG	N	4.02
1	I	483:GLU	C	484:ARG	N	4.02
1	O	483:GLU	C	484:ARG	N	4.02
1	U	483:GLU	C	484:ARG	N	4.02
1	C	447:ASP	C	448:TYR	N	3.63
1	I	447:ASP	C	448:TYR	N	3.63
1	O	447:ASP	C	448:TYR	N	3.63
1	U	447:ASP	C	448:TYR	N	3.63
1	M	379:HIS	C	380:ILE	N	1.99
1	Y	379:HIS	C	380:ILE	N	1.99
1	G	379:HIS	C	380:ILE	N	1.98
1	S	379:HIS	C	380:ILE	N	1.98
1	F	458:ASP	C	459:LEU	N	1.82
1	L	458:ASP	C	459:LEU	N	1.82
1	R	458:ASP	C	459:LEU	N	1.82
1	X	458:ASP	C	459:LEU	N	1.82
1	G	339:TYR	C	340:ALA	N	1.72
1	M	339:TYR	C	340:ALA	N	1.72
1	S	339:TYR	C	340:ALA	N	1.72
1	Y	339:TYR	C	340:ALA	N	1.72
1	F	492:GLU	C	493:HIS	N	1.69
1	H	411:GLU	C	412:GLU	N	1.69
1	L	492:GLU	C	493:HIS	N	1.69
1	N	411:GLU	C	412:GLU	N	1.69
1	R	492:GLU	C	493:HIS	N	1.69
1	T	411:GLU	C	412:GLU	N	1.69
1	X	492:GLU	C	493:HIS	N	1.69
1	Z	411:GLU	C	412:GLU	N	1.69
1	F	454:TYR	C	455:ILE	N	1.64
1	L	454:TYR	C	455:ILE	N	1.64
1	R	454:TYR	C	455:ILE	N	1.64
1	X	454:TYR	C	455:ILE	N	1.63
1	F	221:GLN	C	222:THR	N	1.61
1	L	221:GLN	C	222:THR	N	1.61
1	R	221:GLN	C	222:THR	N	1.61
1	X	221:GLN	C	222:THR	N	1.61
1	G	378:SER	C	379:HIS	N	1.60
1	M	378:SER	C	379:HIS	N	1.60
1	S	378:SER	C	379:HIS	N	1.60
1	Y	378:SER	C	379:HIS	N	1.60
1	H	412:GLU	C	413:LEU	N	1.16
1	N	412:GLU	C	413:LEU	N	1.16

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	T	412:GLU	C	413:LEU	N	1.16
1	Z	412:GLU	C	413:LEU	N	1.16
1	C	7:GLY	C	8:GLU	N	1.14
1	I	7:GLY	C	8:GLU	N	1.14
1	O	7:GLY	C	8:GLU	N	1.14
1	U	7:GLY	C	8:GLU	N	1.14
1	H	408:SER	C	409:PRO	N	1.13
1	N	408:SER	C	409:PRO	N	1.13
1	T	408:SER	C	409:PRO	N	1.13
1	Z	408:SER	C	409:PRO	N	1.13
1	F	455:ILE	C	456:ASP	N	0.99
1	L	455:ILE	C	456:ASP	N	0.99
1	R	455:ILE	C	456:ASP	N	0.99
1	X	455:ILE	C	456:ASP	N	0.99
1	F	459:LEU	C	460:LEU	N	0.98
1	L	459:LEU	C	460:LEU	N	0.98
1	R	459:LEU	C	460:LEU	N	0.98
1	X	459:LEU	C	460:LEU	N	0.98

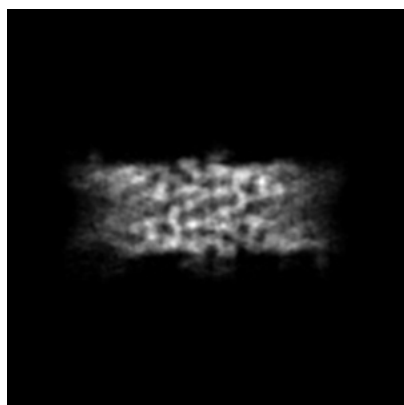
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-8085. These allow visual inspection of the internal detail of the map and identification of artifacts.

No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

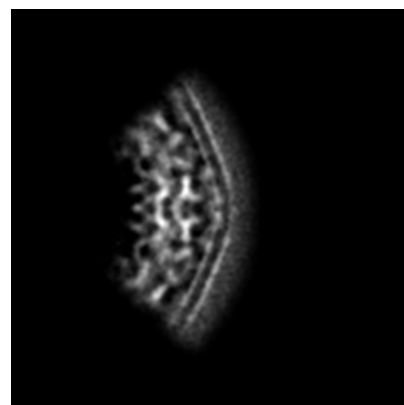
6.1.1 Primary map



X



Y



Z

The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

6.2.1 Primary map



X Index: 72



Y Index: 72

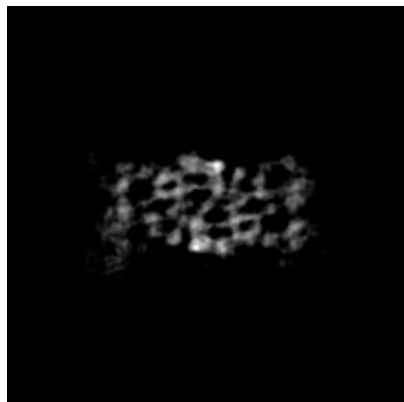


Z Index: 72

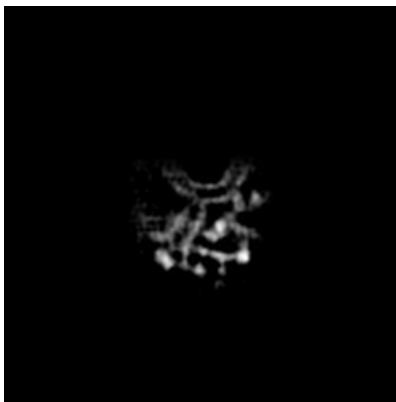
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

6.3.1 Primary map



X Index: 53



Y Index: 76



Z Index: 78

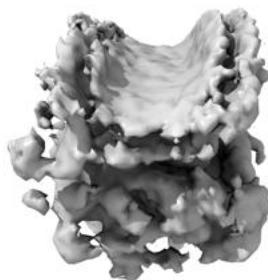
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal surface views [i](#)

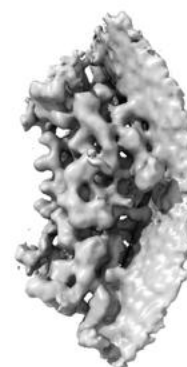
6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 36.6. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

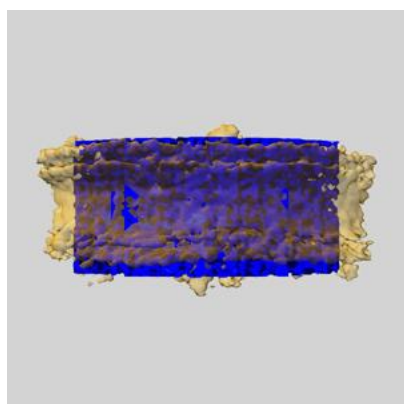
6.5 Mask visualisation [i](#)

This section shows the 3D surface view of the primary map at 50% transparency overlaid with the specified mask at 0% transparency

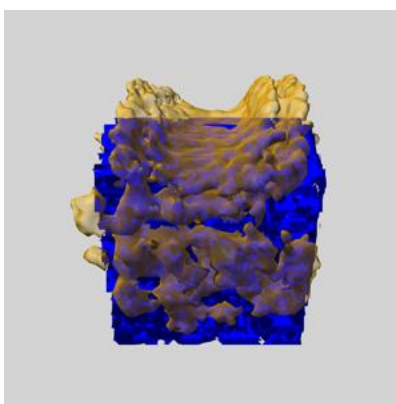
A mask typically either:

- Encompasses the whole structure
- Separates out a domain, a functional unit, a monomer or an area of interest from a larger structure

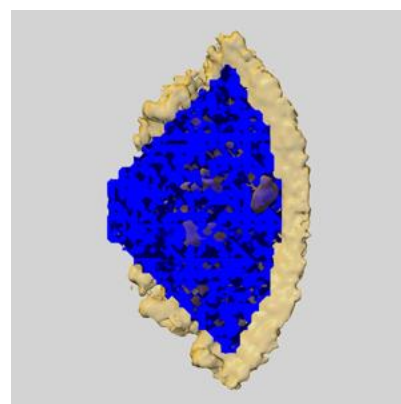
6.5.1 emd_8085_msk_1.map [i](#)



X



Y

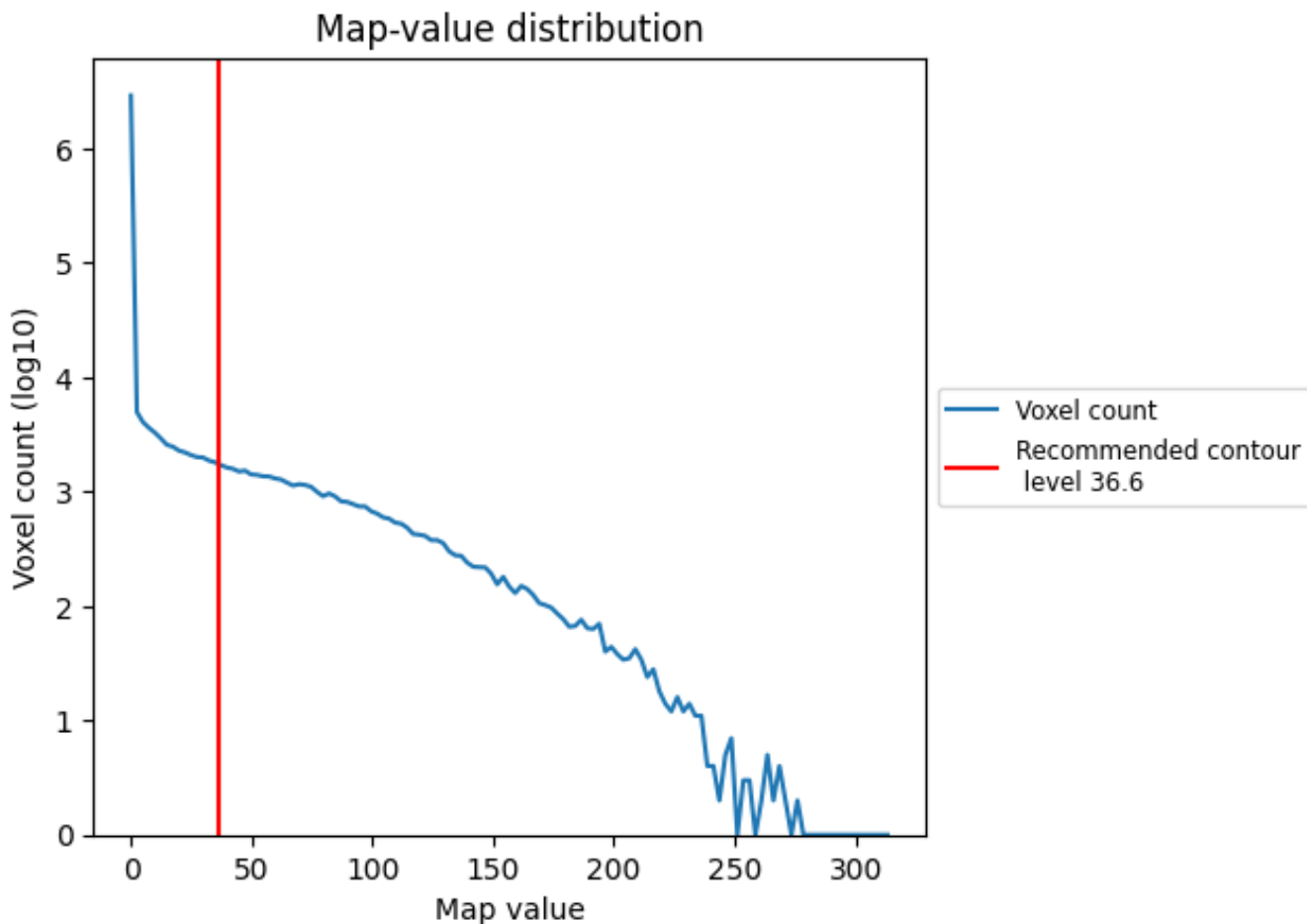


Z

7 Map analysis [i](#)

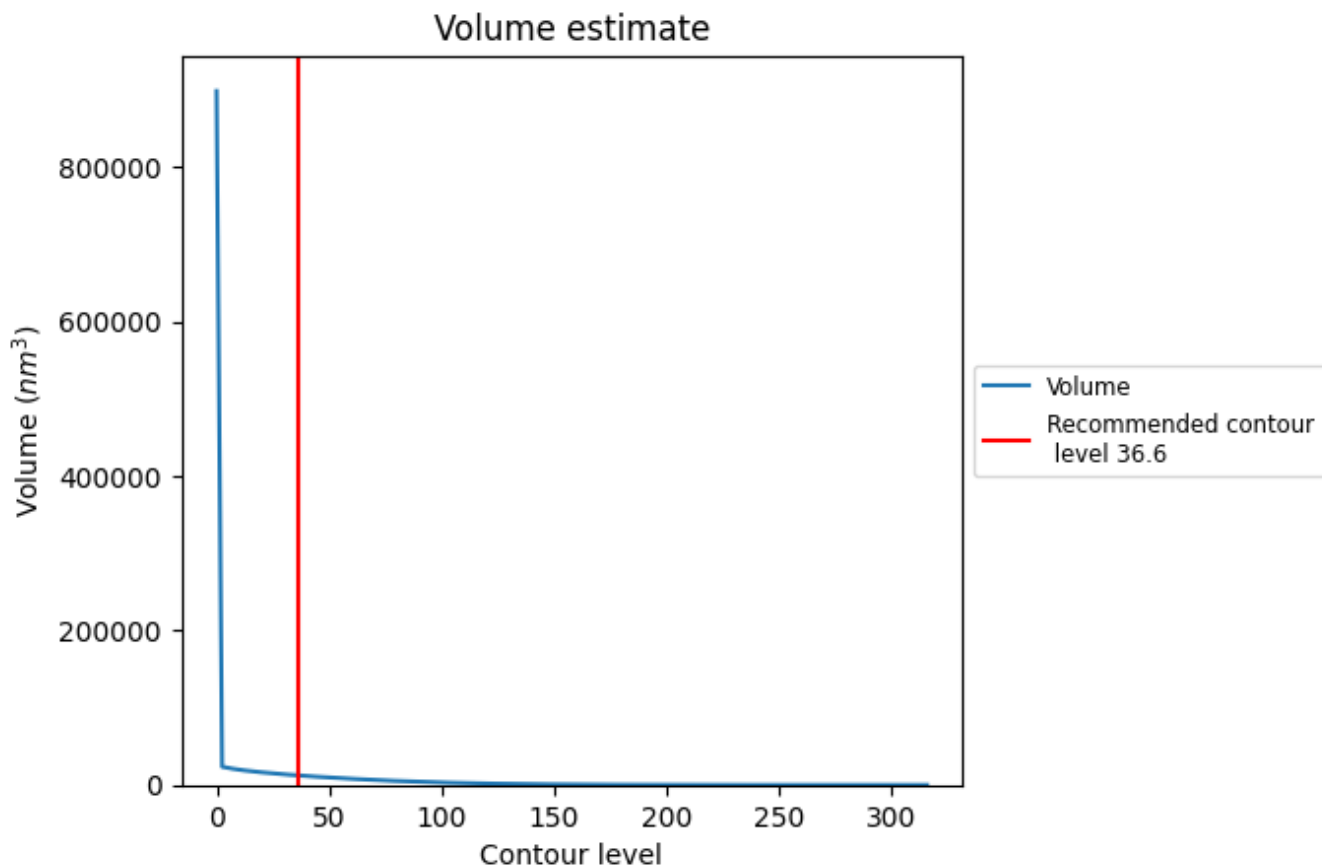
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

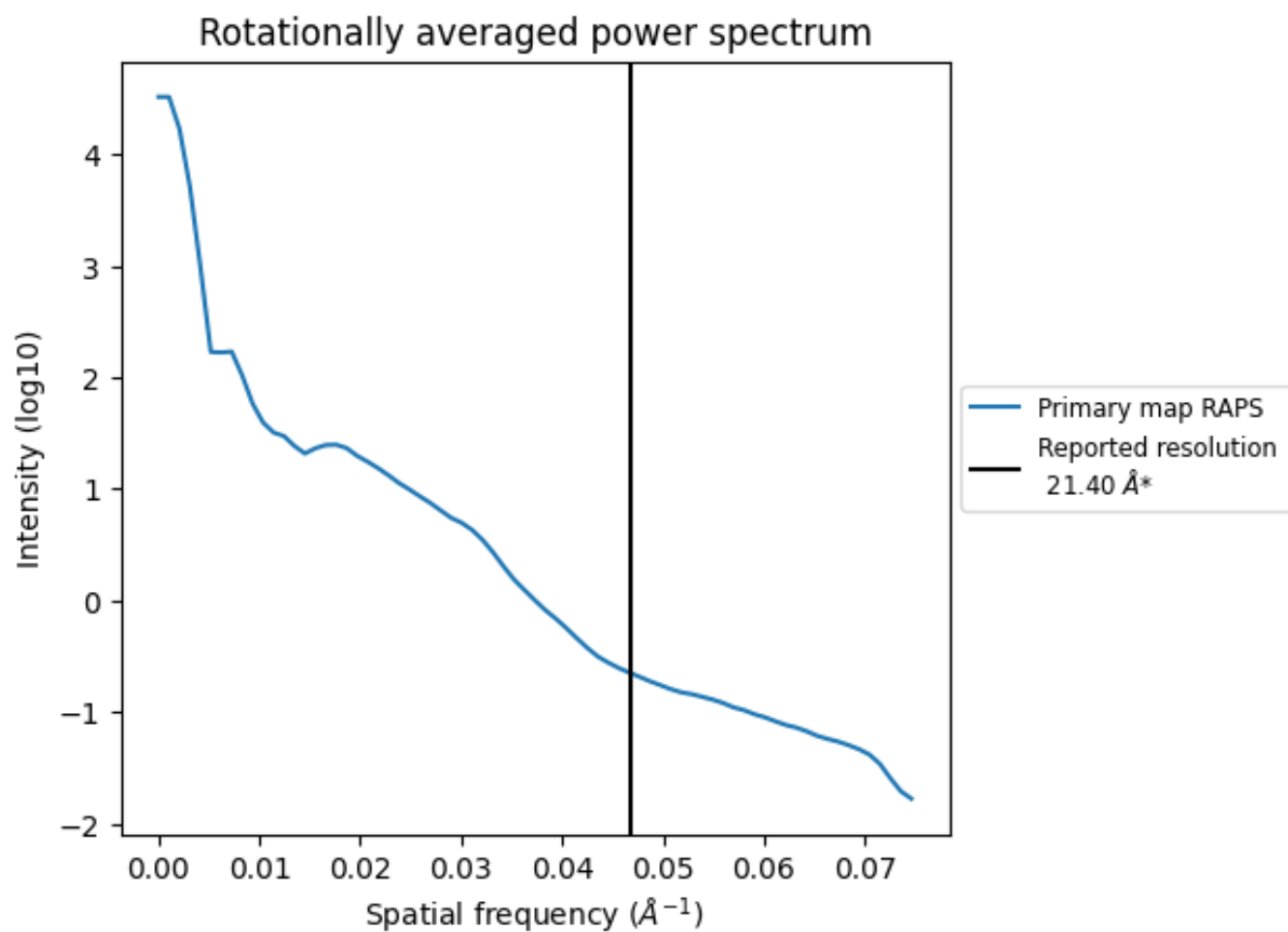
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 12255 nm^3 ; this corresponds to an approximate mass of 11070 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum [i](#)



*Reported resolution corresponds to spatial frequency of 0.047 Å⁻¹

8 Fourier-Shell correlation

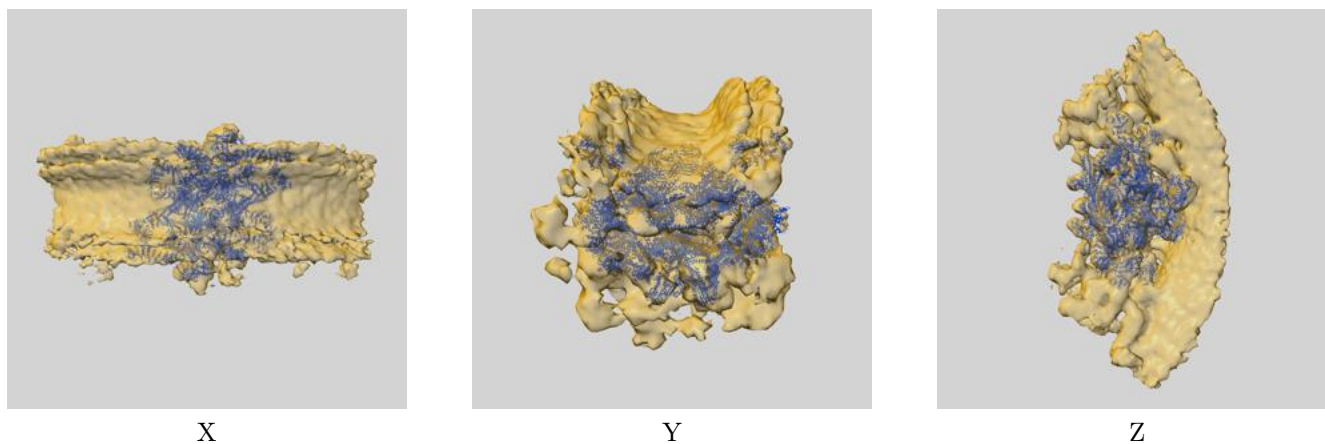
This section was not generated. No FSC curve or half-maps provided.

9 Map-model fit [i](#)

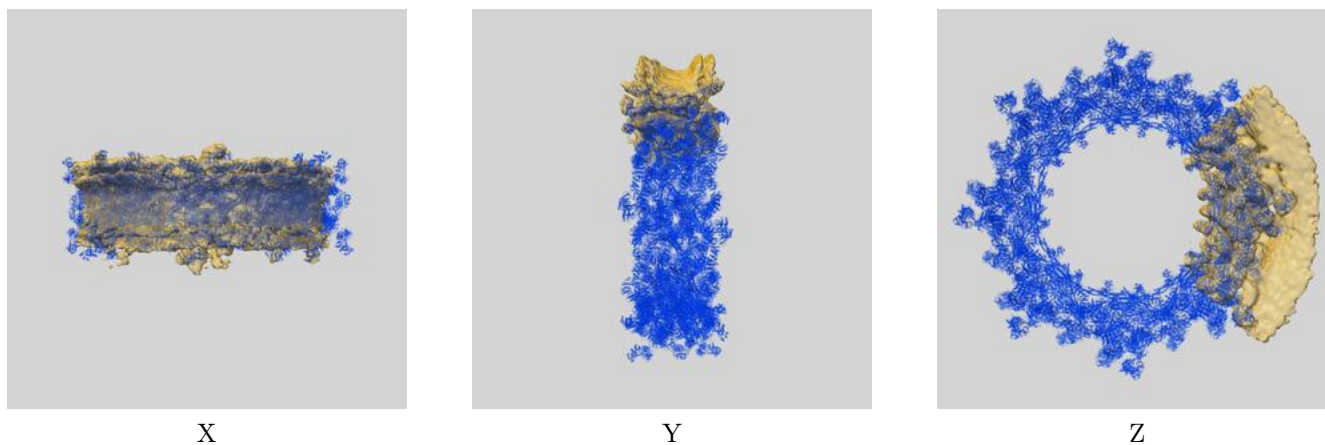
This section contains information regarding the fit between EMDB map EMD-8085 and PDB model 5IJO. Per-residue inclusion information can be found in section 3 on page 6.

9.1 Map-model overlays

9.1.1 Map-model overlay [i](#)

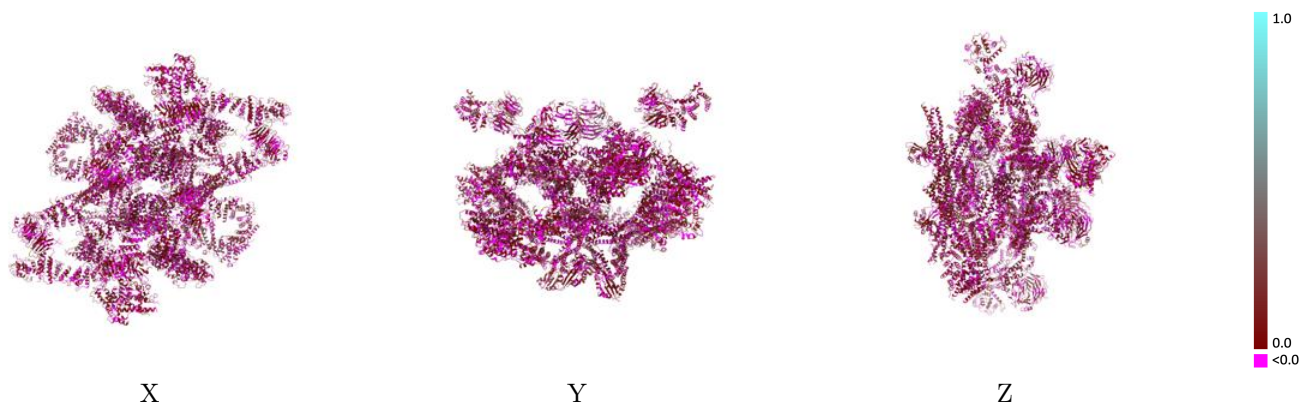


9.1.2 Map-model assembly overlay [i](#)



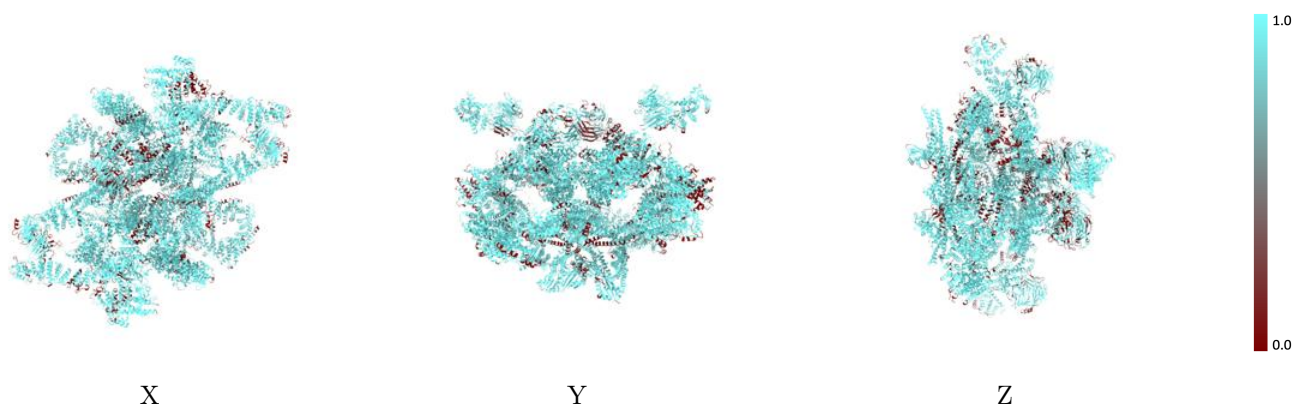
The images above show the 3D surface view of the map at the recommended contour level 36.6 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



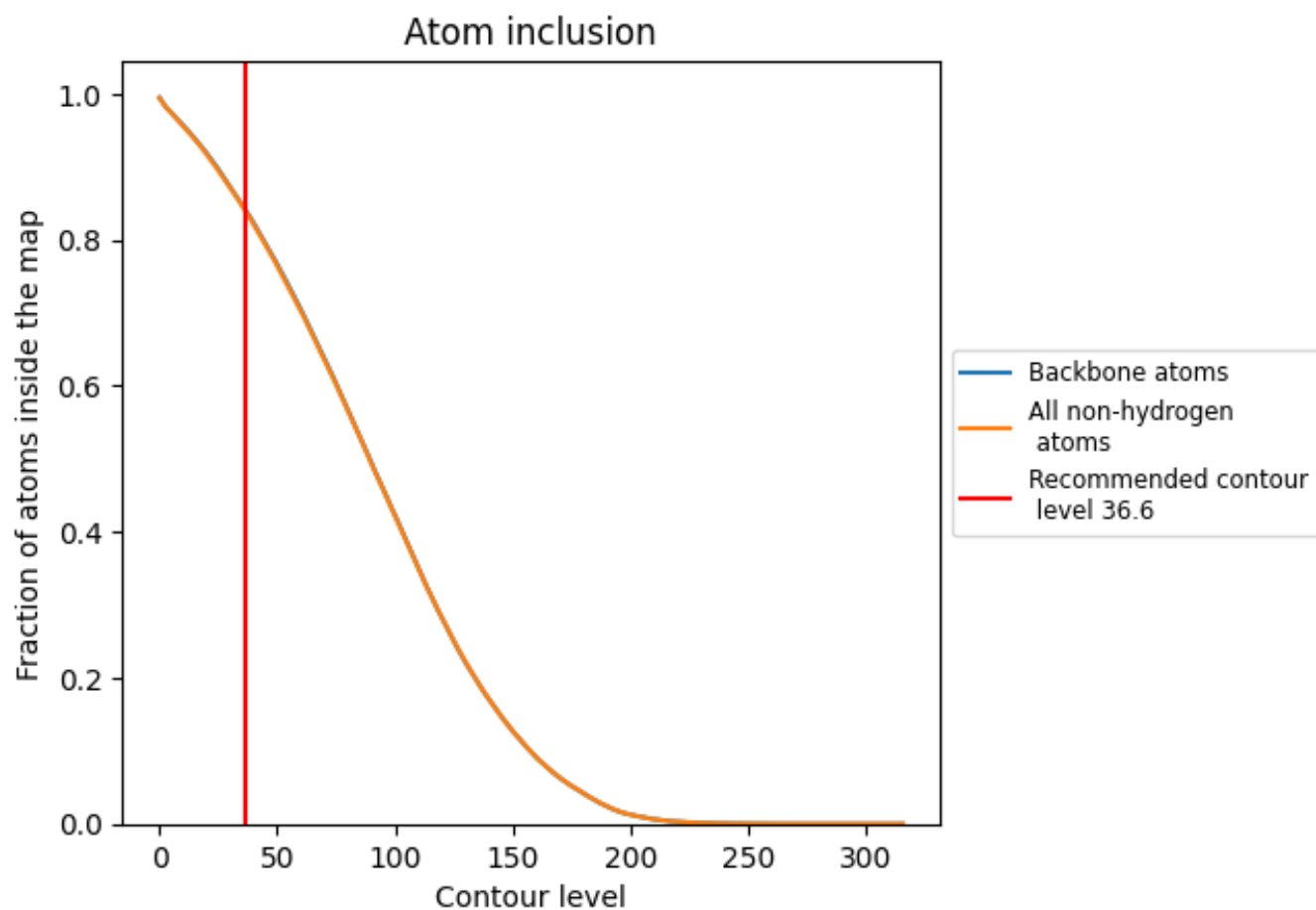
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (36.6).























































9.4 Atom inclusion [i](#)



At the recommended contour level, 84% of all backbone atoms, 84% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (36.6) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.8392	 0.0440
A	 0.9291	 0.0440
B	 0.8787	 0.0450
C	 0.8493	 0.0410
D	 0.8983	 0.0470
E	 0.8658	 0.0410
F	 0.8100	 0.0380
G	 0.9039	 0.0460
H	 0.7993	 0.0310
I	 0.8271	 0.0510
J	 0.8785	 0.0530
K	 0.5460	 0.0190
L	 0.7986	 0.0280
M	 0.8453	 0.0490
N	 0.8729	 0.0700
O	 0.8782	 0.0470
P	 0.8971	 0.0560
Q	 0.8813	 0.0440
R	 0.7762	 0.0310
S	 0.9332	 0.0600
T	 0.7482	 0.0470
U	 0.8004	 0.0440
V	 0.9036	 0.0520
W	 0.7753	 0.0350
X	 0.8372	 0.0380
Y	 0.9004	 0.0550
Z	 0.8492	 0.0460

