Full wwPDB EM Validation Report ⓘ

Oct 6, 2024 – 07:54 pm BST

PDB ID	:	7PER
EMDB ID	:	EMD-12814
Title	:	Model of the inner ring of the human nuclear pore complex
Authors	:	Schuller, A.P.; Wojtynek, M.; Mankus, D.; Tatli, M.; Kronenberg-Tenga, R.; Regmi, S.G.; Dasso, M.; Weis, K.; Medalia, O.; Schwartz, T.U.
Deposited on	:	2021-08-11
Resolution	:	35.00 Å(reported)
Based on initial model	:	5IJN

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:

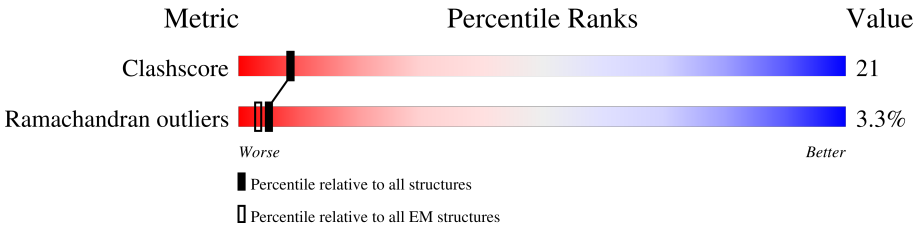
EMDB validation analysis	:	0.0.1.dev113
MolProbity	:	4.02b-467
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.39

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 35.00 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	210492	15764
Ramachandran outliers	207382	16835

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 <=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	F	507	41% 13% 7% 5% 34%
1	L	507	6% 43% 11% 7% 5% 34%
1	R	507	40% 14% 7% 5% 34%
1	X	507	43% 11% 7% 5% 34%
2	G	599	17% 8% 71%
2	M	599	17% 7% 71%
2	S	599	17% 8% 71%
2	Y	599	17% 8% 71%
3	H	522	18% 10% 68%

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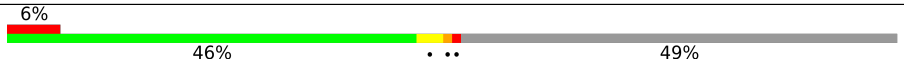
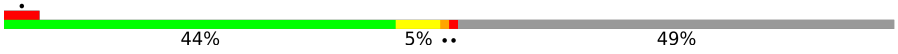
Mol	Chain	Length	Quality of chain
3	N	522	
3	T	522	
3	Z	522	
4	D	2012	
4	J	2012	
4	P	2012	
4	V	2012	
5	E	1391	
5	K	1391	
5	Q	1391	
5	W	1391	
6	C	819	
6	I	819	
6	O	819	
6	U	819	

2 Entry composition (i)

There are 6 unique types of molecules in this entry. The entry contains 67036 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 Nucleoporin p54.

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

- Molecule 2 is a protein called Nucleoporin p58/p45.

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

- Molecule 3 is a protein called Nuclear pore glycoprotein p62.

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

- Molecule 4 is a protein called Nuclear pore complex protein Nup205.

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

- Molecule 5 is a protein called Nuclear pore complex protein Nup155.

Mol	Chain	Residues	Atoms				AltConf	Trace
5	W	1083	Total	C	N	O	0	0
			5366	3200	1083	1083		
5	K	1083	Total	C	N	O	0	0
			5366	3200	1083	1083		
5	E	1083	Total	C	N	O	0	0
			5366	3200	1083	1083		
5	Q	1083	Total	C	N	O	0	0
			5366	3200	1083	1083		

- Molecule 6 is a protein called Nuclear pore complex protein Nup93.

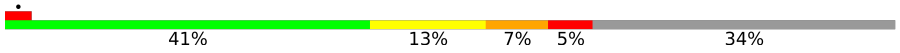
Mol	Chain	Residues	Atoms				AltConf	Trace
6	C	594	Total	C	N	O	0	0
			2946	1758	594	594		
6	I	594	Total	C	N	O	0	0
			2946	1758	594	594		
6	O	594	Total	C	N	O	0	0
			2946	1758	594	594		
6	U	594	Total	C	N	O	0	0
			2946	1758	594	594		

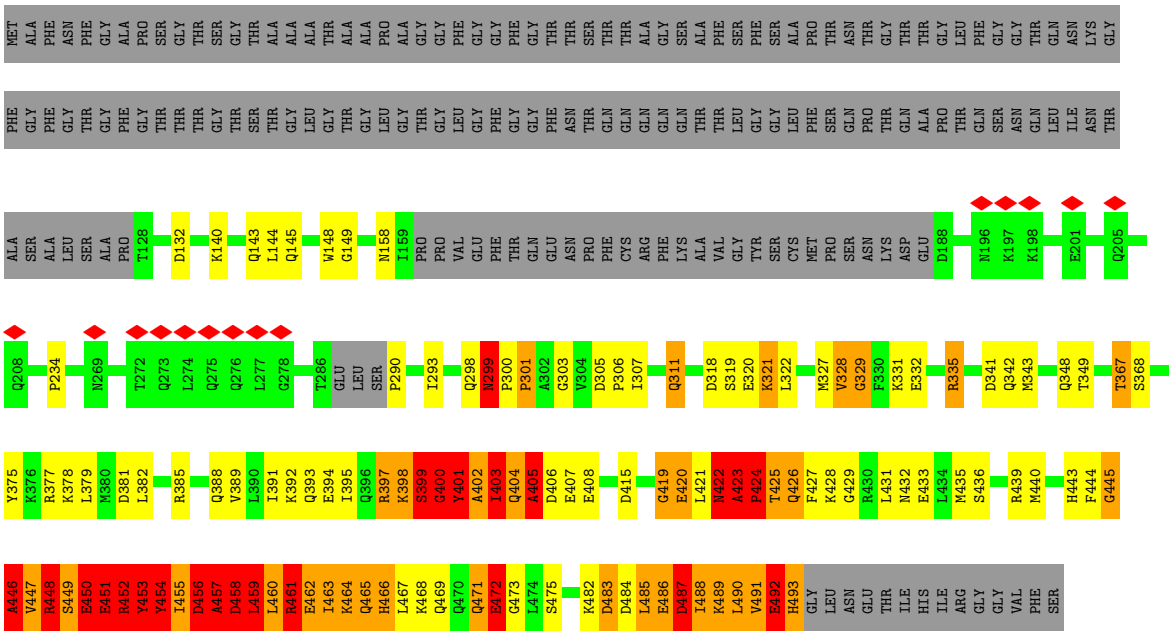
3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: Nucleoporin p54

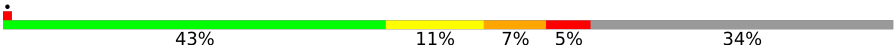
Chain F:

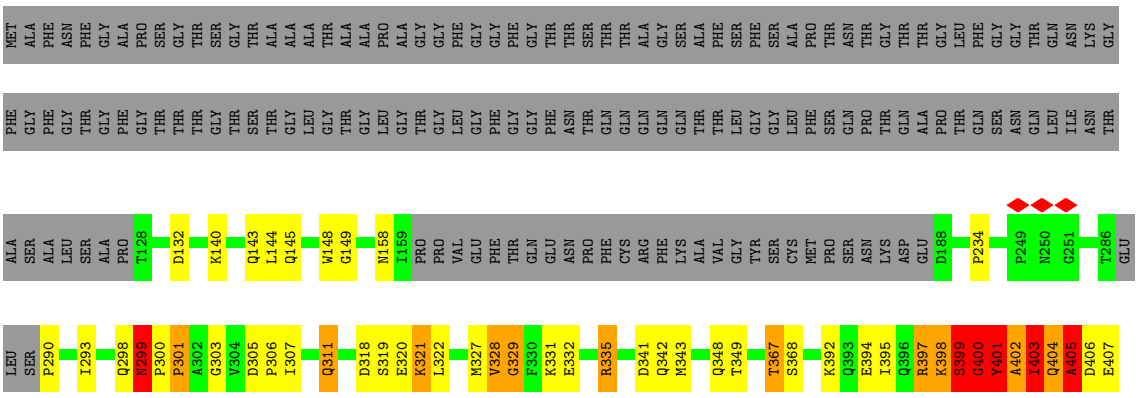


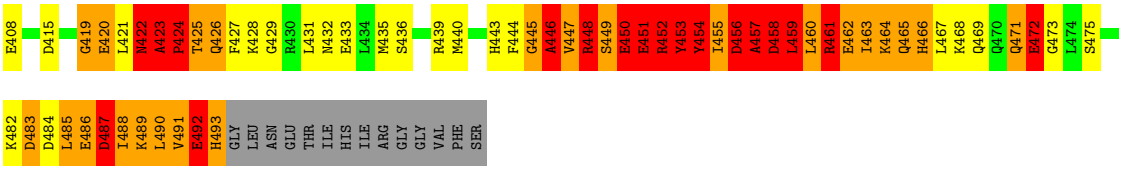


- Molecule 1: Nucleoporin p54

Chain X:

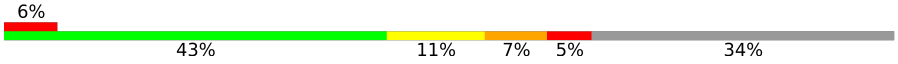


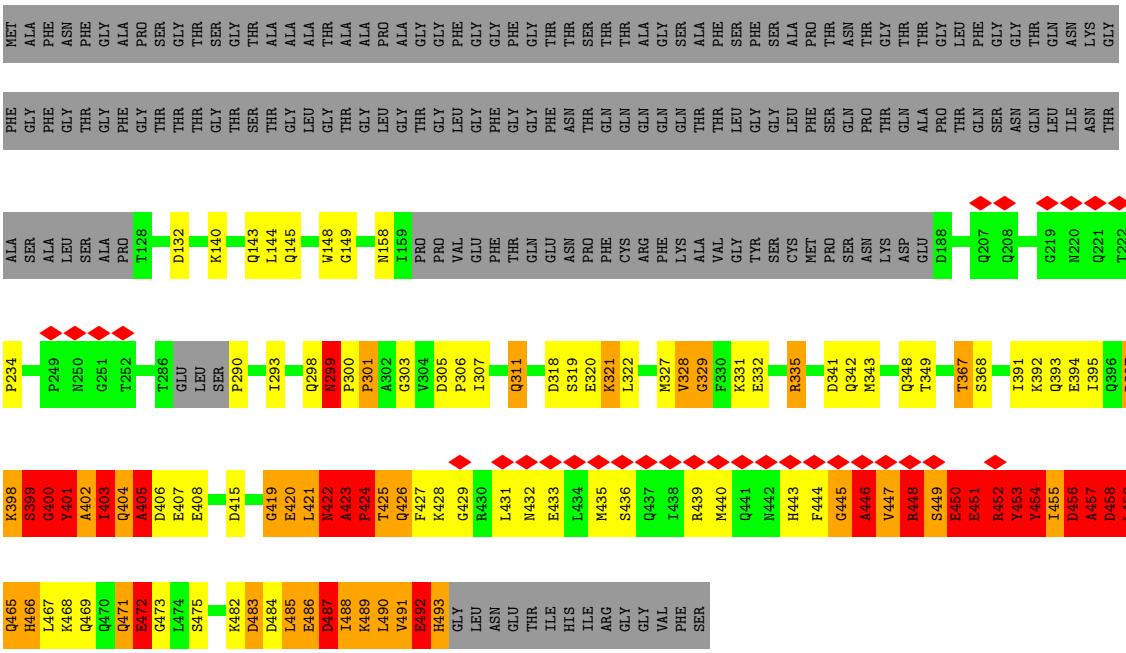




• Molecule 1: Nucleoporin p54

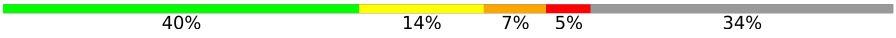
Chain L:

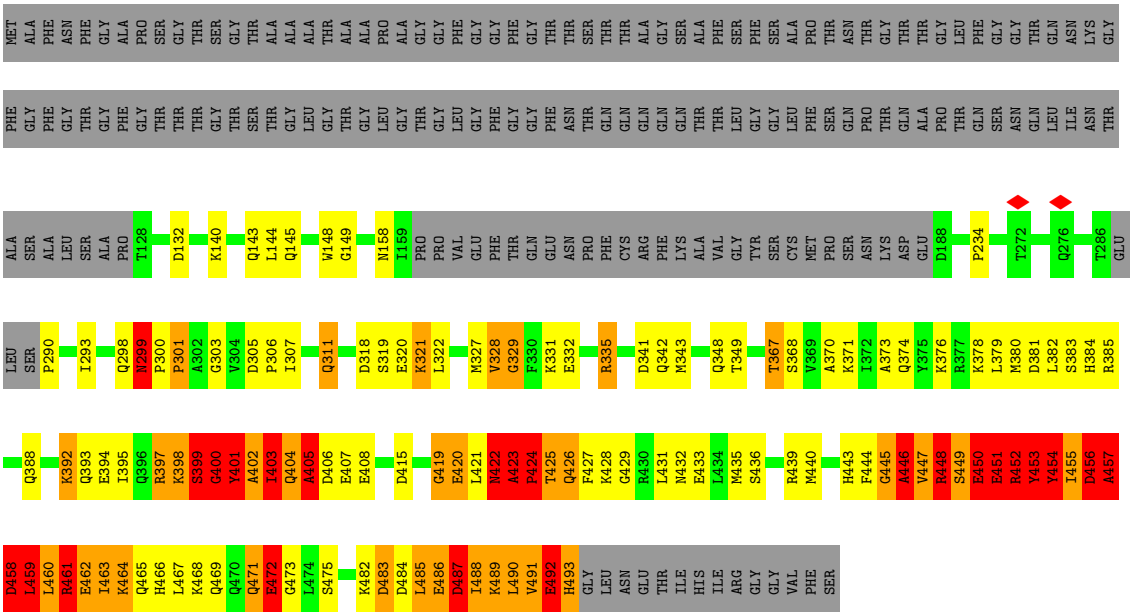




• Molecule 1: Nucleoporin p54

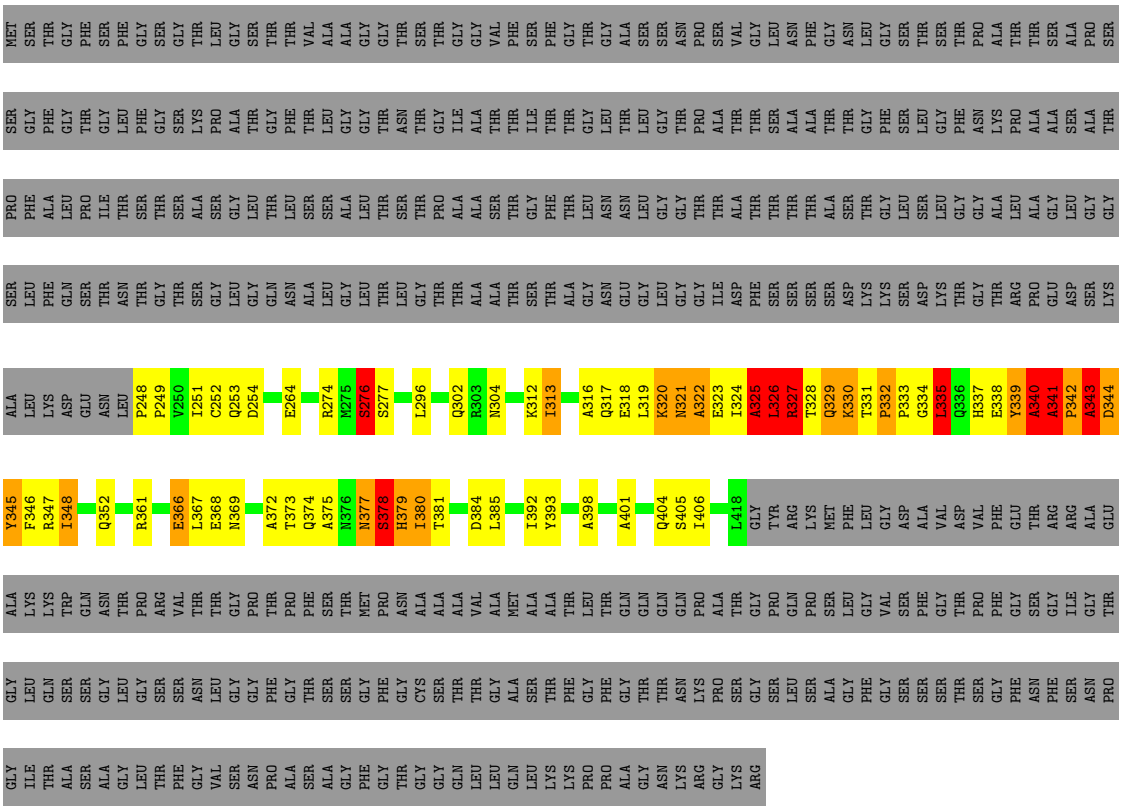
Chain R:





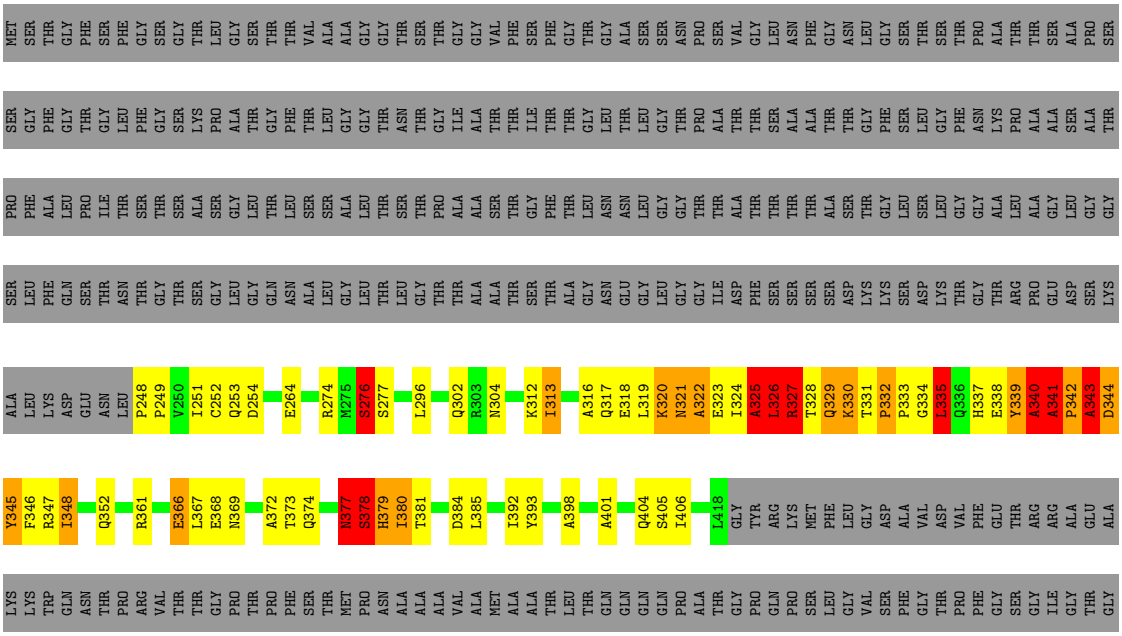
• Molecule 2: Nucleoporin p58/p45

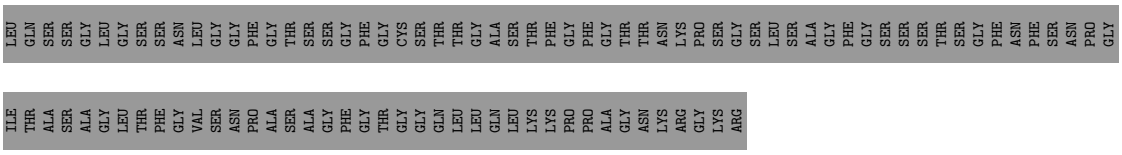
Chain G: 17% 8% 71%



• Molecule 2: Nucleoporin p58/p45

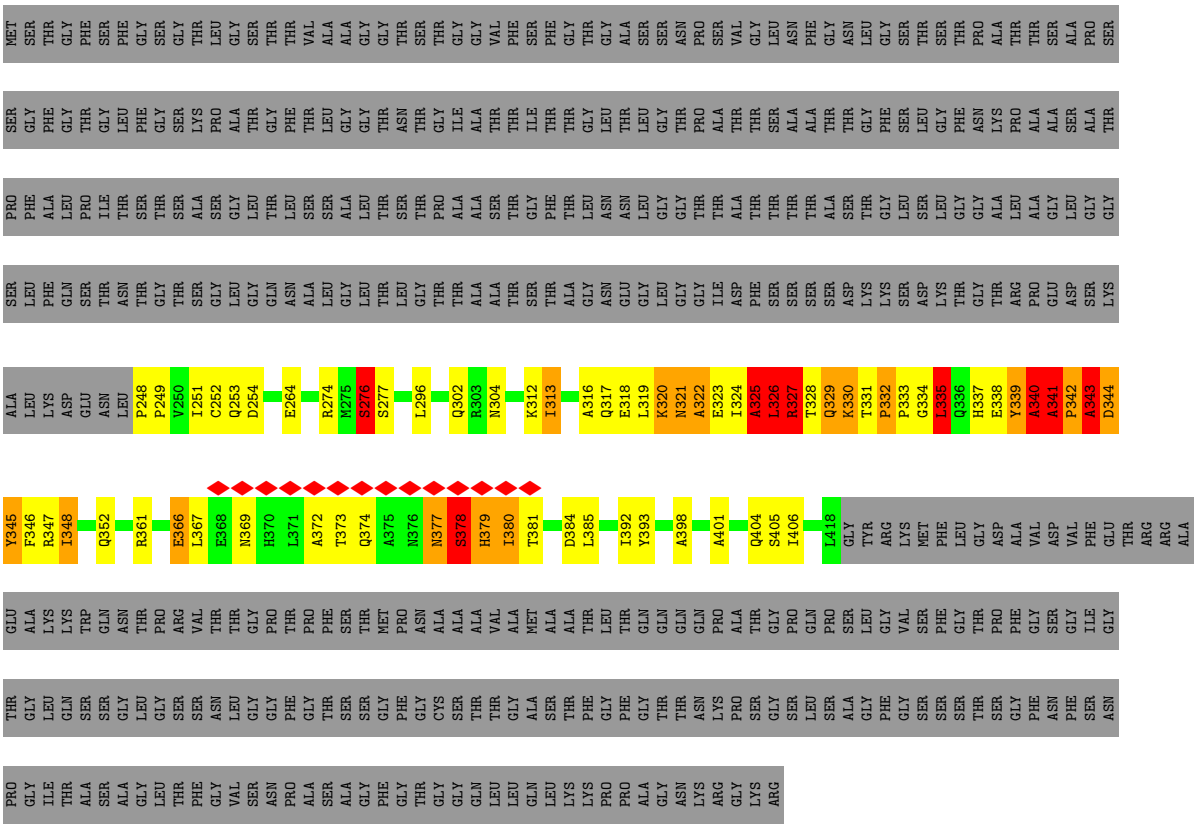
Chain Y: 17% 8% 71%





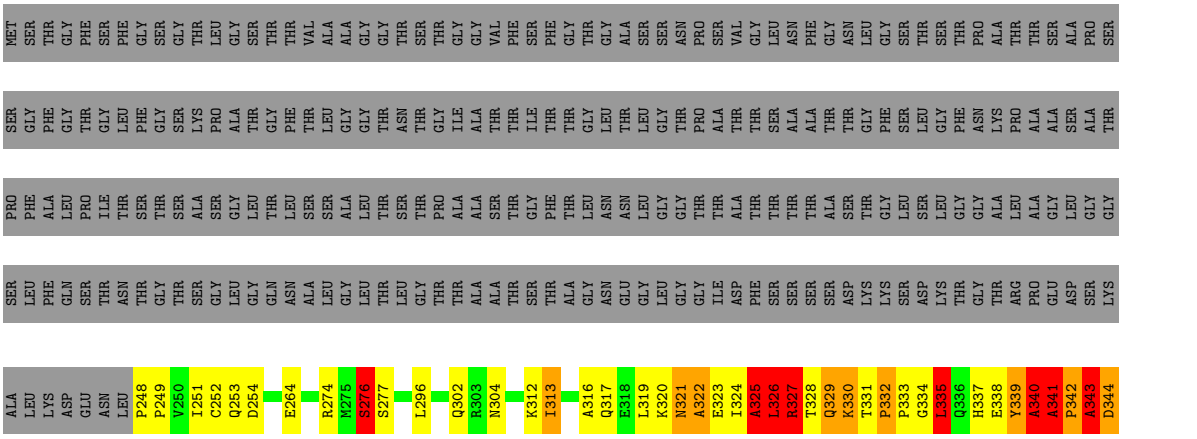
• Molecule 2: Nucleoporin p58/p45

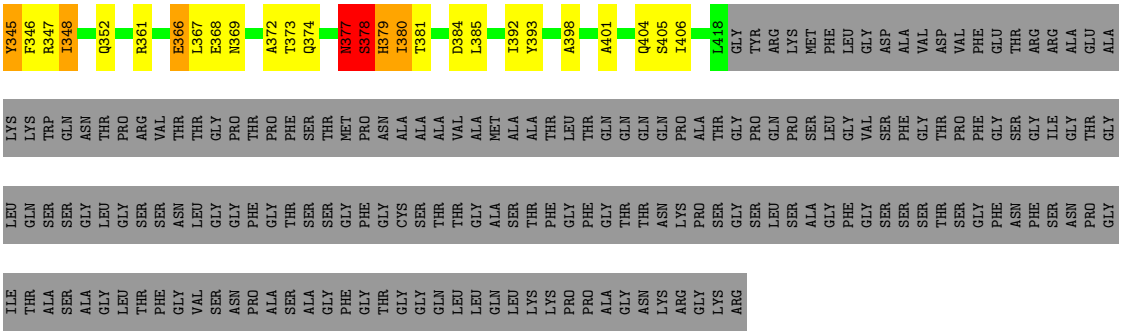
Chain M:



• Molecule 2: Nucleoporin p58/p45

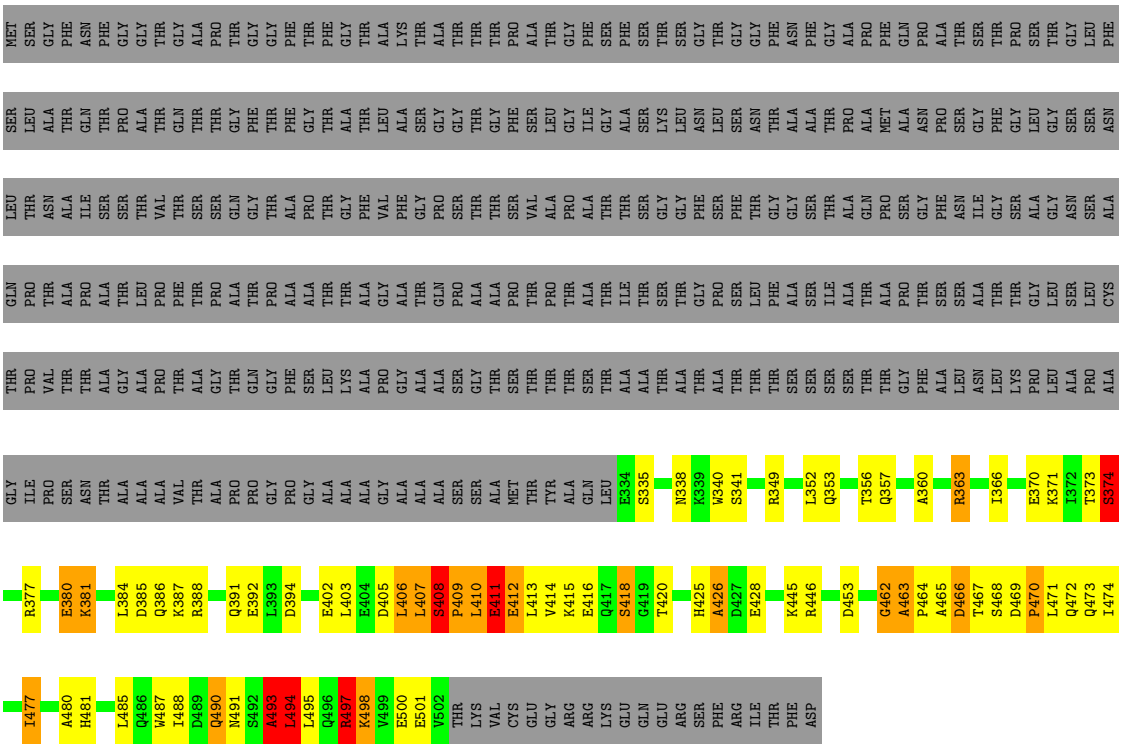
Chain S:





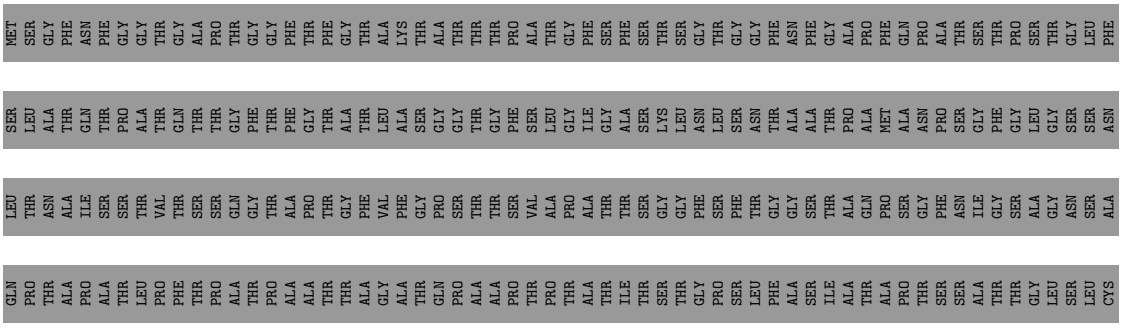
• Molecule 3: Nuclear pore glycoprotein p62

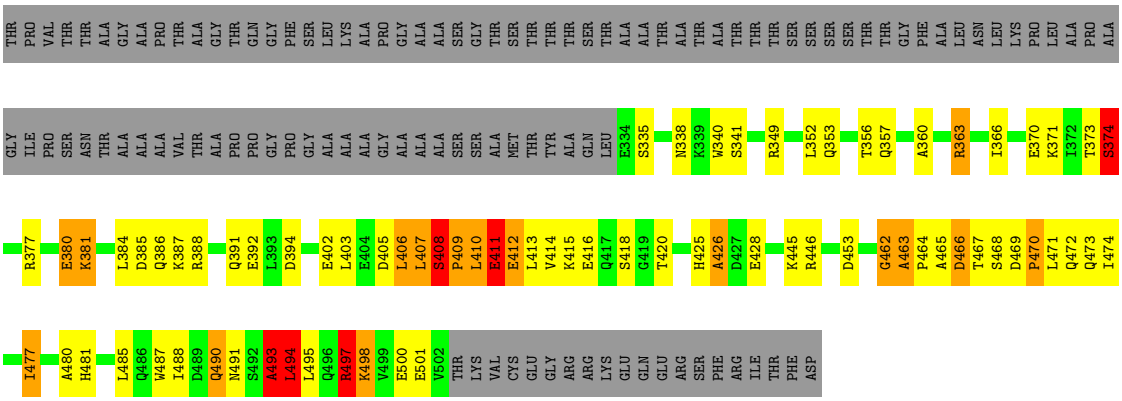
Chain H:



• Molecule 3: Nuclear pore glycoprotein p62

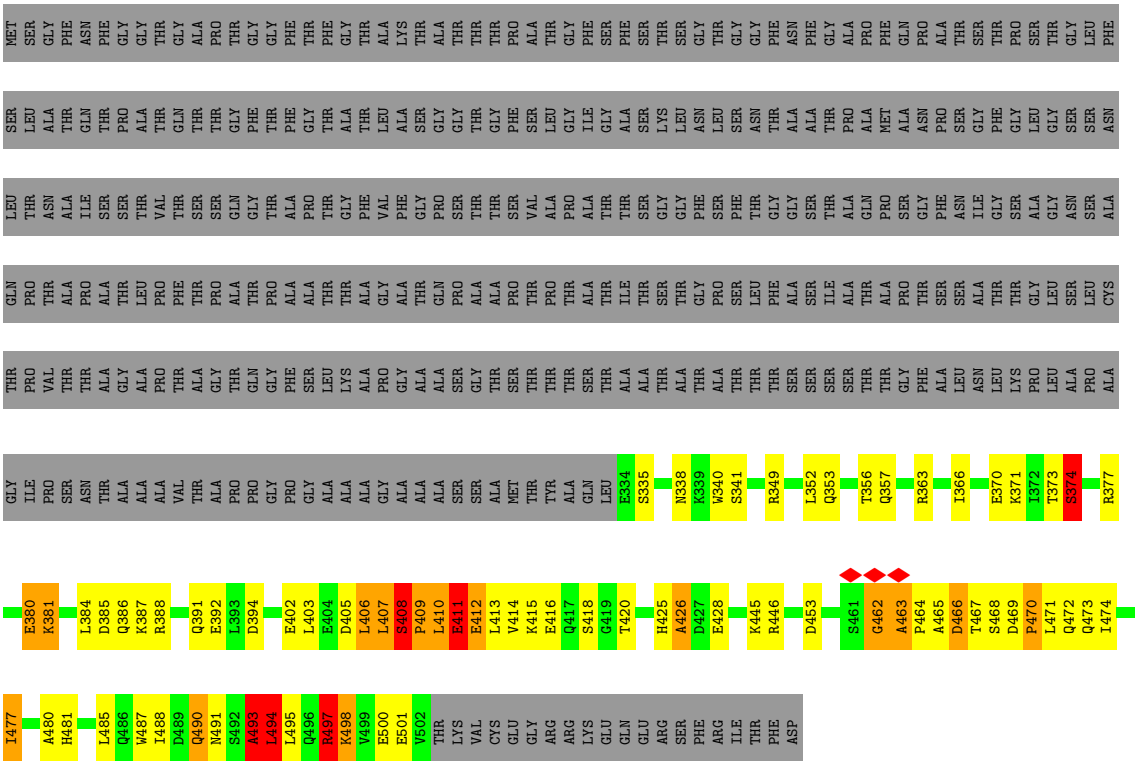
Chain Z:





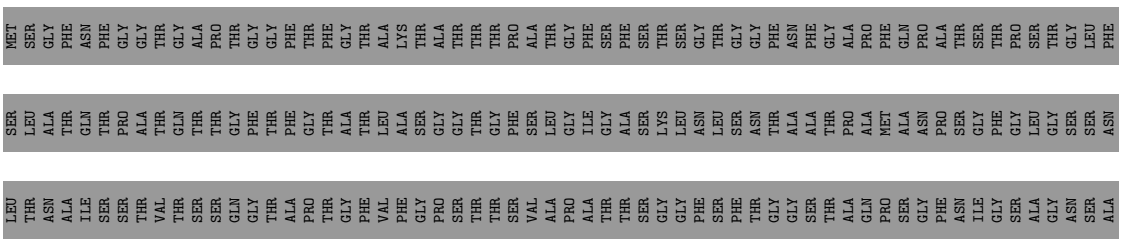
• Molecule 3: Nuclear pore glycoprotein p62

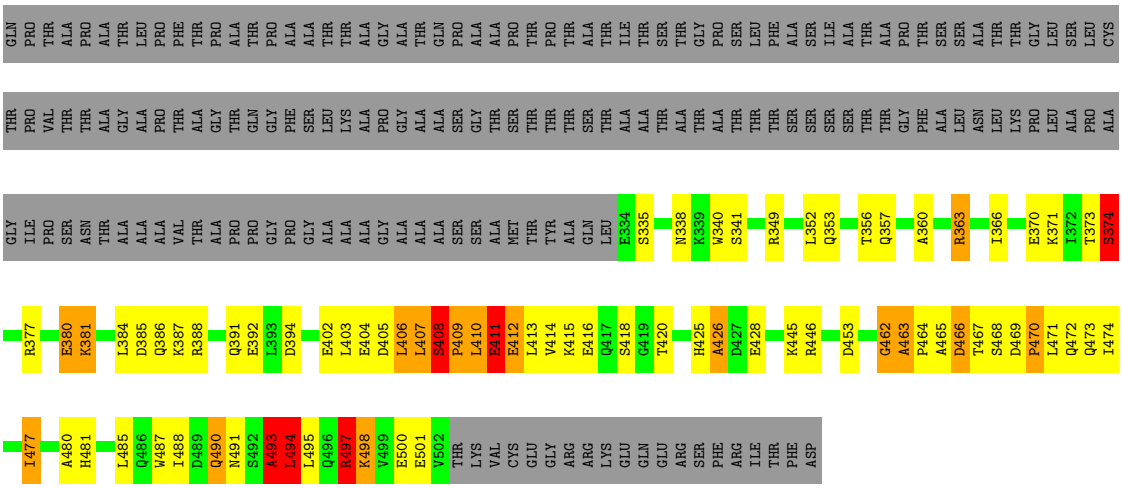
Chain N:



• Molecule 3: Nuclear pore glycoprotein p62

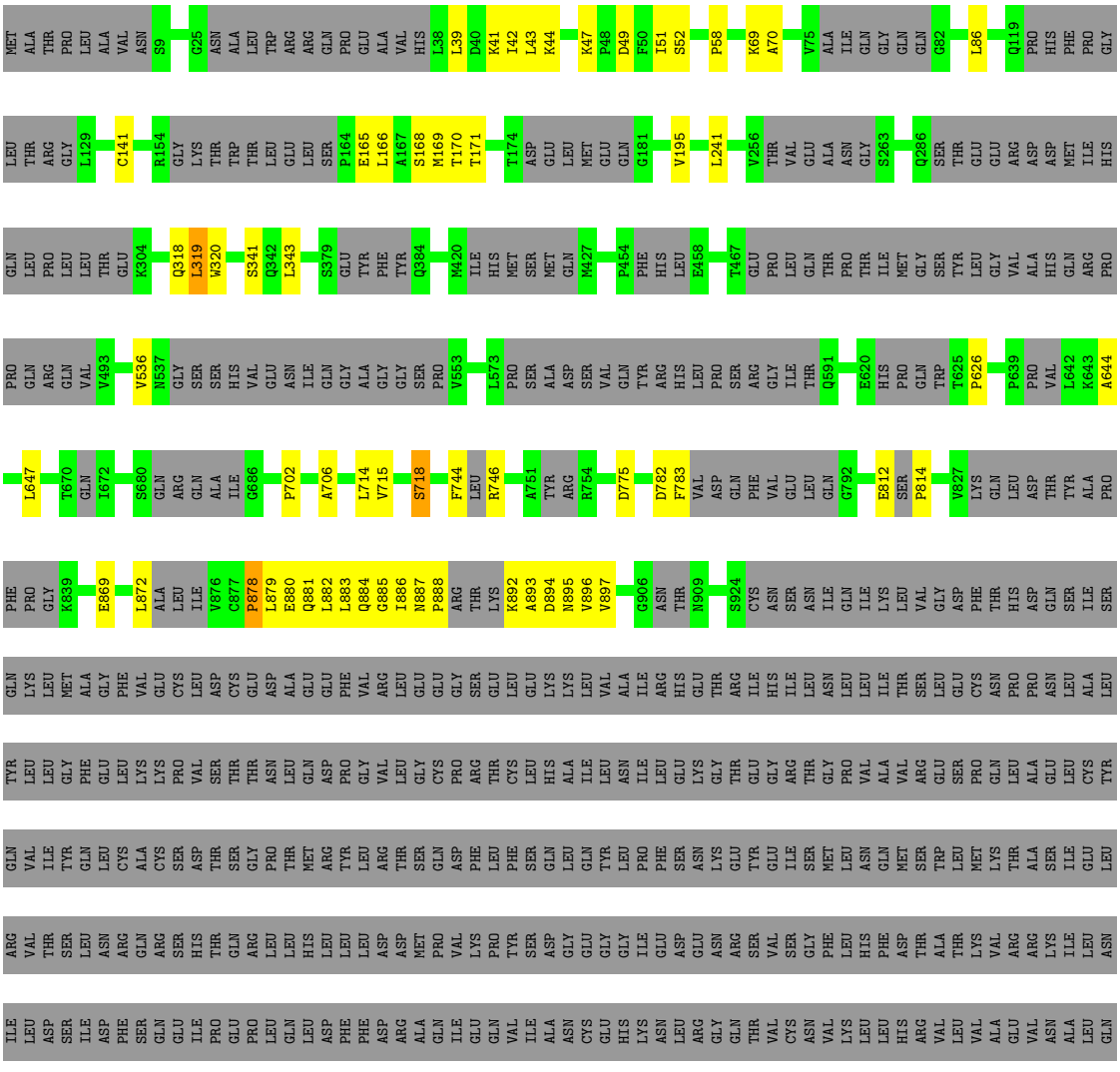
Chain T:

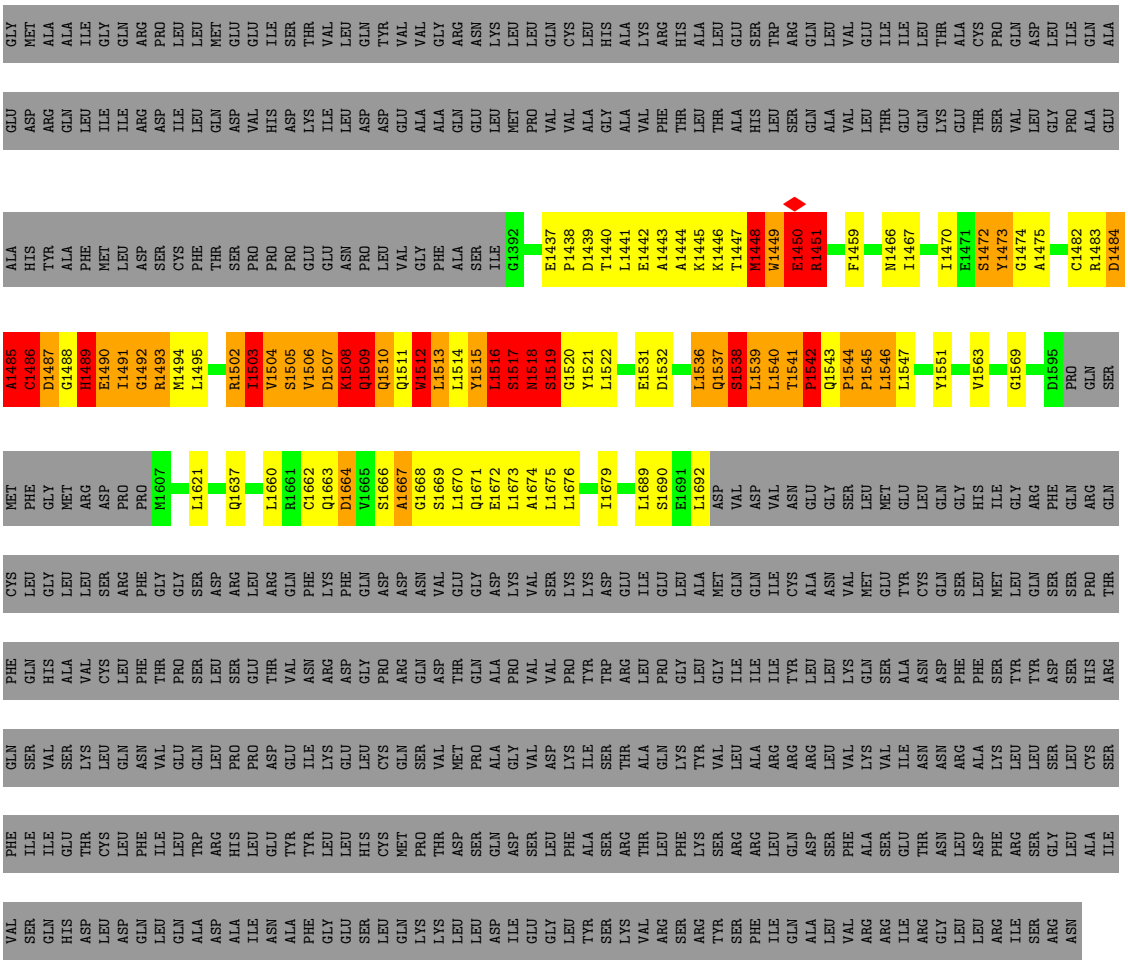




• Molecule 4: Nuclear pore complex protein Nup205

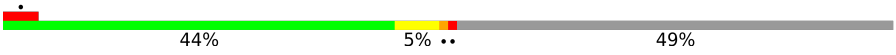
Chain P:

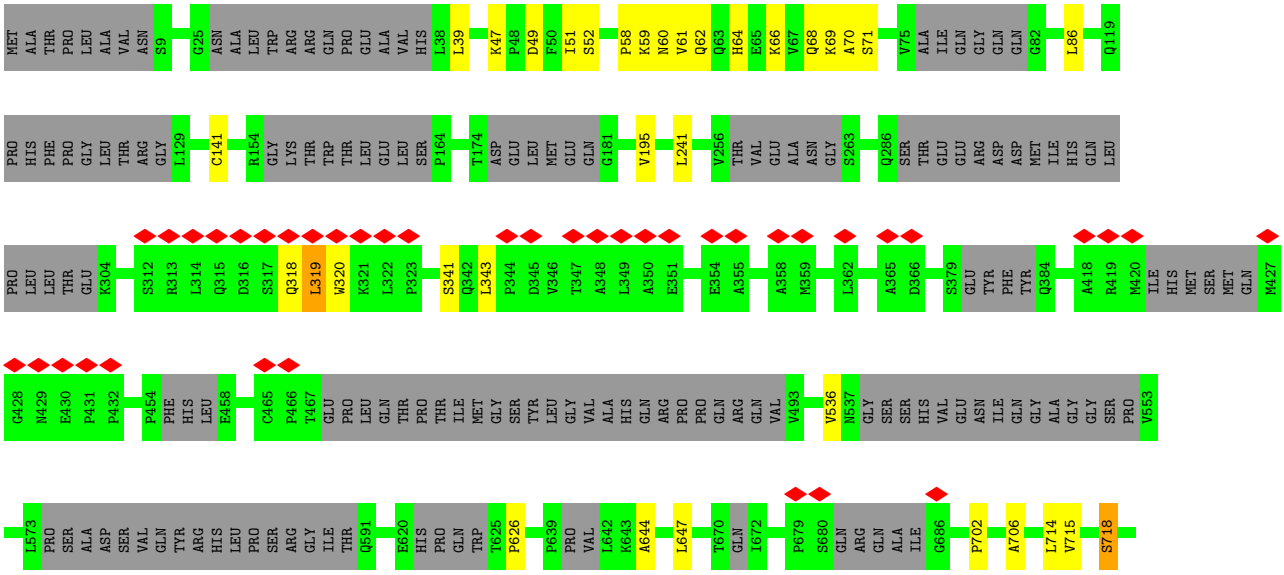


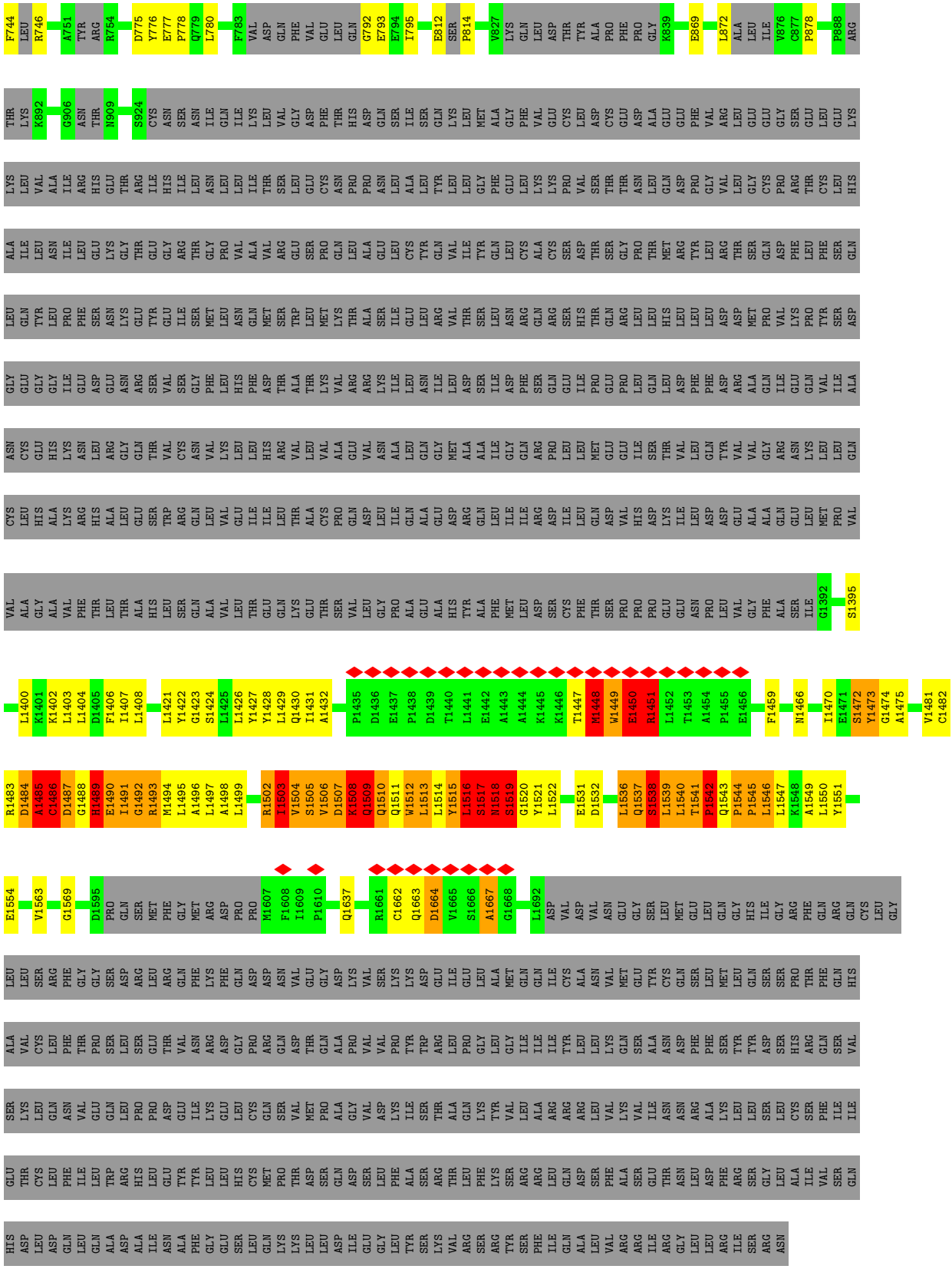


• Molecule 4: Nuclear pore complex protein Nup205

Chain V:

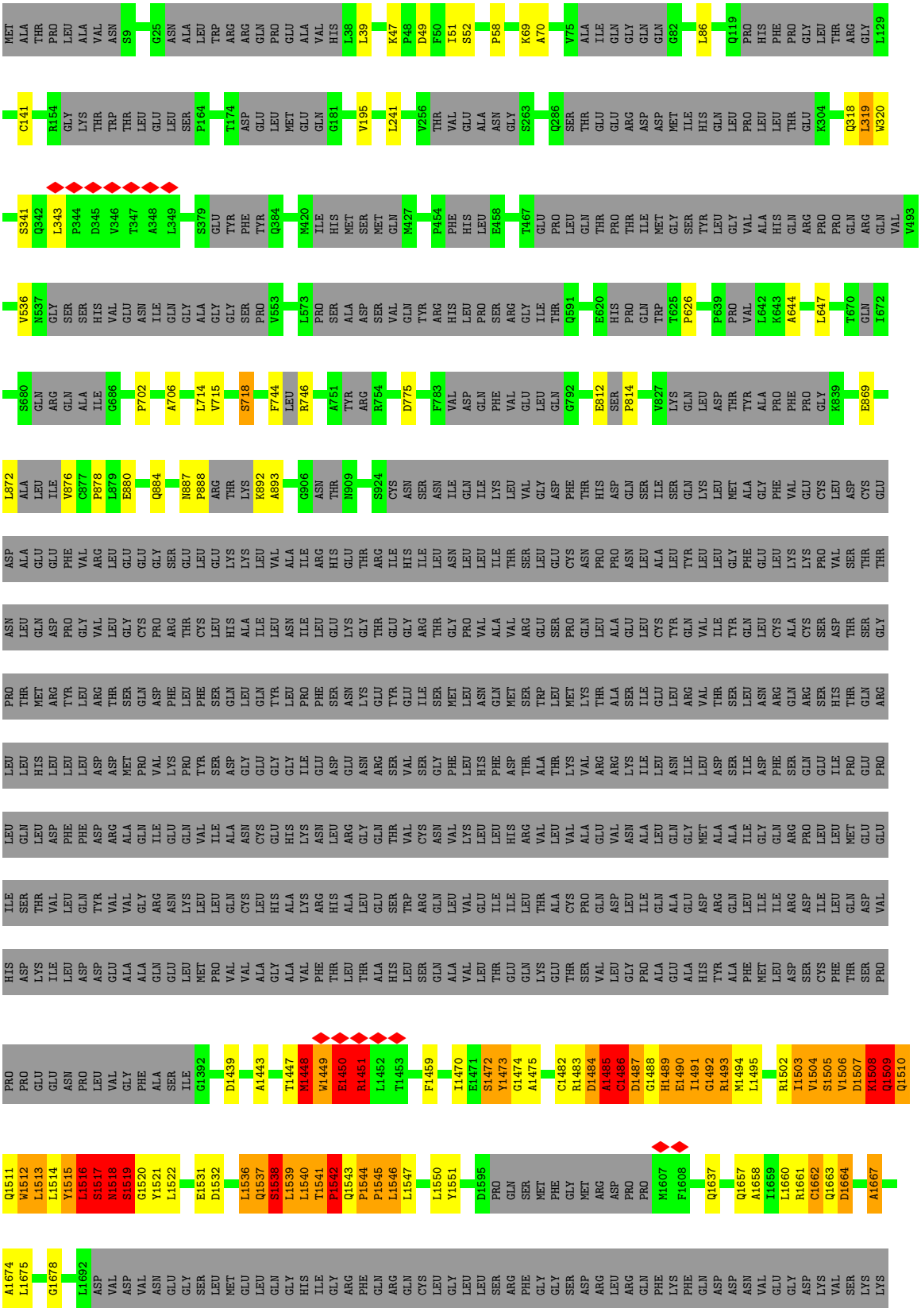


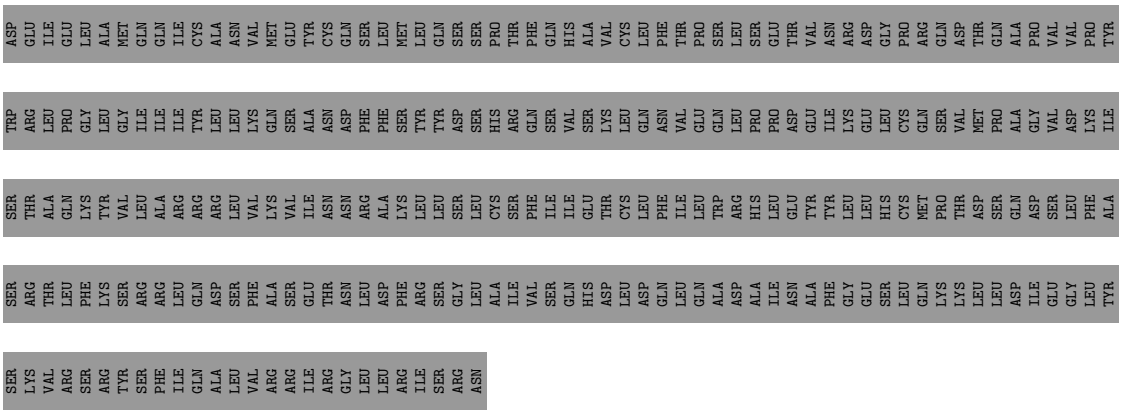




• Molecule 4: Nuclear pore complex protein Nup205

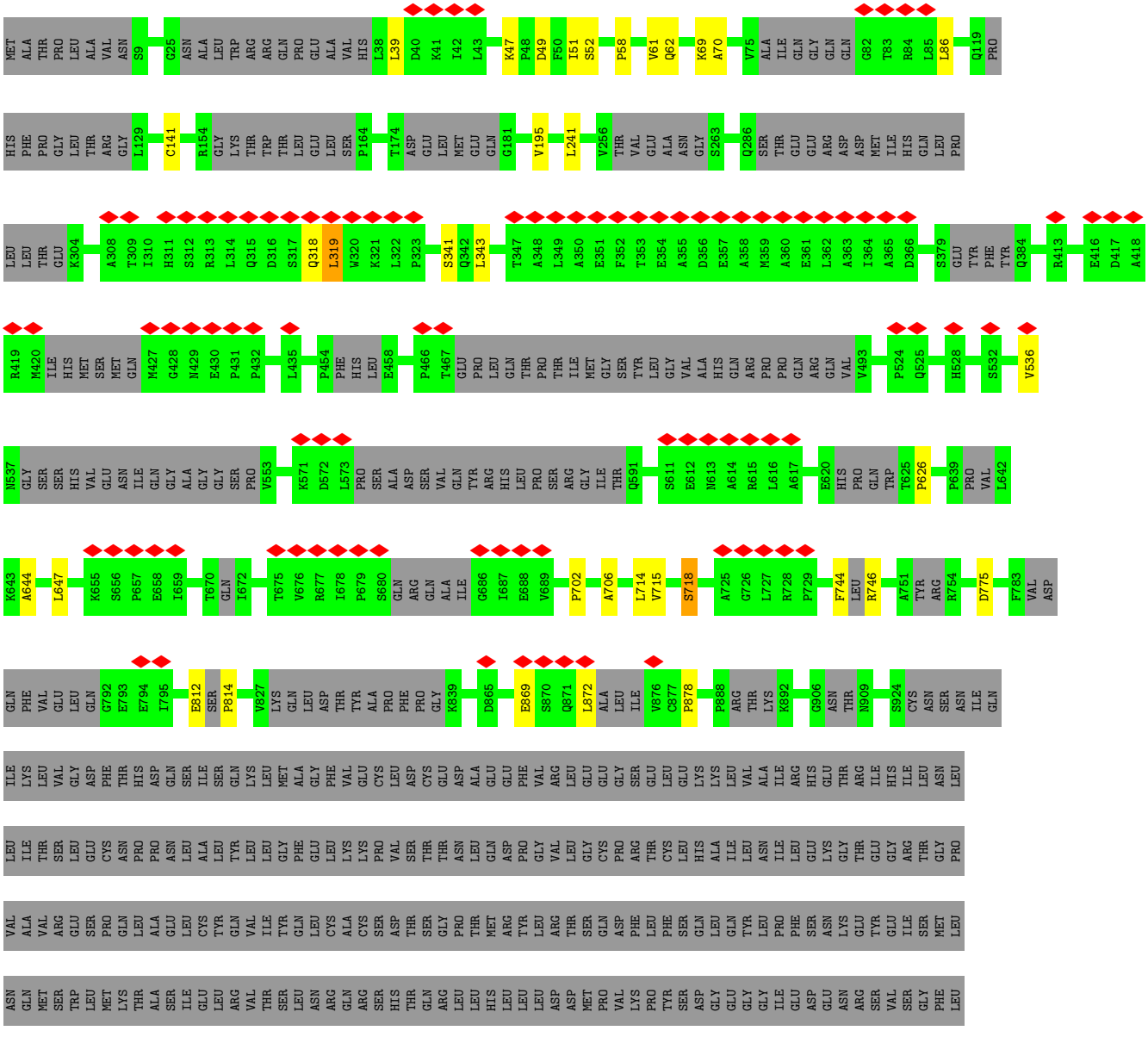
Chain D:

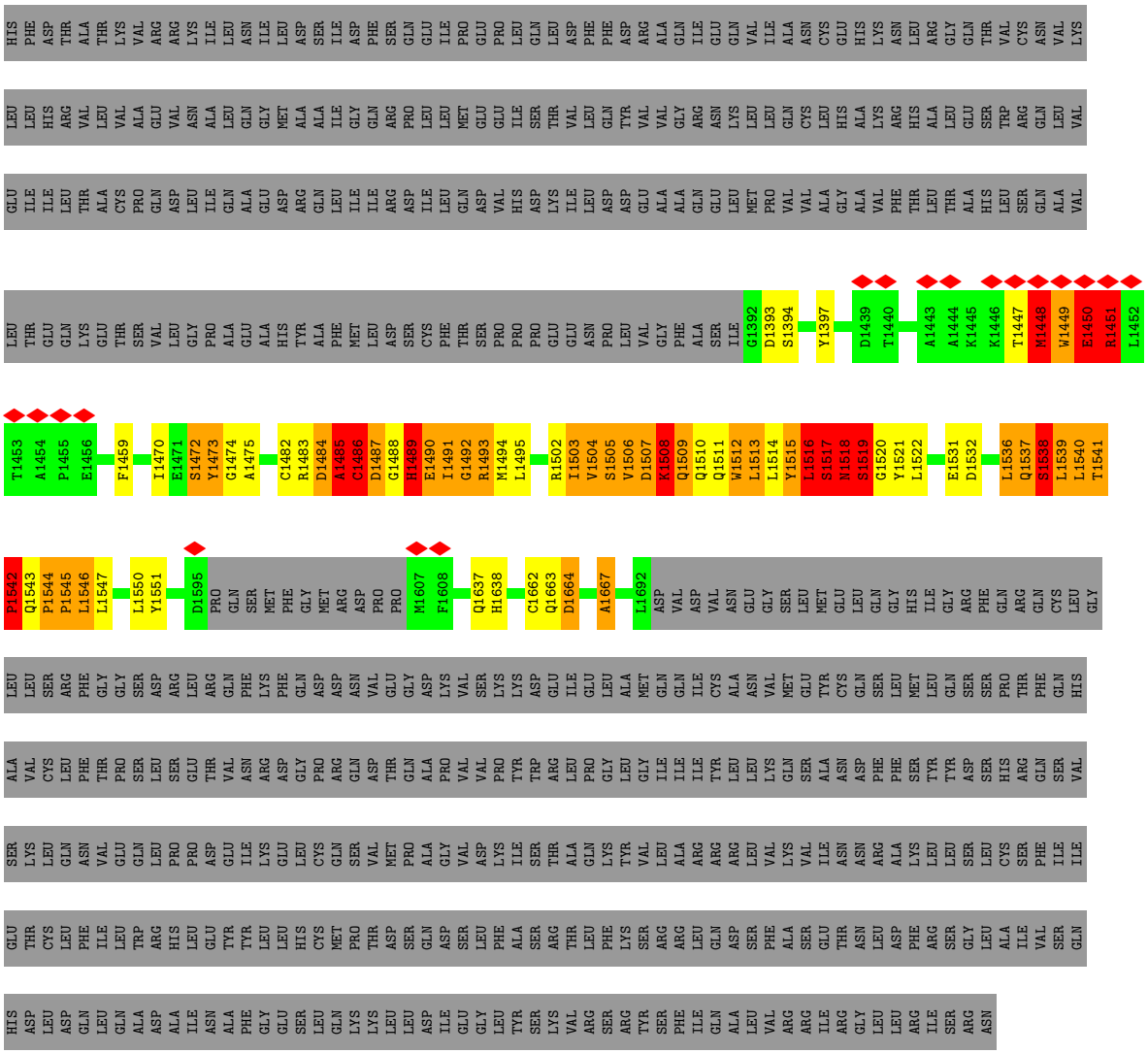




• Molecule 4: Nuclear pore complex protein Nup205

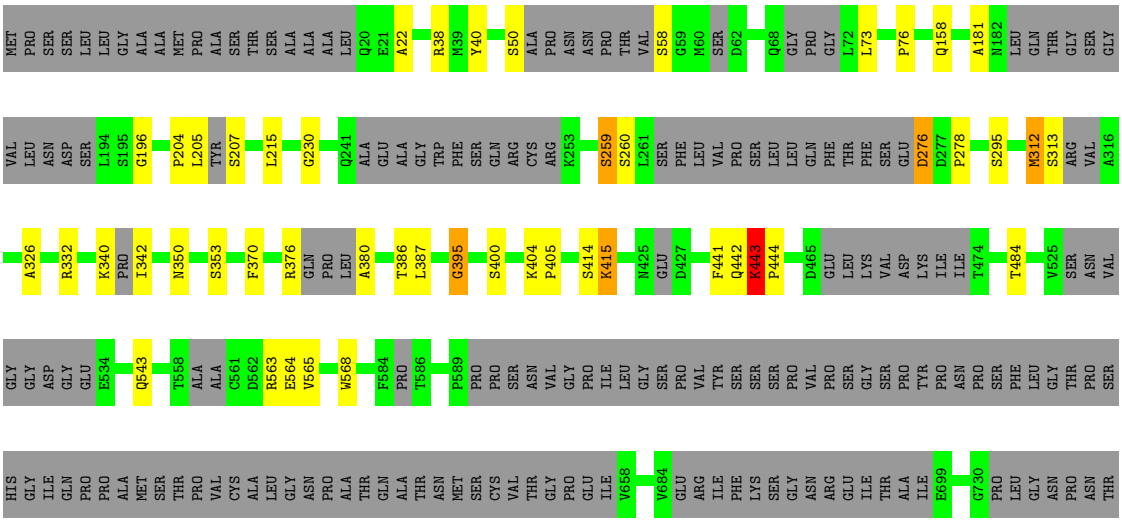
Chain J:

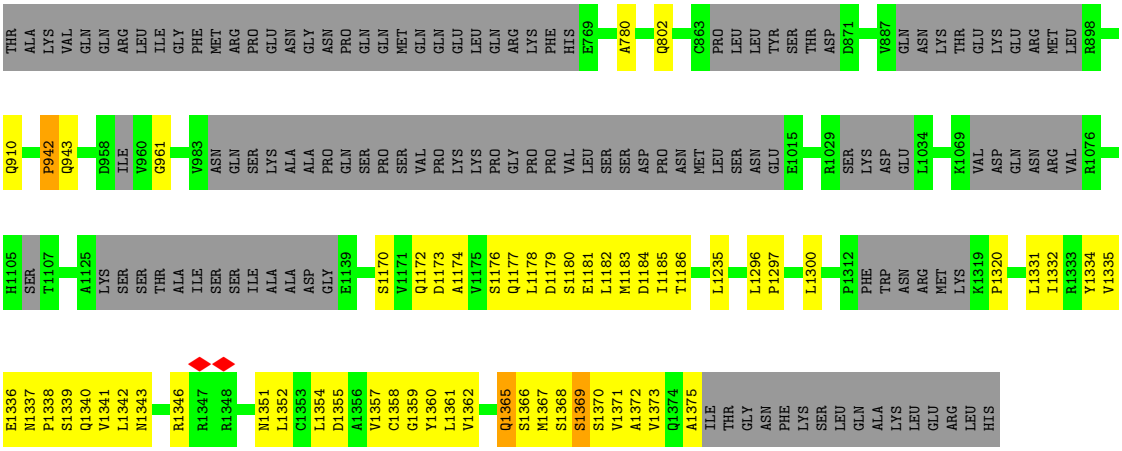




• Molecule 5: Nuclear pore complex protein Nup155

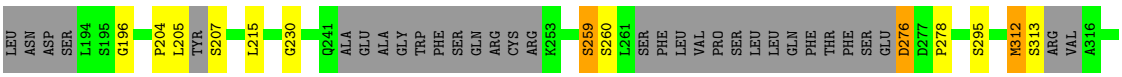
Chain W:

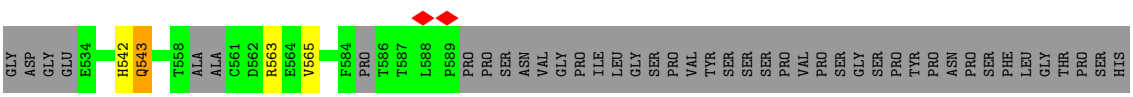


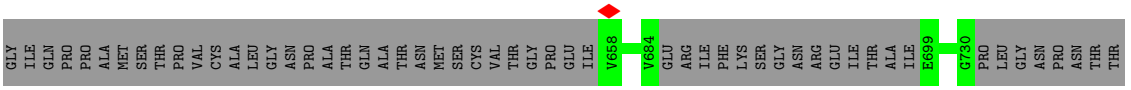


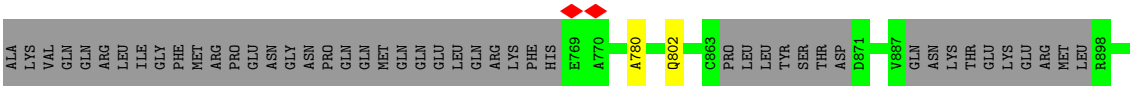
• Molecule 5: Nuclear pore complex protein Nup155

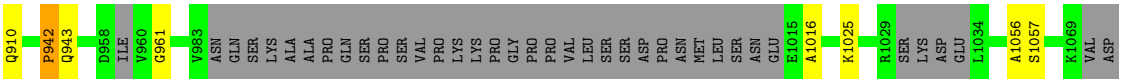
Chain K:

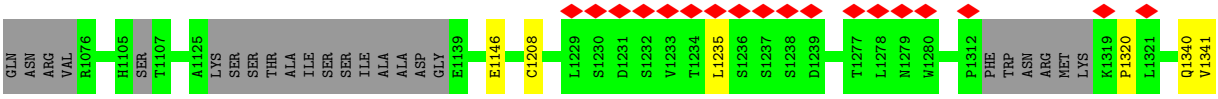


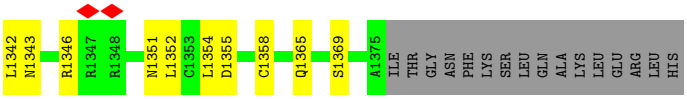






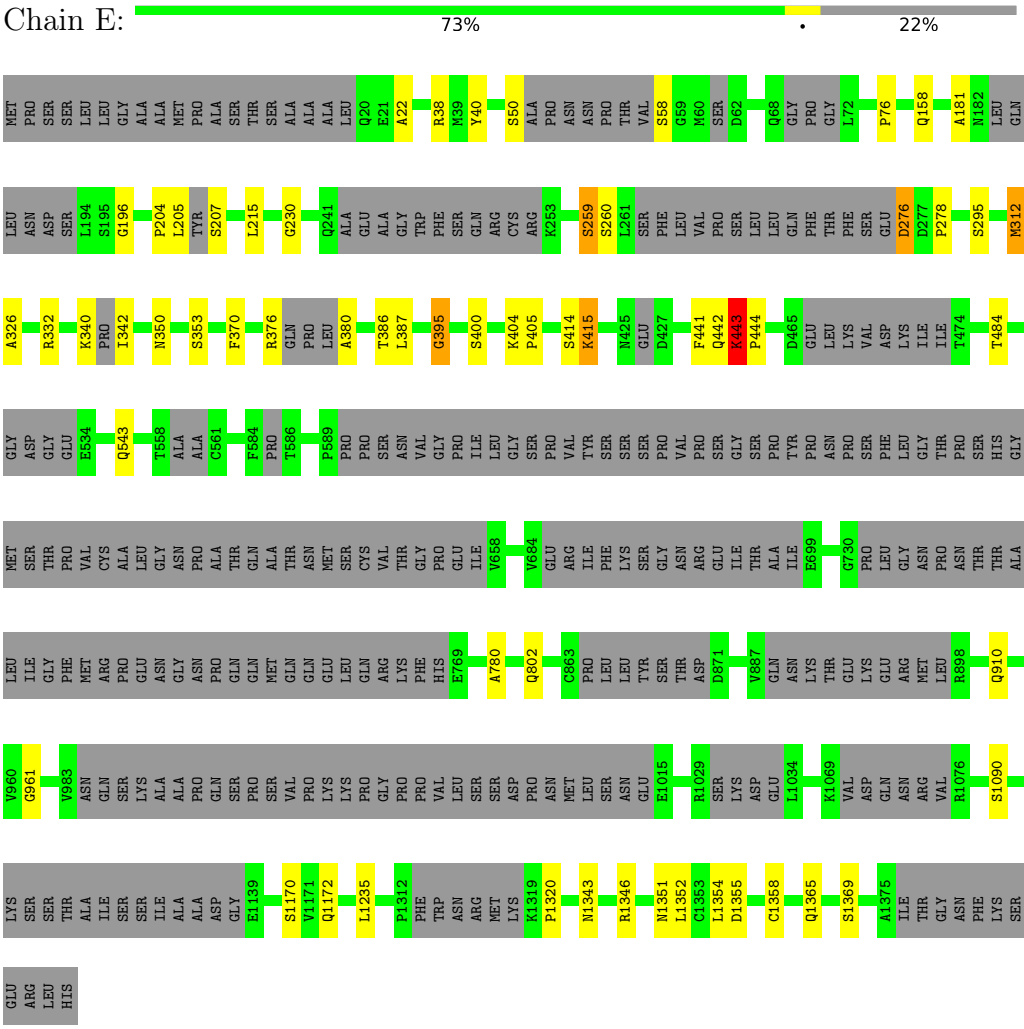






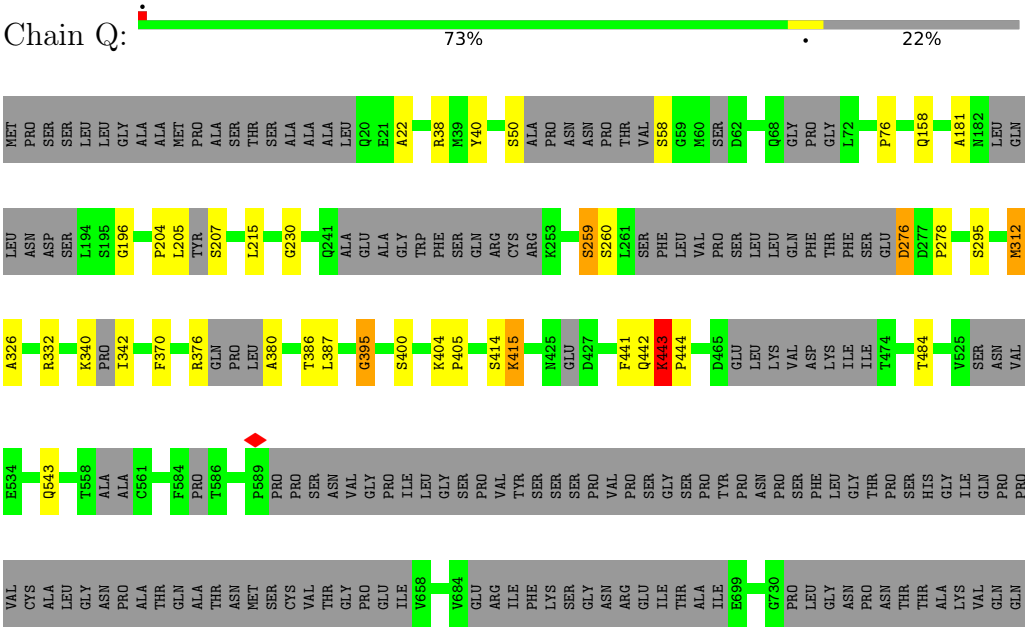
• Molecule 5: Nuclear pore complex protein Nup155

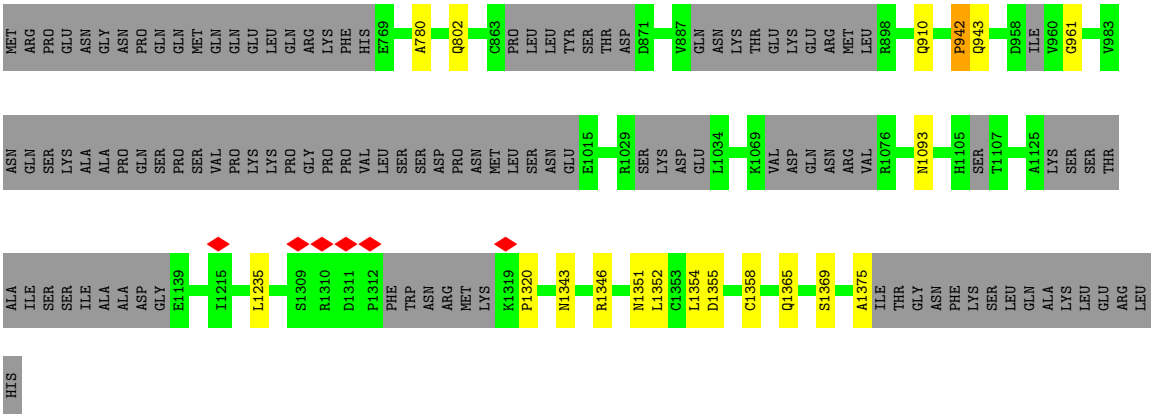
Chain E:



• Molecule 5: Nuclear pore complex protein Nup155

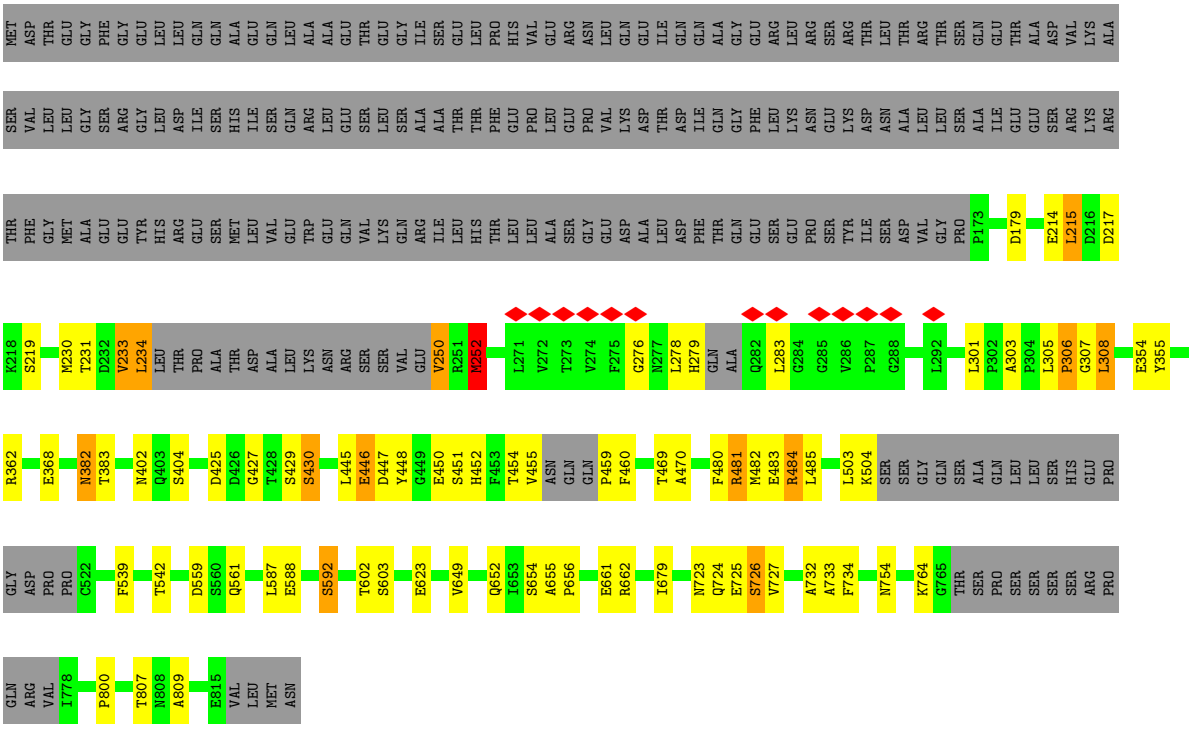
Chain Q:





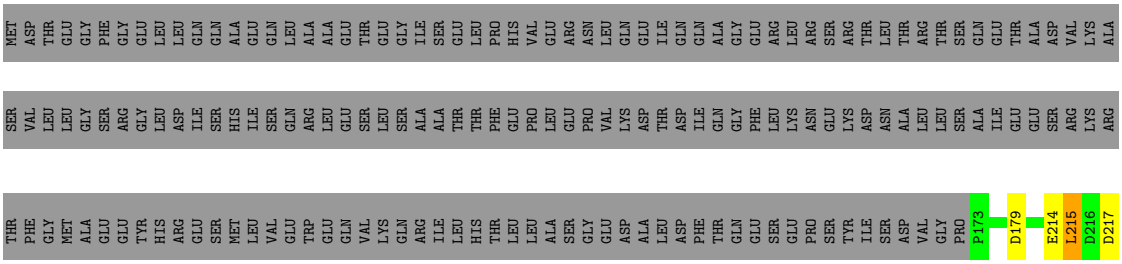
• Molecule 6: Nuclear pore complex protein Nup93

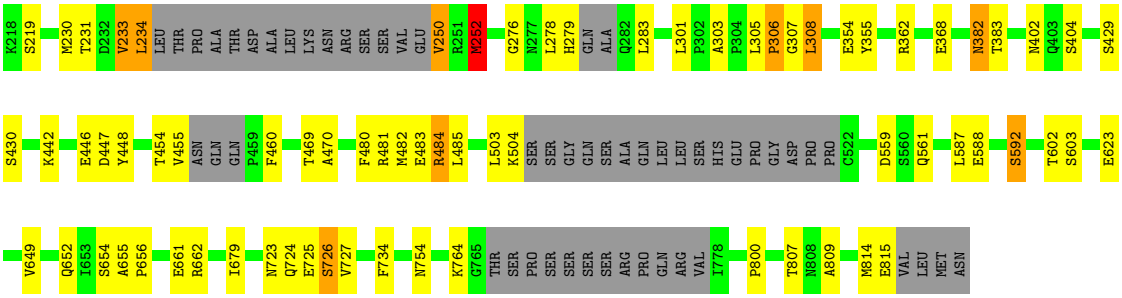
Chain C:



• Molecule 6: Nuclear pore complex protein Nup93

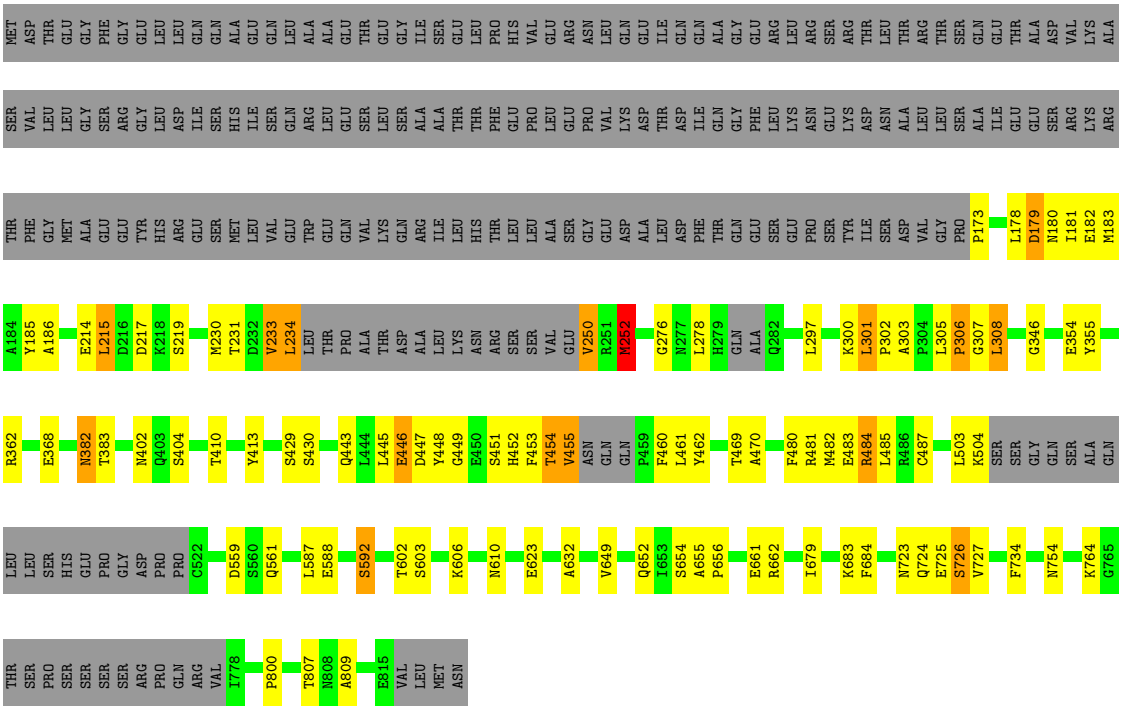
Chain I:





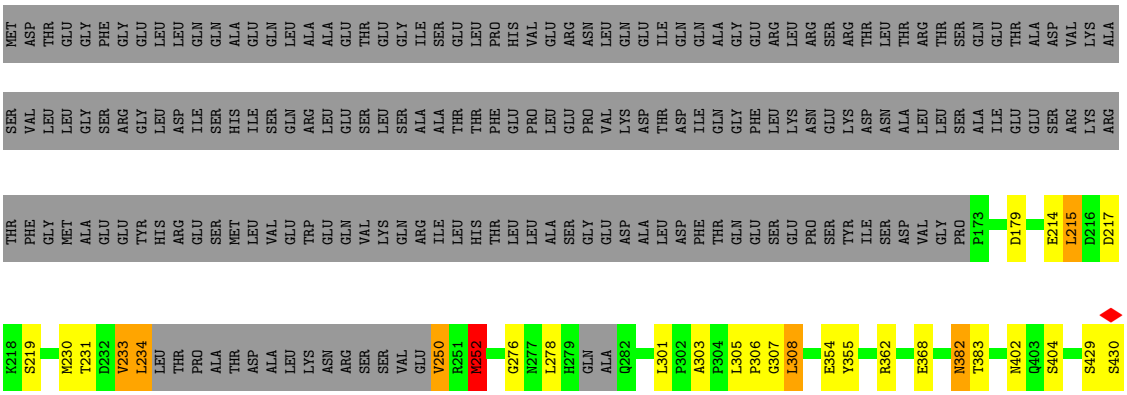
• Molecule 6: Nuclear pore complex protein Nup93

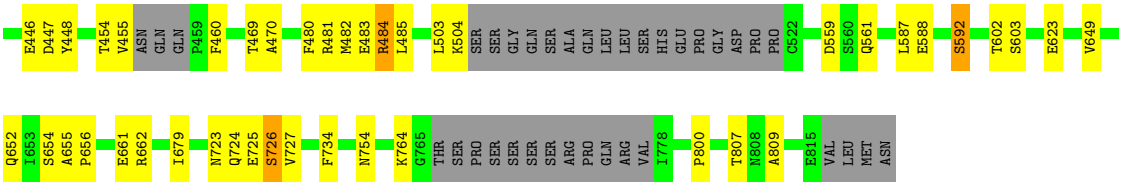
Chain O:



• Molecule 6: Nuclear pore complex protein Nup93

Chain U:




E446 D447 Y448
T454 V455 ASN GLN GLN P459 F460
T469 A470
F480 R481 M482 E483 R484 L485
L503 K504 SER SER GLY GLN SER ALA GLN LEU LEU SER HIS GLU PRO GLY ASP PRO PRO C522
D559 S560 Q561
L587 E588
S592
T602 S603
E623
V649
Q652 I653 S654 A655 P656
E661 R662
I679
N723 Q724 E725 S726 V727
F734
N754
K764 G765 THR SER PRO SER SER SER SER ARG PRO GLN ARG VAL I778
P800
T807 N808 A809
E815 VAL LEU MET ASN

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SUBTOMOGRAM AVERAGING	Depositor
Imposed symmetry	POINT, C8	Depositor
Number of subtomograms used	1252	Depositor
Resolution determination method	FSC 0.5 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING ONLY	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	2.4	Depositor
Minimum defocus (nm)	2500	Depositor
Maximum defocus (nm)	5000	Depositor
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	1.000	Depositor
Minimum map value	0.000	Depositor
Average map value	0.351	Depositor
Map value standard deviation	0.050	Depositor
Recommended contour level	0.44	Depositor
Map size (Å)	2188.8, 2188.8, 2188.8	wwPDB
Map dimensions	320, 320, 320	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	6.84, 6.84, 6.84	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	F	3.74	152/1655 (9.2%)	3.77	224/2302 (9.7%)
1	L	3.74	154/1655 (9.3%)	3.77	222/2302 (9.6%)
1	R	3.74	152/1655 (9.2%)	3.77	223/2302 (9.7%)
1	X	3.74	151/1655 (9.1%)	3.77	224/2302 (9.7%)
2	G	3.95	84/852 (9.9%)	3.81	122/1190 (10.3%)
2	M	3.95	85/852 (10.0%)	3.81	122/1190 (10.3%)
2	S	3.95	83/852 (9.7%)	3.81	122/1190 (10.3%)
2	Y	3.95	84/852 (9.9%)	3.81	122/1190 (10.3%)
3	H	3.44	83/841 (9.9%)	3.09	110/1174 (9.4%)
3	N	3.44	83/841 (9.9%)	3.09	110/1174 (9.4%)
3	T	3.44	83/841 (9.9%)	3.10	109/1174 (9.3%)
3	Z	3.44	84/841 (10.0%)	3.09	109/1174 (9.3%)
4	D	1.22	38/5066 (0.8%)	1.69	118/7020 (1.7%)
4	J	1.22	39/5066 (0.8%)	1.69	119/7020 (1.7%)
4	P	1.22	38/5066 (0.8%)	1.69	116/7020 (1.7%)
4	V	1.22	39/5066 (0.8%)	1.69	118/7020 (1.7%)
5	E	0.93	0/5338	1.17	10/7399 (0.1%)
5	K	0.93	0/5338	1.17	10/7399 (0.1%)
5	Q	0.93	0/5338	1.18	10/7399 (0.1%)
5	W	0.93	0/5338	1.17	10/7399 (0.1%)
6	C	0.94	1/2938 (0.0%)	1.31	20/4086 (0.5%)
6	I	0.94	1/2938 (0.0%)	1.31	20/4086 (0.5%)
6	O	0.94	1/2938 (0.0%)	1.31	20/4086 (0.5%)
6	U	0.94	1/2938 (0.0%)	1.31	19/4086 (0.5%)
All	All	1.91	1436/66760 (2.2%)	2.06	2409/92684 (2.6%)

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	F	7	31

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Mol	Chain	#Chirality outliers	#Planarity outliers
1	L	7	31
1	R	7	31
1	X	7	30
2	G	9	10
2	M	9	10
2	S	9	10
2	Y	9	10
3	H	5	5
3	N	5	5
3	T	5	5
3	Z	5	5
4	D	0	19
4	J	0	20
4	P	0	21
4	V	0	20
5	E	0	1
5	K	0	1
5	Q	0	1
5	W	0	1
All	All	84	267

All (1436) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	Y	380	ILE	N-CA	38.62	2.23	1.46
2	M	380	ILE	N-CA	38.57	2.23	1.46
2	G	380	ILE	N-CA	38.49	2.23	1.46
2	S	380	ILE	N-CA	38.48	2.23	1.46
2	Y	379	HIS	CA-C	37.09	2.49	1.52
2	G	379	HIS	CA-C	37.07	2.49	1.52
2	M	379	HIS	CA-C	37.06	2.49	1.52
2	S	379	HIS	CA-C	37.00	2.49	1.52
1	X	453	TYR	CA-C	36.26	2.47	1.52
1	R	453	TYR	CA-C	36.23	2.47	1.52
1	L	453	TYR	CA-C	36.19	2.47	1.52
1	F	453	TYR	CA-C	36.17	2.47	1.52
1	L	493	HIS	CA-CB	32.70	2.25	1.53
1	F	493	HIS	CA-CB	32.67	2.25	1.53
1	X	493	HIS	CA-CB	32.62	2.25	1.53
1	R	493	HIS	CA-CB	32.58	2.25	1.53
1	R	493	HIS	CA-C	-31.41	0.71	1.52
1	X	493	HIS	CA-C	-31.41	0.71	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	F	493	HIS	CA-C	-31.39	0.71	1.52
1	L	493	HIS	CA-C	-31.35	0.71	1.52
3	Z	374	SER	CA-CB	29.11	1.96	1.52
3	H	374	SER	CA-CB	29.07	1.96	1.52
3	N	374	SER	CA-CB	28.96	1.96	1.52
3	T	374	SER	CA-CB	28.87	1.96	1.52
2	S	379	HIS	C-N	28.35	1.99	1.34
2	G	379	HIS	C-N	28.28	1.99	1.34
3	Z	411	GLU	CA-C	28.26	2.26	1.52
2	Y	379	HIS	C-N	28.20	1.99	1.34
2	M	379	HIS	C-N	28.20	1.99	1.34
3	T	411	GLU	CA-C	28.14	2.26	1.52
3	H	411	GLU	CA-C	28.13	2.26	1.52
3	N	411	GLU	CA-C	28.05	2.25	1.52
1	L	450	GLU	CA-C	24.61	2.17	1.52
1	X	450	GLU	CA-C	24.59	2.16	1.52
1	F	450	GLU	CA-C	24.58	2.16	1.52
1	R	450	GLU	CA-C	24.57	2.16	1.52
1	F	400	GLY	N-CA	24.36	1.82	1.46
1	X	400	GLY	N-CA	24.32	1.82	1.46
1	R	400	GLY	N-CA	24.29	1.82	1.46
1	L	400	GLY	N-CA	24.26	1.82	1.46
2	S	341	ALA	N-CA	23.92	1.94	1.46
2	Y	341	ALA	N-CA	23.81	1.94	1.46
2	G	341	ALA	N-CA	23.78	1.94	1.46
2	M	341	ALA	N-CA	23.74	1.93	1.46
1	X	487	ASP	CA-C	23.22	2.13	1.52
1	L	487	ASP	CA-C	23.14	2.13	1.52
1	F	487	ASP	CA-C	23.14	2.13	1.52
1	R	487	ASP	CA-C	23.13	2.13	1.52
1	F	401	TYR	N-CA	21.95	1.90	1.46
1	R	401	TYR	N-CA	21.88	1.90	1.46
1	L	401	TYR	N-CA	21.86	1.90	1.46
1	X	401	TYR	N-CA	21.85	1.90	1.46
1	R	450	GLU	C-O	21.45	1.64	1.23
1	X	450	GLU	C-O	21.39	1.64	1.23
1	F	450	GLU	C-O	21.39	1.64	1.23
1	L	450	GLU	C-O	21.31	1.63	1.23
3	T	462	GLY	CA-C	21.22	1.85	1.51
1	F	458	ASP	C-N	21.15	1.82	1.34
1	R	458	ASP	C-N	21.14	1.82	1.34
1	X	458	ASP	C-N	21.09	1.82	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	Z	462	GLY	CA-C	21.08	1.85	1.51
3	H	462	GLY	CA-C	21.06	1.85	1.51
3	N	462	GLY	CA-C	21.05	1.85	1.51
1	L	458	ASP	C-N	21.05	1.82	1.34
2	M	341	ALA	CA-CB	-19.99	1.10	1.52
2	Y	341	ALA	CA-CB	-19.95	1.10	1.52
2	G	341	ALA	CA-CB	-19.93	1.10	1.52
1	F	453	TYR	CA-CB	19.93	1.97	1.53
2	S	341	ALA	CA-CB	-19.93	1.10	1.52
1	X	453	TYR	CA-CB	19.84	1.97	1.53
1	R	453	TYR	CA-CB	19.82	1.97	1.53
1	L	453	TYR	CA-CB	19.80	1.97	1.53
1	R	451	GLU	CA-C	18.93	2.02	1.52
1	L	451	GLU	CA-C	18.91	2.02	1.52
2	Y	327	ARG	CA-C	18.91	2.02	1.52
2	G	327	ARG	CA-C	18.91	2.02	1.52
1	F	451	GLU	CA-C	18.90	2.02	1.52
1	X	451	GLU	CA-C	18.86	2.02	1.52
2	S	327	ARG	CA-C	18.86	2.02	1.52
2	M	327	ARG	CA-C	18.79	2.01	1.52
1	X	457	ALA	N-CA	-18.73	1.08	1.46
1	L	457	ALA	N-CA	-18.71	1.08	1.46
1	F	457	ALA	N-CA	-18.62	1.09	1.46
1	R	457	ALA	N-CA	-18.59	1.09	1.46
1	R	343	MET	N-CA	-18.31	1.09	1.46
1	F	343	MET	N-CA	-18.28	1.09	1.46
1	X	343	MET	N-CA	-18.24	1.09	1.46
1	L	343	MET	N-CA	-18.23	1.09	1.46
1	R	451	GLU	C-O	17.86	1.57	1.23
1	X	451	GLU	C-O	17.86	1.57	1.23
3	H	409	PRO	CA-C	17.84	1.88	1.52
1	F	451	GLU	C-O	17.81	1.57	1.23
1	L	451	GLU	C-O	17.76	1.57	1.23
3	T	409	PRO	CA-C	17.73	1.88	1.52
3	Z	409	PRO	CA-C	17.72	1.88	1.52
3	N	409	PRO	CA-C	17.69	1.88	1.52
1	L	329	GLY	N-CA	17.24	1.72	1.46
1	R	329	GLY	N-CA	17.22	1.71	1.46
1	F	329	GLY	N-CA	17.16	1.71	1.46
2	M	326	LEU	N-CA	17.15	1.80	1.46
2	Y	326	LEU	N-CA	17.14	1.80	1.46
1	X	329	GLY	N-CA	17.12	1.71	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	G	326	LEU	N-CA	17.02	1.80	1.46
2	S	326	LEU	N-CA	17.00	1.80	1.46
2	M	339	TYR	C-N	16.74	1.72	1.34
2	Y	339	TYR	C-N	16.72	1.72	1.34
2	S	339	TYR	C-N	16.71	1.72	1.34
2	G	339	TYR	C-N	16.71	1.72	1.34
1	R	458	ASP	CA-C	16.14	1.95	1.52
1	L	458	ASP	CA-C	16.11	1.94	1.52
1	F	458	ASP	CA-C	16.08	1.94	1.52
1	X	458	ASP	CA-C	16.04	1.94	1.52
2	Y	352	GLN	N-CA	-15.85	1.14	1.46
2	S	352	GLN	N-CA	-15.81	1.14	1.46
2	M	352	GLN	N-CA	-15.69	1.15	1.46
2	G	352	GLN	N-CA	-15.69	1.15	1.46
3	N	341	SER	CA-CB	-15.65	1.29	1.52
3	H	341	SER	CA-CB	-15.63	1.29	1.52
3	T	341	SER	CA-CB	-15.60	1.29	1.52
2	M	327	ARG	N-CA	15.57	1.77	1.46
1	L	492	GLU	C-N	15.56	1.69	1.34
3	Z	341	SER	CA-CB	-15.52	1.29	1.52
1	F	492	GLU	C-N	15.50	1.69	1.34
1	X	492	GLU	C-N	15.49	1.69	1.34
2	G	327	ARG	N-CA	15.49	1.77	1.46
2	Y	327	ARG	N-CA	15.47	1.77	1.46
1	R	459	LEU	C-N	-15.44	0.98	1.34
1	R	492	GLU	C-N	15.43	1.69	1.34
2	S	327	ARG	N-CA	15.41	1.77	1.46
3	H	411	GLU	C-N	15.40	1.69	1.34
1	X	459	LEU	C-N	-15.40	0.98	1.34
1	L	459	LEU	C-N	-15.40	0.98	1.34
1	F	459	LEU	C-N	-15.39	0.98	1.34
3	T	411	GLU	C-N	15.38	1.69	1.34
3	N	411	GLU	C-N	15.36	1.69	1.34
2	S	327	ARG	CA-CB	15.33	1.87	1.53
2	G	327	ARG	CA-CB	15.25	1.87	1.53
1	X	493	HIS	N-CA	15.25	1.76	1.46
2	Y	327	ARG	CA-CB	15.23	1.87	1.53
2	M	327	ARG	CA-CB	15.20	1.87	1.53
3	Z	411	GLU	C-N	15.18	1.69	1.34
1	R	493	HIS	N-CA	15.11	1.76	1.46
1	F	493	HIS	N-CA	15.10	1.76	1.46
1	R	458	ASP	CA-CB	15.08	1.87	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	X	458	ASP	CA-CB	15.08	1.87	1.53
1	R	455	ILE	C-N	-15.07	0.99	1.34
1	L	472	GLU	N-CA	15.06	1.76	1.46
2	M	379	HIS	N-CA	15.05	1.76	1.46
1	L	493	HIS	N-CA	15.05	1.76	1.46
1	F	458	ASP	CA-CB	15.03	1.87	1.53
2	Y	379	HIS	N-CA	15.02	1.76	1.46
1	X	472	GLU	N-CA	15.01	1.76	1.46
1	L	458	ASP	CA-CB	15.01	1.86	1.53
1	F	472	GLU	N-CA	15.01	1.76	1.46
2	G	379	HIS	N-CA	15.01	1.76	1.46
1	R	472	GLU	N-CA	14.99	1.76	1.46
2	S	379	HIS	N-CA	14.98	1.76	1.46
1	F	455	ILE	C-N	-14.96	0.99	1.34
1	X	455	ILE	C-N	-14.93	0.99	1.34
1	L	455	ILE	C-N	-14.93	0.99	1.34
2	S	340	ALA	N-CA	-14.71	1.17	1.46
1	R	453	TYR	N-CA	14.67	1.75	1.46
2	G	340	ALA	N-CA	-14.64	1.17	1.46
2	Y	340	ALA	N-CA	-14.64	1.17	1.46
2	M	340	ALA	N-CA	-14.62	1.17	1.46
1	L	453	TYR	N-CA	14.61	1.75	1.46
1	F	453	TYR	N-CA	14.60	1.75	1.46
1	F	457	ALA	CA-CB	14.56	1.83	1.52
1	R	457	ALA	CA-CB	14.55	1.83	1.52
1	X	457	ALA	CA-CB	14.54	1.82	1.52
1	L	453	TYR	C-O	14.53	1.50	1.23
1	X	453	TYR	N-CA	14.53	1.75	1.46
1	F	453	TYR	C-O	14.52	1.50	1.23
1	L	457	ALA	CA-CB	14.51	1.82	1.52
1	R	453	TYR	C-O	14.48	1.50	1.23
1	X	453	TYR	C-O	14.46	1.50	1.23
1	R	483	ASP	CA-CB	14.31	1.85	1.53
1	F	483	ASP	CA-CB	14.24	1.85	1.53
1	X	483	ASP	CA-CB	14.20	1.85	1.53
1	R	402	ALA	CA-C	14.20	1.89	1.52
1	L	483	ASP	CA-CB	14.15	1.85	1.53
1	F	402	ALA	CA-C	14.13	1.89	1.52
1	L	402	ALA	CA-C	14.10	1.89	1.52
3	Z	463	ALA	N-CA	14.09	1.74	1.46
1	X	402	ALA	CA-C	14.08	1.89	1.52
3	N	463	ALA	N-CA	14.06	1.74	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	H	463	ALA	N-CA	14.03	1.74	1.46
3	T	463	ALA	N-CA	14.02	1.74	1.46
2	G	378	SER	CA-C	13.90	1.89	1.52
2	M	378	SER	CA-C	13.79	1.88	1.52
2	Y	378	SER	CA-C	13.78	1.88	1.52
2	S	378	SER	CA-C	13.77	1.88	1.52
1	F	328	VAL	C-N	13.62	1.57	1.33
1	X	328	VAL	C-N	13.62	1.57	1.33
1	R	328	VAL	C-N	13.58	1.57	1.33
4	P	1508	LYS	CA-C	-13.55	1.17	1.52
4	J	1508	LYS	CA-C	-13.54	1.17	1.52
1	L	328	VAL	C-N	13.53	1.57	1.33
4	V	1508	LYS	CA-C	-13.52	1.17	1.52
4	D	1508	LYS	CA-C	-13.48	1.17	1.52
1	L	472	GLU	CA-CB	-13.45	1.24	1.53
1	X	472	GLU	CA-CB	-13.39	1.24	1.53
1	R	472	GLU	CA-CB	-13.33	1.24	1.53
1	F	472	GLU	CA-CB	-13.32	1.24	1.53
1	X	459	LEU	CA-C	13.12	1.87	1.52
1	R	459	LEU	CA-C	13.06	1.86	1.52
1	R	402	ALA	CA-CB	-13.05	1.25	1.52
1	L	402	ALA	CA-CB	-13.04	1.25	1.52
1	F	454	TYR	C-N	13.04	1.64	1.34
1	R	445	GLY	N-CA	-13.04	1.26	1.46
1	F	445	GLY	N-CA	-13.04	1.26	1.46
1	F	459	LEU	CA-C	13.04	1.86	1.52
1	X	402	ALA	CA-CB	-13.04	1.25	1.52
1	R	454	TYR	C-N	13.02	1.64	1.34
1	L	454	TYR	C-N	12.99	1.64	1.34
1	L	459	LEU	CA-C	12.99	1.86	1.52
1	X	454	TYR	C-N	12.95	1.63	1.34
1	L	445	GLY	N-CA	-12.95	1.26	1.46
1	F	402	ALA	CA-CB	-12.93	1.25	1.52
1	X	445	GLY	N-CA	-12.93	1.26	1.46
3	T	381	LYS	N-CA	12.82	1.72	1.46
3	H	381	LYS	N-CA	12.81	1.72	1.46
1	R	455	ILE	CA-CB	12.81	1.84	1.54
1	L	450	GLU	N-CA	12.79	1.72	1.46
1	R	450	GLU	N-CA	12.78	1.72	1.46
1	X	455	ILE	CA-CB	12.74	1.84	1.54
1	X	450	GLU	N-CA	12.73	1.71	1.46
1	F	450	GLU	N-CA	12.73	1.71	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	L	455	ILE	CA-CB	12.70	1.84	1.54
1	F	455	ILE	CA-CB	12.69	1.84	1.54
3	N	381	LYS	N-CA	12.69	1.71	1.46
3	Z	381	LYS	N-CA	12.66	1.71	1.46
1	F	367	THR	CA-C	12.63	1.85	1.52
2	Y	405	SER	CA-CB	-12.63	1.34	1.52
1	L	367	THR	CA-C	12.60	1.85	1.52
2	S	343	ALA	CA-C	12.59	1.85	1.52
2	S	405	SER	CA-CB	-12.58	1.34	1.52
2	Y	343	ALA	CA-C	12.56	1.85	1.52
1	R	367	THR	CA-C	12.56	1.85	1.52
2	G	405	SER	CA-CB	-12.55	1.34	1.52
2	M	343	ALA	CA-C	12.54	1.85	1.52
2	G	343	ALA	CA-C	12.51	1.85	1.52
1	X	367	THR	CA-C	12.50	1.85	1.52
2	M	405	SER	CA-CB	-12.47	1.34	1.52
2	S	344	ASP	CA-C	-12.40	1.20	1.52
3	N	413	LEU	N-CA	-12.39	1.21	1.46
3	Z	413	LEU	N-CA	-12.38	1.21	1.46
3	H	413	LEU	N-CA	-12.38	1.21	1.46
3	T	494	LEU	CA-C	-12.36	1.20	1.52
3	T	413	LEU	N-CA	-12.34	1.21	1.46
2	Y	344	ASP	CA-C	-12.34	1.20	1.52
3	H	494	LEU	CA-C	-12.33	1.20	1.52
1	X	299	ASN	CA-C	12.30	1.84	1.52
2	M	344	ASP	CA-C	-12.28	1.21	1.52
3	Z	494	LEU	CA-C	-12.26	1.21	1.52
2	G	344	ASP	CA-C	-12.25	1.21	1.52
1	L	299	ASN	CA-C	12.25	1.84	1.52
1	F	299	ASN	CA-C	12.23	1.84	1.52
3	N	494	LEU	CA-C	-12.22	1.21	1.52
1	R	299	ASN	CA-C	12.22	1.84	1.52
1	X	454	TYR	CA-C	11.96	1.84	1.52
1	L	454	TYR	CA-C	11.94	1.83	1.52
1	F	454	TYR	CA-C	11.91	1.83	1.52
1	R	454	TYR	CA-C	11.89	1.83	1.52
3	N	408	SER	CA-C	-11.84	1.22	1.52
3	H	408	SER	CA-C	-11.83	1.22	1.52
3	T	408	SER	CA-C	-11.83	1.22	1.52
3	Z	408	SER	CA-C	-11.82	1.22	1.52
3	N	497	ARG	N-CA	11.73	1.69	1.46
3	Z	497	ARG	N-CA	11.70	1.69	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	H	497	ARG	N-CA	11.70	1.69	1.46
3	T	497	ARG	N-CA	11.69	1.69	1.46
2	S	378	SER	C-N	11.66	1.60	1.34
2	Y	378	SER	C-N	11.61	1.60	1.34
2	M	378	SER	C-N	11.60	1.60	1.34
2	G	328	THR	CA-C	-11.59	1.22	1.52
2	G	378	SER	C-N	11.57	1.60	1.34
2	S	328	THR	CA-C	-11.54	1.23	1.52
3	Z	374	SER	N-CA	-11.52	1.23	1.46
3	T	374	SER	N-CA	-11.52	1.23	1.46
2	Y	328	THR	CA-C	-11.52	1.23	1.52
2	M	328	THR	CA-C	-11.48	1.23	1.52
3	H	363	ARG	CA-C	-11.42	1.23	1.52
3	T	497	ARG	CA-CB	-11.42	1.28	1.53
2	G	276	SER	CA-C	11.41	1.82	1.52
3	H	374	SER	N-CA	-11.41	1.23	1.46
1	R	456	ASP	N-CA	-11.41	1.23	1.46
3	N	374	SER	N-CA	-11.40	1.23	1.46
3	Z	497	ARG	CA-CB	-11.38	1.28	1.53
3	N	497	ARG	CA-CB	-11.38	1.28	1.53
3	T	363	ARG	CA-C	-11.37	1.23	1.52
4	V	1520	GLY	CA-C	-11.36	1.33	1.51
2	S	276	SER	CA-C	11.36	1.82	1.52
1	L	305	ASP	CA-CB	-11.35	1.28	1.53
3	H	497	ARG	CA-CB	-11.35	1.28	1.53
3	Z	363	ARG	CA-C	-11.34	1.23	1.52
1	X	456	ASP	N-CA	-11.34	1.23	1.46
1	R	305	ASP	CA-CB	-11.34	1.29	1.53
2	G	320	LYS	N-CA	-11.34	1.23	1.46
2	M	320	LYS	N-CA	-11.34	1.23	1.46
1	F	456	ASP	N-CA	-11.32	1.23	1.46
2	S	320	LYS	N-CA	-11.32	1.23	1.46
4	J	1520	GLY	CA-C	-11.31	1.33	1.51
2	Y	320	LYS	N-CA	-11.30	1.23	1.46
2	M	276	SER	CA-C	11.30	1.82	1.52
2	Y	276	SER	CA-C	11.29	1.82	1.52
3	N	363	ARG	CA-C	-11.30	1.23	1.52
1	X	447	VAL	CA-CB	11.28	1.78	1.54
4	P	1520	GLY	CA-C	-11.27	1.33	1.51
4	D	1520	GLY	CA-C	-11.26	1.33	1.51
1	X	305	ASP	CA-CB	-11.26	1.29	1.53
1	L	447	VAL	CA-CB	11.26	1.78	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	L	456	ASP	N-CA	-11.26	1.23	1.46
1	R	447	VAL	CA-CB	11.23	1.78	1.54
4	D	1520	GLY	N-CA	-11.23	1.29	1.46
1	F	305	ASP	CA-CB	-11.21	1.29	1.53
4	V	1520	GLY	N-CA	-11.16	1.29	1.46
1	F	447	VAL	CA-CB	11.15	1.78	1.54
4	P	1520	GLY	N-CA	-11.13	1.29	1.46
4	J	1517	SER	CA-C	-11.12	1.24	1.52
4	D	1517	SER	CA-C	-11.08	1.24	1.52
4	V	1517	SER	CA-C	-11.06	1.24	1.52
3	N	408	SER	C-N	-11.04	1.13	1.34
4	P	1517	SER	CA-C	-11.03	1.24	1.52
3	Z	408	SER	C-N	-10.97	1.13	1.34
3	T	408	SER	C-N	-10.96	1.13	1.34
4	J	1520	GLY	N-CA	-10.96	1.29	1.46
1	X	451	GLU	CA-CB	10.85	1.77	1.53
4	D	1542	PRO	N-CA	-10.85	1.28	1.47
4	J	1542	PRO	N-CA	-10.82	1.28	1.47
1	F	488	ILE	N-CA	10.81	1.68	1.46
3	H	408	SER	C-N	-10.80	1.13	1.34
1	R	451	GLU	CA-CB	10.79	1.77	1.53
1	F	451	GLU	CA-CB	10.77	1.77	1.53
1	R	488	ILE	N-CA	10.77	1.67	1.46
1	X	488	ILE	N-CA	10.77	1.67	1.46
1	X	335	ARG	CA-C	-10.76	1.25	1.52
4	V	1542	PRO	N-CA	-10.75	1.28	1.47
1	R	454	TYR	CA-CB	10.75	1.77	1.53
1	X	454	TYR	CA-CB	10.74	1.77	1.53
1	L	488	ILE	N-CA	10.73	1.67	1.46
4	P	1542	PRO	N-CA	-10.73	1.29	1.47
1	F	454	TYR	CA-CB	10.69	1.77	1.53
1	L	451	GLU	CA-CB	10.67	1.77	1.53
1	R	335	ARG	CA-C	-10.66	1.25	1.52
1	L	335	ARG	CA-C	-10.66	1.25	1.52
1	L	454	TYR	CA-CB	10.65	1.77	1.53
1	F	335	ARG	CA-C	-10.62	1.25	1.52
3	N	377	ARG	CA-C	-10.49	1.25	1.52
2	Y	393	TYR	N-CA	10.47	1.67	1.46
2	S	393	TYR	N-CA	10.47	1.67	1.46
1	R	464	LYS	CA-C	-10.43	1.25	1.52
3	N	462	GLY	C-N	10.42	1.58	1.34
2	M	393	TYR	N-CA	10.41	1.67	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	T	377	ARG	CA-C	-10.41	1.25	1.52
4	V	1488	GLY	CA-C	-10.39	1.35	1.51
3	H	462	GLY	C-N	10.39	1.57	1.34
2	S	313	ILE	CA-CB	-10.38	1.30	1.54
3	H	377	ARG	CA-C	-10.37	1.25	1.52
3	Z	377	ARG	CA-C	-10.36	1.26	1.52
3	Z	462	GLY	C-N	10.36	1.57	1.34
2	G	393	TYR	N-CA	10.36	1.67	1.46
2	Y	313	ILE	CA-CB	-10.35	1.31	1.54
2	G	366	GLU	CA-CB	10.35	1.76	1.53
2	M	313	ILE	CA-CB	-10.34	1.31	1.54
3	T	462	GLY	C-N	10.33	1.57	1.34
2	G	313	ILE	CA-CB	-10.32	1.31	1.54
1	X	464	LYS	CA-C	-10.30	1.26	1.52
1	L	464	LYS	CA-C	-10.30	1.26	1.52
2	Y	331	THR	CA-C	-10.30	1.26	1.52
2	M	366	GLU	CA-CB	10.29	1.76	1.53
3	N	487	TRP	N-CA	-10.29	1.25	1.46
1	F	464	LYS	CA-C	-10.29	1.26	1.52
2	M	331	THR	CA-C	-10.28	1.26	1.52
1	X	461	ARG	CA-CB	-10.27	1.31	1.53
4	D	1488	GLY	CA-C	-10.26	1.35	1.51
3	Z	487	TRP	N-CA	-10.26	1.25	1.46
1	R	461	ARG	CA-CB	-10.25	1.31	1.53
3	T	373	THR	CA-CB	-10.25	1.26	1.53
4	J	1488	GLY	CA-C	-10.25	1.35	1.51
2	S	366	GLU	CA-CB	10.25	1.76	1.53
1	F	486	GLU	CA-CB	-10.25	1.31	1.53
3	N	373	THR	CA-CB	-10.24	1.26	1.53
2	Y	366	GLU	CA-CB	10.24	1.76	1.53
1	F	461	ARG	CA-CB	-10.24	1.31	1.53
3	Z	373	THR	CA-CB	-10.23	1.26	1.53
2	G	331	THR	CA-C	-10.23	1.26	1.52
1	L	461	ARG	CA-CB	-10.23	1.31	1.53
1	R	368	SER	N-CA	10.22	1.66	1.46
2	S	331	THR	CA-C	-10.22	1.26	1.52
4	P	1488	GLY	CA-C	-10.22	1.35	1.51
3	T	487	TRP	N-CA	-10.21	1.25	1.46
1	L	461	ARG	N-CA	10.19	1.66	1.46
3	H	373	THR	CA-CB	-10.19	1.26	1.53
1	F	461	ARG	N-CA	10.16	1.66	1.46
1	X	461	ARG	N-CA	10.16	1.66	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	X	486	GLU	CA-CB	-10.15	1.31	1.53
3	H	487	TRP	N-CA	-10.14	1.26	1.46
1	X	368	SER	N-CA	10.12	1.66	1.46
1	R	486	GLU	CA-CB	-10.13	1.31	1.53
1	L	368	SER	N-CA	10.11	1.66	1.46
1	L	486	GLU	CA-CB	-10.09	1.31	1.53
1	F	368	SER	N-CA	10.08	1.66	1.46
1	R	461	ARG	N-CA	10.06	1.66	1.46
2	Y	326	LEU	CA-C	10.06	1.79	1.52
2	G	326	LEU	CA-C	10.04	1.79	1.52
2	S	326	LEU	CA-C	10.03	1.79	1.52
3	T	411	GLU	C-O	-10.02	1.04	1.23
3	H	387	LYS	CA-C	-9.99	1.26	1.52
2	M	326	LEU	CA-C	9.98	1.78	1.52
3	T	387	LYS	CA-C	-9.98	1.26	1.52
3	N	387	LYS	CA-C	-9.98	1.27	1.52
1	F	400	GLY	CA-C	-9.97	1.35	1.51
3	H	411	GLU	C-O	-9.95	1.04	1.23
3	H	490	GLN	CA-CB	9.95	1.75	1.53
3	N	490	GLN	CA-CB	9.95	1.75	1.53
1	L	400	GLY	CA-C	-9.95	1.35	1.51
3	Z	411	GLU	C-O	-9.93	1.04	1.23
2	S	327	ARG	C-N	9.92	1.56	1.34
2	G	327	ARG	C-N	9.91	1.56	1.34
3	N	411	GLU	C-O	-9.91	1.04	1.23
3	T	490	GLN	CA-CB	9.90	1.75	1.53
2	Y	327	ARG	C-N	9.90	1.56	1.34
1	R	400	GLY	CA-C	-9.89	1.36	1.51
1	X	400	GLY	CA-C	-9.89	1.36	1.51
3	Z	387	LYS	CA-C	-9.88	1.27	1.52
2	M	327	ARG	C-N	9.88	1.56	1.34
3	Z	490	GLN	CA-CB	9.88	1.75	1.53
4	D	1512	TRP	N-CA	-9.79	1.26	1.46
1	R	424	PRO	CA-C	-9.79	1.33	1.52
4	J	1512	TRP	N-CA	-9.78	1.26	1.46
1	L	424	PRO	CA-C	-9.77	1.33	1.52
4	P	1512	TRP	N-CA	-9.75	1.26	1.46
1	F	424	PRO	CA-C	-9.73	1.33	1.52
1	R	436	SER	CA-CB	9.73	1.67	1.52
4	V	1512	TRP	N-CA	-9.72	1.26	1.46
1	X	311	GLN	CA-CB	-9.70	1.32	1.53
1	X	424	PRO	CA-C	-9.69	1.33	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	L	311	GLN	CA-CB	-9.68	1.32	1.53
1	F	311	GLN	CA-CB	-9.68	1.32	1.53
1	F	436	SER	CA-CB	9.66	1.67	1.52
2	S	325	ALA	CA-C	9.66	1.78	1.52
2	M	325	ALA	CA-C	9.64	1.78	1.52
1	R	311	GLN	CA-CB	-9.64	1.32	1.53
2	G	325	ALA	CA-C	9.63	1.77	1.52
1	L	436	SER	CA-CB	9.60	1.67	1.52
2	Y	325	ALA	CA-C	9.60	1.77	1.52
3	N	490	GLN	N-CA	-9.59	1.27	1.46
3	Z	490	GLN	N-CA	-9.59	1.27	1.46
1	X	436	SER	CA-CB	9.57	1.67	1.52
3	T	490	GLN	N-CA	-9.51	1.27	1.46
3	H	490	GLN	N-CA	-9.48	1.27	1.46
1	L	311	GLN	CA-C	9.41	1.77	1.52
1	F	311	GLN	CA-C	9.40	1.77	1.52
1	X	311	GLN	CA-C	9.39	1.77	1.52
1	R	311	GLN	CA-C	9.37	1.77	1.52
1	X	367	THR	C-N	9.15	1.55	1.34
3	T	411	GLU	N-CA	9.12	1.64	1.46
3	N	411	GLU	N-CA	9.12	1.64	1.46
3	Z	411	GLU	N-CA	9.09	1.64	1.46
3	H	411	GLU	N-CA	9.06	1.64	1.46
1	R	468	LYS	CA-C	-9.06	1.29	1.52
1	X	468	LYS	CA-C	-9.05	1.29	1.52
1	L	452	ARG	C-N	9.05	1.54	1.34
1	F	468	LYS	CA-C	-9.05	1.29	1.52
3	H	388	ARG	N-CA	-9.05	1.28	1.46
1	R	367	THR	C-N	9.02	1.54	1.34
1	F	367	THR	C-N	9.02	1.54	1.34
3	N	388	ARG	N-CA	-9.02	1.28	1.46
1	X	456	ASP	CA-C	9.01	1.76	1.52
4	J	1474	GLY	CA-C	-9.01	1.37	1.51
3	H	409	PRO	CA-CB	-9.00	1.35	1.53
1	L	367	THR	C-N	9.00	1.54	1.34
1	F	452	ARG	C-N	8.99	1.54	1.34
1	X	452	ARG	C-N	8.99	1.54	1.34
1	L	468	LYS	CA-C	-8.98	1.29	1.52
1	X	471	GLN	CA-C	-8.98	1.29	1.52
3	T	409	PRO	CA-CB	-8.97	1.35	1.53
1	F	471	GLN	CA-C	-8.97	1.29	1.52
1	R	452	ARG	C-N	8.97	1.54	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	L	471	GLN	CA-C	-8.96	1.29	1.52
3	T	388	ARG	N-CA	-8.95	1.28	1.46
3	Z	388	ARG	N-CA	-8.95	1.28	1.46
1	X	452	ARG	C-O	8.94	1.40	1.23
1	R	452	ARG	C-O	8.94	1.40	1.23
3	N	409	PRO	CA-CB	-8.94	1.35	1.53
4	P	1474	GLY	CA-C	-8.93	1.37	1.51
4	D	1474	GLY	CA-C	-8.92	1.37	1.51
1	L	452	ARG	C-O	8.92	1.40	1.23
1	L	456	ASP	CA-C	8.91	1.76	1.52
3	T	408	SER	N-CA	-8.90	1.28	1.46
2	G	348	ILE	CA-CB	-8.90	1.34	1.54
1	F	452	ARG	C-O	8.89	1.40	1.23
1	F	456	ASP	CA-C	8.88	1.76	1.52
1	R	456	ASP	CA-C	8.88	1.76	1.52
1	F	487	ASP	N-CA	-8.88	1.28	1.46
3	H	408	SER	N-CA	-8.87	1.28	1.46
3	N	408	SER	N-CA	-8.85	1.28	1.46
1	R	471	GLN	CA-C	-8.84	1.29	1.52
2	Y	348	ILE	CA-CB	-8.84	1.34	1.54
3	Z	409	PRO	CA-CB	-8.84	1.35	1.53
2	M	348	ILE	CA-CB	-8.83	1.34	1.54
1	X	487	ASP	N-CA	-8.82	1.28	1.46
1	X	487	ASP	CA-CB	8.81	1.73	1.53
3	Z	408	SER	N-CA	-8.80	1.28	1.46
4	V	1474	GLY	CA-C	-8.80	1.37	1.51
1	R	487	ASP	N-CA	-8.79	1.28	1.46
3	H	356	THR	N-CA	-8.79	1.28	1.46
1	L	487	ASP	CA-CB	8.79	1.73	1.53
2	S	348	ILE	CA-CB	-8.78	1.34	1.54
1	L	328	VAL	CA-C	8.78	1.75	1.52
3	N	356	THR	N-CA	-8.78	1.28	1.46
3	Z	356	THR	N-CA	-8.77	1.28	1.46
4	V	1521	TYR	N-CA	-8.77	1.28	1.46
1	R	487	ASP	CA-CB	8.77	1.73	1.53
1	L	143	GLN	N-CA	8.77	1.63	1.46
1	F	328	VAL	CA-C	8.76	1.75	1.52
1	F	487	ASP	CA-CB	8.76	1.73	1.53
3	T	356	THR	N-CA	-8.76	1.28	1.46
1	X	328	VAL	CA-C	8.75	1.75	1.52
1	L	487	ASP	N-CA	-8.75	1.28	1.46
3	Z	468	SER	CA-CB	-8.74	1.39	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	P	1521	TYR	N-CA	-8.73	1.28	1.46
4	D	1521	TYR	N-CA	-8.73	1.28	1.46
3	T	468	SER	CA-CB	-8.72	1.39	1.52
1	R	328	VAL	CA-C	8.70	1.75	1.52
1	F	144	LEU	CA-CB	8.69	1.73	1.53
4	J	1521	TYR	N-CA	-8.68	1.28	1.46
1	F	449	SER	CA-CB	-8.67	1.40	1.52
3	T	408	SER	CA-CB	8.67	1.66	1.52
1	X	144	LEU	CA-CB	8.67	1.73	1.53
1	X	427	PHE	CA-C	-8.66	1.30	1.52
1	L	144	LEU	CA-CB	8.66	1.73	1.53
2	S	339	TYR	CA-CB	-8.66	1.34	1.53
1	R	143	GLN	N-CA	8.66	1.63	1.46
1	F	440	MET	CA-CB	-8.65	1.34	1.53
3	H	408	SER	CA-CB	8.65	1.66	1.52
1	R	440	MET	CA-CB	-8.65	1.34	1.53
1	F	427	PHE	CA-C	-8.64	1.30	1.52
1	F	143	GLN	N-CA	8.64	1.63	1.46
1	R	458	ASP	N-CA	8.63	1.63	1.46
2	G	339	TYR	CA-CB	-8.63	1.34	1.53
1	X	440	MET	CA-CB	-8.62	1.34	1.53
1	R	427	PHE	CA-C	-8.62	1.30	1.52
1	X	403	ILE	CA-CB	-8.61	1.35	1.54
1	X	458	ASP	N-CA	8.61	1.63	1.46
2	M	339	TYR	CA-CB	-8.61	1.35	1.53
3	N	468	SER	CA-CB	-8.61	1.40	1.52
1	L	440	MET	CA-CB	-8.60	1.35	1.53
2	S	329	GLN	CA-C	-8.60	1.30	1.52
2	Y	339	TYR	CA-CB	-8.59	1.35	1.53
1	R	144	LEU	CA-CB	8.58	1.73	1.53
2	G	329	GLN	CA-C	-8.58	1.30	1.52
3	H	468	SER	CA-CB	-8.57	1.40	1.52
1	L	485	LEU	N-CA	8.57	1.63	1.46
3	N	408	SER	CA-CB	8.56	1.65	1.52
1	X	143	GLN	N-CA	8.56	1.63	1.46
1	F	403	ILE	CA-CB	-8.56	1.35	1.54
1	R	403	ILE	CA-CB	-8.55	1.35	1.54
1	X	485	LEU	N-CA	8.54	1.63	1.46
2	M	329	GLN	CA-C	-8.54	1.30	1.52
2	Y	329	GLN	CA-C	-8.54	1.30	1.52
1	L	403	ILE	CA-CB	-8.54	1.35	1.54
3	Z	408	SER	CA-CB	8.53	1.65	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	F	485	LEU	N-CA	8.53	1.63	1.46
1	X	449	SER	CA-CB	-8.53	1.40	1.52
1	R	449	SER	CA-CB	-8.53	1.40	1.52
1	L	427	PHE	CA-C	-8.52	1.30	1.52
1	L	458	ASP	N-CA	8.51	1.63	1.46
3	T	445	LYS	N-CA	-8.51	1.29	1.46
1	R	492	GLU	CA-C	8.51	1.75	1.52
1	R	463	ILE	N-CA	-8.50	1.29	1.46
1	F	458	ASP	N-CA	8.50	1.63	1.46
1	L	449	SER	CA-CB	-8.50	1.40	1.52
1	F	492	GLU	CA-C	8.49	1.75	1.52
1	L	492	GLU	CA-C	8.49	1.75	1.52
3	N	445	LYS	N-CA	-8.48	1.29	1.46
1	F	463	ILE	N-CA	-8.47	1.29	1.46
1	R	485	LEU	N-CA	8.44	1.63	1.46
1	L	463	ILE	N-CA	-8.43	1.29	1.46
3	H	380	GLU	CA-CB	8.42	1.72	1.53
1	X	492	GLU	CA-C	8.41	1.74	1.52
3	Z	445	LYS	N-CA	-8.39	1.29	1.46
1	X	463	ILE	N-CA	-8.39	1.29	1.46
3	H	445	LYS	N-CA	-8.39	1.29	1.46
3	T	380	GLU	CA-CB	8.38	1.72	1.53
1	L	432	ASN	N-CA	-8.37	1.29	1.46
3	Z	380	GLU	CA-CB	8.35	1.72	1.53
1	F	432	ASN	N-CA	-8.33	1.29	1.46
3	Z	495	LEU	N-CA	-8.31	1.29	1.46
3	N	380	GLU	CA-CB	8.31	1.72	1.53
1	X	432	ASN	N-CA	-8.29	1.29	1.46
3	N	495	LEU	N-CA	-8.29	1.29	1.46
1	R	432	ASN	N-CA	-8.26	1.29	1.46
2	G	369	ASN	CA-C	-8.25	1.31	1.52
2	S	338	GLU	C-N	8.25	1.53	1.34
4	J	1488	GLY	N-CA	-8.24	1.33	1.46
3	H	495	LEU	N-CA	-8.22	1.29	1.46
2	M	338	GLU	C-N	8.22	1.52	1.34
1	X	463	ILE	CA-C	8.21	1.74	1.52
3	T	495	LEU	N-CA	-8.21	1.29	1.46
2	Y	343	ALA	CA-CB	-8.21	1.35	1.52
1	L	463	ILE	CA-C	8.20	1.74	1.52
4	P	1488	GLY	N-CA	-8.19	1.33	1.46
1	R	463	ILE	CA-C	8.16	1.74	1.52
1	R	331	LYS	CA-C	-8.15	1.31	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	Y	369	ASN	CA-C	-8.14	1.31	1.52
1	L	423	ALA	CA-C	-8.13	1.31	1.52
1	F	463	ILE	CA-C	8.13	1.74	1.52
4	J	1507	ASP	N-CA	-8.12	1.30	1.46
4	P	1507	ASP	N-CA	-8.12	1.30	1.46
2	M	369	ASN	CA-C	-8.12	1.31	1.52
2	S	369	ASN	CA-C	-8.12	1.31	1.52
2	M	343	ALA	CA-CB	-8.10	1.35	1.52
2	G	338	GLU	C-N	8.10	1.52	1.34
4	V	1488	GLY	N-CA	-8.10	1.33	1.46
4	D	1507	ASP	N-CA	-8.10	1.30	1.46
3	T	420	THR	CA-C	-8.08	1.31	1.52
1	L	331	LYS	CA-C	-8.08	1.31	1.52
1	F	423	ALA	CA-C	-8.08	1.31	1.52
1	R	423	ALA	CA-C	-8.07	1.31	1.52
2	S	343	ALA	CA-CB	-8.07	1.35	1.52
3	Z	420	THR	CA-C	-8.06	1.31	1.52
2	Y	338	GLU	C-N	8.05	1.52	1.34
3	H	420	THR	CA-C	-8.04	1.32	1.52
1	X	423	ALA	CA-C	-8.04	1.32	1.52
4	D	1488	GLY	N-CA	-8.04	1.33	1.46
1	X	331	LYS	CA-C	-8.03	1.32	1.52
2	S	333	PRO	N-CA	-8.03	1.33	1.47
2	G	343	ALA	CA-CB	-8.03	1.35	1.52
3	N	420	THR	CA-C	-8.03	1.32	1.52
1	F	331	LYS	CA-C	-8.03	1.32	1.52
1	X	484	ASP	CA-C	-8.03	1.32	1.52
2	S	352	GLN	CA-CB	8.02	1.71	1.53
4	V	1507	ASP	N-CA	-8.02	1.30	1.46
2	G	333	PRO	N-CA	-8.00	1.33	1.47
2	Y	333	PRO	N-CA	-8.00	1.33	1.47
2	M	333	PRO	N-CA	-8.00	1.33	1.47
2	G	352	GLN	CA-CB	7.99	1.71	1.53
1	L	484	ASP	CA-C	-7.99	1.32	1.52
1	R	484	ASP	CA-C	-7.99	1.32	1.52
3	N	414	VAL	CA-CB	7.97	1.71	1.54
2	S	328	THR	CA-CB	7.97	1.74	1.53
2	G	249	PRO	N-CA	7.97	1.60	1.47
1	F	484	ASP	CA-C	-7.96	1.32	1.52
1	L	449	SER	C-N	7.96	1.52	1.34
2	G	328	THR	CA-CB	7.95	1.74	1.53
2	M	249	PRO	N-CA	7.94	1.60	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	F	299	ASN	C-N	7.94	1.49	1.34
3	T	381	LYS	CA-CB	7.94	1.71	1.53
3	T	412	GLU	C-N	-7.93	1.15	1.34
4	P	1511	GLN	CA-C	-7.93	1.32	1.52
3	Z	381	LYS	CA-CB	7.93	1.71	1.53
3	H	385	ASP	CA-C	-7.93	1.32	1.52
2	S	343	ALA	N-CA	-7.93	1.30	1.46
2	Y	328	THR	CA-CB	7.93	1.74	1.53
3	T	385	ASP	CA-C	-7.93	1.32	1.52
1	L	299	ASN	C-N	7.92	1.49	1.34
2	S	249	PRO	N-CA	7.92	1.60	1.47
1	F	449	SER	C-N	7.92	1.52	1.34
1	X	449	SER	C-N	7.92	1.52	1.34
4	J	1511	GLN	CA-C	-7.92	1.32	1.52
2	Y	249	PRO	N-CA	7.91	1.60	1.47
2	G	343	ALA	N-CA	-7.91	1.30	1.46
4	D	1511	GLN	CA-C	-7.90	1.32	1.52
3	N	385	ASP	CA-C	-7.90	1.32	1.52
3	T	487	TRP	CA-C	-7.89	1.32	1.52
3	Z	414	VAL	CA-CB	7.89	1.71	1.54
1	R	452	ARG	CA-C	7.89	1.73	1.52
1	F	452	ARG	CA-C	7.88	1.73	1.52
1	R	299	ASN	C-N	7.88	1.49	1.34
1	X	452	ARG	CA-C	7.88	1.73	1.52
2	M	343	ALA	N-CA	-7.88	1.30	1.46
1	R	449	SER	C-N	7.87	1.52	1.34
3	Z	385	ASP	CA-C	-7.86	1.32	1.52
3	H	414	VAL	CA-CB	7.86	1.71	1.54
3	Z	412	GLU	C-N	-7.86	1.16	1.34
3	H	487	TRP	CA-C	-7.86	1.32	1.52
2	M	352	GLN	CA-CB	7.85	1.71	1.53
2	Y	352	GLN	CA-CB	7.85	1.71	1.53
1	X	299	ASN	C-N	7.84	1.49	1.34
1	L	452	ARG	CA-C	7.84	1.73	1.52
2	G	313	ILE	N-CA	7.84	1.62	1.46
2	M	328	THR	CA-CB	7.83	1.73	1.53
4	V	1511	GLN	CA-C	-7.83	1.32	1.52
2	Y	313	ILE	N-CA	7.81	1.61	1.46
3	T	414	VAL	CA-CB	7.81	1.71	1.54
1	R	144	LEU	N-CA	-7.81	1.30	1.46
2	Y	343	ALA	N-CA	-7.80	1.30	1.46
1	L	144	LEU	N-CA	-7.79	1.30	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	S	313	ILE	N-CA	7.79	1.61	1.46
1	F	144	LEU	N-CA	-7.79	1.30	1.46
1	X	144	LEU	N-CA	-7.79	1.30	1.46
1	L	485	LEU	CA-CB	-7.78	1.35	1.53
3	H	412	GLU	C-N	-7.78	1.16	1.34
3	N	487	TRP	CA-C	-7.77	1.32	1.52
3	N	381	LYS	CA-CB	7.77	1.71	1.53
3	N	412	GLU	C-N	-7.77	1.16	1.34
3	Z	487	TRP	CA-C	-7.77	1.32	1.52
3	Z	410	LEU	C-N	7.76	1.51	1.34
3	N	410	LEU	C-N	7.75	1.51	1.34
3	H	381	LYS	CA-CB	7.74	1.71	1.53
3	H	410	LEU	C-N	7.71	1.51	1.34
1	R	448	ARG	N-CA	7.69	1.61	1.46
3	T	402	GLU	CA-C	-7.69	1.32	1.52
1	F	306	PRO	CA-C	7.69	1.68	1.52
3	H	402	GLU	CA-C	-7.69	1.32	1.52
1	R	306	PRO	CA-C	7.69	1.68	1.52
1	R	485	LEU	CA-CB	-7.68	1.36	1.53
1	X	485	LEU	CA-CB	-7.67	1.36	1.53
1	L	448	ARG	N-CA	7.67	1.61	1.46
1	L	306	PRO	CA-C	7.67	1.68	1.52
1	F	485	LEU	CA-CB	-7.66	1.36	1.53
3	N	402	GLU	CA-C	-7.64	1.33	1.52
3	Z	335	SER	CA-C	-7.64	1.33	1.52
3	H	335	SER	CA-C	-7.63	1.33	1.52
1	X	306	PRO	CA-C	7.63	1.68	1.52
2	M	313	ILE	N-CA	7.63	1.61	1.46
3	T	410	LEU	C-N	7.62	1.51	1.34
3	H	370	GLU	CA-CB	-7.61	1.37	1.53
3	T	335	SER	CA-C	-7.61	1.33	1.52
3	T	446	ARG	CA-CB	-7.61	1.37	1.53
4	D	1489	HIS	N-CA	-7.61	1.31	1.46
3	Z	370	GLU	CA-CB	-7.60	1.37	1.53
2	S	340	ALA	CA-C	7.60	1.72	1.52
3	T	370	GLU	CA-CB	-7.60	1.37	1.53
4	P	1542	PRO	CA-C	7.60	1.68	1.52
3	Z	402	GLU	CA-C	-7.59	1.33	1.52
3	N	335	SER	CA-C	-7.59	1.33	1.52
2	M	340	ALA	CA-C	7.59	1.72	1.52
3	Z	446	ARG	CA-CB	-7.58	1.37	1.53
1	L	321	LYS	N-CA	-7.58	1.31	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	L	420	GLU	CA-C	-7.57	1.33	1.52
2	G	340	ALA	CA-C	7.57	1.72	1.52
2	Y	340	ALA	CA-C	7.56	1.72	1.52
4	D	1542	PRO	CA-C	7.56	1.68	1.52
1	F	448	ARG	N-CA	7.56	1.61	1.46
1	X	321	LYS	N-CA	-7.56	1.31	1.46
2	S	346	PHE	CA-C	-7.56	1.33	1.52
1	X	448	ARG	N-CA	7.55	1.61	1.46
2	Y	401	ALA	CA-CB	-7.55	1.36	1.52
3	N	370	GLU	CA-CB	-7.54	1.37	1.53
1	F	321	LYS	N-CA	-7.54	1.31	1.46
2	G	346	PHE	CA-C	-7.54	1.33	1.52
1	R	321	LYS	N-CA	-7.53	1.31	1.46
2	S	377	ASN	N-CA	-7.53	1.31	1.46
2	M	346	PHE	CA-C	-7.53	1.33	1.52
2	Y	346	PHE	CA-C	-7.52	1.33	1.52
1	R	420	GLU	CA-C	-7.52	1.33	1.52
2	S	401	ALA	CA-CB	-7.52	1.36	1.52
4	V	1489	HIS	N-CA	-7.51	1.31	1.46
1	L	450	GLU	CA-CB	-7.51	1.37	1.53
1	X	420	GLU	CA-C	-7.50	1.33	1.52
1	F	420	GLU	CA-C	-7.50	1.33	1.52
3	H	446	ARG	CA-CB	-7.50	1.37	1.53
1	X	444	PHE	CA-C	7.50	1.72	1.52
2	M	341	ALA	CA-C	7.49	1.72	1.52
4	V	1542	PRO	CA-C	7.49	1.67	1.52
2	G	341	ALA	CA-C	7.48	1.72	1.52
2	G	377	ASN	N-CA	-7.48	1.31	1.46
2	S	341	ALA	CA-C	7.48	1.72	1.52
3	N	446	ARG	CA-CB	-7.47	1.37	1.53
3	H	394	ASP	CA-C	-7.47	1.33	1.52
2	M	401	ALA	CA-CB	-7.46	1.36	1.52
2	Y	377	ASN	N-CA	-7.46	1.31	1.46
1	R	450	GLU	CA-CB	-7.46	1.37	1.53
1	X	450	GLU	CA-CB	-7.46	1.37	1.53
2	M	377	ASN	N-CA	-7.45	1.31	1.46
1	R	444	PHE	CA-C	7.43	1.72	1.52
2	G	401	ALA	CA-CB	-7.43	1.36	1.52
4	P	1489	HIS	N-CA	-7.43	1.31	1.46
1	F	450	GLU	CA-CB	-7.42	1.37	1.53
4	J	1542	PRO	CA-C	7.42	1.67	1.52
1	F	444	PHE	CA-C	7.42	1.72	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	Y	341	ALA	CA-C	7.40	1.72	1.52
3	N	394	ASP	CA-C	-7.39	1.33	1.52
3	T	394	ASP	CA-C	-7.39	1.33	1.52
1	R	349	THR	CA-C	-7.39	1.33	1.52
1	L	349	THR	CA-C	-7.39	1.33	1.52
3	Z	394	ASP	CA-C	-7.38	1.33	1.52
1	F	349	THR	CA-C	-7.38	1.33	1.52
4	J	1489	HIS	N-CA	-7.38	1.31	1.46
1	X	349	THR	CA-C	-7.38	1.33	1.52
1	R	446	ALA	CA-CB	7.37	1.68	1.52
1	L	429	GLY	CA-C	-7.37	1.40	1.51
1	L	444	PHE	CA-C	7.36	1.72	1.52
1	L	405	ALA	CA-CB	7.36	1.67	1.52
1	R	405	ALA	CA-CB	7.35	1.67	1.52
1	F	429	GLY	CA-C	-7.35	1.40	1.51
1	X	429	GLY	CA-C	-7.33	1.40	1.51
2	Y	340	ALA	C-O	-7.33	1.09	1.23
2	G	340	ALA	C-O	-7.33	1.09	1.23
2	S	340	ALA	C-O	-7.33	1.09	1.23
3	T	392	GLU	N-CA	7.33	1.61	1.46
3	N	392	GLU	N-CA	7.32	1.60	1.46
1	F	405	ALA	CA-CB	7.32	1.67	1.52
3	Z	392	GLU	N-CA	7.30	1.60	1.46
3	T	414	VAL	CA-C	7.30	1.72	1.52
1	X	446	ALA	CA-CB	7.29	1.67	1.52
1	R	429	GLY	CA-C	-7.29	1.40	1.51
3	N	414	VAL	CA-C	7.28	1.71	1.52
2	S	248	PRO	CA-CB	7.28	1.68	1.53
4	J	1511	GLN	N-CA	-7.28	1.31	1.46
1	X	405	ALA	CA-CB	7.27	1.67	1.52
2	M	248	PRO	CA-CB	7.26	1.68	1.53
1	L	446	ALA	CA-CB	7.26	1.67	1.52
3	H	392	GLU	N-CA	7.25	1.60	1.46
2	M	340	ALA	C-O	-7.25	1.09	1.23
3	H	414	VAL	CA-C	7.25	1.71	1.52
3	Z	414	VAL	CA-C	7.24	1.71	1.52
2	S	334	GLY	CA-C	7.24	1.63	1.51
1	F	439	ARG	N-CA	-7.23	1.31	1.46
4	V	1485	ALA	CA-C	-7.23	1.34	1.52
1	F	446	ALA	CA-CB	7.22	1.67	1.52
1	R	435	MET	CA-C	7.22	1.71	1.52
1	L	439	ARG	N-CA	-7.21	1.31	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	J	1485	ALA	CA-C	-7.21	1.34	1.52
1	R	439	ARG	N-CA	-7.21	1.31	1.46
2	Y	277	SER	N-CA	7.20	1.60	1.46
1	X	435	MET	CA-C	7.19	1.71	1.52
2	M	277	SER	N-CA	7.19	1.60	1.46
1	F	435	MET	CA-C	7.19	1.71	1.52
1	X	439	ARG	N-CA	-7.19	1.31	1.46
2	Y	248	PRO	CA-CB	7.18	1.68	1.53
1	L	435	MET	CA-C	7.18	1.71	1.52
2	G	248	PRO	CA-CB	7.16	1.67	1.53
2	G	277	SER	N-CA	7.16	1.60	1.46
2	G	330	LYS	CA-CB	-7.16	1.38	1.53
4	V	1511	GLN	N-CA	-7.14	1.32	1.46
1	F	320	GLU	CA-CB	-7.14	1.38	1.53
2	S	277	SER	N-CA	7.13	1.60	1.46
4	D	1485	ALA	CA-C	-7.12	1.34	1.52
4	D	1511	GLN	N-CA	-7.11	1.32	1.46
2	Y	330	LYS	CA-CB	-7.10	1.38	1.53
4	P	1485	ALA	CA-C	-7.09	1.34	1.52
3	Z	491	ASN	N-CA	-7.09	1.32	1.46
1	R	320	GLU	CA-CB	-7.08	1.38	1.53
2	M	361	ARG	N-CA	7.07	1.60	1.46
2	Y	334	GLY	CA-C	7.07	1.63	1.51
2	Y	329	GLN	N-CA	-7.06	1.32	1.46
1	L	320	GLU	CA-CB	-7.06	1.38	1.53
4	P	1511	GLN	N-CA	-7.06	1.32	1.46
1	X	320	GLU	CA-CB	-7.06	1.38	1.53
2	G	334	GLY	CA-C	7.04	1.63	1.51
2	M	334	GLY	CA-C	7.04	1.63	1.51
4	P	1450	GLU	N-CA	-7.04	1.32	1.46
2	M	322	ALA	CA-CB	7.04	1.67	1.52
2	M	330	LYS	CA-CB	-7.04	1.38	1.53
2	S	330	LYS	CA-CB	-7.03	1.38	1.53
4	J	1450	GLU	N-CA	-7.03	1.32	1.46
2	G	329	GLN	N-CA	-7.02	1.32	1.46
2	M	329	GLN	N-CA	-7.02	1.32	1.46
1	F	428	LYS	CA-C	-7.01	1.34	1.52
2	G	361	ARG	N-CA	7.01	1.60	1.46
2	Y	322	ALA	CA-CB	7.01	1.67	1.52
2	S	361	ARG	N-CA	7.01	1.60	1.46
1	X	457	ALA	CA-C	7.00	1.71	1.52
1	F	457	ALA	CA-C	6.99	1.71	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	F	452	ARG	CA-CB	6.99	1.69	1.53
2	Y	361	ARG	N-CA	6.99	1.60	1.46
1	X	452	ARG	CA-CB	6.97	1.69	1.53
3	T	490	GLN	CA-C	6.96	1.71	1.52
3	N	491	ASN	N-CA	-6.96	1.32	1.46
1	X	428	LYS	CA-C	-6.96	1.34	1.52
3	N	490	GLN	CA-C	6.96	1.71	1.52
3	T	491	ASN	N-CA	-6.95	1.32	1.46
2	Y	332	PRO	CA-CB	6.95	1.67	1.53
1	R	452	ARG	CA-CB	6.95	1.69	1.53
2	S	329	GLN	N-CA	-6.95	1.32	1.46
4	D	1450	GLU	N-CA	-6.95	1.32	1.46
1	L	429	GLY	N-CA	-6.94	1.35	1.46
1	R	454	TYR	C-O	6.94	1.36	1.23
3	H	490	GLN	CA-C	6.94	1.71	1.52
1	R	428	LYS	CA-C	-6.94	1.34	1.52
1	R	457	ALA	CA-C	6.93	1.71	1.52
1	L	457	ALA	CA-C	6.92	1.71	1.52
2	S	332	PRO	CA-CB	6.92	1.67	1.53
1	L	428	LYS	CA-C	-6.92	1.34	1.52
4	V	1450	GLU	N-CA	-6.91	1.32	1.46
3	Z	490	GLN	CA-C	6.91	1.71	1.52
2	G	322	ALA	CA-CB	6.91	1.67	1.52
3	N	412	GLU	CA-C	-6.90	1.35	1.52
1	L	452	ARG	CA-CB	6.90	1.69	1.53
1	F	454	TYR	C-O	6.89	1.36	1.23
3	H	491	ASN	N-CA	-6.89	1.32	1.46
2	S	264	GLU	N-CA	6.89	1.60	1.46
4	D	1546	LEU	CA-C	-6.88	1.35	1.52
2	G	324	ILE	C-O	6.88	1.36	1.23
1	F	320	GLU	N-CA	6.87	1.60	1.46
2	Y	324	ILE	C-O	6.86	1.36	1.23
3	T	416	GLU	CA-C	-6.86	1.35	1.52
2	G	332	PRO	CA-CB	6.86	1.67	1.53
2	G	341	ALA	C-O	-6.85	1.10	1.23
3	T	412	GLU	CA-C	-6.84	1.35	1.52
3	Z	412	GLU	CA-C	-6.84	1.35	1.52
4	J	1546	LEU	CA-C	-6.84	1.35	1.52
1	X	454	TYR	C-O	6.84	1.36	1.23
2	Y	264	GLU	N-CA	6.84	1.60	1.46
1	F	429	GLY	N-CA	-6.83	1.35	1.46
3	H	412	GLU	CA-C	-6.83	1.35	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	N	487	TRP	CA-CB	6.83	1.69	1.53
4	P	1489	HIS	CA-CB	6.82	1.69	1.53
2	M	332	PRO	CA-CB	6.82	1.67	1.53
1	R	429	GLY	N-CA	-6.82	1.35	1.46
2	S	322	ALA	CA-CB	6.81	1.66	1.52
4	V	1546	LEU	CA-C	-6.81	1.35	1.52
3	T	487	TRP	CA-CB	6.81	1.69	1.53
1	L	454	TYR	C-O	6.80	1.36	1.23
1	L	320	GLU	N-CA	6.80	1.59	1.46
3	N	416	GLU	CA-C	-6.79	1.35	1.52
3	Z	416	GLU	CA-C	-6.79	1.35	1.52
1	L	459	LEU	CA-CB	6.79	1.69	1.53
1	X	459	LEU	CA-CB	6.79	1.69	1.53
4	P	1546	LEU	CA-C	-6.79	1.35	1.52
2	S	324	ILE	C-O	6.78	1.36	1.23
1	X	320	GLU	N-CA	6.77	1.59	1.46
2	G	264	GLU	N-CA	6.77	1.59	1.46
1	X	450	GLU	C-N	6.77	1.49	1.34
1	L	450	GLU	C-N	6.77	1.49	1.34
4	V	1519	SER	N-CA	-6.77	1.32	1.46
4	D	1489	HIS	CA-CB	6.77	1.68	1.53
1	R	459	LEU	CA-CB	6.76	1.69	1.53
3	H	487	TRP	CA-CB	6.76	1.68	1.53
1	F	459	LEU	CA-CB	6.76	1.69	1.53
2	M	264	GLU	N-CA	6.76	1.59	1.46
1	X	303	GLY	CA-C	6.75	1.62	1.51
3	H	416	GLU	CA-C	-6.75	1.35	1.52
2	M	324	ILE	C-O	6.75	1.36	1.23
4	P	1519	SER	N-CA	-6.75	1.32	1.46
1	F	450	GLU	C-N	6.74	1.49	1.34
4	V	1489	HIS	CA-CB	6.74	1.68	1.53
3	T	402	GLU	CA-CB	-6.74	1.39	1.53
4	D	1519	SER	N-CA	-6.74	1.32	1.46
4	J	1489	HIS	CA-CB	6.74	1.68	1.53
1	X	429	GLY	N-CA	-6.74	1.35	1.46
2	M	341	ALA	C-O	-6.73	1.10	1.23
2	Y	341	ALA	C-O	-6.72	1.10	1.23
3	H	402	GLU	CA-CB	-6.72	1.39	1.53
1	R	450	GLU	C-N	6.72	1.49	1.34
3	Z	487	TRP	CA-CB	6.71	1.68	1.53
4	V	1510	GLN	N-CA	-6.70	1.32	1.46
3	T	391	GLN	C-N	6.70	1.49	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	J	1519	SER	N-CA	-6.69	1.32	1.46
3	N	415	LYS	N-CA	6.69	1.59	1.46
3	T	415	LYS	N-CA	6.69	1.59	1.46
2	S	341	ALA	C-O	-6.69	1.10	1.23
3	T	493	ALA	CA-C	6.68	1.70	1.52
1	R	320	GLU	N-CA	6.68	1.59	1.46
3	N	391	GLN	C-N	6.68	1.49	1.34
3	Z	402	GLU	CA-CB	-6.67	1.39	1.53
3	Z	415	LYS	N-CA	6.66	1.59	1.46
3	H	391	GLN	C-N	6.66	1.49	1.34
2	M	366	GLU	CA-C	-6.66	1.35	1.52
3	H	415	LYS	N-CA	6.66	1.59	1.46
3	N	402	GLU	CA-CB	-6.66	1.39	1.53
3	Z	493	ALA	CA-C	6.65	1.70	1.52
3	T	453	ASP	CA-CB	6.65	1.68	1.53
1	F	303	GLY	CA-C	6.64	1.62	1.51
1	R	303	GLY	CA-C	6.63	1.62	1.51
3	Z	391	GLN	C-N	6.63	1.49	1.34
1	R	335	ARG	CA-CB	6.62	1.68	1.53
3	H	493	ALA	CA-C	6.62	1.70	1.52
2	G	342	PRO	CA-CB	6.61	1.66	1.53
1	F	335	ARG	CA-CB	6.61	1.68	1.53
3	Z	453	ASP	CA-CB	6.60	1.68	1.53
3	H	453	ASP	CA-CB	6.60	1.68	1.53
4	V	1509	GLN	N-CA	-6.59	1.33	1.46
2	Y	366	GLU	CA-C	-6.59	1.35	1.52
3	N	493	ALA	CA-C	6.59	1.70	1.52
3	N	453	ASP	CA-CB	6.59	1.68	1.53
2	M	342	PRO	CA-CB	6.59	1.66	1.53
1	X	335	ARG	CA-CB	6.58	1.68	1.53
4	P	1510	GLN	N-CA	-6.58	1.33	1.46
1	L	303	GLY	CA-C	6.58	1.62	1.51
2	M	252	CYS	CA-CB	6.58	1.68	1.53
2	S	366	GLU	CA-C	-6.57	1.35	1.52
4	D	1509	GLN	N-CA	-6.57	1.33	1.46
2	Y	252	CYS	CA-CB	6.57	1.68	1.53
2	Y	342	PRO	CA-CB	6.56	1.66	1.53
2	G	252	CYS	CA-CB	6.55	1.68	1.53
4	V	1541	THR	C-N	-6.55	1.21	1.34
2	G	366	GLU	CA-C	-6.55	1.35	1.52
2	S	252	CYS	CA-CB	6.54	1.68	1.53
3	T	409	PRO	C-N	6.53	1.49	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	J	1509	GLN	N-CA	-6.53	1.33	1.46
2	S	342	PRO	CA-CB	6.52	1.66	1.53
4	D	1510	GLN	N-CA	-6.52	1.33	1.46
3	N	409	PRO	C-N	6.52	1.49	1.34
4	J	1510	GLN	N-CA	-6.51	1.33	1.46
1	L	335	ARG	CA-CB	6.51	1.68	1.53
1	R	419	GLY	N-CA	6.50	1.55	1.46
4	P	1509	GLN	N-CA	-6.50	1.33	1.46
1	X	422	ASN	CA-C	-6.48	1.36	1.52
1	X	426	GLN	CA-C	-6.48	1.36	1.52
4	J	1541	THR	C-N	-6.48	1.22	1.34
1	X	343	MET	CA-C	6.47	1.69	1.52
4	V	1547	LEU	N-CA	-6.47	1.33	1.46
1	X	449	SER	C-O	6.47	1.35	1.23
1	R	343	MET	CA-C	6.47	1.69	1.52
3	Z	409	PRO	C-N	6.47	1.49	1.34
1	L	343	MET	CA-C	6.47	1.69	1.52
1	L	456	ASP	C-N	6.47	1.49	1.34
1	L	423	ALA	N-CA	-6.46	1.33	1.46
4	P	1541	THR	C-N	-6.46	1.22	1.34
4	V	1516	LEU	CA-C	-6.46	1.36	1.52
1	X	456	ASP	C-N	6.45	1.48	1.34
1	F	449	SER	C-O	6.45	1.35	1.23
1	X	419	GLY	N-CA	6.44	1.55	1.46
1	R	449	SER	C-O	6.44	1.35	1.23
2	S	254	ASP	N-CA	-6.44	1.33	1.46
1	L	422	ASN	CA-C	-6.43	1.36	1.52
3	H	409	PRO	C-N	6.43	1.48	1.34
1	R	426	GLN	CA-C	-6.43	1.36	1.52
4	J	1547	LEU	N-CA	-6.43	1.33	1.46
3	N	488	ILE	N-CA	-6.42	1.33	1.46
1	L	426	GLN	CA-C	-6.42	1.36	1.52
4	P	1547	LEU	N-CA	-6.42	1.33	1.46
1	L	419	GLY	N-CA	6.41	1.55	1.46
1	F	343	MET	CA-C	6.41	1.69	1.52
1	R	422	ASN	CA-C	-6.41	1.36	1.52
4	D	1541	THR	C-N	-6.41	1.22	1.34
1	F	426	GLN	CA-C	-6.40	1.36	1.52
3	T	488	ILE	N-CA	-6.40	1.33	1.46
1	F	422	ASN	CA-C	-6.40	1.36	1.52
1	F	419	GLY	N-CA	6.40	1.55	1.46
4	D	1547	LEU	N-CA	-6.37	1.33	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	R	423	ALA	N-CA	-6.37	1.33	1.46
1	X	423	ALA	N-CA	-6.37	1.33	1.46
2	Y	254	ASP	N-CA	-6.37	1.33	1.46
1	F	423	ALA	N-CA	-6.36	1.33	1.46
3	Z	488	ILE	N-CA	-6.36	1.33	1.46
1	F	307	ILE	N-CA	6.35	1.59	1.46
3	H	488	ILE	N-CA	-6.34	1.33	1.46
2	G	254	ASP	N-CA	-6.34	1.33	1.46
1	L	443	HIS	CA-CB	-6.34	1.40	1.53
1	R	307	ILE	N-CA	6.34	1.59	1.46
3	T	370	GLU	CA-C	6.33	1.69	1.52
3	N	370	GLU	CA-C	6.32	1.69	1.52
1	F	425	THR	N-CA	-6.32	1.33	1.46
3	Z	370	GLU	CA-C	6.32	1.69	1.52
1	R	456	ASP	C-N	6.32	1.48	1.34
4	J	1516	LEU	CA-C	-6.31	1.36	1.52
3	H	370	GLU	CA-C	6.31	1.69	1.52
4	P	1516	LEU	CA-C	-6.31	1.36	1.52
1	F	456	ASP	C-N	6.31	1.48	1.34
4	V	1512	TRP	CA-C	-6.31	1.36	1.52
2	M	254	ASP	N-CA	-6.30	1.33	1.46
1	X	300	PRO	N-CA	6.30	1.57	1.47
2	Y	340	ALA	C-N	6.30	1.48	1.34
1	R	443	HIS	CA-CB	-6.30	1.40	1.53
1	X	307	ILE	N-CA	6.28	1.58	1.46
1	F	443	HIS	CA-CB	-6.28	1.40	1.53
2	M	340	ALA	C-N	6.28	1.48	1.34
1	F	300	PRO	N-CA	6.27	1.57	1.47
1	L	307	ILE	N-CA	6.27	1.58	1.46
2	S	340	ALA	C-N	6.26	1.48	1.34
4	D	1512	TRP	CA-C	-6.26	1.36	1.52
4	D	1516	LEU	CA-C	-6.26	1.36	1.52
2	G	340	ALA	C-N	6.26	1.48	1.34
1	X	465	GLN	CA-CB	6.26	1.67	1.53
4	P	1512	TRP	CA-C	-6.25	1.36	1.52
1	L	300	PRO	N-CA	6.24	1.57	1.47
1	X	449	SER	N-CA	6.24	1.58	1.46
1	R	300	PRO	N-CA	6.23	1.57	1.47
2	G	393	TYR	CA-C	6.22	1.69	1.52
1	L	449	SER	C-O	6.22	1.35	1.23
1	X	443	HIS	CA-CB	-6.22	1.40	1.53
3	H	497	ARG	CA-C	-6.21	1.36	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	L	465	GLN	CA-CB	6.21	1.67	1.53
1	L	483	ASP	N-CA	-6.21	1.33	1.46
1	X	425	THR	N-CA	-6.20	1.33	1.46
3	T	497	ARG	CA-C	-6.20	1.36	1.52
4	D	1475	ALA	N-CA	-6.20	1.33	1.46
2	S	380	ILE	C-N	6.19	1.48	1.34
2	Y	393	TYR	CA-C	6.19	1.69	1.52
1	F	436	SER	C-O	6.18	1.35	1.23
1	X	483	ASP	N-CA	-6.18	1.33	1.46
1	R	449	SER	N-CA	6.18	1.58	1.46
2	S	393	TYR	CA-C	6.18	1.69	1.52
4	J	1544	PRO	CA-C	6.18	1.65	1.52
2	M	393	TYR	CA-C	6.17	1.69	1.52
4	J	1512	TRP	CA-C	-6.17	1.36	1.52
2	M	380	ILE	C-N	6.17	1.48	1.34
1	R	436	SER	C-O	6.17	1.35	1.23
4	P	1544	PRO	CA-C	6.17	1.65	1.52
1	F	449	SER	N-CA	6.16	1.58	1.46
1	F	483	ASP	N-CA	-6.16	1.34	1.46
3	N	497	ARG	CA-C	-6.16	1.36	1.52
4	D	1544	PRO	CA-C	6.16	1.65	1.52
3	Z	497	ARG	CA-C	-6.15	1.36	1.52
1	L	449	SER	N-CA	6.15	1.58	1.46
2	M	338	GLU	CA-C	-6.15	1.36	1.52
1	F	404	GLN	CA-CB	6.15	1.67	1.53
1	F	465	GLN	CA-CB	6.15	1.67	1.53
2	S	338	GLU	CA-C	-6.15	1.36	1.52
1	R	425	THR	N-CA	-6.15	1.34	1.46
4	V	1475	ALA	N-CA	-6.15	1.34	1.46
1	R	483	ASP	N-CA	-6.14	1.34	1.46
2	G	380	ILE	C-N	6.14	1.48	1.34
2	Y	380	ILE	C-N	6.14	1.48	1.34
1	R	465	GLN	CA-CB	6.14	1.67	1.53
1	L	425	THR	N-CA	-6.13	1.34	1.46
4	P	1475	ALA	N-CA	-6.13	1.34	1.46
4	V	1544	PRO	CA-C	6.13	1.65	1.52
1	L	305	ASP	C-N	-6.13	1.22	1.34
4	J	1475	ALA	N-CA	-6.13	1.34	1.46
3	T	494	LEU	CA-CB	6.12	1.67	1.53
1	L	404	GLN	CA-CB	6.11	1.67	1.53
1	L	436	SER	C-O	6.11	1.34	1.23
1	R	404	GLN	CA-CB	6.11	1.67	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	Z	494	LEU	CA-CB	6.10	1.67	1.53
4	V	1451	ARG	CA-C	-6.10	1.37	1.52
1	R	305	ASP	C-N	-6.10	1.22	1.34
1	X	404	GLN	CA-CB	6.09	1.67	1.53
3	H	371	LYS	N-CA	-6.09	1.34	1.46
2	Y	338	GLU	CA-C	-6.09	1.37	1.52
2	G	338	GLU	CA-C	-6.08	1.37	1.52
1	X	436	SER	C-O	6.08	1.34	1.23
3	Z	371	LYS	N-CA	-6.08	1.34	1.46
1	L	405	ALA	N-CA	-6.08	1.34	1.46
2	S	276	SER	N-CA	6.06	1.58	1.46
3	H	391	GLN	CA-C	6.06	1.68	1.52
2	G	276	SER	N-CA	6.06	1.58	1.46
2	Y	276	SER	N-CA	6.05	1.58	1.46
3	N	494	LEU	CA-CB	6.05	1.67	1.53
4	P	1451	ARG	CA-C	-6.05	1.37	1.52
4	V	1543	GLN	C-N	-6.05	1.22	1.34
4	J	1451	ARG	CA-C	-6.04	1.37	1.52
1	R	405	ALA	N-CA	-6.03	1.34	1.46
1	F	408	GLU	CA-CB	6.03	1.67	1.53
3	N	371	LYS	N-CA	-6.03	1.34	1.46
4	D	1451	ARG	CA-C	-6.02	1.37	1.52
3	Z	353	GLN	CA-CB	6.02	1.67	1.53
2	M	276	SER	N-CA	6.02	1.58	1.46
3	T	353	GLN	CA-CB	6.01	1.67	1.53
3	T	366	ILE	N-CA	-6.01	1.34	1.46
1	F	305	ASP	C-N	-6.00	1.22	1.34
3	Z	391	GLN	CA-C	6.00	1.68	1.52
1	F	405	ALA	N-CA	-5.99	1.34	1.46
3	T	391	GLN	CA-C	5.99	1.68	1.52
4	P	1543	GLN	C-N	-5.99	1.22	1.34
1	R	428	LYS	N-CA	-5.99	1.34	1.46
4	P	1521	TYR	CA-C	-5.99	1.37	1.52
1	X	305	ASP	C-N	-5.99	1.22	1.34
1	R	401	TYR	CA-CB	5.98	1.67	1.53
1	R	408	GLU	CA-CB	5.98	1.67	1.53
3	N	366	ILE	N-CA	-5.98	1.34	1.46
4	J	1521	TYR	CA-C	-5.97	1.37	1.52
1	X	405	ALA	N-CA	-5.97	1.34	1.46
1	X	408	GLU	CA-CB	5.97	1.67	1.53
3	H	494	LEU	CA-CB	5.97	1.67	1.53
3	T	366	ILE	CA-CB	-5.97	1.41	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	T	371	LYS	N-CA	-5.96	1.34	1.46
1	F	428	LYS	N-CA	-5.96	1.34	1.46
3	N	353	GLN	CA-CB	5.95	1.67	1.53
3	H	366	ILE	CA-CB	-5.94	1.41	1.54
3	N	366	ILE	CA-CB	-5.94	1.41	1.54
1	X	401	TYR	CA-CB	5.94	1.67	1.53
1	L	428	LYS	N-CA	-5.94	1.34	1.46
3	N	391	GLN	CA-C	5.94	1.68	1.52
1	L	408	GLU	CA-CB	5.93	1.67	1.53
3	T	388	ARG	CA-C	-5.93	1.37	1.52
1	F	401	TYR	CA-CB	5.93	1.67	1.53
4	V	1521	TYR	CA-C	-5.93	1.37	1.52
1	X	428	LYS	N-CA	-5.92	1.34	1.46
4	J	1543	GLN	C-N	-5.91	1.23	1.34
3	Z	366	ILE	CA-CB	-5.91	1.41	1.54
3	H	366	ILE	N-CA	-5.91	1.34	1.46
1	L	401	TYR	CA-CB	5.90	1.67	1.53
2	S	404	GLN	CA-C	-5.90	1.37	1.52
1	L	482	LYS	N-CA	-5.90	1.34	1.46
2	M	404	GLN	CA-C	-5.89	1.37	1.52
2	Y	404	GLN	CA-C	-5.89	1.37	1.52
3	N	388	ARG	CA-C	-5.88	1.37	1.52
3	T	412	GLU	CA-CB	5.88	1.66	1.53
4	D	1543	GLN	C-N	-5.87	1.23	1.34
3	H	388	ARG	CA-C	-5.86	1.37	1.52
3	Z	388	ARG	CA-C	-5.86	1.37	1.52
3	H	353	GLN	CA-CB	5.86	1.66	1.53
2	S	381	THR	N-CA	5.86	1.58	1.46
1	F	132	ASP	CA-CB	5.85	1.66	1.53
4	D	1521	TYR	CA-C	-5.85	1.37	1.52
3	H	412	GLU	CA-CB	5.85	1.66	1.53
3	Z	366	ILE	N-CA	-5.85	1.34	1.46
3	N	412	GLU	CA-CB	5.84	1.66	1.53
4	V	1518	ASN	N-CA	-5.84	1.34	1.46
1	X	132	ASP	CA-CB	5.83	1.66	1.53
1	L	132	ASP	CA-CB	5.83	1.66	1.53
1	R	132	ASP	CA-CB	5.83	1.66	1.53
1	R	482	LYS	N-CA	-5.83	1.34	1.46
2	S	332	PRO	CA-C	-5.82	1.41	1.52
1	F	482	LYS	N-CA	-5.81	1.34	1.46
1	X	460	LEU	N-CA	-5.81	1.34	1.46
1	L	460	LEU	N-CA	-5.81	1.34	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	G	332	PRO	CA-C	-5.81	1.41	1.52
4	D	1518	ASN	N-CA	-5.81	1.34	1.46
3	Z	412	GLU	CA-CB	5.80	1.66	1.53
4	D	1484	ASP	N-CA	-5.80	1.34	1.46
1	F	460	LEU	N-CA	-5.80	1.34	1.46
2	G	404	GLN	CA-C	-5.80	1.37	1.52
2	Y	381	THR	N-CA	5.79	1.57	1.46
4	J	1518	ASN	N-CA	-5.78	1.34	1.46
1	R	402	ALA	N-CA	5.78	1.57	1.46
4	V	1484	ASP	N-CA	-5.77	1.34	1.46
2	M	381	THR	N-CA	5.77	1.57	1.46
1	L	466	HIS	CA-C	-5.76	1.38	1.52
4	P	1518	ASN	N-CA	-5.76	1.34	1.46
1	X	466	HIS	CA-C	-5.76	1.38	1.52
4	P	1484	ASP	N-CA	-5.76	1.34	1.46
4	J	1484	ASP	N-CA	-5.75	1.34	1.46
1	F	466	HIS	CA-C	-5.74	1.38	1.52
1	R	460	LEU	N-CA	-5.74	1.34	1.46
1	X	482	LYS	N-CA	-5.73	1.34	1.46
2	Y	332	PRO	CA-C	-5.72	1.41	1.52
2	G	381	THR	N-CA	5.71	1.57	1.46
1	X	402	ALA	N-CA	5.71	1.57	1.46
1	R	466	HIS	CA-C	-5.70	1.38	1.52
1	L	402	ALA	N-CA	5.68	1.57	1.46
3	T	402	GLU	N-CA	5.65	1.57	1.46
2	M	332	PRO	CA-C	-5.64	1.41	1.52
3	H	402	GLU	N-CA	5.64	1.57	1.46
3	T	410	LEU	CA-C	5.63	1.67	1.52
3	N	410	LEU	CA-C	5.62	1.67	1.52
1	X	460	LEU	CA-CB	5.61	1.66	1.53
1	R	394	GLU	C-N	5.60	1.47	1.34
1	F	402	ALA	N-CA	5.60	1.57	1.46
1	X	394	GLU	C-N	5.59	1.47	1.34
3	Z	402	GLU	N-CA	5.59	1.57	1.46
1	F	306	PRO	CA-CB	-5.59	1.42	1.53
4	J	1516	LEU	N-CA	-5.58	1.35	1.46
1	R	408	GLU	CA-C	-5.58	1.38	1.52
1	L	394	GLU	C-N	5.58	1.46	1.34
1	X	408	GLU	CA-C	-5.57	1.38	1.52
4	P	1516	LEU	N-CA	-5.57	1.35	1.46
1	L	420	GLU	N-CA	5.56	1.57	1.46
3	N	403	LEU	CA-C	-5.56	1.38	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	N	402	GLU	N-CA	5.56	1.57	1.46
1	R	400	GLY	C-N	-5.55	1.21	1.34
1	F	394	GLU	C-N	5.55	1.46	1.34
1	F	408	GLU	CA-C	-5.54	1.38	1.52
4	D	1516	LEU	N-CA	-5.54	1.35	1.46
1	X	306	PRO	CA-CB	-5.54	1.42	1.53
4	V	1516	LEU	N-CA	-5.54	1.35	1.46
4	J	1507	ASP	C-N	5.54	1.46	1.34
1	L	408	GLU	CA-C	-5.52	1.38	1.52
1	R	492	GLU	CA-CB	5.52	1.66	1.53
3	H	494	LEU	C-N	-5.52	1.21	1.34
3	H	410	LEU	CA-C	5.51	1.67	1.52
1	X	394	GLU	CA-C	5.51	1.67	1.52
1	F	420	GLU	N-CA	5.51	1.57	1.46
1	F	491	VAL	CA-CB	5.51	1.66	1.54
1	F	460	LEU	CA-CB	5.51	1.66	1.53
1	X	400	GLY	C-N	-5.51	1.21	1.34
1	R	420	GLU	N-CA	5.51	1.57	1.46
1	R	306	PRO	CA-CB	-5.51	1.42	1.53
2	S	302	GLN	CA-CB	-5.50	1.41	1.53
3	Z	410	LEU	CA-C	5.50	1.67	1.52
1	X	492	GLU	CA-CB	5.50	1.66	1.53
1	L	460	LEU	CA-CB	5.50	1.66	1.53
2	M	302	GLN	CA-CB	-5.50	1.41	1.53
3	T	494	LEU	C-N	-5.50	1.21	1.34
1	X	473	GLY	CA-C	-5.49	1.43	1.51
3	Z	494	LEU	C-N	-5.49	1.21	1.34
1	L	492	GLU	CA-CB	5.49	1.66	1.53
1	R	460	LEU	CA-CB	5.49	1.66	1.53
2	Y	302	GLN	CA-CB	-5.49	1.41	1.53
2	G	302	GLN	CA-CB	-5.48	1.41	1.53
2	G	252	CYS	CA-C	-5.48	1.38	1.52
1	R	491	VAL	CA-CB	5.48	1.66	1.54
1	L	306	PRO	CA-CB	-5.47	1.42	1.53
2	M	317	GLN	CA-CB	5.47	1.66	1.53
1	F	492	GLU	CA-CB	5.47	1.66	1.53
4	D	1507	ASP	C-N	5.47	1.46	1.34
4	P	1507	ASP	C-N	5.47	1.46	1.34
2	G	317	GLN	CA-CB	5.46	1.66	1.53
3	Z	403	LEU	CA-C	-5.46	1.38	1.52
1	L	491	VAL	CA-CB	5.46	1.66	1.54
2	G	325	ALA	C-O	5.46	1.33	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	L	435	MET	C-N	5.46	1.46	1.34
2	Y	252	CYS	CA-C	-5.46	1.38	1.52
1	F	400	GLY	C-N	-5.46	1.21	1.34
3	T	403	LEU	CA-C	-5.45	1.38	1.52
1	F	435	MET	C-N	5.45	1.46	1.34
3	H	403	LEU	CA-C	-5.45	1.38	1.52
2	S	326	LEU	CA-CB	5.45	1.66	1.53
3	H	467	THR	C-N	5.45	1.46	1.34
2	S	252	CYS	CA-C	-5.45	1.38	1.52
2	S	317	GLN	CA-CB	5.45	1.66	1.53
1	R	473	GLY	CA-C	-5.44	1.43	1.51
1	L	400	GLY	C-N	-5.44	1.21	1.34
1	F	394	GLU	CA-C	5.44	1.67	1.52
2	Y	325	ALA	C-O	5.44	1.33	1.23
3	N	494	LEU	C-N	-5.44	1.21	1.34
1	X	420	GLU	N-CA	5.43	1.57	1.46
3	Z	467	THR	C-N	5.43	1.46	1.34
1	X	435	MET	C-N	5.43	1.46	1.34
3	T	467	THR	C-N	5.43	1.46	1.34
2	G	321	ASN	C-N	5.43	1.46	1.34
3	N	472	GLN	N-CA	-5.43	1.35	1.46
2	S	325	ALA	C-O	5.43	1.33	1.23
3	T	386	GLN	N-CA	-5.43	1.35	1.46
3	H	386	GLN	N-CA	-5.42	1.35	1.46
2	M	252	CYS	CA-C	-5.42	1.38	1.52
3	Z	386	GLN	N-CA	-5.41	1.35	1.46
3	Z	472	GLN	N-CA	-5.41	1.35	1.46
1	X	491	VAL	CA-CB	5.41	1.66	1.54
3	N	467	THR	C-N	5.41	1.46	1.34
2	Y	317	GLN	CA-CB	5.41	1.65	1.53
1	R	394	GLU	CA-C	5.41	1.67	1.52
1	L	394	GLU	CA-C	5.40	1.67	1.52
3	N	386	GLN	N-CA	-5.40	1.35	1.46
3	H	403	LEU	N-CA	5.39	1.57	1.46
1	R	435	MET	C-N	5.39	1.46	1.34
3	T	472	GLN	N-CA	-5.39	1.35	1.46
1	X	469	GLN	CA-CB	-5.39	1.42	1.53
1	F	469	GLN	CA-CB	-5.39	1.42	1.53
2	M	321	ASN	C-N	5.39	1.46	1.34
1	L	469	GLN	CA-CB	-5.38	1.42	1.53
1	R	469	GLN	CA-CB	-5.38	1.42	1.53
4	V	1507	ASP	C-N	5.38	1.46	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	L	473	GLY	CA-C	-5.38	1.43	1.51
1	X	328	VAL	CA-CB	-5.38	1.43	1.54
1	F	419	GLY	C-N	5.38	1.46	1.34
1	R	328	VAL	CA-CB	-5.38	1.43	1.54
3	Z	467	THR	CA-C	-5.37	1.39	1.52
2	M	325	ALA	C-O	5.37	1.33	1.23
3	N	467	THR	CA-C	-5.37	1.39	1.52
1	F	328	VAL	CA-CB	-5.37	1.43	1.54
1	X	419	GLY	C-N	5.37	1.46	1.34
1	F	473	GLY	CA-C	-5.37	1.43	1.51
2	M	326	LEU	CA-CB	5.37	1.66	1.53
3	H	472	GLN	N-CA	-5.37	1.35	1.46
2	S	321	ASN	C-N	5.36	1.46	1.34
3	T	467	THR	CA-C	-5.36	1.39	1.52
2	G	276	SER	C-N	5.34	1.46	1.34
1	R	419	GLY	C-N	5.33	1.46	1.34
2	Y	326	LEU	CA-CB	5.33	1.66	1.53
1	L	328	VAL	CA-CB	-5.33	1.43	1.54
2	M	325	ALA	N-CA	5.33	1.57	1.46
2	S	276	SER	C-N	5.33	1.46	1.34
3	T	403	LEU	N-CA	5.33	1.57	1.46
2	G	326	LEU	CA-CB	5.32	1.66	1.53
2	Y	321	ASN	C-N	5.32	1.46	1.34
3	N	403	LEU	N-CA	5.31	1.56	1.46
3	H	467	THR	CA-C	-5.31	1.39	1.52
2	S	325	ALA	N-CA	5.31	1.56	1.46
2	Y	274	ARG	CA-C	-5.29	1.39	1.52
1	L	419	GLY	C-N	5.29	1.46	1.34
2	G	274	ARG	CA-C	-5.29	1.39	1.52
1	L	443	HIS	CA-C	5.29	1.66	1.52
2	M	274	ARG	CA-C	-5.27	1.39	1.52
1	X	443	HIS	CA-C	5.27	1.66	1.52
2	M	276	SER	C-N	5.26	1.46	1.34
2	S	274	ARG	CA-C	-5.26	1.39	1.52
2	M	327	ARG	C-O	5.26	1.33	1.23
2	Y	276	SER	C-N	5.25	1.46	1.34
1	R	443	HIS	CA-C	5.25	1.66	1.52
3	Z	403	LEU	N-CA	5.24	1.56	1.46
6	O	234	LEU	N-CA	-5.23	1.35	1.46
2	G	327	ARG	C-O	5.23	1.33	1.23
1	F	404	GLN	N-CA	-5.23	1.35	1.46
2	G	325	ALA	N-CA	5.23	1.56	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	Y	325	ALA	N-CA	5.23	1.56	1.46
2	Y	380	ILE	CA-C	5.23	1.66	1.52
1	R	404	GLN	N-CA	-5.22	1.35	1.46
4	D	1493	ARG	CA-C	-5.22	1.39	1.52
2	S	380	ILE	CA-C	5.22	1.66	1.52
2	G	380	ILE	CA-C	5.21	1.66	1.52
2	Y	327	ARG	C-O	5.21	1.33	1.23
2	M	332	PRO	N-CA	5.21	1.56	1.47
1	R	426	GLN	N-CA	-5.21	1.35	1.46
3	N	335	SER	CA-CB	5.20	1.60	1.52
1	F	443	HIS	CA-C	5.20	1.66	1.52
1	F	426	GLN	N-CA	-5.20	1.35	1.46
2	M	380	ILE	CA-C	5.20	1.66	1.52
4	P	1493	ARG	CA-C	-5.19	1.39	1.52
6	U	234	LEU	N-CA	-5.18	1.35	1.46
4	J	1493	ARG	CA-C	-5.18	1.39	1.52
3	Z	335	SER	CA-CB	5.17	1.60	1.52
2	S	332	PRO	N-CA	5.17	1.56	1.47
4	V	1493	ARG	CA-C	-5.15	1.39	1.52
2	G	372	ALA	N-CA	-5.15	1.36	1.46
1	L	404	GLN	N-CA	-5.15	1.36	1.46
1	X	426	GLN	N-CA	-5.15	1.36	1.46
3	T	469	ASP	C-N	-5.15	1.24	1.34
3	N	469	ASP	C-N	-5.14	1.24	1.34
2	S	327	ARG	C-O	5.14	1.33	1.23
3	T	335	SER	CA-CB	5.14	1.60	1.52
2	G	332	PRO	N-CA	5.14	1.55	1.47
1	L	132	ASP	CA-C	-5.13	1.39	1.52
6	I	234	LEU	N-CA	-5.13	1.36	1.46
1	L	426	GLN	N-CA	-5.13	1.36	1.46
3	H	469	ASP	C-N	-5.12	1.24	1.34
1	R	132	ASP	CA-C	-5.12	1.39	1.52
1	F	132	ASP	CA-C	-5.11	1.39	1.52
2	S	372	ALA	N-CA	-5.11	1.36	1.46
3	Z	469	ASP	C-N	-5.10	1.24	1.34
6	C	234	LEU	N-CA	-5.10	1.36	1.46
2	Y	332	PRO	N-CA	5.10	1.55	1.47
2	G	398	ALA	N-CA	5.09	1.56	1.46
1	L	398	LYS	C-O	-5.09	1.13	1.23
1	X	404	GLN	N-CA	-5.09	1.36	1.46
2	M	372	ALA	N-CA	-5.09	1.36	1.46
3	H	357	GLN	CA-C	-5.08	1.39	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	H	335	SER	CA-CB	5.08	1.60	1.52
3	T	357	GLN	CA-C	-5.08	1.39	1.52
3	H	467	THR	N-CA	5.07	1.56	1.46
3	Z	467	THR	N-CA	5.07	1.56	1.46
3	N	467	THR	N-CA	5.07	1.56	1.46
4	V	1484	ASP	C-N	5.07	1.45	1.34
2	G	343	ALA	C-N	5.07	1.45	1.34
1	X	132	ASP	CA-C	-5.07	1.39	1.52
4	D	1449	TRP	N-CA	5.07	1.56	1.46
1	R	398	LYS	C-O	-5.06	1.13	1.23
3	T	467	THR	N-CA	5.06	1.56	1.46
1	F	460	LEU	C-O	5.06	1.32	1.23
1	L	421	LEU	N-CA	-5.06	1.36	1.46
3	Z	357	GLN	CA-C	-5.06	1.39	1.52
3	N	357	GLN	CA-C	-5.06	1.39	1.52
2	M	343	ALA	C-N	5.05	1.45	1.34
2	Y	372	ALA	N-CA	-5.05	1.36	1.46
4	P	1449	TRP	N-CA	5.05	1.56	1.46
4	J	1448	MET	C-N	5.05	1.45	1.34
4	J	1484	ASP	C-N	5.05	1.45	1.34
2	Y	398	ALA	N-CA	5.04	1.56	1.46
1	L	460	LEU	C-O	5.04	1.32	1.23
4	J	1449	TRP	N-CA	5.04	1.56	1.46
2	Y	343	ALA	C-N	5.03	1.45	1.34
4	V	1449	TRP	N-CA	5.02	1.56	1.46
3	Z	468	SER	N-CA	5.02	1.56	1.46
2	M	325	ALA	C-N	5.02	1.45	1.34
2	M	398	ALA	N-CA	5.01	1.56	1.46
4	V	1448	MET	C-N	5.01	1.45	1.34
4	D	1491	ILE	C-O	5.01	1.32	1.23
4	P	1484	ASP	C-N	5.01	1.45	1.34
2	S	343	ALA	C-N	5.01	1.45	1.34

All (2409) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	452	ARG	CA-C-N	-39.57	30.16	117.20
1	L	452	ARG	CA-C-N	-39.56	30.17	117.20
1	R	452	ARG	CA-C-N	-39.55	30.18	117.20
1	F	452	ARG	CA-C-N	-39.55	30.19	117.20
2	Y	343	ALA	CB-CA-C	-36.26	55.71	110.10
2	S	343	ALA	CB-CA-C	-36.25	55.72	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	G	343	ALA	CB-CA-C	-36.17	55.84	110.10
2	M	343	ALA	CB-CA-C	-36.16	55.85	110.10
4	V	1449	TRP	CA-C-N	-32.79	45.06	117.20
4	J	1449	TRP	CA-C-N	-32.75	45.15	117.20
4	D	1449	TRP	CA-C-N	-32.74	45.16	117.20
4	P	1449	TRP	CA-C-N	-32.74	45.18	117.20
2	G	340	ALA	CB-CA-C	31.39	157.19	110.10
2	S	340	ALA	CB-CA-C	31.38	157.17	110.10
2	Y	340	ALA	CB-CA-C	31.34	157.11	110.10
2	M	340	ALA	CB-CA-C	31.28	157.01	110.10
1	F	450	GLU	CA-C-N	-29.93	51.36	117.20
1	X	450	GLU	CA-C-N	-29.91	51.41	117.20
1	L	450	GLU	CA-C-N	-29.90	51.41	117.20
1	R	450	GLU	CA-C-N	-29.86	51.51	117.20
4	J	1488	GLY	C-N-CA	-29.77	47.27	121.70
4	P	1488	GLY	C-N-CA	-29.75	47.31	121.70
4	V	1488	GLY	C-N-CA	-29.73	47.38	121.70
2	M	340	ALA	N-CA-C	-29.72	30.76	111.00
4	D	1488	GLY	C-N-CA	-29.70	47.44	121.70
2	Y	340	ALA	N-CA-C	-29.70	30.82	111.00
2	S	340	ALA	N-CA-C	-29.69	30.83	111.00
2	G	340	ALA	N-CA-C	-29.69	30.84	111.00
1	X	454	TYR	C-N-CA	-27.34	53.36	121.70
1	F	454	TYR	C-N-CA	-27.34	53.36	121.70
1	R	454	TYR	C-N-CA	-27.31	53.42	121.70
1	L	454	TYR	C-N-CA	-27.30	53.46	121.70
1	L	462	GLU	C-N-CA	-24.75	59.83	121.70
1	F	462	GLU	C-N-CA	-24.73	59.87	121.70
1	X	462	GLU	C-N-CA	-24.72	59.90	121.70
1	R	462	GLU	C-N-CA	-24.71	59.92	121.70
1	F	450	GLU	N-CA-CB	24.36	154.44	110.60
2	Y	338	GLU	CA-C-O	-24.34	68.98	120.10
1	X	450	GLU	N-CA-CB	24.34	154.41	110.60
2	G	338	GLU	CA-C-O	-24.32	69.02	120.10
1	L	450	GLU	N-CA-CB	24.32	154.37	110.60
2	S	338	GLU	CA-C-O	-24.30	69.06	120.10
1	R	450	GLU	N-CA-CB	24.29	154.33	110.60
2	M	338	GLU	CA-C-O	-24.25	69.16	120.10
1	F	453	TYR	O-C-N	-23.41	85.25	122.70
1	L	453	TYR	O-C-N	-23.36	85.32	122.70
1	R	453	TYR	O-C-N	-23.31	85.40	122.70
1	X	453	TYR	O-C-N	-23.29	85.44	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	F	400	GLY	CA-C-N	-22.81	67.01	117.20
1	R	400	GLY	CA-C-N	-22.81	67.02	117.20
1	X	400	GLY	CA-C-N	-22.77	67.09	117.20
1	L	400	GLY	CA-C-N	-22.76	67.13	117.20
1	X	450	GLU	CA-C-O	22.70	167.77	120.10
1	R	450	GLU	CA-C-O	22.68	167.74	120.10
1	F	450	GLU	CA-C-O	22.68	167.73	120.10
1	L	450	GLU	CA-C-O	22.66	167.69	120.10
2	G	340	ALA	N-CA-CB	22.44	141.51	110.10
2	M	340	ALA	N-CA-CB	22.41	141.47	110.10
2	Y	340	ALA	N-CA-CB	22.40	141.47	110.10
2	S	340	ALA	N-CA-CB	22.39	141.45	110.10
5	W	276	ASP	O-C-N	21.71	157.44	122.70
5	Q	276	ASP	O-C-N	21.71	157.44	122.70
5	K	276	ASP	O-C-N	21.68	157.39	122.70
5	E	276	ASP	O-C-N	21.64	157.32	122.70
1	F	449	SER	O-C-N	21.62	157.29	122.70
1	L	449	SER	O-C-N	21.62	157.28	122.70
1	R	449	SER	O-C-N	21.52	157.13	122.70
1	X	449	SER	O-C-N	21.51	157.11	122.70
1	R	399	SER	C-N-CA	-21.31	77.55	122.30
1	F	399	SER	C-N-CA	-21.31	77.56	122.30
1	X	399	SER	C-N-CA	-21.30	77.56	122.30
1	L	399	SER	C-N-CA	-21.27	77.64	122.30
1	L	400	GLY	O-C-N	21.07	156.41	122.70
1	X	400	GLY	O-C-N	21.05	156.38	122.70
1	F	400	GLY	O-C-N	20.99	156.28	122.70
1	R	400	GLY	O-C-N	20.95	156.21	122.70
1	F	422	ASN	C-N-CA	-20.48	70.49	121.70
1	X	422	ASN	C-N-CA	-20.44	70.60	121.70
1	R	422	ASN	C-N-CA	-20.42	70.65	121.70
1	L	402	ALA	N-CA-C	-20.41	55.90	111.00
1	R	402	ALA	N-CA-C	-20.39	55.94	111.00
1	X	402	ALA	N-CA-C	-20.39	55.95	111.00
1	F	402	ALA	N-CA-C	-20.38	55.98	111.00
1	L	422	ASN	C-N-CA	-20.37	70.77	121.70
1	X	448	ARG	CA-C-N	-20.34	72.45	117.20
1	R	448	ARG	CA-C-N	-20.31	72.51	117.20
1	F	448	ARG	CA-C-N	-20.29	72.55	117.20
1	L	448	ARG	CA-C-N	-20.28	72.58	117.20
2	S	338	GLU	O-C-N	19.92	154.56	122.70
2	G	338	GLU	O-C-N	19.89	154.53	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	Y	338	GLU	O-C-N	19.88	154.50	122.70
1	X	450	GLU	C-N-CA	-19.87	72.02	121.70
1	F	450	GLU	C-N-CA	-19.84	72.09	121.70
1	L	450	GLU	C-N-CA	-19.84	72.10	121.70
2	M	338	GLU	O-C-N	19.82	154.41	122.70
1	R	450	GLU	C-N-CA	-19.82	72.16	121.70
1	X	455	ILE	C-N-CA	-19.37	73.28	121.70
1	L	455	ILE	C-N-CA	-19.36	73.31	121.70
1	F	455	ILE	C-N-CA	-19.34	73.34	121.70
1	R	455	ILE	C-N-CA	-19.31	73.42	121.70
1	R	402	ALA	CB-CA-C	-18.86	81.81	110.10
1	F	402	ALA	CB-CA-C	-18.86	81.81	110.10
1	L	402	ALA	CB-CA-C	-18.82	81.87	110.10
1	X	402	ALA	CB-CA-C	-18.78	81.93	110.10
1	F	398	LYS	O-C-N	-18.73	92.74	122.70
1	X	398	LYS	O-C-N	-18.71	92.77	122.70
1	R	398	LYS	O-C-N	-18.70	92.78	122.70
1	L	398	LYS	O-C-N	-18.69	92.79	122.70
3	Z	494	LEU	CA-C-N	-18.39	76.73	117.20
3	T	494	LEU	CA-C-N	-18.38	76.76	117.20
3	N	494	LEU	CA-C-N	-18.38	76.77	117.20
3	H	494	LEU	CA-C-N	-18.35	76.82	117.20
5	Q	276	ASP	CA-C-N	-18.34	76.86	117.20
5	E	276	ASP	CA-C-N	-18.31	76.92	117.20
5	K	276	ASP	CA-C-N	-18.30	76.93	117.20
5	W	276	ASP	CA-C-N	-18.30	76.94	117.20
4	V	1519	SER	C-N-CA	-18.09	84.31	122.30
4	P	1519	SER	C-N-CA	-18.07	84.35	122.30
4	J	1519	SER	C-N-CA	-18.07	84.36	122.30
2	S	341	ALA	CA-C-O	-18.05	82.18	120.10
4	D	1519	SER	C-N-CA	-18.05	84.40	122.30
2	Y	341	ALA	CA-C-O	-17.99	82.33	120.10
2	M	341	ALA	CA-C-O	-17.96	82.38	120.10
2	G	341	ALA	CA-C-O	-17.96	82.39	120.10
1	L	458	ASP	CA-C-N	-17.67	78.32	117.20
1	L	457	ALA	N-CA-CB	-17.66	85.38	110.10
2	S	326	LEU	CA-C-O	-17.66	83.02	120.10
1	R	458	ASP	CA-C-N	-17.64	78.39	117.20
2	Y	326	LEU	CA-C-O	-17.62	83.09	120.10
2	M	326	LEU	CA-C-O	-17.62	83.09	120.10
1	X	458	ASP	CA-C-N	-17.62	78.44	117.20
1	F	458	ASP	CA-C-N	-17.61	78.45	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	457	ALA	N-CA-CB	-17.61	85.45	110.10
1	F	457	ALA	N-CA-CB	-17.59	85.47	110.10
1	R	457	ALA	N-CA-CB	-17.59	85.47	110.10
2	G	326	LEU	CA-C-O	-17.59	83.17	120.10
4	V	1508	LYS	C-N-CA	-17.53	77.87	121.70
4	J	1508	LYS	C-N-CA	-17.52	77.90	121.70
4	D	1508	LYS	C-N-CA	-17.50	77.96	121.70
4	P	1508	LYS	C-N-CA	-17.47	78.03	121.70
1	L	449	SER	CA-C-N	-17.23	79.29	117.20
1	F	449	SER	CA-C-N	-17.22	79.33	117.20
1	R	449	SER	CA-C-N	-17.21	79.34	117.20
1	X	449	SER	CA-C-N	-17.20	79.35	117.20
1	F	453	TYR	CA-C-O	17.13	156.08	120.10
1	X	461	ARG	CB-CA-C	-17.10	76.20	110.40
1	X	453	TYR	CA-C-O	17.10	156.00	120.10
1	R	461	ARG	CB-CA-C	-17.09	76.22	110.40
1	L	453	TYR	CA-C-O	17.09	155.99	120.10
1	R	453	TYR	CA-C-O	17.09	155.98	120.10
1	F	461	ARG	CB-CA-C	-17.07	76.25	110.40
1	L	461	ARG	CB-CA-C	-17.07	76.27	110.40
2	M	379	HIS	CA-C-N	16.57	153.65	117.20
2	G	379	HIS	CA-C-N	16.54	153.60	117.20
2	S	379	HIS	CA-C-N	16.54	153.60	117.20
2	Y	379	HIS	CA-C-N	16.48	153.46	117.20
2	S	326	LEU	CB-CA-C	-16.47	78.91	110.20
2	Y	379	HIS	C-N-CA	16.44	162.81	121.70
2	S	379	HIS	C-N-CA	16.44	162.81	121.70
2	G	379	HIS	C-N-CA	16.44	162.79	121.70
2	M	379	HIS	C-N-CA	16.43	162.78	121.70
2	Y	326	LEU	CB-CA-C	-16.43	78.99	110.20
2	M	326	LEU	CB-CA-C	-16.41	79.01	110.20
2	G	326	LEU	CB-CA-C	-16.39	79.05	110.20
1	L	448	ARG	O-C-N	-16.36	96.53	122.70
1	R	454	TYR	N-CA-C	16.36	155.16	111.00
1	F	454	TYR	N-CA-C	16.32	155.05	111.00
1	L	454	TYR	N-CA-C	16.31	155.03	111.00
1	F	448	ARG	O-C-N	-16.29	96.64	122.70
1	X	454	TYR	N-CA-C	16.28	154.96	111.00
1	X	448	ARG	O-C-N	-16.23	96.73	122.70
1	R	448	ARG	O-C-N	-16.23	96.73	122.70
1	X	457	ALA	CB-CA-C	16.04	134.16	110.10
1	R	457	ALA	CB-CA-C	16.02	134.13	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	F	457	ALA	CB-CA-C	16.00	134.11	110.10
1	L	457	ALA	CB-CA-C	15.98	134.07	110.10
1	F	454	TYR	N-CA-CB	-15.96	81.86	110.60
1	R	454	TYR	N-CA-CB	-15.95	81.88	110.60
1	X	454	TYR	N-CA-CB	-15.91	81.96	110.60
1	L	454	TYR	N-CA-CB	-15.91	81.97	110.60
2	Y	342	PRO	O-C-N	15.85	148.06	122.70
2	G	342	PRO	O-C-N	15.85	148.06	122.70
2	M	342	PRO	O-C-N	15.85	148.05	122.70
2	S	342	PRO	O-C-N	15.78	147.95	122.70
4	J	1509	GLN	C-N-CA	-15.72	82.41	121.70
4	V	1506	VAL	C-N-CA	-15.70	82.45	121.70
4	P	1509	GLN	C-N-CA	-15.69	82.46	121.70
4	P	1506	VAL	C-N-CA	-15.68	82.51	121.70
1	R	464	LYS	CB-CA-C	-15.66	79.07	110.40
4	V	1509	GLN	C-N-CA	-15.66	82.54	121.70
1	L	464	LYS	CB-CA-C	-15.66	79.08	110.40
4	D	1509	GLN	C-N-CA	-15.66	82.56	121.70
4	D	1506	VAL	C-N-CA	-15.65	82.56	121.70
4	J	1506	VAL	C-N-CA	-15.64	82.59	121.70
1	X	464	LYS	CB-CA-C	-15.63	79.13	110.40
1	F	464	LYS	CB-CA-C	-15.62	79.15	110.40
1	L	455	ILE	CA-C-O	15.56	152.78	120.10
1	R	455	ILE	CA-C-O	15.48	152.62	120.10
3	N	490	GLN	CB-CA-C	-15.48	79.44	110.40
1	F	455	ILE	CA-C-O	15.48	152.60	120.10
1	X	455	ILE	CA-C-O	15.48	152.60	120.10
3	H	490	GLN	CB-CA-C	-15.44	79.52	110.40
3	T	490	GLN	CB-CA-C	-15.44	79.52	110.40
3	Z	490	GLN	CB-CA-C	-15.42	79.56	110.40
3	H	411	GLU	O-C-N	-15.31	98.20	122.70
3	H	412	GLU	O-C-N	15.29	147.16	122.70
3	Z	412	GLU	O-C-N	15.27	147.12	122.70
2	M	340	ALA	O-C-N	-15.24	98.31	122.70
3	N	412	GLU	O-C-N	15.24	147.09	122.70
3	N	411	GLU	O-C-N	-15.24	98.31	122.70
3	T	411	GLU	O-C-N	-15.23	98.32	122.70
3	T	412	GLU	O-C-N	15.21	147.04	122.70
2	Y	340	ALA	O-C-N	-15.21	98.36	122.70
2	G	340	ALA	O-C-N	-15.20	98.38	122.70
3	Z	411	GLU	O-C-N	-15.17	98.43	122.70
4	P	1519	SER	CA-C-N	-15.14	85.92	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	J	1519	SER	CA-C-N	-15.11	85.98	116.20
2	S	340	ALA	O-C-N	-15.10	98.53	122.70
4	D	1519	SER	CA-C-N	-15.08	86.03	116.20
4	V	1519	SER	CA-C-N	-15.06	86.08	116.20
2	G	343	ALA	O-C-N	-14.96	98.77	122.70
2	M	328	THR	N-CA-CB	14.92	138.65	110.30
2	S	343	ALA	O-C-N	-14.90	98.86	122.70
2	Y	328	THR	N-CA-CB	14.90	138.60	110.30
2	M	343	ALA	O-C-N	-14.88	98.89	122.70
2	Y	343	ALA	O-C-N	-14.88	98.90	122.70
2	S	333	PRO	N-CA-CB	14.86	121.14	103.30
2	G	328	THR	N-CA-CB	14.83	138.47	110.30
2	M	333	PRO	N-CA-CB	14.79	121.04	103.30
2	S	328	THR	N-CA-CB	14.76	138.35	110.30
2	G	333	PRO	N-CA-CB	14.75	121.00	103.30
2	Y	333	PRO	N-CA-CB	14.69	120.92	103.30
2	Y	326	LEU	O-C-N	14.65	146.13	122.70
2	G	326	LEU	O-C-N	14.57	146.01	122.70
1	L	451	GLU	CA-C-N	-14.56	85.16	117.20
2	S	326	LEU	O-C-N	14.55	145.98	122.70
1	F	451	GLU	CA-C-N	-14.54	85.20	117.20
2	M	326	LEU	O-C-N	14.54	145.96	122.70
1	R	451	GLU	CA-C-N	-14.51	85.28	117.20
1	X	457	ALA	CA-C-N	-14.49	85.31	117.20
1	X	451	GLU	CA-C-N	-14.47	85.36	117.20
1	R	457	ALA	CA-C-N	-14.46	85.39	117.20
1	F	457	ALA	CA-C-N	-14.46	85.39	117.20
1	L	457	ALA	CA-C-N	-14.44	85.43	117.20
1	X	456	ASP	CB-CA-C	-14.43	81.55	110.40
1	R	456	ASP	CB-CA-C	-14.40	81.59	110.40
1	L	456	ASP	CB-CA-C	-14.40	81.61	110.40
1	F	456	ASP	CB-CA-C	-14.38	81.64	110.40
4	P	1546	LEU	C-N-CA	-14.34	85.84	121.70
4	D	1546	LEU	C-N-CA	-14.32	85.90	121.70
4	J	1546	LEU	C-N-CA	-14.32	85.91	121.70
4	V	1546	LEU	C-N-CA	-14.30	85.95	121.70
1	X	424	PRO	C-N-CA	-14.29	85.98	121.70
1	F	424	PRO	C-N-CA	-14.25	86.08	121.70
1	L	424	PRO	C-N-CA	-14.24	86.09	121.70
1	R	424	PRO	C-N-CA	-14.24	86.09	121.70
3	T	341	SER	N-CA-CB	14.20	131.80	110.50
3	Z	341	SER	N-CA-CB	14.11	131.67	110.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	H	341	SER	N-CA-CB	14.11	131.66	110.50
3	N	341	SER	N-CA-CB	14.10	131.65	110.50
4	D	1539	LEU	C-N-CA	-14.00	86.70	121.70
4	V	1539	LEU	C-N-CA	-14.00	86.71	121.70
2	G	341	ALA	C-N-CA	-13.94	63.43	122.00
2	S	330	LYS	N-CA-CB	13.94	135.69	110.60
4	J	1539	LEU	C-N-CA	-13.93	86.87	121.70
2	S	341	ALA	C-N-CA	-13.93	63.49	122.00
4	P	1539	LEU	C-N-CA	-13.93	86.88	121.70
2	Y	330	LYS	N-CA-CB	13.92	135.66	110.60
2	M	341	ALA	C-N-CA	-13.92	63.53	122.00
2	Y	341	ALA	C-N-CA	-13.92	63.54	122.00
2	G	330	LYS	N-CA-CB	13.92	135.65	110.60
2	M	330	LYS	N-CA-CB	13.91	135.64	110.60
2	G	342	PRO	CA-C-N	-13.87	86.68	117.20
2	Y	342	PRO	CA-C-N	-13.87	86.68	117.20
2	M	342	PRO	CA-C-N	-13.86	86.72	117.20
2	S	342	PRO	CA-C-N	-13.84	86.76	117.20
1	F	399	SER	CA-C-N	-13.84	88.53	116.20
1	L	399	SER	CA-C-N	-13.83	88.54	116.20
1	X	399	SER	CA-C-N	-13.81	88.58	116.20
1	R	399	SER	CA-C-N	-13.81	88.58	116.20
1	X	400	GLY	CA-C-O	-13.77	95.82	120.60
1	R	400	GLY	CA-C-O	-13.77	95.82	120.60
1	F	400	GLY	CA-C-O	-13.72	95.91	120.60
2	Y	327	ARG	N-CA-CB	13.70	135.25	110.60
1	L	400	GLY	CA-C-O	-13.69	95.97	120.60
2	S	327	ARG	N-CA-CB	13.69	135.24	110.60
2	G	327	ARG	N-CA-CB	13.65	135.18	110.60
1	F	448	ARG	CB-CA-C	-13.65	83.09	110.40
1	X	459	LEU	N-CA-CB	13.65	137.69	110.40
1	X	448	ARG	CB-CA-C	-13.64	83.12	110.40
1	L	448	ARG	CB-CA-C	-13.64	83.12	110.40
3	T	446	ARG	CB-CA-C	13.64	137.67	110.40
2	M	327	ARG	N-CA-CB	13.63	135.14	110.60
1	F	459	LEU	N-CA-CB	13.62	137.65	110.40
1	R	448	ARG	CB-CA-C	-13.62	83.15	110.40
3	N	446	ARG	CB-CA-C	13.61	137.61	110.40
1	R	459	LEU	N-CA-CB	13.58	137.56	110.40
3	H	446	ARG	CB-CA-C	13.57	137.54	110.40
3	Z	446	ARG	CB-CA-C	13.57	137.54	110.40
1	L	459	LEU	N-CA-CB	13.57	137.54	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	F	463	ILE	N-CA-CB	-13.43	79.90	110.80
1	X	463	ILE	N-CA-CB	-13.41	79.95	110.80
1	L	463	ILE	N-CA-CB	-13.39	80.00	110.80
4	D	1449	TRP	O-C-N	-13.39	101.28	122.70
1	R	463	ILE	N-CA-CB	-13.35	80.10	110.80
4	V	1449	TRP	O-C-N	-13.33	101.37	122.70
4	P	1449	TRP	O-C-N	-13.32	101.38	122.70
4	J	1449	TRP	O-C-N	-13.27	101.46	122.70
1	R	487	ASP	O-C-N	-13.25	101.50	122.70
1	L	487	ASP	O-C-N	-13.24	101.52	122.70
1	X	487	ASP	O-C-N	-13.22	101.55	122.70
1	F	452	ARG	CA-C-O	13.19	147.81	120.10
1	F	487	ASP	O-C-N	-13.18	101.61	122.70
1	X	452	ARG	CA-C-O	13.15	147.72	120.10
1	L	452	ARG	CA-C-O	13.14	147.70	120.10
1	R	452	ARG	CA-C-O	13.11	147.62	120.10
1	X	452	ARG	N-CA-CB	13.03	134.04	110.60
1	F	452	ARG	N-CA-CB	13.01	134.01	110.60
1	R	452	ARG	N-CA-CB	12.99	133.98	110.60
1	L	452	ARG	N-CA-CB	12.98	133.97	110.60
2	G	341	ALA	CA-C-N	-12.97	80.78	117.10
2	S	341	ALA	CA-C-N	-12.96	80.80	117.10
2	Y	341	ALA	CA-C-N	-12.94	80.86	117.10
2	M	341	ALA	CA-C-N	-12.93	80.90	117.10
3	Z	408	SER	C-N-CA	-12.93	67.71	122.00
3	T	408	SER	C-N-CA	-12.92	67.73	122.00
3	H	408	SER	C-N-CA	-12.92	67.75	122.00
4	P	1541	THR	C-N-CA	-12.91	67.78	122.00
3	N	408	SER	C-N-CA	-12.90	67.80	122.00
4	D	1541	THR	C-N-CA	-12.90	67.84	122.00
4	J	1541	THR	C-N-CA	-12.90	67.83	122.00
4	V	1541	THR	C-N-CA	-12.89	67.85	122.00
1	R	450	GLU	N-CA-C	-12.65	76.84	111.00
1	L	450	GLU	N-CA-C	-12.63	76.91	111.00
1	X	450	GLU	N-CA-C	-12.61	76.96	111.00
1	F	450	GLU	N-CA-C	-12.60	76.98	111.00
2	M	339	TYR	O-C-N	12.56	142.79	122.70
2	S	339	TYR	O-C-N	12.55	142.78	122.70
2	G	339	TYR	O-C-N	12.53	142.75	122.70
1	R	400	GLY	C-N-CA	-12.52	90.40	121.70
1	F	400	GLY	C-N-CA	-12.50	90.46	121.70
1	X	400	GLY	C-N-CA	-12.48	90.49	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	Y	339	TYR	O-C-N	12.47	142.65	122.70
1	L	400	GLY	C-N-CA	-12.47	90.52	121.70
1	L	401	TYR	O-C-N	-12.42	102.82	122.70
1	F	453	TYR	N-CA-C	-12.40	77.53	111.00
1	X	453	TYR	N-CA-C	-12.38	77.58	111.00
1	R	453	TYR	N-CA-C	-12.38	77.58	111.00
1	F	401	TYR	O-C-N	-12.37	102.91	122.70
1	L	453	TYR	N-CA-C	-12.36	77.62	111.00
1	X	401	TYR	O-C-N	-12.34	102.96	122.70
1	R	401	TYR	O-C-N	-12.31	103.00	122.70
4	V	1504	VAL	C-N-CA	-12.27	91.03	121.70
4	P	1504	VAL	C-N-CA	-12.26	91.05	121.70
4	J	1504	VAL	C-N-CA	-12.21	91.17	121.70
4	D	1504	VAL	C-N-CA	-12.19	91.23	121.70
1	L	456	ASP	CA-C-O	12.18	145.67	120.10
1	X	456	ASP	CA-C-O	12.17	145.65	120.10
2	G	343	ALA	CA-C-O	12.15	145.61	120.10
1	F	456	ASP	CA-C-O	12.14	145.59	120.10
1	R	456	ASP	CA-C-O	12.13	145.57	120.10
2	M	343	ALA	CA-C-O	12.12	145.54	120.10
2	Y	343	ALA	CA-C-O	12.11	145.53	120.10
2	S	343	ALA	CA-C-O	12.08	145.47	120.10
3	N	494	LEU	CA-C-O	12.04	145.39	120.10
3	T	494	LEU	CA-C-O	11.97	145.25	120.10
3	H	494	LEU	CA-C-O	11.97	145.23	120.10
3	Z	494	LEU	CA-C-O	11.95	145.19	120.10
1	L	456	ASP	O-C-N	-11.92	103.63	122.70
4	V	1493	ARG	C-N-CA	-11.92	91.91	121.70
4	P	1493	ARG	C-N-CA	-11.91	91.94	121.70
4	D	1493	ARG	C-N-CA	-11.91	91.93	121.70
4	J	1493	ARG	C-N-CA	-11.90	91.94	121.70
1	F	452	ARG	CB-CA-C	-11.90	86.60	110.40
4	P	1541	THR	CA-C-N	-11.88	83.85	117.10
1	X	452	ARG	CB-CA-C	-11.87	86.66	110.40
1	X	456	ASP	O-C-N	-11.87	103.71	122.70
4	D	1541	THR	CA-C-N	-11.86	83.88	117.10
1	L	493	HIS	N-CA-C	11.85	143.00	111.00
1	R	452	ARG	CB-CA-C	-11.85	86.70	110.40
1	L	452	ARG	CB-CA-C	-11.85	86.70	110.40
4	V	1541	THR	CA-C-N	-11.85	83.93	117.10
1	R	456	ASP	O-C-N	-11.85	103.75	122.70
4	J	1541	THR	CA-C-N	-11.82	84.01	117.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	F	456	ASP	O-C-N	-11.80	103.83	122.70
1	R	493	HIS	N-CA-C	11.77	142.78	111.00
1	F	493	HIS	N-CA-C	11.76	142.75	111.00
1	X	493	HIS	N-CA-C	11.75	142.73	111.00
1	L	293	ILE	CB-CA-C	-11.75	88.10	111.60
1	X	293	ILE	CB-CA-C	-11.70	88.19	111.60
4	J	1449	TRP	CA-C-O	11.69	144.65	120.10
1	R	293	ILE	CB-CA-C	-11.69	88.23	111.60
1	L	455	ILE	CA-C-N	-11.68	91.51	117.20
3	H	467	THR	C-N-CA	11.68	150.89	121.70
4	P	1449	TRP	CA-C-O	11.66	144.59	120.10
1	F	293	ILE	CB-CA-C	-11.66	88.28	111.60
1	X	423	ALA	CA-C-N	-11.65	84.49	117.10
3	T	467	THR	C-N-CA	11.63	150.78	121.70
1	R	423	ALA	CA-C-N	-11.62	84.55	117.10
1	R	455	ILE	CA-C-N	-11.62	91.63	117.20
1	X	455	ILE	CA-C-N	-11.62	91.63	117.20
3	N	467	THR	C-N-CA	11.62	150.75	121.70
4	V	1449	TRP	CA-C-O	11.62	144.51	120.10
3	Z	467	THR	C-N-CA	11.61	150.72	121.70
1	L	423	ALA	CA-C-N	-11.61	84.59	117.10
1	F	423	ALA	CA-C-N	-11.61	84.60	117.10
3	H	410	LEU	O-C-N	11.61	141.27	122.70
4	D	1449	TRP	CA-C-O	11.60	144.47	120.10
1	F	455	ILE	CA-C-N	-11.60	91.68	117.20
1	R	455	ILE	N-CA-C	11.59	142.29	111.00
1	X	455	ILE	N-CA-C	11.59	142.28	111.00
4	P	1544	PRO	N-CA-C	11.58	142.22	112.10
4	J	1544	PRO	N-CA-C	11.57	142.19	112.10
1	X	456	ASP	CA-C-N	-11.57	91.75	117.20
4	D	1544	PRO	N-CA-C	11.57	142.18	112.10
3	T	410	LEU	O-C-N	11.57	141.21	122.70
1	F	456	ASP	CA-C-N	-11.56	91.76	117.20
1	L	456	ASP	CA-C-N	-11.56	91.77	117.20
1	R	456	ASP	CA-C-N	-11.56	91.78	117.20
1	F	455	ILE	N-CA-C	11.55	142.19	111.00
4	V	1544	PRO	N-CA-C	11.55	142.14	112.10
1	L	455	ILE	N-CA-C	11.55	142.17	111.00
3	N	410	LEU	O-C-N	11.54	141.17	122.70
3	N	410	LEU	CB-CA-C	11.54	132.12	110.20
3	T	410	LEU	CB-CA-C	11.53	132.10	110.20
3	H	410	LEU	CB-CA-C	11.51	132.07	110.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	F	458	ASP	C-N-CA	-11.49	92.97	121.70
4	J	1518	ASN	CA-C-N	-11.49	91.92	117.20
3	Z	410	LEU	O-C-N	11.49	141.08	122.70
1	R	458	ASP	C-N-CA	-11.49	92.98	121.70
1	L	460	LEU	N-CA-CB	11.47	133.34	110.40
4	V	1518	ASN	CA-C-N	-11.47	91.97	117.20
1	R	460	LEU	N-CA-CB	11.46	133.33	110.40
1	L	458	ASP	C-N-CA	-11.46	93.06	121.70
3	Z	410	LEU	CB-CA-C	11.45	131.95	110.20
1	F	460	LEU	N-CA-CB	11.44	133.28	110.40
1	X	458	ASP	C-N-CA	-11.43	93.12	121.70
1	X	460	LEU	N-CA-CB	11.43	133.26	110.40
2	M	339	TYR	C-N-CA	-11.43	93.13	121.70
2	G	339	TYR	C-N-CA	-11.41	93.16	121.70
2	Y	334	GLY	C-N-CA	11.39	150.19	121.70
2	S	339	TYR	C-N-CA	-11.38	93.24	121.70
4	P	1518	ASN	CA-C-N	-11.38	92.16	117.20
2	Y	339	TYR	C-N-CA	-11.38	93.26	121.70
4	D	1518	ASN	CA-C-N	-11.38	92.17	117.20
1	F	420	GLU	O-C-N	11.36	140.87	122.70
2	S	334	GLY	C-N-CA	11.35	150.07	121.70
2	M	334	GLY	C-N-CA	11.35	150.07	121.70
2	G	334	GLY	C-N-CA	11.35	150.06	121.70
1	X	487	ASP	CB-CA-C	-11.31	87.77	110.40
1	L	487	ASP	CB-CA-C	-11.29	87.81	110.40
1	R	487	ASP	CB-CA-C	-11.28	87.84	110.40
1	F	487	ASP	CB-CA-C	-11.27	87.85	110.40
1	X	420	GLU	O-C-N	11.27	140.73	122.70
4	D	1487	ASP	CA-C-N	-11.25	93.70	116.20
4	V	1487	ASP	CA-C-N	-11.24	93.71	116.20
1	L	420	GLU	O-C-N	11.24	140.68	122.70
2	S	405	SER	CB-CA-C	11.22	131.42	110.10
1	R	420	GLU	O-C-N	11.21	140.64	122.70
2	G	405	SER	CB-CA-C	11.21	131.40	110.10
4	P	1487	ASP	CA-C-N	-11.20	93.81	116.20
4	D	1520	GLY	CA-C-N	-11.19	92.57	117.20
3	H	373	THR	N-CA-CB	11.17	131.53	110.30
4	J	1487	ASP	CA-C-N	-11.17	93.86	116.20
3	T	373	THR	N-CA-CB	11.17	131.51	110.30
1	F	450	GLU	O-C-N	11.16	140.55	122.70
2	Y	405	SER	CB-CA-C	11.15	131.29	110.10
4	J	1520	GLY	CA-C-N	-11.15	92.66	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	M	405	SER	CB-CA-C	11.14	131.27	110.10
3	N	373	THR	N-CA-CB	11.14	131.46	110.30
1	L	450	GLU	O-C-N	11.14	140.52	122.70
4	P	1520	GLY	CA-C-N	-11.13	92.71	117.20
4	V	1520	GLY	CA-C-N	-11.13	92.70	117.20
1	R	424	PRO	CA-C-N	-11.12	92.74	117.20
3	Z	373	THR	N-CA-CB	11.12	131.42	110.30
3	N	462	GLY	CA-C-N	11.12	141.66	117.20
2	S	327	ARG	CB-CA-C	-11.11	88.17	110.40
1	X	450	GLU	O-C-N	11.11	140.48	122.70
3	T	462	GLY	CA-C-N	11.11	141.64	117.20
1	F	424	PRO	CA-C-N	-11.11	92.77	117.20
3	H	462	GLY	CA-C-N	11.11	141.63	117.20
1	L	424	PRO	CA-C-N	-11.11	92.77	117.20
2	Y	327	ARG	CB-CA-C	-11.10	88.19	110.40
1	X	343	MET	N-CA-CB	11.10	130.58	110.60
1	X	424	PRO	CA-C-N	-11.10	92.78	117.20
3	Z	462	GLY	CA-C-N	11.10	141.62	117.20
2	G	327	ARG	CB-CA-C	-11.09	88.22	110.40
1	R	460	LEU	CA-C-O	-11.09	96.81	120.10
1	F	460	LEU	CA-C-O	-11.06	96.87	120.10
1	X	460	LEU	CA-C-O	-11.06	96.88	120.10
1	F	343	MET	N-CA-CB	11.05	130.49	110.60
1	L	460	LEU	CA-C-O	-11.05	96.90	120.10
1	L	451	GLU	CA-C-O	11.04	143.29	120.10
2	M	327	ARG	CB-CA-C	-11.05	88.31	110.40
1	R	343	MET	N-CA-CB	11.04	130.47	110.60
1	R	450	GLU	O-C-N	11.04	140.37	122.70
1	L	343	MET	N-CA-CB	11.04	130.47	110.60
1	F	451	GLU	CA-C-O	11.03	143.27	120.10
1	F	486	GLU	N-CA-CB	11.00	130.41	110.60
1	X	451	GLU	CA-C-O	11.00	143.21	120.10
4	V	1491	ILE	N-CA-C	11.00	140.69	111.00
1	R	451	GLU	CA-C-O	10.99	143.18	120.10
1	R	486	GLU	N-CA-CB	10.99	130.38	110.60
1	X	486	GLU	N-CA-CB	10.98	130.36	110.60
1	X	420	GLU	CA-C-N	-10.96	93.08	117.20
4	J	1491	ILE	N-CA-C	10.96	140.60	111.00
3	T	494	LEU	C-N-CA	-10.96	94.30	121.70
4	P	1491	ILE	N-CA-C	10.96	140.59	111.00
1	L	486	GLU	N-CA-CB	10.95	130.32	110.60
3	N	494	LEU	C-N-CA	-10.95	94.33	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	Z	494	LEU	C-N-CA	-10.95	94.34	121.70
4	D	1491	ILE	N-CA-C	10.93	140.50	111.00
3	H	494	LEU	C-N-CA	-10.93	94.38	121.70
1	F	420	GLU	CA-C-N	-10.92	93.18	117.20
2	S	379	HIS	O-C-N	-10.91	105.25	122.70
1	L	328	VAL	CA-C-N	10.89	137.99	116.20
1	R	420	GLU	CA-C-N	-10.88	93.27	117.20
1	X	328	VAL	CA-C-N	10.88	137.95	116.20
1	L	420	GLU	CA-C-N	-10.87	93.28	117.20
1	R	328	VAL	CA-C-N	10.87	137.94	116.20
1	F	423	ALA	C-N-CA	-10.85	76.43	122.00
1	X	423	ALA	C-N-CA	-10.84	76.47	122.00
2	M	379	HIS	O-C-N	-10.84	105.36	122.70
1	R	423	ALA	C-N-CA	-10.84	76.49	122.00
1	L	423	ALA	C-N-CA	-10.83	76.50	122.00
1	F	328	VAL	CA-C-N	10.80	137.81	116.20
1	F	462	GLU	N-CA-CB	10.80	130.04	110.60
2	G	379	HIS	O-C-N	-10.80	105.43	122.70
1	R	462	GLU	N-CA-CB	10.79	130.03	110.60
2	Y	379	HIS	O-C-N	-10.77	105.47	122.70
1	L	462	GLU	N-CA-CB	10.77	129.98	110.60
1	X	462	GLU	N-CA-CB	10.74	129.93	110.60
1	R	144	LEU	CB-CA-C	-10.71	89.86	110.20
1	F	144	LEU	CB-CA-C	-10.69	89.89	110.20
1	L	144	LEU	CB-CA-C	-10.69	89.90	110.20
1	X	144	LEU	CB-CA-C	-10.68	89.91	110.20
2	Y	378	SER	CA-C-N	10.67	140.68	117.20
2	M	378	SER	CA-C-N	10.67	140.68	117.20
2	S	378	SER	CA-C-N	10.67	140.67	117.20
2	G	378	SER	CA-C-N	10.62	140.56	117.20
3	T	405	ASP	CB-CA-C	-10.56	89.29	110.40
3	H	405	ASP	CB-CA-C	-10.53	89.33	110.40
3	N	405	ASP	CB-CA-C	-10.52	89.36	110.40
3	Z	405	ASP	CB-CA-C	-10.51	89.39	110.40
2	G	341	ALA	O-C-N	10.50	141.06	121.10
4	J	1508	LYS	CA-C-N	-10.50	94.10	117.20
4	D	1508	LYS	CA-C-N	-10.49	94.12	117.20
1	F	466	HIS	C-N-CA	-10.47	95.52	121.70
4	V	1508	LYS	CA-C-N	-10.47	94.16	117.20
2	Y	341	ALA	O-C-N	10.47	140.99	121.10
1	L	466	HIS	C-N-CA	-10.47	95.52	121.70
1	L	448	ARG	CA-C-O	10.46	142.07	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	R	466	HIS	C-N-CA	-10.45	95.57	121.70
1	X	466	HIS	C-N-CA	-10.43	95.62	121.70
1	R	448	ARG	CA-C-O	10.43	142.01	120.10
1	F	448	ARG	CA-C-O	10.43	142.01	120.10
1	X	448	ARG	CA-C-O	10.43	142.00	120.10
4	P	1508	LYS	CA-C-N	-10.42	94.27	117.20
3	N	493	ALA	C-N-CA	10.42	147.74	121.70
3	Z	493	ALA	C-N-CA	10.41	147.74	121.70
2	M	341	ALA	O-C-N	10.40	140.86	121.10
3	T	493	ALA	C-N-CA	10.39	147.67	121.70
3	H	493	ALA	C-N-CA	10.38	147.66	121.70
2	S	341	ALA	O-C-N	10.36	140.79	121.10
1	R	402	ALA	CA-C-O	10.28	141.68	120.10
1	F	402	ALA	CA-C-O	10.26	141.64	120.10
4	D	1541	THR	CA-C-O	10.26	141.64	120.10
1	F	484	ASP	C-N-CA	-10.25	96.06	121.70
1	X	484	ASP	C-N-CA	-10.25	96.07	121.70
1	L	484	ASP	C-N-CA	-10.25	96.08	121.70
1	L	402	ALA	CA-C-O	10.24	141.61	120.10
4	V	1541	THR	CA-C-O	10.23	141.59	120.10
4	J	1541	THR	CA-C-O	10.22	141.56	120.10
1	X	402	ALA	CA-C-O	10.21	141.55	120.10
1	R	484	ASP	C-N-CA	-10.20	96.20	121.70
4	P	1541	THR	CA-C-O	10.19	141.50	120.10
4	V	1486	CYS	C-N-CA	-10.19	96.22	121.70
4	P	1486	CYS	C-N-CA	-10.16	96.30	121.70
5	K	259	SER	O-C-N	-10.16	106.45	122.70
3	Z	487	TRP	CA-C-N	-10.14	94.89	117.20
3	H	487	TRP	CA-C-N	-10.13	94.90	117.20
1	X	397	ARG	O-C-N	-10.12	106.50	122.70
4	D	1486	CYS	C-N-CA	-10.12	96.39	121.70
4	J	1486	CYS	C-N-CA	-10.11	96.42	121.70
3	T	487	TRP	CA-C-N	-10.10	94.99	117.20
3	N	487	TRP	CA-C-N	-10.09	95.00	117.20
1	F	397	ARG	O-C-N	-10.08	106.58	122.70
1	F	320	GLU	C-N-CA	-10.07	96.51	121.70
1	R	397	ARG	O-C-N	-10.06	106.60	122.70
1	R	320	GLU	C-N-CA	-10.06	96.55	121.70
5	Q	259	SER	O-C-N	-10.06	106.61	122.70
1	X	320	GLU	C-N-CA	-10.06	96.56	121.70
4	D	1520	GLY	O-C-N	10.06	138.79	122.70
5	E	259	SER	O-C-N	-10.05	106.62	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	W	259	SER	O-C-N	-10.05	106.62	122.70
2	G	330	LYS	O-C-N	-10.04	106.64	122.70
1	F	443	HIS	CA-C-O	10.04	141.17	120.10
2	Y	330	LYS	O-C-N	-10.03	106.65	122.70
4	J	1520	GLY	O-C-N	10.03	138.75	122.70
1	X	443	HIS	CA-C-O	10.02	141.15	120.10
1	L	320	GLU	C-N-CA	-10.02	96.65	121.70
1	R	305	ASP	CB-CA-C	10.02	130.44	110.40
4	P	1520	GLY	O-C-N	10.01	138.72	122.70
1	L	397	ARG	O-C-N	-10.00	106.69	122.70
1	L	305	ASP	CB-CA-C	10.00	130.40	110.40
4	J	1513	LEU	C-N-CA	-10.00	96.70	121.70
4	P	1513	LEU	C-N-CA	-10.00	96.71	121.70
1	R	399	SER	CA-C-O	9.99	141.08	120.10
2	M	330	LYS	O-C-N	-9.98	106.72	122.70
4	V	1513	LEU	C-N-CA	-9.98	96.74	121.70
2	S	330	LYS	O-C-N	-9.98	106.73	122.70
1	X	305	ASP	CB-CA-C	9.98	130.35	110.40
4	V	1520	GLY	O-C-N	9.97	138.66	122.70
1	R	443	HIS	CA-C-O	9.97	141.04	120.10
1	L	456	ASP	C-N-CA	-9.97	96.79	121.70
1	F	305	ASP	CB-CA-C	9.96	130.33	110.40
1	L	443	HIS	CA-C-O	9.96	141.02	120.10
1	F	456	ASP	C-N-CA	-9.96	96.80	121.70
1	L	399	SER	CA-C-O	9.95	141.00	120.10
4	D	1513	LEU	C-N-CA	-9.94	96.85	121.70
1	X	456	ASP	C-N-CA	-9.94	96.85	121.70
1	F	399	SER	CA-C-O	9.93	140.95	120.10
1	R	456	ASP	C-N-CA	-9.93	96.88	121.70
1	X	399	SER	CA-C-O	9.93	140.94	120.10
3	T	490	GLN	C-N-CA	-9.91	96.92	121.70
3	N	490	GLN	C-N-CA	-9.91	96.94	121.70
1	X	328	VAL	C-N-CA	9.90	143.09	122.30
1	L	328	VAL	C-N-CA	9.89	143.07	122.30
3	N	356	THR	N-CA-CB	9.89	129.09	110.30
3	H	490	GLN	C-N-CA	-9.88	97.01	121.70
1	R	328	VAL	C-N-CA	9.86	143.01	122.30
4	D	1510	GLN	CA-C-N	-9.86	95.50	117.20
3	Z	490	GLN	C-N-CA	-9.85	97.08	121.70
3	H	409	PRO	N-CA-CB	9.85	115.12	103.30
3	H	356	THR	N-CA-CB	9.83	128.98	110.30
4	V	1510	GLN	CA-C-N	-9.83	95.57	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	F	328	VAL	C-N-CA	9.82	142.93	122.30
2	S	339	TYR	N-CA-CB	9.82	128.28	110.60
2	M	339	TYR	N-CA-CB	9.82	128.27	110.60
3	Z	356	THR	N-CA-CB	9.81	128.95	110.30
3	N	409	PRO	N-CA-CB	9.81	115.07	103.30
1	X	395	ILE	O-C-N	-9.81	107.01	122.70
4	J	1488	GLY	CA-C-N	-9.80	95.64	117.20
3	T	409	PRO	N-CA-CB	9.80	115.06	103.30
3	T	356	THR	N-CA-CB	9.78	128.89	110.30
3	Z	409	PRO	N-CA-CB	9.76	115.02	103.30
4	J	1510	GLN	CA-C-N	-9.76	95.72	117.20
1	R	395	ILE	O-C-N	-9.76	107.08	122.70
4	P	1510	GLN	CA-C-N	-9.76	95.73	117.20
1	L	395	ILE	O-C-N	-9.76	107.09	122.70
2	G	339	TYR	N-CA-CB	9.73	128.12	110.60
1	F	394	GLU	CB-CA-C	-9.73	90.94	110.40
4	D	1488	GLY	CA-C-N	-9.71	95.84	117.20
1	X	394	GLU	CB-CA-C	-9.69	91.02	110.40
2	Y	339	TYR	N-CA-CB	9.69	128.05	110.60
3	N	411	GLU	C-N-CA	9.69	145.93	121.70
4	V	1488	GLY	CA-C-N	-9.69	95.88	117.20
4	P	1488	GLY	CA-C-N	-9.69	95.88	117.20
4	P	1511	GLN	O-C-N	9.69	138.21	122.70
3	H	411	GLU	C-N-CA	9.68	145.91	121.70
1	R	394	GLU	CB-CA-C	-9.68	91.04	110.40
2	M	320	LYS	N-CA-C	9.68	137.13	111.00
2	S	320	LYS	N-CA-C	9.67	137.11	111.00
1	L	394	GLU	CB-CA-C	-9.67	91.06	110.40
3	Z	411	GLU	C-N-CA	9.66	145.86	121.70
3	T	411	GLU	C-N-CA	9.66	145.85	121.70
2	Y	320	LYS	N-CA-C	9.66	137.08	111.00
4	D	1511	GLN	O-C-N	9.66	138.15	122.70
1	F	395	ILE	O-C-N	-9.65	107.25	122.70
4	J	1511	GLN	O-C-N	9.65	138.13	122.70
4	V	1511	GLN	O-C-N	9.64	138.12	122.70
2	G	320	LYS	N-CA-C	9.63	137.01	111.00
3	H	462	GLY	C-N-CA	9.62	145.74	121.70
1	L	487	ASP	N-CA-C	-9.61	85.05	111.00
3	T	462	GLY	C-N-CA	9.59	145.68	121.70
1	F	487	ASP	N-CA-C	-9.59	85.12	111.00
3	N	462	GLY	C-N-CA	9.58	145.65	121.70
1	X	487	ASP	N-CA-C	-9.58	85.14	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	R	487	ASP	N-CA-C	-9.58	85.14	111.00
3	Z	374	SER	CB-CA-C	-9.57	91.91	110.10
3	Z	462	GLY	C-N-CA	9.56	145.61	121.70
4	J	1511	GLN	CA-C-N	-9.54	96.21	117.20
4	V	1506	VAL	CA-C-N	-9.53	96.23	117.20
4	D	1506	VAL	CA-C-N	-9.53	96.23	117.20
4	P	1485	ALA	C-N-CA	-9.53	97.88	121.70
3	N	374	SER	CB-CA-C	-9.53	92.00	110.10
2	G	339	TYR	CA-C-O	-9.52	100.10	120.10
4	P	1506	VAL	CA-C-N	-9.52	96.25	117.20
4	D	1485	ALA	C-N-CA	-9.52	97.89	121.70
3	T	374	SER	CB-CA-C	-9.52	92.01	110.10
4	D	1511	GLN	CA-C-N	-9.52	96.25	117.20
4	P	1511	GLN	CA-C-N	-9.52	96.27	117.20
2	M	339	TYR	CA-C-O	-9.51	100.12	120.10
2	S	339	TYR	CA-C-O	-9.51	100.12	120.10
4	V	1511	GLN	CA-C-N	-9.51	96.28	117.20
3	H	374	SER	CB-CA-C	-9.51	92.03	110.10
4	J	1485	ALA	C-N-CA	-9.51	97.92	121.70
1	R	462	GLU	CB-CA-C	-9.51	91.39	110.40
1	X	462	GLU	CB-CA-C	-9.50	91.39	110.40
4	P	1484	ASP	O-C-N	9.50	137.90	122.70
4	V	1485	ALA	C-N-CA	-9.49	97.97	121.70
1	L	462	GLU	CB-CA-C	-9.49	91.42	110.40
2	Y	339	TYR	CA-C-O	-9.48	100.19	120.10
4	J	1506	VAL	CA-C-N	-9.48	96.35	117.20
1	F	462	GLU	CB-CA-C	-9.47	91.45	110.40
3	H	405	ASP	N-CA-C	-9.46	85.46	111.00
4	V	1474	GLY	C-N-CA	-9.46	98.06	121.70
1	F	327	MET	CB-CA-C	-9.44	91.51	110.40
1	F	398	LYS	C-N-CA	-9.43	98.14	121.70
3	Z	405	ASP	N-CA-C	-9.43	85.55	111.00
3	T	405	ASP	N-CA-C	-9.43	85.55	111.00
1	X	327	MET	CB-CA-C	-9.42	91.56	110.40
1	L	398	LYS	C-N-CA	-9.42	98.14	121.70
1	L	367	THR	CA-C-N	9.42	137.92	117.20
1	F	367	THR	CA-C-N	9.42	137.92	117.20
1	L	327	MET	CB-CA-C	-9.42	91.57	110.40
1	L	423	ALA	N-CA-C	9.41	136.41	111.00
3	N	405	ASP	N-CA-C	-9.41	85.59	111.00
4	V	1484	ASP	O-C-N	9.41	137.75	122.70
4	D	1484	ASP	O-C-N	9.40	137.74	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	R	327	MET	CB-CA-C	-9.40	91.60	110.40
1	R	367	THR	CA-C-N	9.40	137.88	117.20
4	D	1474	GLY	C-N-CA	-9.39	98.22	121.70
4	J	1474	GLY	C-N-CA	-9.39	98.22	121.70
4	J	1484	ASP	O-C-N	9.39	137.72	122.70
1	X	398	LYS	C-N-CA	-9.38	98.24	121.70
1	F	423	ALA	N-CA-C	9.37	136.31	111.00
1	X	423	ALA	N-CA-C	9.37	136.30	111.00
1	L	419	GLY	CA-C-O	-9.37	103.74	120.60
2	S	401	ALA	N-CA-CB	9.36	123.21	110.10
1	X	367	THR	CA-C-N	9.36	137.79	117.20
1	R	398	LYS	C-N-CA	-9.36	98.31	121.70
4	P	1474	GLY	C-N-CA	-9.35	98.32	121.70
1	R	419	GLY	CA-C-O	-9.33	103.80	120.60
1	R	423	ALA	N-CA-C	9.33	136.19	111.00
1	X	402	ALA	CA-C-N	-9.32	96.70	117.20
1	X	419	GLY	CA-C-O	-9.32	103.83	120.60
2	Y	401	ALA	N-CA-CB	9.32	123.14	110.10
2	M	401	ALA	N-CA-CB	9.32	123.14	110.10
1	L	402	ALA	CA-C-N	-9.30	96.73	117.20
1	F	402	ALA	CA-C-N	-9.30	96.74	117.20
1	F	419	GLY	CA-C-O	-9.29	103.87	120.60
1	R	402	ALA	CA-C-N	-9.29	96.76	117.20
1	R	405	ALA	CB-CA-C	-9.28	96.18	110.10
2	G	401	ALA	N-CA-CB	9.27	123.08	110.10
1	X	405	ALA	CB-CA-C	-9.27	96.19	110.10
1	L	405	ALA	CB-CA-C	-9.27	96.19	110.10
1	F	405	ALA	CB-CA-C	-9.26	96.21	110.10
2	S	385	LEU	CB-CA-C	-9.19	92.75	110.20
2	G	385	LEU	CB-CA-C	-9.17	92.77	110.20
2	M	385	LEU	CB-CA-C	-9.16	92.79	110.20
3	T	412	GLU	CB-CA-C	-9.16	92.07	110.40
2	Y	385	LEU	CB-CA-C	-9.13	92.85	110.20
3	Z	412	GLU	CB-CA-C	-9.13	92.14	110.40
3	H	366	ILE	N-CA-CB	9.13	131.79	110.80
3	N	366	ILE	N-CA-CB	9.12	131.76	110.80
2	G	379	HIS	CA-C-O	-9.11	100.97	120.10
3	N	412	GLU	CB-CA-C	-9.11	92.19	110.40
3	H	374	SER	N-CA-CB	-9.10	96.85	110.50
2	M	337	HIS	O-C-N	-9.10	108.13	122.70
2	M	379	HIS	CA-C-O	-9.10	100.99	120.10
3	Z	366	ILE	N-CA-CB	9.09	131.71	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	T	366	ILE	N-CA-CB	9.09	131.71	110.80
3	H	412	GLU	CB-CA-C	-9.08	92.23	110.40
3	N	374	SER	N-CA-CB	-9.07	96.90	110.50
3	T	374	SER	N-CA-CB	-9.07	96.90	110.50
2	Y	379	HIS	CA-C-O	-9.06	101.06	120.10
1	X	303	GLY	N-CA-C	-9.05	90.47	113.10
2	Y	337	HIS	O-C-N	-9.04	108.24	122.70
2	G	337	HIS	O-C-N	-9.03	108.25	122.70
3	Z	374	SER	N-CA-CB	-9.03	96.96	110.50
2	S	379	HIS	CA-C-O	-9.02	101.15	120.10
1	F	303	GLY	N-CA-C	-9.02	90.55	113.10
1	X	486	GLU	O-C-N	9.02	137.13	122.70
1	X	451	GLU	N-CA-C	9.01	135.32	111.00
1	F	451	GLU	N-CA-C	9.01	135.32	111.00
1	F	423	ALA	O-C-N	9.00	138.20	121.10
1	X	423	ALA	O-C-N	9.00	138.20	121.10
1	L	303	GLY	N-CA-C	-9.00	90.60	113.10
1	X	424	PRO	O-C-N	9.00	137.09	122.70
1	R	303	GLY	N-CA-C	-9.00	90.61	113.10
3	Z	411	GLU	CA-C-O	-8.99	101.22	120.10
1	L	486	GLU	O-C-N	8.99	137.09	122.70
1	R	486	GLU	O-C-N	8.99	137.08	122.70
1	F	401	TYR	N-CA-CB	8.99	126.78	110.60
4	J	1509	GLN	CA-C-N	-8.97	97.45	117.20
1	L	451	GLU	N-CA-C	8.97	135.22	111.00
1	L	401	TYR	N-CA-CB	8.97	126.74	110.60
4	D	1509	GLN	CA-C-N	-8.97	97.47	117.20
1	L	305	ASP	N-CA-CB	8.97	126.74	110.60
1	R	401	TYR	N-CA-CB	8.96	126.74	110.60
1	R	451	GLU	N-CA-C	8.96	135.21	111.00
1	X	401	TYR	N-CA-CB	8.96	126.72	110.60
1	F	486	GLU	O-C-N	8.96	137.03	122.70
1	F	424	PRO	O-C-N	8.95	137.01	122.70
1	R	423	ALA	O-C-N	8.95	138.10	121.10
2	G	347	ARG	C-N-CA	-8.94	99.35	121.70
2	M	347	ARG	C-N-CA	-8.94	99.35	121.70
2	S	337	HIS	O-C-N	-8.94	108.39	122.70
1	F	305	ASP	N-CA-CB	8.94	126.69	110.60
2	S	347	ARG	C-N-CA	-8.93	99.37	121.70
1	R	305	ASP	N-CA-CB	8.93	126.67	110.60
2	G	329	GLN	CA-C-O	-8.92	101.36	120.10
2	Y	347	ARG	C-N-CA	-8.92	99.40	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	N	411	GLU	CA-C-O	-8.92	101.37	120.10
4	V	1509	GLN	CA-C-N	-8.92	97.58	117.20
2	G	324	ILE	O-C-N	8.92	136.97	122.70
2	M	329	GLN	CA-C-O	-8.91	101.38	120.10
1	R	424	PRO	O-C-N	8.90	136.95	122.70
2	G	324	ILE	CB-CA-C	-8.90	93.80	111.60
3	T	411	GLU	CA-C-O	-8.90	101.41	120.10
4	P	1509	GLN	CA-C-N	-8.90	97.62	117.20
2	Y	329	GLN	CA-C-O	-8.90	101.42	120.10
3	H	411	GLU	CA-C-O	-8.89	101.43	120.10
1	L	424	PRO	O-C-N	8.89	136.93	122.70
1	X	305	ASP	N-CA-CB	8.89	126.60	110.60
1	L	423	ALA	O-C-N	8.89	137.98	121.10
2	S	324	ILE	CB-CA-C	-8.88	93.85	111.60
1	X	454	TYR	CA-C-N	-8.88	97.67	117.20
2	S	329	GLN	CA-C-O	-8.87	101.47	120.10
1	L	431	LEU	C-N-CA	-8.87	99.53	121.70
1	X	431	LEU	C-N-CA	-8.86	99.54	121.70
1	F	431	LEU	C-N-CA	-8.86	99.55	121.70
4	P	1511	GLN	C-N-CA	-8.86	99.55	121.70
2	M	324	ILE	O-C-N	8.86	136.87	122.70
1	R	454	TYR	CA-C-N	-8.86	97.72	117.20
2	Y	324	ILE	CB-CA-C	-8.85	93.89	111.60
1	F	454	TYR	CA-C-N	-8.85	97.74	117.20
4	V	1511	GLN	C-N-CA	-8.85	99.58	121.70
4	D	1511	GLN	C-N-CA	-8.85	99.59	121.70
2	M	324	ILE	CB-CA-C	-8.84	93.92	111.60
1	L	454	TYR	CA-C-N	-8.84	97.75	117.20
1	R	431	LEU	C-N-CA	-8.84	99.61	121.70
2	S	324	ILE	O-C-N	8.81	136.79	122.70
4	J	1511	GLN	C-N-CA	-8.81	99.68	121.70
2	Y	324	ILE	O-C-N	8.81	136.79	122.70
1	R	341	ASP	N-CA-CB	8.80	126.45	110.60
1	X	493	HIS	N-CA-CB	-8.78	94.80	110.60
4	P	1542	PRO	CA-C-O	-8.78	99.13	120.20
1	L	493	HIS	N-CA-CB	-8.77	94.81	110.60
1	F	493	HIS	N-CA-CB	-8.76	94.83	110.60
1	X	341	ASP	N-CA-CB	8.76	126.36	110.60
1	L	341	ASP	N-CA-CB	8.75	126.35	110.60
4	D	1542	PRO	CA-C-O	-8.75	99.20	120.20
3	T	487	TRP	N-CA-C	8.75	134.61	111.00
4	V	1542	PRO	CA-C-O	-8.74	99.22	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	R	493	HIS	N-CA-CB	-8.74	94.87	110.60
3	H	487	TRP	N-CA-C	8.73	134.59	111.00
4	J	1542	PRO	CA-C-O	-8.72	99.27	120.20
1	F	341	ASP	N-CA-CB	8.71	126.27	110.60
3	N	487	TRP	N-CA-C	8.69	134.47	111.00
1	X	425	THR	O-C-N	8.68	136.59	122.70
3	Z	487	TRP	N-CA-C	8.67	134.42	111.00
1	L	425	THR	O-C-N	8.64	136.53	122.70
1	F	425	THR	O-C-N	8.64	136.52	122.70
4	V	1510	GLN	C-N-CA	-8.64	100.11	121.70
4	P	1510	GLN	C-N-CA	-8.63	100.11	121.70
2	G	330	LYS	CB-CA-C	8.62	127.63	110.40
1	R	425	THR	O-C-N	8.61	136.48	122.70
4	D	1510	GLN	C-N-CA	-8.61	100.18	121.70
3	Z	352	LEU	N-CA-CB	8.61	127.61	110.40
2	M	330	LYS	CB-CA-C	8.59	127.58	110.40
2	S	335	LEU	O-C-N	-8.59	108.96	122.70
3	H	352	LEU	N-CA-CB	8.59	127.58	110.40
6	U	234	LEU	N-CA-C	-8.58	87.82	111.00
2	M	335	LEU	O-C-N	-8.58	108.97	122.70
2	Y	330	LYS	CB-CA-C	8.58	127.56	110.40
3	N	352	LEU	N-CA-CB	8.57	127.54	110.40
6	O	234	LEU	N-CA-C	-8.57	87.86	111.00
6	C	234	LEU	N-CA-C	-8.56	87.88	111.00
2	S	330	LYS	CB-CA-C	8.56	127.52	110.40
6	I	234	LEU	N-CA-C	-8.56	87.88	111.00
3	T	352	LEU	N-CA-CB	8.56	127.52	110.40
4	P	1490	GLU	C-N-CA	-8.56	100.30	121.70
4	V	1490	GLU	C-N-CA	-8.56	100.30	121.70
4	P	1472	SER	CA-C-N	-8.55	98.39	117.20
4	D	1472	SER	CA-C-N	-8.55	98.39	117.20
4	J	1490	GLU	C-N-CA	-8.55	100.33	121.70
4	J	1510	GLN	C-N-CA	-8.54	100.34	121.70
2	G	335	LEU	O-C-N	-8.53	109.06	122.70
2	M	378	SER	C-N-CA	8.52	143.01	121.70
4	V	1472	SER	CA-C-N	-8.52	98.45	117.20
4	D	1490	GLU	C-N-CA	-8.52	100.39	121.70
2	Y	378	SER	C-N-CA	8.52	143.00	121.70
2	S	378	SER	C-N-CA	8.51	142.98	121.70
4	P	1519	SER	CA-C-O	8.51	137.96	120.10
2	S	331	THR	CA-C-O	8.50	137.95	120.10
2	G	378	SER	C-N-CA	8.50	142.95	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	J	1472	SER	CA-C-N	-8.50	98.51	117.20
6	C	250	VAL	N-CA-CB	-8.49	92.82	111.50
4	J	1519	SER	CA-C-O	8.48	137.90	120.10
6	O	250	VAL	N-CA-CB	-8.48	92.85	111.50
2	Y	335	LEU	O-C-N	-8.47	109.14	122.70
6	I	250	VAL	N-CA-CB	-8.47	92.86	111.50
4	D	1538	SER	C-N-CA	8.47	142.88	121.70
1	R	485	LEU	O-C-N	-8.46	109.16	122.70
6	U	250	VAL	N-CA-CB	-8.46	92.89	111.50
4	D	1506	VAL	CA-C-O	8.43	137.81	120.10
3	Z	387	LYS	C-N-CA	-8.43	100.64	121.70
4	D	1519	SER	CA-C-O	8.43	137.79	120.10
3	T	387	LYS	C-N-CA	-8.42	100.64	121.70
4	P	1538	SER	C-N-CA	8.42	142.75	121.70
4	J	1538	SER	C-N-CA	8.42	142.76	121.70
4	V	1538	SER	C-N-CA	8.42	142.75	121.70
2	M	331	THR	CA-C-O	8.41	137.77	120.10
3	H	387	LYS	C-N-CA	-8.41	100.67	121.70
2	Y	331	THR	CA-C-O	8.41	137.76	120.10
3	N	497	ARG	CB-CA-C	8.41	127.22	110.40
4	V	1506	VAL	CA-C-O	8.40	137.74	120.10
4	V	1519	SER	CA-C-O	8.40	137.74	120.10
2	G	331	THR	CA-C-O	8.40	137.73	120.10
3	T	497	ARG	CB-CA-C	8.39	127.19	110.40
4	P	1506	VAL	CA-C-O	8.39	137.73	120.10
1	L	485	LEU	O-C-N	-8.39	109.28	122.70
4	V	1450	GLU	C-N-CA	8.39	142.67	121.70
6	I	382	ASN	C-N-CA	8.39	142.67	121.70
1	F	485	LEU	O-C-N	-8.39	109.28	122.70
3	H	412	GLU	CA-C-N	-8.39	98.75	117.20
3	N	387	LYS	C-N-CA	-8.38	100.74	121.70
4	P	1450	GLU	C-N-CA	8.38	142.65	121.70
4	D	1520	GLY	C-N-CA	-8.38	100.76	121.70
4	J	1520	GLY	C-N-CA	-8.38	100.75	121.70
1	F	367	THR	C-N-CA	8.38	142.64	121.70
3	H	497	ARG	CB-CA-C	8.37	127.15	110.40
1	L	367	THR	C-N-CA	8.37	142.63	121.70
6	O	382	ASN	C-N-CA	8.38	142.64	121.70
1	X	485	LEU	O-C-N	-8.37	109.31	122.70
4	J	1450	GLU	C-N-CA	8.36	142.60	121.70
6	C	382	ASN	C-N-CA	8.36	142.60	121.70
4	J	1492	GLY	C-N-CA	8.36	142.60	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	Z	497	ARG	CB-CA-C	8.36	127.11	110.40
4	J	1506	VAL	CA-C-O	8.36	137.65	120.10
1	L	484	ASP	O-C-N	8.35	136.06	122.70
1	F	484	ASP	O-C-N	8.35	136.06	122.70
3	N	412	GLU	CA-C-N	-8.35	98.83	117.20
4	D	1450	GLU	C-N-CA	8.35	142.58	121.70
1	R	367	THR	C-N-CA	8.35	142.57	121.70
4	P	1492	GLY	C-N-CA	8.35	142.57	121.70
1	X	367	THR	C-N-CA	8.34	142.56	121.70
4	V	1520	GLY	C-N-CA	-8.34	100.84	121.70
6	U	382	ASN	C-N-CA	8.34	142.56	121.70
4	V	1492	GLY	C-N-CA	8.34	142.55	121.70
1	X	484	ASP	O-C-N	8.33	136.03	122.70
4	P	1520	GLY	C-N-CA	-8.33	100.88	121.70
1	R	484	ASP	O-C-N	8.32	136.01	122.70
4	D	1492	GLY	C-N-CA	8.31	142.47	121.70
3	T	412	GLU	CA-C-N	-8.30	98.93	117.20
3	Z	412	GLU	CA-C-N	-8.30	98.94	117.20
3	H	416	GLU	N-CA-CB	8.19	125.34	110.60
3	N	416	GLU	N-CA-CB	8.18	125.32	110.60
4	P	1517	SER	C-N-CA	-8.18	101.25	121.70
3	Z	416	GLU	N-CA-CB	8.17	125.31	110.60
3	T	416	GLU	N-CA-CB	8.17	125.31	110.60
4	V	1517	SER	C-N-CA	-8.16	101.29	121.70
4	V	1507	ASP	CA-C-O	-8.16	102.96	120.10
4	D	1517	SER	C-N-CA	-8.16	101.31	121.70
4	J	1517	SER	C-N-CA	-8.16	101.31	121.70
3	N	468	SER	N-CA-CB	8.15	122.72	110.50
3	Z	468	SER	N-CA-CB	8.14	122.71	110.50
3	T	468	SER	N-CA-CB	8.14	122.71	110.50
3	T	494	LEU	N-CA-C	8.14	132.97	111.00
3	N	494	LEU	N-CA-C	8.13	132.94	111.00
4	P	1489	HIS	N-CA-CB	-8.12	95.97	110.60
4	V	1488	GLY	CA-C-O	8.12	135.21	120.60
4	D	1507	ASP	CA-C-O	-8.10	103.09	120.10
3	H	468	SER	N-CA-CB	8.09	122.64	110.50
4	J	1488	GLY	CA-C-O	8.09	135.17	120.60
3	H	408	SER	N-CA-C	8.09	132.84	111.00
4	J	1507	ASP	CA-C-O	-8.08	103.13	120.10
4	P	1545	PRO	C-N-CA	8.08	141.89	121.70
3	H	494	LEU	N-CA-C	8.07	132.80	111.00
3	Z	473	GLN	CB-CA-C	-8.07	94.26	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	Z	494	LEU	N-CA-C	8.07	132.78	111.00
1	X	443	HIS	O-C-N	-8.06	109.80	122.70
4	P	1488	GLY	CA-C-O	8.06	135.12	120.60
4	D	1545	PRO	C-N-CA	8.06	141.85	121.70
1	X	493	HIS	CA-C-O	-8.06	103.18	120.10
4	P	1507	ASP	CA-C-O	-8.06	103.18	120.10
4	V	1510	GLN	N-CA-C	8.05	132.75	111.00
4	J	1510	GLN	N-CA-C	8.05	132.75	111.00
1	F	443	HIS	O-C-N	-8.04	109.83	122.70
4	V	1489	HIS	CA-C-O	-8.04	103.21	120.10
1	L	427	PHE	C-N-CA	-8.04	101.59	121.70
4	D	1489	HIS	CA-C-O	-8.04	103.21	120.10
2	S	331	THR	CB-CA-C	8.04	133.29	111.60
3	T	408	SER	N-CA-C	8.03	132.69	111.00
1	X	427	PHE	C-N-CA	-8.03	101.62	121.70
2	Y	331	THR	CB-CA-C	8.03	133.28	111.60
1	R	427	PHE	C-N-CA	-8.03	101.64	121.70
3	H	473	GLN	CB-CA-C	-8.02	94.35	110.40
3	N	411	GLU	CA-C-N	8.02	134.85	117.20
4	V	1489	HIS	N-CA-CB	-8.02	96.16	110.60
4	J	1487	ASP	N-CA-C	8.02	132.66	111.00
4	P	1487	ASP	N-CA-C	8.02	132.64	111.00
1	L	439	ARG	N-CA-CB	8.01	125.02	110.60
4	V	1545	PRO	C-N-CA	8.01	141.73	121.70
1	R	443	HIS	O-C-N	-8.01	109.89	122.70
3	Z	411	GLU	CA-C-N	8.00	134.81	117.20
4	V	1487	ASP	N-CA-C	8.00	132.61	111.00
4	J	1489	HIS	CA-C-O	-8.00	103.30	120.10
1	F	427	PHE	C-N-CA	-8.00	101.70	121.70
3	N	408	SER	N-CA-C	8.00	132.60	111.00
3	T	473	GLN	CB-CA-C	-8.00	94.41	110.40
1	L	443	HIS	O-C-N	-7.99	109.91	122.70
4	D	1488	GLY	CA-C-O	7.99	134.98	120.60
3	Z	408	SER	N-CA-C	7.99	132.57	111.00
2	G	331	THR	CB-CA-C	7.99	133.16	111.60
4	P	1510	GLN	N-CA-C	7.99	132.56	111.00
3	H	411	GLU	CA-C-N	7.98	134.76	117.20
1	L	493	HIS	CA-C-O	-7.98	103.34	120.10
4	J	1489	HIS	N-CA-CB	-7.98	96.23	110.60
4	D	1510	GLN	N-CA-C	7.98	132.54	111.00
3	N	473	GLN	CB-CA-C	-7.98	94.45	110.40
4	D	1489	HIS	N-CA-CB	-7.98	96.24	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	J	1545	PRO	C-N-CA	7.98	141.64	121.70
2	Y	328	THR	C-N-CA	7.97	141.64	121.70
1	R	493	HIS	CA-C-O	-7.97	103.35	120.10
2	G	328	THR	C-N-CA	7.97	141.62	121.70
3	T	411	GLU	CA-C-N	7.97	134.73	117.20
1	F	493	HIS	CA-C-O	-7.96	103.38	120.10
4	P	1489	HIS	CA-C-O	-7.96	103.38	120.10
2	M	331	THR	CB-CA-C	7.96	133.09	111.60
5	E	259	SER	C-N-CA	7.96	141.60	121.70
1	X	439	ARG	N-CA-CB	7.95	124.91	110.60
4	D	1487	ASP	N-CA-C	7.95	132.46	111.00
3	T	381	LYS	N-CA-CB	-7.94	96.30	110.60
1	X	485	LEU	N-CA-CB	-7.94	94.52	110.40
3	Z	381	LYS	N-CA-CB	-7.94	96.31	110.60
5	Q	259	SER	C-N-CA	7.94	141.54	121.70
5	K	259	SER	C-N-CA	7.93	141.53	121.70
1	R	439	ARG	N-CA-CB	7.93	124.88	110.60
2	S	328	THR	C-N-CA	7.93	141.53	121.70
5	W	259	SER	C-N-CA	7.93	141.53	121.70
2	M	328	THR	C-N-CA	7.93	141.52	121.70
1	F	485	LEU	N-CA-CB	-7.92	94.56	110.40
1	R	426	GLN	O-C-N	7.91	135.35	122.70
2	Y	338	GLU	CA-C-N	7.90	134.58	117.20
1	L	485	LEU	N-CA-CB	-7.90	94.60	110.40
1	F	439	ARG	N-CA-CB	7.89	124.80	110.60
2	G	338	GLU	CA-C-N	7.89	134.55	117.20
3	H	381	LYS	N-CA-CB	-7.89	96.40	110.60
3	N	381	LYS	N-CA-CB	-7.88	96.41	110.60
1	L	426	GLN	O-C-N	7.88	135.31	122.70
4	D	1449	TRP	C-N-CA	7.88	141.39	121.70
4	V	1518	ASN	C-N-CA	-7.88	102.01	121.70
2	M	338	GLU	CA-C-N	7.87	134.52	117.20
3	N	462	GLY	N-CA-C	7.87	132.78	113.10
2	S	338	GLU	CA-C-N	7.87	134.52	117.20
6	C	455	VAL	N-CA-C	-7.87	89.75	111.00
3	Z	462	GLY	N-CA-C	7.87	132.77	113.10
6	O	455	VAL	N-CA-C	-7.87	89.76	111.00
3	H	462	GLY	N-CA-C	7.86	132.76	113.10
1	R	485	LEU	N-CA-CB	-7.86	94.67	110.40
6	U	455	VAL	N-CA-C	-7.86	89.77	111.00
6	I	455	VAL	N-CA-C	-7.86	89.79	111.00
4	J	1518	ASN	C-N-CA	-7.85	102.08	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	M	326	LEU	C-N-CA	-7.85	102.08	121.70
2	G	366	GLU	CB-CA-C	-7.84	94.72	110.40
2	S	326	LEU	C-N-CA	-7.83	102.12	121.70
1	F	433	GLU	CB-CA-C	-7.83	94.75	110.40
2	G	326	LEU	C-N-CA	-7.83	102.14	121.70
2	Y	326	LEU	C-N-CA	-7.83	102.14	121.70
4	P	1449	TRP	C-N-CA	7.82	141.25	121.70
4	P	1518	ASN	C-N-CA	-7.82	102.15	121.70
1	R	433	GLU	CB-CA-C	-7.81	94.77	110.40
1	F	425	THR	CA-C-N	-7.81	100.02	117.20
1	R	425	THR	CA-C-N	-7.81	100.01	117.20
3	T	462	GLY	N-CA-C	7.81	132.63	113.10
1	F	426	GLN	O-C-N	7.81	135.19	122.70
1	X	425	THR	CA-C-N	-7.81	100.02	117.20
2	Y	366	GLU	CB-CA-C	-7.81	94.79	110.40
2	S	366	GLU	CB-CA-C	-7.81	94.78	110.40
1	X	433	GLU	CB-CA-C	-7.80	94.81	110.40
4	J	1449	TRP	C-N-CA	7.79	141.19	121.70
1	L	433	GLU	CB-CA-C	-7.79	94.82	110.40
1	L	425	THR	CA-C-N	-7.78	100.08	117.20
2	M	324	ILE	CA-C-N	-7.78	100.08	117.20
4	V	1449	TRP	C-N-CA	7.78	141.16	121.70
4	D	1518	ASN	C-N-CA	-7.78	102.25	121.70
1	X	426	GLN	O-C-N	7.77	135.13	122.70
2	Y	324	ILE	CA-C-N	-7.75	100.15	117.20
1	L	436	SER	CA-C-O	7.75	136.37	120.10
1	R	436	SER	CA-C-O	7.74	136.34	120.10
2	Y	342	PRO	C-N-CA	-7.73	102.37	121.70
2	M	366	GLU	CB-CA-C	-7.73	94.94	110.40
2	S	324	ILE	CA-C-N	-7.73	100.19	117.20
1	L	482	LYS	N-CA-CB	7.73	124.51	110.60
1	R	422	ASN	CA-C-N	-7.73	100.20	117.20
2	G	324	ILE	CA-C-N	-7.72	100.21	117.20
1	X	436	SER	CA-C-O	7.71	136.30	120.10
1	X	422	ASN	CA-C-N	-7.71	100.25	117.20
1	F	436	SER	CA-C-O	7.70	136.27	120.10
1	X	482	LYS	N-CA-CB	7.70	124.45	110.60
2	M	342	PRO	C-N-CA	-7.70	102.46	121.70
2	G	342	PRO	C-N-CA	-7.69	102.48	121.70
1	F	422	ASN	CA-C-N	-7.68	100.30	117.20
1	F	482	LYS	N-CA-CB	7.67	124.41	110.60
2	S	342	PRO	C-N-CA	-7.66	102.56	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	T	410	LEU	CA-C-O	-7.65	104.04	120.10
2	Y	331	THR	N-CA-CB	-7.64	95.78	110.30
1	R	482	LYS	N-CA-CB	7.64	124.36	110.60
1	L	422	ASN	CA-C-N	-7.64	100.39	117.20
3	N	487	TRP	C-N-CA	-7.63	102.63	121.70
3	Z	487	TRP	C-N-CA	-7.62	102.64	121.70
1	F	457	ALA	CA-C-O	-7.62	104.10	120.10
1	R	457	ALA	CA-C-O	-7.61	104.12	120.10
2	G	331	THR	N-CA-CB	-7.61	95.84	110.30
1	F	320	GLU	CB-CA-C	7.60	125.61	110.40
3	H	487	TRP	C-N-CA	-7.60	102.69	121.70
1	X	457	ALA	CA-C-O	-7.60	104.14	120.10
1	L	320	GLU	CB-CA-C	7.60	125.60	110.40
3	H	410	LEU	CA-C-O	-7.59	104.15	120.10
1	X	448	ARG	N-CA-C	7.59	131.49	111.00
2	Y	333	PRO	CB-CA-C	-7.58	93.05	112.00
3	Z	410	LEU	CA-C-O	-7.57	104.19	120.10
1	L	448	ARG	N-CA-C	7.57	131.44	111.00
3	N	410	LEU	CA-C-O	-7.57	104.20	120.10
1	X	320	GLU	CB-CA-C	7.57	125.53	110.40
3	T	487	TRP	C-N-CA	-7.57	102.78	121.70
4	D	1510	GLN	O-C-N	7.57	134.81	122.70
1	F	448	ARG	N-CA-C	7.57	131.43	111.00
2	G	333	PRO	CB-CA-C	-7.56	93.09	112.00
4	J	1542	PRO	CA-C-N	7.56	133.84	117.20
2	M	331	THR	N-CA-CB	-7.56	95.94	110.30
1	R	320	GLU	CB-CA-C	7.55	125.51	110.40
3	H	409	PRO	CB-CA-C	-7.55	93.12	112.00
4	P	1542	PRO	CA-C-N	7.54	133.79	117.20
1	L	457	ALA	CA-C-O	-7.54	104.27	120.10
1	R	448	ARG	N-CA-C	7.54	131.36	111.00
2	S	333	PRO	CB-CA-C	-7.54	93.15	112.00
3	Z	384	LEU	N-CA-C	-7.53	90.66	111.00
4	D	1542	PRO	CA-C-N	7.53	133.77	117.20
2	S	331	THR	N-CA-CB	-7.53	96.00	110.30
2	M	253	GLN	CA-C-N	-7.52	100.66	117.20
3	T	384	LEU	N-CA-C	-7.52	90.70	111.00
3	T	462	GLY	CA-C-O	-7.52	107.07	120.60
2	G	253	GLN	CA-C-N	-7.51	100.67	117.20
2	M	333	PRO	CB-CA-C	-7.51	93.21	112.00
4	V	1542	PRO	CA-C-N	7.51	133.73	117.20
3	N	409	PRO	CB-CA-C	-7.51	93.23	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	H	384	LEU	N-CA-C	-7.51	90.73	111.00
3	Z	409	PRO	CB-CA-C	-7.50	93.24	112.00
3	Z	462	GLY	CA-C-O	-7.50	107.09	120.60
3	N	462	GLY	CA-C-O	-7.50	107.09	120.60
3	T	409	PRO	CB-CA-C	-7.50	93.24	112.00
3	H	462	GLY	CA-C-O	-7.50	107.10	120.60
2	Y	253	GLN	CA-C-N	-7.50	100.70	117.20
3	N	384	LEU	N-CA-C	-7.50	90.76	111.00
3	Z	487	TRP	O-C-N	7.48	134.68	122.70
2	S	253	GLN	CA-C-N	-7.48	100.73	117.20
4	P	1510	GLN	O-C-N	7.47	134.66	122.70
3	H	487	TRP	O-C-N	7.47	134.65	122.70
1	R	398	LYS	N-CA-CB	7.46	124.03	110.60
4	V	1510	GLN	O-C-N	7.46	134.64	122.70
3	N	487	TRP	O-C-N	7.45	134.61	122.70
4	D	1487	ASP	CA-C-O	7.44	135.72	120.10
4	V	1487	ASP	CA-C-O	7.44	135.72	120.10
4	J	1487	ASP	CA-C-O	7.43	135.71	120.10
1	L	398	LYS	N-CA-CB	7.43	123.97	110.60
1	R	394	GLU	O-C-N	-7.43	110.82	122.70
4	P	1487	ASP	CA-C-O	7.42	135.69	120.10
6	I	454	THR	C-N-CA	7.41	140.22	121.70
1	F	399	SER	N-CA-CB	-7.40	99.40	110.50
2	M	406	ILE	CB-CA-C	-7.40	96.80	111.60
3	T	494	LEU	O-C-N	7.40	134.53	122.70
2	G	406	ILE	CB-CA-C	-7.40	96.81	111.60
1	X	394	GLU	O-C-N	-7.40	110.87	122.70
2	Y	406	ILE	CB-CA-C	-7.39	96.81	111.60
6	O	454	THR	C-N-CA	7.39	140.19	121.70
6	C	454	THR	C-N-CA	7.39	140.18	121.70
1	L	394	GLU	O-C-N	-7.38	110.89	122.70
1	X	398	LYS	N-CA-CB	7.38	123.88	110.60
3	T	487	TRP	O-C-N	7.38	134.50	122.70
6	U	454	THR	C-N-CA	7.38	140.14	121.70
3	Z	494	LEU	O-C-N	7.37	134.50	122.70
1	F	394	GLU	O-C-N	-7.37	110.91	122.70
1	F	398	LYS	N-CA-CB	7.37	123.86	110.60
1	L	399	SER	N-CA-CB	-7.36	99.46	110.50
4	J	1510	GLN	O-C-N	7.36	134.47	122.70
3	H	408	SER	CB-CA-C	-7.35	96.13	110.10
1	X	399	SER	N-CA-CB	-7.35	99.47	110.50
3	H	418	SER	CB-CA-C	7.35	124.06	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	T	418	SER	CB-CA-C	7.35	124.06	110.10
4	P	1546	LEU	CA-C-N	-7.34	101.04	117.20
4	D	1546	LEU	CA-C-N	-7.34	101.04	117.20
3	Z	418	SER	CB-CA-C	7.34	124.04	110.10
3	T	408	SER	CB-CA-C	-7.34	96.16	110.10
3	N	418	SER	CB-CA-C	7.34	124.04	110.10
3	N	477	ILE	CB-CA-C	7.33	126.27	111.60
2	S	406	ILE	CB-CA-C	-7.33	96.94	111.60
3	N	494	LEU	O-C-N	7.33	134.42	122.70
4	J	1473	TYR	C-N-CA	7.32	137.68	122.30
3	N	408	SER	CB-CA-C	-7.32	96.19	110.10
3	Z	406	LEU	O-C-N	-7.32	110.99	122.70
2	S	393	TYR	CA-C-O	-7.32	104.73	120.10
2	G	393	TYR	CA-C-O	-7.31	104.74	120.10
4	D	1487	ASP	C-N-CA	-7.31	106.94	122.30
2	Y	393	TYR	CA-C-O	-7.31	104.75	120.10
1	L	475	SER	N-CA-CB	7.31	121.47	110.50
4	V	1487	ASP	C-N-CA	-7.31	106.96	122.30
3	H	338	ASN	CB-CA-C	-7.30	95.80	110.40
4	P	1473	TYR	C-N-CA	7.30	137.63	122.30
4	J	1512	TRP	CA-C-O	-7.30	104.77	120.10
1	X	454	TYR	O-C-N	7.30	134.37	122.70
3	Z	477	ILE	CB-CA-C	7.30	126.19	111.60
2	S	344	ASP	CB-CA-C	7.30	124.99	110.40
1	R	487	ASP	C-N-CA	7.29	139.93	121.70
3	Z	338	ASN	CB-CA-C	-7.29	95.82	110.40
3	Z	408	SER	CB-CA-C	-7.29	96.25	110.10
3	T	338	ASN	CB-CA-C	-7.29	95.83	110.40
1	L	454	TYR	O-C-N	7.29	134.35	122.70
2	M	344	ASP	CB-CA-C	7.29	124.97	110.40
2	G	296	LEU	CB-CA-C	-7.28	96.36	110.20
3	H	494	LEU	O-C-N	7.28	134.35	122.70
3	T	477	ILE	CB-CA-C	7.28	126.16	111.60
4	V	1473	TYR	C-N-CA	7.28	137.58	122.30
4	V	1546	LEU	CA-C-N	-7.27	101.20	117.20
1	L	487	ASP	C-N-CA	7.27	139.88	121.70
1	X	487	ASP	C-N-CA	7.27	139.87	121.70
2	Y	344	ASP	CB-CA-C	7.27	124.93	110.40
2	M	296	LEU	CB-CA-C	-7.27	96.39	110.20
2	S	296	LEU	CB-CA-C	-7.26	96.41	110.20
4	J	1546	LEU	CA-C-N	-7.26	101.23	117.20
2	M	393	TYR	CA-C-O	-7.25	104.87	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	V	1512	TRP	CA-C-O	-7.25	104.87	120.10
4	J	1487	ASP	C-N-CA	-7.25	107.07	122.30
1	F	487	ASP	C-N-CA	7.25	139.82	121.70
1	F	454	TYR	O-C-N	7.25	134.30	122.70
4	P	1512	TRP	CA-C-O	-7.25	104.88	120.10
3	H	477	ILE	CB-CA-C	7.24	126.09	111.60
1	R	399	SER	N-CA-CB	-7.24	99.63	110.50
1	X	467	LEU	CA-C-O	-7.24	104.90	120.10
3	N	338	ASN	CB-CA-C	-7.24	95.93	110.40
2	Y	296	LEU	CB-CA-C	-7.24	96.45	110.20
1	F	341	ASP	CB-CA-C	7.23	124.86	110.40
1	X	464	LYS	O-C-N	7.23	134.26	122.70
4	D	1473	TYR	C-N-CA	7.22	137.47	122.30
1	X	460	LEU	O-C-N	7.22	134.25	122.70
3	N	462	GLY	O-C-N	-7.21	111.16	122.70
1	F	467	LEU	CA-C-O	-7.21	104.95	120.10
2	G	344	ASP	CB-CA-C	7.21	124.82	110.40
1	L	464	LYS	O-C-N	7.21	134.24	122.70
3	H	462	GLY	O-C-N	-7.21	111.17	122.70
4	P	1487	ASP	C-N-CA	-7.20	107.17	122.30
1	L	341	ASP	CB-CA-C	7.20	124.81	110.40
3	T	406	LEU	O-C-N	-7.20	111.18	122.70
3	Z	462	GLY	O-C-N	-7.20	111.19	122.70
3	T	462	GLY	O-C-N	-7.20	111.19	122.70
1	X	475	SER	N-CA-CB	7.19	121.29	110.50
1	L	467	LEU	CA-C-O	-7.19	105.00	120.10
1	R	454	TYR	O-C-N	7.19	134.20	122.70
4	D	1512	TRP	CA-C-O	-7.18	105.01	120.10
3	N	406	LEU	O-C-N	-7.18	111.21	122.70
3	H	406	LEU	O-C-N	-7.18	111.21	122.70
1	F	464	LYS	O-C-N	7.18	134.19	122.70
1	F	460	LEU	O-C-N	7.18	134.18	122.70
1	L	460	LEU	O-C-N	7.17	134.18	122.70
1	L	427	PHE	O-C-N	7.17	134.17	122.70
1	R	467	LEU	CA-C-O	-7.17	105.05	120.10
1	X	341	ASP	CB-CA-C	7.16	124.73	110.40
1	R	460	LEU	O-C-N	7.16	134.15	122.70
1	F	452	ARG	N-CA-C	7.16	130.32	111.00
1	L	452	ARG	N-CA-C	7.15	130.31	111.00
1	R	475	SER	N-CA-CB	7.15	121.22	110.50
3	H	394	ASP	C-N-CA	-7.14	103.85	121.70
1	L	398	LYS	CB-CA-C	-7.14	96.12	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	T	394	ASP	C-N-CA	-7.14	103.85	121.70
3	T	407	LEU	CB-CA-C	-7.14	96.64	110.20
3	H	407	LEU	CB-CA-C	-7.14	96.64	110.20
1	R	341	ASP	CB-CA-C	7.13	124.66	110.40
1	F	399	SER	CB-CA-C	-7.12	96.57	110.10
1	L	132	ASP	N-CA-CB	-7.12	97.78	110.60
1	R	452	ARG	N-CA-C	7.12	130.22	111.00
1	X	398	LYS	CB-CA-C	-7.12	96.17	110.40
3	N	394	ASP	C-N-CA	-7.11	103.92	121.70
3	Z	394	ASP	C-N-CA	-7.11	103.94	121.70
3	N	407	LEU	CB-CA-C	-7.11	96.70	110.20
3	Z	407	LEU	CB-CA-C	-7.10	96.70	110.20
1	X	452	ARG	N-CA-C	7.10	130.17	111.00
1	L	492	GLU	N-CA-CB	7.10	123.38	110.60
3	T	381	LYS	CA-C-N	7.09	132.81	117.20
1	X	427	PHE	O-C-N	7.08	134.03	122.70
3	Z	387	LYS	CA-C-N	-7.08	101.62	117.20
1	X	132	ASP	N-CA-CB	-7.08	97.86	110.60
1	F	132	ASP	N-CA-CB	-7.08	97.86	110.60
1	F	492	GLU	N-CA-CB	7.08	123.34	110.60
3	N	414	VAL	CA-C-N	7.08	132.77	117.20
1	R	132	ASP	N-CA-CB	-7.07	97.87	110.60
3	Z	381	LYS	CA-C-N	7.07	132.75	117.20
1	F	398	LYS	CB-CA-C	-7.07	96.27	110.40
2	G	274	ARG	O-C-N	-7.06	111.40	122.70
1	F	475	SER	N-CA-CB	7.06	121.09	110.50
3	T	414	VAL	CA-C-N	7.06	132.73	117.20
3	Z	377	ARG	CA-C-N	-7.05	101.69	117.20
1	R	492	GLU	N-CA-CB	7.05	123.28	110.60
3	T	387	LYS	CA-C-N	-7.04	101.70	117.20
1	X	492	GLU	N-CA-CB	7.04	123.27	110.60
3	H	381	LYS	CA-C-N	7.04	132.69	117.20
3	H	471	LEU	CA-C-O	7.04	134.88	120.10
1	R	398	LYS	CB-CA-C	-7.04	96.32	110.40
1	F	427	PHE	O-C-N	7.04	133.96	122.70
1	R	464	LYS	O-C-N	7.03	133.95	122.70
1	X	399	SER	CB-CA-C	-7.03	96.74	110.10
3	T	377	ARG	CA-C-N	-7.03	101.74	117.20
2	Y	274	ARG	O-C-N	-7.03	111.45	122.70
3	Z	414	VAL	CA-C-N	7.03	132.66	117.20
1	L	399	SER	CB-CA-C	-7.03	96.75	110.10
4	J	1512	TRP	O-C-N	7.03	133.94	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	N	381	LYS	CA-C-N	7.02	132.64	117.20
3	N	387	LYS	CA-C-N	-7.01	101.77	117.20
1	R	399	SER	CB-CA-C	-7.01	96.78	110.10
3	N	471	LEU	CA-C-O	7.01	134.82	120.10
2	M	274	ARG	O-C-N	-7.01	111.49	122.70
1	R	427	PHE	O-C-N	7.01	133.91	122.70
4	V	1543	GLN	C-N-CA	-7.01	92.57	122.00
3	Z	471	LEU	CA-C-O	7.00	134.81	120.10
3	H	377	ARG	CA-C-N	-7.00	101.80	117.20
2	G	372	ALA	N-CA-CB	7.00	119.90	110.10
1	X	455	ILE	CB-CA-C	-7.00	97.60	111.60
4	J	1543	GLN	C-N-CA	-6.99	92.64	122.00
1	X	299	ASN	N-CA-C	-6.99	92.13	111.00
1	F	299	ASN	N-CA-C	-6.98	92.15	111.00
4	D	1543	GLN	C-N-CA	-6.98	92.69	122.00
1	L	299	ASN	N-CA-C	-6.97	92.17	111.00
3	T	471	LEU	CA-C-O	6.97	134.74	120.10
1	R	299	ASN	N-CA-C	-6.97	92.18	111.00
3	N	377	ARG	CA-C-N	-6.97	101.87	117.20
3	H	387	LYS	CA-C-N	-6.96	101.88	117.20
3	H	414	VAL	CA-C-N	6.96	132.52	117.20
1	X	433	GLU	N-CA-C	-6.96	92.20	111.00
4	P	1543	GLN	C-N-CA	-6.96	92.76	122.00
4	V	1512	TRP	O-C-N	6.96	133.84	122.70
1	F	455	ILE	CB-CA-C	-6.96	97.68	111.60
1	R	455	ILE	CB-CA-C	-6.96	97.69	111.60
2	S	274	ARG	O-C-N	-6.96	111.57	122.70
6	O	484	ARG	N-CA-CB	-6.96	98.08	110.60
6	U	484	ARG	N-CA-CB	-6.96	98.07	110.60
1	L	433	GLU	N-CA-C	-6.95	92.23	111.00
1	R	433	GLU	N-CA-C	-6.95	92.22	111.00
6	I	484	ARG	N-CA-CB	-6.95	98.09	110.60
1	F	433	GLU	N-CA-C	-6.93	92.29	111.00
4	P	1512	TRP	O-C-N	6.92	133.78	122.70
4	D	878	PRO	C-N-CA	6.91	138.98	121.70
4	D	1517	SER	O-C-N	6.91	133.75	122.70
2	M	392	ILE	C-N-CA	-6.91	104.44	121.70
4	P	1517	SER	O-C-N	6.90	133.75	122.70
6	C	484	ARG	N-CA-CB	-6.90	98.18	110.60
2	S	372	ALA	N-CA-CB	6.90	119.76	110.10
3	T	413	LEU	N-CA-CB	6.90	124.20	110.40
2	Y	392	ILE	C-N-CA	-6.89	104.46	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	L	455	ILE	CB-CA-C	-6.89	97.82	111.60
1	F	451	GLU	C-N-CA	-6.89	104.47	121.70
1	L	451	GLU	C-N-CA	-6.89	104.48	121.70
4	D	1512	TRP	O-C-N	6.89	133.72	122.70
2	G	392	ILE	C-N-CA	-6.88	104.49	121.70
1	R	451	GLU	C-N-CA	-6.88	104.50	121.70
4	J	1517	SER	O-C-N	6.87	133.70	122.70
1	X	461	ARG	O-C-N	-6.87	111.70	122.70
3	Z	481	HIS	CB-CA-C	-6.87	96.66	110.40
2	M	331	THR	CA-C-N	-6.87	97.88	117.10
2	S	331	THR	CA-C-N	-6.87	97.88	117.10
2	Y	372	ALA	N-CA-CB	6.86	119.71	110.10
2	S	392	ILE	C-N-CA	-6.86	104.54	121.70
4	P	878	PRO	C-N-CA	6.86	138.85	121.70
6	C	481	ARG	N-CA-C	6.86	129.52	111.00
6	U	481	ARG	N-CA-C	6.85	129.49	111.00
3	N	481	HIS	CB-CA-C	-6.85	96.71	110.40
2	Y	378	SER	CA-C-O	-6.84	105.73	120.10
2	G	378	SER	CA-C-O	-6.84	105.73	120.10
3	Z	413	LEU	N-CA-CB	6.84	124.08	110.40
2	G	331	THR	CA-C-N	-6.84	97.96	117.10
1	R	461	ARG	O-C-N	-6.84	111.76	122.70
4	V	878	PRO	C-N-CA	6.84	138.79	121.70
4	J	878	PRO	C-N-CA	6.84	138.79	121.70
3	N	413	LEU	N-CA-CB	6.83	124.07	110.40
1	R	465	GLN	CA-C-N	6.83	132.23	117.20
1	X	451	GLU	C-N-CA	-6.83	104.63	121.70
2	S	378	SER	CA-C-O	-6.83	105.76	120.10
6	I	481	ARG	N-CA-C	6.83	129.43	111.00
2	M	378	SER	CA-C-O	-6.82	105.77	120.10
6	O	481	ARG	N-CA-C	6.82	129.42	111.00
4	J	1508	LYS	O-C-N	6.82	133.61	122.70
2	G	381	THR	N-CA-C	6.82	129.40	111.00
4	V	1517	SER	O-C-N	6.81	133.60	122.70
2	Y	331	THR	CA-C-N	-6.81	98.02	117.10
3	T	481	HIS	CB-CA-C	-6.81	96.78	110.40
1	L	461	ARG	O-C-N	-6.81	111.81	122.70
3	H	413	LEU	N-CA-CB	6.81	124.01	110.40
2	M	381	THR	N-CA-C	6.80	129.36	111.00
4	V	1459	PHE	N-CA-CB	6.80	122.84	110.60
3	H	481	HIS	CB-CA-C	-6.79	96.81	110.40
2	Y	381	THR	N-CA-C	6.79	129.35	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	M	372	ALA	N-CA-CB	6.79	119.61	110.10
1	F	492	GLU	CB-CA-C	-6.77	96.86	110.40
1	F	465	GLN	CA-C-N	6.77	132.09	117.20
1	L	465	GLN	CA-C-N	6.76	132.08	117.20
1	R	492	GLU	CB-CA-C	-6.76	96.88	110.40
1	X	428	LYS	O-C-N	6.76	134.69	123.20
1	L	428	LYS	O-C-N	6.75	134.68	123.20
4	D	1459	PHE	N-CA-CB	6.75	122.76	110.60
4	P	1508	LYS	O-C-N	6.75	133.50	122.70
1	X	492	GLU	CB-CA-C	-6.75	96.90	110.40
4	P	1507	ASP	C-N-CA	6.75	138.57	121.70
1	F	461	ARG	O-C-N	-6.75	111.91	122.70
2	S	381	THR	N-CA-C	6.75	129.21	111.00
1	X	465	GLN	CA-C-N	6.74	132.03	117.20
1	L	492	GLU	CB-CA-C	-6.74	96.92	110.40
4	J	1493	ARG	CA-C-N	-6.73	102.40	117.20
4	D	1493	ARG	CA-C-N	-6.72	102.43	117.20
4	D	1508	LYS	O-C-N	6.72	133.44	122.70
1	X	453	TYR	CB-CA-C	-6.71	96.98	110.40
1	L	453	TYR	CB-CA-C	-6.71	96.98	110.40
4	P	1459	PHE	N-CA-CB	6.70	122.67	110.60
1	F	404	GLN	N-CA-CB	6.70	122.66	110.60
4	P	1493	ARG	CA-C-N	-6.70	102.45	117.20
3	T	485	LEU	CB-CA-C	-6.70	97.47	110.20
4	V	1508	LYS	O-C-N	6.70	133.42	122.70
1	F	453	TYR	CB-CA-C	-6.70	97.01	110.40
1	R	453	TYR	CB-CA-C	-6.69	97.02	110.40
4	J	1459	PHE	N-CA-CB	6.69	122.65	110.60
4	V	1493	ARG	CA-C-N	-6.69	102.48	117.20
4	D	1507	ASP	C-N-CA	6.69	138.42	121.70
2	M	346	PHE	N-CA-CB	6.69	122.64	110.60
1	R	311	GLN	N-CA-C	-6.68	92.95	111.00
3	Z	349	ARG	CB-CA-C	-6.68	97.04	110.40
2	S	253	GLN	N-CA-C	-6.68	92.97	111.00
4	V	1507	ASP	C-N-CA	6.68	138.39	121.70
1	R	404	GLN	N-CA-CB	6.67	122.61	110.60
2	S	346	PHE	N-CA-CB	6.67	122.61	110.60
2	G	346	PHE	N-CA-CB	6.67	122.61	110.60
2	Y	253	GLN	N-CA-C	-6.66	93.01	111.00
3	T	370	GLU	N-CA-CB	6.66	122.59	110.60
1	X	404	GLN	N-CA-CB	6.66	122.59	110.60
3	Z	485	LEU	CB-CA-C	-6.66	97.55	110.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	T	349	ARG	CB-CA-C	-6.66	97.09	110.40
3	H	485	LEU	CB-CA-C	-6.65	97.56	110.20
2	G	253	GLN	N-CA-C	-6.65	93.04	111.00
2	M	253	GLN	N-CA-C	-6.65	93.04	111.00
3	N	370	GLU	N-CA-CB	6.64	122.56	110.60
2	S	393	TYR	N-CA-C	-6.64	93.06	111.00
1	L	311	GLN	N-CA-C	-6.64	93.06	111.00
1	X	311	GLN	N-CA-C	-6.64	93.07	111.00
1	F	428	LYS	O-C-N	6.64	134.48	123.20
4	D	1448	MET	CA-C-O	-6.64	106.16	120.10
2	G	393	TYR	N-CA-C	-6.62	93.12	111.00
3	Z	370	GLU	N-CA-CB	6.62	122.52	110.60
3	N	485	LEU	CB-CA-C	-6.62	97.62	110.20
3	N	349	ARG	CB-CA-C	-6.62	97.16	110.40
2	Y	393	TYR	N-CA-C	-6.62	93.14	111.00
3	Z	405	ASP	O-C-N	6.62	133.29	122.70
1	R	428	LYS	O-C-N	6.62	134.44	123.20
4	J	1507	ASP	C-N-CA	6.62	138.24	121.70
2	Y	346	PHE	N-CA-CB	6.61	122.50	110.60
1	L	404	GLN	N-CA-CB	6.61	122.50	110.60
3	H	370	GLU	N-CA-CB	6.61	122.50	110.60
1	F	484	ASP	CA-C-N	-6.61	102.66	117.20
2	M	393	TYR	N-CA-C	-6.61	93.16	111.00
4	P	1448	MET	CA-C-O	-6.61	106.22	120.10
4	J	1503	ILE	O-C-N	6.61	133.27	122.70
1	F	311	GLN	N-CA-C	-6.60	93.17	111.00
1	L	419	GLY	CA-C-N	6.60	131.72	117.20
1	L	484	ASP	CA-C-N	-6.60	102.68	117.20
1	X	484	ASP	CA-C-N	-6.60	102.68	117.20
3	N	405	ASP	N-CA-CB	6.60	122.47	110.60
3	H	405	ASP	N-CA-CB	6.59	122.47	110.60
3	Z	405	ASP	N-CA-CB	6.59	122.47	110.60
4	P	1503	ILE	O-C-N	6.59	133.25	122.70
2	S	344	ASP	CA-C-O	6.59	133.94	120.10
4	D	1503	ILE	O-C-N	6.59	133.24	122.70
1	R	419	GLY	CA-C-N	6.59	131.69	117.20
4	V	1448	MET	CA-C-O	-6.59	106.27	120.10
4	J	1448	MET	CA-C-O	-6.58	106.28	120.10
3	H	349	ARG	CB-CA-C	-6.58	97.24	110.40
3	N	407	LEU	N-CA-CB	6.57	123.54	110.40
4	D	1484	ASP	CA-C-O	-6.57	106.31	120.10
1	R	484	ASP	CA-C-N	-6.57	102.76	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	T	405	ASP	O-C-N	6.57	133.21	122.70
3	T	405	ASP	N-CA-CB	6.56	122.41	110.60
3	T	407	LEU	N-CA-CB	6.55	123.51	110.40
2	M	344	ASP	CA-C-O	6.55	133.86	120.10
1	X	419	GLY	CA-C-N	6.55	131.61	117.20
4	V	1503	ILE	O-C-N	6.54	133.17	122.70
3	H	405	ASP	O-C-N	6.54	133.16	122.70
3	T	498	LYS	N-CA-CB	6.54	122.37	110.60
3	H	407	LEU	N-CA-CB	6.53	123.47	110.40
1	F	419	GLY	CA-C-N	6.53	131.57	117.20
3	N	405	ASP	O-C-N	6.53	133.15	122.70
3	H	406	LEU	CA-C-N	6.53	131.56	117.20
1	L	425	THR	C-N-CA	-6.52	105.39	121.70
3	Z	406	LEU	CA-C-N	6.52	131.55	117.20
3	T	501	GLU	CA-C-N	-6.52	102.86	117.20
4	D	1451	ARG	CA-C-N	-6.52	102.86	117.20
3	H	501	GLU	CA-C-N	-6.51	102.87	117.20
1	X	452	ARG	C-N-CA	6.51	137.99	121.70
1	R	452	ARG	C-N-CA	6.51	137.99	121.70
1	R	425	THR	C-N-CA	-6.51	105.42	121.70
1	F	425	THR	C-N-CA	-6.51	105.42	121.70
3	N	501	GLU	CA-C-N	-6.51	102.88	117.20
4	V	1451	ARG	CA-C-N	-6.51	102.89	117.20
4	J	1451	ARG	CA-C-N	-6.50	102.89	117.20
1	X	425	THR	C-N-CA	-6.50	105.44	121.70
1	F	452	ARG	C-N-CA	6.50	137.95	121.70
3	Z	407	LEU	N-CA-CB	6.50	123.40	110.40
4	P	1484	ASP	CA-C-O	-6.50	106.45	120.10
3	Z	501	GLU	CA-C-N	-6.49	102.93	117.20
3	T	406	LEU	CA-C-N	6.49	131.47	117.20
3	H	498	LYS	N-CA-CB	6.48	122.27	110.60
1	L	328	VAL	CA-C-O	-6.48	106.48	120.10
4	P	1451	ARG	CA-C-N	-6.48	102.94	117.20
3	H	406	LEU	CB-CA-C	-6.48	97.89	110.20
5	Q	395	GLY	N-CA-C	-6.48	96.90	113.10
3	N	498	LYS	N-CA-CB	6.48	122.26	110.60
2	Y	344	ASP	CA-C-O	6.48	133.70	120.10
1	R	320	GLU	N-CA-CB	6.47	122.25	110.60
3	Z	391	GLN	C-N-CA	6.47	137.87	121.70
1	L	452	ARG	C-N-CA	6.47	137.87	121.70
4	J	1484	ASP	CA-C-O	-6.47	106.52	120.10
3	N	391	GLN	C-N-CA	6.46	137.85	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	N	406	LEU	CA-C-N	6.46	131.41	117.20
3	T	405	ASP	CA-C-N	-6.46	102.99	117.20
2	G	344	ASP	CA-C-O	6.46	133.66	120.10
3	H	391	GLN	C-N-CA	6.46	137.84	121.70
3	N	406	LEU	CB-CA-C	-6.45	97.94	110.20
3	H	408	SER	O-C-N	6.45	133.35	121.10
1	R	398	LYS	CA-C-N	6.44	131.37	117.20
2	S	352	GLN	CB-CA-C	-6.44	97.52	110.40
5	W	395	GLY	N-CA-C	-6.44	97.00	113.10
1	X	398	LYS	CA-C-N	6.44	131.36	117.20
3	T	406	LEU	CB-CA-C	-6.44	97.97	110.20
3	H	405	ASP	CA-C-N	-6.43	103.05	117.20
3	Z	498	LYS	N-CA-CB	6.43	122.18	110.60
3	T	408	SER	O-C-N	6.43	133.32	121.10
4	P	1518	ASN	O-C-N	6.43	133.00	122.70
4	V	1484	ASP	CA-C-O	-6.43	106.59	120.10
1	X	328	VAL	CA-C-O	-6.43	106.61	120.10
3	T	391	GLN	C-N-CA	6.43	137.76	121.70
5	K	395	GLY	N-CA-C	-6.43	97.03	113.10
3	Z	405	ASP	CA-C-N	-6.42	103.07	117.20
3	Z	408	SER	O-C-N	6.42	133.30	121.10
2	S	338	GLU	CB-CA-C	6.42	123.25	110.40
1	F	305	ASP	CA-C-N	-6.42	99.12	117.10
1	F	320	GLU	N-CA-CB	6.42	122.16	110.60
3	N	408	SER	O-C-N	6.42	133.30	121.10
1	R	328	VAL	CA-C-O	-6.42	106.61	120.10
5	E	395	GLY	N-CA-C	-6.42	97.05	113.10
1	R	305	ASP	CA-C-N	-6.42	99.12	117.10
1	F	398	LYS	CA-C-N	6.42	131.32	117.20
1	X	305	ASP	CA-C-N	-6.42	99.13	117.10
2	S	313	ILE	N-CA-C	-6.42	93.67	111.00
2	M	373	THR	N-CA-CB	6.42	122.49	110.30
2	G	313	ILE	N-CA-C	-6.41	93.68	111.00
1	F	328	VAL	CA-C-O	-6.41	106.64	120.10
3	N	405	ASP	CA-C-N	-6.41	103.10	117.20
2	Y	313	ILE	N-CA-C	-6.41	93.70	111.00
1	X	320	GLU	N-CA-CB	6.40	122.13	110.60
2	M	352	GLN	CB-CA-C	-6.40	97.59	110.40
1	L	320	GLU	N-CA-CB	6.40	122.11	110.60
2	Y	338	GLU	CB-CA-C	6.39	123.19	110.40
1	F	299	ASN	O-C-N	-6.39	108.96	121.10
2	G	352	GLN	CB-CA-C	-6.39	97.62	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	J	1518	ASN	O-C-N	6.39	132.93	122.70
3	Z	406	LEU	CB-CA-C	-6.39	98.07	110.20
1	L	301	PRO	C-N-CA	6.39	137.67	121.70
2	M	313	ILE	N-CA-C	-6.39	93.76	111.00
2	G	338	GLU	CB-CA-C	6.38	123.17	110.40
2	Y	373	THR	N-CA-CB	6.37	122.40	110.30
1	R	299	ASN	O-C-N	-6.37	109.00	121.10
2	S	373	THR	N-CA-CB	6.37	122.40	110.30
1	L	299	ASN	O-C-N	-6.37	109.00	121.10
1	L	398	LYS	CA-C-N	6.36	131.20	117.20
2	Y	352	GLN	CB-CA-C	-6.35	97.69	110.40
1	X	299	ASN	O-C-N	-6.35	109.04	121.10
1	X	301	PRO	C-N-CA	6.34	137.56	121.70
2	G	373	THR	N-CA-CB	6.34	122.35	110.30
1	L	305	ASP	CA-C-N	-6.34	99.34	117.10
5	E	414	SER	C-N-CA	6.34	137.55	121.70
4	D	1516	LEU	O-C-N	6.34	132.84	122.70
5	K	415	LYS	N-CA-CB	6.34	122.01	110.60
5	K	414	SER	C-N-CA	6.33	137.53	121.70
3	T	415	LYS	N-CA-CB	6.33	122.00	110.60
2	Y	329	GLN	N-CA-CB	6.33	121.99	110.60
3	N	415	LYS	N-CA-CB	6.33	121.99	110.60
5	W	415	LYS	N-CA-CB	6.33	121.99	110.60
1	R	301	PRO	C-N-CA	6.32	137.50	121.70
5	Q	414	SER	C-N-CA	6.32	137.49	121.70
5	W	414	SER	C-N-CA	6.31	137.47	121.70
1	F	301	PRO	C-N-CA	6.31	137.47	121.70
2	M	329	GLN	N-CA-CB	6.31	121.95	110.60
4	J	1522	LEU	C-N-CA	-6.30	105.95	121.70
2	M	338	GLU	CB-CA-C	6.30	123.00	110.40
3	N	413	LEU	O-C-N	-6.30	112.62	122.70
1	L	419	GLY	N-CA-C	-6.30	97.36	113.10
4	P	1522	LEU	C-N-CA	-6.30	105.96	121.70
3	N	407	LEU	N-CA-C	-6.29	94.02	111.00
1	R	419	GLY	N-CA-C	-6.29	97.38	113.10
4	D	1518	ASN	O-C-N	6.29	132.76	122.70
5	Q	415	LYS	N-CA-CB	6.29	121.92	110.60
1	L	290	PRO	N-CA-C	6.28	128.43	112.10
5	E	415	LYS	N-CA-CB	6.28	121.91	110.60
2	G	344	ASP	N-CA-CB	6.28	121.90	110.60
3	H	407	LEU	N-CA-C	-6.28	94.06	111.00
4	J	1516	LEU	O-C-N	6.28	132.74	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	V	1518	ASN	O-C-N	6.27	132.74	122.70
3	Z	413	LEU	O-C-N	-6.27	112.67	122.70
3	Z	407	LEU	N-CA-C	-6.26	94.08	111.00
1	F	419	GLY	N-CA-C	-6.26	97.45	113.10
4	V	1522	LEU	C-N-CA	-6.26	106.05	121.70
1	X	419	GLY	N-CA-C	-6.26	97.45	113.10
4	P	1667	ALA	CB-CA-C	-6.26	100.71	110.10
1	F	455	ILE	O-C-N	-6.26	112.69	122.70
2	S	341	ALA	N-CA-C	-6.26	94.11	111.00
4	V	1667	ALA	CB-CA-C	-6.26	100.71	110.10
2	M	379	HIS	N-CA-C	6.25	127.88	111.00
3	Z	415	LYS	N-CA-CB	6.25	121.85	110.60
1	R	290	PRO	N-CA-C	6.25	128.34	112.10
2	S	330	LYS	CA-C-O	6.24	133.21	120.10
2	Y	330	LYS	CA-C-O	6.24	133.21	120.10
2	G	330	LYS	CA-C-O	6.24	133.20	120.10
2	G	379	HIS	N-CA-C	6.24	127.85	111.00
4	P	1538	SER	CA-C-O	-6.24	107.00	120.10
4	V	1516	LEU	O-C-N	6.24	132.68	122.70
4	J	1538	SER	CA-C-O	-6.24	107.00	120.10
3	H	415	LYS	N-CA-CB	6.23	121.82	110.60
3	T	407	LEU	N-CA-C	-6.23	94.17	111.00
4	D	1522	LEU	C-N-CA	-6.23	106.13	121.70
1	F	290	PRO	N-CA-C	6.23	128.29	112.10
2	G	329	GLN	N-CA-CB	6.22	121.80	110.60
1	X	290	PRO	N-CA-C	6.22	128.28	112.10
2	M	341	ALA	N-CA-C	-6.22	94.19	111.00
1	R	455	ILE	O-C-N	-6.22	112.75	122.70
2	S	379	HIS	N-CA-C	6.22	127.80	111.00
2	Y	341	ALA	N-CA-C	-6.22	94.21	111.00
3	T	413	LEU	O-C-N	-6.22	112.75	122.70
2	M	344	ASP	N-CA-CB	6.22	121.79	110.60
2	G	341	ALA	N-CA-C	-6.21	94.22	111.00
1	L	455	ILE	O-C-N	-6.21	112.77	122.70
2	S	329	GLN	N-CA-CB	6.21	121.78	110.60
1	X	455	ILE	O-C-N	-6.21	112.77	122.70
3	T	412	GLU	N-CA-CB	6.21	121.77	110.60
4	V	1538	SER	CA-C-O	-6.21	107.07	120.10
4	J	1667	ALA	CB-CA-C	-6.21	100.79	110.10
4	D	1538	SER	CA-C-O	-6.21	107.07	120.10
3	H	413	LEU	O-C-N	-6.20	112.78	122.70
2	Y	379	HIS	N-CA-C	6.20	127.75	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	Y	344	ASP	N-CA-CB	6.20	121.76	110.60
4	D	1667	ALA	CB-CA-C	-6.20	100.80	110.10
4	P	1516	LEU	O-C-N	6.20	132.62	122.70
4	D	1519	SER	O-C-N	6.19	133.72	123.20
2	M	330	LYS	CA-C-O	6.18	133.09	120.10
2	M	264	GLU	CB-CA-C	6.17	122.75	110.40
2	S	264	GLU	CB-CA-C	6.17	122.75	110.40
3	N	412	GLU	N-CA-CB	6.17	121.71	110.60
2	S	344	ASP	N-CA-CB	6.17	121.71	110.60
3	H	412	GLU	N-CA-CB	6.17	121.70	110.60
4	V	1519	SER	O-C-N	6.17	133.68	123.20
1	L	469	GLN	C-N-CA	-6.16	106.29	121.70
3	T	414	VAL	O-C-N	-6.16	112.84	122.70
1	F	469	GLN	C-N-CA	-6.15	106.32	121.70
2	G	264	GLU	CB-CA-C	6.15	122.70	110.40
1	R	343	MET	CB-CA-C	-6.15	98.10	110.40
3	Z	340	TRP	C-N-CA	6.15	137.07	121.70
4	P	1519	SER	O-C-N	6.15	133.65	123.20
4	J	1531	GLU	C-N-CA	6.14	137.06	121.70
3	T	340	TRP	C-N-CA	6.13	137.03	121.70
1	X	343	MET	CB-CA-C	-6.13	98.14	110.40
1	L	343	MET	CB-CA-C	-6.13	98.14	110.40
1	X	469	GLN	C-N-CA	-6.13	106.38	121.70
3	N	340	TRP	C-N-CA	6.13	137.02	121.70
2	S	330	LYS	C-N-CA	6.13	137.02	121.70
1	F	311	GLN	CB-CA-C	-6.12	98.15	110.40
1	L	311	GLN	CB-CA-C	-6.12	98.15	110.40
3	Z	412	GLU	N-CA-CB	6.12	121.62	110.60
3	Z	414	VAL	O-C-N	-6.12	112.90	122.70
3	H	340	TRP	C-N-CA	6.12	137.00	121.70
1	R	469	GLN	C-N-CA	-6.12	106.41	121.70
1	F	343	MET	CB-CA-C	-6.11	98.19	110.40
1	X	311	GLN	CB-CA-C	-6.11	98.19	110.40
4	J	1519	SER	O-C-N	6.10	133.57	123.20
3	N	388	ARG	N-CA-C	6.10	127.47	111.00
3	H	414	VAL	O-C-N	-6.10	112.94	122.70
4	D	1531	GLU	C-N-CA	6.10	136.95	121.70
2	Y	264	GLU	CB-CA-C	6.10	122.60	110.40
3	H	384	LEU	CB-CA-C	-6.09	98.62	110.20
3	T	388	ARG	N-CA-C	6.09	127.46	111.00
3	N	414	VAL	O-C-N	-6.09	112.96	122.70
2	G	348	ILE	CB-CA-C	6.08	123.77	111.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	Y	348	ILE	CB-CA-C	6.08	123.76	111.60
2	S	348	ILE	CB-CA-C	6.08	123.76	111.60
4	V	1531	GLU	C-N-CA	6.08	136.91	121.70
3	Z	384	LEU	CB-CA-C	-6.08	98.65	110.20
6	I	308	LEU	C-N-CA	6.08	136.90	121.70
2	Y	330	LYS	C-N-CA	6.08	136.89	121.70
1	L	489	LYS	C-N-CA	-6.08	106.51	121.70
4	P	1531	GLU	C-N-CA	6.08	136.89	121.70
1	X	489	LYS	C-N-CA	-6.07	106.52	121.70
1	R	489	LYS	C-N-CA	-6.07	106.53	121.70
2	M	348	ILE	CB-CA-C	6.07	123.73	111.60
2	G	330	LYS	C-N-CA	6.06	136.86	121.70
1	R	311	GLN	CB-CA-C	-6.06	98.28	110.40
2	M	330	LYS	C-N-CA	6.06	136.84	121.70
3	N	384	LEU	CB-CA-C	-6.05	98.70	110.20
2	S	398	ALA	CB-CA-C	-6.05	101.03	110.10
4	D	1536	LEU	O-C-N	-6.04	113.04	122.70
4	D	1472	SER	CA-C-O	6.04	132.78	120.10
3	Z	388	ARG	N-CA-C	6.04	127.29	111.00
1	L	468	LYS	O-C-N	6.04	132.36	122.70
2	Y	251	ILE	C-N-CA	-6.03	106.62	121.70
2	G	251	ILE	C-N-CA	-6.03	106.62	121.70
3	T	384	LEU	CB-CA-C	-6.03	98.74	110.20
2	S	251	ILE	C-N-CA	-6.03	106.63	121.70
4	V	1448	MET	C-N-CA	6.03	136.77	121.70
1	F	489	LYS	C-N-CA	-6.03	106.64	121.70
6	C	308	LEU	C-N-CA	6.03	136.76	121.70
4	P	1448	MET	C-N-CA	6.02	136.76	121.70
4	V	1536	LEU	O-C-N	-6.02	113.07	122.70
4	D	1448	MET	C-N-CA	6.02	136.75	121.70
6	U	308	LEU	C-N-CA	6.02	136.74	121.70
4	J	1472	SER	CA-C-O	6.02	132.73	120.10
1	X	491	VAL	CA-C-O	6.01	132.73	120.10
2	M	251	ILE	C-N-CA	-6.01	106.67	121.70
3	H	388	ARG	N-CA-C	6.01	127.23	111.00
2	M	398	ALA	CB-CA-C	-6.01	101.09	110.10
4	J	1448	MET	C-N-CA	6.01	136.72	121.70
1	R	468	LYS	O-C-N	6.00	132.30	122.70
2	S	327	ARG	N-CA-C	6.00	127.21	111.00
4	V	1472	SER	CA-C-O	6.00	132.71	120.10
1	F	468	LYS	O-C-N	6.00	132.30	122.70
4	P	1472	SER	CA-C-O	6.00	132.69	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	R	491	VAL	CA-C-O	5.99	132.68	120.10
4	P	1536	LEU	O-C-N	-5.99	113.12	122.70
1	L	491	VAL	CA-C-O	5.99	132.67	120.10
1	R	461	ARG	N-CA-CB	5.99	121.38	110.60
6	O	308	LEU	C-N-CA	5.99	136.67	121.70
4	J	1536	LEU	O-C-N	-5.98	113.13	122.70
1	F	491	VAL	CA-C-O	5.98	132.66	120.10
2	M	327	ARG	N-CA-C	5.98	127.14	111.00
1	X	468	LYS	O-C-N	5.98	132.26	122.70
1	R	448	ARG	C-N-CA	-5.98	106.76	121.70
1	F	461	ARG	N-CA-CB	5.97	121.35	110.60
1	X	448	ARG	C-N-CA	-5.97	106.77	121.70
2	G	327	ARG	N-CA-C	5.97	127.11	111.00
2	G	398	ALA	CB-CA-C	-5.96	101.15	110.10
1	X	461	ARG	N-CA-CB	5.96	121.34	110.60
2	Y	327	ARG	N-CA-C	5.96	127.11	111.00
1	X	394	GLU	C-N-CA	-5.96	106.80	121.70
1	L	448	ARG	C-N-CA	-5.96	106.81	121.70
1	R	394	GLU	C-N-CA	-5.95	106.82	121.70
1	F	394	GLU	C-N-CA	-5.95	106.82	121.70
1	L	394	GLU	C-N-CA	-5.95	106.82	121.70
2	Y	398	ALA	CB-CA-C	-5.95	101.18	110.10
3	Z	501	GLU	N-CA-CB	5.95	121.30	110.60
1	F	448	ARG	C-N-CA	-5.94	106.84	121.70
1	R	463	ILE	N-CA-C	-5.94	94.95	111.00
2	S	345	TYR	O-C-N	-5.94	113.20	122.70
1	L	463	ILE	N-CA-C	-5.93	94.99	111.00
3	T	352	LEU	CB-CA-C	5.93	121.47	110.20
4	D	1503	ILE	C-N-CA	5.92	136.51	121.70
1	L	461	ARG	N-CA-CB	5.92	121.26	110.60
1	X	453	TYR	N-CA-CB	5.92	121.26	110.60
3	N	394	ASP	CA-C-N	-5.92	104.17	117.20
2	G	342	PRO	N-CA-C	5.92	127.49	112.10
3	H	394	ASP	CA-C-N	-5.92	104.18	117.20
1	X	306	PRO	CA-C-N	5.92	130.22	117.20
1	X	463	ILE	N-CA-C	-5.92	95.02	111.00
4	V	1503	ILE	C-N-CA	5.92	136.49	121.70
3	T	394	ASP	CA-C-N	-5.90	104.23	117.20
4	P	1503	ILE	C-N-CA	5.90	136.44	121.70
1	F	463	ILE	N-CA-C	-5.89	95.09	111.00
2	Y	361	ARG	N-CA-C	-5.89	95.09	111.00
3	Z	394	ASP	CA-C-N	-5.89	104.24	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	J	1503	ILE	C-N-CA	5.89	136.42	121.70
2	M	361	ARG	N-CA-C	-5.89	95.10	111.00
3	H	501	GLU	N-CA-CB	5.89	121.20	110.60
3	N	501	GLU	N-CA-CB	5.89	121.19	110.60
3	Z	352	LEU	CB-CA-C	5.88	121.38	110.20
1	F	490	LEU	CA-C-O	5.88	132.44	120.10
3	N	352	LEU	CB-CA-C	5.88	121.37	110.20
1	R	306	PRO	CA-C-N	5.88	130.13	117.20
3	H	352	LEU	CB-CA-C	5.87	121.36	110.20
2	M	342	PRO	N-CA-C	5.87	127.37	112.10
3	T	473	GLN	N-CA-CB	5.87	121.17	110.60
4	P	318	GLN	C-N-CA	5.87	136.38	121.70
4	V	318	GLN	C-N-CA	5.87	136.37	121.70
4	P	1540	LEU	C-N-CA	-5.87	107.03	121.70
2	S	342	PRO	N-CA-C	5.86	127.35	112.10
2	S	361	ARG	N-CA-C	-5.86	95.17	111.00
4	J	241	LEU	C-N-CA	-5.86	109.99	122.30
1	L	453	TYR	N-CA-CB	5.86	121.14	110.60
2	G	361	ARG	N-CA-C	-5.86	95.19	111.00
2	Y	342	PRO	N-CA-C	5.86	127.33	112.10
2	Y	345	TYR	O-C-N	-5.86	113.33	122.70
4	D	241	LEU	C-N-CA	-5.86	110.00	122.30
3	T	501	GLU	N-CA-CB	5.85	121.14	110.60
1	F	306	PRO	CA-C-N	5.85	130.07	117.20
1	X	457	ALA	C-N-CA	-5.85	107.07	121.70
1	R	453	TYR	N-CA-CB	5.85	121.13	110.60
1	F	453	TYR	N-CA-CB	5.85	121.13	110.60
2	G	345	TYR	O-C-N	-5.85	113.34	122.70
1	L	457	ALA	C-N-CA	-5.85	107.08	121.70
3	Z	415	LYS	C-N-CA	-5.85	107.08	121.70
1	L	306	PRO	CA-C-N	5.84	130.06	117.20
1	L	488	ILE	N-CA-C	5.84	126.78	111.00
1	R	457	ALA	C-N-CA	-5.84	107.09	121.70
1	F	446	ALA	N-CA-CB	5.84	118.28	110.10
4	D	318	GLN	C-N-CA	5.84	136.30	121.70
3	N	473	GLN	N-CA-CB	5.84	121.11	110.60
1	X	488	ILE	N-CA-C	5.83	126.75	111.00
3	T	410	LEU	C-N-CA	5.83	136.27	121.70
2	M	345	TYR	O-C-N	-5.83	113.38	122.70
2	S	312	LYS	CA-C-N	-5.82	104.39	117.20
3	Z	410	LEU	C-N-CA	5.81	136.24	121.70
1	F	343	MET	CA-C-O	5.81	132.31	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	H	473	GLN	N-CA-CB	5.81	121.06	110.60
1	F	457	ALA	C-N-CA	-5.81	107.18	121.70
3	H	410	LEU	C-N-CA	5.81	136.22	121.70
3	N	410	LEU	C-N-CA	5.81	136.22	121.70
4	V	241	LEU	C-N-CA	-5.81	110.10	122.30
4	J	318	GLN	C-N-CA	5.81	136.21	121.70
1	R	490	LEU	CA-C-O	5.80	132.29	120.10
1	F	488	ILE	N-CA-C	5.80	126.66	111.00
1	X	446	ALA	N-CA-CB	5.80	118.22	110.10
3	N	470	PRO	O-C-N	-5.79	113.43	122.70
1	R	343	MET	CA-C-O	5.79	132.27	120.10
2	G	312	LYS	CA-C-N	-5.79	104.46	117.20
1	L	490	LEU	CA-C-O	5.78	132.25	120.10
2	M	338	GLU	N-CA-CB	5.78	121.01	110.60
2	S	393	TYR	CA-C-N	5.78	129.92	117.20
1	X	343	MET	CA-C-O	5.78	132.24	120.10
2	G	393	TYR	CA-C-N	5.78	129.91	117.20
2	Y	312	LYS	CA-C-N	-5.78	104.49	117.20
2	M	343	ALA	C-N-CA	5.78	136.14	121.70
6	U	484	ARG	CA-C-N	-5.78	104.49	117.20
1	F	454	TYR	CB-CA-C	5.77	121.95	110.40
2	Y	393	TYR	CA-C-N	5.77	129.90	117.20
2	S	343	ALA	C-N-CA	5.77	136.13	121.70
1	X	490	LEU	CA-C-O	5.77	132.22	120.10
1	L	446	ALA	N-CA-CB	5.77	118.18	110.10
3	N	415	LYS	C-N-CA	-5.77	107.28	121.70
2	G	343	ALA	C-N-CA	5.76	136.11	121.70
3	Z	473	GLN	N-CA-CB	5.76	120.97	110.60
1	R	397	ARG	CB-CA-C	-5.76	98.88	110.40
4	P	241	LEU	C-N-CA	-5.76	110.20	122.30
1	X	454	TYR	CB-CA-C	5.76	121.92	110.40
3	T	415	LYS	C-N-CA	-5.76	107.30	121.70
1	L	454	TYR	CB-CA-C	5.76	121.91	110.40
4	V	1540	LEU	C-N-CA	-5.76	107.31	121.70
3	H	470	PRO	O-C-N	-5.75	113.50	122.70
1	L	397	ARG	CB-CA-C	-5.75	98.89	110.40
2	M	393	TYR	CA-C-N	5.75	129.85	117.20
1	R	446	ALA	N-CA-CB	5.75	118.15	110.10
1	R	488	ILE	N-CA-C	5.75	126.53	111.00
4	D	1540	LEU	C-N-CA	-5.75	107.33	121.70
1	L	343	MET	CA-C-O	5.75	132.17	120.10
2	M	378	SER	O-C-N	-5.75	113.50	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	H	415	LYS	C-N-CA	-5.75	107.34	121.70
3	Z	470	PRO	O-C-N	-5.75	113.51	122.70
2	M	312	LYS	CA-C-N	-5.74	104.56	117.20
2	G	338	GLU	N-CA-CB	5.74	120.94	110.60
2	Y	338	GLU	N-CA-CB	5.74	120.93	110.60
6	I	484	ARG	CA-C-N	-5.74	104.58	117.20
2	S	378	SER	O-C-N	-5.74	113.52	122.70
5	W	395	GLY	C-N-CA	5.73	136.03	121.70
2	Y	343	ALA	C-N-CA	5.73	136.03	121.70
3	N	493	ALA	CA-C-N	5.73	129.81	117.20
4	J	1485	ALA	N-CA-C	-5.73	95.53	111.00
2	S	338	GLU	N-CA-CB	5.73	120.91	110.60
4	P	1485	ALA	N-CA-C	-5.73	95.54	111.00
4	J	1540	LEU	C-N-CA	-5.72	107.39	121.70
6	C	484	ARG	CA-C-N	-5.72	104.61	117.20
2	Y	378	SER	O-C-N	-5.72	113.55	122.70
1	F	397	ARG	CB-CA-C	-5.72	98.96	110.40
1	R	453	TYR	C-N-CA	-5.72	107.41	121.70
2	S	344	ASP	O-C-N	-5.71	113.56	122.70
3	T	470	PRO	O-C-N	-5.71	113.56	122.70
1	X	397	ARG	CB-CA-C	-5.71	98.98	110.40
1	F	486	GLU	CB-CA-C	5.70	121.80	110.40
1	L	486	GLU	CB-CA-C	5.70	121.80	110.40
5	K	395	GLY	C-N-CA	5.70	135.95	121.70
6	O	484	ARG	CA-C-N	-5.70	104.66	117.20
2	G	312	LYS	O-C-N	5.69	131.81	122.70
1	R	454	TYR	CB-CA-C	5.69	121.79	110.40
2	Y	344	ASP	O-C-N	-5.69	113.59	122.70
1	R	486	GLU	CB-CA-C	5.69	121.78	110.40
4	P	1537	GLN	CA-C-O	5.69	132.05	120.10
4	V	1537	GLN	CA-C-O	5.69	132.05	120.10
4	D	1537	GLN	CA-C-O	5.69	132.05	120.10
5	Q	395	GLY	C-N-CA	5.69	135.93	121.70
3	T	493	ALA	CA-C-N	5.69	129.71	117.20
2	G	341	ALA	N-CA-CB	5.68	118.06	110.10
2	S	341	ALA	N-CA-CB	5.68	118.06	110.10
1	X	453	TYR	C-N-CA	-5.68	107.49	121.70
2	M	341	ALA	N-CA-CB	5.68	118.05	110.10
4	V	1485	ALA	N-CA-C	-5.68	95.67	111.00
4	D	1485	ALA	N-CA-C	-5.68	95.67	111.00
3	H	493	ALA	CA-C-N	5.67	129.67	117.20
2	G	253	GLN	O-C-N	5.67	131.77	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	Z	493	ALA	CA-C-N	5.67	129.67	117.20
2	M	344	ASP	O-C-N	-5.67	113.63	122.70
4	J	1491	ILE	CB-CA-C	-5.67	100.26	111.60
4	J	1537	GLN	CA-C-O	5.67	132.00	120.10
1	L	472	GLU	N-CA-C	-5.67	95.70	111.00
5	E	395	GLY	C-N-CA	5.67	135.87	121.70
2	Y	253	GLN	O-C-N	5.66	131.76	122.70
2	Y	341	ALA	N-CA-CB	5.66	118.03	110.10
2	M	384	ASP	CB-CA-C	-5.66	99.08	110.40
1	L	367	THR	CA-C-O	-5.66	108.22	120.10
1	X	486	GLU	CB-CA-C	5.65	121.71	110.40
2	M	253	GLN	O-C-N	5.65	131.75	122.70
2	G	378	SER	O-C-N	-5.65	113.66	122.70
2	M	312	LYS	O-C-N	5.65	131.74	122.70
4	P	1491	ILE	CB-CA-C	-5.65	100.30	111.60
1	F	453	TYR	C-N-CA	-5.65	107.58	121.70
2	S	253	GLN	O-C-N	5.65	131.74	122.70
1	X	401	TYR	CA-C-O	5.65	131.96	120.10
1	L	453	TYR	C-N-CA	-5.64	107.59	121.70
3	N	385	ASP	C-N-CA	-5.64	107.59	121.70
4	P	1517	SER	CA-C-N	-5.64	104.78	117.20
1	F	367	THR	CA-C-O	-5.64	108.25	120.10
1	X	472	GLU	N-CA-C	-5.64	95.77	111.00
2	S	312	LYS	O-C-N	5.64	131.73	122.70
4	V	1517	SER	CA-C-N	-5.64	104.79	117.20
1	R	472	GLU	N-CA-C	-5.64	95.78	111.00
1	L	401	TYR	CA-C-O	5.64	131.94	120.10
1	F	472	GLU	N-CA-C	-5.63	95.80	111.00
4	J	1517	SER	CA-C-N	-5.63	104.81	117.20
1	X	367	THR	O-C-N	-5.63	113.69	122.70
1	F	403	ILE	CA-C-O	5.63	131.91	120.10
2	G	344	ASP	O-C-N	-5.63	113.70	122.70
4	D	1491	ILE	CB-CA-C	-5.62	100.35	111.60
1	R	367	THR	CA-C-O	-5.62	108.30	120.10
1	R	403	ILE	N-CA-C	5.62	126.17	111.00
1	F	464	LYS	CA-C-N	-5.62	104.84	117.20
1	X	403	ILE	CA-C-O	5.62	131.90	120.10
4	V	1491	ILE	CB-CA-C	-5.62	100.36	111.60
4	D	1517	SER	CA-C-N	-5.62	104.84	117.20
1	L	403	ILE	N-CA-C	5.62	126.16	111.00
1	X	343	MET	CA-C-N	-5.61	104.86	117.20
1	F	343	MET	CA-C-N	-5.61	104.87	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	X	463	ILE	CA-C-O	-5.61	108.33	120.10
2	Y	384	ASP	CB-CA-C	-5.60	99.19	110.40
1	L	464	LYS	CA-C-N	-5.60	104.87	117.20
1	F	403	ILE	N-CA-C	5.60	126.12	111.00
1	X	464	LYS	CA-C-N	-5.60	104.88	117.20
2	G	384	ASP	CB-CA-C	-5.60	99.21	110.40
1	X	403	ILE	N-CA-C	5.60	126.11	111.00
1	R	403	ILE	CA-C-O	5.60	131.85	120.10
4	V	1505	SER	C-N-CA	-5.59	107.72	121.70
4	D	1505	SER	C-N-CA	-5.59	107.72	121.70
4	D	1448	MET	O-C-N	5.59	131.64	122.70
3	Z	385	ASP	C-N-CA	-5.59	107.74	121.70
3	N	353	GLN	CB-CA-C	-5.59	99.23	110.40
4	V	1448	MET	O-C-N	5.58	131.63	122.70
3	Z	353	GLN	CB-CA-C	-5.58	99.24	110.40
3	T	385	ASP	C-N-CA	-5.58	107.75	121.70
2	S	384	ASP	CB-CA-C	-5.58	99.25	110.40
6	U	252	MET	N-CA-CB	5.58	120.63	110.60
1	F	463	ILE	CA-C-O	-5.57	108.40	120.10
1	L	403	ILE	CA-C-O	5.57	131.81	120.10
1	F	401	TYR	CA-C-O	5.57	131.80	120.10
1	L	463	ILE	CA-C-O	-5.57	108.40	120.10
3	T	490	GLN	CA-C-N	-5.57	104.95	117.20
1	R	367	THR	O-C-N	-5.57	113.79	122.70
1	F	367	THR	O-C-N	-5.57	113.79	122.70
3	T	353	GLN	CB-CA-C	-5.57	99.26	110.40
1	L	443	HIS	CB-CA-C	5.57	121.53	110.40
1	R	401	TYR	CA-C-O	5.57	131.79	120.10
4	P	1505	SER	C-N-CA	-5.57	107.78	121.70
3	H	353	GLN	CB-CA-C	-5.56	99.28	110.40
3	H	385	ASP	C-N-CA	-5.56	107.80	121.70
6	C	252	MET	N-CA-CB	5.56	120.61	110.60
4	J	1505	SER	C-N-CA	-5.56	107.80	121.70
2	Y	312	LYS	O-C-N	5.56	131.60	122.70
1	L	367	THR	O-C-N	-5.56	113.81	122.70
3	H	428	GLU	C-N-CA	-5.56	107.81	121.70
5	Q	442	GLN	C-N-CA	5.55	135.59	121.70
1	R	343	MET	CA-C-N	-5.55	104.98	117.20
3	N	428	GLU	C-N-CA	-5.55	107.82	121.70
4	D	1667	ALA	N-CA-CB	5.55	117.87	110.10
1	X	397	ARG	CA-C-O	5.55	131.75	120.10
1	L	343	MET	CA-C-N	-5.55	105.00	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	P	1448	MET	O-C-N	5.55	131.57	122.70
5	E	442	GLN	C-N-CA	5.55	135.57	121.70
2	G	302	GLN	N-CA-CB	5.54	120.58	110.60
3	H	490	GLN	CA-C-N	-5.54	105.01	117.20
1	R	463	ILE	CA-C-O	-5.54	108.46	120.10
1	X	367	THR	CA-C-O	-5.54	108.47	120.10
3	N	490	GLN	CA-C-N	-5.54	105.02	117.20
2	S	352	GLN	N-CA-C	5.54	125.95	111.00
4	P	1489	HIS	N-CA-C	-5.54	96.05	111.00
4	V	1489	HIS	N-CA-C	-5.54	96.05	111.00
1	L	397	ARG	CA-C-O	5.53	131.71	120.10
1	R	464	LYS	CA-C-N	-5.53	105.03	117.20
5	W	442	GLN	C-N-CA	5.53	135.53	121.70
5	K	442	GLN	C-N-CA	5.53	135.53	121.70
2	G	322	ALA	O-C-N	5.53	131.55	122.70
1	R	397	ARG	CA-C-O	5.53	131.71	120.10
3	Z	377	ARG	C-N-CA	-5.52	107.89	121.70
6	O	252	MET	N-CA-CB	5.52	120.53	110.60
2	G	352	GLN	N-CA-C	5.51	125.89	111.00
3	T	428	GLU	C-N-CA	-5.51	107.92	121.70
4	J	1448	MET	O-C-N	5.51	131.52	122.70
3	N	466	ASP	CA-C-N	5.51	129.33	117.20
2	M	302	GLN	N-CA-CB	5.51	120.52	110.60
4	V	1489	HIS	CA-C-N	5.51	129.32	117.20
2	S	302	GLN	N-CA-CB	5.51	120.51	110.60
3	Z	408	SER	CA-C-O	-5.50	108.54	120.10
1	F	397	ARG	CA-C-O	5.50	131.66	120.10
2	Y	302	GLN	N-CA-CB	5.50	120.50	110.60
4	J	1489	HIS	N-CA-C	-5.50	96.15	111.00
1	X	415	ASP	O-C-N	5.50	131.50	122.70
3	Z	490	GLN	CA-C-N	-5.50	105.10	117.20
1	F	415	ASP	O-C-N	5.50	131.50	122.70
6	I	252	MET	N-CA-CB	5.50	120.50	110.60
1	R	415	ASP	O-C-N	5.50	131.49	122.70
1	R	443	HIS	CB-CA-C	5.50	121.39	110.40
4	D	1489	HIS	CA-C-N	5.50	129.29	117.20
4	V	1532	ASP	C-N-CA	-5.49	107.97	121.70
2	Y	352	GLN	N-CA-C	5.49	125.83	111.00
4	J	1489	HIS	CA-C-N	5.49	129.28	117.20
3	T	377	ARG	C-N-CA	-5.49	107.98	121.70
4	V	1517	SER	N-CA-CB	5.48	118.72	110.50
3	Z	428	GLU	C-N-CA	-5.48	108.00	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	P	1517	SER	N-CA-CB	5.48	118.72	110.50
4	P	1667	ALA	N-CA-CB	5.48	117.77	110.10
6	C	305	LEU	CB-CA-C	5.48	120.61	110.20
1	F	443	HIS	CB-CA-C	5.48	121.35	110.40
3	H	377	ARG	C-N-CA	-5.48	108.00	121.70
4	V	1667	ALA	N-CA-CB	5.48	117.77	110.10
2	G	369	ASN	N-CA-CB	-5.48	100.74	110.60
2	Y	322	ALA	O-C-N	5.48	131.46	122.70
2	Y	264	GLU	N-CA-C	-5.47	96.22	111.00
2	M	322	ALA	O-C-N	5.47	131.46	122.70
2	S	322	ALA	O-C-N	5.47	131.46	122.70
2	M	352	GLN	N-CA-C	5.47	125.78	111.00
3	N	408	SER	CA-C-O	-5.47	108.61	120.10
3	N	377	ARG	C-N-CA	-5.47	108.03	121.70
3	T	466	ASP	CA-C-N	5.47	129.23	117.20
2	G	333	PRO	O-C-N	-5.47	113.91	123.20
2	S	264	GLU	N-CA-C	-5.47	96.24	111.00
4	J	1517	SER	N-CA-CB	5.47	118.70	110.50
2	G	249	PRO	CB-CA-C	5.46	125.66	112.00
2	S	333	PRO	O-C-N	-5.46	113.91	123.20
4	J	1538	SER	O-C-N	5.46	131.44	122.70
4	P	1538	SER	O-C-N	5.46	131.44	122.70
4	D	1489	HIS	N-CA-C	-5.46	96.26	111.00
4	D	626	PRO	N-CA-C	5.46	126.29	112.10
2	M	264	GLU	N-CA-C	-5.45	96.27	111.00
4	P	1489	HIS	CA-C-N	5.45	129.20	117.20
2	G	380	ILE	CA-C-N	5.45	129.19	117.20
6	I	233	VAL	N-CA-CB	5.45	123.49	111.50
6	U	233	VAL	N-CA-CB	5.45	123.48	111.50
1	L	415	ASP	O-C-N	5.45	131.41	122.70
2	Y	369	ASN	N-CA-CB	-5.45	100.80	110.60
2	M	249	PRO	CB-CA-C	5.45	125.61	112.00
3	T	408	SER	CA-C-O	-5.45	108.66	120.10
1	F	458	ASP	CB-CA-C	-5.44	99.51	110.40
3	H	408	SER	CA-C-O	-5.44	108.67	120.10
4	P	626	PRO	N-CA-C	5.44	126.25	112.10
1	F	451	GLU	O-C-N	5.44	131.41	122.70
1	X	443	HIS	CB-CA-C	5.44	121.28	110.40
4	D	1474	GLY	N-CA-C	5.44	126.70	113.10
4	J	1667	ALA	N-CA-CB	5.44	117.72	110.10
6	C	233	VAL	N-CA-CB	5.44	123.47	111.50
3	N	500	GLU	C-N-CA	5.44	135.29	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	S	369	ASN	N-CA-CB	-5.44	100.81	110.60
4	J	1474	GLY	N-CA-C	5.44	126.69	113.10
3	Z	500	GLU	C-N-CA	5.43	135.28	121.70
1	L	451	GLU	O-C-N	5.43	131.39	122.70
4	P	1483	ARG	CA-C-N	-5.43	105.25	117.20
4	V	1538	SER	O-C-N	5.43	131.39	122.70
3	Z	466	ASP	CA-C-N	5.43	129.15	117.20
1	R	451	GLU	O-C-N	5.43	131.39	122.70
4	J	1532	ASP	C-N-CA	-5.43	108.12	121.70
6	C	485	LEU	N-CA-C	-5.43	96.34	111.00
6	O	233	VAL	N-CA-CB	5.43	123.45	111.50
4	J	626	PRO	N-CA-C	5.43	126.21	112.10
1	R	458	ASP	CB-CA-C	-5.43	99.55	110.40
4	J	319	LEU	N-CA-C	-5.43	96.35	111.00
1	L	398	LYS	CA-C-O	5.42	131.49	120.10
2	G	264	GLU	N-CA-C	-5.42	96.36	111.00
4	D	1517	SER	N-CA-CB	5.42	118.63	110.50
2	M	380	ILE	CA-C-N	5.42	129.12	117.20
2	M	333	PRO	O-C-N	-5.42	113.99	123.20
4	P	1532	ASP	C-N-CA	-5.42	108.16	121.70
4	P	1474	GLY	N-CA-C	5.42	126.64	113.10
4	V	1515	TYR	CA-C-N	-5.41	105.29	117.20
4	D	1515	TYR	CA-C-N	-5.41	105.29	117.20
1	F	342	GLN	C-N-CA	5.41	135.23	121.70
2	Y	249	PRO	CB-CA-C	5.41	125.53	112.00
2	S	249	PRO	CB-CA-C	5.41	125.53	112.00
2	Y	380	ILE	CA-C-N	5.41	129.10	117.20
4	V	319	LEU	N-CA-C	-5.41	96.40	111.00
6	I	305	LEU	CB-CA-C	5.41	120.47	110.20
1	X	458	ASP	CB-CA-C	-5.41	99.59	110.40
3	H	366	ILE	CB-CA-C	-5.41	100.79	111.60
3	H	466	ASP	CA-C-N	5.41	129.09	117.20
3	H	500	GLU	C-N-CA	5.41	135.22	121.70
4	J	1515	TYR	CA-C-N	-5.41	105.31	117.20
6	O	305	LEU	CB-CA-C	5.40	120.47	110.20
2	G	322	ALA	CA-C-O	-5.40	108.75	120.10
4	J	1502	ARG	CA-C-N	-5.40	105.32	117.20
1	X	392	LYS	CB-CA-C	5.40	121.20	110.40
1	F	398	LYS	CA-C-O	5.40	131.43	120.10
1	L	436	SER	CA-C-N	-5.40	105.32	117.20
4	P	319	LEU	N-CA-C	-5.40	96.42	111.00
4	D	319	LEU	N-CA-C	-5.40	96.43	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	D	1532	ASP	C-N-CA	-5.40	108.21	121.70
1	L	458	ASP	CB-CA-C	-5.39	99.61	110.40
6	U	485	LEU	N-CA-C	-5.39	96.44	111.00
1	X	436	SER	CA-C-N	-5.39	105.34	117.20
2	S	380	ILE	CA-C-N	5.39	129.06	117.20
1	F	407	GLU	N-CA-CB	5.39	120.30	110.60
1	F	392	LYS	CB-CA-C	5.39	121.17	110.40
1	R	392	LYS	CB-CA-C	5.39	121.17	110.40
4	V	1491	ILE	CA-C-O	5.39	131.41	120.10
1	L	407	GLU	N-CA-CB	5.38	120.29	110.60
2	M	331	THR	N-CA-C	5.38	125.54	111.00
4	D	1483	ARG	CA-C-N	-5.38	105.36	117.20
4	D	1538	SER	O-C-N	5.38	131.31	122.70
2	Y	333	PRO	O-C-N	-5.38	114.05	123.20
4	V	1474	GLY	N-CA-C	5.38	126.56	113.10
4	J	1483	ARG	CA-C-N	-5.38	105.36	117.20
4	P	1470	ILE	CA-C-O	-5.38	108.80	120.10
1	X	342	GLN	C-N-CA	5.38	135.15	121.70
4	P	1491	ILE	CA-C-O	5.38	131.40	120.10
6	I	250	VAL	CB-CA-C	5.38	121.62	111.40
1	X	451	GLU	O-C-N	5.38	131.30	122.70
1	L	342	GLN	C-N-CA	5.38	135.14	121.70
2	S	377	ASN	N-CA-C	5.38	125.51	111.00
4	V	1483	ARG	CA-C-N	-5.38	105.37	117.20
6	U	250	VAL	CB-CA-C	5.38	121.61	111.40
1	F	462	GLU	O-C-N	-5.37	114.10	122.70
5	K	443	LYS	N-CA-CB	5.37	120.27	110.60
6	O	485	LEU	N-CA-C	-5.37	96.49	111.00
2	G	331	THR	N-CA-C	5.37	125.50	111.00
1	R	306	PRO	N-CA-CB	5.37	109.75	103.30
1	R	407	GLU	N-CA-CB	5.37	120.27	110.60
3	T	500	GLU	C-N-CA	5.37	135.13	121.70
4	P	1515	TYR	CA-C-N	-5.37	105.38	117.20
6	I	485	LEU	N-CA-C	-5.37	96.50	111.00
1	L	306	PRO	N-CA-CB	5.37	109.74	103.30
1	R	342	GLN	C-N-CA	5.37	135.12	121.70
4	V	626	PRO	N-CA-C	5.37	126.06	112.10
6	U	305	LEU	CB-CA-C	5.37	120.40	110.20
2	M	369	ASN	N-CA-CB	-5.37	100.94	110.60
1	X	407	GLU	N-CA-CB	5.36	120.25	110.60
2	G	377	ASN	N-CA-C	5.36	125.48	111.00
2	S	322	ALA	CA-C-O	-5.36	108.84	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	W	443	LYS	N-CA-CB	5.36	120.24	110.60
6	C	484	ARG	CB-CA-C	-5.36	99.69	110.40
3	N	366	ILE	CB-CA-C	-5.35	100.89	111.60
1	R	398	LYS	CA-C-O	5.35	131.34	120.10
2	Y	377	ASN	N-CA-C	5.35	125.45	111.00
4	P	1502	ARG	CA-C-N	-5.35	105.42	117.20
2	Y	322	ALA	CA-C-O	-5.35	108.86	120.10
3	T	405	ASP	C-N-CA	-5.35	108.32	121.70
2	Y	331	THR	N-CA-C	5.35	125.44	111.00
5	E	443	LYS	N-CA-CB	5.35	120.22	110.60
2	M	322	ALA	CA-C-O	-5.34	108.88	120.10
1	L	392	LYS	CB-CA-C	5.34	121.08	110.40
1	X	462	GLU	O-C-N	-5.34	114.15	122.70
1	X	465	GLN	CA-C-O	-5.34	108.88	120.10
2	Y	352	GLN	CA-C-N	-5.34	105.45	117.20
6	O	484	ARG	CB-CA-C	-5.34	99.72	110.40
1	X	398	LYS	CA-C-O	5.34	131.31	120.10
3	T	406	LEU	C-N-CA	-5.34	108.35	121.70
4	D	1491	ILE	CA-C-O	5.34	131.31	120.10
2	G	332	PRO	CB-CA-C	5.34	125.34	112.00
3	Z	366	ILE	CB-CA-C	-5.33	100.93	111.60
4	V	1470	ILE	CA-C-O	-5.33	108.90	120.10
3	T	501	GLU	CA-C-O	5.33	131.30	120.10
6	C	250	VAL	CB-CA-C	5.33	121.53	111.40
6	O	250	VAL	CB-CA-C	5.33	121.53	111.40
5	Q	443	LYS	N-CA-CB	5.33	120.20	110.60
1	F	367	THR	N-CA-C	-5.33	96.61	111.00
1	F	436	SER	CA-C-N	-5.33	105.47	117.20
2	M	377	ASN	N-CA-C	5.33	125.39	111.00
4	D	1502	ARG	CA-C-N	-5.33	105.47	117.20
4	J	1470	ILE	CA-C-O	-5.33	108.90	120.10
1	L	367	THR	N-CA-C	-5.33	96.61	111.00
3	T	366	ILE	CB-CA-C	-5.33	100.94	111.60
3	Z	405	ASP	C-N-CA	-5.33	108.38	121.70
3	N	406	LEU	C-N-CA	-5.33	108.39	121.70
2	S	352	GLN	CA-C-N	-5.33	105.48	117.20
2	M	352	GLN	CA-C-N	-5.32	105.49	117.20
1	R	436	SER	CA-C-N	-5.32	105.49	117.20
2	G	352	GLN	CA-C-N	-5.32	105.50	117.20
4	D	1470	ILE	CA-C-O	-5.32	108.93	120.10
3	Z	406	LEU	C-N-CA	-5.32	108.41	121.70
2	S	331	THR	N-CA-C	5.32	125.35	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	S	332	PRO	CB-CA-C	5.32	125.29	112.00
1	F	306	PRO	N-CA-CB	5.31	109.68	103.30
6	I	484	ARG	CB-CA-C	-5.31	99.77	110.40
3	H	405	ASP	C-N-CA	-5.31	108.42	121.70
3	H	406	LEU	C-N-CA	-5.31	108.43	121.70
1	R	367	THR	N-CA-C	-5.31	96.66	111.00
4	V	1502	ARG	CA-C-N	-5.31	105.53	117.20
6	U	484	ARG	CB-CA-C	-5.30	99.80	110.40
3	N	405	ASP	C-N-CA	-5.30	108.45	121.70
1	R	462	GLU	O-C-N	-5.30	114.22	122.70
1	R	465	GLN	CA-C-O	-5.30	108.98	120.10
1	L	465	GLN	CA-C-O	-5.29	108.98	120.10
4	J	1491	ILE	CA-C-O	5.29	131.22	120.10
2	G	330	LYS	N-CA-C	-5.29	96.72	111.00
6	I	233	VAL	CA-C-N	-5.29	105.57	117.20
2	Y	332	PRO	CB-CA-C	5.29	125.22	112.00
1	L	462	GLU	O-C-N	-5.29	114.24	122.70
1	X	306	PRO	N-CA-CB	5.28	109.64	103.30
2	M	328	THR	N-CA-C	-5.28	96.73	111.00
1	R	460	LEU	CA-C-N	5.28	128.82	117.20
6	O	233	VAL	CA-C-N	-5.28	105.58	117.20
2	M	332	PRO	CB-CA-C	5.28	125.21	112.00
1	L	484	ASP	N-CA-CB	-5.28	101.10	110.60
3	N	501	GLU	CA-C-O	5.28	131.18	120.10
4	D	1521	TYR	O-C-N	5.27	131.14	122.70
1	F	465	GLN	CA-C-O	-5.27	109.03	120.10
3	H	501	GLU	CA-C-O	5.27	131.17	120.10
2	Y	330	LYS	N-CA-C	-5.27	96.78	111.00
2	M	330	LYS	N-CA-C	-5.27	96.78	111.00
4	D	1504	VAL	N-CA-CB	5.26	123.08	111.50
3	Z	501	GLU	CA-C-O	5.26	131.15	120.10
2	S	330	LYS	N-CA-C	-5.26	96.79	111.00
1	X	367	THR	N-CA-C	-5.26	96.81	111.00
2	Y	337	HIS	CA-C-N	5.26	128.77	117.20
3	Z	495	LEU	CB-CA-C	-5.26	100.21	110.20
1	L	491	VAL	CA-C-N	-5.26	105.64	117.20
6	C	233	VAL	CA-C-N	-5.25	105.64	117.20
1	R	447	VAL	CA-C-N	-5.25	105.65	117.20
3	N	495	LEU	CB-CA-C	-5.25	100.23	110.20
2	S	338	GLU	C-N-CA	-5.25	108.58	121.70
2	S	328	THR	N-CA-C	-5.24	96.84	111.00
1	F	460	LEU	CA-C-N	5.24	128.73	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	F	491	VAL	CA-C-N	-5.24	105.68	117.20
1	X	491	VAL	CA-C-N	-5.24	105.67	117.20
1	L	460	LEU	CA-C-N	5.24	128.72	117.20
3	H	495	LEU	CB-CA-C	-5.24	100.25	110.20
1	X	447	VAL	CA-C-N	-5.24	105.68	117.20
1	R	458	ASP	O-C-N	-5.24	114.32	122.70
4	J	1504	VAL	N-CA-CB	5.23	123.01	111.50
2	M	337	HIS	CA-C-N	5.23	128.71	117.20
2	M	319	LEU	CA-C-N	-5.23	105.70	117.20
3	T	495	LEU	CB-CA-C	-5.23	100.27	110.20
1	R	491	VAL	CA-C-N	-5.22	105.71	117.20
4	P	1521	TYR	O-C-N	5.22	131.06	122.70
4	P	1504	VAL	N-CA-CB	5.22	122.99	111.50
6	U	233	VAL	CA-C-N	-5.22	105.71	117.20
4	V	1504	VAL	N-CA-CB	5.22	122.99	111.50
1	F	447	VAL	CA-C-N	-5.22	105.72	117.20
2	G	337	HIS	CA-C-N	5.22	128.68	117.20
2	Y	328	THR	N-CA-C	-5.22	96.91	111.00
2	G	338	GLU	C-N-CA	-5.22	108.66	121.70
4	V	1486	CYS	CA-C-N	-5.22	105.72	117.20
1	L	447	VAL	CA-C-N	-5.21	105.74	117.20
1	R	484	ASP	N-CA-CB	-5.21	101.22	110.60
4	D	1490	GLU	CA-C-O	5.21	131.05	120.10
2	M	338	GLU	C-N-CA	-5.21	108.68	121.70
3	H	391	GLN	N-CA-CB	5.21	119.97	110.60
4	P	1490	GLU	CA-C-O	5.21	131.03	120.10
4	V	1521	TYR	O-C-N	5.21	131.03	122.70
1	F	458	ASP	O-C-N	-5.21	114.37	122.70
2	G	319	LEU	CA-C-N	-5.21	105.75	117.20
1	R	408	GLU	N-CA-C	5.21	125.05	111.00
1	X	460	LEU	CA-C-N	5.20	128.65	117.20
3	Z	391	GLN	CA-C-N	5.20	128.64	117.20
2	S	319	LEU	CA-C-N	-5.20	105.76	117.20
2	G	328	THR	N-CA-C	-5.20	96.97	111.00
1	X	484	ASP	N-CA-CB	-5.20	101.25	110.60
2	S	337	HIS	CA-C-N	5.20	128.63	117.20
1	L	467	LEU	CB-CA-C	-5.19	100.33	110.20
1	F	467	LEU	CB-CA-C	-5.19	100.34	110.20
1	L	408	GLU	N-CA-C	5.19	125.00	111.00
1	F	432	ASN	CB-CA-C	-5.19	100.03	110.40
1	X	348	GLN	C-N-CA	-5.18	108.74	121.70
1	X	458	ASP	O-C-N	-5.18	114.40	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	Y	319	LEU	CA-C-N	-5.18	105.79	117.20
4	J	1521	TYR	O-C-N	5.18	130.99	122.70
1	F	408	GLU	N-CA-C	5.18	124.98	111.00
2	Y	338	GLU	C-N-CA	-5.18	108.75	121.70
1	L	428	LYS	C-N-CA	-5.17	111.44	122.30
4	D	1486	CYS	CA-C-N	-5.17	105.82	117.20
1	X	428	LYS	C-N-CA	-5.17	111.44	122.30
4	J	1516	LEU	CA-C-O	-5.17	109.24	120.10
1	F	348	GLN	C-N-CA	-5.16	108.80	121.70
4	V	1490	GLU	CA-C-O	5.16	130.94	120.10
4	P	1486	CYS	CA-C-N	-5.16	105.85	117.20
1	R	348	GLN	C-N-CA	-5.16	108.81	121.70
1	L	468	LYS	CA-C-O	-5.16	109.27	120.10
3	N	391	GLN	CA-C-N	5.16	128.54	117.20
4	J	1490	GLU	CA-C-O	5.16	130.93	120.10
1	F	484	ASP	N-CA-CB	-5.15	101.32	110.60
4	D	141	CYS	N-CA-CB	5.15	119.88	110.60
4	J	1486	CYS	CA-C-N	-5.15	105.86	117.20
1	F	468	LYS	CA-C-O	-5.15	109.28	120.10
1	X	428	LYS	CA-C-N	-5.15	105.90	116.20
4	J	141	CYS	N-CA-CB	5.15	119.87	110.60
1	X	408	GLU	N-CA-C	5.14	124.89	111.00
6	C	455	VAL	CB-CA-C	-5.14	101.63	111.40
1	X	467	LEU	CB-CA-C	-5.14	100.43	110.20
1	X	319	SER	CA-C-N	5.14	128.50	117.20
6	U	455	VAL	CB-CA-C	-5.14	101.64	111.40
1	L	432	ASN	CB-CA-C	-5.14	100.13	110.40
1	L	467	LEU	CA-C-N	5.14	128.50	117.20
1	R	467	LEU	CB-CA-C	-5.13	100.44	110.20
1	X	432	ASN	CB-CA-C	-5.13	100.14	110.40
1	X	467	LEU	CA-C-N	5.13	128.49	117.20
1	R	319	SER	CA-C-N	5.13	128.49	117.20
4	D	1516	LEU	CA-C-O	-5.13	109.33	120.10
2	G	277	SER	N-CA-C	5.13	124.85	111.00
3	N	373	THR	C-N-CA	-5.13	108.88	121.70
2	Y	277	SER	N-CA-C	5.13	124.84	111.00
2	Y	323	GLU	CB-CA-C	5.13	120.65	110.40
1	L	458	ASP	O-C-N	-5.13	114.50	122.70
1	L	348	GLN	C-N-CA	-5.12	108.89	121.70
3	N	391	GLN	N-CA-CB	5.12	119.82	110.60
3	N	474	ILE	N-CA-CB	5.12	122.58	110.80
2	S	274	ARG	N-CA-CB	5.12	119.82	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	V	1516	LEU	CA-C-O	-5.12	109.35	120.10
2	S	277	SER	N-CA-C	5.12	124.82	111.00
1	R	468	LYS	CA-C-O	-5.12	109.36	120.10
3	H	391	GLN	CA-C-N	5.11	128.45	117.20
3	T	391	GLN	CA-C-N	5.11	128.45	117.20
4	P	1516	LEU	CA-C-O	-5.11	109.36	120.10
1	F	467	LEU	CA-C-N	5.11	128.44	117.20
2	S	323	GLU	CB-CA-C	5.11	120.61	110.40
3	T	391	GLN	N-CA-CB	5.11	119.79	110.60
3	H	373	THR	C-N-CA	-5.10	108.95	121.70
2	M	323	GLU	CB-CA-C	5.10	120.60	110.40
3	Z	391	GLN	N-CA-CB	5.10	119.78	110.60
1	R	428	LYS	CA-C-N	-5.10	106.00	116.20
6	C	307	GLY	C-N-CA	5.10	134.44	121.70
6	I	307	GLY	C-N-CA	5.10	134.44	121.70
1	X	468	LYS	CA-C-O	-5.10	109.40	120.10
6	I	455	VAL	CB-CA-C	-5.10	101.72	111.40
2	G	323	GLU	CB-CA-C	5.09	120.59	110.40
1	R	432	ASN	CB-CA-C	-5.09	100.21	110.40
1	R	468	LYS	C-N-CA	-5.09	108.96	121.70
1	F	428	LYS	CA-C-N	-5.09	106.02	116.20
1	L	428	LYS	CA-C-N	-5.09	106.02	116.20
6	C	654	SER	C-N-CA	5.09	134.43	121.70
2	M	277	SER	N-CA-C	5.09	124.74	111.00
1	F	428	LYS	C-N-CA	-5.09	111.62	122.30
4	V	141	CYS	N-CA-CB	5.08	119.75	110.60
6	O	307	GLY	C-N-CA	5.08	134.41	121.70
1	R	428	LYS	C-N-CA	-5.08	111.62	122.30
4	V	1491	ILE	CA-C-N	-5.08	106.03	116.20
6	U	307	GLY	C-N-CA	5.08	134.41	121.70
1	L	319	SER	CA-C-N	5.08	128.38	117.20
1	F	319	SER	CA-C-N	5.08	128.37	117.20
2	G	274	ARG	N-CA-CB	5.08	119.74	110.60
3	Z	474	ILE	N-CA-CB	5.08	122.47	110.80
4	P	141	CYS	N-CA-CB	5.08	119.74	110.60
2	M	248	PRO	N-CA-CB	-5.07	97.02	102.60
4	P	320	TRP	CB-CA-C	-5.07	100.26	110.40
6	I	306	PRO	N-CA-C	5.07	125.28	112.10
3	T	474	ILE	N-CA-CB	5.07	122.46	110.80
4	P	1491	ILE	CA-C-N	-5.07	106.06	116.20
4	J	1550	LEU	C-N-CA	-5.07	109.03	121.70
3	Z	373	THR	C-N-CA	-5.07	109.04	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	L	468	LYS	C-N-CA	-5.07	109.03	121.70
6	U	654	SER	C-N-CA	5.07	134.36	121.70
6	I	654	SER	C-N-CA	5.06	134.35	121.70
3	H	474	ILE	N-CA-CB	5.06	122.44	110.80
3	T	373	THR	C-N-CA	-5.06	109.05	121.70
6	O	455	VAL	CB-CA-C	-5.06	101.79	111.40
1	F	447	VAL	CA-C-O	5.05	130.71	120.10
1	X	468	LYS	C-N-CA	-5.05	109.07	121.70
2	Y	274	ARG	N-CA-CB	5.05	119.69	110.60
1	R	467	LEU	CA-C-N	5.05	128.31	117.20
4	D	1491	ILE	CA-C-N	-5.05	106.10	116.20
1	F	468	LYS	C-N-CA	-5.05	109.08	121.70
6	O	306	PRO	N-CA-C	5.05	125.22	112.10
6	O	654	SER	C-N-CA	5.05	134.31	121.70
1	R	447	VAL	CA-C-O	5.04	130.69	120.10
1	L	401	TYR	CB-CA-C	-5.04	100.32	110.40
2	S	368	GLU	C-N-CA	-5.04	109.10	121.70
4	V	1537	GLN	CA-C-N	-5.04	106.11	117.20
2	M	274	ARG	N-CA-CB	5.04	119.67	110.60
2	M	304	ASN	N-CA-CB	5.04	119.67	110.60
3	N	357	GLN	C-N-CA	-5.04	109.11	121.70
1	R	305	ASP	O-C-N	5.04	130.67	121.10
1	F	305	ASP	O-C-N	5.03	130.66	121.10
6	C	306	PRO	N-CA-C	5.03	125.18	112.10
1	X	401	TYR	CB-CA-C	-5.03	100.34	110.40
1	X	447	VAL	CA-C-O	5.03	130.66	120.10
2	Y	304	ASN	N-CA-CB	5.03	119.65	110.60
4	D	1503	ILE	CA-C-O	-5.03	109.54	120.10
1	F	299	ASN	CA-C-N	5.03	131.18	117.10
1	R	299	ASN	CA-C-N	5.03	131.17	117.10
4	J	1483	ARG	O-C-N	5.03	130.74	122.70
1	L	391	ILE	C-N-CA	-5.02	109.14	121.70
1	R	401	TYR	CB-CA-C	-5.02	100.35	110.40
4	J	1491	ILE	CA-C-N	-5.02	106.15	116.20
2	S	304	ASN	N-CA-CB	5.02	119.64	110.60
4	V	320	TRP	CB-CA-C	-5.02	100.36	110.40
2	Y	368	GLU	C-N-CA	-5.02	109.15	121.70
4	J	1509	GLN	O-C-N	5.02	130.73	122.70
4	D	1550	LEU	C-N-CA	-5.01	109.17	121.70
2	G	304	ASN	N-CA-CB	5.01	119.62	110.60
4	J	1503	ILE	CA-C-O	-5.01	109.58	120.10
1	X	299	ASN	CA-C-N	5.01	131.13	117.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	H	446	ARG	C-N-CA	5.01	134.22	121.70
1	X	305	ASP	O-C-N	5.01	130.61	121.10
4	V	1550	LEU	C-N-CA	-5.01	109.18	121.70
4	D	320	TRP	CB-CA-C	-5.01	100.39	110.40
1	X	427	PHE	CA-C-N	-5.00	106.19	117.20
1	F	399	SER	N-CA-C	-5.00	97.49	111.00
2	G	368	GLU	C-N-CA	-5.00	109.19	121.70
1	L	427	PHE	CA-C-N	-5.00	106.19	117.20
1	F	391	ILE	C-N-CA	-5.00	109.20	121.70

All (84) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	F	305	ASP	CA
1	F	341	ASP	CA
1	F	423	ALA	CA
1	F	454	TYR	CA
1	F	459	LEU	CA
1	F	460	LEU	CA
1	F	486	GLU	CA
2	G	327	ARG	CA
2	G	330	LYS	CA
2	G	338	GLU	CA
2	G	339	TYR	CA
2	G	340	ALA	CA
2	G	341	ALA	CA
2	G	344	ASP	CA
2	G	373	THR	CA
2	G	405	SER	CA
3	H	352	LEU	CA
3	H	356	THR	CA
3	H	387	LYS	CA
3	H	446	ARG	CA
3	H	494	LEU	CA
1	X	305	ASP	CA
1	X	341	ASP	CA
1	X	423	ALA	CA
1	X	454	TYR	CA
1	X	459	LEU	CA
1	X	460	LEU	CA
1	X	486	GLU	CA
2	Y	327	ARG	CA

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Mol	Chain	Res	Type	Atom
2	Y	330	LYS	CA
2	Y	338	GLU	CA
2	Y	339	TYR	CA
2	Y	340	ALA	CA
2	Y	341	ALA	CA
2	Y	344	ASP	CA
2	Y	373	THR	CA
2	Y	405	SER	CA
3	Z	352	LEU	CA
3	Z	356	THR	CA
3	Z	387	LYS	CA
3	Z	446	ARG	CA
3	Z	494	LEU	CA
1	L	305	ASP	CA
1	L	341	ASP	CA
1	L	423	ALA	CA
1	L	454	TYR	CA
1	L	459	LEU	CA
1	L	460	LEU	CA
1	L	486	GLU	CA
2	M	327	ARG	CA
2	M	330	LYS	CA
2	M	338	GLU	CA
2	M	339	TYR	CA
2	M	340	ALA	CA
2	M	341	ALA	CA
2	M	344	ASP	CA
2	M	373	THR	CA
2	M	405	SER	CA
3	N	352	LEU	CA
3	N	356	THR	CA
3	N	387	LYS	CA
3	N	446	ARG	CA
3	N	494	LEU	CA
1	R	305	ASP	CA
1	R	341	ASP	CA
1	R	423	ALA	CA
1	R	454	TYR	CA
1	R	459	LEU	CA
1	R	460	LEU	CA
1	R	486	GLU	CA
2	S	327	ARG	CA

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Mol	Chain	Res	Type	Atom
2	S	330	LYS	CA
2	S	338	GLU	CA
2	S	339	TYR	CA
2	S	340	ALA	CA
2	S	341	ALA	CA
2	S	344	ASP	CA
2	S	373	THR	CA
2	S	405	SER	CA
3	T	352	LEU	CA
3	T	356	THR	CA
3	T	387	LYS	CA
3	T	446	ARG	CA
3	T	494	LEU	CA

All (267) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
4	D	1448	MET	Mainchain
4	D	1449	TRP	Peptide
4	D	1450	GLU	Peptide
4	D	1484	ASP	Mainchain
4	D	1485	ALA	Mainchain
4	D	1486	CYS	Mainchain
4	D	1503	ILE	Mainchain
4	D	1507	ASP	Mainchain
4	D	1508	LYS	Peptide,Mainchain
4	D	1509	GLN	Mainchain
4	D	1516	LEU	Mainchain
4	D	1517	SER	Peptide,Mainchain
4	D	1518	ASN	Mainchain
4	D	1519	SER	Peptide
4	D	1538	SER	Mainchain
4	D	1541	THR	Mainchain
4	D	1542	PRO	Mainchain
5	E	259	SER	Mainchain
1	F	393	GLN	Mainchain
1	F	397	ARG	Mainchain
1	F	398	LYS	Peptide,Mainchain
1	F	399	SER	Peptide
1	F	400	GLY	Mainchain
1	F	401	TYR	Mainchain
1	F	403	ILE	Peptide

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Mol	Chain	Res	Type	Group
1	F	419	GLY	Mainchain
1	F	420	GLU	Mainchain
1	F	421	LEU	Mainchain
1	F	422	ASN	Peptide,Mainchain
1	F	423	ALA	Mainchain
1	F	424	PRO	Peptide,Mainchain
1	F	425	THR	Mainchain
1	F	426	GLN	Mainchain
1	F	445	GLY	Mainchain
1	F	446	ALA	Mainchain
1	F	448	ARG	Mainchain
1	F	452	ARG	Mainchain
1	F	454	TYR	Peptide,Mainchain
1	F	456	ASP	Mainchain
1	F	457	ALA	Mainchain
1	F	459	LEU	Mainchain
1	F	462	GLU	Mainchain
1	F	463	ILE	Peptide
1	F	472	GLU	Mainchain
1	F	487	ASP	Mainchain
2	G	321	ASN	Mainchain
2	G	325	ALA	Mainchain
2	G	326	LEU	Peptide,Mainchain
2	G	329	GLN	Mainchain
2	G	330	LYS	Mainchain
2	G	340	ALA	Peptide,Mainchain
2	G	341	ALA	Mainchain
2	G	343	ALA	Mainchain
3	H	374	SER	Mainchain
3	H	407	LEU	Mainchain
3	H	408	SER	Peptide
3	H	493	ALA	Peptide
3	H	497	ARG	Mainchain
4	J	1448	MET	Mainchain
4	J	1449	TRP	Peptide
4	J	1450	GLU	Peptide
4	J	1484	ASP	Mainchain
4	J	1485	ALA	Mainchain
4	J	1486	CYS	Mainchain
4	J	1489	HIS	Mainchain
4	J	1503	ILE	Mainchain
4	J	1507	ASP	Mainchain

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Mol	Chain	Res	Type	Group
4	J	1508	LYS	Peptide,Mainchain
4	J	1509	GLN	Mainchain
4	J	1516	LEU	Mainchain
4	J	1517	SER	Peptide,Mainchain
4	J	1518	ASN	Mainchain
4	J	1519	SER	Peptide
4	J	1538	SER	Mainchain
4	J	1541	THR	Mainchain
4	J	1542	PRO	Mainchain
5	K	259	SER	Mainchain
1	L	393	GLN	Mainchain
1	L	397	ARG	Mainchain
1	L	398	LYS	Peptide,Mainchain
1	L	399	SER	Peptide
1	L	400	GLY	Mainchain
1	L	401	TYR	Mainchain
1	L	403	ILE	Peptide
1	L	419	GLY	Mainchain
1	L	420	GLU	Mainchain
1	L	421	LEU	Mainchain
1	L	422	ASN	Peptide,Mainchain
1	L	423	ALA	Mainchain
1	L	424	PRO	Peptide,Mainchain
1	L	425	THR	Mainchain
1	L	426	GLN	Mainchain
1	L	445	GLY	Mainchain
1	L	446	ALA	Mainchain
1	L	448	ARG	Mainchain
1	L	452	ARG	Mainchain
1	L	454	TYR	Peptide,Mainchain
1	L	456	ASP	Mainchain
1	L	457	ALA	Mainchain
1	L	459	LEU	Mainchain
1	L	462	GLU	Mainchain
1	L	463	ILE	Peptide
1	L	472	GLU	Mainchain
1	L	487	ASP	Mainchain
2	M	321	ASN	Mainchain
2	M	325	ALA	Mainchain
2	M	326	LEU	Peptide,Mainchain
2	M	329	GLN	Mainchain
2	M	330	LYS	Mainchain

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Mol	Chain	Res	Type	Group
2	M	340	ALA	Peptide,Mainchain
2	M	341	ALA	Mainchain
2	M	343	ALA	Mainchain
3	N	374	SER	Mainchain
3	N	407	LEU	Mainchain
3	N	408	SER	Peptide
3	N	493	ALA	Peptide
3	N	497	ARG	Mainchain
4	P	1448	MET	Mainchain
4	P	1449	TRP	Peptide
4	P	1450	GLU	Peptide
4	P	1484	ASP	Mainchain
4	P	1485	ALA	Mainchain
4	P	1486	CYS	Mainchain
4	P	1489	HIS	Mainchain
4	P	1503	ILE	Mainchain
4	P	1507	ASP	Mainchain
4	P	1508	LYS	Peptide,Mainchain
4	P	1509	GLN	Mainchain
4	P	1512	TRP	Mainchain
4	P	1516	LEU	Mainchain
4	P	1517	SER	Peptide,Mainchain
4	P	1518	ASN	Mainchain
4	P	1519	SER	Peptide
4	P	1538	SER	Mainchain
4	P	1541	THR	Mainchain
4	P	1542	PRO	Mainchain
5	Q	259	SER	Mainchain
1	R	393	GLN	Mainchain
1	R	397	ARG	Mainchain
1	R	398	LYS	Peptide,Mainchain
1	R	399	SER	Peptide
1	R	400	GLY	Mainchain
1	R	401	TYR	Mainchain
1	R	403	ILE	Peptide
1	R	419	GLY	Mainchain
1	R	420	GLU	Mainchain
1	R	421	LEU	Mainchain
1	R	422	ASN	Peptide,Mainchain
1	R	423	ALA	Mainchain
1	R	424	PRO	Peptide,Mainchain
1	R	425	THR	Mainchain

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Mol	Chain	Res	Type	Group
1	R	426	GLN	Mainchain
1	R	445	GLY	Mainchain
1	R	446	ALA	Mainchain
1	R	448	ARG	Mainchain
1	R	452	ARG	Mainchain
1	R	454	TYR	Peptide,Mainchain
1	R	456	ASP	Mainchain
1	R	457	ALA	Mainchain
1	R	459	LEU	Mainchain
1	R	462	GLU	Mainchain
1	R	463	ILE	Peptide
1	R	472	GLU	Mainchain
1	R	487	ASP	Mainchain
2	S	321	ASN	Mainchain
2	S	325	ALA	Mainchain
2	S	326	LEU	Peptide,Mainchain
2	S	329	GLN	Mainchain
2	S	330	LYS	Mainchain
2	S	340	ALA	Peptide,Mainchain
2	S	341	ALA	Mainchain
2	S	343	ALA	Mainchain
3	T	374	SER	Mainchain
3	T	407	LEU	Mainchain
3	T	408	SER	Peptide
3	T	493	ALA	Peptide
3	T	497	ARG	Mainchain
4	V	1448	MET	Mainchain
4	V	1449	TRP	Peptide
4	V	1450	GLU	Peptide
4	V	1484	ASP	Mainchain
4	V	1485	ALA	Mainchain
4	V	1486	CYS	Mainchain
4	V	1489	HIS	Mainchain
4	V	1503	ILE	Mainchain
4	V	1507	ASP	Mainchain
4	V	1508	LYS	Peptide,Mainchain
4	V	1509	GLN	Mainchain
4	V	1516	LEU	Mainchain
4	V	1517	SER	Peptide,Mainchain
4	V	1518	ASN	Mainchain
4	V	1519	SER	Peptide
4	V	1538	SER	Mainchain

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Mol	Chain	Res	Type	Group
4	V	1541	THR	Mainchain
4	V	1542	PRO	Mainchain
5	W	259	SER	Mainchain
1	X	397	ARG	Mainchain
1	X	398	LYS	Peptide,Mainchain
1	X	399	SER	Peptide
1	X	400	GLY	Mainchain
1	X	401	TYR	Mainchain
1	X	403	ILE	Peptide
1	X	419	GLY	Mainchain
1	X	420	GLU	Mainchain
1	X	421	LEU	Mainchain
1	X	422	ASN	Peptide,Mainchain
1	X	423	ALA	Mainchain
1	X	424	PRO	Peptide,Mainchain
1	X	425	THR	Mainchain
1	X	426	GLN	Mainchain
1	X	445	GLY	Mainchain
1	X	446	ALA	Mainchain
1	X	448	ARG	Mainchain
1	X	452	ARG	Mainchain
1	X	454	TYR	Peptide,Mainchain
1	X	456	ASP	Mainchain
1	X	457	ALA	Mainchain
1	X	459	LEU	Mainchain
1	X	462	GLU	Mainchain
1	X	463	ILE	Peptide
1	X	472	GLU	Mainchain
1	X	487	ASP	Mainchain
2	Y	321	ASN	Mainchain
2	Y	325	ALA	Mainchain
2	Y	326	LEU	Peptide,Mainchain
2	Y	329	GLN	Mainchain
2	Y	330	LYS	Mainchain
2	Y	340	ALA	Peptide,Mainchain
2	Y	341	ALA	Mainchain
2	Y	343	ALA	Mainchain
3	Z	374	SER	Mainchain
3	Z	407	LEU	Mainchain
3	Z	408	SER	Peptide
3	Z	493	ALA	Peptide
3	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	F	1658	0	715	186	0
1	L	1658	0	715	153	0
1	R	1658	0	710	232	0
1	X	1658	0	715	153	0
2	G	853	0	384	61	0
2	M	853	0	384	56	0
2	S	853	0	384	56	0
2	Y	853	0	384	57	0
3	H	842	0	365	43	0
3	N	842	0	365	37	0
3	T	842	0	365	37	0
3	Z	842	0	365	36	0
4	D	5094	0	2272	135	0
4	J	5094	0	2271	69	0
4	P	5094	0	2253	344	0
4	V	5094	0	2258	298	0
5	E	5366	0	2365	31	0
5	K	5366	0	2362	61	0
5	Q	5366	0	2365	36	0
5	W	5366	0	2350	236	0
6	C	2946	0	1307	78	0
6	I	2946	0	1306	35	0
6	O	2946	0	1296	189	0
6	U	2946	0	1307	21	0
All	All	67036	0	29563	2028	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 21.

All (2028) 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)
2:G:366:GLU:CB	2:G:366:GLU:CA	1.76	1.63
1:X:451:GLU:CA	1:X:451:GLU:CB	1.77	1.61
1:F:447:VAL:CB	1:F:447:VAL:CA	1.78	1.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:447:VAL:CA	1:R:447:VAL:CB	1.78	1.60
1:L:454:TYR:CA	1:L:454:TYR:CB	1.77	1.60
1:X:447:VAL:CA	1:X:447:VAL:CB	1.78	1.60
2:Y:366:GLU:CA	2:Y:366:GLU:CB	1.76	1.59
1:R:451:GLU:CA	1:R:451:GLU:CB	1.77	1.58
2:M:366:GLU:CB	2:M:366:GLU:CA	1.76	1.58
1:R:488:ILE:N	1:R:488:ILE:CA	1.67	1.57
1:L:451:GLU:CB	1:L:451:GLU:CA	1.77	1.57
1:R:454:TYR:CA	1:R:454:TYR:CB	1.77	1.57
2:S:366:GLU:CA	2:S:366:GLU:CB	1.76	1.57
1:F:451:GLU:CA	1:F:451:GLU:CB	1.77	1.57
3:T:490:GLN:CA	3:T:490:GLN:CB	1.75	1.57
1:R:374:GLN:HA	4:P:896:VAL:CB	1.33	1.57
1:L:457:ALA:CB	1:L:457:ALA:CA	1.82	1.56
3:N:490:GLN:CA	3:N:490:GLN:CB	1.75	1.56
1:X:457:ALA:CA	1:X:457:ALA:CB	1.83	1.56
3:H:490:GLN:CA	3:H:490:GLN:CB	1.75	1.56
1:X:454:TYR:CB	1:X:454:TYR:CA	1.77	1.56
1:X:483:ASP:CA	1:X:483:ASP:CB	1.85	1.55
4:V:1432:ALA:N	5:W:1336:GLU:CA	1.70	1.55
1:L:455:ILE:CA	1:L:455:ILE:CB	1.84	1.55
3:Z:490:GLN:CB	3:Z:490:GLN:CA	1.75	1.55
1:X:328:VAL:C	1:X:328:VAL:CA	1.75	1.54
1:L:328:VAL:CA	1:L:328:VAL:C	1.75	1.54
1:R:328:VAL:C	1:R:328:VAL:CA	1.75	1.54
1:L:447:VAL:CA	1:L:447:VAL:CB	1.78	1.54
1:L:492:GLU:C	1:L:492:GLU:CA	1.75	1.54
1:F:328:VAL:CA	1:F:328:VAL:C	1.75	1.54
1:F:492:GLU:CA	1:F:492:GLU:C	1.75	1.54
1:R:456:ASP:C	1:R:456:ASP:CA	1.76	1.54
1:R:483:ASP:CA	1:R:483:ASP:CB	1.85	1.54
1:R:450:GLU:CA	1:R:451:GLU:N	1.70	1.54
4:V:1407:ILE:CB	5:W:1370:SER:CB	1.79	1.54
1:X:455:ILE:CB	1:X:455:ILE:CA	1.84	1.53
1:L:483:ASP:CB	1:L:483:ASP:CA	1.85	1.53
1:F:458:ASP:CB	1:F:458:ASP:CA	1.87	1.53
1:X:488:ILE:N	1:X:488:ILE:CA	1.67	1.53
1:R:455:ILE:CB	1:R:455:ILE:CA	1.84	1.53
1:F:457:ALA:CA	1:F:457:ALA:CB	1.83	1.53
1:X:450:GLU:N	1:X:450:GLU:CA	1.71	1.53
1:X:450:GLU:CA	1:X:451:GLU:N	1.70	1.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:454:TYR:CA	1:F:454:TYR:CB	1.77	1.53
1:F:456:ASP:CA	1:F:456:ASP:C	1.76	1.53
1:F:488:ILE:N	1:F:488:ILE:CA	1.68	1.53
1:R:492:GLU:C	1:R:492:GLU:CA	1.75	1.52
3:T:381:LYS:N	3:T:381:LYS:CA	1.72	1.52
2:M:325:ALA:C	2:M:325:ALA:CA	1.78	1.52
2:S:325:ALA:C	2:S:325:ALA:CA	1.78	1.52
2:Y:327:ARG:CB	2:Y:327:ARG:CA	1.87	1.52
1:R:329:GLY:N	1:R:329:GLY:CA	1.71	1.52
1:F:483:ASP:CA	1:F:483:ASP:CB	1.85	1.52
3:H:381:LYS:N	3:H:381:LYS:CA	1.72	1.52
1:L:329:GLY:N	1:L:329:GLY:CA	1.71	1.52
1:L:456:ASP:C	1:L:456:ASP:CA	1.76	1.52
2:M:326:LEU:C	2:M:326:LEU:CA	1.78	1.52
2:Y:326:LEU:CA	2:Y:326:LEU:C	1.79	1.51
1:L:488:ILE:N	1:L:488:ILE:CA	1.67	1.51
1:L:311:GLN:CA	1:L:311:GLN:C	1.77	1.51
1:L:450:GLU:CA	1:L:451:GLU:N	1.70	1.51
3:N:497:ARG:N	3:N:497:ARG:CA	1.69	1.51
2:S:326:LEU:C	2:S:326:LEU:CA	1.79	1.51
5:K:1016:ALA:HB3	6:I:814:MET:CB	1.35	1.51
1:F:311:GLN:C	1:F:311:GLN:CA	1.77	1.51
1:R:311:GLN:CA	1:R:311:GLN:C	1.77	1.51
1:R:450:GLU:CA	1:R:450:GLU:N	1.71	1.51
1:F:385:ARG:CB	4:D:884:GLN:H	1.24	1.51
2:G:325:ALA:CA	2:G:325:ALA:C	1.78	1.51
1:X:492:GLU:CA	1:X:492:GLU:C	1.74	1.51
1:R:457:ALA:CA	1:R:457:ALA:CB	1.83	1.51
3:H:463:ALA:N	3:H:463:ALA:CA	1.74	1.50
1:F:450:GLU:N	1:F:450:GLU:CA	1.71	1.50
1:F:455:ILE:CA	1:F:455:ILE:CB	1.84	1.50
1:X:311:GLN:C	1:X:311:GLN:CA	1.77	1.50
3:Z:497:ARG:N	3:Z:497:ARG:CA	1.69	1.50
4:V:1498:ALA:CA	5:W:1360:TYR:CB	1.85	1.50
4:D:1661:ARG:CB	6:C:448:TYR:CA	1.85	1.50
1:L:458:ASP:CA	1:L:458:ASP:CB	1.87	1.50
1:R:458:ASP:CA	1:R:458:ASP:CB	1.87	1.50
3:T:463:ALA:N	3:T:463:ALA:CA	1.74	1.49
3:H:497:ARG:N	3:H:497:ARG:CA	1.69	1.49
1:X:458:ASP:CA	1:X:458:ASP:CB	1.87	1.49
3:Z:463:ALA:N	3:Z:463:ALA:CA	1.74	1.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:450:GLU:CA	1:L:450:GLU:N	1.71	1.49
3:N:381:LYS:N	3:N:381:LYS:CA	1.71	1.49
1:R:453:TYR:N	1:R:453:TYR:CA	1.75	1.49
4:P:1442:GLU:H	6:O:181:ILE:C	1.01	1.49
1:X:456:ASP:CA	1:X:456:ASP:C	1.76	1.49
2:Y:325:ALA:CA	2:Y:325:ALA:C	1.77	1.49
2:M:379:HIS:N	2:M:379:HIS:CA	1.76	1.49
2:M:327:ARG:CA	2:M:327:ARG:CB	1.87	1.49
2:S:327:ARG:CA	2:S:327:ARG:CB	1.87	1.49
2:G:327:ARG:CA	2:G:327:ARG:CB	1.87	1.48
1:R:380:MET:CB	4:P:887:ASN:CB	1.89	1.48
3:N:463:ALA:N	3:N:463:ALA:CA	1.74	1.48
1:F:329:GLY:N	1:F:329:GLY:CA	1.71	1.48
1:F:450:GLU:CA	1:F:451:GLU:N	1.70	1.48
1:X:329:GLY:N	1:X:329:GLY:CA	1.71	1.48
3:T:497:ARG:CA	3:T:497:ARG:N	1.69	1.48
2:G:326:LEU:CA	2:G:326:LEU:C	1.79	1.48
1:X:453:TYR:N	1:X:453:TYR:CA	1.75	1.48
1:L:453:TYR:N	1:L:453:TYR:CA	1.75	1.48
1:L:493:HIS:N	1:L:493:HIS:CA	1.76	1.48
2:G:276:SER:CA	2:G:276:SER:C	1.82	1.47
1:F:453:TYR:N	1:F:453:TYR:CA	1.75	1.47
3:Z:381:LYS:N	3:Z:381:LYS:CA	1.71	1.47
1:R:472:GLU:N	1:R:472:GLU:CA	1.76	1.47
1:F:454:TYR:CA	1:F:454:TYR:C	1.83	1.47
1:L:472:GLU:N	1:L:472:GLU:CA	1.76	1.47
2:Y:276:SER:C	2:Y:276:SER:CA	1.82	1.47
2:M:276:SER:CA	2:M:276:SER:C	1.82	1.47
2:G:379:HIS:N	2:G:379:HIS:CA	1.76	1.46
4:P:1663:GLN:C	6:O:446:GLU:CB	1.81	1.46
4:V:1431:ILE:CB	5:W:1336:GLU:CB	1.91	1.46
1:X:472:GLU:N	1:X:472:GLU:CA	1.76	1.46
1:L:454:TYR:CA	1:L:454:TYR:C	1.84	1.46
1:F:493:HIS:N	1:F:493:HIS:CA	1.76	1.46
1:L:299:ASN:CA	1:L:299:ASN:C	1.84	1.46
2:S:276:SER:C	2:S:276:SER:CA	1.82	1.46
1:X:299:ASN:C	1:X:299:ASN:CA	1.84	1.46
1:F:472:GLU:N	1:F:472:GLU:CA	1.76	1.45
2:S:379:HIS:N	2:S:379:HIS:CA	1.76	1.45
1:R:492:GLU:C	1:R:493:HIS:N	1.69	1.45
5:W:73:LEU:CB	6:O:683:LYS:CB	1.92	1.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:492:GLU:C	1:F:493:HIS:N	1.69	1.45
1:X:493:HIS:N	1:X:493:HIS:CA	1.76	1.45
3:Z:462:GLY:C	3:Z:462:GLY:CA	1.85	1.45
1:X:400:GLY:N	1:X:401:TYR:N	1.63	1.45
1:X:492:GLU:C	1:X:493:HIS:N	1.69	1.45
4:V:1431:ILE:CB	5:W:1336:GLU:H	1.27	1.45
1:X:454:TYR:CA	1:X:454:TYR:C	1.84	1.45
1:R:400:GLY:N	1:R:401:TYR:N	1.63	1.45
2:M:327:ARG:CA	2:M:327:ARG:N	1.77	1.44
1:R:299:ASN:CA	1:R:299:ASN:C	1.84	1.44
1:X:367:THR:CA	1:X:367:THR:C	1.85	1.44
2:Y:379:HIS:N	2:Y:379:HIS:CA	1.76	1.44
1:L:492:GLU:C	1:L:493:HIS:N	1.69	1.44
3:N:411:GLU:C	3:N:412:GLU:N	1.69	1.44
2:S:327:ARG:CA	2:S:327:ARG:N	1.77	1.44
1:F:299:ASN:C	1:F:299:ASN:CA	1.84	1.44
1:F:367:THR:CA	1:F:367:THR:C	1.85	1.44
1:F:454:TYR:C	1:F:454:TYR:HA	1.37	1.44
1:F:459:LEU:CA	1:F:459:LEU:C	1.86	1.44
2:Y:326:LEU:CA	2:Y:326:LEU:N	1.80	1.44
3:N:462:GLY:CA	3:N:462:GLY:C	1.85	1.44
1:L:367:THR:C	1:L:367:THR:CA	1.85	1.44
1:L:459:LEU:CA	1:L:459:LEU:C	1.86	1.44
3:H:411:GLU:C	3:H:412:GLU:N	1.69	1.43
2:S:326:LEU:CA	2:S:326:LEU:N	1.80	1.43
3:T:411:GLU:C	3:T:412:GLU:N	1.69	1.43
2:M:326:LEU:CA	2:M:326:LEU:N	1.80	1.43
2:Y:327:ARG:CA	2:Y:327:ARG:N	1.77	1.43
3:Z:411:GLU:C	3:Z:412:GLU:N	1.69	1.43
1:R:454:TYR:CA	1:R:454:TYR:C	1.83	1.43
3:T:374:SER:CA	3:T:374:SER:CB	1.96	1.43
3:H:374:SER:CA	3:H:374:SER:CB	1.96	1.43
3:N:374:SER:CA	3:N:374:SER:CB	1.96	1.43
1:R:493:HIS:N	1:R:493:HIS:CA	1.76	1.43
2:G:326:LEU:CA	2:G:326:LEU:N	1.80	1.43
2:G:327:ARG:CA	2:G:327:ARG:N	1.77	1.43
1:F:388:GLN:CB	4:D:880:GLU:CB	1.96	1.42
3:H:462:GLY:CA	3:H:462:GLY:C	1.85	1.42
1:L:453:TYR:CA	1:L:453:TYR:CB	1.97	1.42
4:V:1422:TYR:CB	5:W:1368:SER:CB	1.93	1.42
5:K:1016:ALA:CB	6:I:814:MET:CB	1.92	1.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:400:GLY:N	1:X:400:GLY:CA	1.82	1.42
1:X:459:LEU:C	1:X:459:LEU:CA	1.87	1.42
1:R:453:TYR:CA	1:R:453:TYR:CB	1.97	1.42
2:G:339:TYR:C	2:G:340:ALA:N	1.72	1.42
3:Z:409:PRO:C	3:Z:409:PRO:CA	1.88	1.42
3:T:462:GLY:C	3:T:462:GLY:CA	1.85	1.42
3:H:408:SER:CB	4:D:812:GLU:CB	1.93	1.41
2:Y:378:SER:C	2:Y:378:SER:CA	1.88	1.41
1:L:400:GLY:N	1:L:401:TYR:N	1.63	1.41
2:M:339:TYR:C	2:M:340:ALA:N	1.72	1.41
2:G:378:SER:CA	2:G:378:SER:C	1.89	1.41
2:M:378:SER:CA	2:M:378:SER:C	1.88	1.41
3:H:409:PRO:CA	3:H:409:PRO:C	1.88	1.41
3:Z:374:SER:CB	3:Z:374:SER:CA	1.96	1.41
3:N:409:PRO:CA	3:N:409:PRO:C	1.88	1.41
1:R:367:THR:C	1:R:367:THR:CA	1.85	1.41
1:X:453:TYR:CA	1:X:453:TYR:CB	1.97	1.40
1:L:454:TYR:C	1:L:454:TYR:HA	1.37	1.40
1:R:459:LEU:C	1:R:459:LEU:CA	1.86	1.40
1:R:400:GLY:N	1:R:400:GLY:CA	1.82	1.40
2:S:378:SER:CA	2:S:378:SER:C	1.88	1.40
1:F:400:GLY:N	1:F:400:GLY:CA	1.82	1.40
4:P:1442:GLU:CA	6:O:180:ASN:O	1.69	1.40
1:F:453:TYR:CA	1:F:453:TYR:CB	1.97	1.40
4:V:1498:ALA:HA	5:W:1360:TYR:CB	0.95	1.40
1:F:385:ARG:CB	4:D:884:GLN:N	1.83	1.39
1:F:400:GLY:N	1:F:401:TYR:N	1.63	1.39
2:S:339:TYR:C	2:S:340:ALA:N	1.72	1.39
2:Y:339:TYR:C	2:Y:340:ALA:N	1.72	1.39
1:L:400:GLY:N	1:L:400:GLY:CA	1.82	1.39
3:T:409:PRO:CA	3:T:409:PRO:C	1.88	1.38
1:R:371:LYS:O	4:P:893:ALA:CB	1.69	1.38
4:P:1673:LEU:CB	6:O:452:HIS:CA	2.03	1.37
4:V:1421:LEU:CB	5:W:1371:VAL:HA	1.52	1.37
1:X:450:GLU:O	1:X:450:GLU:C	1.64	1.36
1:F:450:GLU:C	1:F:450:GLU:O	1.64	1.36
1:R:380:MET:CA	4:P:887:ASN:CB	2.04	1.36
4:P:1664:ASP:CA	6:O:446:GLU:CB	1.93	1.35
1:L:458:ASP:CA	1:L:458:ASP:C	1.94	1.35
4:P:1664:ASP:N	6:O:446:GLU:CA	1.80	1.35
1:F:458:ASP:CA	1:F:458:ASP:C	1.94	1.35

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:401:TYR:N	1:F:401:TYR:CA	1.90	1.35
1:R:401:TYR:N	1:R:401:TYR:CA	1.90	1.35
1:X:401:TYR:N	1:X:401:TYR:CA	1.90	1.34
4:P:1442:GLU:N	6:O:181:ILE:C	1.78	1.34
4:V:1407:ILE:CA	5:W:1370:SER:HA	1.53	1.34
1:R:450:GLU:C	1:R:450:GLU:O	1.64	1.34
1:R:458:ASP:CA	1:R:458:ASP:C	1.94	1.34
1:X:454:TYR:C	1:X:454:TYR:HA	1.38	1.34
1:X:458:ASP:CA	1:X:458:ASP:C	1.94	1.33
4:V:1481:VAL:O	5:W:1367:MET:CB	1.75	1.33
1:R:454:TYR:C	1:R:454:TYR:HA	1.38	1.32
4:P:1438:PRO:HA	6:O:181:ILE:CB	1.57	1.32
1:L:450:GLU:C	1:L:450:GLU:O	1.63	1.32
4:P:1667:ALA:HB3	6:O:446:GLU:N	1.40	1.32
4:V:1431:ILE:CB	5:W:1336:GLU:N	1.88	1.32
4:V:1502:ARG:CB	5:W:1341:VAL:O	1.75	1.32
1:R:458:ASP:C	1:R:459:LEU:N	1.82	1.32
1:L:401:TYR:N	1:L:401:TYR:CA	1.90	1.31
1:L:458:ASP:C	1:L:459:LEU:N	1.82	1.31
1:F:458:ASP:C	1:F:459:LEU:N	1.82	1.31
2:M:341:ALA:N	2:M:341:ALA:CA	1.93	1.31
4:V:1407:ILE:CB	5:W:1370:SER:N	1.93	1.30
2:G:341:ALA:N	2:G:341:ALA:CA	1.93	1.30
4:P:783:PHE:HA	5:Q:1093:ASN:CA	1.60	1.30
1:X:458:ASP:C	1:X:459:LEU:N	1.82	1.30
2:S:341:ALA:N	2:S:341:ALA:CA	1.94	1.30
4:P:783:PHE:HA	5:Q:1093:ASN:CB	1.60	1.30
4:P:1621:LEU:CB	6:O:451:SER:HA	1.62	1.30
4:V:1428:TYR:CB	5:W:1338:PRO:N	1.93	1.30
4:P:1441:LEU:CB	6:O:179:ASP:H	1.11	1.29
4:V:1551:TYR:CB	5:W:1358:CYS:CB	2.11	1.29
1:F:378:LYS:HA	4:D:887:ASN:O	1.21	1.29
2:M:327:ARG:CA	2:M:327:ARG:C	2.01	1.29
4:P:1675:LEU:C	6:O:461:LEU:CB	1.99	1.29
4:V:1429:LEU:HA	5:W:1338:PRO:O	1.13	1.29
2:Y:341:ALA:N	2:Y:341:ALA:CA	1.94	1.28
1:X:451:GLU:CA	1:X:451:GLU:C	2.02	1.28
2:Y:327:ARG:CA	2:Y:327:ARG:C	2.02	1.28
1:L:451:GLU:CA	1:L:451:GLU:C	2.02	1.28
4:P:1443:ALA:HB2	6:O:186:ALA:CB	1.64	1.28
4:P:1441:LEU:C	6:O:183:MET:H	1.35	1.27

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:451:GLU:CA	1:F:451:GLU:C	2.02	1.27
2:S:327:ARG:CA	2:S:327:ARG:C	2.02	1.27
4:P:1442:GLU:HA	6:O:180:ASN:O	1.10	1.27
1:R:402:ALA:HB3	1:R:403:ILE:N	1.12	1.27
1:R:451:GLU:CA	1:R:451:GLU:C	2.02	1.27
2:G:327:ARG:CA	2:G:327:ARG:C	2.02	1.26
4:V:62:GLN:HA	5:W:1178:LEU:O	1.35	1.26
1:F:402:ALA:HB3	1:F:403:ILE:N	1.11	1.25
4:P:1438:PRO:CA	6:O:181:ILE:CB	2.14	1.25
4:V:1429:LEU:O	5:W:1342:LEU:HA	1.30	1.25
1:R:399:SER:C	1:R:400:GLY:CA	2.04	1.25
4:V:1497:LEU:CB	5:W:1360:TYR:O	1.83	1.25
4:P:42:ILE:N	4:V:777:GLU:N	1.62	1.25
4:P:1441:LEU:C	6:O:180:ASN:C	1.83	1.25
1:F:399:SER:C	1:F:400:GLY:CA	2.04	1.25
4:V:1431:ILE:C	5:W:1336:GLU:CB	2.04	1.25
1:L:399:SER:C	1:L:400:GLY:CA	2.04	1.25
4:D:1675:LEU:CB	6:C:481:ARG:CB	2.12	1.25
1:R:380:MET:N	4:P:887:ASN:CB	2.00	1.24
1:X:399:SER:C	1:X:400:GLY:CA	2.04	1.24
4:P:1672:GLU:N	6:O:449:GLY:O	1.67	1.24
4:P:1675:LEU:H	6:O:453:PHE:CB	1.49	1.24
1:R:450:GLU:CB	1:R:451:GLU:N	2.01	1.23
1:X:450:GLU:CB	1:X:451:GLU:N	2.00	1.23
1:L:450:GLU:CB	1:L:451:GLU:N	2.00	1.23
1:R:374:GLN:CA	4:P:896:VAL:CB	2.17	1.23
4:V:1429:LEU:O	5:W:1342:LEU:CA	1.86	1.23
4:P:1675:LEU:O	6:O:461:LEU:CB	1.87	1.23
1:F:450:GLU:CB	1:F:451:GLU:N	2.00	1.22
4:P:1673:LEU:CB	6:O:452:HIS:C	1.90	1.22
4:P:1441:LEU:CB	6:O:179:ASP:N	1.86	1.22
4:P:1444:ALA:N	6:O:183:MET:CB	1.97	1.22
1:F:450:GLU:O	1:F:451:GLU:HA	1.38	1.21
1:L:402:ALA:HB3	1:L:403:ILE:N	1.11	1.20
4:P:1664:ASP:H	6:O:446:GLU:CA	1.40	1.20
4:P:1673:LEU:CB	6:O:452:HIS:HA	1.65	1.20
4:V:1466:ASN:CB	5:W:1339:SER:CB	2.17	1.20
5:W:568:TRP:CB	6:O:610:ASN:CB	2.19	1.20
4:P:1675:LEU:CB	6:O:461:LEU:CB	2.18	1.20
1:R:384:HIS:O	4:P:880:GLU:CA	1.87	1.20
1:L:457:ALA:CB	1:L:457:ALA:N	2.05	1.19

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:455:ILE:O	1:L:457:ALA:N	1.76	1.19
1:R:374:GLN:HA	4:P:896:VAL:CA	1.70	1.19
2:M:327:ARG:N	2:M:327:ARG:HA	1.56	1.19
1:R:457:ALA:CB	1:R:457:ALA:N	2.05	1.19
4:V:1432:ALA:N	5:W:1336:GLU:HA	0.86	1.19
1:R:374:GLN:CB	4:P:894:ASP:C	2.10	1.19
4:V:1402:LYS:CB	5:W:1373:VAL:CB	2.20	1.19
1:X:455:ILE:O	1:X:457:ALA:N	1.76	1.18
4:P:1673:LEU:CA	6:O:451:SER:O	1.90	1.18
1:F:455:ILE:O	1:F:457:ALA:N	1.75	1.18
1:L:450:GLU:O	1:L:451:GLU:HA	1.37	1.18
1:F:487:ASP:C	1:F:487:ASP:CA	2.13	1.17
1:X:457:ALA:CB	1:X:457:ALA:N	2.05	1.17
1:X:487:ASP:CA	1:X:487:ASP:C	2.13	1.17
2:G:341:ALA:N	2:G:342:PRO:N	1.92	1.17
2:S:341:ALA:N	2:S:342:PRO:N	1.92	1.17
1:F:457:ALA:CB	1:F:457:ALA:N	2.05	1.17
1:L:487:ASP:C	1:L:487:ASP:CA	2.13	1.17
1:R:450:GLU:O	1:R:451:GLU:HA	1.38	1.17
1:R:456:ASP:C	1:R:456:ASP:CB	2.12	1.17
2:S:339:TYR:C	2:S:340:ALA:CA	2.13	1.17
2:G:339:TYR:C	2:G:340:ALA:CA	2.13	1.17
1:R:371:LYS:O	4:P:893:ALA:HB1	1.02	1.17
2:G:379:HIS:C	2:G:380:ILE:N	1.99	1.17
2:Y:339:TYR:C	2:Y:340:ALA:CA	2.13	1.17
1:R:487:ASP:CA	1:R:487:ASP:C	2.13	1.17
2:G:327:ARG:N	2:G:327:ARG:HA	1.56	1.16
2:M:339:TYR:C	2:M:340:ALA:CA	2.13	1.16
1:R:384:HIS:H	4:P:883:LEU:CB	1.58	1.16
2:S:379:HIS:C	2:S:380:ILE:N	1.99	1.16
2:Y:341:ALA:N	2:Y:342:PRO:N	1.92	1.16
1:L:456:ASP:C	1:L:456:ASP:CB	2.12	1.16
1:R:455:ILE:O	1:R:457:ALA:N	1.76	1.16
1:F:456:ASP:C	1:F:456:ASP:CB	2.12	1.16
1:X:456:ASP:C	1:X:456:ASP:CB	2.12	1.16
4:V:66:LYS:CB	5:W:1182:LEU:O	1.92	1.16
2:M:379:HIS:C	2:M:380:ILE:N	1.98	1.16
1:R:379:LEU:O	4:P:884:GLN:HA	1.45	1.16
4:V:1481:VAL:C	5:W:1367:MET:CB	2.15	1.16
2:Y:379:HIS:C	2:Y:380:ILE:N	1.98	1.15
2:M:341:ALA:N	2:M:342:PRO:N	1.92	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:1442:GLU:N	6:O:180:ASN:O	1.77	1.15
4:V:62:GLN:HA	5:W:1178:LEU:C	1.67	1.15
1:R:493:HIS:CA	1:R:493:HIS:CB	2.25	1.15
4:V:1407:ILE:CB	5:W:1370:SER:C	2.13	1.15
4:V:1429:LEU:CB	5:W:1342:LEU:N	2.10	1.15
1:F:493:HIS:CA	1:F:493:HIS:CB	2.25	1.14
1:X:493:HIS:CA	1:X:493:HIS:CB	2.25	1.14
2:Y:327:ARG:N	2:Y:327:ARG:HA	1.56	1.14
2:S:327:ARG:N	2:S:327:ARG:HA	1.56	1.14
4:P:783:PHE:CA	5:Q:1093:ASN:CB	2.24	1.14
1:L:493:HIS:CA	1:L:493:HIS:CB	2.25	1.14
4:V:1431:ILE:CB	5:W:1336:GLU:CA	2.26	1.14
4:V:60:ASN:HA	5:W:1176:SER:CB	1.75	1.14
4:V:1428:TYR:O	5:W:1336:GLU:C	1.86	1.14
1:R:452:ARG:HA	1:R:453:TYR:CA	1.76	1.14
1:R:388:GLN:CB	4:P:880:GLU:N	2.08	1.14
1:F:382:LEU:HA	4:D:884:GLN:HA	1.31	1.13
4:V:1404:LEU:O	5:W:1370:SER:CB	1.96	1.13
1:X:450:GLU:O	1:X:451:GLU:HA	1.37	1.13
4:P:1442:GLU:H	6:O:182:GLU:N	1.47	1.13
1:F:378:LYS:CA	4:D:887:ASN:O	1.95	1.13
1:F:450:GLU:CA	1:F:450:GLU:C	2.16	1.13
1:R:450:GLU:CA	1:R:450:GLU:C	2.16	1.13
4:P:1673:LEU:CB	6:O:451:SER:O	1.96	1.13
4:D:1660:LEU:CB	6:C:452:HIS:H	1.60	1.13
5:K:1025:LYS:CB	6:C:425:ASP:H	1.60	1.13
4:P:42:ILE:C	4:V:778:PRO:HA	1.59	1.12
4:P:1675:LEU:CA	6:O:461:LEU:CB	2.26	1.12
1:X:450:GLU:CA	1:X:450:GLU:C	2.16	1.12
1:L:402:ALA:CB	1:L:403:ILE:H	1.56	1.12
1:L:450:GLU:CA	1:L:450:GLU:C	2.16	1.12
1:R:385:ARG:CA	4:P:879:LEU:O	1.95	1.12
4:V:1429:LEU:CA	5:W:1338:PRO:O	1.97	1.12
1:F:452:ARG:HA	1:F:453:TYR:CA	1.76	1.12
4:P:166:LEU:O	4:V:792:GLY:C	1.86	1.11
4:P:1439:ASP:HA	6:O:185:TYR:CB	1.80	1.11
4:V:1431:ILE:N	5:W:1336:GLU:N	1.97	1.11
1:R:370:ALA:HB1	4:P:897:VAL:CB	1.80	1.11
4:P:1667:ALA:HB3	6:O:446:GLU:CA	1.75	1.11
2:Y:326:LEU:C	2:Y:326:LEU:CB	2.19	1.11
4:P:1675:LEU:CB	6:O:461:LEU:C	2.19	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S:326:LEU:C	2:S:326:LEU:CB	2.19	1.11
1:L:402:ALA:CB	1:L:403:ILE:N	1.92	1.10
1:R:454:TYR:HA	1:R:455:ILE:N	1.67	1.10
1:L:454:TYR:HA	1:L:455:ILE:N	1.67	1.10
4:P:1675:LEU:H	6:O:453:PHE:CA	1.62	1.10
1:X:454:TYR:HA	1:X:455:ILE:N	1.67	1.10
2:M:326:LEU:C	2:M:326:LEU:CB	2.19	1.09
2:G:326:LEU:C	2:G:326:LEU:CB	2.19	1.09
4:P:1445:LYS:N	6:O:183:MET:CB	2.16	1.09
4:V:1431:ILE:CA	5:W:1336:GLU:N	2.15	1.09
1:X:402:ALA:HB3	1:X:403:ILE:N	1.12	1.09
1:L:452:ARG:HA	1:L:453:TYR:CA	1.76	1.09
1:R:378:LYS:CB	4:P:885:GLY:O	2.01	1.09
4:P:1443:ALA:CB	6:O:186:ALA:CB	2.30	1.09
4:V:69:LYS:CA	5:W:1185:ILE:C	2.03	1.09
3:H:490:GLN:CB	3:H:490:GLN:C	2.21	1.09
4:V:69:LYS:HA	5:W:1185:ILE:C	1.36	1.09
1:F:454:TYR:HA	1:F:455:ILE:N	1.67	1.09
3:N:408:SER:HA	3:N:410:LEU:H	1.18	1.09
4:P:1445:LYS:H	6:O:183:MET:CB	1.65	1.09
3:Z:490:GLN:CB	3:Z:490:GLN:C	2.21	1.08
1:X:452:ARG:HA	1:X:453:TYR:CA	1.76	1.08
3:T:490:GLN:CB	3:T:490:GLN:C	2.21	1.08
4:V:1431:ILE:H	5:W:1335:VAL:C	1.57	1.08
4:D:1661:ARG:CA	6:C:448:TYR:N	2.17	1.07
1:F:385:ARG:CB	4:D:884:GLN:CB	2.30	1.07
4:P:1443:ALA:HB2	6:O:186:ALA:HB2	1.09	1.07
4:P:1670:LEU:O	6:O:452:HIS:C	1.81	1.07
3:H:408:SER:HA	3:H:410:LEU:H	1.18	1.07
3:N:490:GLN:CB	3:N:490:GLN:C	2.21	1.07
2:S:326:LEU:CA	2:S:326:LEU:O	2.03	1.07
4:D:1674:ALA:HB1	6:C:450:GLU:CB	1.85	1.07
2:G:326:LEU:CA	2:G:326:LEU:O	2.03	1.06
4:P:1621:LEU:CB	6:O:451:SER:CA	2.33	1.06
1:X:454:TYR:CB	1:X:454:TYR:N	2.17	1.06
1:R:454:TYR:CB	1:R:454:TYR:N	2.17	1.06
1:F:454:TYR:CB	1:F:454:TYR:N	2.17	1.06
4:V:1431:ILE:H	5:W:1336:GLU:N	1.54	1.06
4:V:1494:MET:HA	5:W:1361:LEU:CB	1.86	1.06
1:L:454:TYR:CB	1:L:454:TYR:N	2.17	1.06
4:P:1442:GLU:N	6:O:183:MET:N	1.85	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:1692:LEU:C	6:O:302:PRO:N	2.08	1.05
1:R:374:GLN:CB	4:P:897:VAL:H	1.68	1.05
4:J:1663:GLN:HA	4:J:1667:ALA:HB2	1.39	1.05
4:V:1497:LEU:N	5:W:1365:GLN:O	1.90	1.05
3:T:408:SER:HA	3:T:410:LEU:H	1.18	1.04
1:F:402:ALA:CB	1:F:403:ILE:H	1.56	1.04
2:M:326:LEU:CA	2:M:326:LEU:O	2.03	1.04
1:F:378:LYS:CB	4:D:888:PRO:C	2.24	1.04
3:H:411:GLU:C	3:H:411:GLU:CA	2.26	1.04
3:Z:411:GLU:C	3:Z:411:GLU:CA	2.26	1.04
3:T:411:GLU:C	3:T:411:GLU:CA	2.26	1.04
4:V:1497:LEU:CA	5:W:1365:GLN:O	2.05	1.04
1:R:380:MET:O	4:P:883:LEU:CB	2.05	1.04
4:V:1429:LEU:C	5:W:1335:VAL:O	1.90	1.04
4:V:1496:ALA:HB1	5:W:1367:MET:C	1.54	1.04
1:X:451:GLU:C	1:X:451:GLU:HA	1.78	1.04
2:Y:326:LEU:CA	2:Y:326:LEU:O	2.03	1.04
3:N:411:GLU:C	3:N:411:GLU:CA	2.25	1.04
1:R:400:GLY:C	1:R:401:TYR:CA	2.26	1.04
4:V:61:VAL:HA	5:W:1174:ALA:O	1.56	1.03
1:L:458:ASP:CB	1:L:459:LEU:N	2.22	1.03
4:P:42:ILE:C	4:V:778:PRO:CA	2.20	1.03
4:P:1675:LEU:CB	6:O:462:TYR:N	2.21	1.03
3:Z:408:SER:HA	3:Z:410:LEU:H	1.18	1.03
4:P:1442:GLU:N	6:O:182:GLU:N	1.95	1.03
1:L:400:GLY:C	1:L:401:TYR:CA	2.26	1.03
4:P:783:PHE:HA	5:Q:1093:ASN:HA	1.35	1.03
4:V:1663:GLN:HA	4:V:1667:ALA:HB2	1.39	1.03
1:X:458:ASP:O	1:X:460:LEU:N	1.92	1.02
1:R:458:ASP:CB	1:R:459:LEU:N	2.22	1.02
4:V:1431:ILE:C	5:W:1336:GLU:CA	2.23	1.02
1:X:458:ASP:CB	1:X:459:LEU:N	2.22	1.02
1:F:400:GLY:C	1:F:401:TYR:CA	2.26	1.02
1:F:458:ASP:CB	1:F:459:LEU:N	2.22	1.02
1:X:402:ALA:CB	1:X:403:ILE:H	1.56	1.02
1:L:458:ASP:O	1:L:460:LEU:N	1.92	1.02
4:P:1437:GLU:CB	6:O:487:CYS:CB	2.37	1.02
4:V:1502:ARG:CB	5:W:1341:VAL:HA	1.87	1.02
1:X:400:GLY:C	1:X:401:TYR:CA	2.26	1.02
1:R:451:GLU:C	1:R:451:GLU:HA	1.78	1.02
2:Y:380:ILE:N	2:Y:380:ILE:CA	2.23	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:381:ASP:CB	4:P:886:ILE:CB	2.38	1.01
1:R:458:ASP:O	1:R:460:LEU:N	1.92	1.01
1:F:385:ARG:CB	4:D:884:GLN:CA	2.39	1.01
1:R:402:ALA:CB	1:R:403:ILE:H	1.56	1.01
4:P:1441:LEU:O	6:O:180:ASN:CA	2.07	1.01
4:V:1429:LEU:C	5:W:1342:LEU:HA	1.81	1.01
4:D:1663:GLN:HA	4:D:1667:ALA:HB2	1.39	1.01
2:G:380:ILE:N	2:G:380:ILE:CA	2.23	1.01
1:L:451:GLU:C	1:L:451:GLU:HA	1.77	1.01
1:R:402:ALA:CB	1:R:403:ILE:N	1.92	1.01
2:S:380:ILE:N	2:S:380:ILE:CA	2.23	1.01
4:P:44:LYS:N	4:V:780:LEU:CB	2.22	1.01
4:P:1467:ILE:CB	6:O:173:PRO:HA	1.88	1.01
4:P:1663:GLN:HA	4:P:1667:ALA:HB2	1.39	1.01
2:M:380:ILE:N	2:M:380:ILE:CA	2.23	1.00
1:F:458:ASP:O	1:F:460:LEU:N	1.92	1.00
4:V:62:GLN:O	5:W:1181:GLU:O	1.80	1.00
1:F:451:GLU:C	1:F:451:GLU:HA	1.77	1.00
4:V:1502:ARG:CB	5:W:1341:VAL:CA	2.39	1.00
5:K:1025:LYS:CB	6:C:425:ASP:N	2.24	1.00
2:Y:366:GLU:CB	2:Y:366:GLU:C	2.31	0.99
4:V:1429:LEU:CB	5:W:1342:LEU:H	1.74	0.99
5:W:565:VAL:H	6:O:632:ALA:HB1	1.24	0.99
1:F:402:ALA:CB	1:F:403:ILE:N	1.92	0.99
1:R:370:ALA:CB	4:P:897:VAL:CB	2.35	0.99
4:P:171:THR:H	4:V:792:GLY:N	1.59	0.99
4:P:1667:ALA:CB	6:O:446:GLU:CA	2.41	0.99
4:V:1432:ALA:N	5:W:1336:GLU:CB	2.24	0.99
5:K:1056:ALA:CB	6:C:430:SER:HA	1.92	0.99
4:P:1443:ALA:CB	6:O:186:ALA:HB2	1.92	0.98
4:V:62:GLN:CA	5:W:1178:LEU:C	2.31	0.98
2:S:366:GLU:CB	2:S:366:GLU:C	2.31	0.98
4:V:1432:ALA:CA	5:W:1336:GLU:HA	1.92	0.98
2:G:366:GLU:CB	2:G:366:GLU:C	2.31	0.98
4:V:64:HIS:H	5:W:1177:GLN:CB	1.75	0.98
2:M:366:GLU:CB	2:M:366:GLU:C	2.31	0.98
4:V:68:GLN:O	5:W:1186:THR:C	1.85	0.98
4:V:1403:LEU:O	5:W:1371:VAL:N	1.77	0.98
1:R:380:MET:H	4:P:887:ASN:CB	1.68	0.97
4:P:1667:ALA:CB	6:O:446:GLU:N	2.25	0.97
4:V:1502:ARG:CB	5:W:1341:VAL:C	2.32	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:V:1431:ILE:CB	5:W:1332:ILE:O	2.12	0.97
1:R:381:ASP:H	4:P:887:ASN:H	1.01	0.97
4:P:1441:LEU:C	6:O:183:MET:N	2.12	0.97
4:V:59:LYS:CB	5:W:1173:ASP:CB	2.42	0.97
1:F:382:LEU:HA	4:D:884:GLN:CA	1.95	0.97
4:P:1663:GLN:CA	6:O:446:GLU:CB	2.42	0.97
1:F:453:TYR:O	1:F:455:ILE:CB	2.13	0.96
4:V:1493:ARG:HA	5:W:1366:SER:CB	1.94	0.96
1:R:374:GLN:HA	4:P:896:VAL:N	1.79	0.96
4:P:1439:ASP:CA	6:O:185:TYR:CB	2.43	0.96
4:P:1442:GLU:N	6:O:180:ASN:C	2.16	0.96
4:P:1443:ALA:CB	6:O:186:ALA:HB3	1.94	0.96
4:V:1421:LEU:CB	5:W:1371:VAL:CA	2.44	0.96
1:F:458:ASP:C	1:F:459:LEU:CA	2.35	0.96
4:P:165:GLU:O	4:V:792:GLY:O	1.82	0.96
1:L:458:ASP:C	1:L:459:LEU:CA	2.35	0.95
4:P:1667:ALA:HA	6:O:447:ASP:O	1.66	0.95
1:X:453:TYR:O	1:X:455:ILE:CB	2.13	0.95
4:V:1407:ILE:CA	5:W:1370:SER:CB	2.43	0.95
1:X:402:ALA:CB	1:X:403:ILE:N	1.92	0.95
1:L:455:ILE:O	1:L:456:ASP:C	2.02	0.95
1:R:374:GLN:CB	4:P:896:VAL:N	2.29	0.95
1:L:453:TYR:O	1:L:455:ILE:CB	2.13	0.95
1:R:388:GLN:CB	4:P:880:GLU:H	1.79	0.95
1:X:458:ASP:C	1:X:459:LEU:CA	2.35	0.95
4:P:169:MET:HA	4:V:795:ILE:H	1.29	0.95
5:K:1016:ALA:H	6:I:815:GLU:N	1.63	0.95
1:R:453:TYR:O	1:R:455:ILE:CB	2.13	0.94
4:P:783:PHE:CA	5:Q:1093:ASN:HA	1.96	0.94
1:F:311:GLN:C	1:F:311:GLN:CB	2.35	0.94
1:F:378:LYS:CB	4:D:893:ALA:HA	1.98	0.94
1:R:311:GLN:C	1:R:311:GLN:CB	2.36	0.94
1:R:458:ASP:C	1:R:459:LEU:CA	2.35	0.94
1:F:382:LEU:N	4:D:888:PRO:N	2.14	0.94
1:F:452:ARG:CA	1:F:453:TYR:CA	2.41	0.94
1:R:452:ARG:CA	1:R:453:TYR:CA	2.41	0.94
5:K:1016:ALA:HB2	6:I:814:MET:CB	1.96	0.94
1:L:311:GLN:C	1:L:311:GLN:CB	2.35	0.93
4:V:1432:ALA:HB2	5:W:1336:GLU:O	1.65	0.93
1:X:452:ARG:CA	1:X:453:TYR:CA	2.40	0.93
1:F:455:ILE:O	1:F:456:ASP:C	2.02	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:V:1431:ILE:N	5:W:1335:VAL:C	2.21	0.93
4:V:1427:TYR:CB	5:W:1331:LEU:O	2.15	0.93
1:X:455:ILE:O	1:X:456:ASP:C	2.02	0.93
4:P:1671:GLN:C	6:O:453:PHE:N	2.13	0.93
4:V:1431:ILE:CA	5:W:1336:GLU:CB	2.46	0.93
1:X:311:GLN:C	1:X:311:GLN:CB	2.35	0.93
1:R:384:HIS:CB	4:P:883:LEU:CB	2.47	0.93
4:P:783:PHE:C	5:Q:1093:ASN:CB	2.37	0.93
4:V:1493:ARG:HA	5:W:1366:SER:HA	1.48	0.93
3:H:409:PRO:C	3:H:409:PRO:CB	2.37	0.92
3:T:409:PRO:C	3:T:409:PRO:CB	2.38	0.92
4:V:59:LYS:O	5:W:1176:SER:CB	2.17	0.92
4:V:64:HIS:N	5:W:1177:GLN:CB	2.32	0.92
1:L:452:ARG:CA	1:L:453:TYR:CA	2.41	0.92
4:P:42:ILE:O	4:V:778:PRO:HA	1.70	0.92
4:P:1675:LEU:N	6:O:453:PHE:CB	2.31	0.92
4:V:69:LYS:HA	5:W:1185:ILE:O	1.69	0.92
4:P:1439:ASP:CB	6:O:185:TYR:CB	2.47	0.92
4:P:1667:ALA:HB2	6:O:446:GLU:CB	1.98	0.91
3:Z:409:PRO:C	3:Z:409:PRO:CB	2.38	0.91
3:N:409:PRO:C	3:N:409:PRO:CB	2.38	0.91
1:R:381:ASP:H	4:P:887:ASN:N	1.68	0.91
4:V:1431:ILE:C	5:W:1336:GLU:HA	1.87	0.91
1:R:384:HIS:N	4:P:883:LEU:CB	2.32	0.91
1:R:385:ARG:HA	4:P:879:LEU:O	1.16	0.91
4:P:1675:LEU:N	6:O:453:PHE:CA	2.31	0.91
4:V:1493:ARG:HA	5:W:1366:SER:CA	2.00	0.91
1:F:450:GLU:O	1:F:451:GLU:C	2.09	0.91
4:P:1663:GLN:CA	4:P:1667:ALA:HB2	2.01	0.91
4:P:170:THR:N	4:V:792:GLY:N	2.12	0.90
1:R:450:GLU:O	1:R:451:GLU:C	2.09	0.90
1:F:378:LYS:CB	4:D:893:ALA:N	2.35	0.90
4:V:1663:GLN:CA	4:V:1667:ALA:HB2	2.01	0.90
4:P:1673:LEU:N	6:O:451:SER:C	2.25	0.90
4:D:1663:GLN:CA	4:D:1667:ALA:HB2	2.01	0.90
4:P:1441:LEU:C	6:O:180:ASN:O	2.05	0.90
4:V:60:ASN:CA	5:W:1176:SER:CB	2.49	0.90
4:V:1431:ILE:CA	5:W:1336:GLU:CA	2.49	0.90
4:J:1663:GLN:CA	4:J:1667:ALA:HB2	2.01	0.90
1:R:384:HIS:O	4:P:880:GLU:HA	1.00	0.89
1:R:388:GLN:H	4:P:880:GLU:CA	1.85	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:450:GLU:O	1:X:451:GLU:C	2.09	0.89
5:K:1025:LYS:CB	6:C:425:ASP:HA	2.01	0.89
1:L:450:GLU:O	1:L:451:GLU:C	2.09	0.89
1:R:374:GLN:CA	4:P:896:VAL:H	1.85	0.89
4:V:59:LYS:CB	5:W:1173:ASP:HA	2.02	0.89
4:V:1407:ILE:CA	5:W:1370:SER:CA	2.24	0.88
4:V:1407:ILE:CB	5:W:1370:SER:CA	0.89	0.88
4:V:1494:MET:CA	5:W:1361:LEU:CB	2.48	0.88
1:F:378:LYS:CB	4:D:893:ALA:CA	2.51	0.88
1:F:451:GLU:CA	1:F:452:ARG:N	2.36	0.88
1:F:399:SER:C	1:F:400:GLY:HA3	1.93	0.88
4:P:783:PHE:CA	5:Q:1093:ASN:CA	2.46	0.88
4:V:70:ALA:N	5:W:1184:ASP:CB	2.33	0.88
6:O:355:TYR:HA	6:O:362:ARG:CB	2.04	0.88
4:P:1441:LEU:O	6:O:180:ASN:C	2.10	0.88
1:R:451:GLU:CA	1:R:452:ARG:N	2.36	0.88
4:D:1662:CYS:HA	6:C:446:GLU:HA	1.54	0.88
5:K:1016:ALA:H	6:I:814:MET:CB	1.84	0.88
6:C:355:TYR:HA	6:C:362:ARG:CB	2.04	0.88
5:K:1025:LYS:CB	6:C:425:ASP:CA	2.52	0.88
2:M:326:LEU:C	2:M:327:ARG:CA	2.43	0.87
6:U:355:TYR:HA	6:U:362:ARG:CB	2.04	0.87
1:F:472:GLU:N	1:F:472:GLU:CB	2.37	0.87
2:S:326:LEU:C	2:S:327:ARG:CA	2.42	0.87
1:R:399:SER:C	1:R:400:GLY:HA3	1.93	0.87
4:P:1672:GLU:N	6:O:453:PHE:N	2.18	0.87
6:I:355:TYR:HA	6:I:362:ARG:CB	2.04	0.87
4:P:1679:ILE:H	6:O:455:VAL:CB	1.87	0.87
5:W:563:ARG:CB	6:O:632:ALA:O	2.22	0.87
1:X:451:GLU:CA	1:X:452:ARG:N	2.36	0.87
1:X:399:SER:C	1:X:400:GLY:HA3	1.93	0.87
2:Y:326:LEU:C	2:Y:327:ARG:CA	2.43	0.87
1:L:451:GLU:CA	1:L:452:ARG:N	2.36	0.87
1:R:388:GLN:H	4:P:880:GLU:CB	1.88	0.87
1:R:374:GLN:CA	4:P:896:VAL:N	2.38	0.87
2:G:326:LEU:C	2:G:327:ARG:CA	2.43	0.86
1:X:458:ASP:CA	1:X:459:LEU:N	2.38	0.86
4:V:1498:ALA:N	5:W:1360:TYR:CB	2.37	0.86
1:X:472:GLU:N	1:X:472:GLU:CB	2.38	0.86
1:R:472:GLU:N	1:R:472:GLU:CB	2.37	0.86
1:L:458:ASP:CA	1:L:459:LEU:N	2.38	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:399:SER:C	1:L:400:GLY:HA3	1.93	0.86
4:D:647:LEU:CB	4:D:706:ALA:HB1	2.06	0.86
4:P:1673:LEU:HA	6:O:451:SER:O	1.72	0.86
1:R:458:ASP:CA	1:R:459:LEU:N	2.38	0.86
4:V:1428:TYR:HA	5:W:1337:ASN:H	1.41	0.86
1:F:382:LEU:H	4:D:888:PRO:CA	1.62	0.85
2:G:326:LEU:CB	2:G:327:ARG:N	2.40	0.85
4:V:1496:ALA:CB	5:W:1367:MET:C	2.43	0.85
1:F:458:ASP:CA	1:F:459:LEU:N	2.38	0.85
1:L:472:GLU:N	1:L:472:GLU:CB	2.37	0.85
4:P:1671:GLN:N	6:O:449:GLY:O	2.09	0.85
4:V:647:LEU:CB	4:V:706:ALA:HB1	2.06	0.85
4:V:1481:VAL:CA	5:W:1367:MET:CB	2.54	0.85
4:J:647:LEU:CB	4:J:706:ALA:HB1	2.06	0.85
1:R:381:ASP:N	4:P:887:ASN:CB	2.40	0.85
2:Y:326:LEU:CB	2:Y:327:ARG:N	2.39	0.85
1:R:388:GLN:H	4:P:880:GLU:N	1.75	0.85
5:K:1016:ALA:N	6:I:815:GLU:N	2.16	0.85
4:V:1551:TYR:CB	5:W:1358:CYS:CA	2.54	0.85
2:S:326:LEU:CB	2:S:327:ARG:N	2.39	0.85
4:V:62:GLN:N	5:W:1178:LEU:C	2.26	0.84
3:H:411:GLU:CB	4:D:812:GLU:H	1.91	0.84
1:R:388:GLN:CA	4:P:880:GLU:H	1.89	0.84
4:P:1672:GLU:H	6:O:449:GLY:C	1.80	0.84
4:P:647:LEU:CB	4:P:706:ALA:HB1	2.06	0.84
4:P:1675:LEU:O	6:O:455:VAL:CB	2.24	0.84
4:D:1661:ARG:CB	6:C:448:TYR:C	2.32	0.84
4:V:1429:LEU:O	5:W:1342:LEU:CB	2.25	0.84
4:D:1660:LEU:CB	6:C:452:HIS:N	2.39	0.84
1:F:378:LYS:CB	4:D:888:PRO:O	2.25	0.84
4:V:1496:ALA:CB	5:W:1368:SER:N	2.40	0.84
1:L:453:TYR:CA	1:L:453:TYR:C	2.47	0.84
2:M:326:LEU:CB	2:M:327:ARG:N	2.39	0.83
1:R:371:LYS:O	4:P:893:ALA:HB3	1.76	0.83
4:V:1496:ALA:HB1	5:W:1368:SER:N	1.93	0.83
3:N:411:GLU:O	3:N:412:GLU:N	2.11	0.83
1:R:402:ALA:HB3	1:R:403:ILE:H	1.04	0.83
4:V:1485:ALA:HB1	5:W:1365:GLN:CB	2.08	0.83
1:R:453:TYR:CA	1:R:453:TYR:C	2.47	0.83
4:D:1661:ARG:CB	6:C:448:TYR:N	0.68	0.83
4:P:1671:GLN:H	6:O:448:TYR:C	1.81	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:453:TYR:CA	1:F:453:TYR:C	2.47	0.83
4:V:62:GLN:N	5:W:1179:ASP:N	2.27	0.83
1:X:453:TYR:CA	1:X:453:TYR:C	2.47	0.83
1:F:388:GLN:C	4:D:880:GLU:CB	2.46	0.83
4:P:1668:GLY:N	6:O:447:ASP:HA	1.79	0.83
4:V:61:VAL:CB	5:W:1179:ASP:H	1.92	0.83
1:F:456:ASP:CA	1:F:457:ALA:N	2.33	0.82
1:F:382:LEU:H	4:D:888:PRO:N	1.77	0.82
4:P:1673:LEU:HA	6:O:454:THR:CB	2.09	0.82
4:P:1466:ASN:N	6:O:173:PRO:O	2.11	0.82
3:H:411:GLU:O	3:H:412:GLU:N	2.11	0.82
1:X:402:ALA:HB3	1:X:403:ILE:H	1.04	0.82
1:R:381:ASP:N	4:P:887:ASN:H	1.77	0.82
3:T:497:ARG:N	3:T:497:ARG:CB	2.43	0.82
1:X:456:ASP:CA	1:X:457:ALA:N	2.34	0.81
1:R:374:GLN:CB	4:P:895:ASN:N	2.43	0.81
2:S:379:HIS:CA	2:S:379:HIS:C	2.49	0.81
3:H:374:SER:CB	3:H:374:SER:N	2.44	0.81
1:L:158:ASN:HA	1:L:322:LEU:HA	1.62	0.81
2:G:379:HIS:CA	2:G:379:HIS:C	2.49	0.81
3:T:411:GLU:O	3:T:412:GLU:N	2.11	0.81
3:Z:497:ARG:N	3:Z:497:ARG:CB	2.43	0.81
2:M:379:HIS:CA	2:M:379:HIS:C	2.49	0.81
3:Z:374:SER:CB	3:Z:374:SER:N	2.44	0.81
3:Z:411:GLU:O	3:Z:412:GLU:N	2.11	0.81
4:V:59:LYS:CB	5:W:1173:ASP:CA	2.58	0.81
4:D:1662:CYS:CA	6:C:446:GLU:HA	2.10	0.81
1:F:158:ASN:HA	1:F:322:LEU:HA	1.62	0.81
4:D:1662:CYS:CB	6:C:446:GLU:O	2.29	0.81
3:H:497:ARG:N	3:H:497:ARG:CB	2.43	0.80
1:R:158:ASN:HA	1:R:322:LEU:HA	1.62	0.80
1:R:388:GLN:N	4:P:880:GLU:CB	2.44	0.80
1:L:455:ILE:CB	1:L:455:ILE:C	2.50	0.80
4:P:1663:GLN:CB	6:O:446:GLU:CB	2.59	0.80
3:N:497:ARG:N	3:N:497:ARG:CB	2.43	0.80
4:V:68:GLN:O	5:W:1186:THR:O	2.00	0.80
4:J:1638:HIS:N	6:I:442:LYS:CB	2.44	0.80
2:G:366:GLU:CB	2:G:366:GLU:N	2.45	0.80
3:H:374:SER:CB	3:H:374:SER:C	2.50	0.80
2:Y:379:HIS:CA	2:Y:379:HIS:C	2.49	0.80
4:D:1661:ARG:CB	6:C:447:ASP:N	2.45	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:402:ALA:HB3	1:L:403:ILE:H	1.04	0.80
1:R:380:MET:C	4:P:887:ASN:CB	2.50	0.80
3:N:374:SER:CB	3:N:374:SER:N	2.44	0.80
1:F:455:ILE:CB	1:F:455:ILE:C	2.50	0.80
2:G:375:ALA:HB1	5:E:1090:SER:CB	2.11	0.80
3:N:408:SER:HA	3:N:410:LEU:N	1.97	0.80
3:T:408:SER:HA	3:T:410:LEU:N	1.97	0.80
4:P:1442:GLU:N	6:O:182:GLU:C	2.35	0.79
4:V:1429:LEU:C	5:W:1342:LEU:CA	2.47	0.79
1:X:455:ILE:CB	1:X:455:ILE:C	2.50	0.79
3:T:374:SER:CB	3:T:374:SER:C	2.50	0.79
4:P:166:LEU:O	4:V:793:GLU:N	2.15	0.79
4:V:1493:ARG:CA	5:W:1366:SER:CB	2.60	0.79
3:N:374:SER:CB	3:N:374:SER:C	2.50	0.79
1:R:388:GLN:N	4:P:880:GLU:H	1.79	0.79
1:X:457:ALA:CB	1:X:457:ALA:H	1.95	0.79
4:P:1673:LEU:N	6:O:451:SER:O	2.15	0.79
1:X:158:ASN:HA	1:X:322:LEU:HA	1.62	0.79
4:P:43:LEU:HA	4:V:778:PRO:O	1.83	0.79
1:R:455:ILE:CB	1:R:455:ILE:C	2.50	0.79
4:D:1663:GLN:C	4:D:1667:ALA:HB2	2.03	0.79
1:L:311:GLN:C	1:L:311:GLN:N	2.36	0.79
3:Z:374:SER:CB	3:Z:374:SER:C	2.50	0.79
4:V:1663:GLN:C	4:V:1667:ALA:HB2	2.03	0.79
4:V:1431:ILE:H	5:W:1335:VAL:CA	1.79	0.79
4:J:1663:GLN:C	4:J:1667:ALA:HB2	2.03	0.78
2:M:366:GLU:CB	2:M:366:GLU:N	2.45	0.78
1:R:311:GLN:C	1:R:311:GLN:N	2.36	0.78
5:K:563:ARG:CB	6:C:733:ALA:CB	2.60	0.78
1:L:488:ILE:N	1:L:488:ILE:HA	1.94	0.78
4:P:169:MET:HA	4:V:795:ILE:N	1.89	0.78
4:P:1670:LEU:O	6:O:453:PHE:N	2.17	0.78
4:P:1663:GLN:C	4:P:1667:ALA:HB2	2.03	0.78
4:P:1672:GLU:CA	6:O:453:PHE:CB	2.57	0.78
4:D:1661:ARG:H	6:C:447:ASP:HA	1.47	0.78
1:F:457:ALA:CB	1:F:457:ALA:H	1.95	0.78
2:S:366:GLU:CB	2:S:366:GLU:N	2.45	0.78
3:T:374:SER:CB	3:T:374:SER:N	2.43	0.78
2:Y:366:GLU:CB	2:Y:366:GLU:N	2.45	0.78
4:V:1551:TYR:O	5:W:1359:GLY:CA	2.23	0.78
5:K:563:ARG:CB	6:C:733:ALA:HB1	2.14	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:402:ALA:HB3	1:F:403:ILE:H	1.04	0.78
1:F:311:GLN:C	1:F:311:GLN:N	2.36	0.77
4:V:1407:ILE:N	5:W:1371:VAL:H	1.82	0.77
1:X:311:GLN:C	1:X:311:GLN:N	2.36	0.77
1:R:374:GLN:CB	4:P:896:VAL:H	1.92	0.77
4:V:714:LEU:O	4:V:718:SER:HA	1.84	0.77
1:F:449:SER:C	1:F:450:GLU:C	2.43	0.77
1:L:449:SER:C	1:L:450:GLU:C	2.43	0.77
4:P:714:LEU:O	4:P:718:SER:HA	1.85	0.77
1:R:457:ALA:CB	1:R:457:ALA:H	1.95	0.77
2:G:339:TYR:C	2:G:340:ALA:CB	2.53	0.77
1:R:488:ILE:N	1:R:488:ILE:HA	1.95	0.77
4:P:1667:ALA:HB1	6:O:443:GLN:O	1.85	0.77
5:E:276:ASP:CB	5:E:295:SER:CB	2.63	0.77
4:P:1621:LEU:CB	6:O:451:SER:CB	2.62	0.77
2:M:339:TYR:C	2:M:340:ALA:CB	2.52	0.77
2:S:339:TYR:C	2:S:340:ALA:CB	2.52	0.77
5:K:1016:ALA:CA	6:I:814:MET:CB	2.62	0.77
1:L:457:ALA:CB	1:L:457:ALA:H	1.95	0.77
4:P:783:PHE:CB	5:Q:1093:ASN:HA	2.15	0.77
1:R:449:SER:C	1:R:450:GLU:C	2.43	0.76
4:P:1675:LEU:CB	6:O:461:LEU:CA	2.63	0.76
5:Q:276:ASP:CB	5:Q:295:SER:CB	2.63	0.76
4:V:1424:SER:O	5:W:1334:TYR:CB	2.34	0.76
5:W:276:ASP:CB	5:W:295:SER:CB	2.63	0.76
1:R:381:ASP:H	4:P:887:ASN:CB	1.99	0.76
1:R:388:GLN:N	4:P:880:GLU:N	2.33	0.76
4:P:1671:GLN:N	6:O:448:TYR:CB	2.48	0.76
4:V:1497:LEU:HA	5:W:1365:GLN:O	1.84	0.76
1:F:456:ASP:O	1:F:457:ALA:C	2.18	0.76
2:Y:339:TYR:C	2:Y:340:ALA:CB	2.53	0.76
4:V:1426:LEU:O	5:W:1341:VAL:CB	2.34	0.76
4:J:714:LEU:O	4:J:718:SER:HA	1.84	0.76
5:K:276:ASP:CB	5:K:295:SER:CB	2.63	0.76
1:F:492:GLU:C	1:F:492:GLU:CB	2.55	0.76
4:P:1675:LEU:N	6:O:453:PHE:C	2.39	0.76
5:K:1016:ALA:N	6:I:814:MET:CB	2.48	0.76
1:F:487:ASP:C	1:F:487:ASP:N	2.39	0.76
1:X:449:SER:C	1:X:450:GLU:C	2.44	0.76
1:L:487:ASP:C	1:L:487:ASP:N	2.39	0.76
1:R:455:ILE:O	1:R:456:ASP:C	2.02	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:V:1429:LEU:C	5:W:1342:LEU:N	2.39	0.76
4:D:714:LEU:O	4:D:718:SER:HA	1.84	0.76
1:X:487:ASP:C	1:X:487:ASP:N	2.39	0.75
5:E:326:ALA:HB1	5:E:387:LEU:CB	2.17	0.75
3:H:408:SER:HA	3:H:410:LEU:N	1.98	0.75
1:R:471:GLN:C	1:R:472:GLU:CA	2.54	0.75
4:P:1667:ALA:CB	6:O:446:GLU:CB	2.64	0.75
5:K:326:ALA:HB1	5:K:387:LEU:CB	2.17	0.75
1:X:471:GLN:C	1:X:472:GLU:CA	2.55	0.75
1:X:488:ILE:N	1:X:488:ILE:HA	1.94	0.75
1:X:492:GLU:C	1:X:492:GLU:CB	2.54	0.75
3:Z:408:SER:HA	3:Z:410:LEU:N	1.97	0.75
1:R:487:ASP:C	1:R:487:ASP:N	2.39	0.75
1:L:492:GLU:C	1:L:492:GLU:CB	2.55	0.75
4:V:64:HIS:CB	5:W:1177:GLN:CB	2.65	0.75
1:F:471:GLN:C	1:F:472:GLU:CA	2.55	0.75
1:L:456:ASP:C	1:L:456:ASP:N	2.39	0.75
1:R:456:ASP:C	1:R:456:ASP:N	2.39	0.75
1:R:456:ASP:CA	1:R:457:ALA:N	2.33	0.74
4:V:1403:LEU:H	5:W:1373:VAL:N	1.84	0.74
5:K:1056:ALA:HB3	6:C:427:GLY:O	1.86	0.74
1:X:456:ASP:O	1:X:457:ALA:C	2.18	0.74
1:R:492:GLU:C	1:R:492:GLU:CB	2.55	0.74
4:P:1442:GLU:N	6:O:181:ILE:CA	2.50	0.74
5:W:326:ALA:HB1	5:W:387:LEU:CB	2.17	0.74
5:Q:326:ALA:HB1	5:Q:387:LEU:CB	2.17	0.74
3:H:497:ARG:N	3:H:497:ARG:C	2.40	0.74
1:R:399:SER:O	1:R:400:GLY:CA	2.36	0.74
3:T:497:ARG:N	3:T:497:ARG:C	2.40	0.74
1:X:399:SER:O	1:X:400:GLY:CA	2.36	0.74
1:R:380:MET:H	4:P:887:ASN:C	1.76	0.74
1:R:374:GLN:CB	4:P:897:VAL:N	2.49	0.73
1:R:374:GLN:N	4:P:896:VAL:CB	2.51	0.73
1:F:399:SER:O	1:F:400:GLY:CA	2.36	0.73
3:Z:381:LYS:N	3:Z:381:LYS:C	2.42	0.73
4:V:1494:MET:C	5:W:1361:LEU:CB	2.57	0.73
4:V:1497:LEU:O	5:W:1360:TYR:CB	2.36	0.73
3:H:381:LYS:N	3:H:381:LYS:C	2.42	0.73
1:R:299:ASN:C	1:R:299:ASN:N	2.42	0.73
1:R:451:GLU:N	5:Q:1375:ALA:CB	2.52	0.73
4:D:1661:ARG:N	6:C:447:ASP:HA	2.03	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:497:ARG:N	3:N:497:ARG:C	2.40	0.73
1:R:382:LEU:HA	4:P:881:GLN:O	1.87	0.73
4:D:1660:LEU:CB	6:C:451:SER:N	2.52	0.73
4:D:1663:GLN:HA	4:D:1667:ALA:CB	2.19	0.73
1:F:299:ASN:C	1:F:299:ASN:N	2.42	0.73
1:F:488:ILE:N	1:F:488:ILE:HA	1.95	0.72
2:G:341:ALA:H	2:G:342:PRO:N	1.87	0.72
4:P:1689:LEU:O	6:O:300:LYS:CB	2.36	0.72
4:V:1427:TYR:CA	5:W:1331:LEU:O	2.37	0.72
1:R:140:LYS:HA	1:R:149:GLY:H	1.54	0.72
5:E:22:ALA:HB1	5:E:780:ALA:HA	1.71	0.72
3:Z:408:SER:CA	3:Z:410:LEU:H	2.01	0.72
1:L:299:ASN:C	1:L:299:ASN:N	2.42	0.72
4:P:1663:GLN:HA	4:P:1667:ALA:CB	2.18	0.72
4:V:1407:ILE:N	5:W:1370:SER:CB	2.51	0.72
1:L:471:GLN:C	1:L:472:GLU:CA	2.55	0.72
4:P:1442:GLU:CB	6:O:181:ILE:O	2.37	0.72
1:F:140:LYS:HA	1:F:149:GLY:H	1.54	0.72
1:F:375:TYR:HA	4:D:893:ALA:CB	2.20	0.72
4:V:1497:LEU:C	5:W:1360:TYR:CB	2.57	0.72
1:X:299:ASN:C	1:X:299:ASN:N	2.42	0.72
1:X:402:ALA:HB2	1:X:403:ILE:H	1.52	0.72
1:X:446:ALA:O	1:X:449:SER:CB	2.38	0.72
1:L:399:SER:O	1:L:400:GLY:CA	2.36	0.72
5:K:1056:ALA:HB1	6:C:430:SER:HA	1.65	0.72
1:F:446:ALA:O	1:F:449:SER:CB	2.38	0.72
1:R:380:MET:N	4:P:887:ASN:C	2.43	0.72
1:R:450:GLU:N	1:R:450:GLU:C	2.44	0.72
2:G:375:ALA:HB1	5:E:1090:SER:CA	2.20	0.71
4:P:782:ASP:O	5:Q:1093:ASN:CB	2.38	0.71
4:P:1664:ASP:O	6:O:445:LEU:O	2.05	0.71
1:X:455:ILE:CB	1:X:456:ASP:N	2.54	0.71
1:L:450:GLU:N	1:L:450:GLU:C	2.44	0.71
1:R:446:ALA:O	1:R:449:SER:CB	2.38	0.71
4:P:1667:ALA:HB3	6:O:445:LEU:C	2.08	0.71
4:V:1663:GLN:HA	4:V:1667:ALA:CB	2.18	0.71
1:X:450:GLU:N	1:X:450:GLU:C	2.44	0.71
1:R:456:ASP:O	1:R:457:ALA:C	2.18	0.71
4:V:1494:MET:O	5:W:1361:LEU:CB	2.38	0.71
1:L:446:ALA:O	1:L:449:SER:CB	2.38	0.71
1:L:455:ILE:CB	1:L:456:ASP:N	2.54	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:455:ILE:CB	1:R:456:ASP:N	2.53	0.71
1:X:140:LYS:HA	1:X:149:GLY:H	1.54	0.71
1:L:140:LYS:HA	1:L:149:GLY:H	1.54	0.71
1:L:402:ALA:HB2	1:L:403:ILE:H	1.52	0.71
4:P:1441:LEU:O	6:O:180:ASN:HA	1.90	0.71
4:J:644:ALA:HA	4:J:706:ALA:HB2	1.73	0.71
1:F:450:GLU:N	1:F:450:GLU:C	2.44	0.71
1:F:456:ASP:C	1:F:456:ASP:N	2.39	0.71
4:V:1481:VAL:CB	5:W:1367:MET:CB	2.68	0.71
4:J:62:GLN:CB	5:K:1146:GLU:CB	2.68	0.71
4:P:644:ALA:HA	4:P:706:ALA:HB2	1.73	0.71
1:F:454:TYR:HA	1:F:455:ILE:CA	2.20	0.71
4:V:644:ALA:HA	4:V:706:ALA:HB2	1.73	0.71
4:J:1638:HIS:H	6:I:442:LYS:CB	2.04	0.71
5:K:22:ALA:HB1	5:K:780:ALA:HA	1.71	0.71
5:K:565:VAL:CB	6:C:732:ALA:O	2.38	0.71
1:F:402:ALA:HB2	1:F:403:ILE:H	1.52	0.71
1:F:375:TYR:HA	4:D:893:ALA:HB2	1.72	0.71
4:P:169:MET:CB	4:V:792:GLY:O	2.32	0.71
4:P:1675:LEU:H	6:O:453:PHE:C	1.95	0.71
4:V:1422:TYR:CA	5:W:1368:SER:CB	2.69	0.71
1:X:456:ASP:C	1:X:456:ASP:N	2.39	0.70
4:P:1670:LEU:CB	6:O:448:TYR:CB	2.69	0.70
1:F:455:ILE:CB	1:F:456:ASP:N	2.53	0.70
1:L:456:ASP:O	1:L:457:ALA:C	2.18	0.70
4:P:1438:PRO:CB	6:O:181:ILE:CB	2.69	0.70
4:V:1407:ILE:H	5:W:1371:VAL:H	1.39	0.70
3:Z:497:ARG:N	3:Z:497:ARG:C	2.40	0.70
1:R:454:TYR:HA	1:R:455:ILE:CA	2.21	0.70
2:S:341:ALA:H	2:S:342:PRO:N	1.87	0.70
1:F:382:LEU:CA	4:D:884:GLN:HA	2.16	0.70
1:R:380:MET:H	4:P:887:ASN:CA	2.05	0.70
4:D:644:ALA:HA	4:D:706:ALA:HB2	1.73	0.70
1:L:454:TYR:HA	1:L:455:ILE:CA	2.20	0.70
1:L:455:ILE:C	1:L:457:ALA:N	2.45	0.70
4:P:1673:LEU:N	6:O:452:HIS:N	2.33	0.70
4:P:1676:LEU:H	6:O:453:PHE:C	1.95	0.70
4:V:1429:LEU:C	5:W:1335:VAL:C	2.50	0.70
5:Q:22:ALA:HB1	5:Q:780:ALA:HA	1.71	0.70
1:X:455:ILE:C	1:X:457:ALA:N	2.45	0.70
3:Z:381:LYS:N	3:Z:381:LYS:CB	2.55	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:T:381:LYS:N	3:T:381:LYS:C	2.42	0.70
3:N:381:LYS:N	3:N:381:LYS:C	2.42	0.69
4:D:1661:ARG:CA	6:C:447:ASP:HA	2.22	0.69
1:F:328:VAL:CA	1:F:328:VAL:O	2.40	0.69
1:X:454:TYR:HA	1:X:455:ILE:CA	2.20	0.69
1:L:451:GLU:CB	1:L:451:GLU:N	2.55	0.69
3:N:381:LYS:N	3:N:381:LYS:CB	2.55	0.69
4:V:1428:TYR:O	5:W:1337:ASN:N	2.25	0.69
1:F:455:ILE:C	1:F:457:ALA:N	2.45	0.69
1:R:399:SER:C	1:R:401:TYR:N	2.37	0.69
1:L:158:ASN:HA	1:L:321:LYS:O	1.92	0.69
1:R:158:ASN:HA	1:R:321:LYS:O	1.93	0.69
4:V:1428:TYR:HA	5:W:1337:ASN:N	2.07	0.69
1:X:158:ASN:HA	1:X:321:LYS:O	1.93	0.69
3:T:381:LYS:N	3:T:381:LYS:CB	2.55	0.69
4:J:1663:GLN:HA	4:J:1667:ALA:CB	2.18	0.69
5:W:22:ALA:HB1	5:W:780:ALA:HA	1.72	0.69
1:F:388:GLN:CB	4:D:880:GLU:CA	2.70	0.69
1:F:158:ASN:HA	1:F:321:LYS:O	1.93	0.69
1:F:388:GLN:CA	4:D:880:GLU:CB	2.71	0.69
2:G:342:PRO:C	2:G:343:ALA:C	2.49	0.69
3:H:408:SER:CA	3:H:410:LEU:H	2.01	0.69
1:X:140:LYS:HA	1:X:149:GLY:N	2.08	0.69
1:X:451:GLU:CB	1:X:451:GLU:N	2.56	0.69
4:P:171:THR:N	4:V:792:GLY:N	2.37	0.69
4:P:1438:PRO:C	6:O:181:ILE:CB	2.35	0.69
4:P:1664:ASP:H	6:O:446:GLU:CB	0.15	0.69
1:R:382:LEU:O	4:P:880:GLU:O	2.11	0.69
1:R:402:ALA:HB2	1:R:403:ILE:H	1.52	0.69
1:F:378:LYS:CB	4:D:892:LYS:C	2.62	0.68
5:E:441:PHE:HA	5:E:444:PRO:O	1.93	0.68
1:R:455:ILE:C	1:R:457:ALA:N	2.45	0.68
2:S:342:PRO:C	2:S:343:ALA:C	2.49	0.68
4:V:69:LYS:C	5:W:1184:ASP:CB	2.62	0.68
5:K:1057:SER:N	6:C:427:GLY:O	2.27	0.68
4:P:1441:LEU:CB	6:O:178:LEU:HA	2.23	0.68
5:W:441:PHE:HA	5:W:444:PRO:O	1.93	0.68
1:R:373:ALA:C	4:P:896:VAL:CB	2.61	0.68
4:V:1497:LEU:CB	5:W:1365:GLN:O	2.40	0.68
3:H:381:LYS:N	3:H:381:LYS:CB	2.55	0.68
1:R:451:GLU:CB	1:R:451:GLU:N	2.55	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:K:441:PHE:HA	5:K:444:PRO:O	1.93	0.68
1:R:385:ARG:CB	4:P:879:LEU:O	2.41	0.68
5:E:942:PRO:HA	5:E:943:GLN:CB	2.17	0.68
1:F:399:SER:C	1:F:401:TYR:N	2.37	0.68
2:Y:342:PRO:C	2:Y:343:ALA:C	2.49	0.68
1:L:140:LYS:HA	1:L:149:GLY:N	2.08	0.68
4:P:1443:ALA:CA	6:O:186:ALA:HB3	2.24	0.68
1:F:140:LYS:HA	1:F:149:GLY:N	2.08	0.68
5:Q:441:PHE:HA	5:Q:444:PRO:O	1.93	0.68
4:V:1407:ILE:CB	5:W:1370:SER:HA	0.27	0.68
3:H:411:GLU:CB	4:D:812:GLU:CB	2.72	0.67
1:L:328:VAL:CA	1:L:328:VAL:O	2.40	0.67
4:P:41:LYS:N	4:V:777:GLU:N	2.42	0.67
4:V:1428:TYR:CA	5:W:1337:ASN:N	2.58	0.67
5:W:942:PRO:HA	5:W:943:GLN:CB	2.17	0.67
1:R:328:VAL:CA	1:R:328:VAL:O	2.40	0.67
1:R:373:ALA:O	4:P:896:VAL:CB	2.42	0.67
1:X:422:ASN:CB	1:X:423:ALA:HB2	2.24	0.67
3:T:404:GLU:O	4:P:812:GLU:CB	2.42	0.67
1:X:448:ARG:O	1:X:449:SER:C	2.32	0.67
1:L:422:ASN:CB	1:L:423:ALA:HB2	2.24	0.67
1:R:422:ASN:CB	1:R:423:ALA:HB2	2.24	0.67
5:K:1056:ALA:CB	6:C:430:SER:CA	2.65	0.67
1:X:328:VAL:CA	1:X:328:VAL:O	2.40	0.67
1:L:456:ASP:CA	1:L:457:ALA:N	2.33	0.67
1:R:140:LYS:HA	1:R:149:GLY:N	2.08	0.67
4:V:1428:TYR:CB	5:W:1337:ASN:CB	2.73	0.67
1:F:422:ASN:CB	1:F:423:ALA:HB2	2.24	0.66
4:V:64:HIS:H	5:W:1177:GLN:C	1.97	0.66
1:L:486:GLU:C	1:L:487:ASP:C	2.54	0.66
1:R:374:GLN:HA	4:P:896:VAL:H	1.46	0.66
1:R:486:GLU:C	1:R:487:ASP:C	2.54	0.66
1:F:451:GLU:CB	1:F:451:GLU:N	2.56	0.66
1:R:380:MET:N	4:P:887:ASN:CA	2.58	0.66
5:K:563:ARG:CB	6:C:733:ALA:HB2	2.24	0.66
1:F:299:ASN:C	1:F:299:ASN:CB	2.64	0.66
4:V:1428:TYR:CB	5:W:1337:ASN:C	2.64	0.66
4:D:1443:ALA:HB2	6:C:542:THR:CB	2.26	0.66
1:L:299:ASN:C	1:L:299:ASN:CB	2.64	0.66
3:T:408:SER:CA	3:T:410:LEU:H	2.01	0.66
4:V:644:ALA:HA	4:V:706:ALA:CB	2.26	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:1679:ILE:N	6:O:455:VAL:CB	2.58	0.66
4:D:644:ALA:HA	4:D:706:ALA:CB	2.26	0.66
4:J:644:ALA:HA	4:J:706:ALA:CB	2.26	0.66
1:R:299:ASN:C	1:R:299:ASN:CB	2.64	0.66
4:V:71:SER:O	5:W:1184:ASP:CB	2.43	0.66
1:F:486:GLU:C	1:F:487:ASP:C	2.54	0.66
2:M:341:ALA:H	2:M:342:PRO:N	1.87	0.66
2:M:342:PRO:C	2:M:343:ALA:C	2.49	0.66
4:P:1673:LEU:CB	6:O:451:SER:C	2.64	0.66
1:X:486:GLU:C	1:X:487:ASP:C	2.54	0.65
2:G:375:ALA:CB	5:E:1090:SER:CB	2.75	0.65
4:P:644:ALA:HA	4:P:706:ALA:CB	2.26	0.65
1:L:399:SER:C	1:L:401:TYR:N	2.37	0.65
3:N:408:SER:CA	3:N:410:LEU:H	2.01	0.65
4:P:1664:ASP:N	6:O:446:GLU:CB	0.75	0.65
4:D:644:ALA:CA	4:D:706:ALA:HB2	2.27	0.65
1:L:448:ARG:O	1:L:449:SER:C	2.32	0.65
1:X:299:ASN:C	1:X:299:ASN:CB	2.64	0.65
1:R:472:GLU:N	1:R:472:GLU:C	2.51	0.65
4:P:1668:GLY:H	6:O:447:ASP:HA	1.62	0.65
4:J:1489:HIS:CB	4:J:1492:GLY:H	2.10	0.65
4:V:1407:ILE:CB	5:W:1369:SER:C	2.65	0.65
5:W:564:GLU:CB	6:O:606:LYS:O	2.45	0.65
4:V:1489:HIS:CB	4:V:1492:GLY:H	2.11	0.64
1:R:448:ARG:O	1:R:449:SER:C	2.32	0.64
4:J:644:ALA:CA	4:J:706:ALA:HB2	2.27	0.64
1:R:381:ASP:CB	4:P:886:ILE:H	2.09	0.64
4:V:1427:TYR:HA	5:W:1331:LEU:O	1.98	0.64
4:V:1551:TYR:O	5:W:1359:GLY:C	2.35	0.64
1:L:472:GLU:N	1:L:472:GLU:C	2.51	0.64
4:P:1664:ASP:HA	6:O:446:GLU:CB	2.18	0.64
1:X:472:GLU:N	1:X:472:GLU:C	2.51	0.64
4:V:644:ALA:CA	4:V:706:ALA:HB2	2.27	0.64
1:X:400:GLY:C	1:X:401:TYR:C	2.56	0.64
1:F:378:LYS:C	4:D:887:ASN:O	2.36	0.64
1:F:400:GLY:C	1:F:401:TYR:C	2.56	0.64
2:Y:341:ALA:H	2:Y:342:PRO:N	1.87	0.64
1:R:400:GLY:C	1:R:401:TYR:C	2.56	0.64
4:P:1489:HIS:CB	4:P:1492:GLY:H	2.10	0.64
4:P:1692:LEU:O	6:O:297:LEU:O	2.15	0.64
1:X:399:SER:C	1:X:401:TYR:N	2.37	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:400:GLY:C	1:L:401:TYR:C	2.56	0.63
1:R:449:SER:O	1:R:451:GLU:C	2.37	0.63
1:R:454:TYR:CB	1:R:454:TYR:H	2.10	0.63
4:P:644:ALA:CA	4:P:706:ALA:HB2	2.27	0.63
4:V:1664:ASP:N	4:V:1667:ALA:HB2	2.13	0.63
1:F:454:TYR:CB	1:F:454:TYR:H	2.10	0.63
1:R:367:THR:C	1:R:367:THR:N	2.52	0.63
4:P:166:LEU:C	4:V:792:GLY:C	2.56	0.63
4:D:1664:ASP:N	4:D:1667:ALA:HB2	2.13	0.63
1:F:367:THR:C	1:F:367:THR:N	2.52	0.63
4:V:1485:ALA:CB	5:W:1365:GLN:CB	2.76	0.63
4:V:1497:LEU:C	5:W:1360:TYR:C	2.57	0.63
1:F:449:SER:O	1:F:451:GLU:C	2.37	0.63
1:L:449:SER:O	1:L:451:GLU:C	2.37	0.63
4:P:1672:GLU:HA	6:O:453:PHE:CB	2.29	0.63
4:P:1443:ALA:HA	6:O:186:ALA:HB3	1.81	0.63
4:D:1489:HIS:CB	4:D:1492:GLY:H	2.10	0.63
2:Y:378:SER:C	2:Y:378:SER:CB	2.67	0.63
4:P:166:LEU:C	4:V:792:GLY:O	2.36	0.63
4:V:1431:ILE:CA	5:W:1336:GLU:H	1.91	0.63
2:S:378:SER:C	2:S:378:SER:CB	2.67	0.63
4:P:1669:SER:HA	6:O:451:SER:H	1.63	0.62
4:V:62:GLN:N	5:W:1176:SER:O	2.30	0.62
4:V:1403:LEU:O	5:W:1370:SER:C	2.36	0.62
1:X:449:SER:O	1:X:451:GLU:C	2.37	0.62
1:X:454:TYR:CB	1:X:454:TYR:H	2.11	0.62
4:P:1679:ILE:CB	6:O:455:VAL:CB	2.77	0.62
4:P:1664:ASP:N	4:P:1667:ALA:HB2	2.13	0.62
4:V:1403:LEU:N	5:W:1373:VAL:N	2.48	0.62
1:F:389:VAL:N	4:D:880:GLU:CB	2.62	0.62
4:J:1664:ASP:N	4:J:1667:ALA:HB2	2.13	0.62
5:K:942:PRO:HA	5:K:943:GLN:CB	2.17	0.62
4:V:64:HIS:H	5:W:1177:GLN:CA	2.11	0.62
1:R:374:GLN:CA	4:P:896:VAL:CA	2.59	0.62
4:P:43:LEU:HA	4:V:778:PRO:C	2.20	0.62
4:V:1426:LEU:HA	5:W:1341:VAL:CB	2.30	0.62
4:D:1661:ARG:O	6:C:447:ASP:HA	1.98	0.62
5:K:50:SER:C	5:K:58:SER:HA	2.20	0.62
1:L:367:THR:C	1:L:367:THR:N	2.52	0.62
4:V:1404:LEU:C	5:W:1370:SER:CB	2.69	0.62
4:V:715:VAL:HA	4:V:718:SER:CB	2.30	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:1661:ARG:CB	6:C:445:LEU:C	2.67	0.61
4:J:715:VAL:HA	4:J:718:SER:CB	2.30	0.61
5:W:50:SER:C	5:W:58:SER:HA	2.20	0.61
1:F:448:ARG:O	1:F:449:SER:C	2.32	0.61
2:G:378:SER:C	2:G:378:SER:CB	2.67	0.61
4:V:1551:TYR:O	5:W:1359:GLY:HA2	1.99	0.61
4:D:1661:ARG:O	6:C:447:ASP:CA	2.47	0.61
5:Q:50:SER:C	5:Q:58:SER:HA	2.20	0.61
4:P:1443:ALA:HB2	6:O:186:ALA:HB3	1.59	0.61
4:V:869:GLU:HA	4:V:872:LEU:C	2.21	0.61
1:R:487:ASP:C	1:R:487:ASP:CB	2.69	0.61
4:P:1485:ALA:O	4:P:1486:CYS:C	2.34	0.61
2:M:378:SER:C	2:M:378:SER:CB	2.67	0.61
4:P:169:MET:CA	4:V:795:ILE:H	2.09	0.61
4:P:715:VAL:HA	4:P:718:SER:CB	2.30	0.61
4:P:1676:LEU:CB	6:O:455:VAL:O	2.37	0.61
4:V:1407:ILE:H	5:W:1370:SER:CB	2.12	0.61
2:M:326:LEU:CB	2:M:327:ARG:HA	2.31	0.61
2:M:379:HIS:N	2:M:379:HIS:HA	2.05	0.61
4:D:869:GLU:HA	4:D:872:LEU:C	2.21	0.61
2:Y:342:PRO:C	2:Y:344:ASP:N	2.55	0.61
1:F:472:GLU:N	1:F:472:GLU:C	2.51	0.61
2:G:326:LEU:CB	2:G:327:ARG:HA	2.31	0.61
5:E:50:SER:C	5:E:58:SER:HA	2.20	0.61
1:X:487:ASP:C	1:X:487:ASP:CB	2.69	0.60
2:M:342:PRO:C	2:M:344:ASP:N	2.54	0.60
2:S:342:PRO:C	2:S:344:ASP:N	2.55	0.60
4:P:869:GLU:HA	4:P:872:LEU:C	2.21	0.60
4:D:1485:ALA:O	4:D:1486:CYS:C	2.34	0.60
6:U:215:LEU:C	6:U:217:ASP:H	2.04	0.60
1:F:487:ASP:C	1:F:487:ASP:CB	2.69	0.60
4:V:1485:ALA:O	4:V:1486:CYS:C	2.34	0.60
4:D:715:VAL:HA	4:D:718:SER:CB	2.30	0.60
4:J:869:GLU:HA	4:J:872:LEU:C	2.21	0.60
1:L:487:ASP:C	1:L:487:ASP:CB	2.69	0.60
2:S:326:LEU:CB	2:S:327:ARG:HA	2.31	0.60
4:V:1551:TYR:CB	5:W:1358:CYS:C	2.68	0.60
4:J:1393:ASP:CB	5:K:1340:GLN:O	2.49	0.60
6:C:215:LEU:C	6:C:217:ASP:H	2.04	0.60
1:F:453:TYR:O	1:F:454:TYR:C	2.40	0.60
1:R:399:SER:O	1:R:400:GLY:HA3	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:1442:GLU:N	6:O:181:ILE:N	2.48	0.60
5:Q:312:MET:CB	5:Q:313:SER:HA	2.32	0.60
2:Y:326:LEU:CB	2:Y:327:ARG:HA	2.31	0.60
1:R:483:ASP:CB	1:R:483:ASP:N	2.60	0.60
5:E:312:MET:CB	5:E:313:SER:HA	2.32	0.60
2:Y:276:SER:C	2:Y:276:SER:CB	2.68	0.60
5:K:312:MET:CB	5:K:313:SER:HA	2.31	0.60
5:Q:942:PRO:HA	5:Q:943:GLN:CB	2.17	0.60
2:Y:325:ALA:C	2:Y:326:LEU:CA	2.70	0.60
4:V:1426:LEU:O	5:W:1335:VAL:HA	2.02	0.60
1:X:399:SER:O	1:X:400:GLY:HA3	2.00	0.60
4:P:1442:GLU:N	6:O:182:GLU:CA	2.65	0.60
4:J:1485:ALA:O	4:J:1486:CYS:C	2.34	0.60
5:W:565:VAL:N	6:O:632:ALA:HB1	2.06	0.60
2:G:342:PRO:C	2:G:344:ASP:N	2.54	0.60
1:R:381:ASP:H	4:P:887:ASN:CA	2.14	0.60
4:V:1428:TYR:CB	5:W:1337:ASN:CA	2.80	0.60
5:W:312:MET:CB	5:W:313:SER:HA	2.32	0.60
4:P:1673:LEU:O	6:O:454:THR:O	2.19	0.59
4:D:1542:PRO:O	4:D:1545:PRO:N	2.35	0.59
1:X:453:TYR:O	1:X:454:TYR:C	2.40	0.59
1:L:450:GLU:N	1:L:451:GLU:N	2.50	0.59
2:G:327:ARG:CB	2:G:327:ARG:C	2.71	0.59
1:X:367:THR:C	1:X:367:THR:N	2.52	0.59
2:S:327:ARG:CB	2:S:327:ARG:C	2.71	0.59
4:V:1542:PRO:O	4:V:1545:PRO:N	2.35	0.59
4:V:1408:LEU:N	5:W:1370:SER:CB	2.66	0.59
1:X:491:VAL:C	1:X:493:HIS:N	2.56	0.59
2:Y:327:ARG:CB	2:Y:327:ARG:C	2.71	0.59
2:Y:339:TYR:CB	2:Y:341:ALA:H	2.16	0.59
1:L:453:TYR:O	1:L:454:TYR:C	2.40	0.59
1:R:453:TYR:O	1:R:454:TYR:C	2.39	0.59
4:P:1542:PRO:O	4:P:1545:PRO:N	2.35	0.59
4:V:1406:PHE:CB	5:W:1371:VAL:CB	2.81	0.59
6:I:215:LEU:C	6:I:217:ASP:H	2.04	0.59
1:F:450:GLU:N	1:F:451:GLU:N	2.50	0.59
4:J:1542:PRO:O	4:J:1545:PRO:N	2.35	0.59
6:O:215:LEU:C	6:O:217:ASP:H	2.04	0.59
5:E:441:PHE:C	5:E:443:LYS:H	2.06	0.59
1:L:491:VAL:C	1:L:493:HIS:N	2.56	0.59
4:P:1443:ALA:HB1	6:O:186:ALA:CB	2.30	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:491:VAL:C	1:F:493:HIS:N	2.56	0.59
2:G:339:TYR:O	2:G:340:ALA:CB	2.51	0.59
2:M:339:TYR:O	2:M:340:ALA:CB	2.51	0.59
5:Q:441:PHE:C	5:Q:443:LYS:H	2.06	0.59
1:F:483:ASP:CB	1:F:483:ASP:N	2.60	0.59
2:M:327:ARG:CB	2:M:327:ARG:C	2.71	0.59
2:M:339:TYR:CB	2:M:341:ALA:H	2.16	0.58
1:R:450:GLU:N	1:R:451:GLU:N	2.50	0.58
2:Y:339:TYR:O	2:Y:340:ALA:CB	2.51	0.58
4:V:1408:LEU:H	5:W:1370:SER:CB	2.16	0.58
5:W:441:PHE:C	5:W:443:LYS:H	2.06	0.58
2:G:339:TYR:CB	2:G:341:ALA:H	2.16	0.58
4:P:1668:GLY:N	6:O:445:LEU:O	2.37	0.58
4:V:61:VAL:CA	5:W:1174:ALA:O	2.43	0.58
2:S:339:TYR:O	2:S:340:ALA:CB	2.51	0.58
1:L:454:TYR:CB	1:L:454:TYR:H	2.10	0.58
1:X:450:GLU:N	1:X:451:GLU:N	2.50	0.58
1:R:491:VAL:C	1:R:493:HIS:N	2.56	0.58
2:S:325:ALA:C	2:S:326:LEU:CA	2.70	0.58
5:K:205:LEU:C	5:K:207:SER:HA	2.25	0.58
2:M:342:PRO:O	2:M:343:ALA:C	2.43	0.57
2:S:339:TYR:CB	2:S:341:ALA:H	2.16	0.57
4:P:1444:ALA:HB3	6:O:179:ASP:O	2.03	0.57
1:X:483:ASP:CB	1:X:483:ASP:N	2.60	0.57
4:D:1664:ASP:O	4:D:1667:ALA:HB3	2.04	0.57
2:G:342:PRO:O	2:G:343:ALA:C	2.43	0.57
2:G:379:HIS:N	2:G:379:HIS:HA	2.05	0.57
4:V:1424:SER:H	5:W:1297:PRO:N	2.03	0.57
5:K:441:PHE:C	5:K:443:LYS:H	2.06	0.57
5:Q:205:LEU:C	5:Q:207:SER:HA	2.25	0.57
1:X:453:TYR:O	1:X:455:ILE:CA	2.53	0.57
1:R:453:TYR:O	1:R:455:ILE:CA	2.53	0.57
4:P:42:ILE:CB	4:V:778:PRO:CB	2.50	0.57
2:M:276:SER:C	2:M:276:SER:CB	2.68	0.57
4:V:1489:HIS:O	4:V:1491:ILE:N	2.38	0.57
4:V:1664:ASP:O	4:V:1667:ALA:HB3	2.04	0.57
4:J:1489:HIS:O	4:J:1491:ILE:N	2.38	0.57
4:D:1662:CYS:CA	6:C:446:GLU:CA	2.81	0.57
5:K:1056:ALA:CA	6:C:430:SER:HA	2.35	0.57
4:P:1671:GLN:CA	6:O:449:GLY:O	2.52	0.57
6:C:725:GLU:C	6:C:727:VAL:H	2.08	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:453:TYR:O	1:F:455:ILE:CA	2.53	0.57
4:P:166:LEU:O	4:V:792:GLY:CA	2.51	0.57
4:V:1429:LEU:N	5:W:1338:PRO:O	2.37	0.57
6:I:725:GLU:C	6:I:727:VAL:H	2.08	0.57
2:G:276:SER:C	2:G:276:SER:CB	2.68	0.57
4:P:166:LEU:O	4:V:792:GLY:O	2.20	0.57
4:J:1664:ASP:O	4:J:1667:ALA:HB3	2.04	0.57
6:I:303:ALA:HB1	6:I:306:PRO:HA	1.87	0.57
1:R:381:ASP:CB	4:P:886:ILE:CA	2.83	0.56
4:P:1673:LEU:CA	6:O:451:SER:C	2.68	0.56
4:D:1489:HIS:O	4:D:1491:ILE:N	2.38	0.56
5:W:205:LEU:C	5:W:207:SER:HA	2.25	0.56
6:O:303:ALA:HB1	6:O:306:PRO:HA	1.87	0.56
5:E:205:LEU:C	5:E:207:SER:HA	2.25	0.56
1:F:399:SER:O	1:F:400:GLY:HA3	2.00	0.56
1:X:328:VAL:C	1:X:328:VAL:CB	2.67	0.56
2:Y:342:PRO:O	2:Y:343:ALA:C	2.43	0.56
1:L:328:VAL:C	1:L:328:VAL:CB	2.67	0.56
4:P:1466:ASN:CB	6:O:173:PRO:CA	2.66	0.56
4:V:1407:ILE:H	5:W:1371:VAL:N	2.03	0.56
4:V:1429:LEU:CA	5:W:1342:LEU:N	2.67	0.56
6:C:303:ALA:HB1	6:C:306:PRO:HA	1.87	0.56
1:L:453:TYR:O	1:L:455:ILE:CA	2.53	0.56
2:S:342:PRO:O	2:S:343:ALA:C	2.43	0.56
4:P:1441:LEU:O	6:O:180:ASN:O	2.20	0.56
6:C:483:GLU:HA	6:C:484:ARG:N	2.21	0.56
1:L:449:SER:O	1:L:452:ARG:N	2.39	0.56
1:R:449:SER:O	1:R:452:ARG:N	2.38	0.56
1:F:447:VAL:CB	1:F:447:VAL:N	2.62	0.56
1:F:449:SER:O	1:F:452:ARG:N	2.39	0.56
2:S:276:SER:C	2:S:276:SER:CB	2.68	0.56
4:P:1489:HIS:O	4:P:1491:ILE:N	2.38	0.56
5:K:205:LEU:O	5:K:207:SER:HA	2.06	0.56
6:O:483:GLU:HA	6:O:484:ARG:N	2.20	0.56
2:G:325:ALA:C	2:G:326:LEU:CA	2.70	0.56
1:X:449:SER:O	1:X:452:ARG:N	2.39	0.56
4:P:1674:ALA:O	6:O:410:THR:CB	2.53	0.56
5:E:205:LEU:O	5:E:207:SER:HA	2.06	0.56
4:P:1671:GLN:C	6:O:449:GLY:O	2.42	0.56
4:V:1395:SER:O	5:W:1375:ALA:N	2.38	0.56
6:O:725:GLU:C	6:O:727:VAL:H	2.08	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:U:483:GLU:HA	6:U:484:ARG:N	2.21	0.56
4:V:60:ASN:CB	5:W:1180:SER:CB	2.83	0.55
4:V:64:HIS:CA	5:W:1177:GLN:CB	2.84	0.55
6:I:483:GLU:HA	6:I:484:ARG:N	2.20	0.55
4:V:1424:SER:H	5:W:1296:LEU:C	2.09	0.55
5:W:205:LEU:O	5:W:207:SER:HA	2.06	0.55
5:Q:376:ARG:C	5:Q:380:ALA:HA	2.27	0.55
2:M:325:ALA:C	2:M:326:LEU:CA	2.70	0.55
4:V:1497:LEU:CB	5:W:1365:GLN:H	2.19	0.55
6:U:303:ALA:HB1	6:U:306:PRO:HA	1.87	0.55
5:E:376:ARG:C	5:E:380:ALA:HA	2.27	0.55
1:F:382:LEU:HA	4:D:884:GLN:CB	2.36	0.55
1:R:381:ASP:CB	4:P:882:LEU:O	2.54	0.55
1:R:392:LYS:CB	4:P:878:PRO:N	2.69	0.55
4:D:1660:LEU:CB	6:C:450:GLU:C	2.75	0.55
6:U:725:GLU:C	6:U:727:VAL:H	2.08	0.55
1:R:384:HIS:CA	4:P:883:LEU:CB	2.84	0.55
3:T:406:LEU:HA	3:T:409:PRO:N	2.22	0.55
5:W:376:ARG:C	5:W:380:ALA:HA	2.27	0.55
3:H:406:LEU:HA	3:H:409:PRO:N	2.22	0.55
1:L:447:VAL:CB	1:L:447:VAL:N	2.62	0.55
5:Q:205:LEU:O	5:Q:207:SER:HA	2.06	0.55
1:L:404:GLN:O	1:L:405:ALA:CB	2.55	0.55
4:V:1499:LEU:CB	5:W:1368:SER:HA	2.37	0.55
2:G:313:ILE:O	2:G:316:ALA:HB3	2.07	0.55
1:X:404:GLN:O	1:X:405:ALA:CB	2.55	0.55
2:M:313:ILE:O	2:M:316:ALA:HB3	2.07	0.55
1:R:381:ASP:CB	4:P:886:ILE:N	2.69	0.55
4:P:1444:ALA:C	6:O:183:MET:CB	2.75	0.55
3:H:411:GLU:CB	4:D:812:GLU:N	2.67	0.55
1:R:404:GLN:O	1:R:405:ALA:CB	2.55	0.55
2:S:313:ILE:O	2:S:316:ALA:HB3	2.07	0.55
4:D:70:ALA:HB1	4:D:86:LEU:O	2.07	0.55
6:C:483:GLU:N	6:C:484:ARG:N	2.55	0.55
3:Z:406:LEU:HA	3:Z:409:PRO:N	2.22	0.54
4:P:1671:GLN:H	6:O:449:GLY:N	2.05	0.54
4:J:70:ALA:HB1	4:J:86:LEU:O	2.07	0.54
1:L:399:SER:O	1:L:400:GLY:HA3	2.01	0.54
4:V:1400:LEU:HA	5:W:1372:ALA:HB1	1.89	0.54
2:Y:378:SER:CA	2:Y:378:SER:O	2.51	0.54
1:R:376:LYS:O	4:P:888:PRO:HA	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:V:1424:SER:N	5:W:1296:LEU:C	2.60	0.54
5:K:376:ARG:C	5:K:380:ALA:HA	2.27	0.54
3:N:406:LEU:HA	3:N:409:PRO:N	2.22	0.54
4:P:42:ILE:C	4:V:778:PRO:C	2.67	0.54
4:P:1440:THR:O	6:O:183:MET:N	2.31	0.54
4:V:59:LYS:C	5:W:1176:SER:CB	2.75	0.54
4:D:1662:CYS:HA	6:C:446:GLU:CA	2.31	0.54
1:R:378:LYS:CB	4:P:892:LYS:O	2.52	0.54
4:P:70:ALA:HB1	4:P:86:LEU:O	2.07	0.54
6:U:483:GLU:N	6:U:484:ARG:N	2.56	0.54
1:F:404:GLN:O	1:F:405:ALA:CB	2.55	0.54
1:X:459:LEU:CA	1:X:460:LEU:N	2.54	0.54
4:P:1441:LEU:CB	6:O:178:LEU:CA	2.85	0.54
4:J:1397:TYR:H	5:K:1340:GLN:N	2.04	0.54
5:K:181:ALA:O	5:K:196:GLY:HA2	2.08	0.54
2:Y:313:ILE:O	2:Y:316:ALA:HB3	2.07	0.54
1:L:483:ASP:CB	1:L:483:ASP:N	2.60	0.54
5:Q:22:ALA:HB1	5:Q:780:ALA:CA	2.38	0.54
4:P:43:LEU:N	4:V:778:PRO:C	2.62	0.54
1:X:298:GLN:C	1:X:299:ASN:C	2.67	0.54
4:V:61:VAL:CB	5:W:1179:ASP:N	2.68	0.54
4:V:70:ALA:HB1	4:V:86:LEU:O	2.07	0.54
4:D:1662:CYS:N	6:C:446:GLU:CA	2.69	0.54
1:F:298:GLN:C	1:F:299:ASN:C	2.67	0.53
1:X:404:GLN:O	1:X:405:ALA:HB2	2.08	0.53
3:Z:462:GLY:CA	3:Z:462:GLY:O	2.51	0.53
2:S:378:SER:CA	2:S:378:SER:O	2.51	0.53
5:W:73:LEU:O	6:O:684:PHE:HA	2.08	0.53
2:M:378:SER:CA	2:M:378:SER:O	2.51	0.53
1:R:404:GLN:O	1:R:405:ALA:HB2	2.09	0.53
6:I:483:GLU:N	6:I:484:ARG:N	2.56	0.53
6:O:483:GLU:N	6:O:484:ARG:N	2.55	0.53
4:P:169:MET:CA	4:V:795:ILE:N	2.69	0.53
4:P:1670:LEU:CB	6:O:448:TYR:CA	2.87	0.53
1:F:485:LEU:HA	1:F:488:ILE:CB	2.39	0.53
4:P:1444:ALA:CA	6:O:183:MET:CB	2.84	0.53
4:D:1489:HIS:O	4:D:1490:GLU:C	2.44	0.53
5:W:22:ALA:HB1	5:W:780:ALA:CA	2.38	0.53
5:Q:181:ALA:O	5:Q:196:GLY:HA2	2.09	0.53
1:X:485:LEU:HA	1:X:488:ILE:CB	2.38	0.53
1:L:404:GLN:O	1:L:405:ALA:HB2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:325:ALA:CA	2:M:326:LEU:N	2.68	0.53
3:N:462:GLY:CA	3:N:462:GLY:O	2.50	0.53
4:J:1393:ASP:CB	5:K:1342:LEU:O	2.57	0.53
5:K:22:ALA:HB1	5:K:780:ALA:CA	2.38	0.53
2:S:325:ALA:CA	2:S:326:LEU:N	2.68	0.53
4:P:170:THR:HA	4:V:793:GLU:CB	2.39	0.53
4:P:1448:MET:C	4:P:1450:GLU:HA	2.29	0.53
4:P:1671:GLN:N	6:O:448:TYR:C	2.57	0.53
4:J:1448:MET:C	4:J:1450:GLU:HA	2.29	0.53
3:H:408:SER:C	3:H:409:PRO:C	2.64	0.53
4:V:1489:HIS:C	4:V:1491:ILE:N	2.61	0.53
4:J:1664:ASP:C	4:J:1667:ALA:H	2.12	0.53
1:R:298:GLN:C	1:R:299:ASN:C	2.67	0.53
4:V:1448:MET:C	4:V:1450:GLU:HA	2.29	0.53
5:W:181:ALA:O	5:W:196:GLY:HA2	2.08	0.53
3:Z:490:GLN:CB	3:Z:490:GLN:N	2.58	0.53
1:L:298:GLN:C	1:L:299:ASN:C	2.67	0.53
3:T:462:GLY:CA	3:T:462:GLY:O	2.51	0.53
4:P:1666:SER:O	6:O:448:TYR:O	2.26	0.53
1:R:485:LEU:HA	1:R:488:ILE:CB	2.39	0.52
4:P:1673:LEU:CA	6:O:454:THR:CB	2.82	0.52
4:V:1395:SER:O	5:W:1375:ALA:O	2.27	0.52
4:J:1489:HIS:O	4:J:1490:GLU:C	2.45	0.52
4:J:1489:HIS:C	4:J:1491:ILE:N	2.61	0.52
5:W:370:PHE:HA	5:W:386:THR:O	2.10	0.52
1:L:485:LEU:HA	1:L:488:ILE:CB	2.38	0.52
4:V:1489:HIS:O	4:V:1490:GLU:C	2.45	0.52
4:D:1504:VAL:O	4:D:1505:SER:C	2.39	0.52
4:D:1664:ASP:C	4:D:1667:ALA:H	2.12	0.52
5:W:22:ALA:HB1	5:W:780:ALA:CB	2.39	0.52
5:K:370:PHE:HA	5:K:386:THR:O	2.10	0.52
5:E:22:ALA:HB1	5:E:780:ALA:CA	2.38	0.52
5:Q:22:ALA:HB1	5:Q:780:ALA:CB	2.39	0.52
4:P:1489:HIS:O	4:P:1490:GLU:C	2.44	0.52
4:P:1675:LEU:CB	6:O:462:TYR:CA	2.86	0.52
5:E:181:ALA:O	5:E:196:GLY:HA2	2.09	0.52
2:G:326:LEU:N	2:G:326:LEU:CB	2.72	0.52
3:Z:409:PRO:CA	3:Z:410:LEU:N	2.71	0.52
4:D:1661:ARG:CB	6:C:446:GLU:C	2.78	0.52
1:F:404:GLN:O	1:F:405:ALA:HB2	2.09	0.52
1:X:447:VAL:CB	1:X:447:VAL:N	2.62	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S:379:HIS:N	2:S:379:HIS:HA	2.05	0.52
4:D:1489:HIS:C	4:D:1491:ILE:N	2.61	0.52
4:D:1448:MET:C	4:D:1450:GLU:HA	2.29	0.52
5:E:22:ALA:HB1	5:E:780:ALA:CB	2.40	0.52
3:H:409:PRO:CA	3:H:410:LEU:N	2.72	0.52
4:P:1667:ALA:CB	6:O:443:GLN:O	2.57	0.52
4:V:1422:TYR:HA	5:W:1368:SER:CB	2.39	0.52
4:V:1427:TYR:CB	5:W:1331:LEU:C	2.78	0.52
1:R:328:VAL:C	1:R:328:VAL:CB	2.67	0.52
4:V:1664:ASP:C	4:V:1667:ALA:H	2.12	0.52
4:D:1658:ALA:O	6:C:447:ASP:CB	2.57	0.52
5:E:370:PHE:HA	5:E:386:THR:O	2.10	0.52
1:F:458:ASP:O	1:F:460:LEU:CA	2.58	0.51
1:F:490:LEU:O	1:F:493:HIS:N	2.44	0.51
3:H:408:SER:CA	3:H:410:LEU:N	2.68	0.51
1:L:458:ASP:O	1:L:460:LEU:CA	2.58	0.51
4:J:744:PHE:C	4:J:746:ARG:HA	2.31	0.51
5:K:22:ALA:HB1	5:K:780:ALA:CB	2.40	0.51
5:Q:370:PHE:HA	5:Q:386:THR:O	2.10	0.51
2:S:339:TYR:CA	2:S:340:ALA:N	2.68	0.51
4:P:1489:HIS:C	4:P:1491:ILE:N	2.61	0.51
2:G:345:TYR:C	2:G:348:ILE:H	2.14	0.51
2:M:345:TYR:C	2:M:348:ILE:H	2.14	0.51
4:P:744:PHE:C	4:P:746:ARG:HA	2.30	0.51
1:R:374:GLN:CA	4:P:897:VAL:H	2.22	0.51
2:Y:345:TYR:C	2:Y:348:ILE:H	2.14	0.51
3:Z:425:HIS:O	3:Z:426:ALA:HB2	2.11	0.51
4:P:1448:MET:O	4:P:1451:ARG:N	2.44	0.51
1:F:399:SER:CA	1:F:401:TYR:N	2.74	0.51
4:V:1432:ALA:CA	5:W:1336:GLU:CA	2.69	0.51
5:K:1056:ALA:HB2	6:C:430:SER:CA	2.21	0.51
5:Q:376:ARG:O	5:Q:380:ALA:HA	2.11	0.51
1:X:399:SER:CA	1:X:401:TYR:N	2.74	0.51
1:L:399:SER:CA	1:L:401:TYR:N	2.73	0.51
1:R:384:HIS:O	4:P:880:GLU:CB	2.57	0.51
2:S:345:TYR:C	2:S:348:ILE:H	2.14	0.51
4:D:1448:MET:O	4:D:1451:ARG:N	2.44	0.51
1:R:399:SER:CA	1:R:401:TYR:N	2.74	0.51
1:R:447:VAL:CB	1:R:447:VAL:N	2.62	0.51
4:J:1448:MET:O	4:J:1451:ARG:N	2.44	0.51
2:Y:326:LEU:N	2:Y:326:LEU:CB	2.72	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:V:1427:TYR:CB	5:W:1331:LEU:HA	2.41	0.50
4:D:744:PHE:C	4:D:746:ARG:HA	2.31	0.50
3:T:425:HIS:O	3:T:426:ALA:HB2	2.11	0.50
4:P:1666:SER:N	6:O:446:GLU:O	2.31	0.50
3:H:425:HIS:O	3:H:426:ALA:HB2	2.11	0.50
4:V:1424:SER:CB	5:W:1296:LEU:H	2.22	0.50
4:V:1448:MET:O	4:V:1451:ARG:N	2.44	0.50
5:W:376:ARG:O	5:W:380:ALA:HA	2.11	0.50
1:X:329:GLY:N	1:X:329:GLY:C	2.62	0.50
2:Y:339:TYR:CA	2:Y:340:ALA:N	2.68	0.50
4:V:744:PHE:C	4:V:746:ARG:HA	2.31	0.50
5:W:565:VAL:H	6:O:632:ALA:CB	2.12	0.50
4:P:1675:LEU:N	6:O:453:PHE:HA	2.13	0.50
4:V:1494:MET:O	5:W:1357:VAL:O	2.29	0.50
5:K:376:ARG:O	5:K:380:ALA:HA	2.11	0.50
1:F:377:ARG:O	4:D:887:ASN:O	2.29	0.50
1:X:450:GLU:O	1:X:451:GLU:CA	2.33	0.50
2:Y:379:HIS:N	2:Y:379:HIS:HA	2.06	0.50
2:M:326:LEU:N	2:M:326:LEU:CB	2.72	0.50
3:N:425:HIS:O	3:N:426:ALA:HB2	2.11	0.50
4:D:1662:CYS:CB	6:C:446:GLU:HA	2.41	0.50
5:W:565:VAL:CB	6:O:632:ALA:CB	2.89	0.50
5:K:1056:ALA:HA	6:C:430:SER:CB	2.42	0.50
1:R:459:LEU:CA	1:R:460:LEU:N	2.54	0.50
4:V:61:VAL:C	5:W:1179:ASP:N	2.62	0.50
4:V:1509:GLN:O	4:V:1510:GLN:C	2.45	0.50
1:X:490:LEU:O	1:X:493:HIS:N	2.43	0.50
5:E:215:LEU:HA	5:E:230:GLY:HA2	1.94	0.50
1:F:328:VAL:C	1:F:328:VAL:CB	2.67	0.50
1:L:367:THR:CA	1:L:367:THR:O	2.53	0.50
1:R:388:GLN:CA	4:P:880:GLU:N	2.58	0.50
3:T:408:SER:CA	3:T:410:LEU:N	2.68	0.50
4:P:1669:SER:C	6:O:449:GLY:C	2.67	0.50
4:J:1539:LEU:O	4:J:1540:LEU:C	2.40	0.50
5:Q:215:LEU:HA	5:Q:230:GLY:HA2	1.94	0.50
2:G:339:TYR:CB	2:G:341:ALA:N	2.75	0.49
2:Y:339:TYR:CB	2:Y:341:ALA:N	2.75	0.49
1:R:367:THR:CA	1:R:367:THR:O	2.53	0.49
4:P:166:LEU:CA	4:V:792:GLY:O	2.59	0.49
4:P:170:THR:CA	4:V:793:GLU:CB	2.89	0.49
4:P:1660:LEU:CB	6:O:413:TYR:CB	2.90	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:V:1423:GLY:H	5:W:1297:PRO:HA	1.77	0.49
6:C:469:THR:O	6:C:470:ALA:HB3	2.12	0.49
6:I:447:ASP:C	6:I:448:TYR:HA	2.32	0.49
1:F:457:ALA:C	1:F:459:LEU:N	2.66	0.49
1:F:459:LEU:CA	1:F:460:LEU:N	2.54	0.49
3:N:408:SER:CA	3:N:410:LEU:N	2.68	0.49
3:N:409:PRO:CA	3:N:410:LEU:N	2.72	0.49
1:R:458:ASP:O	1:R:460:LEU:CA	2.58	0.49
4:V:1407:ILE:CB	5:W:1371:VAL:N	2.72	0.49
4:V:1554:GLU:N	5:W:1362:VAL:CB	2.72	0.49
6:C:447:ASP:C	6:C:448:TYR:HA	2.33	0.49
1:R:378:LYS:O	4:P:885:GLY:C	2.50	0.49
1:R:457:ALA:C	1:R:459:LEU:N	2.66	0.49
1:F:458:ASP:O	1:F:459:LEU:C	2.45	0.49
1:X:457:ALA:C	1:X:459:LEU:N	2.66	0.49
1:L:458:ASP:O	1:L:459:LEU:C	2.45	0.49
1:R:379:LEU:C	4:P:884:GLN:HA	2.27	0.49
2:S:339:TYR:CB	2:S:341:ALA:N	2.75	0.49
6:C:234:LEU:C	6:C:252:MET:HA	2.33	0.49
6:O:469:THR:O	6:O:470:ALA:HB3	2.12	0.49
6:U:234:LEU:C	6:U:252:MET:HA	2.33	0.49
1:F:381:ASP:C	4:D:888:PRO:N	2.65	0.49
3:N:380:GLU:C	3:N:381:LYS:CA	2.72	0.49
4:J:69:LYS:O	4:J:70:ALA:HB3	2.13	0.49
5:K:215:LEU:HA	5:K:230:GLY:HA2	1.94	0.49
6:I:234:LEU:C	6:I:252:MET:HA	2.33	0.49
3:H:462:GLY:CA	3:H:462:GLY:O	2.50	0.49
2:M:339:TYR:CB	2:M:341:ALA:N	2.75	0.49
4:V:1407:ILE:N	5:W:1371:VAL:N	2.58	0.49
6:U:447:ASP:C	6:U:448:TYR:HA	2.32	0.49
2:G:339:TYR:CA	2:G:340:ALA:N	2.68	0.49
2:G:378:SER:CA	2:G:378:SER:O	2.51	0.49
2:Y:378:SER:CB	2:Y:378:SER:O	2.61	0.49
1:R:492:GLU:CA	1:R:492:GLU:O	2.53	0.49
5:E:376:ARG:O	5:E:380:ALA:HA	2.11	0.49
4:D:1517:SER:O	4:D:1518:ASN:C	2.51	0.49
6:U:807:THR:C	6:U:809:ALA:H	2.16	0.49
1:L:457:ALA:C	1:L:459:LEU:N	2.66	0.49
3:T:408:SER:C	3:T:409:PRO:C	2.64	0.49
2:G:378:SER:CB	2:G:378:SER:O	2.61	0.49
2:S:378:SER:CB	2:S:378:SER:O	2.61	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:T:409:PRO:CA	3:T:410:LEU:N	2.72	0.49
6:C:807:THR:C	6:C:809:ALA:H	2.17	0.49
5:E:1352:LEU:C	5:E:1354:LEU:H	2.17	0.49
1:F:329:GLY:N	1:F:329:GLY:C	2.61	0.48
1:F:488:ILE:N	1:F:488:ILE:CB	2.66	0.48
1:X:458:ASP:O	1:X:460:LEU:CA	2.58	0.48
2:M:378:SER:CB	2:M:378:SER:O	2.61	0.48
1:R:490:LEU:O	1:R:493:HIS:N	2.43	0.48
2:S:326:LEU:N	2:S:326:LEU:CB	2.72	0.48
3:T:374:SER:CB	3:T:374:SER:H	2.25	0.48
5:W:215:LEU:HA	5:W:230:GLY:HA2	1.94	0.48
5:K:312:MET:CB	5:K:313:SER:CA	2.91	0.48
6:I:469:THR:O	6:I:470:ALA:HB3	2.12	0.48
1:L:490:LEU:O	1:L:493:HIS:N	2.43	0.48
4:V:1423:GLY:HA3	5:W:1300:LEU:CB	2.44	0.48
5:W:312:MET:CB	5:W:313:SER:CA	2.91	0.48
5:E:312:MET:CB	5:E:313:SER:CA	2.91	0.48
1:R:455:ILE:C	1:R:456:ASP:C	2.56	0.48
4:P:43:LEU:CA	4:V:778:PRO:C	2.81	0.48
5:Q:312:MET:CB	5:Q:313:SER:CA	2.91	0.48
3:H:418:SER:CB	4:D:876:VAL:O	2.61	0.48
4:D:69:LYS:O	4:D:70:ALA:HB3	2.12	0.48
5:K:1352:LEU:C	5:K:1354:LEU:H	2.17	0.48
6:O:234:LEU:C	6:O:252:MET:HA	2.33	0.48
6:U:469:THR:O	6:U:470:ALA:HB3	2.12	0.48
3:Z:408:SER:C	3:Z:409:PRO:C	2.64	0.48
4:P:69:LYS:O	4:P:70:ALA:HB3	2.13	0.48
6:U:231:THR:C	6:U:233:VAL:H	2.17	0.48
6:I:231:THR:C	6:I:233:VAL:H	2.17	0.48
5:Q:1352:LEU:C	5:Q:1354:LEU:H	2.17	0.48
2:Y:322:ALA:O	2:Y:325:ALA:HB3	2.14	0.48
2:M:325:ALA:C	2:M:325:ALA:CB	2.77	0.48
4:V:1539:LEU:O	4:V:1540:LEU:C	2.40	0.48
2:Y:325:ALA:C	2:Y:325:ALA:CB	2.77	0.47
4:V:69:LYS:O	4:V:70:ALA:HB3	2.12	0.47
6:O:807:THR:C	6:O:809:ALA:H	2.16	0.47
1:X:458:ASP:C	1:X:460:LEU:N	2.66	0.47
2:S:322:ALA:O	2:S:325:ALA:HB3	2.14	0.47
2:M:339:TYR:CA	2:M:340:ALA:N	2.68	0.47
3:T:406:LEU:C	3:T:408:SER:N	2.61	0.47
4:V:1498:ALA:N	5:W:1361:LEU:N	2.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:340:ALA:O	2:G:341:ALA:CB	2.63	0.47
1:R:367:THR:C	1:R:367:THR:CB	2.78	0.47
1:F:140:LYS:HA	1:F:149:GLY:CA	2.44	0.47
1:L:140:LYS:HA	1:L:149:GLY:CA	2.45	0.47
2:M:340:ALA:O	2:M:341:ALA:CB	2.62	0.47
1:R:489:LYS:O	1:R:492:GLU:N	2.48	0.47
2:S:340:ALA:O	2:S:341:ALA:CB	2.63	0.47
4:J:1489:HIS:O	4:J:1492:GLY:N	2.48	0.47
1:R:140:LYS:HA	1:R:149:GLY:CA	2.45	0.47
1:R:381:ASP:CB	4:P:887:ASN:H	2.28	0.47
3:T:477:ILE:O	3:T:480:ALA:HB3	2.14	0.47
4:P:1513:LEU:O	4:P:1514:LEU:C	2.50	0.47
4:V:1489:HIS:O	4:V:1492:GLY:N	2.48	0.47
5:W:1352:LEU:C	5:W:1354:LEU:H	2.17	0.47
1:F:489:LYS:O	1:F:492:GLU:N	2.48	0.47
3:H:477:ILE:O	3:H:480:ALA:HB3	2.15	0.47
1:X:140:LYS:HA	1:X:149:GLY:CA	2.44	0.47
1:X:158:ASN:CA	1:X:321:LYS:O	2.62	0.47
1:X:492:GLU:CB	1:X:492:GLU:O	2.63	0.47
3:Z:408:SER:CA	3:Z:410:LEU:N	2.68	0.47
1:L:405:ALA:HB3	1:L:406:ASP:H	1.16	0.47
1:L:493:HIS:CB	1:L:493:HIS:C	2.61	0.47
2:M:322:ALA:O	2:M:325:ALA:HB3	2.14	0.47
4:V:1430:GLN:HA	5:W:1342:LEU:HA	1.96	0.47
4:D:1447:THR:O	4:D:1448:MET:C	2.53	0.47
4:D:1509:GLN:O	4:D:1510:GLN:C	2.45	0.47
5:K:340:LYS:C	5:K:342:ILE:HA	2.35	0.47
6:I:807:THR:C	6:I:809:ALA:H	2.16	0.47
1:F:140:LYS:CA	1:F:149:GLY:HA2	2.45	0.47
3:Z:477:ILE:O	3:Z:480:ALA:HB3	2.14	0.47
1:L:140:LYS:CA	1:L:149:GLY:HA2	2.45	0.47
4:V:1502:ARG:O	5:W:1340:GLN:O	2.29	0.47
5:E:340:LYS:C	5:E:342:ILE:HA	2.35	0.47
1:F:458:ASP:C	1:F:460:LEU:N	2.66	0.47
1:F:492:GLU:CB	1:F:492:GLU:O	2.63	0.47
2:Y:340:ALA:O	2:Y:341:ALA:CB	2.62	0.47
1:L:488:ILE:N	1:L:488:ILE:CB	2.66	0.47
3:N:477:ILE:O	3:N:480:ALA:HB3	2.14	0.47
2:S:325:ALA:C	2:S:325:ALA:CB	2.77	0.47
4:V:1428:TYR:H	5:W:1334:TYR:CB	2.24	0.47
5:W:340:LYS:C	5:W:342:ILE:HA	2.36	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:492:GLU:CB	1:L:492:GLU:O	2.63	0.46
6:O:231:THR:C	6:O:233:VAL:H	2.18	0.46
1:X:455:ILE:C	1:X:457:ALA:H	2.15	0.46
3:N:408:SER:C	3:N:409:PRO:C	2.64	0.46
1:R:140:LYS:CA	1:R:149:GLY:HA2	2.45	0.46
1:R:329:GLY:N	1:R:329:GLY:C	2.62	0.46
4:V:1428:TYR:N	5:W:1334:TYR:CB	2.53	0.46
4:V:1447:THR:O	4:V:1448:MET:C	2.53	0.46
5:Q:942:PRO:HA	5:Q:943:GLN:HA	1.48	0.46
4:P:1517:SER:O	4:P:1518:ASN:C	2.51	0.46
4:D:1489:HIS:O	4:D:1492:GLY:N	2.48	0.46
5:E:404:LYS:HA	5:E:405:PRO:HA	1.70	0.46
1:F:452:ARG:C	1:F:453:TYR:C	2.74	0.46
1:X:140:LYS:CA	1:X:149:GLY:HA2	2.44	0.46
4:P:168:SER:CB	4:V:795:ILE:CB	2.93	0.46
4:V:644:ALA:HB2	4:V:702:PRO:C	2.36	0.46
2:G:325:ALA:CA	2:G:326:LEU:N	2.69	0.46
1:X:447:VAL:CB	1:X:447:VAL:C	2.77	0.46
1:R:376:LYS:O	4:P:888:PRO:CA	2.61	0.46
4:P:1489:HIS:O	4:P:1492:GLY:N	2.48	0.46
4:P:1673:LEU:CB	6:O:452:HIS:N	2.71	0.46
4:P:1692:LEU:O	6:O:302:PRO:N	2.47	0.46
2:G:322:ALA:O	2:G:325:ALA:HB3	2.14	0.46
3:Z:380:GLU:C	3:Z:381:LYS:CA	2.72	0.46
1:L:458:ASP:C	1:L:460:LEU:N	2.66	0.46
4:P:1446:LYS:H	6:O:183:MET:CB	2.28	0.46
4:P:1447:THR:O	4:P:1448:MET:C	2.53	0.46
4:V:1494:MET:CB	5:W:1358:CYS:HA	2.45	0.46
4:D:1661:ARG:CB	6:C:446:GLU:N	2.78	0.46
5:K:38:ARG:HA	5:K:484:THR:CB	2.45	0.46
5:K:1016:ALA:H	6:I:814:MET:C	2.18	0.46
5:E:38:ARG:HA	5:E:484:THR:CB	2.45	0.46
5:Q:340:LYS:C	5:Q:342:ILE:HA	2.35	0.46
1:R:405:ALA:HB3	1:R:406:ASP:H	1.17	0.46
1:R:492:GLU:CB	1:R:492:GLU:O	2.63	0.46
4:P:1442:GLU:H	6:O:182:GLU:CA	2.24	0.46
4:P:1504:VAL:O	4:P:1505:SER:C	2.38	0.46
4:P:1669:SER:N	6:O:448:TYR:O	2.39	0.46
1:X:452:ARG:C	1:X:453:TYR:C	2.74	0.46
1:R:452:ARG:C	1:R:453:TYR:C	2.74	0.46
3:T:380:GLU:C	3:T:381:LYS:CA	2.72	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:J:1537:GLN:C	4:J:1539:LEU:N	2.69	0.46
1:F:140:LYS:CA	1:F:149:GLY:CA	2.94	0.46
1:F:367:THR:CA	1:F:367:THR:O	2.53	0.46
1:F:455:ILE:C	1:F:456:ASP:C	2.56	0.46
2:G:374:GLN:HA	2:G:377:ASN:CB	2.46	0.46
3:H:406:LEU:C	3:H:408:SER:N	2.62	0.46
1:X:458:ASP:O	1:X:459:LEU:C	2.45	0.46
1:X:489:LYS:O	1:X:492:GLU:N	2.48	0.46
2:Y:325:ALA:CA	2:Y:326:LEU:N	2.68	0.46
1:R:140:LYS:CA	1:R:149:GLY:CA	2.94	0.46
4:P:49:ASP:C	4:P:51:ILE:H	2.19	0.46
4:V:1487:ASP:O	4:V:1490:GLU:N	2.49	0.46
4:D:1542:PRO:C	4:D:1544:PRO:N	2.68	0.46
4:J:644:ALA:HB2	4:J:702:PRO:C	2.36	0.46
6:C:303:ALA:HB1	6:C:306:PRO:CA	2.46	0.46
1:F:453:TYR:N	1:F:453:TYR:C	2.70	0.46
1:L:452:ARG:C	1:L:453:TYR:C	2.74	0.46
4:P:644:ALA:HB2	4:P:702:PRO:C	2.36	0.46
4:P:1466:ASN:CB	6:O:173:PRO:C	2.84	0.46
4:J:1482:CYS:O	4:J:1485:ALA:HB3	2.16	0.46
3:H:374:SER:CB	3:H:374:SER:H	2.25	0.45
1:X:450:GLU:C	1:X:451:GLU:C	2.73	0.45
1:L:492:GLU:C	1:L:493:HIS:CA	2.84	0.45
2:M:374:GLN:HA	2:M:377:ASN:CB	2.46	0.45
1:R:378:LYS:O	4:P:883:LEU:O	2.33	0.45
4:V:1486:CYS:O	4:V:1487:ASP:C	2.50	0.45
4:J:1518:ASN:O	4:J:1519:SER:C	2.55	0.45
5:W:38:ARG:HA	5:W:484:THR:CB	2.45	0.45
1:F:375:TYR:HA	4:D:893:ALA:HB1	1.96	0.45
2:S:374:GLN:HA	2:S:377:ASN:CB	2.46	0.45
4:V:66:LYS:CB	5:W:1182:LEU:C	2.77	0.45
4:D:1494:MET:CB	4:D:1551:TYR:CB	2.95	0.45
4:J:1487:ASP:O	4:J:1490:GLU:N	2.49	0.45
6:C:503:LEU:O	6:C:504:LYS:CB	2.64	0.45
6:I:303:ALA:HB1	6:I:306:PRO:CA	2.46	0.45
5:Q:38:ARG:HA	5:Q:484:THR:CB	2.46	0.45
1:F:486:GLU:C	1:F:488:ILE:N	2.70	0.45
2:Y:374:GLN:HA	2:Y:377:ASN:CB	2.46	0.45
1:L:489:LYS:O	1:L:492:GLU:N	2.48	0.45
4:P:1437:GLU:CB	6:O:487:CYS:H	2.29	0.45
4:P:1494:MET:CB	4:P:1551:TYR:CB	2.95	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:V:1506:VAL:O	4:V:1508:LYS:N	2.47	0.45
4:D:644:ALA:HB2	4:D:702:PRO:C	2.36	0.45
4:D:1487:ASP:O	4:D:1490:GLU:N	2.49	0.45
6:U:234:LEU:CB	6:U:250:VAL:O	2.65	0.45
1:R:453:TYR:N	1:R:453:TYR:C	2.70	0.45
1:R:486:GLU:C	1:R:488:ILE:N	2.70	0.45
4:D:1482:CYS:O	4:D:1485:ALA:HB3	2.17	0.45
4:J:49:ASP:C	4:J:51:ILE:H	2.19	0.45
6:C:231:THR:C	6:C:233:VAL:H	2.18	0.45
1:X:453:TYR:N	1:X:453:TYR:C	2.70	0.45
2:M:342:PRO:O	2:M:344:ASP:N	2.50	0.45
1:R:458:ASP:C	1:R:460:LEU:N	2.66	0.45
4:D:1537:GLN:C	4:D:1539:LEU:N	2.69	0.45
4:J:1486:CYS:O	4:J:1487:ASP:C	2.50	0.45
4:J:1494:MET:CB	4:J:1551:TYR:CB	2.95	0.45
1:X:140:LYS:CA	1:X:149:GLY:CA	2.94	0.45
1:R:371:LYS:HA	4:P:894:ASP:HA	1.98	0.45
4:D:49:ASP:C	4:D:51:ILE:H	2.19	0.45
6:I:503:LEU:O	6:I:504:LYS:CB	2.64	0.45
5:Q:395:GLY:N	5:Q:400:SER:CB	2.80	0.45
2:S:342:PRO:O	2:S:344:ASP:N	2.50	0.45
6:I:234:LEU:CB	6:I:250:VAL:O	2.65	0.45
6:U:503:LEU:O	6:U:504:LYS:CB	2.64	0.45
1:F:492:GLU:CA	1:F:492:GLU:O	2.53	0.45
1:L:447:VAL:O	1:L:450:GLU:CA	2.65	0.45
1:R:447:VAL:O	1:R:450:GLU:CA	2.65	0.45
4:P:1486:CYS:O	4:P:1487:ASP:C	2.50	0.45
4:P:1487:ASP:O	4:P:1490:GLU:N	2.50	0.45
4:V:1491:ILE:O	4:V:1492:GLY:C	2.53	0.45
4:V:1494:MET:CB	4:V:1551:TYR:CB	2.95	0.45
4:V:1497:LEU:C	5:W:1361:LEU:N	2.70	0.45
4:D:1491:ILE:O	4:D:1492:GLY:C	2.53	0.45
5:W:395:GLY:N	5:W:400:SER:CB	2.80	0.45
5:K:395:GLY:N	5:K:400:SER:CB	2.80	0.45
1:F:158:ASN:CA	1:F:321:LYS:O	2.62	0.45
1:L:140:LYS:CA	1:L:149:GLY:CA	2.94	0.45
1:L:158:ASN:CA	1:L:321:LYS:O	2.62	0.45
4:V:1518:ASN:O	4:V:1519:SER:C	2.55	0.45
4:J:1472:SER:O	4:J:1473:TYR:C	2.55	0.45
5:E:395:GLY:N	5:E:400:SER:CB	2.80	0.45
1:F:140:LYS:CB	1:F:149:GLY:HA2	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:492:GLU:CA	1:L:492:GLU:O	2.53	0.45
1:R:158:ASN:CA	1:R:321:LYS:O	2.62	0.45
4:V:1493:ARG:N	5:W:1366:SER:CB	2.80	0.45
4:D:1439:ASP:CB	6:C:539:PHE:HA	2.46	0.45
4:D:1518:ASN:O	4:D:1519:SER:C	2.55	0.45
5:K:1056:ALA:HA	6:C:430:SER:HA	1.99	0.45
6:O:303:ALA:HB1	6:O:306:PRO:CA	2.46	0.45
6:O:503:LEU:O	6:O:504:LYS:CB	2.64	0.45
1:F:447:VAL:O	1:F:450:GLU:CA	2.65	0.44
2:G:332:PRO:O	2:G:335:LEU:HA	2.17	0.44
1:X:486:GLU:C	1:X:488:ILE:N	2.70	0.44
2:Y:332:PRO:O	2:Y:335:LEU:HA	2.17	0.44
1:L:140:LYS:CB	1:L:149:GLY:HA2	2.47	0.44
2:M:332:PRO:O	2:M:335:LEU:HA	2.17	0.44
4:P:1482:CYS:O	4:P:1485:ALA:HB3	2.17	0.44
4:V:1482:CYS:O	4:V:1485:ALA:HB3	2.17	0.44
1:X:447:VAL:O	1:X:450:GLU:CA	2.65	0.44
4:P:43:LEU:N	4:V:778:PRO:CA	2.76	0.44
4:P:1539:LEU:O	4:P:1540:LEU:C	2.40	0.44
4:V:62:GLN:CA	5:W:1179:ASP:N	2.73	0.44
5:W:404:LYS:HA	5:W:405:PRO:HA	1.70	0.44
6:C:234:LEU:CB	6:C:250:VAL:O	2.65	0.44
2:G:342:PRO:O	2:G:344:ASP:N	2.50	0.44
1:L:367:THR:C	1:L:367:THR:CB	2.78	0.44
4:P:1518:ASN:O	4:P:1519:SER:C	2.55	0.44
4:J:1504:VAL:O	4:J:1505:SER:C	2.38	0.44
4:J:1517:SER:O	4:J:1518:ASN:C	2.51	0.44
5:K:404:LYS:HA	5:K:405:PRO:HA	1.70	0.44
6:U:303:ALA:HB1	6:U:306:PRO:CA	2.46	0.44
1:L:486:GLU:C	1:L:488:ILE:N	2.70	0.44
4:D:1472:SER:O	4:D:1473:TYR:C	2.55	0.44
4:J:1447:THR:O	4:J:1448:MET:C	2.53	0.44
5:W:1355:ASP:CB	5:W:1358:CYS:CB	2.96	0.44
6:O:588:GLU:HA	6:O:592:SER:O	2.18	0.44
3:Z:374:SER:CB	3:Z:374:SER:H	2.26	0.44
1:L:453:TYR:N	1:L:453:TYR:C	2.70	0.44
2:S:332:PRO:O	2:S:335:LEU:HA	2.17	0.44
4:V:49:ASP:C	4:V:51:ILE:H	2.19	0.44
4:J:1491:ILE:O	4:J:1492:GLY:C	2.53	0.44
6:U:588:GLU:HA	6:U:592:SER:O	2.18	0.44
1:X:140:LYS:CB	1:X:149:GLY:HA2	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:383:SER:N	4:P:884:GLN:CB	2.60	0.44
6:C:230:MET:HA	6:C:233:VAL:CB	2.47	0.44
6:C:588:GLU:HA	6:C:592:SER:O	2.18	0.44
6:O:230:MET:HA	6:O:233:VAL:CB	2.48	0.44
5:Q:1355:ASP:CB	5:Q:1358:CYS:CB	2.96	0.44
1:F:367:THR:C	1:F:367:THR:CB	2.78	0.44
1:F:405:ALA:HB3	1:F:406:ASP:H	1.17	0.44
2:G:325:ALA:C	2:G:325:ALA:CB	2.77	0.44
2:Y:342:PRO:O	2:Y:344:ASP:N	2.50	0.44
2:Y:379:HIS:N	2:Y:379:HIS:CB	2.72	0.44
4:P:1472:SER:O	4:P:1473:TYR:C	2.55	0.44
4:P:1491:ILE:O	4:P:1492:GLY:C	2.53	0.44
4:P:1537:GLN:C	4:P:1539:LEU:N	2.69	0.44
4:D:1486:CYS:O	4:D:1487:ASP:C	2.50	0.44
6:U:230:MET:HA	6:U:233:VAL:CB	2.48	0.44
1:F:450:GLU:C	1:F:451:GLU:C	2.73	0.44
1:R:140:LYS:CB	1:R:149:GLY:HA2	2.47	0.44
4:P:1493:ARG:O	4:P:1494:MET:C	2.47	0.44
4:D:1536:LEU:O	4:D:1539:LEU:CB	2.66	0.44
6:O:234:LEU:CB	6:O:250:VAL:O	2.65	0.44
1:X:450:GLU:O	1:X:451:GLU:O	2.36	0.44
5:K:1355:ASP:CB	5:K:1358:CYS:CB	2.96	0.44
1:F:492:GLU:C	1:F:493:HIS:CA	2.84	0.43
2:Y:366:GLU:CB	2:Y:367:LEU:N	2.81	0.43
2:Y:374:GLN:O	2:Y:377:ASN:CB	2.66	0.43
1:L:447:VAL:CB	1:L:447:VAL:C	2.77	0.43
1:R:492:GLU:C	1:R:493:HIS:CA	2.84	0.43
4:P:1512:TRP:O	4:P:1515:TYR:N	2.51	0.43
4:D:1493:ARG:O	4:D:1494:MET:C	2.47	0.43
4:D:1657:GLN:HA	6:C:451:SER:C	2.38	0.43
4:D:1678:GLY:CA	6:C:459:PRO:CB	2.96	0.43
4:J:1506:VAL:O	4:J:1508:LYS:N	2.47	0.43
4:J:1512:TRP:O	4:J:1515:TYR:N	2.51	0.43
6:I:230:MET:HA	6:I:233:VAL:CB	2.47	0.43
4:D:1661:ARG:C	6:C:447:ASP:HA	2.39	0.43
4:J:1536:LEU:O	4:J:1539:LEU:CB	2.66	0.43
6:I:588:GLU:HA	6:I:592:SER:O	2.18	0.43
1:R:450:GLU:O	1:R:451:GLU:CA	2.33	0.43
4:V:1504:VAL:O	4:V:1505:SER:C	2.39	0.43
4:V:1512:TRP:O	4:V:1515:TYR:N	2.51	0.43
4:D:1664:ASP:N	4:D:1667:ALA:CB	2.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:455:ILE:C	1:L:457:ALA:H	2.15	0.43
2:S:374:GLN:O	2:S:377:ASN:CB	2.66	0.43
4:P:1675:LEU:HA	6:O:461:LEU:CB	2.39	0.43
5:E:1355:ASP:CB	5:E:1358:CYS:CB	2.96	0.43
1:X:367:THR:CA	1:X:367:THR:O	2.53	0.43
1:X:488:ILE:N	1:X:488:ILE:CB	2.66	0.43
4:V:1428:TYR:C	5:W:1337:ASN:N	2.72	0.43
4:V:1664:ASP:N	4:V:1667:ALA:CB	2.82	0.43
1:R:374:GLN:CA	4:P:897:VAL:N	2.81	0.43
4:P:1441:LEU:O	6:O:183:MET:CB	2.66	0.43
4:V:869:GLU:HA	4:V:872:LEU:O	2.18	0.43
4:V:1536:LEU:O	4:V:1539:LEU:CB	2.66	0.43
4:D:1512:TRP:O	4:D:1515:TYR:N	2.51	0.43
4:D:1537:GLN:O	4:D:1538:SER:C	2.56	0.43
4:D:1660:LEU:CA	6:C:451:SER:H	2.32	0.43
1:R:483:ASP:C	1:R:486:GLU:H	2.22	0.43
1:R:488:ILE:N	1:R:488:ILE:CB	2.66	0.43
2:S:366:GLU:CB	2:S:367:LEU:N	2.81	0.43
4:P:41:LYS:C	4:V:777:GLU:N	2.58	0.43
4:P:1542:PRO:O	4:P:1544:PRO:N	2.52	0.43
4:V:1542:PRO:O	4:V:1544:PRO:N	2.51	0.43
4:D:1485:ALA:O	4:D:1487:ASP:N	2.52	0.43
4:J:1513:LEU:O	4:J:1514:LEU:C	2.50	0.43
1:X:492:GLU:C	1:X:493:HIS:CA	2.84	0.43
2:M:374:GLN:O	2:M:377:ASN:CB	2.66	0.43
3:N:406:LEU:C	3:N:408:SER:N	2.61	0.43
1:R:450:GLU:C	1:R:451:GLU:C	2.73	0.43
4:P:166:LEU:HA	4:V:792:GLY:O	2.18	0.43
4:P:1664:ASP:N	4:P:1667:ALA:CB	2.82	0.43
4:P:1675:LEU:CB	6:O:453:PHE:CB	2.97	0.43
4:V:1427:TYR:CB	5:W:1331:LEU:CA	2.97	0.43
4:V:1430:GLN:CA	5:W:1342:LEU:HA	2.49	0.43
4:V:1472:SER:O	4:V:1473:TYR:C	2.55	0.43
4:J:1542:PRO:C	4:J:1544:PRO:N	2.68	0.43
1:F:483:ASP:C	1:F:486:GLU:H	2.22	0.43
2:G:374:GLN:O	2:G:377:ASN:CB	2.66	0.43
1:X:447:VAL:O	1:X:450:GLU:N	2.52	0.43
1:L:459:LEU:C	1:L:459:LEU:N	2.63	0.43
4:P:1489:HIS:CB	4:P:1492:GLY:N	2.81	0.43
4:P:1536:LEU:O	4:P:1539:LEU:CB	2.66	0.43
4:J:869:GLU:HA	4:J:872:LEU:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:W:73:LEU:CB	6:O:683:LYS:C	2.87	0.43
1:X:140:LYS:O	1:X:149:GLY:HA3	2.19	0.43
1:R:458:ASP:O	1:R:459:LEU:C	2.45	0.43
4:V:1537:GLN:O	4:V:1538:SER:C	2.56	0.43
4:D:341:SER:C	4:D:343:LEU:H	2.22	0.43
4:D:1542:PRO:O	4:D:1544:PRO:N	2.51	0.43
4:J:1542:PRO:O	4:J:1544:PRO:N	2.51	0.43
4:J:1544:PRO:C	4:J:1546:LEU:N	2.72	0.43
1:R:140:LYS:O	1:R:149:GLY:HA3	2.19	0.42
4:P:1537:GLN:O	4:P:1538:SER:C	2.56	0.42
6:O:480:PHE:C	6:O:484:ARG:CB	2.87	0.42
6:U:480:PHE:C	6:U:484:ARG:CB	2.87	0.42
1:X:405:ALA:HB3	1:X:406:ASP:H	1.16	0.42
1:X:489:LYS:O	1:X:492:GLU:CB	2.67	0.42
1:L:450:GLU:C	1:L:451:GLU:C	2.73	0.42
3:N:374:SER:CB	3:N:374:SER:H	2.26	0.42
4:V:69:LYS:CB	5:W:1183:MET:O	2.67	0.42
4:V:1432:ALA:CA	5:W:1336:GLU:CB	2.96	0.42
4:D:1661:ARG:CB	6:C:447:ASP:CA	2.97	0.42
1:F:450:GLU:O	1:F:451:GLU:O	2.36	0.42
4:P:1506:VAL:O	4:P:1508:LYS:N	2.47	0.42
4:V:1544:PRO:C	4:V:1546:LEU:N	2.72	0.42
4:J:1493:ARG:O	4:J:1494:MET:C	2.47	0.42
6:C:480:PHE:C	6:C:484:ARG:CB	2.87	0.42
6:I:480:PHE:C	6:I:484:ARG:CB	2.87	0.42
1:L:483:ASP:C	1:L:486:GLU:H	2.22	0.42
1:R:450:GLU:O	1:R:451:GLU:O	2.36	0.42
4:P:1502:ARG:O	4:P:1503:ILE:C	2.57	0.42
4:V:61:VAL:CB	5:W:1178:LEU:CB	2.97	0.42
4:V:69:LYS:O	5:W:1185:ILE:N	2.49	0.42
4:J:341:SER:C	4:J:343:LEU:H	2.22	0.42
1:F:379:LEU:N	4:D:888:PRO:O	2.38	0.42
1:F:493:HIS:CB	1:F:493:HIS:C	2.60	0.42
1:X:483:ASP:C	1:X:486:GLU:H	2.22	0.42
1:L:447:VAL:O	1:L:450:GLU:N	2.52	0.42
1:L:450:GLU:O	1:L:451:GLU:O	2.36	0.42
4:P:869:GLU:HA	4:P:872:LEU:O	2.19	0.42
4:P:1442:GLU:N	6:O:181:ILE:O	2.22	0.42
4:P:1542:PRO:C	4:P:1544:PRO:N	2.68	0.42
4:V:62:GLN:O	5:W:1181:GLU:C	2.51	0.42
4:V:341:SER:C	4:V:343:LEU:H	2.22	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:V:1491:ILE:C	4:V:1493:ARG:N	2.72	0.42
5:K:1016:ALA:H	6:I:814:MET:CA	2.30	0.42
1:F:422:ASN:CB	1:F:423:ALA:CB	2.94	0.42
1:F:465:GLN:O	1:F:466:HIS:C	2.57	0.42
1:L:489:LYS:O	1:L:492:GLU:CB	2.67	0.42
2:M:366:GLU:CB	2:M:367:LEU:N	2.81	0.42
1:R:493:HIS:CB	1:R:493:HIS:C	2.60	0.42
4:P:341:SER:C	4:P:343:LEU:H	2.22	0.42
4:V:1430:GLN:N	5:W:1342:LEU:HA	2.31	0.42
4:V:1544:PRO:O	4:V:1546:LEU:N	2.52	0.42
4:J:1491:ILE:C	4:J:1493:ARG:N	2.72	0.42
1:F:447:VAL:O	1:F:450:GLU:N	2.52	0.42
2:G:375:ALA:HB1	5:E:1090:SER:HA	2.00	0.42
3:N:463:ALA:N	3:N:463:ALA:C	2.65	0.42
3:N:490:GLN:CB	3:N:490:GLN:O	2.66	0.42
4:P:783:PHE:HA	5:Q:1093:ASN:N	2.26	0.42
4:P:1515:TYR:O	4:P:1516:LEU:C	2.57	0.42
4:P:1692:LEU:C	6:O:297:LEU:O	2.58	0.42
4:V:69:LYS:CB	5:W:1183:MET:C	2.86	0.42
4:D:644:ALA:O	4:D:706:ALA:HB2	2.19	0.42
4:D:1515:TYR:O	4:D:1516:LEU:C	2.57	0.42
4:J:1393:ASP:HA	5:K:1341:VAL:N	2.33	0.42
4:J:1485:ALA:O	4:J:1487:ASP:N	2.52	0.42
4:J:1544:PRO:O	4:J:1546:LEU:N	2.52	0.42
6:O:480:PHE:O	6:O:484:ARG:CB	2.68	0.42
6:O:724:GLN:C	6:O:726:SER:H	2.23	0.42
1:F:140:LYS:O	1:F:149:GLY:HA3	2.19	0.42
1:F:332:GLU:O	1:F:335:ARG:CB	2.68	0.42
2:G:366:GLU:CB	2:G:367:LEU:N	2.81	0.42
3:Z:494:LEU:O	3:Z:498:LYS:CB	2.68	0.42
1:L:140:LYS:O	1:L:149:GLY:HA3	2.19	0.42
1:R:447:VAL:O	1:R:450:GLU:N	2.52	0.42
1:R:458:ASP:C	1:R:459:LEU:C	2.79	0.42
4:V:644:ALA:O	4:V:706:ALA:HB2	2.19	0.42
4:V:1424:SER:CB	5:W:1296:LEU:N	2.39	0.42
4:V:1485:ALA:O	4:V:1487:ASP:N	2.52	0.42
4:D:869:GLU:HA	4:D:872:LEU:O	2.19	0.42
4:D:1657:GLN:CA	6:C:451:SER:CB	2.94	0.42
4:D:1660:LEU:CB	6:C:448:TYR:O	2.68	0.42
6:C:724:GLN:C	6:C:726:SER:H	2.22	0.42
6:U:480:PHE:O	6:U:484:ARG:CB	2.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:318:GLU:C	2:M:320:LYS:N	2.71	0.42
2:S:326:LEU:C	2:S:327:ARG:HA	2.28	0.42
3:T:494:LEU:O	3:T:498:LYS:CB	2.68	0.42
4:D:1544:PRO:O	4:D:1546:LEU:N	2.52	0.42
6:C:234:LEU:C	6:C:252:MET:N	2.73	0.42
6:C:303:ALA:CB	6:C:306:PRO:HA	2.50	0.42
6:I:214:GLU:O	6:I:215:LEU:CB	2.68	0.42
1:X:460:LEU:CB	3:Z:470:PRO:C	2.89	0.42
4:P:1492:GLY:O	4:P:1495:LEU:N	2.53	0.42
6:C:214:GLU:O	6:C:215:LEU:CB	2.68	0.42
6:I:724:GLN:C	6:I:726:SER:H	2.23	0.42
6:O:234:LEU:C	6:O:252:MET:N	2.73	0.42
6:U:214:GLU:O	6:U:215:LEU:CB	2.68	0.42
6:U:234:LEU:C	6:U:252:MET:N	2.73	0.42
3:H:380:GLU:C	3:H:381:LYS:CA	2.72	0.41
1:X:492:GLU:CA	1:X:492:GLU:O	2.52	0.41
4:P:1443:ALA:CB	6:O:182:GLU:O	2.68	0.41
4:P:1544:PRO:O	4:P:1546:LEU:N	2.52	0.41
4:J:61:VAL:CB	5:K:1208:CYS:O	2.68	0.41
6:I:234:LEU:C	6:I:252:MET:N	2.73	0.41
2:G:325:ALA:C	2:G:325:ALA:HA	2.15	0.41
1:X:367:THR:C	1:X:367:THR:CB	2.78	0.41
1:R:460:LEU:CB	3:T:470:PRO:C	2.89	0.41
1:R:489:LYS:O	1:R:492:GLU:CB	2.67	0.41
4:P:644:ALA:O	4:P:706:ALA:HB2	2.19	0.41
4:P:1544:PRO:C	4:P:1546:LEU:N	2.72	0.41
4:V:1517:SER:O	4:V:1518:ASN:C	2.51	0.41
4:D:1489:HIS:CB	4:D:1492:GLY:N	2.81	0.41
4:D:1513:LEU:O	4:D:1514:LEU:C	2.50	0.41
6:C:480:PHE:O	6:C:484:ARG:CB	2.68	0.41
1:F:455:ILE:C	1:F:457:ALA:H	2.15	0.41
1:F:458:ASP:C	1:F:459:LEU:C	2.78	0.41
3:H:490:GLN:CB	3:H:490:GLN:O	2.66	0.41
1:X:458:ASP:C	1:X:459:LEU:C	2.79	0.41
1:L:332:GLU:O	1:L:335:ARG:CB	2.68	0.41
1:L:460:LEU:CB	3:N:470:PRO:C	2.89	0.41
3:N:493:ALA:O	3:N:497:ARG:CB	2.68	0.41
3:N:494:LEU:O	3:N:498:LYS:CB	2.68	0.41
4:P:1485:ALA:O	4:P:1487:ASP:N	2.52	0.41
4:V:812:GLU:C	4:V:814:PRO:N	2.74	0.41
4:V:1513:LEU:O	4:V:1514:LEU:C	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:1661:ARG:CB	6:C:447:ASP:HA	2.50	0.41
4:J:644:ALA:O	4:J:706:ALA:HB2	2.19	0.41
6:O:214:GLU:O	6:O:215:LEU:CB	2.68	0.41
1:F:489:LYS:O	1:F:492:GLU:CB	2.67	0.41
3:H:493:ALA:O	3:H:497:ARG:CB	2.68	0.41
3:H:494:LEU:O	3:H:498:LYS:CB	2.68	0.41
1:X:460:LEU:O	1:X:461:ARG:O	2.39	0.41
3:Z:493:ALA:O	3:Z:497:ARG:CB	2.68	0.41
4:V:1421:LEU:CB	5:W:1371:VAL:CB	2.96	0.41
4:V:1537:GLN:C	4:V:1539:LEU:N	2.69	0.41
4:D:1539:LEU:O	4:D:1540:LEU:C	2.40	0.41
6:C:279:HIS:HA	6:C:283:LEU:HA	2.02	0.41
5:Q:404:LYS:HA	5:Q:405:PRO:HA	1.70	0.41
1:X:332:GLU:O	1:X:335:ARG:CB	2.68	0.41
3:N:408:SER:C	3:N:410:LEU:N	2.74	0.41
1:X:453:TYR:O	1:X:455:ILE:N	2.54	0.41
1:X:465:GLN:O	1:X:466:HIS:C	2.57	0.41
2:Y:318:GLU:C	2:Y:320:LYS:N	2.71	0.41
1:R:460:LEU:O	1:R:461:ARG:O	2.39	0.41
4:P:812:GLU:C	4:P:814:PRO:N	2.74	0.41
4:V:1502:ARG:O	4:V:1503:ILE:C	2.57	0.41
4:J:1394:SER:N	5:K:1342:LEU:CB	2.83	0.41
6:U:724:GLN:C	6:U:726:SER:H	2.22	0.41
1:F:381:ASP:O	4:D:884:GLN:HA	2.20	0.41
1:L:422:ASN:CB	1:L:423:ALA:CB	2.94	0.41
1:R:332:GLU:O	1:R:335:ARG:CB	2.68	0.41
1:R:384:HIS:O	4:P:880:GLU:N	2.47	0.41
4:P:41:LYS:CB	4:V:776:TYR:HA	2.51	0.41
6:I:480:PHE:O	6:I:484:ARG:CB	2.68	0.41
2:M:326:LEU:C	2:M:327:ARG:HA	2.28	0.41
4:V:1544:PRO:C	4:V:1546:LEU:H	2.24	0.41
4:V:1549:ALA:O	5:W:1362:VAL:CB	2.68	0.41
4:D:812:GLU:C	4:D:814:PRO:N	2.74	0.41
4:J:812:GLU:C	4:J:814:PRO:N	2.74	0.41
4:J:1664:ASP:N	4:J:1667:ALA:CB	2.82	0.41
1:F:460:LEU:CB	3:H:470:PRO:C	2.89	0.41
2:G:318:GLU:C	2:G:320:LYS:N	2.71	0.41
2:G:379:HIS:N	2:G:379:HIS:CB	2.72	0.41
3:H:408:SER:C	3:H:410:LEU:N	2.74	0.41
3:Z:408:SER:C	3:Z:410:LEU:N	2.74	0.41
1:L:453:TYR:O	1:L:455:ILE:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:458:ASP:C	1:L:459:LEU:C	2.78	0.41
3:T:493:ALA:O	3:T:497:ARG:CB	2.68	0.41
4:P:1509:GLN:O	4:P:1510:GLN:C	2.45	0.41
4:P:1563:VAL:O	4:P:1569:GLY:HA3	2.21	0.41
4:V:1496:ALA:CB	5:W:1368:SER:H	2.31	0.41
4:D:1491:ILE:C	4:D:1493:ARG:N	2.73	0.41
4:D:1492:GLY:O	4:D:1495:LEU:N	2.53	0.41
4:D:1544:PRO:C	4:D:1546:LEU:N	2.72	0.41
4:J:1492:GLY:O	4:J:1495:LEU:N	2.53	0.41
4:J:1537:GLN:O	4:J:1538:SER:C	2.56	0.41
5:W:1170:SER:C	5:W:1172:GLN:H	2.24	0.41
6:I:279:HIS:HA	6:I:283:LEU:HA	2.02	0.41
5:E:1170:SER:C	5:E:1172:GLN:H	2.24	0.41
1:F:422:ASN:O	1:F:423:ALA:O	2.39	0.41
4:P:1669:SER:O	6:O:451:SER:N	2.45	0.41
4:V:1431:ILE:O	5:W:1336:GLU:CB	2.60	0.41
4:V:1542:PRO:C	4:V:1544:PRO:N	2.68	0.41
4:J:1515:TYR:O	4:J:1516:LEU:C	2.57	0.41
4:J:1544:PRO:C	4:J:1546:LEU:H	2.24	0.41
5:E:350:ASN:HA	5:E:353:SER:O	2.21	0.41
1:F:459:LEU:C	1:F:459:LEU:N	2.63	0.40
3:H:360:ALA:O	3:H:363:ARG:CB	2.69	0.40
3:H:490:GLN:HA	3:H:493:ALA:H	1.87	0.40
1:X:422:ASN:O	1:X:423:ALA:O	2.39	0.40
2:Y:342:PRO:C	2:Y:344:ASP:H	2.25	0.40
1:L:422:ASN:O	1:L:423:ALA:O	2.39	0.40
2:M:344:ASP:O	2:M:348:ILE:N	2.54	0.40
4:P:1544:PRO:C	4:P:1546:LEU:H	2.24	0.40
4:P:1668:GLY:H	6:O:446:GLU:C	2.24	0.40
4:V:1492:GLY:O	4:V:1495:LEU:N	2.53	0.40
5:W:350:ASN:HA	5:W:353:SER:O	2.21	0.40
6:C:234:LEU:C	6:C:252:MET:CA	2.90	0.40
3:Z:360:ALA:O	3:Z:363:ARG:CB	2.69	0.40
4:P:1690:SER:O	6:O:301:LEU:N	2.54	0.40
4:V:1563:VAL:O	4:V:1569:GLY:HA3	2.21	0.40
5:K:350:ASN:HA	5:K:353:SER:O	2.21	0.40
6:I:303:ALA:CB	6:I:306:PRO:HA	2.50	0.40
2:Y:344:ASP:O	2:Y:348:ILE:N	2.54	0.40
1:L:460:LEU:O	1:L:461:ARG:O	2.38	0.40
3:T:408:SER:C	3:T:410:LEU:N	2.74	0.40
4:V:1489:HIS:CB	4:V:1492:GLY:N	2.81	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:V:1515:TYR:O	4:V:1516:LEU:C	2.57	0.40
6:O:234:LEU:C	6:O:252:MET:CA	2.90	0.40
2:G:344:ASP:O	2:G:348:ILE:N	2.54	0.40
1:R:492:GLU:C	1:R:492:GLU:N	2.66	0.40
2:S:325:ALA:C	2:S:325:ALA:HA	2.15	0.40
2:S:344:ASP:O	2:S:348:ILE:N	2.54	0.40
3:T:360:ALA:O	3:T:363:ARG:CB	2.69	0.40
5:K:326:ALA:CB	5:K:387:LEU:CB	2.95	0.40
5:K:542:HIS:O	5:K:543:GLN:CB	2.69	0.40
6:O:303:ALA:CB	6:O:306:PRO:HA	2.50	0.40
5:E:326:ALA:CB	5:E:387:LEU:CB	2.95	0.40
1:F:460:LEU:O	1:F:461:ARG:O	2.39	0.40
1:L:465:GLN:O	1:L:466:HIS:C	2.57	0.40
4:P:1676:LEU:H	6:O:454:THR:N	2.09	0.40
4:V:1426:LEU:CA	5:W:1341:VAL:CB	2.99	0.40
4:D:1506:VAL:O	4:D:1508:LYS:N	2.47	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	F	329/507 (65%)	295 (90%)	16 (5%)	18 (6%)	1 15
1	L	329/507 (65%)	295 (90%)	16 (5%)	18 (6%)	1 15
1	R	329/507 (65%)	295 (90%)	16 (5%)	18 (6%)	1 15
1	X	329/507 (65%)	295 (90%)	16 (5%)	18 (6%)	1 15
2	G	169/599 (28%)	153 (90%)	11 (6%)	5 (3%)	3 23
2	M	169/599 (28%)	153 (90%)	11 (6%)	5 (3%)	3 23
2	S	169/599 (28%)	153 (90%)	10 (6%)	6 (4%)	3 20

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	Y	169/599 (28%)	153 (90%)	10 (6%)	6 (4%)	3	20
3	H	167/522 (32%)	152 (91%)	8 (5%)	7 (4%)	2	17
3	N	167/522 (32%)	152 (91%)	8 (5%)	7 (4%)	2	17
3	T	167/522 (32%)	152 (91%)	8 (5%)	7 (4%)	2	17
3	Z	167/522 (32%)	152 (91%)	8 (5%)	7 (4%)	2	17
4	D	972/2012 (48%)	911 (94%)	46 (5%)	15 (2%)	8	40
4	J	972/2012 (48%)	911 (94%)	46 (5%)	15 (2%)	8	40
4	P	972/2012 (48%)	911 (94%)	46 (5%)	15 (2%)	8	40
4	V	972/2012 (48%)	911 (94%)	46 (5%)	15 (2%)	8	40
5	E	1027/1391 (74%)	947 (92%)	58 (6%)	22 (2%)	5	30
5	K	1027/1391 (74%)	947 (92%)	58 (6%)	22 (2%)	5	30
5	Q	1027/1391 (74%)	947 (92%)	58 (6%)	22 (2%)	5	30
5	W	1027/1391 (74%)	947 (92%)	58 (6%)	22 (2%)	5	30
6	C	578/819 (71%)	486 (84%)	53 (9%)	39 (7%)	1	12
6	I	578/819 (71%)	486 (84%)	53 (9%)	39 (7%)	1	12
6	O	578/819 (71%)	486 (84%)	52 (9%)	40 (7%)	1	11
6	U	578/819 (71%)	486 (84%)	53 (9%)	39 (7%)	1	12
All	All	12968/23400 (55%)	11776 (91%)	765 (6%)	427 (3%)	5	21

All (427) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	F	148	TRP
1	F	318	ASP
1	F	403	ILE
1	F	405	ALA
1	F	451	GLU
1	F	453	TYR
1	F	454	TYR
1	F	458	ASP
1	F	464	LYS
2	G	276	SER
2	G	327	ARG
2	G	335	LEU
3	H	426	ALA
3	H	466	ASP

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Mol	Chain	Res	Type
1	X	148	TRP
1	X	318	ASP
1	X	403	ILE
1	X	405	ALA
1	X	451	GLU
1	X	453	TYR
1	X	454	TYR
1	X	458	ASP
1	X	464	LYS
2	Y	276	SER
2	Y	327	ARG
2	Y	335	LEU
3	Z	426	ALA
3	Z	466	ASP
1	L	148	TRP
1	L	318	ASP
1	L	403	ILE
1	L	405	ALA
1	L	451	GLU
1	L	453	TYR
1	L	454	TYR
1	L	458	ASP
1	L	464	LYS
2	M	276	SER
2	M	327	ARG
2	M	335	LEU
3	N	426	ALA
3	N	466	ASP
1	R	148	TRP
1	R	318	ASP
1	R	403	ILE
1	R	405	ALA
1	R	451	GLU
1	R	453	TYR
1	R	454	TYR
1	R	458	ASP
1	R	464	LYS
2	S	276	SER
2	S	327	ARG
2	S	335	LEU
3	T	426	ALA
3	T	466	ASP

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Mol	Chain	Res	Type
4	P	47	LYS
4	P	52	SER
4	P	1451	ARG
4	P	1637	GLN
4	P	1662	CYS
4	P	1664	ASP
4	V	47	LYS
4	V	52	SER
4	V	1451	ARG
4	V	1637	GLN
4	V	1662	CYS
4	V	1664	ASP
4	D	47	LYS
4	D	52	SER
4	D	1451	ARG
4	D	1637	GLN
4	D	1662	CYS
4	D	1664	ASP
4	J	47	LYS
4	J	52	SER
4	J	1451	ARG
4	J	1637	GLN
4	J	1662	CYS
4	J	1664	ASP
5	W	332	ARG
5	W	443	LYS
5	W	543	GLN
5	W	802	GLN
5	W	1320	PRO
5	W	1343	ASN
5	W	1351	ASN
5	W	1369	SER
5	K	260	SER
5	K	332	ARG
5	K	443	LYS
5	K	543	GLN
5	K	802	GLN
5	K	1320	PRO
5	K	1343	ASN
5	K	1351	ASN
5	K	1369	SER
6	C	252	MET

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Mol	Chain	Res	Type
6	C	278	LEU
6	C	301	LEU
6	C	382	ASN
6	C	383	THR
6	C	587	LEU
6	C	592	SER
6	C	603	SER
6	C	623	GLU
6	C	652	GLN
6	C	655	ALA
6	C	656	PRO
6	C	661	GLU
6	C	662	ARG
6	C	723	ASN
6	C	764	LYS
6	I	252	MET
6	I	278	LEU
6	I	301	LEU
6	I	382	ASN
6	I	383	THR
6	I	587	LEU
6	I	592	SER
6	I	603	SER
6	I	623	GLU
6	I	652	GLN
6	I	655	ALA
6	I	656	PRO
6	I	661	GLU
6	I	662	ARG
6	I	723	ASN
6	I	764	LYS
6	O	252	MET
6	O	278	LEU
6	O	301	LEU
6	O	382	ASN
6	O	383	THR
6	O	587	LEU
6	O	592	SER
6	O	603	SER
6	O	623	GLU
6	O	652	GLN
6	O	655	ALA

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Mol	Chain	Res	Type
6	O	656	PRO
6	O	661	GLU
6	O	662	ARG
6	O	723	ASN
6	O	764	LYS
6	U	252	MET
6	U	278	LEU
6	U	301	LEU
6	U	382	ASN
6	U	383	THR
6	U	587	LEU
6	U	592	SER
6	U	603	SER
6	U	623	GLU
6	U	652	GLN
6	U	655	ALA
6	U	656	PRO
6	U	661	GLU
6	U	662	ARG
6	U	723	ASN
6	U	764	LYS
5	E	332	ARG
5	E	443	LYS
5	E	543	GLN
5	E	802	GLN
5	E	1320	PRO
5	E	1343	ASN
5	E	1351	ASN
5	E	1369	SER
5	Q	332	ARG
5	Q	443	LYS
5	Q	543	GLN
5	Q	802	GLN
5	Q	1320	PRO
5	Q	1343	ASN
5	Q	1351	ASN
5	Q	1369	SER
1	F	301	PRO
1	F	461	ARG
1	F	492	GLU
2	G	326	LEU
2	G	378	SER

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Mol	Chain	Res	Type
3	H	411	GLU
3	H	494	LEU
1	X	301	PRO
1	X	461	ARG
1	X	492	GLU
2	Y	326	LEU
2	Y	378	SER
3	Z	411	GLU
3	Z	494	LEU
1	L	301	PRO
1	L	461	ARG
1	L	492	GLU
2	M	326	LEU
2	M	378	SER
3	N	411	GLU
3	N	494	LEU
1	R	301	PRO
1	R	461	ARG
1	R	492	GLU
2	S	326	LEU
2	S	378	SER
3	T	411	GLU
3	T	494	LEU
4	P	39	LEU
4	P	718	SER
4	V	39	LEU
4	V	718	SER
4	D	39	LEU
4	D	718	SER
4	J	39	LEU
4	J	718	SER
5	W	260	SER
5	W	312	MET
5	W	415	LYS
5	W	961	GLY
5	W	1235	LEU
5	W	1346	ARG
5	K	312	MET
5	K	415	LYS
5	K	961	GLY
5	K	1235	LEU
5	K	1346	ARG

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Mol	Chain	Res	Type
6	C	179	ASP
6	C	215	LEU
6	C	219	SER
6	C	354	GLU
6	C	368	GLU
6	C	402	ASN
6	C	404	SER
6	C	559	ASP
6	C	602	THR
6	C	649	VAL
6	C	726	SER
6	C	754	ASN
6	I	179	ASP
6	I	215	LEU
6	I	219	SER
6	I	354	GLU
6	I	368	GLU
6	I	402	ASN
6	I	404	SER
6	I	559	ASP
6	I	602	THR
6	I	649	VAL
6	I	679	ILE
6	I	726	SER
6	I	754	ASN
6	O	179	ASP
6	O	215	LEU
6	O	219	SER
6	O	354	GLU
6	O	368	GLU
6	O	402	ASN
6	O	404	SER
6	O	559	ASP
6	O	602	THR
6	O	649	VAL
6	O	726	SER
6	O	754	ASN
6	U	179	ASP
6	U	215	LEU
6	U	219	SER
6	U	354	GLU
6	U	368	GLU

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Mol	Chain	Res	Type
6	U	402	ASN
6	U	404	SER
6	U	559	ASP
6	U	602	THR
6	U	649	VAL
6	U	679	ILE
6	U	726	SER
6	U	754	ASN
5	E	260	SER
5	E	312	MET
5	E	415	LYS
5	E	961	GLY
5	E	1235	LEU
5	E	1346	ARG
5	Q	260	SER
5	Q	312	MET
5	Q	415	LYS
5	Q	961	GLY
5	Q	1235	LEU
5	Q	1346	ARG
1	F	299	ASN
3	H	465	ALA
1	X	299	ASN
3	Z	465	ALA
1	L	299	ASN
1	L	459	LEU
3	N	465	ALA
1	R	299	ASN
3	T	465	ALA
4	P	775	ASP
4	V	775	ASP
4	D	775	ASP
4	J	775	ASP
5	W	204	PRO
5	W	1365	GLN
5	K	204	PRO
5	K	1365	GLN
6	C	308	LEU
6	C	482	MET
6	C	679	ILE
6	C	734	PHE
6	I	308	LEU

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Mol	Chain	Res	Type
6	I	482	MET
6	I	734	PHE
6	O	308	LEU
6	O	482	MET
6	O	679	ILE
6	O	734	PHE
6	U	308	LEU
6	U	482	MET
6	U	734	PHE
5	E	204	PRO
5	E	1365	GLN
5	Q	204	PRO
5	Q	1365	GLN
1	F	234	PRO
1	F	450	GLU
1	F	459	LEU
3	H	497	ARG
1	X	234	PRO
1	X	450	GLU
1	X	459	LEU
1	L	234	PRO
1	L	450	GLU
3	N	497	ARG
1	R	234	PRO
1	R	450	GLU
1	R	459	LEU
3	T	497	ARG
4	P	58	PRO
4	P	536	VAL
4	P	1450	GLU
4	V	58	PRO
4	V	536	VAL
4	V	1450	GLU
4	D	58	PRO
4	D	536	VAL
4	D	1450	GLU
4	J	58	PRO
4	J	536	VAL
4	J	1450	GLU
5	W	40	TYR
5	K	40	TYR
6	C	446	GLU

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Mol	Chain	Res	Type
6	C	561	GLN
6	I	446	GLU
6	I	561	GLN
6	O	446	GLU
6	O	561	GLN
6	U	446	GLU
6	U	561	GLN
5	E	40	TYR
5	Q	40	TYR
3	H	464	PRO
3	Z	464	PRO
3	Z	497	ARG
3	N	464	PRO
3	T	464	PRO
4	P	319	LEU
4	P	1519	SER
4	V	319	LEU
4	V	1519	SER
4	D	319	LEU
4	D	1519	SER
4	J	319	LEU
4	J	1519	SER
5	W	278	PRO
5	W	910	GLN
5	K	278	PRO
5	K	910	GLN
6	C	460	PHE
6	C	800	PRO
6	I	460	PHE
6	I	800	PRO
6	O	460	PHE
6	O	800	PRO
6	U	460	PHE
6	U	800	PRO
5	E	278	PRO
5	E	910	GLN
5	Q	278	PRO
5	Q	910	GLN
1	F	145	GLN
1	X	145	GLN
2	Y	377	ASN
1	L	145	GLN

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Mol	Chain	Res	Type
1	R	145	GLN
2	S	377	ASN
5	W	158	GLN
5	K	158	GLN
6	C	429	SER
6	I	429	SER
6	O	429	SER
6	U	429	SER
5	E	158	GLN
5	Q	158	GLN
4	P	195	VAL
4	V	195	VAL
4	D	195	VAL
4	J	195	VAL
6	C	430	SER
6	I	430	SER
6	O	430	SER
6	U	430	SER
5	W	942	PRO
5	K	942	PRO
5	E	942	PRO
5	Q	942	PRO
5	W	76	PRO
5	K	76	PRO
6	C	276	GLY
6	I	276	GLY
6	O	276	GLY
6	U	276	GLY
5	E	76	PRO
5	Q	76	PRO
1	F	424	PRO
1	X	424	PRO
1	L	424	PRO
1	R	424	PRO
6	O	346	GLY

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

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no oligosaccharides in this entry.

5.6 Ligand geometry

There are no ligands in this entry.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

The following chains have linkage breaks:

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

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	G	379:HIS	C	380:ILE	N	1.99
1	S	379:HIS	C	380:ILE	N	1.99
1	Y	379:HIS	C	380:ILE	N	1.98
1	M	379:HIS	C	380:ILE	N	1.98
1	F	458:ASP	C	459:LEU	N	1.82
1	X	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	G	339:TYR	C	340:ALA	N	1.72
1	Y	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	F	492:GLU	C	493:HIS	N	1.69
1	H	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	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	F	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	L	454:TYR	C	455:ILE	N	1.63
1	G	378:SER	C	379:HIS	N	1.60
1	Y	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	H	412:GLU	C	413:LEU	N	1.16
1	Z	412:GLU	C	413:LEU	N	1.16
1	N	412:GLU	C	413:LEU	N	1.16
1	T	412:GLU	C	413:LEU	N	1.15
1	H	408:SER	C	409:PRO	N	1.13
1	Z	408:SER	C	409:PRO	N	1.13

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	N	408:SER	C	409:PRO	N	1.13
1	T	408:SER	C	409:PRO	N	1.13
1	F	455:ILE	C	456:ASP	N	0.99
1	X	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	F	459:LEU	C	460:LEU	N	0.98
1	X	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

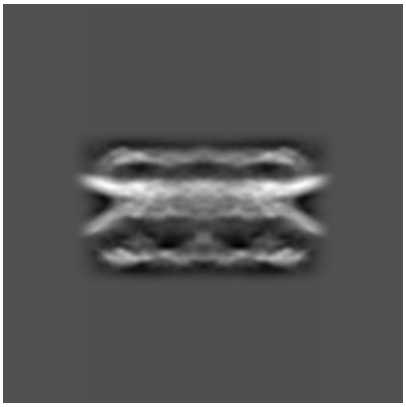
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-12814. These allow visual inspection of the internal detail of the map and identification of artifacts.

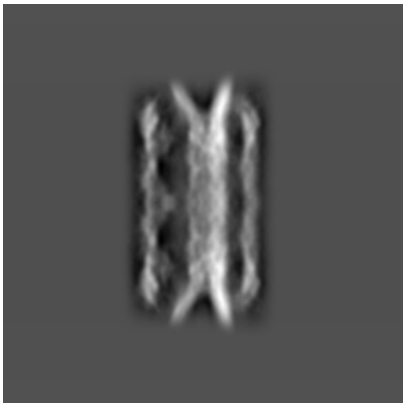
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

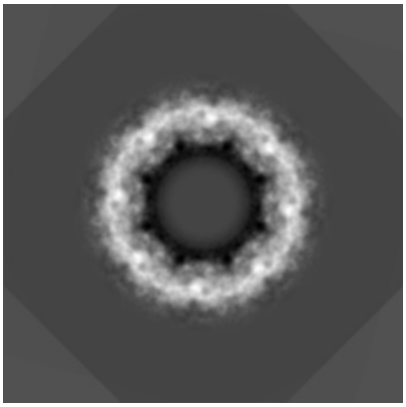
6.1.1 Primary map



X



Y



Z

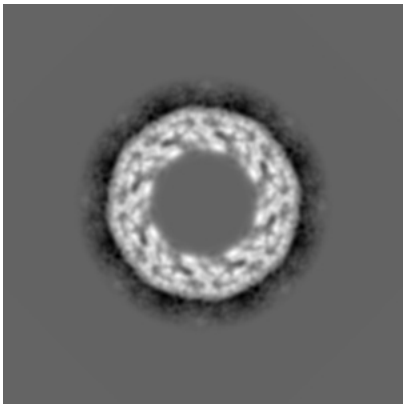
The images above show the map projected in three orthogonal directions.

6.2 Central slices

6.2.1 Primary map

X Index: 160

Y Index: 160



Z Index: 160

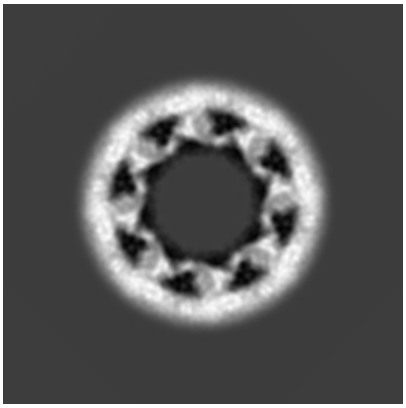
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

6.3.1 Primary map

X Index: 100

Y Index: 220

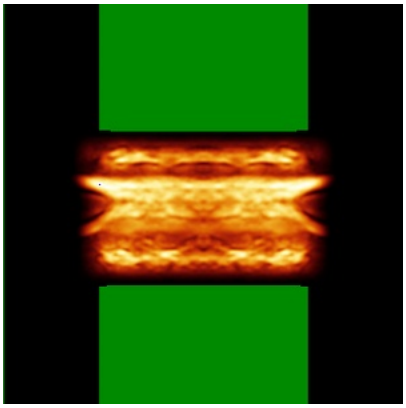


Z Index: 174

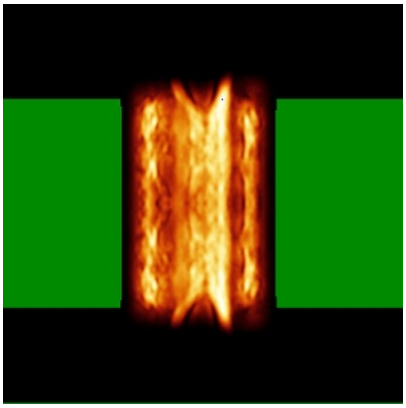
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

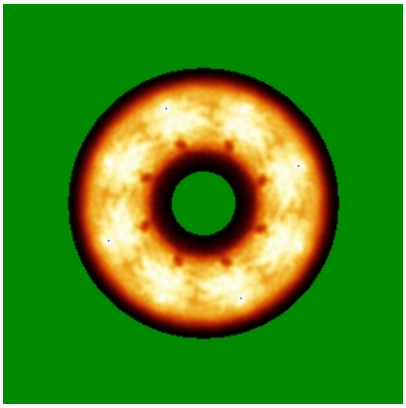
6.4.1 Primary map



X



Y



Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views (i)

6.5.1 Primary map

X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.44. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

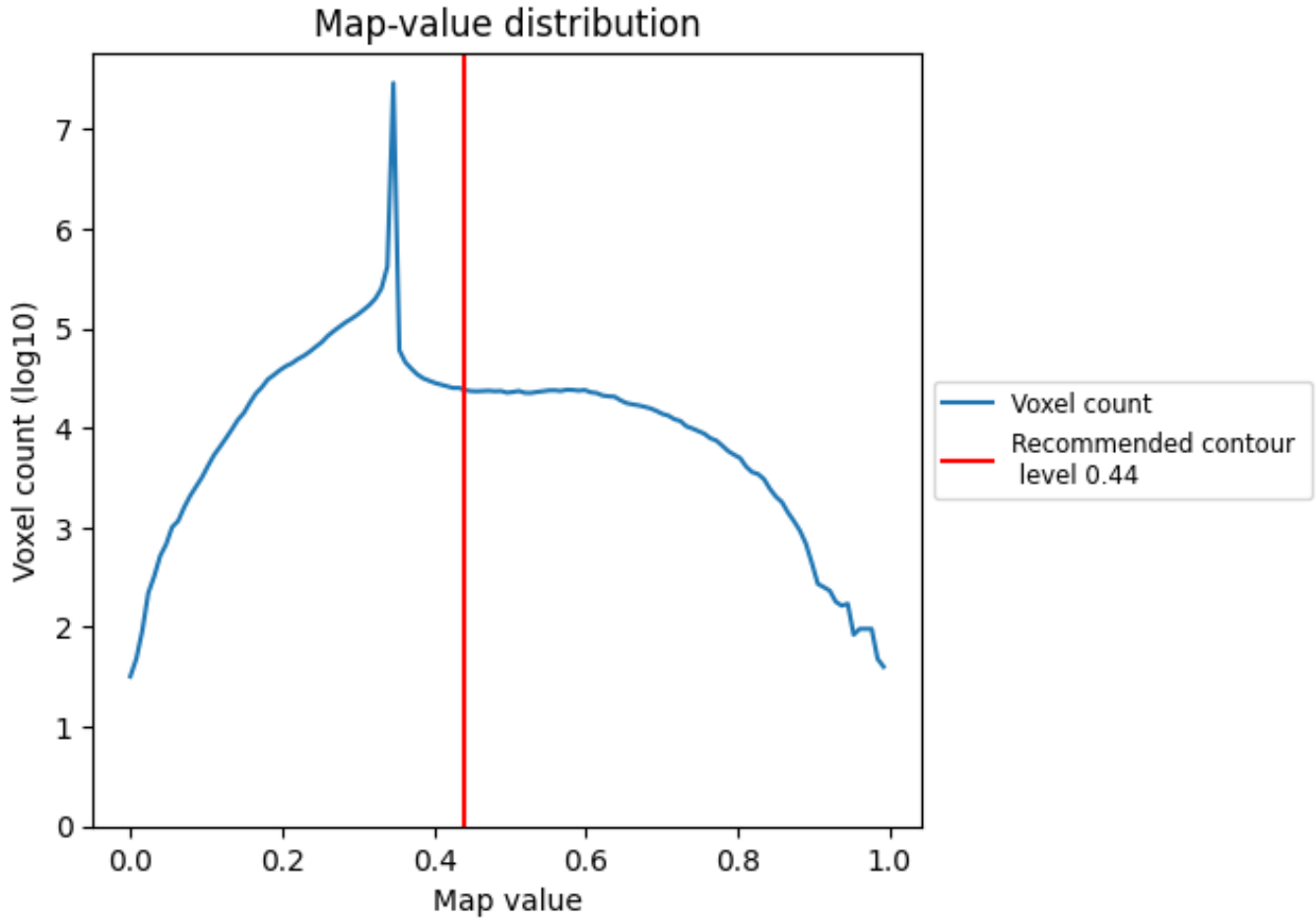
6.6 Mask visualisation (i)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis

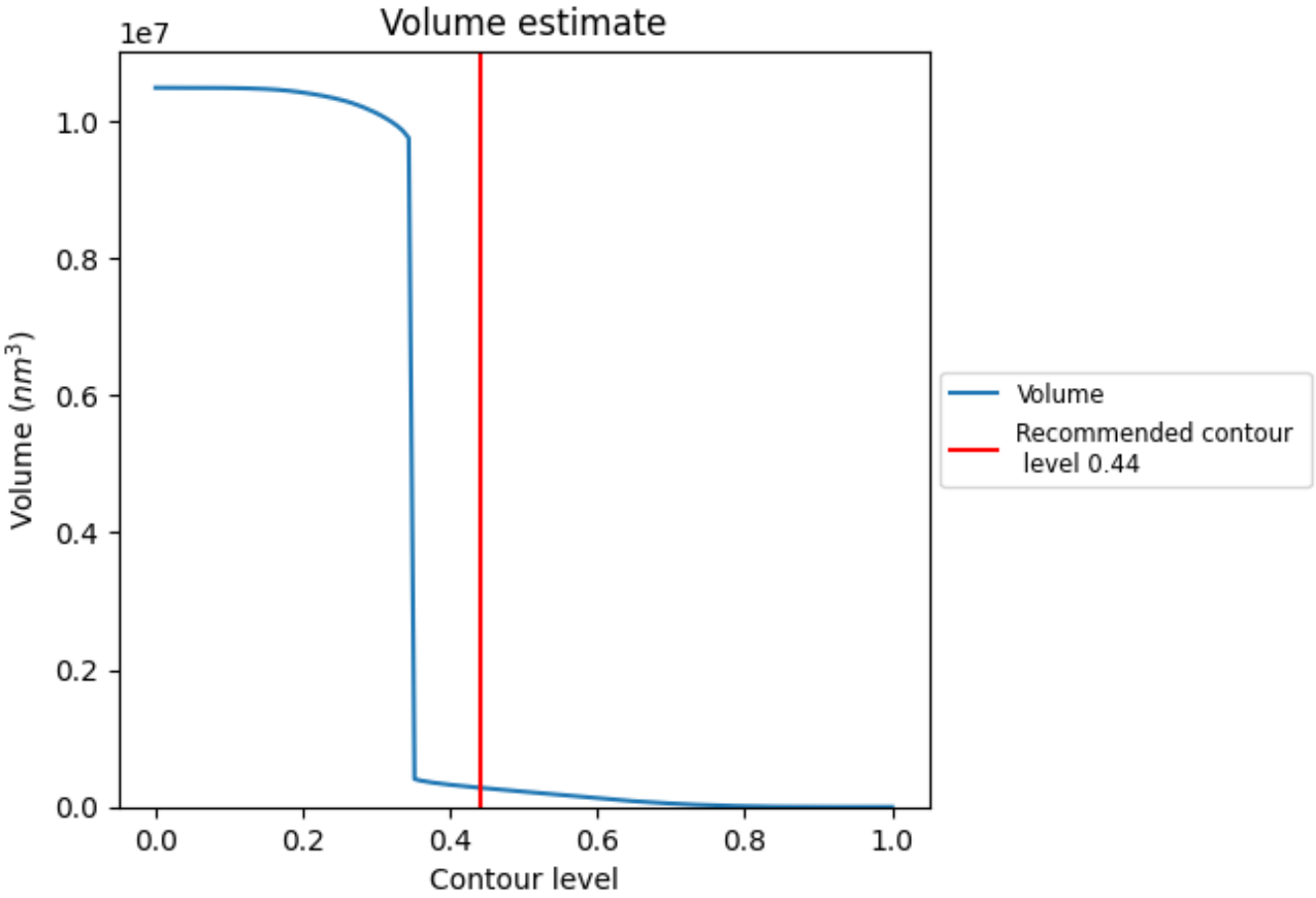
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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.

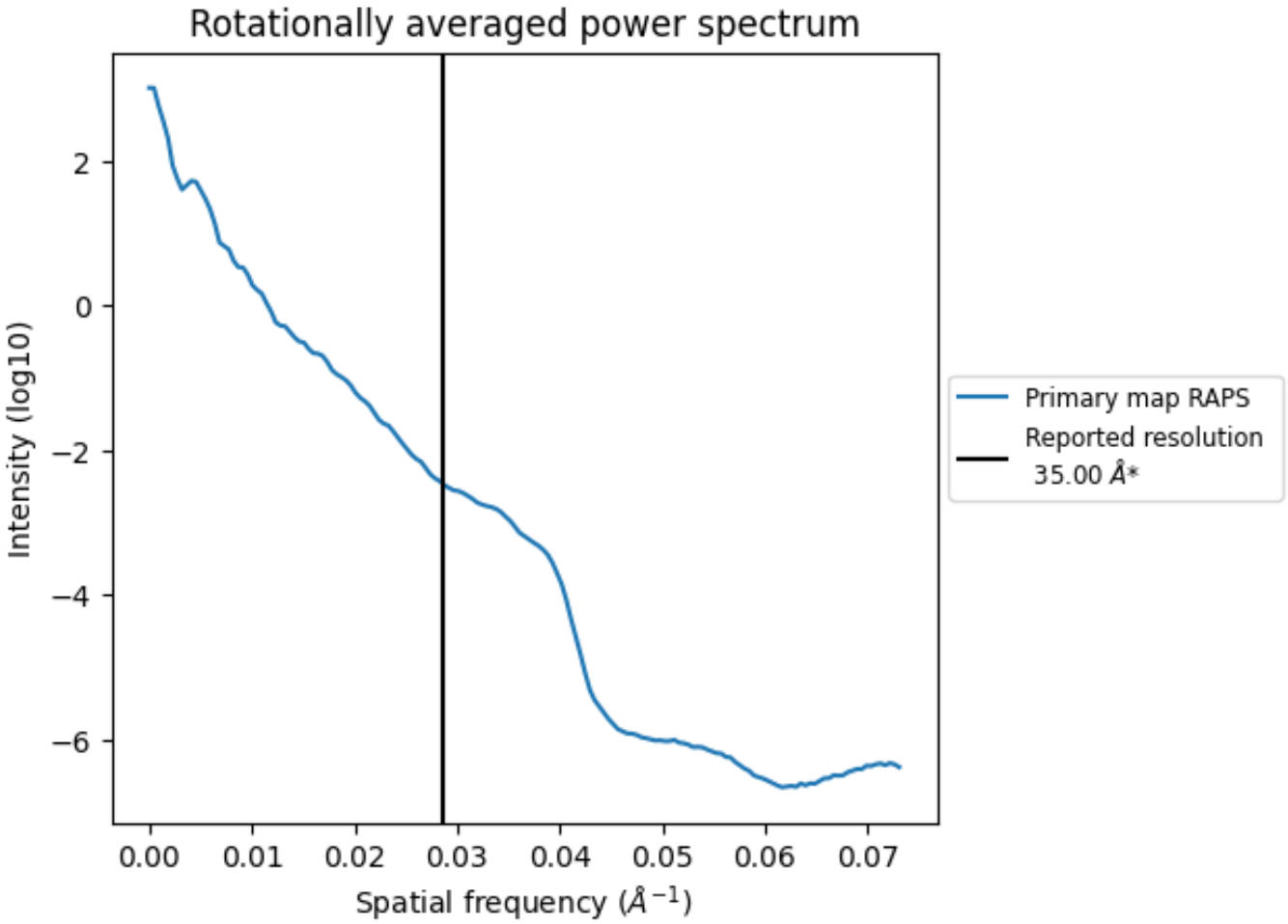
7.2 Volume estimate (i)



The volume at the recommended contour level is 280168 nm^3; this corresponds to an approximate mass of 253083 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 0.029 Å^{-1}

8 Fourier-Shell correlation (i)

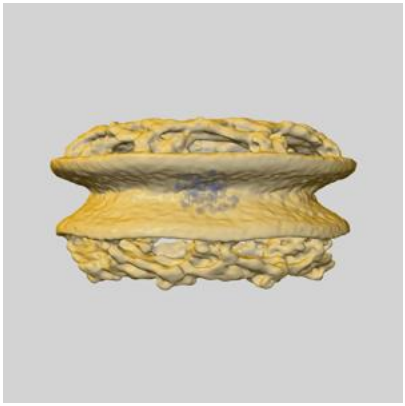
This section was not generated. No FSC curve or half-maps provided.

9 Map-model fit

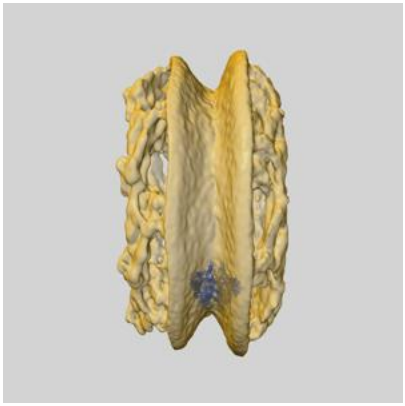
This section contains information regarding the fit between EMDB map EMD-12814 and PDB model 7PER. Per-residue inclusion information can be found in section 3 on page 6.

9.1 Map-model overlays

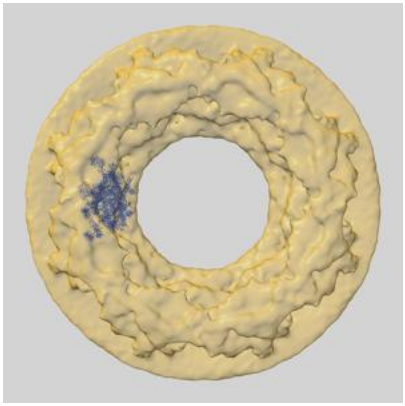
9.1.1 Map-model overlay



X

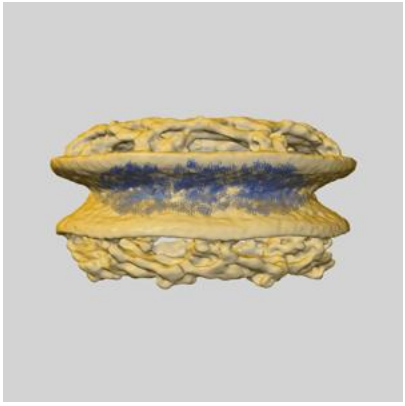


Y

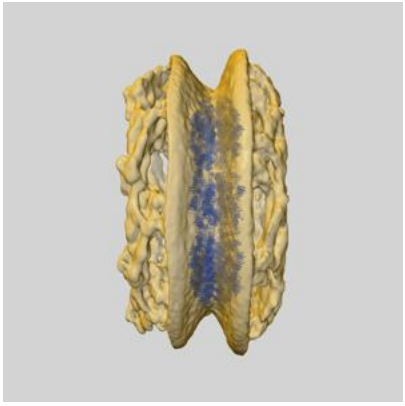


Z

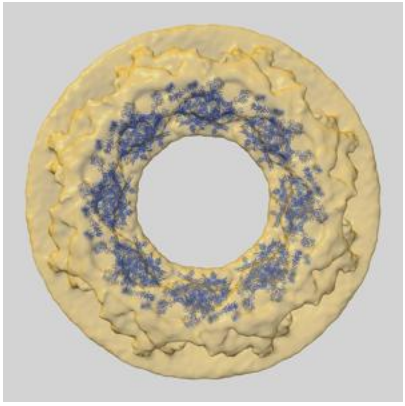
9.1.2 Map-model assembly overlay



X



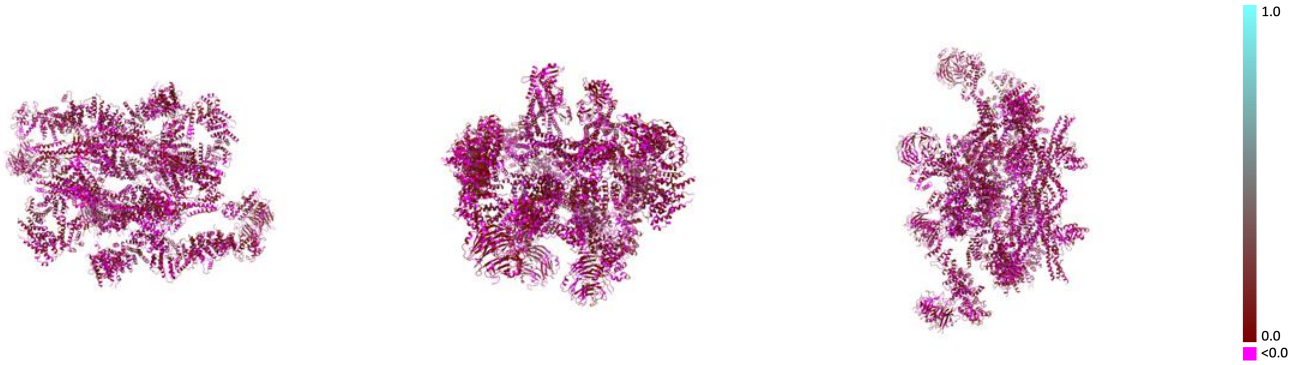
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.44 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.

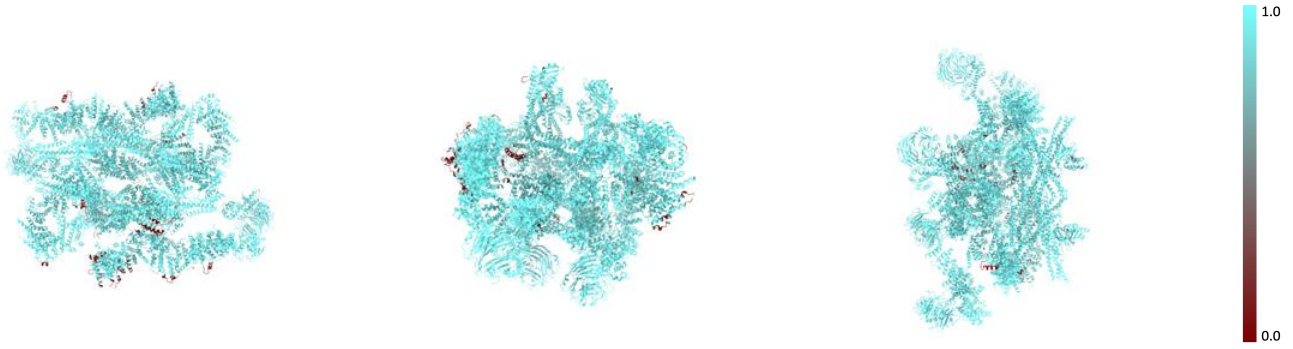
9.2 Q-score mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according 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.

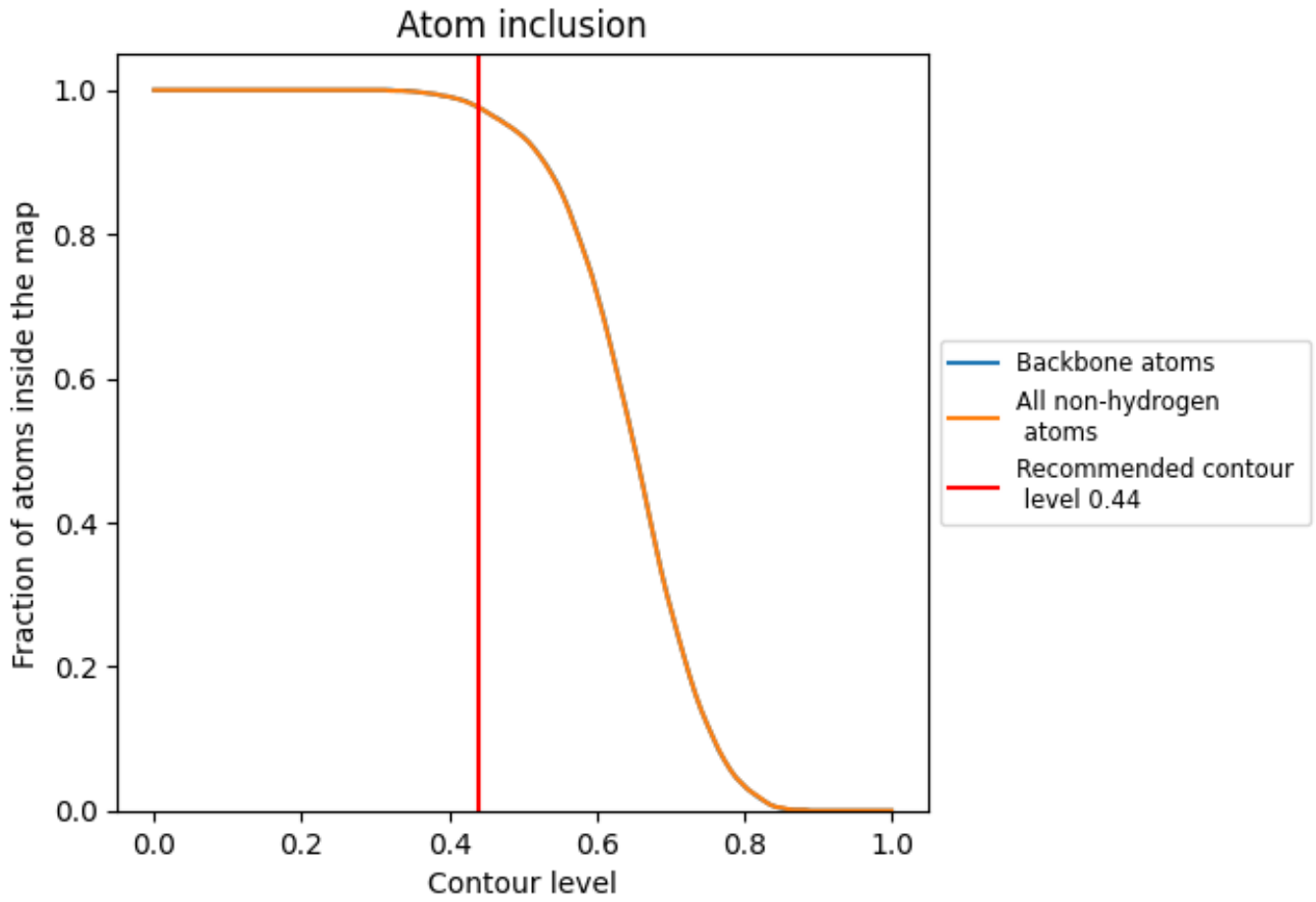
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

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 (0.44).

9.4 Atom inclusion (i)



At the recommended contour level, 98% of all backbone atoms, 98% 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 (0.44) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.9760	0.0380
C	0.9770	0.0380
D	0.9850	0.0400
E	1.0000	0.0360
F	0.9600	0.0120
G	0.9980	0.0210
H	1.0000	0.0010
I	0.9990	0.0550
J	0.8800	0.0400
K	0.9770	0.0320
L	0.9040	0.0170
M	0.9190	-0.0010
N	0.9810	0.0560
O	1.0000	0.0270
P	0.9990	0.0480
Q	0.9920	0.0500
R	0.9930	0.0360
S	1.0000	0.0370
T	1.0000	0.0350
U	0.9980	0.0380
V	0.9320	0.0520
W	0.9990	0.0350
X	0.9920	0.0320
Y	1.0000	0.0180
Z	1.0000	0.0690