



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 8, 2026 – 10:02 AM UTC

PDB ID : 1QUN / pdb_00001qun
Title : X-RAY STRUCTURE OF THE FIMC-FIMH CHAPERONE ADHESIN
COMPLEX FROM UROPATHOGENIC E.COLI
Authors : Choudhury, D.; Thompson, A.; Stojanoff, V.; Langerman, S.; Pinkner, J.;
Hultgren, S.J.; Knight, S.
Deposited on : 1999-07-01
Resolution : 2.80 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

MolProbity	:	4-5-2 with Phenix2.0
Xtriage (Phenix)	:	NOT EXECUTED
EDS	:	NOT EXECUTED
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

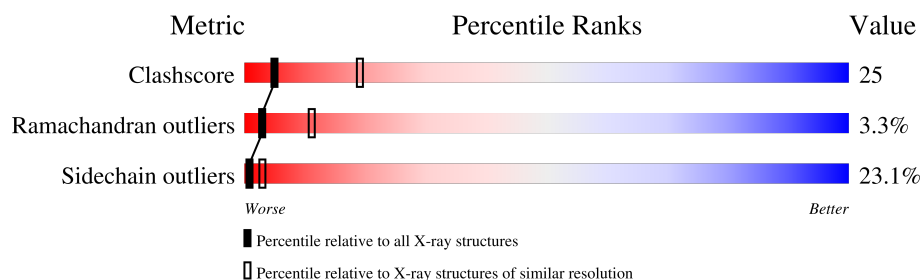
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.80 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)	Similar resolution (#Entries, resolution range(Å))
Clashscore	190562	4276 (2.80-2.80)
Ramachandran outliers	187476	4196 (2.80-2.80)
Sidechain outliers	187428	4198 (2.80-2.80)

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

Note EDS was not executed.

Mol	Chain	Length	Quality of chain
1	A	205	
1	C	205	
1	E	205	
1	G	205	
1	I	205	
1	K	205	
1	M	205	
1	O	205	

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Mol	Chain	Length	Quality of chain
2	B	279	
2	D	279	
2	F	279	
2	H	279	
2	J	279	
2	L	279	
2	N	279	
2	P	279	

2 Entry composition

There are 3 unique types of molecules in this entry. The entry contains 28864 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, 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 PAPD-LIKE CHAPERONE FIMC.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	200	Total	C	N	O	S	5	0	0
			1553	985	268	294	6			
1	C	200	Total	C	N	O	S	5	0	0
			1553	985	268	294	6			
1	E	200	Total	C	N	O	S	5	0	0
			1553	985	268	294	6			
1	G	200	Total	C	N	O	S	5	0	0
			1553	985	268	294	6			
1	I	198	Total	C	N	O	S	177	0	0
			1543	979	266	292	6			
1	K	198	Total	C	N	O	S	176	0	0
			1543	979	266	292	6			
1	M	198	Total	C	N	O	S	177	0	0
			1543	979	266	292	6			
1	O	198	Total	C	N	O	S	177	0	0
			1543	979	266	292	6			

- Molecule 2 is a protein called MANNOSE-SPECIFIC ADHESIN FIMH.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	279	Total	C	N	O	S	42	0	0
			2052	1297	342	409	4			
2	D	279	Total	C	N	O	S	42	0	0
			2052	1297	342	409	4			
2	F	279	Total	C	N	O	S	42	0	0
			2052	1297	342	409	4			
2	H	279	Total	C	N	O	S	42	0	0
			2052	1297	342	409	4			
2	J	279	Total	C	N	O	S	67	0	0
			2052	1297	342	409	4			
2	L	279	Total	C	N	O	S	67	0	0
			2052	1297	342	409	4			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	N	279	Total 2052	C 1297	N 342	O 409	S 4	67	0	0
2	P	279	Total 2052	C 1297	N 342	O 409	S 4	67	0	0

- Molecule 3 is water.

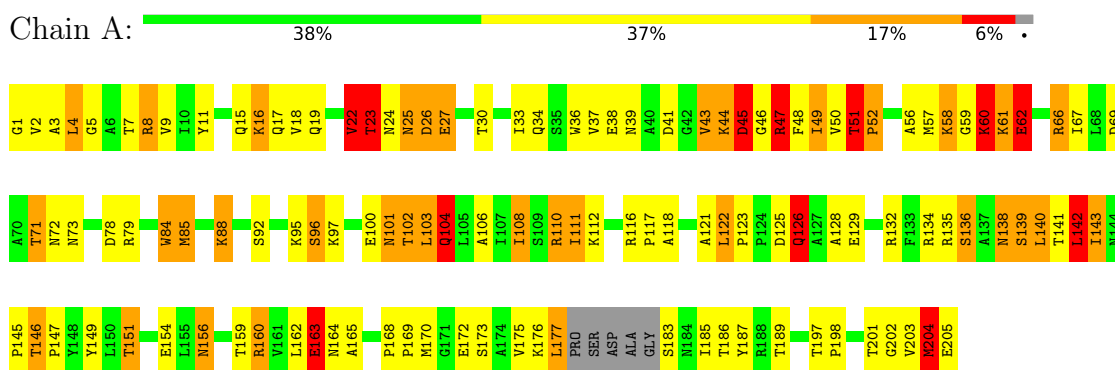
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	5	Total 5	O 5	0	0
3	B	10	Total 10	O 10	0	0
3	C	6	Total 6	O 6	0	0
3	D	11	Total 11	O 11	0	0
3	E	5	Total 5	O 5	0	0
3	F	12	Total 12	O 12	0	0
3	G	5	Total 5	O 5	0	0
3	H	10	Total 10	O 10	0	0

3 Residue-property plots

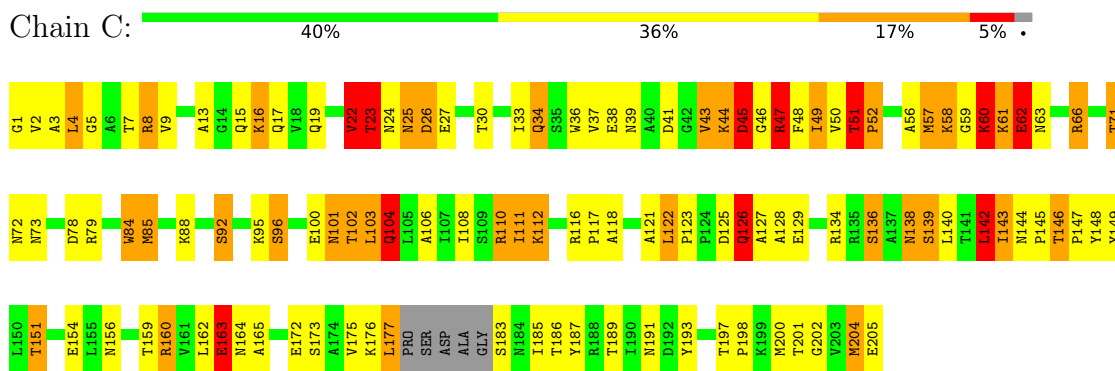
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. Residues are color-coded 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. 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.

Note EDS was not executed.

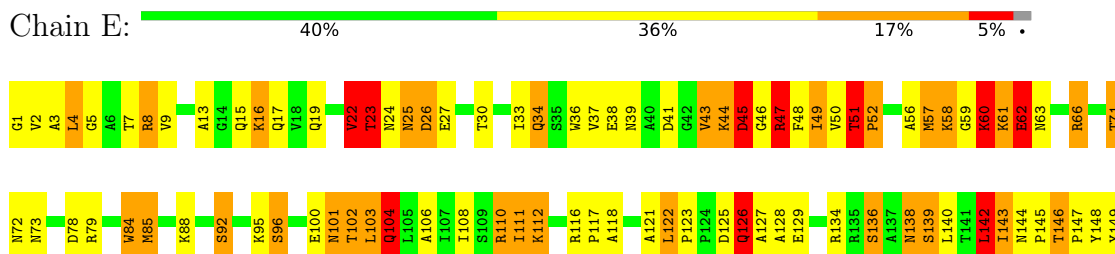
• Molecule 1: PAPD-LIKE CHAPERONE FIMC

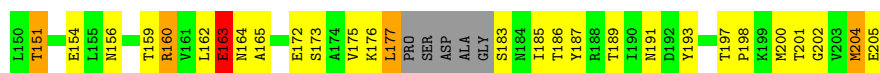


• Molecule 1: PAPD-LIKE CHAPERONE FIMC



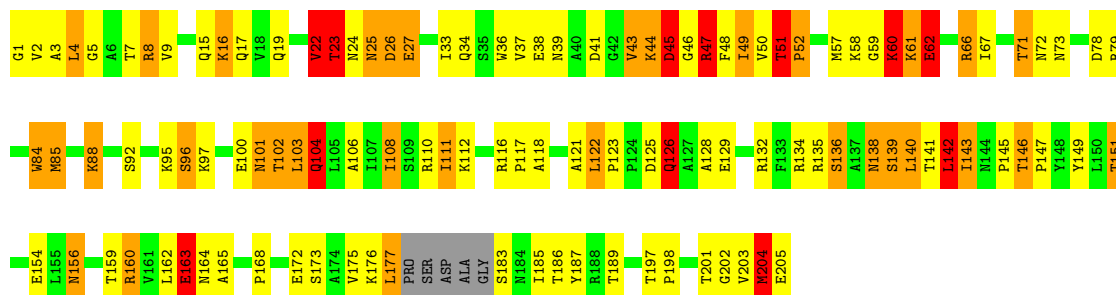
• Molecule 1: PAPD-LIKE CHAPERONE FIMC





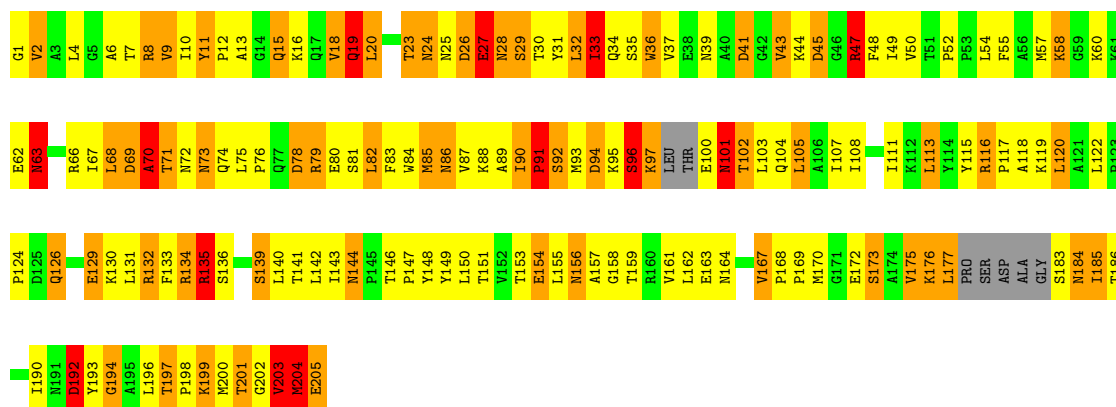
• Molecule 1: PAPD-LIKE CHAPERONE FIMC

Chain G: 41% 35% 16% 6% .



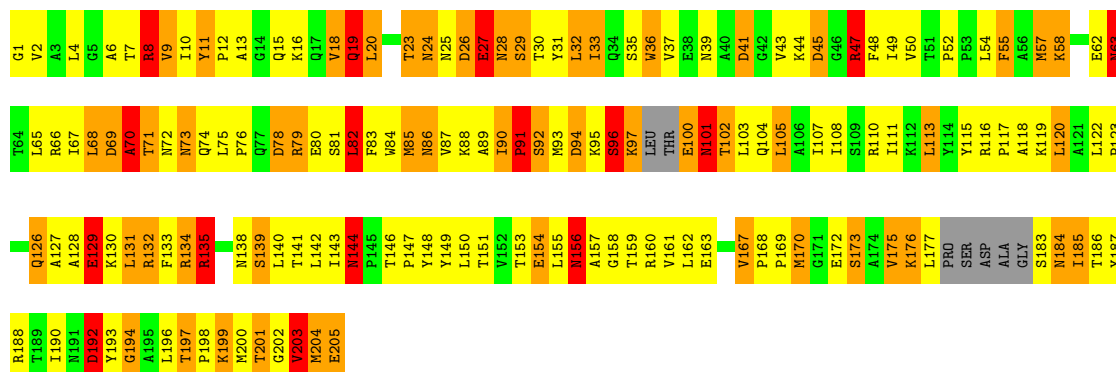
• Molecule 1: PAPD-LIKE CHAPERONE FIMC

Chain I: 20% 42% 27% 6% .

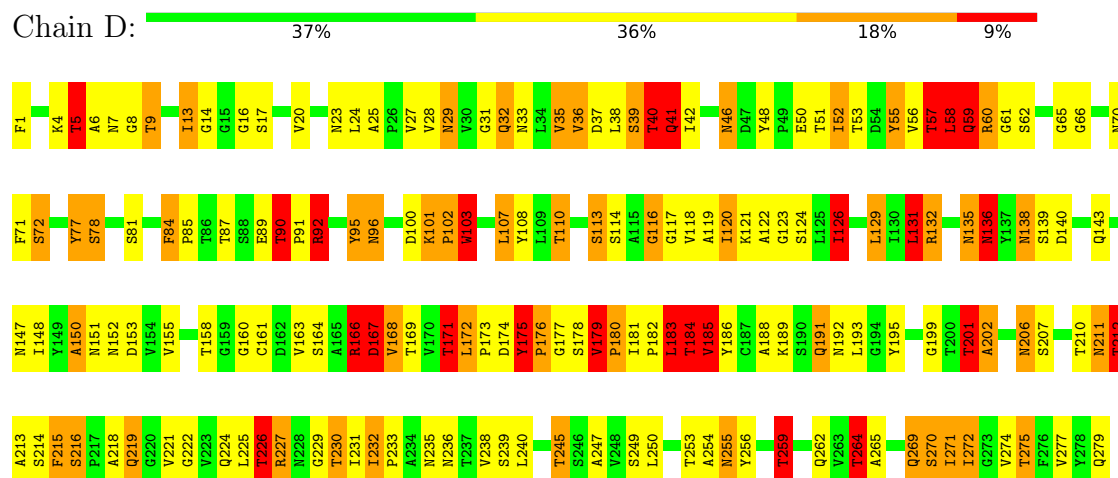


• Molecule 1: PAPD-LIKE CHAPERONE FIMC

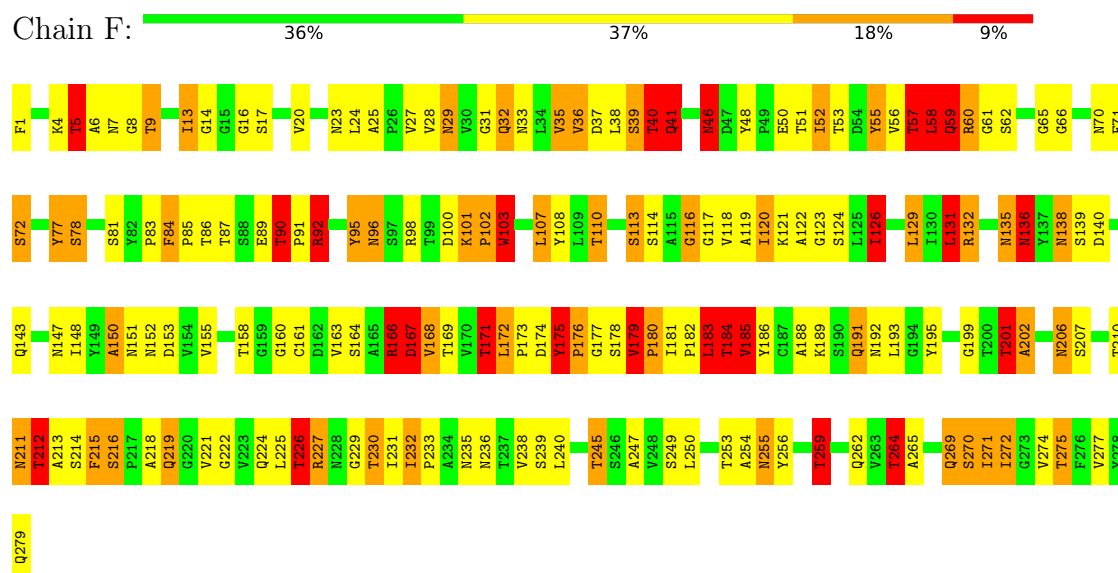
Chain K: 19% 44% 26% 8% .



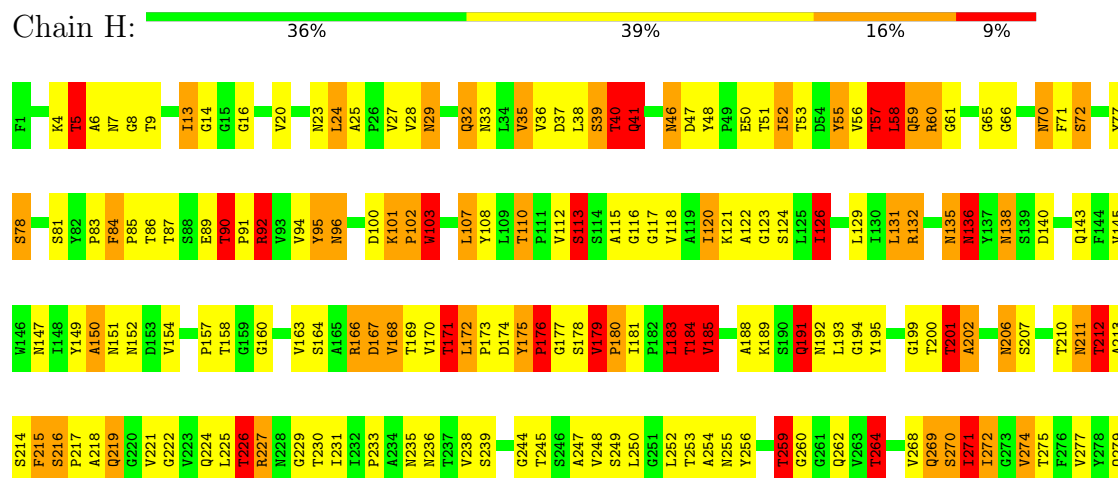
• Molecule 1: PAPD-LIKE CHAPERONE FIMC



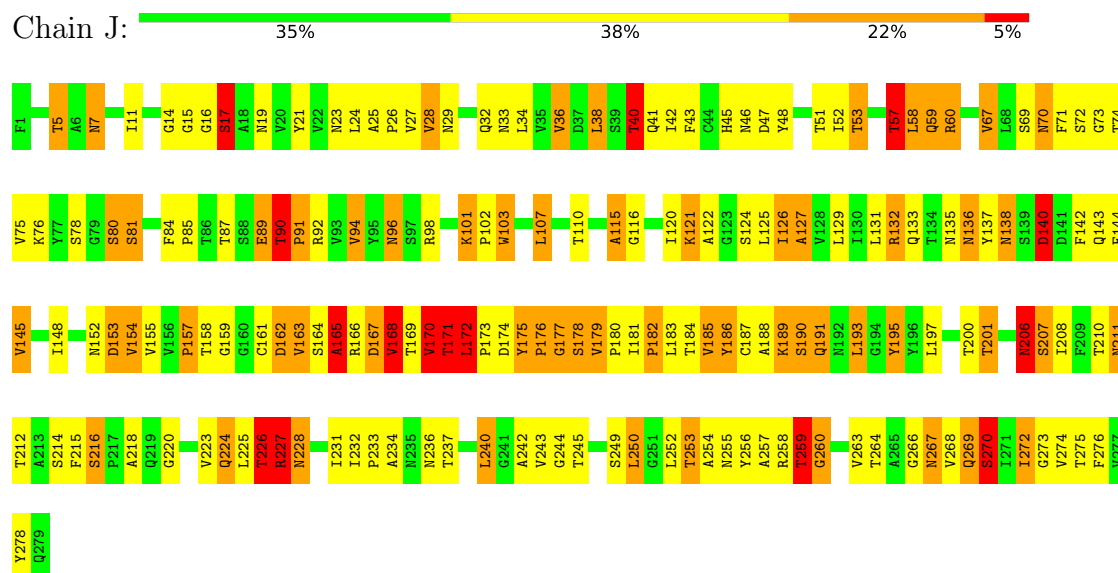
• Molecule 2: MANNOSE-SPECIFIC ADHESIN FIMH



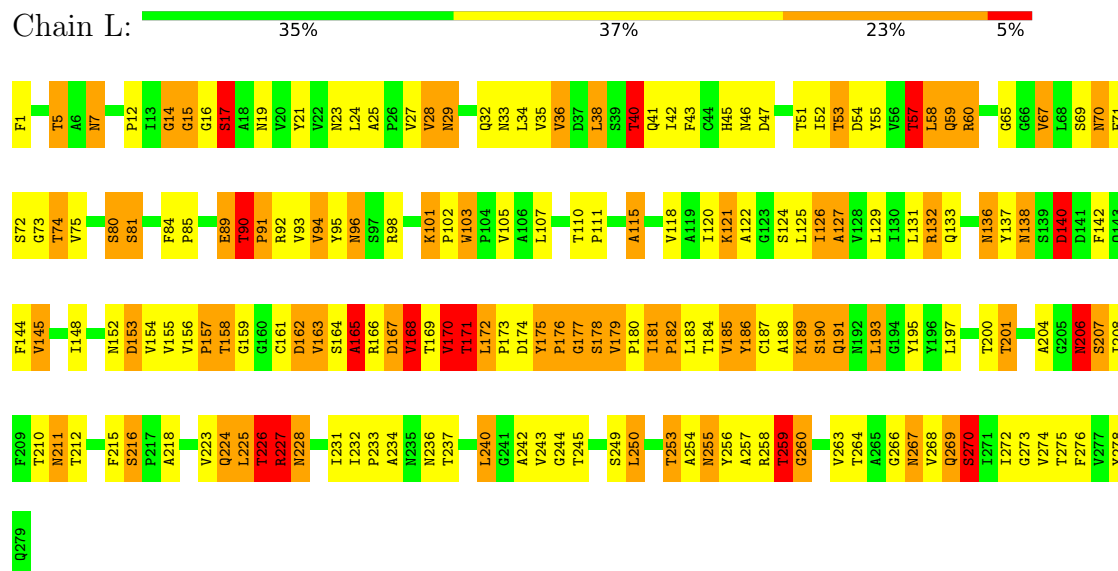
• Molecule 2: MANNOSE-SPECIFIC ADHESIN FIMH



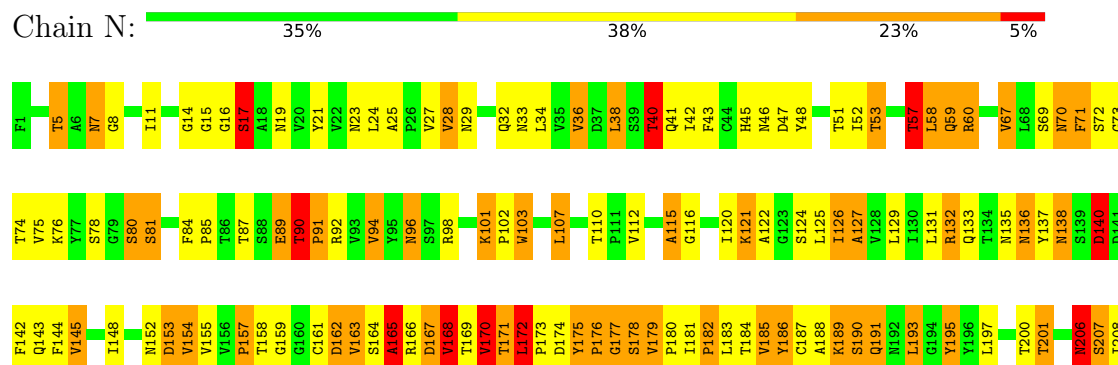
• Molecule 2: MANNOSE-SPECIFIC ADHESIN FIMH

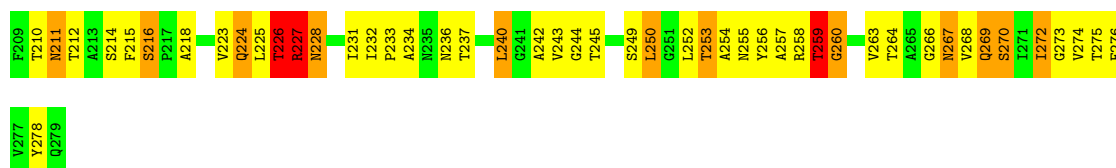


• Molecule 2: MANNOSE-SPECIFIC ADHESIN FIMH



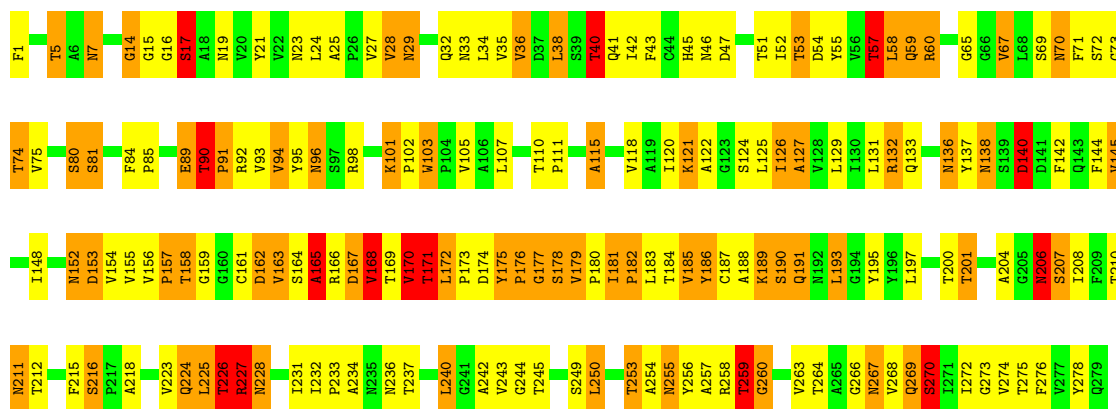
• Molecule 2: MANNOSE-SPECIFIC ADHESIN FIMH





• Molecule 2: MANNOSE-SPECIFIC ADHESIN FIMH

Chain P: 35% 37% 23% 5%



4 Data and refinement statistics

Xtriage (Phenix) and EDS were not executed - this section is therefore incomplete.

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α , β , γ	139.41Å 139.57Å 215.72Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	20.00 – 2.80	Depositor
% Data completeness (in resolution range)	(Not available) (20.00-2.80)	Depositor
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
Refinement program	REFMAC	Depositor
R, R_{free}	0.240 , 0.268	Depositor
Estimated twinning fraction	No twinning to report.	Xtriage
Total number of atoms	28864	wwPDB-VP
Average B, all atoms (Å ²)	45.0	wwPDB-VP

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	A	1.18	3/1580 (0.2%)	3.14	143/2146 (6.7%)
1	C	1.21	4/1580 (0.3%)	3.19	155/2146 (7.2%)
1	E	1.21	4/1580 (0.3%)	3.19	155/2146 (7.2%)
1	G	1.18	3/1580 (0.2%)	3.14	141/2146 (6.6%)
1	I	2.83	14/1568 (0.9%)	3.45	115/2126 (5.4%)
1	K	2.84	16/1568 (1.0%)	3.37	119/2126 (5.6%)
1	M	2.83	14/1568 (0.9%)	3.45	116/2126 (5.5%)
1	O	2.84	16/1568 (1.0%)	3.37	119/2126 (5.6%)
2	B	1.89	7/2097 (0.3%)	3.33	269/2881 (9.3%)
2	D	1.82	8/2097 (0.4%)	3.31	271/2881 (9.4%)
2	F	1.82	8/2097 (0.4%)	3.31	271/2881 (9.4%)
2	H	1.89	7/2097 (0.3%)	3.33	269/2881 (9.3%)
2	J	1.64	5/2096 (0.2%)	3.28	177/2878 (6.2%)
2	L	1.78	5/2097 (0.2%)	3.19	163/2881 (5.7%)
2	N	1.64	5/2096 (0.2%)	3.28	177/2878 (6.2%)
2	P	1.78	5/2097 (0.2%)	3.19	164/2881 (5.7%)
All	All	1.96	124/29366 (0.4%)	3.28	2824/40130 (7.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	4
1	C	0	4
1	E	0	4
1	G	0	4
1	I	1	9
1	K	0	10
1	M	1	9
1	O	0	10
2	B	0	7

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	D	1	7
2	F	1	7
2	H	0	7
2	J	1	4
2	L	1	3
2	N	1	4
2	P	1	3
All	All	8	96

All (124) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	L	167	ASP	C-O	-57.28	0.55	1.23
2	P	167	ASP	C-O	-57.28	0.55	1.23
1	I	26	ASP	CG-OD1	52.96	2.25	1.25
1	M	26	ASP	CG-OD1	52.95	2.25	1.25
1	K	135	ARG	C-N	-51.93	0.58	1.33
1	O	135	ARG	C-N	-51.93	0.58	1.33
1	I	135	ARG	C-N	-49.97	0.63	1.33
1	M	135	ARG	C-N	-49.97	0.63	1.33
1	K	26	ASP	CG-OD1	49.11	2.18	1.25
1	O	26	ASP	CG-OD1	49.11	2.18	1.25
2	J	167	ASP	C-O	-47.69	0.67	1.23
2	N	167	ASP	C-O	-47.69	0.67	1.23
2	B	176	PRO	N-CA	-43.95	0.91	1.47
2	H	176	PRO	N-CA	-43.95	0.91	1.47
1	K	161	VAL	C-N	-43.01	0.71	1.33
1	O	161	VAL	C-N	-43.01	0.71	1.33
2	D	176	PRO	N-CA	-38.60	0.97	1.47
2	F	176	PRO	N-CA	-38.60	0.97	1.47
1	I	156	ASN	CA-C	-38.59	1.01	1.52
1	M	156	ASN	CA-C	-38.58	1.01	1.52
1	K	156	ASN	CG-OD1	-38.35	0.50	1.23
1	O	156	ASN	CG-OD1	-38.35	0.50	1.23
1	I	161	VAL	C-N	-35.21	0.87	1.33
1	M	161	VAL	C-N	-35.21	0.87	1.33
2	L	167	ASP	C-N	31.98	1.77	1.33
2	P	167	ASP	C-N	31.98	1.77	1.33
2	B	172	LEU	N-CA	-31.32	1.01	1.46
2	H	172	LEU	N-CA	-31.27	1.02	1.46
2	D	173	PRO	C-N	-31.00	0.90	1.33
2	F	173	PRO	C-N	-31.00	0.90	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	173	PRO	C-N	-30.29	0.91	1.33
2	H	173	PRO	C-N	-30.29	0.91	1.33
1	K	71	THR	N-CA	-29.48	1.09	1.45
1	O	71	THR	N-CA	-29.48	1.09	1.45
1	M	71	THR	N-CA	-29.13	1.09	1.45
1	I	71	THR	N-CA	-29.11	1.09	1.45
1	I	27	GLU	CA-C	-28.83	1.18	1.53
1	M	27	GLU	CA-C	-28.83	1.18	1.53
2	J	167	ASP	C-N	27.72	1.71	1.33
2	N	167	ASP	C-N	27.72	1.71	1.33
2	D	172	LEU	N-CA	-26.06	1.09	1.46
2	F	172	LEU	N-CA	-26.06	1.09	1.46
1	K	156	ASN	CG-ND2	25.40	1.86	1.33
1	O	156	ASN	CG-ND2	25.40	1.86	1.33
1	K	27	GLU	CA-C	-23.30	1.25	1.53
1	O	27	GLU	CA-C	-23.30	1.25	1.53
1	M	156	ASN	CG-ND2	20.83	1.76	1.33
1	I	156	ASN	CG-ND2	20.82	1.76	1.33
1	I	92	SER	N-CA	19.01	1.70	1.45
1	M	92	SER	N-CA	19.00	1.70	1.45
2	J	173	PRO	N-CA	-18.60	1.23	1.47
2	N	173	PRO	N-CA	-18.60	1.23	1.47
1	I	185	ILE	C-N	-18.47	1.07	1.33
1	M	185	ILE	C-N	-18.47	1.07	1.33
1	I	129	GLU	CG-CD	-18.13	1.06	1.52
1	M	129	GLU	CG-CD	-18.13	1.06	1.52
1	K	129	GLU	CG-CD	-17.65	1.07	1.52
1	O	129	GLU	CG-CD	-17.65	1.07	1.52
1	K	185	ILE	C-N	-17.37	1.09	1.33
1	O	185	ILE	C-N	-17.37	1.09	1.33
2	D	166	ARG	CD-NE	-16.93	1.22	1.46
2	F	166	ARG	CD-NE	-16.93	1.22	1.46
2	L	165	ALA	C-N	-14.38	1.13	1.33
2	P	165	ALA	C-N	-14.38	1.13	1.33
1	K	139	SER	C-N	-13.75	1.14	1.33
1	O	139	SER	C-N	-13.75	1.14	1.33
1	O	92	SER	N-CA	13.15	1.62	1.45
1	K	92	SER	N-CA	13.14	1.62	1.45
1	M	139	SER	C-N	-12.30	1.15	1.33
1	I	139	SER	C-N	-12.27	1.16	1.33
2	D	175	TYR	C-N	-10.42	1.09	1.33
2	F	175	TYR	C-N	-10.40	1.09	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	175	TYR	C-N	-10.03	1.10	1.33
2	H	175	TYR	C-N	-10.03	1.10	1.33
1	M	27	GLU	C-O	9.70	1.34	1.24
1	I	27	GLU	C-O	9.67	1.34	1.24
1	I	156	ASN	CA-CB	9.45	1.69	1.53
1	M	156	ASN	CA-CB	9.45	1.69	1.53
1	C	45	ASP	CA-CB	9.34	1.67	1.53
1	E	45	ASP	CA-CB	9.30	1.67	1.53
1	A	45	ASP	CA-CB	9.06	1.66	1.53
1	G	45	ASP	CA-CB	9.06	1.66	1.53
2	H	166	ARG	CD-NE	-8.54	1.34	1.46
2	B	166	ARG	CD-NE	-8.48	1.34	1.46
1	K	156	ASN	CA-C	-8.45	1.41	1.53
1	O	156	ASN	CA-C	-8.45	1.41	1.53
2	D	176	PRO	CA-CB	-8.31	1.42	1.53
2	F	176	PRO	CA-CB	-8.31	1.42	1.53
2	J	173	PRO	N-CD	8.30	1.59	1.47
2	N	173	PRO	N-CD	8.28	1.59	1.47
1	C	46	GLY	N-CA	8.26	1.57	1.45
1	E	46	GLY	N-CA	8.26	1.57	1.45
2	L	177	GLY	N-CA	-8.21	1.33	1.45
2	P	177	GLY	N-CA	-8.21	1.33	1.45
1	K	27	GLU	C-O	7.99	1.32	1.24
1	O	27	GLU	C-O	7.99	1.32	1.24
2	N	165	ALA	C-N	-7.90	1.22	1.33
2	J	165	ALA	C-N	-7.88	1.22	1.33
1	A	51	THR	C-O	7.79	1.35	1.23
1	G	51	THR	C-O	7.79	1.35	1.23
1	C	51	THR	C-O	7.27	1.34	1.23
1	E	51	THR	C-O	7.27	1.34	1.23
1	K	160	ARG	CG-CD	7.19	1.74	1.52
1	O	160	ARG	CG-CD	7.18	1.74	1.52
1	A	46	GLY	N-CA	6.45	1.54	1.45
1	G	46	GLY	N-CA	6.45	1.54	1.45
1	I	161	VAL	CA-C	-6.41	1.44	1.52
1	M	161	VAL	CA-C	-6.41	1.44	1.52
2	B	222	GLY	N-CA	6.05	1.50	1.45
2	H	222	GLY	N-CA	6.02	1.50	1.45
1	K	47	ARG	CZ-NH2	5.85	1.41	1.33
1	O	47	ARG	CZ-NH2	5.85	1.41	1.33
2	B	14	GLY	N-CA	5.43	1.53	1.45
2	H	14	GLY	N-CA	5.37	1.53	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	14	GLY	N-CA	5.29	1.53	1.45
2	F	14	GLY	N-CA	5.27	1.53	1.45
2	D	185	VAL	N-CA	-5.21	1.40	1.46
2	F	185	VAL	N-CA	-5.21	1.40	1.46
1	C	51	THR	CA-C	-5.08	1.46	1.53
1	E	51	THR	CA-C	-5.08	1.46	1.53
2	L	172	LEU	N-CA	-5.03	1.38	1.45
2	P	172	LEU	N-CA	-5.03	1.38	1.45
1	K	27	GLU	N-CA	5.02	1.52	1.46
1	O	27	GLU	N-CA	5.02	1.52	1.46

All (2824) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	J	165	ALA	O-C-N	-73.91	24.29	122.59
2	N	165	ALA	O-C-N	-73.91	24.30	122.59
2	L	165	ALA	O-C-N	-72.82	25.74	122.59
2	P	165	ALA	O-C-N	-72.82	25.74	122.59
1	C	51	THR	CA-C-O	-71.53	60.10	120.19
1	E	51	THR	CA-C-O	-71.53	60.10	120.19
1	A	51	THR	CA-C-O	-70.58	60.90	120.19
1	G	51	THR	CA-C-O	-70.55	60.93	120.19
2	F	176	PRO	N-CA-CB	54.62	160.60	103.25
2	D	176	PRO	N-CA-CB	54.57	160.54	103.25
2	H	176	PRO	N-CA-CB	51.10	156.90	103.25
2	B	176	PRO	N-CA-CB	51.06	156.87	103.25
2	J	167	ASP	CA-C-O	-49.84	66.27	121.10
2	N	167	ASP	CA-C-O	-49.84	66.27	121.10
2	L	167	ASP	CA-C-O	-49.16	67.02	121.10
2	P	167	ASP	CA-C-O	-49.16	67.02	121.10
1	I	135	ARG	O-C-N	-43.88	64.23	122.59
1	M	135	ARG	O-C-N	-43.88	64.23	122.59
1	O	135	ARG	O-C-N	-42.72	65.78	122.59
1	K	135	ARG	O-C-N	-42.71	65.79	122.59
1	O	70	ALA	CA-C-N	-41.22	53.56	122.81
1	O	70	ALA	C-N-CA	-41.22	53.56	122.81
1	K	70	ALA	CA-C-N	-41.20	53.59	122.81
1	K	70	ALA	C-N-CA	-41.20	53.59	122.81
1	I	70	ALA	CA-C-N	-41.11	53.75	122.81
1	I	70	ALA	C-N-CA	-41.11	53.75	122.81
1	M	70	ALA	CA-C-N	-41.10	53.76	122.81
1	M	70	ALA	C-N-CA	-41.10	53.76	122.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	M	26	ASP	O-C-N	-39.81	69.65	122.59
1	I	26	ASP	O-C-N	-39.77	69.69	122.59
1	K	71	THR	N-CA-CB	-39.42	47.33	111.20
1	O	71	THR	N-CA-CB	-39.42	47.33	111.20
1	K	26	ASP	O-C-N	-38.47	71.42	122.59
1	O	26	ASP	O-C-N	-38.47	71.42	122.59
1	I	71	THR	N-CA-CB	-38.21	49.29	111.20
1	M	71	THR	N-CA-CB	-38.20	49.32	111.20
2	B	175	TYR	CA-C-N	36.16	165.04	119.84
2	B	175	TYR	C-N-CA	36.16	165.04	119.84
2	H	175	TYR	CA-C-N	36.16	165.04	119.84
2	H	175	TYR	C-N-CA	36.16	165.04	119.84
2	D	175	TYR	CA-C-N	32.77	160.80	119.84
2	D	175	TYR	C-N-CA	32.77	160.80	119.84
2	F	175	TYR	CA-C-N	32.75	160.77	119.84
2	F	175	TYR	C-N-CA	32.75	160.77	119.84
1	C	160	ARG	CG-CD-NE	-29.13	47.92	112.00
1	E	160	ARG	CG-CD-NE	-29.13	47.92	112.00
2	D	172	LEU	N-CA-C	-27.27	49.54	109.81
2	F	172	LEU	N-CA-C	-27.27	49.54	109.81
1	I	129	GLU	CB-CG-CD	27.23	158.89	112.60
1	M	129	GLU	CB-CG-CD	27.21	158.85	112.60
2	N	165	ALA	CA-C-N	27.05	170.39	121.70
2	N	165	ALA	C-N-CA	27.05	170.39	121.70
2	J	165	ALA	CA-C-N	27.02	170.34	121.70
2	J	165	ALA	C-N-CA	27.02	170.34	121.70
1	G	160	ARG	CG-CD-NE	-26.96	52.69	112.00
1	A	160	ARG	CG-CD-NE	-26.96	52.70	112.00
1	K	129	GLU	CB-CG-CD	26.51	157.67	112.60
1	O	129	GLU	CB-CG-CD	26.51	157.67	112.60
1	I	156	ASN	N-CA-C	26.33	166.89	110.80
1	M	156	ASN	N-CA-C	26.31	166.84	110.80
2	L	215	PHE	N-CA-CB	25.64	147.49	110.58
2	P	215	PHE	N-CA-CB	25.64	147.49	110.58
2	H	172	LEU	N-CA-C	-25.10	54.34	109.81
2	B	172	LEU	N-CA-C	-25.09	54.35	109.81
1	I	156	ASN	N-CA-CB	-24.89	68.43	110.49
1	M	156	ASN	N-CA-CB	-24.89	68.43	110.49
1	K	26	ASP	CB-CG-OD1	-24.07	63.05	118.40
1	O	26	ASP	CB-CG-OD1	-24.06	63.06	118.40
1	I	26	ASP	CB-CG-OD1	-23.56	64.21	118.40
1	M	26	ASP	CB-CG-OD1	-23.55	64.23	118.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	L	165	ALA	CA-C-N	23.52	166.46	121.54
2	L	165	ALA	C-N-CA	23.52	166.46	121.54
2	P	165	ALA	CA-C-N	23.52	166.46	121.54
2	P	165	ALA	C-N-CA	23.52	166.46	121.54
2	N	215	PHE	N-CA-CB	22.86	141.43	110.57
2	J	215	PHE	N-CA-CB	22.84	141.41	110.57
1	M	27	GLU	CA-C-O	22.37	147.63	120.56
1	I	27	GLU	CA-C-O	22.37	147.62	120.56
2	B	176	PRO	CA-N-CD	-20.98	82.63	112.00
2	H	176	PRO	CA-N-CD	-20.98	82.63	112.00
2	L	172	LEU	N-CA-CB	-20.98	80.83	109.78
2	P	172	LEU	N-CA-CB	-20.98	80.83	109.78
1	K	156	ASN	OD1-CG-ND2	20.77	143.37	122.60
1	O	156	ASN	OD1-CG-ND2	20.77	143.37	122.60
1	I	28	ASN	CA-CB-CG	20.52	133.12	112.60
1	M	28	ASN	CA-CB-CG	20.50	133.09	112.60
1	O	28	ASN	CA-CB-CG	20.10	132.70	112.60
2	N	172	LEU	N-CA-CB	-20.10	74.60	110.37
1	K	28	ASN	CA-CB-CG	20.09	132.69	112.60
2	J	172	LEU	N-CA-CB	-20.08	74.62	110.37
2	F	176	PRO	CA-N-CD	-19.56	84.62	112.00
2	D	176	PRO	CA-N-CD	-19.52	84.67	112.00
2	P	92	ARG	CD-NE-CZ	19.28	151.40	124.40
2	L	92	ARG	CD-NE-CZ	19.27	151.38	124.40
2	J	172	LEU	CA-C-N	18.99	143.57	119.84
2	J	172	LEU	C-N-CA	18.99	143.57	119.84
2	N	172	LEU	CA-C-N	18.99	143.57	119.84
2	N	172	LEU	C-N-CA	18.99	143.57	119.84
1	I	156	ASN	OD1-CG-ND2	18.59	141.19	122.60
1	M	156	ASN	OD1-CG-ND2	18.58	141.18	122.60
1	M	156	ASN	CB-CG-ND2	-18.22	89.08	116.40
1	I	156	ASN	CB-CG-ND2	-18.21	89.08	116.40
1	K	161	VAL	O-C-N	17.53	144.32	122.94
1	O	161	VAL	O-C-N	17.53	144.32	122.94
2	L	176	PRO	CA-C-N	17.30	155.31	121.41
2	L	176	PRO	C-N-CA	17.30	155.31	121.41
2	P	176	PRO	CA-C-N	17.30	155.31	121.41
2	P	176	PRO	C-N-CA	17.30	155.31	121.41
2	N	172	LEU	O-C-N	17.19	141.09	121.32
2	J	172	LEU	O-C-N	17.18	141.08	121.32
1	K	139	SER	O-C-N	-17.09	102.06	123.26
1	O	139	SER	O-C-N	-17.09	102.06	123.26

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	K	27	GLU	CA-C-O	16.82	140.91	120.56
1	O	27	GLU	CA-C-O	16.82	140.91	120.56
2	L	171	THR	CA-C-N	-16.71	87.40	121.48
2	L	171	THR	C-N-CA	-16.71	87.40	121.48
2	P	171	THR	CA-C-N	-16.71	87.40	121.48
2	P	171	THR	C-N-CA	-16.71	87.40	121.48
2	N	92	ARG	CD-NE-CZ	16.53	147.55	124.40
2	J	92	ARG	CD-NE-CZ	16.52	147.53	124.40
1	C	45	ASP	CA-CB-CG	-16.33	96.27	112.60
1	E	45	ASP	CA-CB-CG	-16.32	96.28	112.60
1	M	139	SER	CA-C-N	16.14	149.50	122.07
1	M	139	SER	C-N-CA	16.14	149.50	122.07
1	I	139	SER	CA-C-N	16.12	149.47	122.07
1	I	139	SER	C-N-CA	16.12	149.47	122.07
1	A	45	ASP	CA-CB-CG	-16.09	96.50	112.60
1	G	45	ASP	CA-CB-CG	-16.09	96.50	112.60
2	N	172	LEU	C-N-CD	-16.07	59.13	125.00
2	J	172	LEU	C-N-CD	-16.06	59.15	125.00
2	D	215	PHE	CA-CB-CG	15.96	129.76	113.80
2	F	215	PHE	CA-CB-CG	15.96	129.76	113.80
2	N	172	LEU	N-CA-C	15.64	144.38	109.81
2	J	172	LEU	N-CA-C	15.63	144.36	109.81
1	K	156	ASN	N-CA-CB	-15.50	81.67	109.10
1	O	156	ASN	N-CA-CB	-15.50	81.67	109.10
1	A	163	GLU	CA-CB-CG	15.32	144.74	114.10
1	G	163	GLU	CA-CB-CG	15.32	144.74	114.10
2	B	215	PHE	CA-CB-CG	15.28	129.08	113.80
2	H	215	PHE	CA-CB-CG	15.25	129.05	113.80
2	J	176	PRO	CA-C-N	14.94	150.69	121.41
2	J	176	PRO	C-N-CA	14.94	150.69	121.41
1	K	139	SER	CA-C-N	14.93	150.06	121.54
1	K	139	SER	C-N-CA	14.93	150.06	121.54
1	O	139	SER	CA-C-N	14.93	150.06	121.54
1	O	139	SER	C-N-CA	14.93	150.06	121.54
2	N	176	PRO	CA-C-N	14.92	150.66	121.41
2	N	176	PRO	C-N-CA	14.92	150.66	121.41
2	J	171	THR	CA-C-N	-14.87	85.52	121.80
2	J	171	THR	C-N-CA	-14.87	85.52	121.80
2	N	171	THR	CA-C-N	-14.86	85.54	121.80
2	N	171	THR	C-N-CA	-14.86	85.54	121.80
2	B	46	ASN	CA-CB-CG	14.74	127.34	112.60
2	H	176	PRO	CA-CB-CG	-14.72	76.53	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	176	PRO	CA-CB-CG	-14.71	76.54	104.50
2	H	46	ASN	CA-CB-CG	14.71	127.31	112.60
1	C	51	THR	O-C-N	-14.41	88.79	121.93
1	E	51	THR	O-C-N	-14.41	88.79	121.93
1	G	51	THR	O-C-N	-14.27	89.11	121.93
1	A	51	THR	O-C-N	-14.27	89.12	121.93
1	E	163	GLU	CA-CB-CG	14.17	142.44	114.10
1	C	163	GLU	CA-CB-CG	14.17	142.43	114.10
2	D	177	GLY	N-CA-C	13.53	131.95	112.60
2	F	177	GLY	N-CA-C	13.53	131.95	112.60
1	I	139	SER	O-C-N	-13.42	108.12	123.42
1	M	139	SER	O-C-N	-13.42	108.12	123.42
1	K	156	ASN	CA-C-O	13.41	134.99	120.77
1	O	156	ASN	CA-C-O	13.41	134.99	120.77
2	D	46	ASN	CA-CB-CG	13.38	125.98	112.60
2	F	46	ASN	CA-CB-CG	13.38	125.98	112.60
2	F	176	PRO	CA-CB-CG	-13.19	79.44	104.50
2	D	176	PRO	CA-CB-CG	-13.18	79.45	104.50
1	O	132	ARG	N-CA-CB	-13.18	88.62	111.55
1	K	132	ARG	N-CA-CB	-13.17	88.64	111.55
2	B	126	ILE	CA-CB-CG2	12.97	132.55	110.50
2	H	126	ILE	CA-CB-CG2	12.97	132.55	110.50
1	I	132	ARG	N-CA-CB	-12.93	89.05	111.55
1	M	132	ARG	N-CA-CB	-12.93	89.06	111.55
2	B	185	VAL	CB-CA-C	-12.88	90.08	110.69
2	H	185	VAL	CB-CA-C	-12.88	90.08	110.69
2	B	177	GLY	N-CA-C	12.80	130.90	112.60
2	H	177	GLY	N-CA-C	12.77	130.87	112.60
2	D	126	ILE	CA-CB-CG2	12.72	132.12	110.50
2	F	126	ILE	CA-CB-CG2	12.69	132.07	110.50
2	L	172	LEU	CA-C-O	-12.67	106.69	120.88
2	P	172	LEU	CA-C-O	-12.67	106.69	120.88
2	D	185	VAL	CB-CA-C	-12.54	90.63	110.69
2	F	185	VAL	CB-CA-C	-12.52	90.66	110.69
2	J	94	VAL	N-CA-CB	12.43	124.27	110.72
2	N	94	VAL	N-CA-CB	12.43	124.27	110.72
2	H	236	ASN	CA-CB-CG	12.42	125.02	112.60
2	B	236	ASN	CA-CB-CG	12.38	124.98	112.60
2	F	236	ASN	CA-CB-CG	12.21	124.81	112.60
2	D	236	ASN	CA-CB-CG	12.18	124.78	112.60
1	C	41	ASP	CA-CB-CG	-12.15	100.45	112.60
1	E	41	ASP	CA-CB-CG	-12.15	100.45	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	J	173	PRO	N-CA-CB	11.89	115.73	103.25
2	N	173	PRO	N-CA-CB	11.87	115.71	103.25
2	L	94	VAL	N-CA-CB	11.79	123.57	110.72
2	P	94	VAL	N-CA-CB	11.79	123.57	110.72
2	B	175	TYR	O-C-N	11.76	135.26	121.39
2	H	175	TYR	O-C-N	11.76	135.26	121.39
2	F	175	TYR	CA-C-O	11.58	134.79	120.54
2	B	175	TYR	CA-C-O	11.58	134.78	120.54
2	H	175	TYR	CA-C-O	11.58	134.78	120.54
2	D	175	TYR	CA-C-O	11.58	134.78	120.54
1	E	22	VAL	CB-CA-C	-11.54	92.23	110.69
1	G	22	VAL	CB-CA-C	-11.54	92.73	110.50
1	A	22	VAL	CB-CA-C	-11.54	92.74	110.50
1	C	22	VAL	CB-CA-C	-11.53	92.25	110.69
1	I	161	VAL	O-C-N	11.53	139.71	122.76
1	M	161	VAL	O-C-N	11.53	139.71	122.76
2	H	176	PRO	CB-CA-C	-11.46	92.66	111.56
2	B	176	PRO	CB-CA-C	-11.45	92.67	111.56
1	A	41	ASP	CA-CB-CG	-11.42	101.18	112.60
1	G	41	ASP	CA-CB-CG	-11.42	101.18	112.60
2	P	162	ASP	CA-CB-CG	11.41	124.01	112.60
2	L	215	PHE	CA-CB-CG	11.40	125.20	113.80
2	P	215	PHE	CA-CB-CG	11.40	125.20	113.80
1	K	204	MET	CA-C-N	11.40	142.22	121.70
1	K	204	MET	C-N-CA	11.40	142.22	121.70
1	O	204	MET	CA-C-N	11.40	142.22	121.70
1	O	204	MET	C-N-CA	11.40	142.22	121.70
2	L	162	ASP	CA-CB-CG	11.37	123.97	112.60
2	B	206	ASN	CA-CB-CG	11.34	123.94	112.60
2	H	206	ASN	CA-CB-CG	11.33	123.93	112.60
1	C	72	ASN	CA-CB-CG	11.31	123.91	112.60
1	E	72	ASN	CA-CB-CG	11.30	123.90	112.60
1	G	72	ASN	CA-CB-CG	11.30	123.90	112.60
1	A	72	ASN	CA-CB-CG	11.29	123.89	112.60
1	K	71	THR	N-CA-C	11.28	127.67	109.85
1	O	71	THR	N-CA-C	11.25	127.63	109.85
2	F	175	TYR	O-C-N	11.23	134.64	121.39
2	D	175	TYR	O-C-N	11.21	134.62	121.39
1	O	204	MET	CA-C-O	11.11	136.40	120.51
1	K	204	MET	CA-C-O	11.11	136.40	120.51
1	I	197	THR	N-CA-CB	11.05	122.32	109.72
1	M	197	THR	N-CA-CB	11.03	122.29	109.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	D	168	VAL	CA-C-N	10.98	140.97	121.97
2	D	168	VAL	C-N-CA	10.98	140.97	121.97
2	F	168	VAL	CA-C-N	10.98	140.97	121.97
2	F	168	VAL	C-N-CA	10.98	140.97	121.97
2	H	183	LEU	CA-C-O	10.97	132.81	119.98
2	B	96	ASN	OD1-CG-ND2	-10.97	111.63	122.60
2	H	96	ASN	OD1-CG-ND2	-10.97	111.63	122.60
2	B	183	LEU	CA-C-O	10.96	132.80	119.98
1	K	161	VAL	CA-C-N	-10.84	100.24	122.03
1	K	161	VAL	C-N-CA	-10.84	100.24	122.03
1	C	160	ARG	CB-CG-CD	-10.84	86.37	111.30
1	E	160	ARG	CB-CG-CD	-10.84	86.37	111.30
1	O	161	VAL	CA-C-N	-10.83	100.26	122.03
1	O	161	VAL	C-N-CA	-10.83	100.26	122.03
2	J	60	ARG	CD-NE-CZ	10.81	139.53	124.40
2	N	60	ARG	CD-NE-CZ	10.81	139.53	124.40
2	H	56	VAL	CA-C-O	10.80	131.81	120.36
2	B	56	VAL	CA-C-O	10.76	131.77	120.36
2	D	183	LEU	CA-C-O	10.76	132.56	119.98
2	F	183	LEU	CA-C-O	10.76	132.56	119.98
2	B	199	GLY	O-C-N	-10.75	113.32	123.96
2	H	199	GLY	O-C-N	-10.75	113.32	123.96
2	D	5	THR	N-CA-CB	-10.67	93.78	110.85
2	F	5	THR	N-CA-CB	-10.67	93.78	110.85
1	I	204	MET	CA-C-N	10.66	140.90	121.70
1	I	204	MET	C-N-CA	10.66	140.90	121.70
1	I	204	MET	CA-C-O	10.66	135.76	120.51
1	M	204	MET	CA-C-O	10.66	135.76	120.51
1	M	204	MET	CA-C-N	10.65	140.88	121.70
1	M	204	MET	C-N-CA	10.65	140.88	121.70
2	N	172	LEU	CA-C-O	-10.65	105.57	120.16
2	H	103	TRP	N-CA-CB	10.63	124.16	110.23
2	J	172	LEU	CA-C-O	-10.63	105.60	120.16
2	B	103	TRP	N-CA-CB	10.60	124.12	110.23
2	B	168	VAL	CA-C-N	10.60	140.31	121.97
2	B	168	VAL	C-N-CA	10.60	140.31	121.97
2	H	168	VAL	CA-C-N	10.60	140.31	121.97
2	H	168	VAL	C-N-CA	10.60	140.31	121.97
1	K	197	THR	N-CA-CB	10.56	121.76	109.72
1	O	197	THR	N-CA-CB	10.56	121.76	109.72
2	D	167	ASP	CA-C-N	10.56	140.98	121.97
2	D	167	ASP	C-N-CA	10.56	140.98	121.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	167	ASP	CA-C-N	10.56	140.98	121.97
2	F	167	ASP	C-N-CA	10.56	140.98	121.97
2	H	20	VAL	CA-C-N	10.54	137.50	122.85
2	H	20	VAL	C-N-CA	10.54	137.50	122.85
2	B	20	VAL	CA-C-N	10.52	137.48	122.85
2	B	20	VAL	C-N-CA	10.52	137.48	122.85
1	K	74	GLN	OE1-CD-NE2	-10.47	112.13	122.60
1	O	74	GLN	OE1-CD-NE2	-10.47	112.13	122.60
1	I	74	GLN	OE1-CD-NE2	-10.44	112.16	122.60
1	M	74	GLN	OE1-CD-NE2	-10.44	112.16	122.60
2	B	235	ASN	OD1-CG-ND2	-10.39	112.21	122.60
2	H	235	ASN	OD1-CG-ND2	-10.38	112.22	122.60
2	H	167	ASP	CA-CB-CG	10.33	122.93	112.60
2	H	5	THR	N-CA-CB	-10.31	94.36	110.85
2	B	5	THR	N-CA-CB	-10.30	94.36	110.85
2	B	167	ASP	CA-CB-CG	10.29	122.89	112.60
1	M	192	ASP	CA-CB-CG	10.26	122.86	112.60
1	K	192	ASP	CA-CB-CG	10.26	122.86	112.60
1	O	192	ASP	CA-CB-CG	10.26	122.86	112.60
1	I	192	ASP	CA-CB-CG	10.25	122.85	112.60
2	D	224	GLN	OE1-CD-NE2	-10.24	112.36	122.60
2	F	224	GLN	OE1-CD-NE2	-10.24	112.36	122.60
2	D	20	VAL	CA-C-N	10.24	137.08	122.85
2	D	20	VAL	C-N-CA	10.24	137.08	122.85
2	F	20	VAL	CA-C-N	10.22	137.06	122.85
2	F	20	VAL	C-N-CA	10.22	137.06	122.85
2	D	167	ASP	CA-CB-CG	10.19	122.79	112.60
2	F	167	ASP	CA-CB-CG	10.19	122.79	112.60
2	J	162	ASP	CA-CB-CG	10.17	122.77	112.60
2	B	224	GLN	OE1-CD-NE2	-10.17	112.43	122.60
2	N	162	ASP	CA-CB-CG	10.16	122.76	112.60
2	H	224	GLN	OE1-CD-NE2	-10.15	112.45	122.60
2	F	201	THR	N-CA-CB	-10.12	93.77	111.08
2	D	201	THR	N-CA-CB	-10.11	93.80	111.08
2	J	167	ASP	CA-C-N	-10.05	103.88	121.97
2	J	167	ASP	C-N-CA	-10.05	103.88	121.97
2	J	206	ASN	CA-CB-CG	10.04	122.64	112.60
2	N	167	ASP	CA-C-N	-10.04	103.89	121.97
2	N	167	ASP	C-N-CA	-10.04	103.89	121.97
2	N	206	ASN	CA-CB-CG	10.03	122.63	112.60
2	D	169	THR	N-CA-C	10.02	125.47	110.64
2	F	169	THR	N-CA-C	10.02	125.47	110.64

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	H	179	VAL	CB-CA-C	-10.01	93.14	111.36
2	P	153	ASP	CB-CA-C	-10.00	93.80	109.61
2	B	179	VAL	CB-CA-C	-10.00	93.16	111.36
2	D	262	GLN	CB-CG-CD	10.00	129.60	112.60
2	F	262	GLN	CB-CG-CD	10.00	129.60	112.60
2	L	153	ASP	CB-CA-C	-9.99	93.82	109.61
2	L	126	ILE	CB-CA-C	-9.99	98.96	112.04
2	P	126	ILE	CB-CA-C	-9.99	98.96	112.04
1	G	160	ARG	CB-CG-CD	-9.97	88.37	111.30
1	A	160	ARG	CB-CG-CD	-9.97	88.37	111.30
2	B	108	TYR	CA-C-O	-9.96	109.34	120.70
2	H	108	TYR	CA-C-O	-9.96	109.34	120.70
2	B	236	ASN	OD1-CG-ND2	-9.96	112.64	122.60
1	G	51	THR	N-CA-C	9.96	122.62	110.07
2	D	255	ASN	CA-CB-CG	9.94	122.54	112.60
2	F	255	ASN	CA-CB-CG	9.94	122.54	112.60
1	C	110	ARG	NE-CZ-NH2	9.93	128.14	119.20
1	E	110	ARG	NE-CZ-NH2	9.93	128.14	119.20
1	A	51	THR	N-CA-C	9.93	122.58	110.07
2	H	169	THR	N-CA-C	9.93	125.34	110.64
2	H	236	ASN	OD1-CG-ND2	-9.93	112.67	122.60
2	F	24	LEU	CA-C-O	-9.92	109.29	121.89
2	H	262	GLN	CB-CG-CD	9.92	129.47	112.60
2	B	169	THR	N-CA-C	9.91	125.31	110.64
2	B	262	GLN	CB-CG-CD	9.91	129.45	112.60
2	D	24	LEU	CA-C-O	-9.91	109.31	121.89
1	M	91	PRO	CA-C-N	-9.90	102.64	121.66
1	M	91	PRO	C-N-CA	-9.90	102.64	121.66
1	I	91	PRO	CA-C-N	-9.89	102.66	121.66
1	I	91	PRO	C-N-CA	-9.89	102.66	121.66
2	J	227	ARG	CD-NE-CZ	9.89	138.24	124.40
1	K	91	PRO	CA-C-N	-9.88	103.35	122.02
1	K	91	PRO	C-N-CA	-9.88	103.35	122.02
1	O	91	PRO	CA-C-N	-9.87	103.37	122.02
1	O	91	PRO	C-N-CA	-9.87	103.37	122.02
2	N	126	ILE	CB-CA-C	-9.86	99.00	111.92
2	N	227	ARG	CD-NE-CZ	9.86	138.21	124.40
2	L	206	ASN	CA-CB-CG	9.85	122.45	112.60
2	J	126	ILE	CB-CA-C	-9.85	99.02	111.92
2	L	60	ARG	CD-NE-CZ	9.83	138.16	124.40
2	P	60	ARG	CD-NE-CZ	9.83	138.16	124.40
2	P	206	ASN	CA-CB-CG	9.83	122.43	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	J	40	THR	CA-C-O	9.81	129.84	119.05
2	N	40	THR	CA-C-O	9.80	129.83	119.05
2	J	153	ASP	CB-CA-C	-9.79	94.15	109.61
2	D	179	VAL	CB-CA-C	-9.78	93.55	111.36
2	N	153	ASP	CB-CA-C	-9.78	94.17	109.61
2	F	179	VAL	CB-CA-C	-9.77	93.57	111.36
2	N	47	ASP	CA-CB-CG	-9.75	102.85	112.60
2	J	47	ASP	CA-CB-CG	-9.73	102.87	112.60
2	D	25	ALA	CA-C-O	9.72	127.88	119.71
2	F	25	ALA	CA-C-O	9.71	127.86	119.71
2	F	40	THR	N-CA-CB	-9.70	96.14	110.49
2	D	40	THR	N-CA-CB	-9.68	96.16	110.49
2	B	167	ASP	CA-C-N	9.63	139.31	121.97
2	B	167	ASP	C-N-CA	9.63	139.31	121.97
2	H	167	ASP	CA-C-N	9.63	139.31	121.97
2	H	167	ASP	C-N-CA	9.63	139.31	121.97
2	D	23	ASN	CA-C-O	-9.62	110.06	120.36
2	F	23	ASN	CA-C-O	-9.62	110.06	120.36
2	D	206	ASN	CA-CB-CG	9.59	122.19	112.60
2	F	206	ASN	CA-CB-CG	9.59	122.19	112.60
1	M	172	GLU	CA-C-O	9.56	131.51	121.38
1	I	172	GLU	CA-C-O	9.54	131.49	121.38
1	C	51	THR	N-CA-C	9.52	122.06	110.07
1	E	51	THR	N-CA-C	9.52	122.06	110.07
2	D	103	TRP	N-CA-CB	9.50	123.88	110.01
2	F	103	TRP	N-CA-CB	9.50	123.88	110.01
1	K	185	ILE	CA-C-N	9.48	134.98	121.42
1	K	185	ILE	C-N-CA	9.48	134.98	121.42
1	O	185	ILE	CA-C-N	9.48	134.98	121.42
1	O	185	ILE	C-N-CA	9.48	134.98	121.42
2	L	47	ASP	CA-CB-CG	-9.48	103.12	112.60
2	N	40	THR	N-CA-CB	-9.48	96.72	110.65
2	P	47	ASP	CA-CB-CG	-9.48	103.12	112.60
2	J	40	THR	N-CA-CB	-9.47	96.72	110.65
2	B	235	ASN	CA-CB-CG	-9.40	103.20	112.60
2	F	9	THR	CA-CB-OG1	-9.40	95.49	109.60
2	H	235	ASN	CA-CB-CG	-9.40	103.20	112.60
1	A	173	SER	CA-C-O	-9.39	110.68	121.58
1	G	173	SER	CA-C-O	-9.39	110.68	121.58
2	D	9	THR	CA-CB-OG1	-9.39	95.51	109.60
2	F	108	TYR	CA-C-O	-9.34	110.05	120.70
2	D	188	ALA	O-C-N	-9.34	112.22	122.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	188	ALA	O-C-N	-9.34	112.22	122.12
2	D	108	TYR	CA-C-O	-9.33	110.06	120.70
2	F	56	VAL	CA-C-O	9.33	130.25	120.36
2	D	56	VAL	CA-C-O	9.30	130.22	120.36
2	D	96	ASN	OD1-CG-ND2	-9.22	113.38	122.60
1	A	51	THR	CA-CB-OG1	-9.20	95.79	109.60
1	G	51	THR	CA-CB-OG1	-9.20	95.79	109.60
2	F	96	ASN	OD1-CG-ND2	-9.20	113.41	122.60
2	N	60	ARG	NE-CZ-NH1	9.18	130.68	121.50
2	B	171	THR	CA-C-O	-9.17	107.40	120.51
2	F	235	ASN	CA-CB-CG	-9.17	103.43	112.60
2	J	60	ARG	NE-CZ-NH1	9.16	130.66	121.50
2	D	235	ASN	CA-CB-CG	-9.16	103.44	112.60
2	L	60	ARG	NE-CZ-NH1	9.15	130.65	121.50
2	P	60	ARG	NE-CZ-NH1	9.15	130.65	121.50
2	H	171	THR	CA-C-O	-9.14	107.44	120.51
2	L	167	ASP	CA-C-N	-9.11	105.58	121.97
2	L	167	ASP	C-N-CA	-9.11	105.58	121.97
2	P	167	ASP	CA-C-N	-9.09	105.61	121.97
2	P	167	ASP	C-N-CA	-9.09	105.61	121.97
1	K	172	GLU	CA-C-O	9.09	131.01	121.38
1	O	172	GLU	CA-C-O	9.06	130.99	121.38
2	D	171	THR	CA-C-O	-9.02	107.62	120.51
2	F	171	THR	CA-C-O	-9.02	107.62	120.51
2	L	228	ASN	CA-CB-CG	9.02	121.61	112.60
2	P	228	ASN	CA-CB-CG	9.02	121.61	112.60
2	D	126	ILE	N-CA-CB	-9.01	96.36	111.23
2	F	126	ILE	N-CA-CB	-9.01	96.37	111.23
1	A	26	ASP	CA-CB-CG	8.99	121.59	112.60
1	G	26	ASP	CA-CB-CG	8.99	121.59	112.60
2	B	40	THR	N-CA-CB	-8.99	97.19	110.49
2	H	40	THR	N-CA-CB	-8.97	97.21	110.49
1	A	22	VAL	O-C-N	-8.92	113.55	123.10
2	L	15	GLY	N-CA-C	8.92	123.65	112.14
2	P	15	GLY	N-CA-C	8.92	123.65	112.14
1	G	22	VAL	O-C-N	-8.90	113.57	123.10
1	I	102	THR	CA-C-N	8.90	135.76	122.95
1	I	102	THR	C-N-CA	8.90	135.76	122.95
1	O	102	THR	CA-C-N	8.89	135.75	122.95
1	O	102	THR	C-N-CA	8.89	135.75	122.95
1	K	102	THR	CA-C-N	8.88	135.75	122.95
1	K	102	THR	C-N-CA	8.88	135.75	122.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	M	102	THR	CA-C-N	8.88	135.73	122.95
1	M	102	THR	C-N-CA	8.88	135.73	122.95
2	B	147	ASN	OD1-CG-ND2	-8.85	113.75	122.60
2	J	228	ASN	CA-CB-CG	8.83	121.43	112.60
2	N	228	ASN	CA-CB-CG	8.83	121.43	112.60
2	H	147	ASN	OD1-CG-ND2	-8.81	113.79	122.60
1	C	147	PRO	CB-CA-C	8.77	119.82	110.00
1	E	147	PRO	CB-CA-C	8.77	119.82	110.00
2	F	272	ILE	CA-C-O	-8.72	110.46	120.67
2	B	57	THR	N-CA-CB	-8.72	96.39	111.55
2	D	272	ILE	CA-C-O	-8.71	110.48	120.67
2	H	57	THR	N-CA-CB	-8.70	96.42	111.55
1	I	185	ILE	CA-C-N	8.65	133.79	121.42
1	I	185	ILE	C-N-CA	8.65	133.79	121.42
1	M	185	ILE	CA-C-N	8.65	133.79	121.42
1	M	185	ILE	C-N-CA	8.65	133.79	121.42
2	J	58	LEU	N-CA-CB	8.64	124.65	110.39
2	N	58	LEU	N-CA-CB	8.64	124.65	110.39
2	L	124	SER	CA-C-O	-8.63	111.54	121.47
2	P	124	SER	CA-C-O	-8.62	111.56	121.47
1	E	106	ALA	CA-C-O	-8.61	111.58	120.54
1	C	106	ALA	CA-C-O	-8.60	111.59	120.54
1	C	136	SER	CA-C-O	-8.60	111.85	121.40
1	E	136	SER	CA-C-O	-8.60	111.85	121.40
2	H	9	THR	CA-CB-OG1	-8.55	96.77	109.60
2	F	37	ASP	CA-C-O	-8.54	111.75	120.98
2	B	113	SER	CA-CB-OG	-8.54	94.03	111.10
2	H	113	SER	CA-CB-OG	-8.54	94.03	111.10
2	B	9	THR	CA-CB-OG1	-8.53	96.80	109.60
1	C	121	ALA	CA-C-O	-8.53	112.12	120.90
1	E	121	ALA	CA-C-O	-8.53	112.12	120.90
1	C	110	ARG	CD-NE-CZ	-8.52	112.47	124.40
2	D	37	ASP	CA-C-O	-8.52	111.78	120.98
1	E	110	ARG	CD-NE-CZ	-8.52	112.47	124.40
1	G	163	GLU	CB-CG-CD	8.49	127.03	112.60
1	M	161	VAL	CA-C-N	-8.48	105.11	121.06
1	M	161	VAL	C-N-CA	-8.48	105.11	121.06
1	A	163	GLU	CB-CG-CD	8.47	127.00	112.60
1	K	47	ARG	NE-CZ-NH2	-8.47	111.57	119.20
1	O	47	ARG	NE-CZ-NH2	-8.47	111.57	119.20
2	F	90	THR	N-CA-CB	-8.47	95.30	110.37
1	I	161	VAL	CA-C-N	-8.46	105.16	121.06

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	I	161	VAL	C-N-CA	-8.46	105.16	121.06
1	M	27	GLU	N-CA-C	8.46	124.51	111.56
1	I	27	GLU	N-CA-C	8.46	124.50	111.56
1	K	175	VAL	CA-C-O	-8.46	113.04	121.67
2	D	90	THR	N-CA-CB	-8.45	95.33	110.37
2	B	25	ALA	CA-C-O	8.43	127.77	119.51
2	J	181	ILE	CA-C-O	8.42	124.66	119.19
1	A	106	ALA	CA-C-O	-8.42	111.78	120.54
2	D	176	PRO	CB-CA-C	-8.42	97.67	111.56
2	F	176	PRO	CB-CA-C	-8.42	97.67	111.56
2	H	25	ALA	CA-C-O	8.40	127.74	119.51
1	O	175	VAL	CA-C-O	-8.40	113.11	121.67
1	G	106	ALA	CA-C-O	-8.39	111.81	120.54
1	C	173	SER	CA-C-O	-8.37	111.65	121.44
2	N	181	ILE	CA-C-O	8.37	124.63	119.19
2	D	262	GLN	OE1-CD-NE2	-8.36	114.24	122.60
2	F	262	GLN	OE1-CD-NE2	-8.37	114.23	122.60
1	G	23	THR	CA-CB-CG2	8.36	124.71	110.50
2	D	72	SER	CA-C-N	-8.36	110.03	121.23
2	D	72	SER	C-N-CA	-8.36	110.03	121.23
2	F	72	SER	CA-C-N	-8.36	110.03	121.23
2	F	72	SER	C-N-CA	-8.36	110.03	121.23
1	E	173	SER	CA-C-O	-8.36	111.66	121.44
2	D	226	THR	N-CA-CB	-8.35	96.19	111.13
1	A	23	THR	CA-CB-CG2	8.34	124.68	110.50
1	K	129	GLU	CG-CD-OE2	-8.33	99.24	118.40
1	O	129	GLU	CG-CD-OE2	-8.33	99.24	118.40
2	F	226	THR	N-CA-CB	-8.33	96.22	111.13
2	H	210	THR	CA-CB-OG1	-8.32	97.11	109.60
2	B	210	THR	CA-CB-OG1	-8.32	97.12	109.60
2	B	103	TRP	CA-CB-CG	8.32	129.40	113.60
1	I	71	THR	CA-C-O	-8.32	111.73	121.46
2	H	103	TRP	CA-CB-CG	8.31	129.40	113.60
1	C	23	THR	CA-CB-CG2	8.31	124.63	110.50
2	J	266	GLY	CA-C-O	8.31	126.64	120.91
2	N	266	GLY	CA-C-O	8.31	126.64	120.91
2	D	123	GLY	O-C-N	-8.30	111.57	122.28
2	F	123	GLY	O-C-N	-8.30	111.58	122.28
1	M	71	THR	CA-C-O	-8.30	111.75	121.46
1	K	71	THR	CA-C-O	-8.29	111.76	121.46
1	G	43	VAL	N-CA-CB	8.29	122.00	110.56
1	E	23	THR	CA-CB-CG2	8.28	124.58	110.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	D	173	PRO	CA-C-N	-8.28	105.73	121.54
2	D	173	PRO	C-N-CA	-8.28	105.73	121.54
2	F	173	PRO	CA-C-N	-8.28	105.73	121.54
2	F	173	PRO	C-N-CA	-8.28	105.73	121.54
2	L	167	ASP	O-C-N	8.28	131.66	123.46
2	P	167	ASP	O-C-N	8.28	131.66	123.46
1	O	71	THR	CA-C-O	-8.28	111.78	121.46
1	A	43	VAL	N-CA-CB	8.27	121.98	110.56
2	D	57	THR	N-CA-CB	-8.27	97.17	111.55
2	F	57	THR	N-CA-CB	-8.27	97.17	111.55
2	D	236	ASN	OD1-CG-ND2	-8.26	114.34	122.60
2	F	236	ASN	OD1-CG-ND2	-8.26	114.34	122.60
2	B	226	THR	N-CA-CB	-8.26	97.00	110.71
1	C	41	ASP	CA-C-O	-8.25	109.45	119.43
2	D	110	THR	CB-CA-C	-8.25	100.66	110.15
1	E	41	ASP	CA-C-O	-8.25	109.45	119.43
2	D	167	ASP	O-C-N	-8.24	111.75	122.72
2	H	126	ILE	N-CA-CB	-8.24	96.44	110.86
2	B	262	GLN	OE1-CD-NE2	-8.24	114.36	122.60
2	D	143	GLN	OE1-CD-NE2	-8.24	114.36	122.60
2	F	110	THR	CB-CA-C	-8.24	100.67	110.15
2	F	143	GLN	OE1-CD-NE2	-8.24	114.36	122.60
2	J	152	ASN	OD1-CG-ND2	-8.23	114.37	122.60
2	B	126	ILE	N-CA-CB	-8.23	96.46	110.86
2	H	226	THR	N-CA-CB	-8.23	97.05	110.71
2	H	262	GLN	OE1-CD-NE2	-8.21	114.39	122.60
2	F	167	ASP	O-C-N	-8.21	111.80	122.72
2	B	72	SER	CA-C-N	-8.21	110.23	121.23
2	B	72	SER	C-N-CA	-8.21	110.23	121.23
2	H	72	SER	CA-C-N	-8.21	110.23	121.23
2	H	72	SER	C-N-CA	-8.21	110.23	121.23
2	N	152	ASN	OD1-CG-ND2	-8.19	114.41	122.60
2	B	173	PRO	CA-C-N	-8.18	105.92	121.54
2	B	173	PRO	C-N-CA	-8.18	105.92	121.54
2	H	173	PRO	CA-C-N	-8.18	105.92	121.54
2	H	173	PRO	C-N-CA	-8.18	105.92	121.54
2	J	132	ARG	CD-NE-CZ	8.18	135.85	124.40
2	J	180	PRO	CA-C-O	-8.17	112.42	121.32
2	D	249	SER	CA-C-O	-8.17	112.66	121.56
2	F	249	SER	CA-C-O	-8.17	112.66	121.56
2	L	211	ASN	CA-CB-CG	8.16	120.76	112.60
2	P	19	ASN	CA-CB-CG	8.16	120.76	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	P	211	ASN	CA-CB-CG	8.16	120.76	112.60
2	F	147	ASN	OD1-CG-ND2	-8.15	114.45	122.60
1	K	101	ASN	CA-CB-CG	-8.15	104.45	112.60
2	N	132	ARG	CD-NE-CZ	8.15	135.81	124.40
1	O	101	ASN	CA-CB-CG	-8.15	104.45	112.60
1	A	136	SER	CA-C-O	-8.15	112.36	121.40
2	L	227	ARG	CD-NE-CZ	8.14	135.80	124.40
2	H	37	ASP	CA-C-O	-8.14	112.45	120.92
1	M	144	ASN	CA-CB-CG	8.14	120.74	112.60
2	P	227	ARG	CD-NE-CZ	8.14	135.79	124.40
2	N	180	PRO	CA-C-O	-8.14	112.45	121.32
1	G	136	SER	CA-C-O	-8.13	112.37	121.40
2	L	19	ASN	CA-CB-CG	8.13	120.73	112.60
2	D	147	ASN	OD1-CG-ND2	-8.12	114.48	122.60
2	J	153	ASP	CA-CB-CG	8.12	120.72	112.60
2	P	181	ILE	CA-C-O	8.11	124.46	119.19
1	I	144	ASN	CA-CB-CG	8.10	120.70	112.60
2	L	132	ARG	CD-NE-CZ	8.10	135.75	124.40
2	B	176	PRO	N-CA-C	-8.10	95.78	112.47
2	H	176	PRO	N-CA-C	-8.10	95.78	112.47
2	L	58	LEU	N-CA-CB	8.10	125.63	110.56
2	P	58	LEU	N-CA-CB	8.10	125.63	110.56
2	B	37	ASP	CA-C-O	-8.10	112.50	120.92
1	C	38	GLU	CA-C-O	-8.10	111.76	121.56
1	E	22	VAL	O-C-N	-8.10	114.33	123.00
1	E	38	GLU	CA-C-O	-8.10	111.76	121.56
2	L	181	ILE	CA-C-O	8.10	124.45	119.19
1	C	51	THR	CA-CB-OG1	-8.10	97.45	109.60
2	N	153	ASP	CA-CB-CG	8.10	120.69	112.60
1	A	138	ASN	CA-C-O	8.09	128.97	119.67
2	P	132	ARG	CD-NE-CZ	8.09	135.72	124.40
1	I	71	THR	N-CA-C	8.08	122.62	109.85
1	E	51	THR	CA-CB-OG1	-8.08	97.48	109.60
2	B	90	THR	N-CA-CB	-8.07	96.01	110.37
2	H	90	THR	N-CA-CB	-8.07	96.01	110.37
1	C	22	VAL	O-C-N	-8.06	114.37	123.00
1	G	138	ASN	CA-C-O	8.06	128.93	119.67
2	B	255	ASN	CA-CB-CG	8.05	120.65	112.60
2	D	113	SER	CA-CB-OG	-8.05	95.00	111.10
2	F	113	SER	CA-CB-OG	-8.05	95.00	111.10
2	H	255	ASN	CA-CB-CG	8.05	120.65	112.60
1	M	71	THR	N-CA-C	8.04	122.55	109.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	D	255	ASN	OD1-CG-ND2	-8.03	114.57	122.60
2	F	255	ASN	OD1-CG-ND2	-8.03	114.57	122.60
1	M	175	VAL	CA-C-O	-8.03	113.24	121.67
1	C	45	ASP	CA-C-N	-8.02	105.69	121.41
1	C	45	ASP	C-N-CA	-8.02	105.69	121.41
1	E	45	ASP	CA-C-N	-8.02	105.69	121.41
1	E	45	ASP	C-N-CA	-8.02	105.69	121.41
1	A	110	ARG	CD-NE-CZ	-8.02	113.18	124.40
1	G	110	ARG	CD-NE-CZ	-8.02	113.18	124.40
2	H	233	PRO	CA-C-O	-8.01	112.19	122.12
2	N	215	PHE	CA-CB-CG	8.01	121.81	113.80
1	I	86	ASN	CA-CB-CG	-8.00	104.60	112.60
1	M	86	ASN	CA-CB-CG	-8.00	104.60	112.60
1	A	8	ARG	NE-CZ-NH2	7.99	126.39	119.20
2	B	233	PRO	CA-C-O	-7.98	112.22	122.12
2	J	215	PHE	CA-CB-CG	7.97	121.77	113.80
1	K	132	ARG	CA-CB-CG	7.97	130.05	114.10
1	O	132	ARG	CA-CB-CG	7.97	130.05	114.10
2	B	123	GLY	O-C-N	-7.96	112.30	122.25
1	G	8	ARG	NE-CZ-NH2	7.96	126.36	119.20
1	I	175	VAL	CA-C-O	-7.96	113.32	121.67
2	N	15	GLY	N-CA-C	7.96	123.80	112.82
2	J	15	GLY	N-CA-C	7.95	123.79	112.82
1	C	43	VAL	N-CA-CB	7.94	121.52	110.56
1	E	43	VAL	N-CA-CB	7.94	121.52	110.56
2	D	235	ASN	OD1-CG-ND2	-7.94	114.66	122.60
2	F	235	ASN	OD1-CG-ND2	-7.94	114.66	122.60
2	B	32	GLN	CA-C-O	7.93	131.06	121.94
2	B	41	GLN	CB-CG-CD	-7.93	99.12	112.60
2	H	41	GLN	CB-CG-CD	-7.93	99.12	112.60
2	L	180	PRO	CA-C-O	-7.93	112.68	121.32
2	H	123	GLY	O-C-N	-7.92	112.34	122.25
2	D	219	GLN	CA-C-O	-7.92	112.12	120.99
2	F	219	GLN	CA-C-O	-7.92	112.12	120.99
2	B	6	ALA	O-C-N	-7.92	112.03	122.33
2	H	32	GLN	CA-C-O	7.92	131.05	121.94
2	B	24	LEU	CA-C-O	-7.92	111.83	121.89
2	H	171	THR	N-CA-CB	7.91	123.86	110.49
2	B	171	THR	N-CA-CB	7.91	123.86	110.49
2	P	180	PRO	CA-C-O	-7.90	112.71	121.32
2	H	6	ALA	O-C-N	-7.90	112.06	122.33
2	H	24	LEU	CA-C-O	-7.88	111.88	121.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	D	25	ALA	O-C-N	-7.88	114.92	121.38
2	D	103	TRP	CA-CB-CG	7.87	128.54	113.60
2	F	103	TRP	CA-CB-CG	7.87	128.54	113.60
2	B	100	ASP	O-C-N	7.86	132.69	122.95
2	F	25	ALA	O-C-N	-7.86	114.94	121.38
2	H	100	ASP	O-C-N	7.86	132.69	122.95
2	L	40	THR	N-CA-CB	-7.86	99.10	110.65
2	P	40	THR	N-CA-CB	-7.86	99.10	110.65
2	L	34	LEU	CA-C-N	-7.85	112.56	122.37
2	L	34	LEU	C-N-CA	-7.85	112.56	122.37
2	P	34	LEU	CA-C-N	-7.85	112.56	122.37
2	P	34	LEU	C-N-CA	-7.85	112.56	122.37
1	A	126	GLN	CA-C-N	7.84	131.30	120.63
1	A	126	GLN	C-N-CA	7.84	131.30	120.63
1	G	126	GLN	CA-C-N	7.84	131.30	120.63
1	G	126	GLN	C-N-CA	7.84	131.30	120.63
2	L	27	VAL	CA-C-O	7.84	128.01	120.25
2	P	27	VAL	CA-C-O	7.84	128.01	120.25
1	G	138	ASN	CA-CB-CG	7.82	120.42	112.60
2	H	227	ARG	CB-CG-CD	7.82	129.28	111.30
2	B	227	ARG	CB-CG-CD	7.81	129.27	111.30
2	L	125	LEU	CA-C-N	7.81	131.91	120.74
2	L	125	LEU	C-N-CA	7.81	131.91	120.74
1	A	138	ASN	CA-CB-CG	7.80	120.40	112.60
2	F	41	GLN	CB-CG-CD	-7.80	99.34	112.60
2	B	188	ALA	O-C-N	-7.79	113.87	122.12
2	D	41	GLN	CB-CG-CD	-7.78	99.37	112.60
2	L	172	LEU	O-C-N	7.78	130.25	121.53
2	P	125	LEU	CA-C-N	7.78	131.87	120.74
2	P	125	LEU	C-N-CA	7.78	131.87	120.74
2	P	172	LEU	O-C-N	7.78	130.24	121.53
1	A	38	GLU	CA-C-O	-7.78	112.15	121.56
2	F	171	THR	N-CA-CB	7.78	123.63	110.49
1	G	38	GLU	CA-C-O	-7.78	112.15	121.56
1	A	117	PRO	CA-C-N	7.77	133.03	120.60
1	A	117	PRO	C-N-CA	7.77	133.03	120.60
2	N	59	GLN	OE1-CD-NE2	7.76	130.36	122.60
2	J	186	TYR	CA-CB-CG	7.76	127.87	113.90
2	N	186	TYR	CA-CB-CG	7.76	127.87	113.90
1	G	117	PRO	CA-C-N	7.76	133.02	120.60
1	G	117	PRO	C-N-CA	7.76	133.02	120.60
1	K	86	ASN	OD1-CG-ND2	7.76	130.36	122.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	O	86	ASN	OD1-CG-ND2	7.76	130.36	122.60
2	J	73	GLY	N-CA-C	7.76	121.37	110.74
2	N	73	GLY	N-CA-C	7.76	121.37	110.74
1	A	25	ASN	CB-CA-C	-7.76	93.81	109.55
2	H	188	ALA	O-C-N	-7.75	113.91	122.12
2	D	171	THR	N-CA-CB	7.75	123.58	110.49
2	F	226	THR	CA-C-N	7.75	134.11	123.11
2	F	226	THR	C-N-CA	7.75	134.11	123.11
1	G	25	ASN	CB-CA-C	-7.74	93.84	109.55
1	M	27	GLU	O-C-N	-7.74	113.42	122.32
1	A	147	PRO	CB-CA-C	7.73	118.65	110.00
2	D	226	THR	CA-C-N	7.73	134.08	123.11
2	D	226	THR	C-N-CA	7.73	134.08	123.11
1	G	147	PRO	CB-CA-C	7.72	118.65	110.00
1	G	17	GLN	CA-C-O	7.72	129.03	120.31
1	I	27	GLU	O-C-N	-7.71	113.45	122.32
2	J	59	GLN	OE1-CD-NE2	7.71	130.31	122.60
1	A	17	GLN	CA-C-O	7.70	129.01	120.31
2	N	175	TYR	N-CA-C	7.70	126.82	109.81
1	I	129	GLU	CG-CD-OE2	-7.70	100.70	118.40
1	M	129	GLU	CG-CD-OE2	-7.70	100.70	118.40
1	O	144	ASN	CA-CB-CG	7.69	120.29	112.60
2	J	175	TYR	N-CA-C	7.69	126.80	109.81
1	K	144	ASN	CA-CB-CG	7.68	120.28	112.60
2	J	59	GLN	N-CA-C	7.67	119.72	111.36
1	A	5	GLY	O-C-N	-7.67	112.73	122.70
1	G	5	GLY	O-C-N	-7.67	112.73	122.70
1	K	74	GLN	N-CA-C	-7.67	101.87	112.30
1	O	74	GLN	N-CA-C	-7.67	101.87	112.30
2	J	46	ASN	CA-CB-CG	-7.66	104.94	112.60
1	C	85	MET	CA-CB-CG	7.66	129.42	114.10
1	E	85	MET	CA-CB-CG	7.66	129.42	114.10
2	N	59	GLN	N-CA-C	7.66	119.71	111.36
1	C	164	ASN	CA-CB-CG	-7.64	104.95	112.60
1	E	164	ASN	CA-CB-CG	-7.64	104.95	112.60
2	D	255	ASN	CB-CG-ND2	7.64	127.86	116.40
2	F	255	ASN	CB-CG-ND2	7.64	127.86	116.40
2	N	188	ALA	N-CA-C	-7.64	102.89	111.14
2	B	23	ASN	CA-C-O	-7.64	112.19	120.36
2	H	23	ASN	CA-C-O	-7.64	112.19	120.36
2	J	188	ALA	N-CA-C	-7.63	102.89	111.14
1	M	92	SER	N-CA-CB	-7.63	99.84	110.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	N	207	SER	N-CA-CB	7.63	121.87	110.65
1	I	74	GLN	N-CA-C	-7.63	101.92	112.30
2	J	207	SER	N-CA-CB	7.63	121.86	110.65
1	E	160	ARG	CA-C-O	7.62	129.16	120.54
2	L	175	TYR	N-CA-C	7.62	126.66	109.81
2	P	175	TYR	N-CA-C	7.62	126.66	109.81
1	M	74	GLN	N-CA-C	-7.62	101.93	112.30
2	N	46	ASN	CA-CB-CG	-7.62	104.98	112.60
1	K	95	LYS	CA-C-N	7.62	136.09	121.54
1	K	95	LYS	C-N-CA	7.62	136.09	121.54
1	O	95	LYS	CA-C-N	7.62	136.09	121.54
1	O	95	LYS	C-N-CA	7.62	136.09	121.54
1	C	9	VAL	CA-C-O	-7.61	112.29	120.36
1	E	9	VAL	CA-C-O	-7.61	112.29	120.36
1	I	92	SER	N-CA-CB	-7.61	99.87	110.38
1	A	104	GLN	CG-CD-NE2	7.61	127.82	116.40
1	G	104	GLN	CG-CD-NE2	7.61	127.82	116.40
1	C	26	ASP	CA-CB-CG	7.61	120.20	112.60
1	E	26	ASP	CA-CB-CG	7.61	120.20	112.60
2	F	124	SER	CA-C-N	7.60	132.18	121.24
2	F	124	SER	C-N-CA	7.60	132.18	121.24
2	D	124	SER	CA-C-N	7.59	132.17	121.24
2	D	124	SER	C-N-CA	7.59	132.17	121.24
1	C	160	ARG	CA-C-O	7.58	129.11	120.54
2	B	201	THR	N-CA-CB	-7.58	98.12	111.08
1	M	95	LYS	CA-C-N	7.57	136.01	121.54
1	M	95	LYS	C-N-CA	7.57	136.01	121.54
1	I	8	ARG	CD-NE-CZ	7.57	135.00	124.40
1	M	8	ARG	CD-NE-CZ	7.57	135.00	124.40
2	H	126	ILE	CB-CA-C	7.57	120.25	111.55
2	J	259	THR	CA-CB-CG2	7.57	123.36	110.50
1	I	95	LYS	CA-C-N	7.56	135.99	121.54
1	I	95	LYS	C-N-CA	7.56	135.99	121.54
1	A	160	ARG	CD-NE-CZ	7.56	134.99	124.40
2	H	201	THR	N-CA-CB	-7.56	98.15	111.08
2	P	186	TYR	CA-CB-CG	7.55	127.50	113.90
2	N	259	THR	CA-CB-CG2	7.55	123.34	110.50
2	B	126	ILE	CB-CA-C	7.55	120.23	111.55
2	L	186	TYR	CA-CB-CG	7.54	127.48	113.90
2	L	152	ASN	OD1-CG-ND2	-7.54	115.06	122.60
2	P	152	ASN	OD1-CG-ND2	-7.54	115.06	122.60
2	L	73	GLY	N-CA-C	7.52	123.27	111.08

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	P	73	GLY	N-CA-C	7.52	123.27	111.08
1	G	160	ARG	CD-NE-CZ	7.52	134.93	124.40
2	B	176	PRO	CA-C-N	7.52	131.93	122.83
2	B	176	PRO	C-N-CA	7.52	131.93	122.83
2	H	176	PRO	CA-C-N	7.52	131.93	122.83
2	H	176	PRO	C-N-CA	7.52	131.93	122.83
1	C	138	ASN	CA-CB-CG	7.51	120.11	112.60
1	E	138	ASN	CA-CB-CG	7.51	120.11	112.60
1	G	160	ARG	CA-C-O	7.51	129.03	120.54
2	B	193	LEU	N-CA-CB	7.51	123.36	111.20
1	A	121	ALA	CA-C-O	-7.51	112.92	120.80
2	H	193	LEU	N-CA-CB	7.50	123.36	111.20
1	G	121	ALA	CA-C-O	-7.50	112.93	120.80
1	I	63	ASN	CA-CB-CG	7.50	120.09	112.60
2	L	259	THR	CA-CB-CG2	7.49	123.24	110.50
1	A	160	ARG	CA-C-O	7.48	129.00	120.54
2	P	259	THR	CA-CB-CG2	7.48	123.22	110.50
1	M	63	ASN	CA-CB-CG	7.47	120.07	112.60
2	P	207	SER	N-CA-CB	7.46	121.62	110.65
2	L	207	SER	N-CA-CB	7.45	121.60	110.65
1	I	86	ASN	N-CA-C	7.44	121.16	107.99
1	C	134	ARG	CD-NE-CZ	7.44	134.81	124.40
1	E	134	ARG	CD-NE-CZ	7.44	134.81	124.40
1	I	86	ASN	OD1-CG-ND2	7.42	130.02	122.60
1	M	86	ASN	N-CA-C	7.42	121.12	107.99
2	D	227	ARG	CD-NE-CZ	-7.42	114.01	124.40
2	F	227	ARG	CD-NE-CZ	-7.42	114.01	124.40
1	K	63	ASN	CA-CB-CG	7.42	120.02	112.60
1	O	63	ASN	CA-CB-CG	7.42	120.02	112.60
1	G	85	MET	CA-CB-CG	7.42	128.93	114.10
1	A	85	MET	CA-CB-CG	7.41	128.93	114.10
2	D	210	THR	CA-CB-OG1	-7.41	98.49	109.60
1	M	101	ASN	CA-CB-CG	-7.41	105.19	112.60
2	F	210	THR	CA-CB-OG1	-7.40	98.49	109.60
2	B	255	ASN	OD1-CG-ND2	-7.40	115.20	122.60
2	B	272	ILE	CA-C-O	-7.40	112.01	120.67
2	H	272	ILE	CA-C-O	-7.40	112.01	120.67
1	K	86	ASN	CA-CB-CG	-7.40	105.20	112.60
1	O	86	ASN	CA-CB-CG	-7.40	105.20	112.60
1	A	8	ARG	CD-NE-CZ	-7.39	114.05	124.40
1	M	86	ASN	OD1-CG-ND2	7.39	129.99	122.60
1	I	101	ASN	CA-CB-CG	-7.38	105.22	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	34	GLN	N-CA-CB	7.38	123.66	110.83
1	K	159	THR	N-CA-C	7.38	122.74	112.93
1	O	159	THR	N-CA-C	7.38	122.74	112.93
1	G	8	ARG	CD-NE-CZ	-7.37	114.08	124.40
2	H	255	ASN	OD1-CG-ND2	-7.36	115.24	122.60
1	A	34	GLN	N-CA-CB	7.36	123.64	110.83
2	B	249	SER	CA-C-O	-7.36	113.54	121.56
2	H	249	SER	CA-C-O	-7.36	113.54	121.56
1	A	45	ASP	CA-C-N	-7.35	107.00	121.41
1	A	45	ASP	C-N-CA	-7.35	107.00	121.41
1	G	45	ASP	CA-C-N	-7.35	107.00	121.41
1	G	45	ASP	C-N-CA	-7.35	107.00	121.41
1	A	104	GLN	OE1-CD-NE2	-7.35	115.25	122.60
2	D	65	GLY	CA-C-N	7.35	133.38	120.74
2	D	65	GLY	C-N-CA	7.35	133.38	120.74
1	C	25	ASN	CB-CA-C	-7.35	94.63	109.55
1	E	25	ASN	CB-CA-C	-7.35	94.63	109.55
1	C	126	GLN	CA-C-N	7.34	130.62	120.63
1	C	126	GLN	C-N-CA	7.34	130.62	120.63
1	E	126	GLN	CA-C-N	7.34	130.62	120.63
1	E	126	GLN	C-N-CA	7.34	130.62	120.63
2	D	202	ALA	CB-CA-C	-7.33	96.89	109.65
2	F	202	ALA	CB-CA-C	-7.33	96.89	109.65
2	F	6	ALA	O-C-N	-7.33	112.81	122.33
2	D	61	GLY	CA-C-N	7.32	134.04	122.62
2	D	61	GLY	C-N-CA	7.32	134.04	122.62
2	H	61	GLY	CA-C-N	7.32	134.04	122.62
2	H	61	GLY	C-N-CA	7.32	134.04	122.62
1	K	173	SER	O-C-N	7.32	130.61	123.29
1	O	173	SER	O-C-N	7.32	130.61	123.29
2	F	65	GLY	CA-C-N	7.32	133.33	120.74
2	F	65	GLY	C-N-CA	7.32	133.33	120.74
2	F	61	GLY	CA-C-N	7.32	134.04	122.62
2	F	61	GLY	C-N-CA	7.32	134.04	122.62
2	H	126	ILE	CA-C-O	7.32	128.37	120.32
2	B	13	ILE	CA-C-N	-7.31	107.08	121.41
2	B	13	ILE	C-N-CA	-7.31	107.08	121.41
1	G	104	GLN	OE1-CD-NE2	-7.31	115.29	122.60
2	D	6	ALA	O-C-N	-7.30	112.83	122.33
2	H	13	ILE	CA-C-N	-7.30	107.09	121.41
2	H	13	ILE	C-N-CA	-7.30	107.09	121.41
1	A	139	SER	CA-C-N	7.30	133.73	123.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	139	SER	C-N-CA	7.30	133.73	123.07
1	G	139	SER	CA-C-N	7.30	133.73	123.07
1	G	139	SER	C-N-CA	7.30	133.73	123.07
2	J	34	LEU	CA-C-N	-7.30	113.25	122.37
2	J	34	LEU	C-N-CA	-7.30	113.25	122.37
2	B	61	GLY	CA-C-N	7.30	134.00	122.62
2	B	61	GLY	C-N-CA	7.30	134.00	122.62
2	D	232	ILE	O-C-N	-7.30	114.21	120.92
2	F	232	ILE	O-C-N	-7.30	114.21	120.92
2	N	34	LEU	CA-C-N	-7.29	113.25	122.37
2	N	34	LEU	C-N-CA	-7.29	113.25	122.37
1	K	194	GLY	N-CA-C	7.29	130.45	113.18
1	O	194	GLY	N-CA-C	7.29	130.45	113.18
2	B	126	ILE	CA-C-O	7.28	128.33	120.32
2	H	219	GLN	CA-C-O	-7.28	112.83	120.99
2	B	84	PHE	CA-C-O	-7.28	112.87	119.86
2	H	84	PHE	CA-C-O	-7.28	112.87	119.86
2	F	13	ILE	CA-C-N	-7.27	107.16	121.41
2	F	13	ILE	C-N-CA	-7.27	107.16	121.41
1	C	60	LYS	CA-C-O	-7.26	113.04	120.96
2	D	13	ILE	CA-C-N	-7.26	107.17	121.41
2	D	13	ILE	C-N-CA	-7.26	107.17	121.41
1	E	60	LYS	CA-C-O	-7.26	113.04	120.96
1	O	86	ASN	N-CA-C	7.26	120.73	108.02
2	B	219	GLN	CA-C-O	-7.25	112.87	120.99
2	N	76	LYS	CA-C-O	-7.25	113.01	120.54
1	K	86	ASN	N-CA-C	7.24	120.69	108.02
2	D	150	ALA	CA-C-O	-7.23	112.44	120.69
2	F	150	ALA	CA-C-O	-7.23	112.44	120.69
2	J	76	LYS	CA-C-O	-7.22	113.03	120.54
1	I	132	ARG	CA-CB-CG	7.22	128.54	114.10
1	M	132	ARG	CA-CB-CG	7.22	128.54	114.10
2	B	32	GLN	O-C-N	-7.22	113.77	122.65
2	J	197	LEU	CA-C-N	7.20	134.76	122.37
2	J	197	LEU	C-N-CA	7.20	134.76	122.37
1	M	73	ASN	CA-C-O	7.19	130.79	120.51
2	H	32	GLN	O-C-N	-7.19	113.81	122.65
2	N	197	LEU	CA-C-N	7.18	134.73	122.37
2	N	197	LEU	C-N-CA	7.18	134.73	122.37
2	B	13	ILE	O-C-N	-7.18	113.59	122.57
2	H	13	ILE	O-C-N	-7.18	113.59	122.57
1	I	73	ASN	CA-C-O	7.18	130.78	120.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	202	ALA	CB-CA-C	-7.18	97.16	109.65
2	D	167	ASP	CA-C-O	7.18	130.43	121.46
2	N	89	GLU	CA-C-O	7.17	129.22	121.05
2	H	202	ALA	CB-CA-C	-7.17	97.18	109.65
1	K	73	ASN	CA-C-O	7.17	130.76	120.51
1	M	173	SER	N-CA-CB	7.17	123.61	111.57
2	F	78	SER	N-CA-CB	-7.16	101.10	111.70
1	O	73	ASN	CA-C-O	7.16	130.75	120.51
2	D	78	SER	N-CA-CB	-7.16	101.10	111.70
2	H	192	ASN	CA-CB-CG	-7.15	105.45	112.60
1	K	27	GLU	N-CA-C	7.15	122.50	111.56
1	O	27	GLU	N-CA-C	7.15	122.50	111.56
1	I	173	SER	N-CA-CB	7.15	123.58	111.57
2	J	89	GLU	CA-C-O	7.14	129.19	121.05
2	F	167	ASP	CA-C-O	7.14	130.38	121.46
1	A	66	ARG	NE-CZ-NH2	7.14	125.62	119.20
1	G	66	ARG	NE-CZ-NH2	7.14	125.62	119.20
2	N	90	THR	N-CA-CB	-7.14	99.68	110.03
1	G	60	LYS	CA-C-O	-7.13	113.19	120.96
1	E	8	ARG	CA-C-O	-7.13	113.60	121.23
1	C	8	ARG	CA-C-O	-7.12	113.61	121.23
2	B	192	ASN	CA-CB-CG	-7.12	105.48	112.60
2	B	143	GLN	OE1-CD-NE2	-7.11	115.49	122.60
2	D	193	LEU	N-CA-CB	7.11	123.24	111.08
2	F	193	LEU	N-CA-CB	7.11	123.24	111.08
2	H	143	GLN	OE1-CD-NE2	-7.11	115.49	122.60
2	J	90	THR	N-CA-CB	-7.11	99.71	110.03
1	C	101	ASN	CA-C-O	7.11	128.39	120.43
1	C	104	GLN	CG-CD-NE2	7.11	127.06	116.40
1	E	104	GLN	CG-CD-NE2	7.11	127.06	116.40
1	A	60	LYS	CA-C-O	-7.09	113.23	120.96
2	J	19	ASN	CA-CB-CG	7.08	119.68	112.60
2	B	226	THR	CA-C-N	7.08	133.16	123.11
2	B	226	THR	C-N-CA	7.08	133.16	123.11
1	C	17	GLN	CA-C-O	7.07	128.30	120.31
1	E	17	GLN	CA-C-O	7.07	128.30	120.31
2	D	41	GLN	N-CA-CB	7.07	120.41	111.00
1	I	173	SER	O-C-N	7.07	130.36	123.29
1	E	101	ASN	CA-C-O	7.07	128.35	120.43
2	H	226	THR	CA-C-N	7.07	133.15	123.11
2	H	226	THR	C-N-CA	7.07	133.15	123.11
1	C	163	GLU	CA-C-O	-7.07	113.44	121.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	163	GLU	CA-C-O	-7.07	113.44	121.07
2	N	19	ASN	CA-CB-CG	7.06	119.66	112.60
2	H	256	TYR	CB-CG-CD1	-7.06	110.21	120.80
2	L	157	PRO	CB-CA-C	7.06	117.82	111.40
2	P	157	PRO	CB-CA-C	7.06	117.82	111.40
2	F	41	GLN	N-CA-CB	7.05	120.38	111.00
1	I	194	GLY	N-CA-C	7.04	129.87	113.18
1	M	194	GLY	N-CA-C	7.04	129.87	113.18
2	N	249	SER	CA-C-O	-7.03	112.67	120.69
2	B	256	TYR	CB-CG-CD1	-7.03	110.25	120.80
2	D	160	GLY	N-CA-C	-7.03	101.53	112.85
2	F	160	GLY	N-CA-C	-7.03	101.53	112.85
1	M	173	SER	O-C-N	7.03	130.32	123.29
2	J	69	SER	CB-CA-C	-7.03	97.70	110.56
2	J	249	SER	CA-C-O	-7.02	112.69	120.69
2	N	69	SER	CB-CA-C	-7.02	97.72	110.56
1	C	8	ARG	CD-NE-CZ	-7.01	114.58	124.40
1	E	8	ARG	CD-NE-CZ	-7.01	114.58	124.40
1	A	85	MET	N-CA-CB	-7.01	99.00	110.43
2	J	125	LEU	CA-C-N	7.01	132.03	121.65
2	J	125	LEU	C-N-CA	7.01	132.03	121.65
2	N	125	LEU	CA-C-N	7.01	132.03	121.65
2	N	125	LEU	C-N-CA	7.01	132.03	121.65
1	C	163	GLU	CB-CG-CD	7.01	124.51	112.60
2	J	124	SER	N-CA-C	7.00	121.73	109.96
2	N	124	SER	N-CA-C	7.00	121.73	109.96
2	D	13	ILE	O-C-N	-7.00	113.82	122.57
2	D	211	ASN	N-CA-CB	7.00	120.64	110.06
2	F	211	ASN	N-CA-CB	7.00	120.64	110.06
1	G	85	MET	N-CA-CB	-7.00	99.02	110.43
1	E	163	GLU	CB-CG-CD	7.00	124.50	112.60
2	H	150	ALA	CA-C-O	-7.00	112.71	120.69
2	F	13	ILE	O-C-N	-6.99	113.84	122.57
2	B	87	THR	CA-C-O	-6.98	111.19	119.15
2	F	102	PRO	CB-CA-C	-6.98	102.30	111.23
1	C	1	GLY	CA-C-N	6.97	131.37	122.37
1	C	1	GLY	C-N-CA	6.97	131.37	122.37
2	D	233	PRO	CA-C-N	6.97	133.66	120.97
2	D	233	PRO	C-N-CA	6.97	133.66	120.97
1	E	1	GLY	CA-C-N	6.97	131.37	122.37
1	E	1	GLY	C-N-CA	6.97	131.37	122.37
2	H	87	THR	CA-C-O	-6.96	111.21	119.15

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	J	7	ASN	CA-CB-CG	6.96	119.56	112.60
1	K	173	SER	N-CA-CB	6.96	123.27	111.57
2	D	166	ARG	CD-NE-CZ	-6.96	114.66	124.40
2	F	166	ARG	CD-NE-CZ	-6.96	114.66	124.40
2	F	36	VAL	CA-CB-CG2	6.96	122.23	110.40
2	B	120	ILE	O-C-N	6.96	130.20	123.03
2	D	102	PRO	CB-CA-C	-6.96	102.33	111.23
2	B	150	ALA	CA-C-O	-6.95	112.76	120.69
2	F	233	PRO	CA-C-N	6.95	133.62	120.97
2	F	233	PRO	C-N-CA	6.95	133.62	120.97
2	D	36	VAL	CA-CB-CG2	6.95	122.22	110.40
2	L	57	THR	N-CA-CB	-6.95	100.15	110.85
2	P	57	THR	N-CA-CB	-6.95	100.15	110.85
2	B	96	ASN	CB-CG-ND2	6.94	126.81	116.40
1	G	4	LEU	CA-C-O	-6.94	113.49	121.47
2	H	96	ASN	CB-CG-ND2	6.94	126.81	116.40
1	O	173	SER	N-CA-CB	6.94	123.23	111.57
2	B	201	THR	OG1-CB-CG2	6.94	123.18	109.30
2	H	201	THR	OG1-CB-CG2	6.94	123.18	109.30
1	C	164	ASN	CA-C-O	-6.94	113.82	121.87
1	E	164	ASN	CA-C-O	-6.94	113.82	121.87
2	B	233	PRO	CA-C-N	6.94	131.83	120.94
2	B	233	PRO	C-N-CA	6.94	131.83	120.94
2	N	7	ASN	CA-CB-CG	6.94	119.54	112.60
1	C	34	GLN	N-CA-CB	6.94	122.90	110.83
1	E	34	GLN	N-CA-CB	6.94	122.90	110.83
2	B	167	ASP	O-C-N	-6.93	113.50	122.72
2	H	167	ASP	O-C-N	-6.93	113.50	122.72
2	L	188	ALA	N-CA-C	-6.93	103.34	111.03
2	P	188	ALA	N-CA-C	-6.93	103.34	111.03
2	B	90	THR	CA-C-O	6.93	129.65	120.16
2	H	90	THR	CA-C-O	6.93	129.65	120.16
2	N	211	ASN	CA-CB-CG	6.93	119.53	112.60
1	A	4	LEU	CA-C-O	-6.93	113.50	121.47
2	H	233	PRO	CA-C-N	6.92	131.81	120.94
2	H	233	PRO	C-N-CA	6.92	131.81	120.94
2	H	120	ILE	O-C-N	6.92	130.16	123.03
2	J	211	ASN	CA-CB-CG	6.92	119.52	112.60
2	B	65	GLY	CA-C-N	6.92	132.64	120.74
2	B	65	GLY	C-N-CA	6.92	132.64	120.74
2	H	48	TYR	CA-C-N	6.92	126.52	119.19
2	H	48	TYR	C-N-CA	6.92	126.52	119.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	H	65	GLY	CA-C-N	6.92	132.64	120.74
2	H	65	GLY	C-N-CA	6.92	132.64	120.74
1	A	62	GLU	CA-C-O	-6.91	112.64	120.32
1	K	129	GLU	CG-CD-OE1	6.91	134.30	118.40
1	O	129	GLU	CG-CD-OE1	6.91	134.30	118.40
2	P	14	GLY	CA-C-N	6.91	126.91	120.34
2	P	14	GLY	C-N-CA	6.91	126.91	120.34
2	J	191	GLN	N-CA-C	6.91	117.77	108.23
2	N	191	GLN	N-CA-C	6.91	117.77	108.23
2	D	168	VAL	O-C-N	-6.91	113.93	122.57
2	F	168	VAL	O-C-N	-6.91	113.93	122.57
2	B	160	GLY	N-CA-C	-6.91	101.94	112.51
2	D	180	PRO	CA-C-O	-6.90	113.24	122.08
2	F	180	PRO	CA-C-O	-6.90	113.24	122.08
2	L	5	THR	CA-C-O	-6.90	113.36	121.16
2	P	5	THR	CA-C-O	-6.90	113.36	121.16
1	G	62	GLU	CA-C-O	-6.90	112.66	120.32
2	L	46	ASN	CA-CB-CG	-6.90	105.70	112.60
2	P	46	ASN	CA-CB-CG	-6.90	105.70	112.60
2	N	237	THR	CA-C-N	6.90	131.74	123.19
2	N	237	THR	C-N-CA	6.90	131.74	123.19
2	H	160	GLY	N-CA-C	-6.89	101.96	112.51
2	L	145	VAL	CA-C-O	6.89	128.71	120.65
2	P	145	VAL	CA-C-O	6.89	128.71	120.65
2	L	14	GLY	CA-C-N	6.89	126.89	120.34
2	L	14	GLY	C-N-CA	6.89	126.89	120.34
2	D	152	ASN	CA-C-N	6.88	130.61	120.90
2	D	152	ASN	C-N-CA	6.88	130.61	120.90
2	F	152	ASN	CA-C-N	6.88	130.61	120.90
2	F	152	ASN	C-N-CA	6.88	130.61	120.90
2	B	36	VAL	CA-CB-CG2	6.88	122.10	110.40
1	A	134	ARG	CD-NE-CZ	6.88	134.03	124.40
1	G	134	ARG	CD-NE-CZ	6.88	134.03	124.40
2	D	84	PHE	CA-C-O	-6.88	113.26	119.86
2	F	84	PHE	CA-C-O	-6.88	113.26	119.86
2	H	36	VAL	CA-CB-CG2	6.87	122.08	110.40
2	B	48	TYR	CA-C-N	6.87	126.47	119.19
2	B	48	TYR	C-N-CA	6.87	126.47	119.19
2	J	237	THR	CA-C-N	6.87	131.71	123.19
2	J	237	THR	C-N-CA	6.87	131.71	123.19
2	B	255	ASN	CB-CG-ND2	6.86	126.70	116.40
2	H	255	ASN	CB-CG-ND2	6.86	126.69	116.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	33	ASN	OD1-CG-ND2	-6.85	115.75	122.60
2	H	33	ASN	OD1-CG-ND2	-6.85	115.75	122.60
2	H	28	VAL	O-C-N	-6.84	116.07	123.18
2	B	28	VAL	O-C-N	-6.83	116.08	123.18
2	J	57	THR	N-CA-CB	-6.81	100.36	110.85
2	N	57	THR	N-CA-CB	-6.81	100.36	110.85
1	C	138	ASN	CA-C-O	6.81	128.02	119.78
1	E	138	ASN	CA-C-O	6.81	128.02	119.78
2	H	41	GLN	N-CA-CB	6.81	119.97	110.98
2	J	127	ALA	N-CA-C	6.81	119.20	108.79
2	N	127	ALA	N-CA-C	6.81	119.20	108.79
2	B	136	ASN	O-C-N	-6.80	113.42	122.19
2	L	90	THR	N-CA-CB	-6.79	100.18	110.03
2	P	90	THR	N-CA-CB	-6.79	100.18	110.03
2	P	223	VAL	O-C-N	6.79	130.37	123.10
2	B	41	GLN	N-CA-CB	6.79	119.94	110.98
2	J	17	SER	N-CA-C	6.79	119.73	109.41
2	N	17	SER	N-CA-C	6.79	119.73	109.41
1	C	3	ALA	O-C-N	-6.79	114.99	123.27
1	E	3	ALA	O-C-N	-6.79	114.99	123.27
1	G	44	LYS	N-CA-CB	6.79	120.35	110.58
2	N	171	THR	O-C-N	-6.78	115.25	123.19
1	A	44	LYS	N-CA-CB	6.78	120.34	110.58
2	B	25	ALA	O-C-N	-6.78	115.41	121.31
2	H	136	ASN	O-C-N	-6.78	113.45	122.19
2	J	171	THR	O-C-N	-6.76	115.28	123.19
2	D	136	ASN	O-C-N	-6.76	113.47	122.19
2	H	152	ASN	CA-C-N	6.76	130.31	120.71
2	H	152	ASN	C-N-CA	6.76	130.31	120.71
1	I	129	GLU	CG-CD-OE1	6.75	133.94	118.40
1	M	129	GLU	CG-CD-OE1	6.75	133.94	118.40
2	L	223	VAL	O-C-N	6.75	130.33	123.10
2	F	136	ASN	O-C-N	-6.75	113.48	122.19
2	N	197	LEU	O-C-N	-6.75	115.50	123.06
2	L	101	LYS	CA-CB-CG	6.75	127.59	114.10
2	H	25	ALA	O-C-N	-6.74	115.44	121.31
2	D	92	ARG	CD-NE-CZ	6.74	133.84	124.40
2	F	92	ARG	CD-NE-CZ	6.74	133.84	124.40
2	P	101	LYS	CA-CB-CG	6.74	127.58	114.10
2	J	197	LEU	O-C-N	-6.74	115.51	123.06
2	B	152	ASN	CA-C-N	6.74	130.28	120.71
2	B	152	ASN	C-N-CA	6.74	130.28	120.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	L	7	ASN	CA-CB-CG	6.74	119.33	112.60
1	A	164	ASN	CA-CB-CG	-6.73	105.87	112.60
2	H	37	ASP	CA-CB-CG	6.73	119.33	112.60
1	C	139	SER	CA-C-N	6.72	132.89	123.07
1	C	139	SER	C-N-CA	6.72	132.89	123.07
2	N	132	ARG	CA-C-O	6.72	127.49	120.30
1	G	164	ASN	CA-CB-CG	-6.72	105.88	112.60
2	B	37	ASP	CA-CB-CG	6.72	119.32	112.60
2	H	200	THR	CA-C-O	6.72	128.28	120.49
1	K	156	ASN	CB-CG-ND2	-6.71	106.33	116.40
1	O	156	ASN	CB-CG-ND2	-6.71	106.33	116.40
2	B	120	ILE	CA-C-O	-6.71	113.61	120.25
2	B	200	THR	CA-C-O	6.71	128.27	120.49
2	P	153	ASP	CA-CB-CG	6.71	119.31	112.60
1	E	139	SER	CA-C-N	6.71	132.86	123.07
1	E	139	SER	C-N-CA	6.71	132.86	123.07
2	L	153	ASP	CA-CB-CG	6.70	119.30	112.60
2	D	219	GLN	O-C-N	6.70	130.90	123.33
2	F	219	GLN	O-C-N	6.70	130.90	123.33
2	J	132	ARG	CA-C-O	6.70	127.47	120.30
2	J	250	LEU	N-CA-C	-6.70	99.00	109.25
2	N	250	LEU	N-CA-C	-6.70	99.00	109.25
2	P	7	ASN	CA-CB-CG	6.70	119.30	112.60
2	B	201	THR	CA-CB-OG1	-6.69	99.56	109.60
2	H	201	THR	CA-CB-OG1	-6.69	99.56	109.60
1	I	91	PRO	N-CA-CB	-6.69	96.22	103.25
1	M	91	PRO	N-CA-CB	-6.69	96.22	103.25
2	L	153	ASP	CA-C-O	-6.69	113.85	121.07
2	P	153	ASP	CA-C-O	-6.69	113.85	121.07
1	K	8	ARG	CD-NE-CZ	6.69	133.76	124.40
1	O	8	ARG	CD-NE-CZ	6.69	133.76	124.40
2	H	120	ILE	CA-C-O	-6.67	113.64	120.25
2	H	107	LEU	CA-C-O	-6.67	113.16	120.43
1	I	74	GLN	CG-CD-NE2	6.67	126.40	116.40
1	M	74	GLN	CG-CD-NE2	6.67	126.40	116.40
1	K	74	GLN	CG-CD-NE2	6.67	126.40	116.40
1	O	74	GLN	CG-CD-NE2	6.67	126.40	116.40
2	H	41	GLN	OE1-CD-NE2	6.67	129.27	122.60
1	C	85	MET	CB-CA-C	6.66	120.75	109.75
1	E	85	MET	CB-CA-C	6.66	120.75	109.75
1	K	26	ASP	OD1-CG-OD2	6.66	138.89	122.90
2	N	45	HIS	CA-CB-CG	-6.65	107.15	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	H	226	THR	O-C-N	-6.65	115.26	123.44
2	B	50	GLU	CA-C-O	-6.65	111.45	119.49
1	M	47	ARG	NE-CZ-NH1	6.64	128.14	121.50
2	F	28	VAL	O-C-N	-6.64	116.28	123.18
1	O	26	ASP	OD1-CG-OD2	6.64	138.84	122.90
2	B	41	GLN	OE1-CD-NE2	6.64	129.24	122.60
2	B	52	ILE	CB-CA-C	-6.64	101.62	110.98
2	B	107	LEU	CA-C-O	-6.64	113.20	120.43
2	H	52	ILE	CB-CA-C	-6.64	101.62	110.98
2	J	45	HIS	CA-CB-CG	-6.63	107.17	113.80
2	H	50	GLU	CA-C-O	-6.63	111.47	119.49
1	A	8	ARG	CA-C-O	-6.63	114.36	121.38
2	B	226	THR	O-C-N	-6.63	115.29	123.44
1	E	117	PRO	CA-C-N	6.63	131.20	120.60
1	E	117	PRO	C-N-CA	6.63	131.20	120.60
1	G	8	ARG	CA-C-O	-6.63	114.36	121.38
1	C	8	ARG	NE-CZ-NH2	6.62	125.16	119.20
2	D	96	ASN	CB-CG-ND2	6.62	126.33	116.40
1	E	8	ARG	NE-CZ-NH2	6.62	125.16	119.20
2	F	96	ASN	CB-CG-ND2	6.62	126.33	116.40
2	B	277	VAL	O-C-N	6.62	130.13	123.18
2	H	225	LEU	CA-C-O	6.62	128.64	121.16
2	B	78	SER	N-CA-CB	-6.62	101.91	111.70
2	H	78	SER	N-CA-CB	-6.62	101.91	111.70
2	N	69	SER	CA-C-O	-6.61	112.05	120.31
1	I	172	GLU	CA-CB-CG	6.61	127.31	114.10
2	D	118	VAL	CB-CA-C	6.61	118.80	111.80
2	F	118	VAL	CB-CA-C	6.61	118.80	111.80
1	I	47	ARG	NE-CZ-NH1	6.60	128.10	121.50
2	L	33	ASN	CA-C-N	6.60	131.42	122.84
2	L	33	ASN	C-N-CA	6.60	131.42	122.84
2	P	33	ASN	CA-C-N	6.60	131.42	122.84
2	P	33	ASN	C-N-CA	6.60	131.42	122.84
2	D	120	ILE	O-C-N	6.60	129.83	123.03
2	J	69	SER	CA-C-O	-6.60	112.06	120.31
2	P	21	TYR	CA-C-O	-6.60	113.06	120.32
2	B	225	LEU	CA-C-O	6.60	128.62	121.16
2	D	277	VAL	O-C-N	6.60	130.11	123.18
2	F	277	VAL	O-C-N	6.60	130.11	123.18
1	C	117	PRO	CA-C-N	6.59	131.15	120.60
1	C	117	PRO	C-N-CA	6.59	131.15	120.60
1	M	172	GLU	CA-CB-CG	6.59	127.28	114.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	D	28	VAL	O-C-N	-6.59	116.33	123.18
2	L	21	TYR	CA-C-O	-6.59	113.07	120.32
2	B	221	VAL	CA-C-O	6.58	128.37	120.67
2	B	238	VAL	CA-C-N	6.58	130.72	121.24
2	B	238	VAL	C-N-CA	6.58	130.72	121.24
2	F	120	ILE	O-C-N	6.58	129.81	123.03
2	N	227	ARG	NE-CZ-NH2	6.58	125.12	119.20
2	B	101	LYS	CA-C-N	6.58	126.55	119.78
2	B	101	LYS	C-N-CA	6.58	126.55	119.78
2	D	231	ILE	O-C-N	6.58	129.78	122.61
2	H	101	LYS	CA-C-N	6.58	126.55	119.78
2	H	101	LYS	C-N-CA	6.58	126.55	119.78
1	I	184	ASN	CA-CB-CG	6.58	119.17	112.60
2	B	124	SER	CA-C-N	6.57	131.25	121.72
2	B	124	SER	C-N-CA	6.57	131.25	121.72
1	C	45	ASP	CA-C-O	-6.57	114.50	121.99
1	E	45	ASP	CA-C-O	-6.57	114.50	121.99
2	H	124	SER	CA-C-N	6.57	131.25	121.72
2	H	124	SER	C-N-CA	6.57	131.25	121.72
2	H	212	THR	CB-CA-C	6.57	122.04	110.35
2	H	238	VAL	CA-C-N	6.57	130.70	121.24
2	H	238	VAL	C-N-CA	6.57	130.70	121.24
2	H	277	VAL	O-C-N	6.57	130.07	123.18
2	B	212	THR	CB-CA-C	6.57	122.04	110.35
2	L	103	TRP	CA-CB-CG	6.57	126.07	113.60
2	P	103	TRP	CA-CB-CG	6.57	126.07	113.60
1	C	104	GLN	OE1-CD-NE2	-6.56	116.04	122.60
1	E	104	GLN	OE1-CD-NE2	-6.56	116.04	122.60
2	H	221	VAL	CA-C-O	6.55	128.34	120.67
1	A	108	ILE	CA-C-N	-6.55	113.43	122.93
1	A	108	ILE	C-N-CA	-6.55	113.43	122.93
2	D	207	SER	CA-C-N	-6.55	114.35	123.13
2	D	207	SER	C-N-CA	-6.55	114.35	123.13
2	F	207	SER	CA-C-N	-6.55	114.35	123.13
2	F	207	SER	C-N-CA	-6.55	114.35	123.13
1	E	118	ALA	N-CA-C	6.55	120.37	112.38
1	C	118	ALA	N-CA-C	6.55	120.37	112.38
1	G	108	ILE	CA-C-N	-6.55	113.44	122.93
1	G	108	ILE	C-N-CA	-6.55	113.44	122.93
2	D	32	GLN	O-C-N	-6.54	115.02	122.68
2	F	32	GLN	O-C-N	-6.54	115.02	122.68
2	D	29	ASN	CA-CB-CG	-6.54	106.06	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	29	ASN	CA-CB-CG	-6.54	106.06	112.60
1	G	71	THR	CA-C-N	-6.54	113.42	123.17
1	G	71	THR	C-N-CA	-6.54	113.42	123.17
2	F	231	ILE	O-C-N	6.54	129.74	122.61
2	L	17	SER	N-CA-C	6.54	119.66	109.52
2	P	17	SER	N-CA-C	6.54	119.66	109.52
2	J	227	ARG	NE-CZ-NH2	6.54	125.08	119.20
2	H	60	ARG	CA-CB-CG	6.53	127.17	114.10
1	O	172	GLU	CA-CB-CG	6.53	127.17	114.10
2	P	237	THR	CA-C-N	6.53	131.69	123.14
2	P	237	THR	C-N-CA	6.53	131.69	123.14
2	B	60	ARG	CA-CB-CG	6.53	127.16	114.10
2	L	171	THR	O-C-N	-6.53	115.55	123.19
1	A	71	THR	CA-C-N	-6.53	113.44	123.17
1	A	71	THR	C-N-CA	-6.53	113.44	123.17
1	K	172	GLU	CA-CB-CG	6.53	127.16	114.10
2	D	60	ARG	CA-CB-CG	6.53	127.15	114.10
1	M	184	ASN	CA-CB-CG	6.53	119.12	112.60
2	B	167	ASP	CA-C-O	6.52	129.61	121.46
1	O	91	PRO	N-CA-CB	-6.52	96.40	103.25
2	B	171	THR	CA-CB-OG1	6.52	119.38	109.60
2	D	33	ASN	OD1-CG-ND2	-6.52	116.08	122.60
2	F	33	ASN	OD1-CG-ND2	-6.52	116.08	122.60
2	H	171	THR	CA-CB-OG1	6.52	119.38	109.60
2	J	74	THR	O-C-N	-6.52	115.22	123.24
2	N	74	THR	O-C-N	-6.52	115.22	123.24
1	I	203	VAL	N-CA-CB	6.52	121.98	111.23
1	M	203	VAL	N-CA-CB	6.52	121.98	111.23
2	L	237	THR	CA-C-N	6.51	131.67	123.14
2	L	237	THR	C-N-CA	6.51	131.67	123.14
2	P	171	THR	O-C-N	-6.51	115.57	123.19
2	B	29	ASN	CA-CB-CG	-6.51	106.09	112.60
2	H	29	ASN	CA-CB-CG	-6.51	106.09	112.60
2	F	60	ARG	CA-CB-CG	6.51	127.11	114.10
1	K	91	PRO	N-CA-CB	-6.50	96.42	103.25
2	H	167	ASP	CA-C-O	6.50	129.59	121.46
2	J	60	ARG	CA-CB-CG	6.50	127.10	114.10
2	N	60	ARG	CA-CB-CG	6.50	127.10	114.10
2	N	70	ASN	CB-CG-ND2	-6.50	106.65	116.40
1	M	184	ASN	CA-C-O	-6.50	114.47	121.94
2	B	168	VAL	O-C-N	-6.50	114.45	122.57
2	H	168	VAL	O-C-N	-6.50	114.45	122.57

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	39	ASN	O-C-N	-6.50	113.52	121.83
1	E	39	ASN	O-C-N	-6.50	113.52	121.83
1	G	1	GLY	CA-C-N	6.50	130.75	122.37
1	G	1	GLY	C-N-CA	6.50	130.75	122.37
1	C	88	LYS	CA-C-O	-6.49	113.83	120.71
2	D	101	LYS	CA-C-N	6.49	126.47	119.78
2	D	101	LYS	C-N-CA	6.49	126.47	119.78
2	F	101	LYS	CA-C-N	6.49	126.47	119.78
2	F	101	LYS	C-N-CA	6.49	126.47	119.78
2	B	211	ASN	N-CA-CB	6.49	119.86	110.06
1	M	19	GLN	OE1-CD-NE2	6.49	129.09	122.60
2	L	145	VAL	CA-C-N	6.49	132.32	123.11
2	L	145	VAL	C-N-CA	6.49	132.32	123.11
2	J	70	ASN	CB-CG-ND2	-6.49	106.67	116.40
2	J	223	VAL	O-C-N	6.49	130.04	123.10
2	B	210	THR	OG1-CB-CG2	-6.48	96.33	109.30
2	D	275	THR	CA-C-O	-6.48	113.42	120.36
1	I	184	ASN	CA-C-O	-6.48	114.48	121.94
1	A	1	GLY	CA-C-N	6.48	130.73	122.37
1	A	1	GLY	C-N-CA	6.48	130.73	122.37
2	F	275	THR	CA-C-O	-6.48	113.42	120.36
2	H	211	ASN	N-CA-CB	6.48	119.85	110.06
2	H	210	THR	OG1-CB-CG2	-6.48	96.35	109.30
1	E	88	LYS	CA-C-O	-6.48	113.85	120.71
2	D	61	GLY	O-C-N	-6.47	118.31	123.49
1	C	110	ARG	NE-CZ-NH1	-6.47	115.03	121.50
1	E	110	ARG	NE-CZ-NH1	-6.47	115.03	121.50
1	I	185	ILE	O-C-N	-6.47	116.44	122.71
1	K	184	ASN	CA-C-N	-6.47	114.89	123.17
1	K	184	ASN	C-N-CA	-6.47	114.89	123.17
2	F	61	GLY	O-C-N	-6.46	118.32	123.49
2	P	145	VAL	CA-C-N	6.46	132.29	123.11
2	P	145	VAL	C-N-CA	6.46	132.29	123.11
1	I	78	ASP	CA-CB-CG	6.46	119.06	112.60
1	I	19	GLN	OE1-CD-NE2	6.46	129.06	122.60
1	C	151	THR	CA-CB-OG1	-6.46	99.92	109.60
2	D	181	ILE	CB-CG1-CD1	-6.46	100.25	113.80
1	E	173	SER	O-C-N	6.46	131.54	123.15
2	F	181	ILE	CB-CG1-CD1	-6.46	100.25	113.80
2	J	101	LYS	CA-CB-CG	6.46	127.01	114.10
2	N	101	LYS	CA-CB-CG	6.46	127.01	114.10
1	O	184	ASN	CA-C-N	-6.46	114.91	123.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	O	184	ASN	C-N-CA	-6.46	114.91	123.17
2	B	66	GLY	O-C-N	-6.45	115.44	122.54
2	H	66	GLY	O-C-N	-6.45	115.44	122.54
2	L	127	ALA	N-CA-C	6.45	118.66	108.79
2	P	127	ALA	N-CA-C	6.45	118.66	108.79
1	M	184	ASN	CA-C-N	-6.45	114.92	123.17
1	M	184	ASN	C-N-CA	-6.45	114.92	123.17
1	A	164	ASN	CA-C-O	-6.45	114.78	121.87
2	F	269	GLN	OE1-CD-NE2	6.45	129.04	122.60
1	G	164	ASN	CA-C-O	-6.45	114.78	121.87
1	M	185	ILE	O-C-N	-6.45	116.46	122.71
2	N	223	VAL	O-C-N	6.45	130.00	123.10
1	K	184	ASN	CA-CB-CG	6.44	119.04	112.60
1	O	184	ASN	CA-CB-CG	6.44	119.04	112.60
2	B	72	SER	N-CA-C	-6.44	99.54	109.52
2	B	227	ARG	CD-NE-CZ	-6.43	115.39	124.40
1	C	173	SER	O-C-N	6.43	131.51	123.15
1	E	151	THR	CA-CB-OG1	-6.43	99.95	109.60
2	H	72	SER	N-CA-C	-6.43	99.55	109.52
2	H	227	ARG	CD-NE-CZ	-6.43	115.39	124.40
2	L	91	PRO	CB-CA-C	6.43	120.27	110.75
1	M	78	ASP	CA-CB-CG	6.43	119.03	112.60
2	P	91	PRO	CB-CA-C	6.43	120.27	110.75
1	A	51	THR	CB-CA-C	6.43	117.94	108.87
2	J	74	THR	CA-C-O	6.43	128.63	121.11
2	B	185	VAL	CA-C-N	-6.43	111.69	122.29
2	B	185	VAL	C-N-CA	-6.43	111.69	122.29
2	H	185	VAL	CA-C-N	-6.43	111.69	122.29
2	H	185	VAL	C-N-CA	-6.43	111.69	122.29
2	D	269	GLN	OE1-CD-NE2	6.42	129.02	122.60
2	H	185	VAL	CG1-CB-CG2	6.42	124.93	110.80
1	G	51	THR	CB-CA-C	6.42	117.92	108.87
2	H	8	GLY	CA-C-N	6.42	131.31	122.77
2	H	8	GLY	C-N-CA	6.42	131.31	122.77
1	C	104	GLN	CB-CG-CD	6.42	123.51	112.60
1	E	104	GLN	CB-CG-CD	6.42	123.51	112.60
2	F	48	TYR	CA-C-N	6.42	125.99	119.19
2	F	48	TYR	C-N-CA	6.42	125.99	119.19
2	L	250	LEU	N-CA-C	-6.42	99.43	109.25
2	P	250	LEU	N-CA-C	-6.42	99.43	109.25
2	B	95	TYR	CA-C-N	-6.42	110.86	122.54
2	B	95	TYR	C-N-CA	-6.42	110.86	122.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	H	95	TYR	CA-C-N	-6.42	110.86	122.54
2	H	95	TYR	C-N-CA	-6.42	110.86	122.54
2	B	8	GLY	CA-C-N	6.41	131.30	122.77
2	B	8	GLY	C-N-CA	6.41	131.30	122.77
2	B	185	VAL	CG1-CB-CG2	6.41	124.90	110.80
1	I	184	ASN	CA-C-N	-6.41	114.97	123.17
1	I	184	ASN	C-N-CA	-6.41	114.97	123.17
2	N	74	THR	CA-C-O	6.41	128.60	121.11
1	C	103	LEU	CA-C-N	-6.40	113.88	122.72
1	C	103	LEU	C-N-CA	-6.40	113.88	122.72
2	D	176	PRO	CA-C-N	6.40	130.57	122.83
2	D	176	PRO	C-N-CA	6.40	130.57	122.83
2	F	176	PRO	CA-C-N	6.40	130.57	122.83
2	F	176	PRO	C-N-CA	6.40	130.57	122.83
2	P	40	THR	N-CA-C	-6.40	105.40	113.72
1	A	110	ARG	NE-CZ-NH2	6.40	124.96	119.20
2	D	48	TYR	CA-C-N	6.40	125.97	119.19
2	D	48	TYR	C-N-CA	6.40	125.97	119.19
2	B	214	SER	CA-C-N	6.39	131.11	121.40
2	B	214	SER	C-N-CA	6.39	131.11	121.40
2	D	256	TYR	CB-CG-CD1	-6.39	111.22	120.80
2	F	256	TYR	CB-CG-CD1	-6.39	111.22	120.80
2	H	214	SER	CA-C-N	6.39	131.11	121.40
2	H	214	SER	C-N-CA	6.39	131.11	121.40
1	K	203	VAL	N-CA-CB	6.39	121.77	111.23
2	L	59	GLN	N-CA-C	6.39	118.32	111.36
2	D	178	SER	CA-CB-OG	6.38	123.87	111.10
2	H	118	VAL	CB-CA-C	6.38	118.57	111.80
1	O	203	VAL	N-CA-CB	6.38	121.76	111.23
2	L	40	THR	N-CA-C	-6.38	105.42	113.72
2	B	226	THR	CB-CA-C	6.38	120.65	109.80
1	A	9	VAL	CA-C-O	-6.38	113.60	120.36
1	E	103	LEU	CA-C-N	-6.38	113.92	122.72
1	E	103	LEU	C-N-CA	-6.38	113.92	122.72
2	F	13	ILE	CA-C-O	-6.37	112.81	120.78
2	H	226	THR	CB-CA-C	6.37	120.63	109.80
1	C	71	THR	CA-C-N	-6.37	113.68	123.17
1	C	71	THR	C-N-CA	-6.37	113.68	123.17
1	E	71	THR	CA-C-N	-6.37	113.68	123.17
1	E	71	THR	C-N-CA	-6.37	113.68	123.17
2	F	28	VAL	CA-C-O	6.37	126.70	120.27
2	F	178	SER	CA-CB-OG	6.37	123.84	111.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	110	ARG	NE-CZ-NH2	6.37	124.93	119.20
2	H	92	ARG	CD-NE-CZ	6.37	133.31	124.40
2	N	191	GLN	N-CA-CB	-6.37	101.47	110.51
2	L	45	HIS	CA-CB-CG	-6.37	107.43	113.80
2	P	45	HIS	CA-CB-CG	-6.37	107.43	113.80
1	C	100	GLU	CA-C-N	6.36	130.89	122.30
1	C	100	GLU	C-N-CA	6.36	130.89	122.30
1	E	100	GLU	CA-C-N	6.36	130.89	122.30
1	E	100	GLU	C-N-CA	6.36	130.89	122.30
2	J	191	GLN	N-CA-CB	-6.36	101.48	110.51
2	D	13	ILE	CA-C-O	-6.36	112.83	120.78
2	P	59	GLN	N-CA-C	6.36	118.29	111.36
1	G	9	VAL	CA-C-O	-6.35	113.62	120.36
1	K	184	ASN	CA-C-O	-6.35	114.64	121.94
1	O	184	ASN	CA-C-O	-6.34	114.65	121.94
2	B	118	VAL	CB-CA-C	6.34	118.52	111.80
1	A	25	ASN	OD1-CG-ND2	6.34	128.94	122.60
2	B	92	ARG	CD-NE-CZ	6.34	133.27	124.40
1	C	134	ARG	CA-C-O	-6.34	113.52	120.24
1	E	134	ARG	CA-C-O	-6.34	113.52	120.24
1	G	25	ASN	OD1-CG-ND2	6.34	128.94	122.60
2	L	191	GLN	N-CA-C	6.34	116.97	108.23
1	O	185	ILE	O-C-N	-6.33	116.57	122.71
2	L	69	SER	CA-C-O	-6.33	112.40	120.31
2	P	69	SER	CA-C-O	-6.33	112.40	120.31
2	P	227	ARG	NE-CZ-NH2	6.32	124.89	119.20
1	C	62	GLU	CA-C-O	-6.32	113.31	120.32
1	E	62	GLU	CA-C-O	-6.32	113.31	120.32
1	G	118	ALA	N-CA-C	6.32	120.09	112.38
2	P	191	GLN	N-CA-C	6.32	116.95	108.23
2	F	176	PRO	N-CA-C	-6.32	99.45	112.47
2	L	15	GLY	CA-C-O	-6.32	115.08	121.90
2	L	227	ARG	NE-CZ-NH2	6.32	124.89	119.20
1	G	71	THR	CA-C-O	-6.32	114.92	121.87
1	C	44	LYS	N-CA-CB	6.31	119.42	110.46
1	E	44	LYS	N-CA-CB	6.31	119.42	110.46
1	K	185	ILE	O-C-N	-6.31	116.59	122.71
2	D	72	SER	N-CA-C	-6.31	99.74	109.52
2	F	72	SER	N-CA-C	-6.31	99.74	109.52
2	B	23	ASN	CA-C-N	-6.30	111.76	122.67
2	B	23	ASN	C-N-CA	-6.30	111.76	122.67
2	D	28	VAL	CA-C-O	6.30	126.64	120.27

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	H	23	ASN	CA-C-N	-6.30	111.77	122.67
2	H	23	ASN	C-N-CA	-6.30	111.77	122.67
2	L	124	SER	N-CA-C	6.30	119.81	110.48
2	D	176	PRO	N-CA-C	-6.30	99.50	112.47
2	F	185	VAL	CG1-CB-CG2	6.30	124.65	110.80
1	I	141	THR	CA-C-O	6.30	127.48	120.43
2	P	15	GLY	CA-C-O	-6.29	115.10	121.90
1	A	118	ALA	N-CA-C	6.29	120.05	112.38
2	H	180	PRO	CA-C-O	-6.29	114.03	122.08
2	D	57	THR	OG1-CB-CG2	6.29	121.87	109.30
2	D	185	VAL	CG1-CB-CG2	6.29	124.63	110.80
2	F	57	THR	OG1-CB-CG2	6.29	121.87	109.30
2	P	124	SER	N-CA-C	6.28	119.78	110.48
1	M	141	THR	CA-C-O	6.28	127.47	120.43
2	J	206	ASN	N-CA-CB	-6.28	102.48	111.84
2	N	206	ASN	N-CA-CB	-6.28	102.48	111.84
2	D	227	ARG	CB-CG-CD	6.28	125.74	111.30
2	F	227	ARG	CB-CG-CD	6.28	125.74	111.30
1	C	116	ARG	NE-CZ-NH1	-6.28	115.22	121.50
1	E	116	ARG	NE-CZ-NH1	-6.28	115.22	121.50
1	A	71	THR	CA-C-O	-6.28	114.97	121.87
1	I	28	ASN	OD1-CG-ND2	-6.28	116.33	122.60
1	O	1	GLY	CA-C-N	-6.28	113.94	122.91
1	O	1	GLY	C-N-CA	-6.28	113.94	122.91
1	M	28	ASN	OD1-CG-ND2	-6.27	116.33	122.60
2	L	69	SER	CB-CA-C	-6.27	99.08	110.56
2	B	180	PRO	CA-C-O	-6.26	114.06	122.08
1	C	47	ARG	N-CA-C	6.26	118.11	111.28
1	E	47	ARG	N-CA-C	6.26	118.11	111.28
1	K	47	ARG	NE-CZ-NH1	6.26	127.76	121.50
2	L	59	GLN	OE1-CD-NE2	6.26	128.86	122.60
1	O	47	ARG	NE-CZ-NH1	6.26	127.76	121.50
2	P	59	GLN	OE1-CD-NE2	6.26	128.86	122.60
1	E	49	ILE	CB-CG1-CD1	-6.26	100.66	113.80
1	C	78	ASP	N-CA-CB	-6.26	101.03	110.73
1	E	78	ASP	N-CA-CB	-6.26	101.03	110.73
1	M	47	ARG	NE-CZ-NH2	-6.26	113.57	119.20
2	P	69	SER	CB-CA-C	-6.26	99.11	110.56
1	K	1	GLY	CA-C-N	-6.25	113.97	122.91
1	K	1	GLY	C-N-CA	-6.25	113.97	122.91
1	C	49	ILE	CB-CG1-CD1	-6.25	100.68	113.80
2	L	60	ARG	CA-CB-CG	6.25	126.59	114.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	P	60	ARG	CA-CB-CG	6.25	126.59	114.10
2	N	33	ASN	CA-C-N	6.25	130.96	122.84
2	N	33	ASN	C-N-CA	6.25	130.96	122.84
1	A	41	ASP	CA-C-O	-6.24	111.88	119.43
1	A	78	ASP	N-CA-CB	-6.22	101.08	110.73
2	F	182	PRO	CA-C-O	-6.22	109.27	120.60
1	G	78	ASP	N-CA-CB	-6.22	101.08	110.73
1	G	41	ASP	CA-C-O	-6.22	111.91	119.43
1	I	47	ARG	NE-CZ-NH2	-6.22	113.60	119.20
1	K	92	SER	N-CA-CB	-6.22	100.98	110.49
2	J	33	ASN	CA-C-N	6.21	130.92	122.84
2	J	33	ASN	C-N-CA	6.21	130.92	122.84
2	D	120	ILE	CA-C-O	-6.21	114.10	120.25
2	F	120	ILE	CA-C-O	-6.21	114.10	120.25
2	D	182	PRO	CA-C-O	-6.21	109.30	120.60
1	O	26	ASP	CA-C-O	6.21	129.38	120.51
2	D	177	GLY	O-C-N	-6.20	116.25	122.82
1	O	92	SER	N-CA-CB	-6.20	101.01	110.49
2	D	199	GLY	O-C-N	-6.19	115.12	123.67
2	F	177	GLY	O-C-N	-6.19	116.26	122.82
2	B	227	ARG	N-CA-CB	6.19	120.74	110.47
2	H	227	ARG	N-CA-CB	6.19	120.74	110.47
1	C	143	ILE	CA-C-O	6.18	127.90	120.66
1	E	143	ILE	CA-C-O	6.18	127.90	120.66
2	P	89	GLU	CA-C-O	6.18	128.10	121.05
2	H	132	ARG	CB-CG-CD	6.18	125.52	111.30
1	K	26	ASP	CA-C-O	6.18	129.35	120.51
2	D	50	GLU	CA-C-O	-6.18	111.31	119.10
2	F	50	GLU	CA-C-O	-6.18	111.31	119.10
2	L	60	ARG	NE-CZ-NH2	-6.18	113.64	119.20
2	P	60	ARG	NE-CZ-NH2	-6.18	113.64	119.20
1	A	22	VAL	CA-C-N	-6.18	111.95	122.33
1	A	22	VAL	C-N-CA	-6.18	111.95	122.33
1	A	163	GLU	CA-C-O	-6.18	114.23	120.96
1	G	22	VAL	CA-C-N	-6.18	111.95	122.33
1	G	22	VAL	C-N-CA	-6.18	111.95	122.33
1	G	163	GLU	CA-C-O	-6.18	114.23	120.96
2	B	132	ARG	CB-CG-CD	6.17	125.50	111.30
1	K	167	VAL	CA-C-O	6.17	122.58	119.12
1	O	167	VAL	CA-C-O	6.17	122.58	119.12
1	M	27	GLU	CB-CA-C	6.17	122.57	111.03
1	E	47	ARG	NH1-CZ-NH2	6.17	127.32	119.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	199	GLY	O-C-N	-6.17	115.16	123.67
2	B	254	ALA	CA-C-O	-6.17	113.83	120.92
2	H	254	ALA	CA-C-O	-6.17	113.83	120.92
1	I	132	ARG	CA-C-O	-6.16	114.23	121.44
1	K	47	ARG	CD-NE-CZ	6.16	133.03	124.40
1	O	47	ARG	CD-NE-CZ	6.16	133.03	124.40
1	K	107	ILE	N-CA-C	6.16	117.02	108.89
1	O	107	ILE	N-CA-C	6.16	117.02	108.89
1	I	27	GLU	CB-CA-C	6.16	122.54	111.03
2	N	103	TRP	CA-CB-CG	6.16	125.29	113.60
1	I	107	ILE	N-CA-C	6.15	117.01	108.89
2	D	171	THR	CA-C-N	-6.15	106.79	121.80
2	D	171	THR	C-N-CA	-6.15	106.79	121.80
2	F	171	THR	CA-C-N	-6.15	106.79	121.80
2	F	171	THR	C-N-CA	-6.15	106.79	121.80
2	L	89	GLU	CA-C-O	6.15	128.06	121.05
1	C	47	ARG	NH1-CZ-NH2	6.15	127.29	119.30
1	M	107	ILE	N-CA-C	6.15	117.00	108.89
2	D	95	TYR	CA-C-N	-6.14	111.36	122.54
2	D	95	TYR	C-N-CA	-6.14	111.36	122.54
2	F	95	TYR	CA-C-N	-6.14	111.37	122.54
2	F	95	TYR	C-N-CA	-6.14	111.37	122.54
2	D	23	ASN	CA-C-N	-6.14	112.05	122.67
2	D	23	ASN	C-N-CA	-6.14	112.05	122.67
2	F	23	ASN	CA-C-N	-6.14	112.05	122.67
2	F	23	ASN	C-N-CA	-6.14	112.05	122.67
2	J	103	TRP	CA-CB-CG	6.14	125.26	113.60
1	M	47	ARG	NH1-CZ-NH2	-6.14	111.32	119.30
2	F	151	ASN	CA-CB-CG	-6.13	106.47	112.60
1	A	177	LEU	CA-C-O	-6.13	110.38	120.80
1	G	177	LEU	CA-C-O	-6.13	110.38	120.80
2	D	235	ASN	CA-C-O	-6.13	113.42	121.08
2	F	235	ASN	CA-C-O	-6.13	113.42	121.08
2	D	216	SER	CA-CB-OG	6.12	123.34	111.10
2	F	216	SER	CA-CB-OG	6.12	123.34	111.10
2	J	27	VAL	CA-C-O	6.12	126.31	120.25
1	A	47	ARG	N-CA-C	6.11	118.73	111.33
1	G	47	ARG	N-CA-C	6.11	118.73	111.33
1	M	132	ARG	CA-C-O	-6.11	114.29	121.44
1	C	104	GLN	CA-C-N	6.11	130.54	122.30
1	C	104	GLN	C-N-CA	6.11	130.54	122.30
1	E	104	GLN	CA-C-N	6.11	130.54	122.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	104	GLN	C-N-CA	6.11	130.54	122.30
2	B	126	ILE	CA-CB-CG1	-6.10	100.02	110.40
2	D	55	TYR	CA-C-N	-6.10	114.51	122.99
2	D	55	TYR	C-N-CA	-6.10	114.51	122.99
2	F	55	TYR	CA-C-N	-6.10	114.51	122.99
2	F	55	TYR	C-N-CA	-6.10	114.51	122.99
2	H	126	ILE	CA-CB-CG1	-6.10	100.02	110.40
1	I	47	ARG	NH1-CZ-NH2	-6.10	111.37	119.30
2	J	40	THR	N-CA-C	-6.10	105.79	113.72
2	N	40	THR	N-CA-C	-6.10	105.79	113.72
2	D	151	ASN	CA-CB-CG	-6.09	106.51	112.60
2	D	192	ASN	CA-CB-CG	-6.09	106.50	112.60
2	F	192	ASN	CA-CB-CG	-6.09	106.50	112.60
2	H	219	GLN	O-C-N	6.09	130.21	123.33
1	G	116	ARG	NE-CZ-NH2	6.08	124.68	119.20
1	A	142	LEU	CA-C-N	-6.08	114.84	123.11
1	A	142	LEU	C-N-CA	-6.08	114.84	123.11
1	G	142	LEU	CA-C-N	-6.08	114.84	123.11
1	G	142	LEU	C-N-CA	-6.08	114.84	123.11
2	P	249	SER	CA-C-O	-6.08	113.67	120.54
2	L	223	VAL	CA-C-O	-6.07	113.87	120.67
2	N	27	VAL	CA-C-O	6.07	126.26	120.25
2	P	223	VAL	CA-C-O	-6.07	113.87	120.67
2	F	129	LEU	CA-C-O	6.07	127.00	120.32
2	B	270	SER	O-C-N	-6.07	115.83	123.17
2	H	270	SER	O-C-N	-6.07	115.83	123.17
1	K	27	GLU	CB-CA-C	6.07	122.38	111.03
1	O	27	GLU	CB-CA-C	6.07	122.38	111.03
2	B	219	GLN	O-C-N	6.06	130.18	123.33
2	L	249	SER	CA-C-O	-6.06	113.69	120.54
1	M	26	ASP	OD1-CG-OD2	6.06	137.45	122.90
1	O	141	THR	CA-C-O	6.05	127.21	120.43
2	D	70	ASN	CB-CA-C	-6.05	99.94	110.17
2	F	70	ASN	CB-CA-C	-6.05	99.94	110.17
1	I	9	VAL	N-CA-CB	6.05	124.43	111.91
1	I	26	ASP	OD1-CG-OD2	6.05	137.41	122.90
1	I	184	ASN	N-CA-C	-6.04	102.73	110.53
2	D	254	ALA	CA-C-O	-6.04	113.97	120.92
2	F	254	ALA	CA-C-O	-6.04	113.97	120.92
1	K	185	ILE	CB-CA-C	6.04	117.80	111.09
2	L	40	THR	CA-C-O	6.04	125.70	119.05
2	L	168	VAL	CA-C-O	6.04	128.34	120.78

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	N	70	ASN	CB-CG-OD1	6.04	132.89	120.80
1	O	185	ILE	CB-CA-C	6.04	117.80	111.09
2	P	168	VAL	CA-C-O	6.04	128.34	120.78
1	E	116	ARG	NE-CZ-NH2	6.04	124.64	119.20
2	D	129	LEU	CA-C-O	6.04	126.96	120.32
2	J	191	GLN	OE1-CD-NE2	6.03	128.63	122.60
2	N	191	GLN	OE1-CD-NE2	6.03	128.63	122.60
1	G	116	ARG	NE-CZ-NH1	-6.03	115.47	121.50
2	J	70	ASN	CB-CG-OD1	6.03	132.86	120.80
1	K	184	ASN	N-CA-C	-6.03	102.75	110.53
1	C	116	ARG	NE-CZ-NH2	6.03	124.63	119.20
2	P	191	GLN	N-CA-CB	-6.02	101.96	110.51
2	L	23	ASN	CA-CB-CG	6.02	118.62	112.60
2	L	191	GLN	N-CA-CB	-6.02	101.96	110.51
2	P	40	THR	CA-C-O	6.02	125.68	119.05
2	D	179	VAL	N-CA-CB	6.02	119.64	111.21
2	F	179	VAL	N-CA-CB	6.02	119.64	111.21
1	A	116	ARG	NE-CZ-NH2	6.02	124.62	119.20
1	M	9	VAL	N-CA-CB	6.02	124.37	111.91
2	F	174	ASP	CA-CB-CG	-6.01	106.59	112.60
1	E	96	SER	CA-C-O	6.01	127.12	120.63
1	K	141	THR	CA-C-O	6.01	127.16	120.43
1	M	184	ASN	N-CA-C	-6.01	102.78	110.53
1	O	184	ASN	N-CA-C	-6.01	102.78	110.53
2	B	212	THR	CA-C-O	6.01	125.27	119.08
2	J	144	PHE	CA-C-O	-6.01	114.03	120.46
2	N	144	PHE	CA-C-O	-6.01	114.03	120.46
2	B	174	ASP	CA-CB-CG	-6.00	106.59	112.60
1	C	96	SER	CA-C-O	6.00	127.12	120.63
2	D	174	ASP	CA-CB-CG	-6.00	106.60	112.60
2	J	101	LYS	CB-CA-C	6.00	118.17	108.87
2	D	259	THR	N-CA-CB	-5.99	101.87	110.80
2	F	259	THR	N-CA-CB	-5.99	101.87	110.80
2	H	174	ASP	CA-CB-CG	-5.99	106.61	112.60
1	I	172	GLU	O-C-N	-5.99	116.97	123.26
1	A	116	ARG	NE-CZ-NH1	-5.99	115.51	121.50
2	H	272	ILE	CB-CG1-CD1	-5.99	101.22	113.80
1	A	62	GLU	CA-C-N	-5.99	112.76	122.82
1	A	62	GLU	C-N-CA	-5.99	112.76	122.82
2	P	23	ASN	CA-CB-CG	5.99	118.59	112.60
2	B	272	ILE	CB-CG1-CD1	-5.98	101.23	113.80
2	B	181	ILE	CB-CG1-CD1	-5.98	101.24	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	201	THR	CA-C-O	5.98	127.30	120.54
1	C	193	TYR	CA-C-N	-5.98	110.33	121.93
1	C	193	TYR	C-N-CA	-5.98	110.33	121.93
1	E	193	TYR	CA-C-N	-5.98	110.33	121.93
1	E	193	TYR	C-N-CA	-5.98	110.33	121.93
2	N	101	LYS	CB-CA-C	5.98	118.14	108.87
2	D	35	VAL	O-C-N	-5.97	115.08	122.97
2	F	35	VAL	O-C-N	-5.97	115.08	122.97
1	G	62	GLU	CA-C-N	-5.97	112.78	122.82
1	G	62	GLU	C-N-CA	-5.97	112.78	122.82
2	B	33	ASN	CA-C-N	5.97	130.60	122.84
2	B	33	ASN	C-N-CA	5.97	130.60	122.84
2	H	181	ILE	CB-CG1-CD1	-5.97	101.26	113.80
2	F	87	THR	CA-C-O	-5.97	112.35	119.15
2	F	100	ASP	CA-CB-CG	-5.97	106.63	112.60
2	F	221	VAL	N-CA-C	5.97	117.18	108.53
2	H	33	ASN	CA-C-N	5.97	130.60	122.84
2	H	33	ASN	C-N-CA	5.97	130.60	122.84
2	H	212	THR	CA-C-O	5.97	125.22	119.08
2	J	153	ASP	CA-C-O	-5.96	114.63	121.07
1	A	186	THR	N-CA-CB	5.96	121.27	111.08
2	D	92	ARG	CB-CA-C	-5.96	98.57	109.54
2	D	100	ASP	CA-CB-CG	-5.96	106.64	112.60
2	F	92	ARG	CB-CA-C	-5.96	98.57	109.54
1	G	186	THR	N-CA-CB	5.96	121.27	111.08
1	E	201	THR	CA-C-O	5.96	127.27	120.54
1	M	172	GLU	O-C-N	-5.96	117.00	123.26
2	D	135	ASN	CA-CB-CG	5.96	118.56	112.60
2	F	135	ASN	CA-CB-CG	5.96	118.56	112.60
2	P	234	ALA	N-CA-C	5.96	119.10	110.28
2	D	116	GLY	CA-C-O	5.96	128.70	121.61
2	F	116	GLY	CA-C-O	5.96	128.70	121.61
2	H	157	PRO	CA-C-O	-5.96	114.63	121.36
2	J	145	VAL	CA-C-O	5.96	127.08	120.59
2	D	87	THR	CA-C-O	-5.95	112.36	119.15
2	D	107	LEU	CA-C-O	-5.95	113.94	120.43
2	F	107	LEU	CA-C-O	-5.95	113.94	120.43
2	L	234	ALA	N-CA-C	5.95	119.09	110.28
2	J	16	GLY	N-CA-C	5.95	127.28	113.18
2	L	172	LEU	N-CA-C	5.95	119.32	110.39
2	N	16	GLY	N-CA-C	5.95	127.28	113.18
2	P	172	LEU	N-CA-C	5.95	119.32	110.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	143	ILE	CA-C-O	5.95	127.62	120.66
1	G	143	ILE	CA-C-O	5.95	127.62	120.66
2	J	80	SER	O-C-N	-5.95	116.35	123.31
1	E	108	ILE	CA-C-N	-5.95	114.80	123.00
1	E	108	ILE	C-N-CA	-5.95	114.80	123.00
2	H	110	THR	CB-CA-C	-5.95	103.31	110.15
2	J	240	LEU	N-CA-C	-5.95	102.52	110.55
2	D	212	THR	CB-CA-C	5.94	120.93	110.35
2	D	221	VAL	N-CA-C	5.94	117.15	108.53
2	D	221	VAL	CA-C-O	5.94	127.49	120.72
2	N	145	VAL	CA-C-O	5.94	127.06	120.59
1	M	25	ASN	CA-CB-CG	5.94	118.54	112.60
2	D	8	GLY	CA-C-N	5.94	130.66	122.77
2	D	8	GLY	C-N-CA	5.94	130.66	122.77
2	F	8	GLY	CA-C-N	5.94	130.66	122.77
2	F	8	GLY	C-N-CA	5.94	130.66	122.77
2	F	185	VAL	CA-C-N	-5.94	112.50	122.29
2	F	185	VAL	C-N-CA	-5.94	112.50	122.29
2	B	110	THR	CB-CA-C	-5.93	103.33	110.15
1	C	142	LEU	CA-C-N	-5.93	115.04	123.11
1	C	142	LEU	C-N-CA	-5.93	115.04	123.11
2	D	185	VAL	CA-C-N	-5.93	112.50	122.29
2	D	185	VAL	C-N-CA	-5.93	112.50	122.29
2	F	212	THR	CB-CA-C	5.93	120.91	110.35
2	D	126	ILE	CA-C-O	5.93	128.19	120.78
2	F	126	ILE	CA-C-O	5.93	128.19	120.78
2	N	36	VAL	N-CA-CB	5.93	119.12	111.83
2	N	153	ASP	CA-C-O	-5.93	114.67	121.07
1	G	36	TRP	N-CA-CB	-5.93	102.37	111.56
1	C	148	TYR	CA-C-O	-5.93	114.43	120.71
2	F	221	VAL	CA-C-O	5.93	127.48	120.72
2	J	34	LEU	CA-C-O	-5.93	114.38	120.54
2	N	34	LEU	CA-C-O	-5.93	114.38	120.54
1	E	148	TYR	CA-C-O	-5.92	114.43	120.71
2	N	70	ASN	CB-CA-C	5.92	121.54	111.35
2	N	240	LEU	N-CA-C	-5.92	102.56	110.55
1	C	108	ILE	CA-C-N	-5.92	114.83	123.00
1	C	108	ILE	C-N-CA	-5.92	114.83	123.00
2	D	224	GLN	CG-CD-NE2	5.92	125.28	116.40
2	F	224	GLN	CG-CD-NE2	5.92	125.28	116.40
2	B	157	PRO	CA-C-O	-5.92	114.67	121.36
2	D	126	ILE	CB-CG1-CD1	-5.92	101.37	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	I	41	ASP	N-CA-CB	5.92	120.97	111.20
1	M	41	ASP	N-CA-CB	5.92	120.97	111.20
1	A	36	TRP	N-CA-CB	-5.92	102.39	111.56
2	J	70	ASN	CB-CA-C	5.91	121.52	111.35
2	D	139	SER	CB-CA-C	5.91	120.54	111.02
2	F	139	SER	CB-CA-C	5.91	120.54	111.02
2	D	238	VAL	CA-C-N	5.91	129.75	121.24
2	D	238	VAL	C-N-CA	5.91	129.75	121.24
2	F	126	ILE	CB-CG1-CD1	-5.91	101.39	113.80
2	F	238	VAL	CA-C-N	5.91	129.75	121.24
2	F	238	VAL	C-N-CA	5.91	129.75	121.24
2	L	210	THR	N-CA-C	5.91	118.83	109.96
2	P	210	THR	N-CA-C	5.91	118.83	109.96
1	C	5	GLY	O-C-N	-5.91	115.02	122.70
1	E	5	GLY	O-C-N	-5.91	115.02	122.70
1	G	138	ASN	OD1-CG-ND2	-5.90	116.70	122.60
1	I	25	ASN	CA-CB-CG	5.90	118.50	112.60
2	J	36	VAL	N-CA-CB	5.90	119.09	111.83
2	N	234	ALA	N-CA-C	5.90	119.01	110.28
1	G	104	GLN	CB-CG-CD	5.90	122.63	112.60
1	A	8	ARG	NH1-CZ-NH2	-5.90	111.63	119.30
1	G	8	ARG	NH1-CZ-NH2	-5.90	111.63	119.30
1	A	52	PRO	N-CA-CB	5.90	109.09	102.60
2	B	191	GLN	OE1-CD-NE2	5.90	128.50	122.60
1	G	52	PRO	N-CA-CB	5.90	109.09	102.60
2	H	191	GLN	OE1-CD-NE2	5.90	128.50	122.60
2	N	80	SER	O-C-N	-5.90	116.41	123.31
1	E	142	LEU	CA-C-N	-5.89	115.09	123.11
1	E	142	LEU	C-N-CA	-5.89	115.09	123.11
2	H	13	ILE	CA-C-O	-5.89	113.41	120.78
2	L	173	PRO	CA-N-CD	-5.89	103.75	112.00
2	P	173	PRO	CA-N-CD	-5.89	103.75	112.00
1	A	104	GLN	CA-C-N	5.89	130.60	122.77
1	A	104	GLN	C-N-CA	5.89	130.60	122.77
2	B	185	VAL	CA-C-O	-5.89	114.45	121.28
1	A	104	GLN	CB-CG-CD	5.89	122.61	112.60
2	B	259	THR	N-CA-CB	-5.89	102.03	110.80
2	D	214	SER	CA-C-N	5.89	130.35	121.40
2	D	214	SER	C-N-CA	5.89	130.35	121.40
1	K	161	VAL	N-CA-CB	5.88	117.71	111.00
1	O	161	VAL	N-CA-CB	5.88	117.71	111.00
2	H	185	VAL	CA-C-O	-5.88	114.46	121.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	138	ASN	OD1-CG-ND2	-5.87	116.73	122.60
2	F	214	SER	CA-C-N	5.87	130.32	121.40
2	F	214	SER	C-N-CA	5.87	130.32	121.40
2	J	91	PRO	CB-CA-C	5.87	119.44	110.75
2	J	145	VAL	CA-C-N	5.87	131.45	123.11
2	J	145	VAL	C-N-CA	5.87	131.45	123.11
2	N	145	VAL	CA-C-N	5.87	131.45	123.11
2	N	145	VAL	C-N-CA	5.87	131.45	123.11
2	B	13	ILE	CA-C-O	-5.87	113.44	120.78
1	G	104	GLN	CA-C-N	5.87	130.57	122.77
1	G	104	GLN	C-N-CA	5.87	130.57	122.77
2	J	234	ALA	N-CA-C	5.87	118.97	110.28
2	H	259	THR	N-CA-CB	-5.86	102.07	110.80
1	C	47	ARG	CA-C-O	5.86	126.76	120.55
1	C	92	SER	CA-C-O	5.86	127.94	121.56
1	E	47	ARG	CA-C-O	5.86	126.76	120.55
1	E	92	SER	CA-C-O	5.86	127.94	121.56
2	L	67	VAL	CA-C-N	5.85	128.71	120.28
2	L	67	VAL	C-N-CA	5.85	128.71	120.28
2	P	67	VAL	CA-C-N	5.85	128.71	120.28
2	P	67	VAL	C-N-CA	5.85	128.71	120.28
2	B	216	SER	CA-CB-OG	5.85	122.80	111.10
2	N	91	PRO	CB-CA-C	5.85	119.41	110.75
2	J	60	ARG	NE-CZ-NH2	-5.85	113.94	119.20
2	N	60	ARG	NE-CZ-NH2	-5.85	113.94	119.20
2	B	147	ASN	CB-CG-ND2	5.84	125.16	116.40
2	H	102	PRO	CB-CA-C	-5.84	103.75	111.23
2	B	179	VAL	N-CA-CB	5.83	119.38	111.21
2	H	179	VAL	N-CA-CB	5.83	119.38	111.21
2	H	216	SER	CA-CB-OG	5.83	122.77	111.10
2	B	102	PRO	CB-CA-C	-5.83	103.77	111.23
2	J	40	THR	O-C-N	-5.83	115.18	122.35
2	D	46	ASN	OD1-CG-ND2	-5.83	116.77	122.60
2	F	46	ASN	OD1-CG-ND2	-5.83	116.77	122.60
1	K	18	VAL	N-CA-CB	5.83	120.84	111.23
2	N	5	THR	CA-C-O	-5.83	114.40	121.28
1	O	18	VAL	N-CA-CB	5.83	120.84	111.23
2	H	147	ASN	CB-CG-ND2	5.82	125.12	116.40
2	L	81	SER	O-C-N	-5.82	116.41	123.16
2	L	266	GLY	CA-C-O	5.82	125.64	121.04
2	P	81	SER	O-C-N	-5.82	116.41	123.16
2	P	266	GLY	CA-C-O	5.82	125.64	121.04

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	226	THR	O-C-N	-5.82	116.29	123.33
2	D	227	ARG	NE-CZ-NH2	5.81	124.43	119.20
2	F	227	ARG	NE-CZ-NH2	5.81	124.43	119.20
2	D	7	ASN	CA-C-N	5.81	130.88	120.77
2	D	7	ASN	C-N-CA	5.81	130.88	120.77
2	F	7	ASN	CA-C-N	5.81	130.88	120.77
2	F	7	ASN	C-N-CA	5.81	130.88	120.77
2	L	276	PHE	CA-CB-CG	-5.81	107.99	113.80
2	P	276	PHE	CA-CB-CG	-5.81	107.99	113.80
2	J	81	SER	CA-C-N	5.80	133.50	123.11
2	J	81	SER	C-N-CA	5.80	133.50	123.11
2	D	226	THR	O-C-N	-5.80	116.31	123.33
2	H	185	VAL	N-CA-CB	5.80	122.66	111.93
2	B	185	VAL	N-CA-CB	5.80	122.65	111.93
1	E	160	ARG	CA-C-N	5.80	129.73	122.43
1	E	160	ARG	C-N-CA	5.80	129.73	122.43
2	H	57	THR	OG1-CB-CG2	5.80	120.89	109.30
2	J	124	SER	CA-C-O	-5.79	114.25	120.92
2	N	40	THR	O-C-N	-5.79	115.22	122.35
1	C	138	ASN	OD1-CG-ND2	-5.79	116.81	122.60
1	E	138	ASN	OD1-CG-ND2	-5.79	116.81	122.60
2	N	81	SER	CA-C-N	5.79	133.47	123.11
2	N	81	SER	C-N-CA	5.79	133.47	123.11
2	L	132	ARG	CA-C-O	5.79	126.49	120.30
2	P	132	ARG	CA-C-O	5.79	126.49	120.30
2	H	71	PHE	CA-C-O	5.78	127.77	121.06
1	C	160	ARG	CA-C-N	5.78	129.71	122.43
1	C	160	ARG	C-N-CA	5.78	129.71	122.43
2	D	66	GLY	O-C-N	-5.78	116.18	122.54
2	N	124	SER	CA-C-O	-5.78	114.27	120.92
2	B	57	THR	OG1-CB-CG2	5.78	120.86	109.30
2	J	5	THR	CA-C-O	-5.78	114.46	121.28
2	N	126	ILE	CA-C-O	5.78	127.88	120.83
2	H	256	TYR	CB-CG-CD2	5.78	129.46	120.80
1	A	84	TRP	CB-CG-CD2	5.77	134.88	126.80
2	B	71	PHE	CA-C-O	5.77	127.75	121.06
1	C	96	SER	CA-C-N	5.77	132.02	122.73
1	C	96	SER	C-N-CA	5.77	132.02	122.73
1	I	185	ILE	CB-CA-C	5.77	117.50	111.09
1	M	185	ILE	CB-CA-C	5.77	117.50	111.09
2	B	235	ASN	CB-CG-OD1	5.77	132.34	120.80
1	E	36	TRP	N-CA-CB	-5.77	102.03	111.66

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	23	THR	O-C-N	-5.77	116.32	123.36
2	H	235	ASN	CB-CG-OD1	5.76	132.33	120.80
1	C	36	TRP	N-CA-CB	-5.76	102.04	111.66
2	F	66	GLY	O-C-N	-5.76	116.20	122.54
1	G	84	TRP	CB-CG-CD2	5.76	134.87	126.80
1	A	52	PRO	CA-N-CD	-5.76	103.44	111.50
1	G	52	PRO	CA-N-CD	-5.76	103.44	111.50
2	J	59	GLN	O-C-N	-5.76	115.59	122.15
2	J	126	ILE	CA-C-O	5.75	127.85	120.83
2	P	197	LEU	O-C-N	-5.75	116.61	123.06
2	B	256	TYR	CB-CG-CD2	5.75	129.43	120.80
1	G	122	LEU	CA-C-N	5.75	126.30	120.38
1	G	122	LEU	C-N-CA	5.75	126.30	120.38
1	M	52	PRO	CA-C-N	5.75	125.12	118.85
1	M	52	PRO	C-N-CA	5.75	125.12	118.85
1	A	23	THR	O-C-N	-5.75	116.35	123.36
1	A	23	THR	CA-CB-OG1	-5.75	100.98	109.60
1	O	81	SER	CA-C-O	-5.75	114.51	120.89
1	A	122	LEU	CA-C-N	5.75	126.30	120.38
1	A	122	LEU	C-N-CA	5.75	126.30	120.38
2	J	249	SER	CB-CA-C	-5.74	100.48	109.84
2	B	248	VAL	N-CA-CB	-5.74	104.45	111.00
1	E	96	SER	CA-C-N	5.74	131.97	122.73
1	E	96	SER	C-N-CA	5.74	131.97	122.73
1	G	23	THR	CA-CB-OG1	-5.74	100.99	109.60
2	D	192	ASN	CA-C-O	-5.74	114.15	120.69
2	F	192	ASN	CA-C-O	-5.74	114.15	120.69
1	M	167	VAL	CA-C-O	5.74	122.33	119.12
2	B	154	VAL	N-CA-CB	5.74	119.10	111.64
1	K	81	SER	CA-C-O	-5.74	114.52	120.89
2	N	249	SER	CB-CA-C	-5.74	100.49	109.84
1	I	52	PRO	CA-C-N	5.73	125.10	118.85
1	I	52	PRO	C-N-CA	5.73	125.10	118.85
2	L	197	LEU	O-C-N	-5.73	116.64	123.06
1	M	33	ILE	CA-C-O	5.73	127.94	120.78
2	H	39	SER	CA-C-N	5.73	131.99	122.54
2	H	39	SER	C-N-CA	5.73	131.99	122.54
2	N	59	GLN	O-C-N	-5.73	115.62	122.15
2	B	39	SER	CA-C-N	5.73	131.99	122.54
2	B	39	SER	C-N-CA	5.73	131.99	122.54
2	B	224	GLN	CG-CD-NE2	5.72	124.98	116.40
2	L	173	PRO	N-CA-CB	5.72	108.78	103.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	P	173	PRO	N-CA-CB	5.72	108.78	103.46
2	N	70	ASN	CA-C-O	5.72	127.15	121.20
1	I	33	ILE	CA-C-O	5.72	127.93	120.78
1	C	84	TRP	CB-CG-CD2	5.72	134.80	126.80
1	E	84	TRP	CB-CG-CD2	5.72	134.80	126.80
2	J	70	ASN	CA-C-O	5.72	127.15	121.20
2	D	32	GLN	CA-C-O	5.71	128.57	121.89
2	F	32	GLN	CA-C-O	5.71	128.57	121.89
2	H	154	VAL	N-CA-CB	5.71	119.06	111.64
2	H	224	GLN	CG-CD-NE2	5.71	124.97	116.40
2	B	184	THR	N-CA-CB	-5.71	100.98	111.37
2	B	207	SER	CA-C-N	-5.71	115.48	123.13
2	B	207	SER	C-N-CA	-5.71	115.48	123.13
2	H	70	ASN	CB-CA-C	-5.71	101.07	110.72
2	H	184	THR	N-CA-CB	-5.71	100.98	111.37
2	H	207	SER	CA-C-N	-5.71	115.48	123.13
2	H	207	SER	C-N-CA	-5.71	115.48	123.13
2	H	248	VAL	N-CA-CB	-5.71	104.49	111.00
1	K	52	PRO	CA-C-N	5.71	125.07	118.85
1	K	52	PRO	C-N-CA	5.71	125.07	118.85
1	O	52	PRO	CA-C-N	5.71	125.07	118.85
1	O	52	PRO	C-N-CA	5.71	125.07	118.85
2	B	269	GLN	OE1-CD-NE2	5.70	128.30	122.60
2	L	74	THR	CA-C-O	5.70	127.78	121.11
1	M	18	VAL	N-CA-CB	5.70	120.64	111.23
2	H	219	GLN	CB-CG-CD	-5.70	102.92	112.60
2	L	74	THR	O-C-N	-5.69	116.24	123.24
2	P	74	THR	O-C-N	-5.69	116.24	123.24
2	B	70	ASN	CB-CA-C	-5.69	101.10	110.72
2	D	52	ILE	CB-CA-C	-5.69	102.71	111.31
2	F	52	ILE	CB-CA-C	-5.69	102.71	111.31
2	D	201	THR	CB-CA-C	5.69	120.54	109.33
2	F	201	THR	CB-CA-C	5.69	120.54	109.33
2	B	219	GLN	CB-CG-CD	-5.69	102.93	112.60
1	C	58	LYS	CA-C-O	-5.69	114.06	120.43
2	D	171	THR	CA-CB-OG1	5.69	118.13	109.60
1	E	58	LYS	CA-C-O	-5.69	114.06	120.43
1	I	18	VAL	N-CA-CB	5.69	120.61	111.23
2	P	197	LEU	CA-C-N	5.69	131.67	122.29
2	P	197	LEU	C-N-CA	5.69	131.67	122.29
2	P	74	THR	CA-C-O	5.68	127.76	121.11
2	D	184	THR	CA-C-O	-5.68	114.46	121.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	184	THR	CA-C-O	-5.68	114.46	121.11
2	F	41	GLN	OE1-CD-NE2	5.68	128.28	122.60
1	C	165	ALA	N-CA-C	5.68	117.73	108.76
1	E	47	ARG	NE-CZ-NH1	-5.68	115.82	121.50
1	E	165	ALA	N-CA-C	5.68	117.73	108.76
2	L	197	LEU	CA-C-N	5.68	131.66	122.29
2	L	197	LEU	C-N-CA	5.68	131.66	122.29
2	L	70	ASN	CB-CA-C	5.67	121.10	111.35
2	P	70	ASN	CB-CA-C	5.67	121.10	111.35
1	G	85	MET	CB-CA-C	5.67	119.11	109.75
1	C	47	ARG	NE-CZ-NH1	-5.67	115.83	121.50
2	L	59	GLN	N-CA-CB	-5.67	101.77	110.16
2	F	225	LEU	CA-C-O	5.66	127.56	121.16
2	D	77	TYR	CA-C-N	-5.66	114.32	122.36
2	D	77	TYR	C-N-CA	-5.66	114.32	122.36
1	A	141	THR	CA-CB-OG1	-5.66	101.11	109.60
1	A	85	MET	CB-CA-C	5.66	119.09	109.75
1	G	141	THR	CA-CB-OG1	-5.66	101.11	109.60
1	I	167	VAL	CA-C-O	5.66	122.29	119.12
2	F	171	THR	CA-CB-OG1	5.65	118.08	109.60
2	H	269	GLN	OE1-CD-NE2	5.65	128.25	122.60
2	L	111	PRO	CA-C-N	5.65	131.54	122.50
2	L	111	PRO	C-N-CA	5.65	131.54	122.50
2	P	111	PRO	CA-C-N	5.65	131.54	122.50
2	P	111	PRO	C-N-CA	5.65	131.54	122.50
2	D	41	GLN	OE1-CD-NE2	5.65	128.25	122.60
1	I	201	THR	N-CA-C	-5.65	100.03	109.24
2	P	115	ALA	CA-C-O	-5.65	115.05	121.72
2	B	222	GLY	CA-C-N	-5.65	115.14	122.99
2	B	222	GLY	C-N-CA	-5.65	115.14	122.99
2	D	131	LEU	CB-CA-C	5.65	119.34	110.19
2	F	131	LEU	CB-CA-C	5.65	119.34	110.19
2	F	182	PRO	O-C-N	5.65	130.26	122.64
1	K	19	GLN	OE1-CD-NE2	5.65	128.25	122.60
1	M	201	THR	N-CA-C	-5.65	100.03	109.24
1	O	19	GLN	OE1-CD-NE2	5.65	128.25	122.60
2	B	32	GLN	OE1-CD-NE2	-5.65	116.95	122.60
2	H	32	GLN	OE1-CD-NE2	-5.65	116.95	122.60
1	C	2	VAL	N-CA-CB	-5.64	104.57	110.72
2	D	23	ASN	N-CA-C	-5.64	99.53	108.73
2	F	23	ASN	N-CA-C	-5.64	99.53	108.73
2	D	37	ASP	CA-CB-CG	5.64	118.24	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	37	ASP	CA-CB-CG	5.64	118.24	112.60
1	K	29	SER	N-CA-CB	-5.64	100.96	110.49
2	P	140	ASP	CA-C-O	5.64	127.70	121.56
2	F	77	TYR	CA-C-N	-5.64	114.36	122.36
2	F	77	TYR	C-N-CA	-5.64	114.36	122.36
1	C	22	VAL	CA-C-N	-5.63	112.86	122.33
1	C	22	VAL	C-N-CA	-5.63	112.86	122.33
2	D	182	PRO	O-C-N	5.63	130.25	122.64
2	L	115	ALA	N-CA-C	-5.63	102.19	110.52
1	O	29	SER	N-CA-CB	-5.63	100.97	110.49
2	P	59	GLN	N-CA-CB	-5.63	101.82	110.16
2	L	144	PHE	CA-C-O	-5.63	114.29	120.70
2	P	144	PHE	CA-C-O	-5.63	114.29	120.70
2	L	140	ASP	CA-C-O	5.62	127.69	121.56
2	D	225	LEU	CA-C-O	5.62	127.51	121.16
2	H	55	TYR	CA-C-N	-5.62	115.17	122.99
2	H	55	TYR	C-N-CA	-5.62	115.17	122.99
2	L	115	ALA	CA-C-O	-5.62	115.08	121.72
2	H	222	GLY	CA-C-N	-5.62	115.17	122.99
2	H	222	GLY	C-N-CA	-5.62	115.17	122.99
1	A	151	THR	CA-CB-OG1	-5.62	101.17	109.60
2	F	32	GLN	OE1-CD-NE2	-5.62	116.98	122.60
2	B	199	GLY	CA-C-N	5.62	129.86	121.72
2	B	199	GLY	C-N-CA	5.62	129.86	121.72
1	E	2	VAL	N-CA-CB	-5.62	104.60	110.72
2	H	199	GLY	CA-C-N	5.62	129.86	121.72
2	H	199	GLY	C-N-CA	5.62	129.86	121.72
2	B	55	TYR	CA-C-N	-5.61	115.19	122.99
2	B	55	TYR	C-N-CA	-5.61	115.19	122.99
1	E	71	THR	N-CA-C	-5.61	103.08	110.43
2	P	115	ALA	N-CA-C	-5.61	102.21	110.52
2	B	126	ILE	CB-CG1-CD1	-5.61	102.02	113.80
1	C	186	THR	N-CA-CB	5.61	120.67	111.08
2	D	126	ILE	O-C-N	-5.61	115.56	122.57
1	E	22	VAL	CA-C-N	-5.61	112.90	122.33
1	E	22	VAL	C-N-CA	-5.61	112.90	122.33
1	E	186	THR	N-CA-CB	5.61	120.67	111.08
2	F	126	ILE	O-C-N	-5.61	115.56	122.57
1	G	47	ARG	NE-CZ-NH1	-5.61	115.89	121.50
1	I	47	ARG	CD-NE-CZ	5.61	132.25	124.40
1	K	186	THR	N-CA-CB	5.61	118.53	110.06
2	N	38	LEU	CD1-CG-CD2	5.61	123.14	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	O	186	THR	N-CA-CB	5.61	118.53	110.06
2	L	249	SER	CB-CA-C	-5.61	100.60	109.80
2	P	249	SER	CB-CA-C	-5.61	100.60	109.80
2	B	231	ILE	O-C-N	5.61	128.72	122.61
2	J	69	SER	N-CA-CB	5.61	118.88	110.19
2	N	69	SER	N-CA-CB	5.61	118.88	110.19
2	D	32	GLN	OE1-CD-NE2	-5.60	117.00	122.60
1	K	24	ASN	CA-CB-CG	5.60	118.20	112.60
1	O	24	ASN	CA-CB-CG	5.60	118.20	112.60
2	H	126	ILE	CB-CG1-CD1	-5.60	102.04	113.80
2	D	272	ILE	CB-CG1-CD1	-5.60	102.04	113.80
2	F	272	ILE	CB-CG1-CD1	-5.60	102.04	113.80
1	G	102	THR	CA-C-O	5.60	127.56	121.06
2	J	33	ASN	OD1-CG-ND2	-5.60	117.00	122.60
2	N	33	ASN	OD1-CG-ND2	-5.60	117.00	122.60
1	C	62	GLU	CA-C-N	-5.60	113.40	122.36
1	C	62	GLU	C-N-CA	-5.60	113.40	122.36
1	E	62	GLU	CA-C-N	-5.60	113.40	122.36
1	E	62	GLU	C-N-CA	-5.60	113.40	122.36
1	C	71	THR	N-CA-C	-5.60	103.10	110.43
1	G	151	THR	CA-CB-OG1	-5.60	101.20	109.60
2	P	58	LEU	CB-CA-C	-5.60	101.89	111.41
1	A	165	ALA	N-CA-C	5.59	117.60	108.76
2	D	116	GLY	O-C-N	-5.59	117.52	123.45
2	F	116	GLY	O-C-N	-5.59	117.52	123.45
2	J	38	LEU	CD1-CG-CD2	5.59	123.11	110.80
1	C	19	GLN	CA-C-N	-5.59	112.94	122.33
1	C	19	GLN	C-N-CA	-5.59	112.94	122.33
1	E	19	GLN	CA-C-N	-5.59	112.94	122.33
1	E	19	GLN	C-N-CA	-5.59	112.94	122.33
1	G	165	ALA	N-CA-C	5.59	117.59	108.76
2	L	58	LEU	CB-CA-C	-5.58	101.92	111.41
1	E	52	PRO	N-CA-CB	5.58	108.74	102.60
2	H	231	ILE	O-C-N	5.58	128.69	122.61
1	M	47	ARG	CD-NE-CZ	5.58	132.21	124.40
2	B	101	LYS	O-C-N	-5.58	116.16	121.57
2	H	101	LYS	O-C-N	-5.58	116.16	121.57
2	N	133	GLN	N-CA-C	5.58	117.61	108.52
1	K	41	ASP	N-CA-CB	5.57	120.40	111.20
2	N	207	SER	N-CA-C	-5.57	106.47	113.72
1	O	41	ASP	N-CA-CB	5.57	120.40	111.20
1	A	47	ARG	NE-CZ-NH1	-5.57	115.93	121.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	96	SER	CA-C-O	5.57	126.65	120.63
1	A	102	THR	CA-C-O	5.57	127.52	121.06
2	D	191	GLN	OE1-CD-NE2	5.57	128.17	122.60
2	J	133	GLN	N-CA-C	5.57	117.60	108.52
2	J	207	SER	N-CA-C	-5.57	106.48	113.72
2	L	101	LYS	CB-CA-C	5.57	117.50	108.87
2	P	101	LYS	CB-CA-C	5.57	117.50	108.87
1	C	52	PRO	N-CA-CB	5.57	108.72	102.60
1	C	51	THR	CB-CA-C	5.57	116.72	108.87
1	E	51	THR	CB-CA-C	5.57	116.72	108.87
2	L	270	SER	N-CA-C	5.57	117.97	108.90
2	J	71	PHE	CA-C-O	5.56	127.38	120.54
2	D	17	SER	N-CA-C	5.56	117.63	109.24
2	F	17	SER	N-CA-C	5.56	117.63	109.24
2	J	270	SER	N-CA-C	5.56	117.96	108.90
2	D	185	VAL	N-CA-CB	5.56	122.21	111.93
2	F	185	VAL	N-CA-CB	5.56	122.21	111.93
1	I	79	ARG	NE-CZ-NH2	5.55	124.20	119.20
1	I	161	VAL	CB-CA-C	-5.55	103.53	111.31
1	M	161	VAL	CB-CA-C	-5.55	103.53	111.31
2	D	233	PRO	CA-C-O	-5.55	114.48	122.31
2	F	233	PRO	CA-C-O	-5.55	114.48	122.31
2	F	191	GLN	OE1-CD-NE2	5.55	128.15	122.60
1	A	173	SER	O-C-N	5.54	130.54	122.94
1	G	173	SER	O-C-N	5.54	130.54	122.94
2	P	270	SER	N-CA-C	5.54	117.94	108.90
1	K	28	ASN	OD1-CG-ND2	-5.54	117.06	122.60
1	O	28	ASN	OD1-CG-ND2	-5.54	117.06	122.60
2	J	40	THR	CB-CA-C	5.54	118.86	109.55
1	C	102	THR	CA-C-O	5.54	127.48	121.06
1	E	102	THR	CA-C-O	5.54	127.48	121.06
1	G	96	SER	CA-C-O	5.54	126.61	120.63
2	H	226	THR	CA-C-O	5.54	127.69	120.21
2	D	126	ILE	CA-CB-CG1	-5.53	100.99	110.40
2	D	264	THR	CA-CB-OG1	-5.53	101.31	109.60
2	F	264	THR	CA-CB-OG1	-5.53	101.31	109.60
2	N	71	PHE	CA-C-O	5.53	127.34	120.54
2	N	270	SER	N-CA-C	5.53	117.91	108.90
1	A	100	GLU	CA-C-N	5.53	129.76	122.30
1	A	100	GLU	C-N-CA	5.53	129.76	122.30
2	J	115	ALA	N-CA-C	-5.53	102.34	110.52
2	L	38	LEU	CD1-CG-CD2	5.53	122.96	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	K	25	ASN	CA-CB-CG	5.52	118.12	112.60
2	N	40	THR	CB-CA-C	5.52	118.83	109.55
1	O	25	ASN	CA-CB-CG	5.52	118.12	112.60
2	H	221	VAL	N-CA-C	5.52	116.43	108.48
2	L	65	GLY	CA-C-N	5.52	126.11	119.98
2	L	65	GLY	C-N-CA	5.52	126.11	119.98
2	L	207	SER	N-CA-C	-5.52	106.54	113.72
2	N	21	TYR	CA-C-O	-5.52	114.25	120.32
2	P	207	SER	N-CA-C	-5.52	106.54	113.72
2	N	115	ALA	N-CA-C	-5.52	102.35	110.52
2	D	227	ARG	N-CA-CB	5.52	119.63	110.47
2	F	227	ARG	N-CA-CB	5.52	119.63	110.47
1	M	79	ARG	NE-CZ-NH2	5.52	124.16	119.20
2	L	16	GLY	N-CA-C	5.51	126.25	113.18
2	P	16	GLY	N-CA-C	5.51	126.25	113.18
2	P	38	LEU	CD1-CG-CD2	5.51	122.93	110.80
2	B	116	GLY	O-C-N	-5.51	117.61	123.45
2	J	21	TYR	CA-C-O	-5.51	114.26	120.32
2	B	25	ALA	CA-C-N	5.51	125.12	119.56
2	B	25	ALA	C-N-CA	5.51	125.12	119.56
2	B	226	THR	CA-C-O	5.51	127.65	120.21
1	K	132	ARG	CA-C-O	-5.51	115.00	121.44
2	F	126	ILE	CA-CB-CG1	-5.51	101.04	110.40
1	G	100	GLU	CA-C-N	5.51	129.73	122.30
1	G	100	GLU	C-N-CA	5.51	129.73	122.30
2	B	35	VAL	O-C-N	-5.50	116.92	123.03
2	F	212	THR	N-CA-CB	-5.50	101.08	111.43
2	H	35	VAL	O-C-N	-5.50	116.92	123.03
2	B	221	VAL	N-CA-C	5.50	116.40	108.48
2	D	212	THR	N-CA-CB	-5.50	101.09	111.43
2	H	151	ASN	CA-CB-CG	-5.50	107.10	112.60
2	D	101	LYS	CB-CA-C	5.50	117.14	108.84
2	F	180	PRO	CB-CA-C	5.50	118.15	110.95
1	G	58	LYS	CA-C-O	-5.49	114.28	120.43
2	L	269	GLN	N-CA-C	5.49	118.41	108.69
2	P	269	GLN	N-CA-C	5.49	118.41	108.69
1	C	177	LEU	CA-C-O	-5.49	111.47	120.80
2	D	180	PRO	CB-CA-C	5.49	118.14	110.95
1	E	177	LEU	CA-C-O	-5.49	111.47	120.80
2	P	65	GLY	CA-C-N	5.49	126.07	119.98
2	P	65	GLY	C-N-CA	5.49	126.07	119.98
1	K	188	ARG	CD-NE-CZ	-5.49	116.72	124.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	H	116	GLY	O-C-N	-5.49	117.63	123.45
1	G	39	ASN	O-C-N	-5.49	114.55	121.74
2	B	87	THR	O-C-N	5.48	129.60	122.42
1	O	132	ARG	CA-C-O	-5.48	115.03	121.44
2	H	25	ALA	CA-C-N	5.48	125.09	119.56
2	H	25	ALA	C-N-CA	5.48	125.09	119.56
1	O	65	LEU	CA-C-O	-5.48	114.90	120.71
2	D	199	GLY	CA-C-N	5.47	129.66	121.72
2	D	199	GLY	C-N-CA	5.47	129.66	121.72
2	F	101	LYS	CB-CA-C	5.47	117.11	108.84
2	N	274	VAL	N-CA-C	-5.47	100.44	108.11
1	A	58	LYS	CA-C-O	-5.47	114.30	120.43
1	M	9	VAL	CA-CB-CG2	5.47	119.70	110.40
1	O	188	ARG	CD-NE-CZ	-5.47	116.74	124.40
2	D	119	ALA	N-CA-C	-5.47	106.45	113.23
2	F	119	ALA	N-CA-C	-5.47	106.45	113.23
1	G	49	ILE	CB-CG1-CD1	-5.47	102.31	113.80
1	I	1	GLY	CA-C-N	-5.47	113.75	122.50
1	I	1	GLY	C-N-CA	-5.47	113.75	122.50
1	M	1	GLY	CA-C-N	-5.47	113.75	122.50
1	M	1	GLY	C-N-CA	-5.47	113.75	122.50
1	C	66	ARG	NE-CZ-NH2	5.47	124.12	119.20
1	E	66	ARG	NE-CZ-NH2	5.47	124.12	119.20
2	B	151	ASN	CA-CB-CG	-5.46	107.14	112.60
2	D	235	ASN	CB-CG-OD1	5.46	131.73	120.80
2	F	235	ASN	CB-CG-OD1	5.46	131.73	120.80
2	H	178	SER	CA-C-N	5.46	132.24	122.13
2	H	178	SER	C-N-CA	5.46	132.24	122.13
2	J	274	VAL	N-CA-C	-5.46	100.46	108.11
1	A	39	ASN	O-C-N	-5.46	114.58	121.74
1	A	49	ILE	CB-CG1-CD1	-5.46	102.34	113.80
1	A	88	LYS	CA-C-O	-5.46	114.92	120.71
2	J	69	SER	CA-C-N	-5.46	112.61	122.54
2	J	69	SER	C-N-CA	-5.46	112.61	122.54
2	N	69	SER	CA-C-N	-5.46	112.61	122.54
2	N	69	SER	C-N-CA	-5.46	112.61	122.54
2	F	199	GLY	CA-C-N	5.46	129.63	121.72
2	F	199	GLY	C-N-CA	5.46	129.63	121.72
1	A	67	ILE	N-CA-CB	-5.45	104.83	111.21
1	C	25	ASN	OD1-CG-ND2	5.45	128.05	122.60
1	E	25	ASN	OD1-CG-ND2	5.45	128.05	122.60
1	G	67	ILE	N-CA-CB	-5.45	104.83	111.21

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	K	65	LEU	CA-C-O	-5.45	114.93	120.71
2	B	178	SER	CA-C-N	5.45	132.21	122.13
2	B	178	SER	C-N-CA	5.45	132.21	122.13
2	D	33	ASN	CA-C-N	5.45	129.92	122.84
2	D	33	ASN	C-N-CA	5.45	129.92	122.84
2	F	33	ASN	CA-C-N	5.45	129.92	122.84
2	F	33	ASN	C-N-CA	5.45	129.92	122.84
2	H	87	THR	O-C-N	5.45	129.56	122.42
1	I	9	VAL	CA-CB-CG2	5.45	119.66	110.40
1	C	36	TRP	CA-C-O	5.45	127.21	121.33
2	D	222	GLY	N-CA-C	-5.45	103.69	111.42
1	E	36	TRP	CA-C-O	5.45	127.21	121.33
2	F	222	GLY	N-CA-C	-5.45	103.69	111.42
2	H	47	ASP	CA-CB-CG	5.45	118.05	112.60
2	J	140	ASP	CA-C-O	5.45	127.50	121.56
2	N	140	ASP	CA-C-O	5.45	127.50	121.56
2	B	194	GLY	N-CA-C	-5.44	102.85	110.96
2	H	194	GLY	N-CA-C	-5.44	102.85	110.96
2	B	47	ASP	CA-CB-CG	5.44	118.04	112.60
2	B	107	LEU	O-C-N	5.44	129.41	123.27
2	F	72	SER	CA-CB-OG	5.44	121.97	111.10
2	H	107	LEU	O-C-N	5.44	129.41	123.27
2	J	269	GLN	N-CA-C	5.44	118.31	108.69
1	I	29	SER	N-CA-CB	-5.43	101.31	110.49
1	K	45	ASP	CA-C-O	-5.43	115.53	121.89
1	O	45	ASP	CA-C-O	-5.43	115.53	121.89
2	H	28	VAL	CA-C-O	5.43	125.75	120.27
2	N	269	GLN	N-CA-C	5.43	118.30	108.69
2	D	72	SER	CA-CB-OG	5.42	121.95	111.10
1	M	29	SER	N-CA-CB	-5.42	101.33	110.49
2	B	180	PRO	N-CA-C	-5.42	103.28	111.41
1	G	88	LYS	CA-C-O	-5.42	114.97	120.71
2	B	260	GLY	CA-C-N	5.42	128.51	122.55
2	B	260	GLY	C-N-CA	5.42	128.51	122.55
2	D	222	GLY	CA-C-N	-5.42	115.46	122.99
2	D	222	GLY	C-N-CA	-5.42	115.46	122.99
2	F	222	GLY	CA-C-N	-5.42	115.46	122.99
2	F	222	GLY	C-N-CA	-5.42	115.46	122.99
2	H	260	GLY	CA-C-N	5.42	128.51	122.55
2	H	260	GLY	C-N-CA	5.42	128.51	122.55
1	C	71	THR	CA-C-O	-5.42	115.91	121.87
1	E	71	THR	CA-C-O	-5.42	115.91	121.87

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	103	LEU	CA-C-N	-5.42	114.58	122.65
1	G	103	LEU	C-N-CA	-5.42	114.58	122.65
1	A	103	LEU	CA-C-N	-5.41	114.58	122.65
1	A	103	LEU	C-N-CA	-5.41	114.58	122.65
2	B	28	VAL	CA-C-O	5.41	125.74	120.27
1	C	24	ASN	CA-C-O	-5.41	114.37	120.43
1	E	24	ASN	CA-C-O	-5.41	114.37	120.43
1	I	26	ASP	CA-C-O	5.41	128.25	120.51
1	C	191	ASN	CA-C-N	5.41	129.26	120.60
1	C	191	ASN	C-N-CA	5.41	129.26	120.60
1	E	191	ASN	CA-C-N	5.41	129.26	120.60
1	E	191	ASN	C-N-CA	5.41	129.26	120.60
2	L	93	VAL	N-CA-CB	5.41	118.88	111.41
2	P	93	VAL	N-CA-CB	5.41	118.88	111.41
1	C	57	MET	N-CA-CB	5.41	119.20	110.65
1	E	57	MET	N-CA-CB	5.41	119.20	110.65
2	J	180	PRO	CA-C-N	-5.41	118.06	123.04
2	J	180	PRO	C-N-CA	-5.41	118.06	123.04
2	L	59	GLN	O-C-N	-5.41	115.98	122.15
1	M	26	ASP	CA-C-O	5.41	128.24	120.51
2	P	59	GLN	O-C-N	-5.40	115.99	122.15
2	L	200	THR	CA-C-O	5.40	127.02	120.81
2	P	200	THR	CA-C-O	5.40	127.02	120.81
2	N	180	PRO	CA-C-N	-5.39	118.08	123.04
2	N	180	PRO	C-N-CA	-5.39	118.08	123.04
1	E	101	ASN	CB-CG-ND2	-5.38	108.32	116.40
2	H	180	PRO	N-CA-C	-5.38	103.33	111.41
1	I	81	SER	CA-C-O	-5.38	114.92	120.89
1	C	101	ASN	CB-CG-ND2	-5.38	108.33	116.40
2	D	62	SER	O-C-N	5.38	129.85	123.24
2	N	170	VAL	CB-CA-C	5.38	118.14	111.15
2	D	114	SER	CA-C-O	-5.38	112.23	119.11
2	F	114	SER	CA-C-O	-5.38	112.23	119.11
2	J	170	VAL	CB-CA-C	5.37	118.14	111.15
2	L	206	ASN	N-CA-CB	-5.37	103.97	112.08
2	P	206	ASN	N-CA-CB	-5.37	103.97	112.08
1	A	168	PRO	CA-C-O	5.37	128.35	120.56
2	L	255	ASN	CA-C-O	5.37	126.84	120.66
2	P	255	ASN	CA-C-O	5.37	126.84	120.66
2	L	240	LEU	N-CA-C	-5.37	103.30	110.55
2	L	274	VAL	N-CA-C	-5.37	100.39	108.12
2	D	100	ASP	O-C-N	5.37	130.15	123.01

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	62	SER	O-C-N	5.36	129.84	123.24
2	F	100	ASP	O-C-N	5.36	130.14	123.01
2	N	115	ALA	CA-C-O	-5.36	115.40	121.72
2	J	115	ALA	CA-C-O	-5.36	115.40	121.72
1	G	168	PRO	CA-C-O	5.36	128.32	120.56
1	K	75	LEU	CA-C-N	5.36	126.53	119.84
1	K	75	LEU	C-N-CA	5.36	126.53	119.84
2	L	71	PHE	CA-C-O	5.36	127.13	120.54
1	O	75	LEU	CA-C-N	5.36	126.53	119.84
1	O	75	LEU	C-N-CA	5.36	126.53	119.84
1	A	135	ARG	O-C-N	-5.35	116.94	122.94
1	G	149	TYR	CA-C-O	-5.35	115.17	121.16
2	J	223	VAL	CA-C-O	-5.35	114.67	120.67
2	N	223	VAL	CA-C-O	-5.35	114.67	120.67
2	D	229	GLY	CA-C-O	-5.35	111.26	120.57
1	A	149	TYR	CA-C-O	-5.35	115.17	121.16
2	J	273	GLY	N-CA-C	-5.35	101.01	111.12
1	M	81	SER	CA-C-O	-5.35	114.95	120.89
2	P	240	LEU	N-CA-C	-5.35	103.33	110.55
2	D	272	ILE	CA-C-N	-5.35	113.91	121.13
2	D	272	ILE	C-N-CA	-5.35	113.91	121.13
2	J	200	THR	CA-C-O	5.35	126.79	120.69
2	J	185	VAL	N-CA-CB	5.35	120.21	111.44
2	P	71	PHE	CA-C-O	5.35	127.12	120.54
2	B	227	ARG	N-CA-C	-5.34	98.53	107.99
2	H	227	ARG	N-CA-C	-5.34	98.53	107.99
1	K	201	THR	N-CA-C	-5.34	100.53	109.24
2	N	185	VAL	N-CA-CB	5.34	120.21	111.44
1	O	201	THR	N-CA-C	-5.34	100.53	109.24
2	P	274	VAL	N-CA-C	-5.34	100.42	108.12
2	B	135	ASN	CA-CB-CG	5.34	117.94	112.60
2	H	135	ASN	CA-CB-CG	5.34	117.94	112.60
2	N	272	ILE	CA-C-N	-5.34	117.43	122.66
2	N	272	ILE	C-N-CA	-5.34	117.43	122.66
2	N	157	PRO	CB-CA-C	5.34	116.26	111.40
2	F	229	GLY	CA-C-O	-5.33	111.29	120.57
1	C	4	LEU	CA-C-O	-5.33	115.34	121.47
1	E	4	LEU	CA-C-O	-5.33	115.34	121.47
1	A	2	VAL	N-CA-CB	-5.33	104.91	110.72
1	G	2	VAL	N-CA-CB	-5.33	104.91	110.72
2	H	222	GLY	N-CA-C	-5.33	103.85	111.42
2	J	157	PRO	CB-CA-C	5.33	116.25	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	N	273	GLY	N-CA-C	-5.33	101.05	111.12
2	P	204	ALA	CA-C-O	5.33	125.92	119.31
2	D	71	PHE	CA-C-N	-5.33	114.22	122.59
2	D	71	PHE	C-N-CA	-5.33	114.22	122.59
2	F	71	PHE	CA-C-N	-5.33	114.22	122.59
2	F	71	PHE	C-N-CA	-5.33	114.22	122.59
1	C	122	LEU	CA-C-N	5.33	125.87	120.38
1	C	122	LEU	C-N-CA	5.33	125.87	120.38
1	E	122	LEU	CA-C-N	5.33	125.87	120.38
1	E	122	LEU	C-N-CA	5.33	125.87	120.38
2	J	107	LEU	CA-C-N	5.33	131.60	123.23
2	J	107	LEU	C-N-CA	5.33	131.60	123.23
2	N	107	LEU	CA-C-N	5.33	131.60	123.23
2	N	107	LEU	C-N-CA	5.33	131.60	123.23
2	F	272	ILE	CA-C-N	-5.33	113.94	121.13
2	F	272	ILE	C-N-CA	-5.33	113.94	121.13
1	K	127	ALA	N-CA-C	-5.33	107.16	113.97
1	O	127	ALA	N-CA-C	-5.33	107.16	113.97
1	A	101	ASN	CB-CG-ND2	-5.32	108.41	116.40
1	A	104	GLN	O-C-N	-5.32	116.96	123.19
1	G	104	GLN	O-C-N	-5.32	116.96	123.19
2	N	172	LEU	CB-CA-C	5.32	120.66	110.17
2	N	200	THR	CA-C-O	5.32	126.76	120.69
2	D	46	ASN	CB-CA-C	5.32	118.42	109.48
2	F	46	ASN	CB-CA-C	5.32	118.42	109.48
2	J	272	ILE	CA-C-N	-5.32	117.44	122.66
2	J	272	ILE	C-N-CA	-5.32	117.44	122.66
1	G	135	ARG	O-C-N	-5.32	116.98	122.94
1	I	186	THR	N-CA-CB	5.32	118.09	110.06
1	M	186	THR	N-CA-CB	5.32	118.09	110.06
2	D	232	ILE	CA-C-O	5.32	125.68	119.89
2	F	232	ILE	CA-C-O	5.32	125.68	119.89
1	G	101	ASN	CB-CG-ND2	-5.32	108.43	116.40
2	N	210	THR	N-CA-C	5.31	117.93	109.96
2	B	222	GLY	N-CA-C	-5.31	103.88	111.42
1	I	45	ASP	CA-C-O	-5.31	115.68	121.89
2	J	172	LEU	CB-CA-C	5.31	120.63	110.17
1	C	112	LYS	CB-CA-C	-5.30	100.12	109.62
2	D	120	ILE	N-CA-CB	5.30	119.84	111.99
2	F	120	ILE	N-CA-CB	5.30	119.84	111.99
2	H	71	PHE	CA-C-N	-5.30	114.26	122.59
2	H	71	PHE	C-N-CA	-5.30	114.26	122.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	K	78	ASP	CA-CB-CG	5.30	117.91	112.60
2	L	33	ASN	CA-CB-CG	5.30	117.91	112.60
1	O	78	ASP	CA-CB-CG	5.30	117.91	112.60
2	P	33	ASN	CA-CB-CG	5.30	117.91	112.60
2	D	230	THR	CB-CA-C	-5.30	101.37	110.22
2	F	230	THR	CB-CA-C	-5.30	101.37	110.22
2	J	210	THR	N-CA-C	5.30	117.91	109.96
2	B	113	SER	CB-CA-C	-5.30	100.50	110.67
2	H	113	SER	CB-CA-C	-5.30	100.50	110.67
2	L	204	ALA	CA-C-O	5.29	125.88	119.31
1	I	24	ASN	CA-CB-CG	5.29	117.89	112.60
1	C	88	LYS	CA-C-N	-5.29	115.15	123.13
1	C	88	LYS	C-N-CA	-5.29	115.15	123.13
1	E	88	LYS	CA-C-N	-5.29	115.15	123.13
1	E	88	LYS	C-N-CA	-5.29	115.15	123.13
2	D	210	THR	OG1-CB-CG2	-5.28	98.73	109.30
2	F	210	THR	OG1-CB-CG2	-5.28	98.73	109.30
2	B	217	PRO	N-CA-C	5.28	119.48	111.19
2	H	217	PRO	N-CA-C	5.28	119.48	111.19
2	B	23	ASN	N-CA-C	-5.28	100.12	108.73
2	B	71	PHE	CA-C-N	-5.28	114.30	122.59
2	B	71	PHE	C-N-CA	-5.28	114.30	122.59
2	H	23	ASN	N-CA-C	-5.28	100.12	108.73
2	L	185	VAL	N-CA-CB	5.28	120.10	111.44
2	N	195	TYR	CA-C-O	-5.28	115.43	121.40
2	P	185	VAL	N-CA-CB	5.28	120.10	111.44
2	J	195	TYR	CA-C-O	-5.28	115.44	121.40
1	M	45	ASP	CA-C-O	-5.28	115.71	121.89
2	N	214	SER	N-CA-CB	5.28	117.94	110.98
2	D	184	THR	N-CA-CB	-5.28	101.77	111.37
1	E	112	LYS	CB-CA-C	-5.28	100.17	109.62
2	F	184	THR	N-CA-CB	-5.28	101.77	111.37
1	M	24	ASN	CA-CB-CG	5.27	117.87	112.60
2	B	103	TRP	CH2-CZ2-CE2	-5.27	110.65	117.50
1	K	156	ASN	CA-CB-CG	5.27	117.87	112.60
2	N	78	SER	CB-CA-C	-5.27	104.41	111.89
1	O	156	ASN	CB-CG-OD1	-5.27	110.26	120.80
1	A	156	ASN	OD1-CG-ND2	-5.27	117.33	122.60
2	J	214	SER	N-CA-CB	5.27	117.93	110.98
1	K	156	ASN	CB-CG-OD1	-5.26	110.27	120.80
2	F	153	ASP	CB-CA-C	-5.26	101.23	109.70
2	B	71	PHE	CA-CB-CG	5.26	119.06	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	84	TRP	CA-C-O	5.26	125.93	120.30
2	D	256	TYR	CB-CG-CD2	5.26	128.69	120.80
2	F	256	TYR	CB-CG-CD2	5.26	128.69	120.80
2	J	78	SER	CB-CA-C	-5.26	104.42	111.89
2	L	43	PHE	CA-CB-CG	5.26	119.06	113.80
2	P	43	PHE	CA-CB-CG	5.26	119.06	113.80
1	C	84	TRP	CD2-CE2-CZ2	5.25	127.65	122.40
1	E	52	PRO	CA-N-CD	-5.25	104.14	111.50
2	B	277	VAL	CB-CA-C	-5.25	103.00	110.83
2	J	59	GLN	N-CA-CB	-5.25	102.39	110.16
2	L	29	ASN	OD1-CG-ND2	5.25	127.85	122.60
2	N	21	TYR	CA-C-N	-5.25	113.85	122.67
2	N	21	TYR	C-N-CA	-5.25	113.85	122.67
1	K	110	ARG	CA-C-O	5.25	126.61	120.20
1	O	110	ARG	CA-C-O	5.25	126.61	120.20
2	P	92	ARG	N-CA-C	5.25	117.90	110.50
2	D	153	ASP	CB-CA-C	-5.25	101.25	109.70
2	H	71	PHE	CA-CB-CG	5.25	119.05	113.80
2	J	21	TYR	CA-C-N	-5.25	113.85	122.67
2	J	21	TYR	C-N-CA	-5.25	113.85	122.67
2	N	59	GLN	N-CA-CB	-5.25	102.39	110.16
2	J	23	ASN	CA-CB-CG	5.25	117.85	112.60
2	B	58	LEU	N-CA-CB	5.24	118.25	110.49
2	B	270	SER	CA-C-N	5.24	130.07	123.10
2	B	270	SER	C-N-CA	5.24	130.07	123.10
2	H	58	LEU	N-CA-CB	5.24	118.25	110.49
2	H	149	TYR	CB-CG-CD2	5.24	128.66	120.80
2	H	270	SER	CA-C-N	5.24	130.07	123.10
2	H	270	SER	C-N-CA	5.24	130.07	123.10
1	A	84	TRP	CA-C-O	5.24	125.91	120.30
1	C	127	ALA	N-CA-C	5.24	116.85	111.03
1	E	127	ALA	N-CA-C	5.24	116.85	111.03
1	K	79	ARG	NE-CZ-NH2	5.24	123.92	119.20
1	A	50	VAL	N-CA-C	5.24	115.85	108.36
1	A	204	MET	N-CA-C	5.24	116.85	110.41
1	C	52	PRO	CA-N-CD	-5.24	104.17	111.50
1	G	50	VAL	N-CA-C	5.24	115.85	108.36
1	G	204	MET	N-CA-C	5.24	116.85	110.41
1	C	144	ASN	O-C-N	5.24	126.11	121.19
1	E	144	ASN	O-C-N	5.24	126.11	121.19
2	J	67	VAL	CA-C-N	5.24	127.82	120.28
2	J	67	VAL	C-N-CA	5.24	127.82	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	K	8	ARG	NE-CZ-NH2	5.24	123.91	119.20
2	L	92	ARG	N-CA-C	5.24	117.89	110.50
2	N	67	VAL	CA-C-N	5.24	127.82	120.28
2	N	67	VAL	C-N-CA	5.24	127.82	120.28
1	O	8	ARG	NE-CZ-NH2	5.24	123.91	119.20
1	O	156	ASN	CA-CB-CG	5.24	117.84	112.60
1	A	2	VAL	CB-CA-C	-5.24	104.42	110.91
1	G	2	VAL	CB-CA-C	-5.24	104.42	110.91
1	K	138	ASN	CA-CB-CG	5.24	117.83	112.60
1	O	138	ASN	CA-CB-CG	5.24	117.83	112.60
2	P	29	ASN	OD1-CG-ND2	5.24	127.83	122.60
2	B	229	GLY	CA-C-O	-5.23	111.46	120.57
1	C	101	ASN	OD1-CG-ND2	5.23	127.83	122.60
2	D	256	TYR	N-CA-CB	5.23	119.16	110.52
2	H	103	TRP	CH2-CZ2-CE2	-5.23	110.70	117.50
2	N	226	THR	CA-CB-CG2	5.23	119.40	110.50
1	O	79	ARG	NE-CZ-NH2	5.23	123.91	119.20
1	E	2	VAL	CB-CA-C	-5.23	104.42	110.91
2	H	277	VAL	CB-CA-C	-5.23	103.04	110.83
1	G	156	ASN	OD1-CG-ND2	-5.23	117.37	122.60
2	D	212	THR	CA-C-O	5.23	124.47	119.08
2	F	212	THR	CA-C-O	5.23	124.47	119.08
1	E	84	TRP	CD2-CE2-CZ2	5.23	127.63	122.40
2	B	274	VAL	O-C-N	-5.22	117.64	122.71
2	H	229	GLY	CA-C-O	-5.22	111.48	120.57
2	H	274	VAL	O-C-N	-5.22	117.64	122.71
1	I	75	LEU	CA-C-N	5.22	126.37	119.84
1	I	75	LEU	C-N-CA	5.22	126.37	119.84
1	K	100	GLU	CB-CG-CD	5.22	121.48	112.60
1	O	100	GLU	CB-CG-CD	5.22	121.48	112.60
2	J	226	THR	CA-CB-CG2	5.22	119.38	110.50
1	E	101	ASN	OD1-CG-ND2	5.22	127.82	122.60
1	A	132	ARG	CA-C-O	5.22	127.36	121.51
1	G	132	ARG	CA-C-O	5.22	127.36	121.51
2	B	149	TYR	CB-CG-CD2	5.22	128.63	120.80
2	N	81	SER	O-C-N	-5.22	117.11	123.16
2	B	92	ARG	CB-CA-C	-5.22	99.94	109.54
2	H	92	ARG	CB-CA-C	-5.22	99.94	109.54
2	H	181	ILE	O-C-N	5.22	127.05	121.10
2	J	81	SER	O-C-N	-5.22	117.11	123.16
2	B	7	ASN	CA-C-N	5.21	131.63	121.41
2	B	7	ASN	C-N-CA	5.21	131.63	121.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	8	ARG	CA-C-N	-5.21	115.74	122.99
1	E	8	ARG	C-N-CA	-5.21	115.74	122.99
2	L	126	ILE	CA-C-O	5.21	127.16	120.96
2	P	126	ILE	CA-C-O	5.21	127.16	120.96
1	C	2	VAL	CB-CA-C	-5.21	104.45	110.91
2	L	35	VAL	N-CA-CB	5.21	116.94	111.00
2	P	35	VAL	N-CA-CB	5.21	116.94	111.00
2	D	132	ARG	CB-CG-CD	5.21	123.27	111.30
2	F	132	ARG	CB-CG-CD	5.21	123.27	111.30
1	C	85	MET	N-CA-CB	-5.20	101.95	110.43
2	F	256	TYR	N-CA-CB	5.20	119.11	110.52
2	B	27	VAL	O-C-N	-5.20	117.68	123.03
1	C	8	ARG	CG-CD-NE	-5.20	100.56	112.00
1	E	8	ARG	CG-CD-NE	-5.20	100.56	112.00
2	L	47	ASP	CA-C-O	-5.20	114.47	120.24
2	P	70	ASN	CB-CG-ND2	-5.20	108.60	116.40
1	I	2	VAL	N-CA-CB	5.20	117.73	110.56
1	I	159	THR	N-CA-C	5.20	119.84	112.93
2	N	23	ASN	CA-CB-CG	5.20	117.80	112.60
1	C	8	ARG	CA-C-N	-5.19	115.77	122.99
1	C	8	ARG	C-N-CA	-5.19	115.77	122.99
2	D	31	GLY	O-C-N	-5.19	116.17	122.71
2	F	31	GLY	O-C-N	-5.19	116.17	122.71
2	F	262	GLN	CG-CD-NE2	5.19	124.19	116.40
2	J	43	PHE	CA-CB-CG	5.19	118.99	113.80
1	K	9	VAL	CA-CB-CG2	5.19	119.23	110.40
1	O	9	VAL	CA-CB-CG2	5.19	119.23	110.40
2	P	170	VAL	CB-CA-C	5.19	117.90	111.15
2	H	7	ASN	CA-C-N	5.19	131.59	121.41
2	H	7	ASN	C-N-CA	5.19	131.59	121.41
2	P	47	ASP	CA-C-O	-5.19	114.48	120.24
2	B	181	ILE	O-C-N	5.19	127.02	121.10
1	G	3	ALA	O-C-N	-5.19	116.86	123.24
1	K	97	LYS	N-CA-CB	5.19	119.33	110.50
1	O	97	LYS	N-CA-CB	5.19	119.33	110.50
1	E	85	MET	N-CA-CB	-5.19	101.97	110.43
2	L	226	THR	CA-CB-CG2	5.19	119.32	110.50
1	M	75	LEU	CA-C-N	5.19	126.33	119.84
1	M	75	LEU	C-N-CA	5.19	126.33	119.84
2	P	226	THR	CA-CB-CG2	5.19	119.32	110.50
2	B	259	THR	N-CA-C	5.18	121.39	113.61
2	D	122	ALA	N-CA-CB	-5.18	101.44	109.69

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	122	ALA	N-CA-CB	-5.18	101.44	109.69
2	H	172	LEU	CB-CA-C	5.18	120.38	110.17
2	H	27	VAL	O-C-N	-5.18	117.69	123.03
2	J	250	LEU	N-CA-CB	5.18	118.32	109.87
2	N	250	LEU	N-CA-CB	5.18	118.32	109.87
2	L	170	VAL	CB-CA-C	5.18	117.89	111.15
2	J	87	THR	CA-C-O	5.18	124.88	119.03
2	D	226	THR	CB-CA-C	5.18	119.89	109.38
2	F	226	THR	CB-CA-C	5.18	119.89	109.38
2	L	70	ASN	CB-CG-ND2	-5.18	108.64	116.40
1	G	45	ASP	N-CA-CB	-5.17	103.25	110.29
1	M	2	VAL	N-CA-CB	5.17	117.70	110.56
2	B	172	LEU	CB-CA-C	5.17	120.36	110.17
2	D	262	GLN	CG-CD-NE2	5.17	124.16	116.40
2	D	81	SER	CA-CB-OG	-5.17	100.76	111.10
2	F	81	SER	CA-CB-OG	-5.17	100.76	111.10
2	H	259	THR	N-CA-C	5.17	121.36	113.61
1	I	97	LYS	N-CA-CB	5.17	119.29	110.50
1	M	97	LYS	N-CA-CB	5.17	119.29	110.50
1	M	159	THR	N-CA-C	5.17	119.80	112.93
1	A	3	ALA	O-C-N	-5.16	116.89	123.24
2	F	219	GLN	CB-CG-CD	-5.16	103.83	112.60
2	B	212	THR	N-CA-CB	-5.16	101.73	111.43
2	H	212	THR	N-CA-CB	-5.16	101.73	111.43
2	B	121	LYS	N-CA-CB	5.16	118.58	110.23
2	H	121	LYS	N-CA-CB	5.16	118.58	110.23
2	N	270	SER	CA-C-O	5.16	125.93	120.36
1	K	120	LEU	CB-CA-C	5.15	118.85	109.62
1	O	120	LEU	CB-CA-C	5.15	118.85	109.62
1	A	49	ILE	CA-C-O	5.15	126.74	121.28
2	D	58	LEU	N-CA-CB	5.15	118.02	110.35
2	F	58	LEU	N-CA-CB	5.15	118.02	110.35
1	G	49	ILE	CA-C-O	5.15	126.74	121.28
2	N	43	PHE	CA-CB-CG	5.15	118.95	113.80
2	D	219	GLN	CB-CG-CD	-5.15	103.85	112.60
1	A	45	ASP	N-CA-CB	-5.15	103.29	110.29
1	G	38	GLU	O-C-N	5.15	129.74	123.10
2	P	69	SER	CA-C-N	-5.15	113.17	122.54
2	P	69	SER	C-N-CA	-5.15	113.17	122.54
2	H	230	THR	CB-CA-C	-5.14	101.63	110.22
2	L	21	TYR	CA-C-N	-5.14	114.03	122.67
2	L	21	TYR	C-N-CA	-5.14	114.03	122.67

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	P	21	TYR	CA-C-N	-5.14	114.03	122.67
2	P	21	TYR	C-N-CA	-5.14	114.03	122.67
2	B	244	GLY	CA-C-N	5.14	127.17	120.28
2	B	244	GLY	C-N-CA	5.14	127.17	120.28
2	N	87	THR	CA-C-O	5.14	124.84	119.03
2	L	69	SER	CA-C-N	-5.14	113.19	122.54
2	L	69	SER	C-N-CA	-5.14	113.19	122.54
2	B	101	LYS	N-CA-CB	-5.14	100.32	110.70
2	L	92	ARG	CB-CG-CD	5.14	123.11	111.30
1	A	71	THR	N-CA-C	-5.13	103.70	110.43
1	G	71	THR	N-CA-C	-5.13	103.70	110.43
2	D	245	THR	N-CA-C	5.13	116.88	111.28
2	F	245	THR	N-CA-C	5.13	116.88	111.28
2	H	101	LYS	N-CA-CB	-5.13	100.33	110.70
1	G	7	THR	N-CA-C	-5.13	106.42	113.30
2	N	191	GLN	CB-CG-CD	-5.13	103.88	112.60
2	F	16	GLY	CA-C-N	-5.13	113.90	122.21
2	F	16	GLY	C-N-CA	-5.13	113.90	122.21
1	C	165	ALA	CA-C-O	5.13	126.53	120.89
2	D	27	VAL	N-CA-C	5.13	115.36	107.77
1	E	165	ALA	CA-C-O	5.13	126.53	120.89
2	D	121	LYS	N-CA-CB	5.12	118.53	110.23
1	M	120	LEU	CB-CA-C	5.12	118.79	109.62
2	B	117	GLY	O-C-N	5.12	129.36	122.70
2	H	117	GLY	O-C-N	5.12	129.36	122.70
2	J	58	LEU	CA-C-O	-5.12	115.31	120.84
2	J	191	GLN	CB-CG-CD	-5.12	103.89	112.60
1	K	96	SER	CA-C-N	5.12	130.92	121.70
1	K	96	SER	C-N-CA	5.12	130.92	121.70
1	O	96	SER	CA-C-N	5.12	130.92	121.70
1	O	96	SER	C-N-CA	5.12	130.92	121.70
2	B	230	THR	CB-CA-C	-5.12	101.67	110.22
2	D	59	GLN	CG-CD-NE2	-5.12	108.72	116.40
2	F	59	GLN	CG-CD-NE2	-5.12	108.72	116.40
1	K	131	LEU	CA-C-N	5.12	130.63	122.59
1	K	131	LEU	C-N-CA	5.12	130.63	122.59
1	A	38	GLU	O-C-N	5.12	129.70	123.10
2	F	27	VAL	N-CA-C	5.12	115.34	107.77
2	J	200	THR	N-CA-CB	5.12	117.88	109.95
2	N	200	THR	N-CA-CB	5.12	117.88	109.95
2	H	244	GLY	CA-C-N	5.11	127.13	120.28
2	H	244	GLY	C-N-CA	5.11	127.13	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	L	273	GLY	N-CA-C	-5.11	101.71	112.04
1	M	116	ARG	CA-C-N	5.11	125.35	119.83
1	M	116	ARG	C-N-CA	5.11	125.35	119.83
2	P	273	GLY	N-CA-C	-5.11	101.71	112.04
2	D	16	GLY	CA-C-N	-5.11	113.93	122.21
2	D	16	GLY	C-N-CA	-5.11	113.93	122.21
1	I	120	LEU	CB-CA-C	5.11	118.77	109.62
2	P	92	ARG	CB-CG-CD	5.11	123.05	111.30
2	L	206	ASN	CB-CG-ND2	5.11	124.06	116.40
2	P	206	ASN	CB-CG-ND2	5.11	124.06	116.40
1	A	7	THR	N-CA-C	-5.11	106.46	113.30
1	K	9	VAL	N-CA-CB	5.11	123.86	111.81
1	O	9	VAL	N-CA-CB	5.11	123.86	111.81
2	F	121	LYS	N-CA-CB	5.10	118.50	110.23
1	K	82	LEU	N-CA-CB	5.10	118.74	110.32
1	O	82	LEU	N-CA-CB	5.10	118.74	110.32
1	C	201	THR	O-C-N	-5.10	117.41	123.22
1	I	96	SER	CA-C-N	5.10	130.88	121.70
1	I	96	SER	C-N-CA	5.10	130.88	121.70
2	J	177	GLY	N-CA-C	5.10	125.26	113.18
1	M	96	SER	CA-C-N	5.10	130.88	121.70
1	M	96	SER	C-N-CA	5.10	130.88	121.70
1	O	131	LEU	CA-C-N	5.10	130.60	122.59
1	O	131	LEU	C-N-CA	5.10	130.60	122.59
2	B	46	ASN	N-CA-C	-5.10	101.40	109.76
2	H	46	ASN	N-CA-C	-5.10	101.40	109.76
2	J	270	SER	CA-C-O	5.10	125.86	120.36
2	N	177	GLY	N-CA-C	5.10	125.26	113.18
1	A	160	ARG	CA-C-N	5.09	128.85	122.43
1	A	160	ARG	C-N-CA	5.09	128.85	122.43
2	B	81	SER	CA-CB-OG	-5.09	100.91	111.10
2	B	211	ASN	CA-CB-CG	5.09	117.69	112.60
2	H	81	SER	CA-CB-OG	-5.09	100.91	111.10
2	J	143	GLN	CA-C-O	5.09	125.93	120.38
2	N	154	VAL	N-CA-CB	5.09	118.18	111.25
1	E	110	ARG	O-C-N	-5.09	117.36	123.27
2	L	80	SER	O-C-N	-5.09	117.36	123.31
2	P	80	SER	O-C-N	-5.09	117.36	123.31
2	D	41	GLN	CA-C-N	-5.09	116.33	123.10
2	D	41	GLN	C-N-CA	-5.09	116.33	123.10
2	F	41	GLN	CA-C-N	-5.09	116.33	123.10
2	F	41	GLN	C-N-CA	-5.09	116.33	123.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	I	116	ARG	CA-C-N	5.09	125.32	119.83
1	I	116	ARG	C-N-CA	5.09	125.32	119.83
2	N	58	LEU	CA-C-O	-5.08	115.35	120.84
1	A	47	ARG	CD-NE-CZ	-5.08	117.28	124.40
2	J	94	VAL	CA-CB-CG1	5.08	119.04	110.40
1	E	201	THR	O-C-N	-5.08	117.43	123.22
2	N	94	VAL	CA-CB-CG1	5.08	119.04	110.40
2	N	143	GLN	CA-C-O	5.08	125.92	120.38
1	C	56	ALA	CA-C-N	-5.08	115.66	123.07
1	C	56	ALA	C-N-CA	-5.08	115.66	123.07
1	E	56	ALA	CA-C-N	-5.08	115.66	123.07
1	E	56	ALA	C-N-CA	-5.08	115.66	123.07
2	D	39	SER	CA-C-O	-5.08	112.47	119.12
1	E	205	GLU	N-CA-CB	5.08	119.13	110.50
2	F	39	SER	CA-C-O	-5.08	112.47	119.12
1	G	101	ASN	OD1-CG-ND2	5.08	127.68	122.60
2	J	154	VAL	N-CA-CB	5.08	118.15	111.25
2	J	276	PHE	CA-CB-CG	-5.08	108.72	113.80
2	B	178	SER	CA-CB-OG	5.07	121.25	111.10
2	D	5	THR	OG1-CB-CG2	5.07	119.44	109.30
2	F	5	THR	OG1-CB-CG2	5.07	119.44	109.30
1	G	47	ARG	CD-NE-CZ	-5.07	117.30	124.40
2	H	178	SER	CA-CB-OG	5.07	121.25	111.10
2	D	155	VAL	O-C-N	-5.07	117.55	122.93
2	F	155	VAL	O-C-N	-5.07	117.55	122.93
2	J	48	TYR	CA-C-N	5.07	124.57	119.19
2	J	48	TYR	C-N-CA	5.07	124.57	119.19
1	C	13	ALA	CA-C-O	-5.07	115.57	121.15
1	E	13	ALA	CA-C-O	-5.07	115.57	121.15
1	E	23	THR	O-C-N	-5.07	117.17	123.36
1	G	47	ARG	NH1-CZ-NH2	5.07	125.89	119.30
2	H	211	ASN	CA-CB-CG	5.07	117.67	112.60
1	M	15	GLN	OE1-CD-NE2	5.07	127.67	122.60
2	P	69	SER	N-CA-CB	5.07	118.05	110.19
2	P	118	VAL	CA-C-O	5.07	127.78	121.64
1	C	63	ASN	OD1-CG-ND2	5.07	127.67	122.60
1	E	63	ASN	OD1-CG-ND2	5.07	127.67	122.60
2	J	11	ILE	N-CA-CB	5.07	118.31	111.21
2	L	118	VAL	CA-C-O	5.07	127.77	121.64
1	C	7	THR	N-CA-C	-5.07	106.51	113.30
2	D	46	ASN	N-CA-C	-5.07	101.45	109.76
1	E	7	THR	N-CA-C	-5.07	106.51	113.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	46	ASN	N-CA-C	-5.07	101.45	109.76
2	D	201	THR	OG1-CB-CG2	5.06	119.43	109.30
1	A	47	ARG	NH1-CZ-NH2	5.06	125.88	119.30
1	A	101	ASN	OD1-CG-ND2	5.06	127.66	122.60
2	H	185	VAL	CA-CB-CG1	-5.06	101.79	110.40
1	I	164	ASN	N-CA-CB	5.06	117.68	110.44
2	P	70	ASN	CB-CG-OD1	5.06	130.93	120.80
2	F	201	THR	OG1-CB-CG2	5.06	119.42	109.30
2	J	90	THR	CA-C-O	5.06	126.74	120.87
2	N	90	THR	CA-C-O	5.06	126.74	120.87
2	B	192	ASN	CB-CG-ND2	5.06	123.99	116.40
1	C	110	ARG	O-C-N	-5.06	117.40	123.27
2	H	192	ASN	CB-CG-ND2	5.06	123.99	116.40
1	K	57	MET	N-CA-CB	5.06	119.11	110.87
2	L	69	SER	N-CA-CB	5.06	118.03	110.19
1	O	57	MET	N-CA-CB	5.06	119.11	110.87
2	J	38	LEU	CA-CB-CG	-5.06	98.61	116.30
2	N	38	LEU	CA-CB-CG	-5.06	98.60	116.30
2	N	276	PHE	CA-CB-CG	-5.06	108.74	113.80
1	A	134	ARG	NE-CZ-NH1	5.05	126.55	121.50
1	G	110	ARG	NE-CZ-NH1	-5.05	116.45	121.50
1	G	134	ARG	NE-CZ-NH1	5.05	126.55	121.50
1	M	11	TYR	CA-C-N	5.05	124.96	119.76
1	M	11	TYR	C-N-CA	5.05	124.96	119.76
2	N	48	TYR	CA-C-N	5.05	124.54	119.19
2	N	48	TYR	C-N-CA	5.05	124.54	119.19
2	B	100	ASP	CA-CB-CG	-5.05	107.55	112.60
2	B	185	VAL	CA-CB-CG1	-5.05	101.82	110.40
2	N	11	ILE	N-CA-CB	5.05	118.28	111.21
2	P	81	SER	CA-CB-OG	-5.05	101.00	111.10
1	A	110	ARG	NE-CZ-NH1	-5.05	116.45	121.50
2	F	270	SER	CA-C-O	5.05	127.10	121.40
1	M	164	ASN	N-CA-CB	5.05	117.66	110.44
1	K	47	ARG	NH1-CZ-NH2	-5.05	112.74	119.30
2	L	81	SER	CA-CB-OG	-5.05	101.01	111.10
1	O	47	ARG	NH1-CZ-NH2	-5.05	112.74	119.30
1	E	72	ASN	CB-CG-ND2	5.04	123.97	116.40
2	L	70	ASN	CB-CG-OD1	5.04	130.89	120.80
1	A	19	GLN	CA-C-N	-5.04	113.86	122.33
1	A	19	GLN	C-N-CA	-5.04	113.86	122.33
1	C	205	GLU	N-CA-CB	5.04	119.07	110.50
2	L	36	VAL	N-CA-CB	5.04	118.03	111.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	L	95	TYR	O-C-N	-5.04	116.78	123.13
2	P	36	VAL	N-CA-CB	5.04	118.03	111.83
2	P	94	VAL	CA-CB-CG1	5.04	118.97	110.40
2	P	95	TYR	O-C-N	-5.04	116.78	123.13
1	G	205	GLU	N-CA-CB	5.04	119.07	110.50
2	D	265	ALA	CA-C-N	-5.04	115.28	121.83
2	D	265	ALA	C-N-CA	-5.04	115.28	121.83
2	F	265	ALA	CA-C-N	-5.04	115.28	121.83
2	F	265	ALA	C-N-CA	-5.04	115.28	121.83
1	A	140	LEU	CB-CA-C	-5.04	102.63	110.74
2	D	178	SER	CA-C-N	5.04	131.45	122.13
2	D	178	SER	C-N-CA	5.04	131.45	122.13
2	F	178	SER	CA-C-N	5.04	131.45	122.13
2	F	178	SER	C-N-CA	5.04	131.45	122.13
1	G	140	LEU	CB-CA-C	-5.04	102.63	110.74
1	G	160	ARG	CA-C-N	5.04	128.78	122.43
1	G	160	ARG	C-N-CA	5.04	128.78	122.43
1	C	23	THR	O-C-N	-5.03	117.22	123.36
1	C	72	ASN	CB-CG-ND2	5.03	123.95	116.40
2	D	270	SER	CA-C-O	5.03	127.08	121.40
2	F	211	ASN	CB-CG-ND2	5.03	123.94	116.40
1	G	27	GLU	N-CA-CB	-5.03	101.99	110.49
2	H	100	ASP	CA-CB-CG	-5.03	107.57	112.60
1	I	11	TYR	CA-C-N	5.03	124.94	119.76
1	I	11	TYR	C-N-CA	5.03	124.94	119.76
1	A	205	GLU	N-CA-CB	5.03	119.04	110.50
2	B	16	GLY	CA-C-N	-5.03	114.07	122.21
2	B	16	GLY	C-N-CA	-5.03	114.07	122.21
2	B	264	THR	CA-CB-OG1	-5.03	102.06	109.60
1	C	149	TYR	N-CA-CB	5.03	117.36	109.97
1	E	149	TYR	N-CA-CB	5.03	117.36	109.97
2	H	16	GLY	CA-C-N	-5.03	114.07	122.21
2	H	16	GLY	C-N-CA	-5.03	114.07	122.21
2	H	264	THR	CA-CB-OG1	-5.03	102.06	109.60
2	H	271	ILE	N-CA-CB	-5.03	105.11	111.64
1	I	15	GLN	OE1-CD-NE2	5.03	127.62	122.60
1	G	19	GLN	CA-C-N	-5.02	113.89	122.33
1	G	19	GLN	C-N-CA	-5.02	113.89	122.33
2	L	94	VAL	CA-CB-CG1	5.02	118.94	110.40
1	M	203	VAL	CA-C-O	5.02	127.06	120.78
2	B	94	VAL	CA-C-O	5.02	125.94	120.57
2	N	168	VAL	CA-C-O	5.02	127.05	120.78

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	P	40	THR	CB-CA-C	5.02	117.98	109.55
2	H	145	VAL	N-CA-CB	-5.01	105.34	111.21
2	B	145	VAL	N-CA-CB	-5.01	105.34	111.21
1	C	50	VAL	N-CA-C	5.01	115.53	108.36
1	E	50	VAL	N-CA-C	5.01	115.53	108.36
2	D	211	ASN	CB-CG-ND2	5.01	123.92	116.40
2	H	94	VAL	CA-C-O	5.01	125.93	120.57
1	M	65	LEU	CA-C-O	-5.01	115.40	120.71
1	A	27	GLU	N-CA-CB	-5.01	102.03	110.49
2	B	194	GLY	O-C-N	-5.01	118.92	123.57
2	J	90	THR	O-C-N	-5.01	115.95	121.66
2	J	168	VAL	CA-C-O	5.01	127.04	120.78
2	L	40	THR	CB-CA-C	5.01	117.96	109.55
2	N	90	THR	O-C-N	-5.01	115.95	121.66
2	P	181	ILE	N-CA-CB	5.01	117.57	111.21
1	I	60	LYS	CB-CA-C	5.00	117.86	111.40
1	A	56	ALA	CA-C-N	-5.00	115.57	123.13
1	A	56	ALA	C-N-CA	-5.00	115.57	123.13
1	K	11	TYR	CA-C-N	5.00	124.91	119.76
1	K	11	TYR	C-N-CA	5.00	124.91	119.76
1	O	11	TYR	CA-C-N	5.00	124.91	119.76
1	O	11	TYR	C-N-CA	5.00	124.91	119.76
2	B	206	ASN	N-CA-CB	-5.00	104.31	111.91
2	H	206	ASN	N-CA-CB	-5.00	104.31	111.91

All (8) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
2	D	176	PRO	CA
2	F	176	PRO	CA
1	I	156	ASN	CA
2	J	215	PHE	CA
2	L	215	PHE	CA
1	M	156	ASN	CA
2	N	215	PHE	CA
2	P	215	PHE	CA

All (96) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	25	ASN	Mainchain
1	A	45	ASP	Mainchain

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Mol	Chain	Res	Type	Group
1	A	51	THR	Peptide,Mainchain
2	B	103	TRP	Mainchain
2	B	122	ALA	Mainchain
2	B	171	THR	Mainchain
2	B	24	LEU	Mainchain
2	B	274	VAL	Mainchain
2	B	35	VAL	Mainchain
2	B	58	LEU	Mainchain
1	C	25	ASN	Mainchain
1	C	45	ASP	Mainchain
1	C	51	THR	Peptide,Mainchain
2	D	103	TRP	Mainchain
2	D	171	THR	Mainchain
2	D	175	TYR	Peptide
2	D	274	VAL	Mainchain
2	D	35	VAL	Mainchain
2	D	36	VAL	Mainchain
2	D	58	LEU	Mainchain
1	E	25	ASN	Mainchain
1	E	45	ASP	Mainchain
1	E	51	THR	Peptide,Mainchain
2	F	103	TRP	Mainchain
2	F	171	THR	Mainchain
2	F	175	TYR	Peptide
2	F	274	VAL	Mainchain
2	F	35	VAL	Mainchain
2	F	36	VAL	Mainchain
2	F	58	LEU	Mainchain
1	G	25	ASN	Mainchain
1	G	45	ASP	Mainchain
1	G	51	THR	Peptide,Mainchain
2	H	103	TRP	Mainchain
2	H	122	ALA	Mainchain
2	H	171	THR	Mainchain
2	H	24	LEU	Mainchain
2	H	274	VAL	Mainchain
2	H	35	VAL	Mainchain
2	H	58	LEU	Mainchain
1	I	135	ARG	Mainchain
1	I	139	SER	Peptide
1	I	156	ASN	Sidechain
1	I	26	ASP	Sidechain,Mainchain

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Mol	Chain	Res	Type	Group
1	I	27	GLU	Mainchain
1	I	47	ARG	Sidechain
1	I	70	ALA	Peptide,Mainchain
2	J	165	ALA	Peptide,Mainchain
2	J	171	THR	Mainchain
2	J	172	LEU	Peptide
1	K	135	ARG	Mainchain
1	K	139	SER	Peptide,Mainchain
1	K	156	ASN	Mainchain
1	K	26	ASP	Sidechain,Mainchain
1	K	27	GLU	Mainchain
1	K	47	ARG	Sidechain
1	K	70	ALA	Peptide,Mainchain
2	L	165	ALA	Peptide,Mainchain
2	L	171	THR	Mainchain
1	M	135	ARG	Mainchain
1	M	139	SER	Peptide
1	M	156	ASN	Sidechain
1	M	26	ASP	Sidechain,Mainchain
1	M	27	GLU	Mainchain
1	M	47	ARG	Sidechain
1	M	70	ALA	Peptide,Mainchain
2	N	165	ALA	Peptide,Mainchain
2	N	171	THR	Mainchain
2	N	172	LEU	Peptide
1	O	135	ARG	Mainchain
1	O	139	SER	Peptide,Mainchain
1	O	156	ASN	Mainchain
1	O	26	ASP	Sidechain,Mainchain
1	O	27	GLU	Mainchain
1	O	47	ARG	Sidechain
1	O	70	ALA	Peptide,Mainchain
2	P	165	ALA	Peptide,Mainchain
2	P	171	THR	Mainchain

5.2 Too-close contacts ⓘ

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	1553	0	1587	58	0
1	C	1553	0	1587	50	0
1	E	1553	0	1587	48	0
1	G	1553	0	1587	51	0
1	I	1543	0	1576	115	0
1	K	1543	0	1576	115	0
1	M	1543	0	1576	113	0
1	O	1543	0	1576	115	0
2	B	2052	0	2006	86	0
2	D	2052	0	2006	81	0
2	F	2052	0	2006	86	0
2	H	2052	0	2006	85	0
2	J	2052	0	2004	116	0
2	L	2052	0	2004	120	0
2	N	2052	0	2004	115	0
2	P	2052	0	2004	115	0
3	A	5	0	0	0	0
3	B	10	0	0	1	0
3	C	6	0	0	0	0
3	D	11	0	0	1	0
3	E	5	0	0	0	0
3	F	12	0	0	1	0
3	G	5	0	0	0	0
3	H	10	0	0	1	0
All	All	28864	0	28692	1387	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 25.

All (1387) 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)
1:O:197:THR:HB	1:O:198:PRO:HD2	1.45	0.98
2:N:53:THR:H	2:N:136:ASN:HD21	1.08	0.98
2:J:53:THR:H	2:J:136:ASN:HD21	1.08	0.98
2:B:226:THR:HG22	2:B:253:THR:HB	1.45	0.98
1:I:197:THR:HB	1:I:198:PRO:HD2	1.46	0.98
1:K:197:THR:HB	1:K:198:PRO:HD2	1.45	0.98
2:L:53:THR:H	2:L:136:ASN:HD21	1.08	0.97
1:M:197:THR:HB	1:M:198:PRO:HD2	1.46	0.96
2:H:226:THR:HG22	2:H:253:THR:HB	1.45	0.95
1:K:6:ALA:HA	2:L:159:GLY:HA2	1.49	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:53:THR:H	2:P:136:ASN:HD21	1.08	0.94
2:L:53:THR:H	2:L:136:ASN:ND2	1.66	0.94
1:I:6:ALA:HA	2:J:159:GLY:HA2	1.50	0.94
2:D:226:THR:HG22	2:D:253:THR:HB	1.49	0.93
1:O:6:ALA:HA	2:P:159:GLY:HA2	1.49	0.93
1:O:4:LEU:HD21	1:O:87:VAL:HG21	1.49	0.93
2:N:53:THR:H	2:N:136:ASN:ND2	1.67	0.93
1:K:4:LEU:HD21	1:K:87:VAL:HG21	1.49	0.93
2:P:53:THR:H	2:P:136:ASN:ND2	1.66	0.93
2:J:53:THR:H	2:J:136:ASN:ND2	1.67	0.92
1:M:6:ALA:HA	2:N:159:GLY:HA2	1.50	0.92
2:F:226:THR:HG22	2:F:253:THR:HB	1.49	0.91
1:O:32:LEU:HD13	1:O:54:LEU:HD11	1.52	0.91
1:M:4:LEU:HD21	1:M:87:VAL:HG21	1.51	0.91
1:I:4:LEU:HD21	1:I:87:VAL:HG21	1.52	0.91
1:M:32:LEU:HD13	1:M:54:LEU:HD11	1.51	0.90
1:I:32:LEU:HD13	1:I:54:LEU:HD11	1.51	0.90
1:M:9:VAL:HB	1:M:113:LEU:HD13	1.54	0.89
1:K:32:LEU:HD13	1:K:54:LEU:HD11	1.52	0.89
1:O:9:VAL:HB	1:O:113:LEU:HD13	1.55	0.89
1:I:9:VAL:HB	1:I:113:LEU:HD13	1.54	0.88
2:H:5:THR:HG21	3:H:282:HOH:O	1.73	0.88
2:B:5:THR:HG21	3:B:282:HOH:O	1.73	0.87
1:K:9:VAL:HB	1:K:113:LEU:HD13	1.55	0.87
2:P:70:ASN:HB2	2:P:115:ALA:HB2	1.57	0.87
2:F:5:THR:HG21	3:F:284:HOH:O	1.75	0.85
2:N:70:ASN:HB2	2:N:115:ALA:HB2	1.57	0.85
2:J:70:ASN:HB2	2:J:115:ALA:HB2	1.57	0.85
1:A:197:THR:HB	1:A:198:PRO:HD2	1.59	0.85
1:G:197:THR:HB	1:G:198:PRO:HD2	1.59	0.84
1:M:151:THR:HG22	1:M:190:ILE:HD12	1.59	0.84
1:I:151:THR:HG22	1:I:190:ILE:HD12	1.59	0.84
2:H:219:GLN:HB2	2:H:264:THR:HB	1.60	0.84
2:L:70:ASN:HB2	2:L:115:ALA:HB2	1.57	0.84
2:D:5:THR:HG21	3:D:284:HOH:O	1.76	0.83
2:D:92:ARG:HG2	2:D:92:ARG:HH11	1.43	0.83
2:H:163:VAL:HG22	2:H:185:VAL:HG13	1.60	0.83
2:D:163:VAL:HG22	2:D:185:VAL:HG13	1.59	0.82
2:F:163:VAL:HG22	2:F:185:VAL:HG13	1.59	0.82
1:K:151:THR:HG22	1:K:190:ILE:HD12	1.61	0.82
2:B:219:GLN:HB2	2:B:264:THR:HB	1.60	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:57:THR:HG21	2:J:89:GLU:OE2	1.80	0.82
1:O:18:VAL:HG12	1:O:19:GLN:H	1.45	0.82
2:B:163:VAL:HG22	2:B:185:VAL:HG13	1.60	0.82
1:E:112:LYS:NZ	2:F:279:GLN:O	2.13	0.81
2:F:92:ARG:HG2	2:F:92:ARG:HH11	1.43	0.81
1:I:18:VAL:HG12	1:I:19:GLN:H	1.45	0.81
1:M:133:PHE:O	1:M:134:ARG:HB2	1.80	0.81
1:O:151:THR:HG22	1:O:190:ILE:HD12	1.61	0.81
2:B:92:ARG:HH11	2:B:92:ARG:HG2	1.45	0.81
2:N:17:SER:HB3	2:N:145:VAL:HB	1.63	0.81
2:N:57:THR:HG21	2:N:89:GLU:OE2	1.80	0.81
2:H:92:ARG:HG2	2:H:92:ARG:HH11	1.45	0.81
1:C:112:LYS:NZ	2:D:279:GLN:O	2.13	0.80
2:J:17:SER:HB3	2:J:145:VAL:HB	1.63	0.80
1:K:18:VAL:HG12	1:K:19:GLN:H	1.45	0.80
1:A:51:THR:HG22	1:A:66:ARG:HG3	1.64	0.80
1:M:18:VAL:HG12	1:M:19:GLN:H	1.45	0.80
1:O:133:PHE:O	1:O:134:ARG:HB2	1.81	0.80
2:P:226:THR:HG22	2:P:253:THR:HB	1.64	0.80
2:B:184:THR:HG23	2:B:247:ALA:HB1	1.62	0.79
1:I:133:PHE:O	1:I:134:ARG:HB2	1.80	0.79
2:N:258:ARG:NH2	2:N:263:VAL:HG23	1.97	0.79
2:H:184:THR:HG23	2:H:247:ALA:HB1	1.62	0.79
2:L:57:THR:HG21	2:L:89:GLU:OE2	1.83	0.79
2:N:40:THR:CG2	2:N:41:GLN:HE21	1.96	0.79
2:P:17:SER:HB3	2:P:145:VAL:HB	1.65	0.79
2:J:258:ARG:NH2	2:J:263:VAL:HG23	1.97	0.79
2:L:40:THR:CG2	2:L:41:GLN:HE21	1.95	0.79
2:P:40:THR:CG2	2:P:41:GLN:HE21	1.95	0.79
2:N:14:GLY:HA2	2:N:142:PHE:CD1	2.18	0.79
1:G:51:THR:HG22	1:G:66:ARG:HG3	1.64	0.78
1:K:133:PHE:O	1:K:134:ARG:HB2	1.81	0.78
2:J:40:THR:CG2	2:J:41:GLN:HE21	1.96	0.78
2:P:57:THR:HG21	2:P:89:GLU:OE2	1.83	0.78
2:J:14:GLY:HA2	2:J:142:PHE:CD1	2.18	0.78
2:D:184:THR:HG23	2:D:247:ALA:HB1	1.64	0.78
2:J:67:VAL:HG21	2:J:126:ILE:HG23	1.66	0.78
2:L:226:THR:HG22	2:L:253:THR:HB	1.64	0.78
2:P:29:ASN:HB2	2:P:32:GLN:NE2	1.99	0.78
2:J:29:ASN:HB2	2:J:32:GLN:NE2	1.99	0.77
2:L:17:SER:HB3	2:L:145:VAL:HB	1.65	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:167:ASP:O	2:J:168:VAL:N	2.18	0.77
1:A:112:LYS:NZ	2:B:279:GLN:O	2.17	0.77
1:G:112:LYS:NZ	2:H:279:GLN:O	2.17	0.77
2:L:29:ASN:HB2	2:L:32:GLN:NE2	1.99	0.77
2:L:167:ASP:O	2:L:168:VAL:N	2.17	0.77
2:D:40:THR:CG2	2:D:41:GLN:HE21	1.97	0.77
2:F:184:THR:HG23	2:F:247:ALA:HB1	1.64	0.77
1:C:197:THR:HB	1:C:198:PRO:HD2	1.67	0.77
2:F:40:THR:CG2	2:F:41:GLN:HE21	1.97	0.77
2:N:29:ASN:HB2	2:N:32:GLN:NE2	1.99	0.77
2:J:138:ASN:HD22	2:J:138:ASN:H	1.33	0.77
2:N:67:VAL:HG21	2:N:126:ILE:HG23	1.66	0.77
1:C:51:THR:HG22	1:C:66:ARG:HG3	1.67	0.76
1:E:51:THR:HG22	1:E:66:ARG:HG3	1.67	0.76
1:E:197:THR:HB	1:E:198:PRO:HD2	1.67	0.76
2:P:167:ASP:O	2:P:168:VAL:N	2.17	0.76
1:I:197:THR:HB	1:I:198:PRO:CD	2.15	0.76
2:P:14:GLY:HA2	2:P:142:PHE:CD1	2.21	0.76
1:E:162:LEU:HD21	1:E:177:LEU:HD12	1.68	0.76
2:L:14:GLY:HA2	2:L:142:PHE:CD1	2.21	0.76
2:F:219:GLN:HB2	2:F:264:THR:HB	1.68	0.76
2:D:219:GLN:HB2	2:D:264:THR:HB	1.68	0.75
1:A:162:LEU:HD21	1:A:177:LEU:HD12	1.68	0.75
1:K:197:THR:HB	1:K:198:PRO:CD	2.16	0.75
1:M:197:THR:HB	1:M:198:PRO:CD	2.15	0.75
2:N:167:ASP:O	2:N:168:VAL:N	2.18	0.75
2:N:138:ASN:HD22	2:N:138:ASN:H	1.32	0.75
2:B:201:THR:HG21	2:B:206:ASN:OD1	1.87	0.75
2:L:138:ASN:HD22	2:L:138:ASN:H	1.35	0.75
1:O:197:THR:HB	1:O:198:PRO:CD	2.16	0.75
2:B:40:THR:CG2	2:B:41:GLN:HE21	2.00	0.75
2:P:67:VAL:HG21	2:P:126:ILE:HG23	1.69	0.75
2:P:258:ARG:NH2	2:P:263:VAL:HG23	2.02	0.75
1:C:162:LEU:HD21	1:C:177:LEU:HD12	1.68	0.74
2:N:226:THR:HG22	2:N:253:THR:HB	1.69	0.74
2:F:57:THR:HG21	2:F:89:GLU:OE1	1.87	0.74
2:L:67:VAL:HG21	2:L:126:ILE:HG23	1.69	0.74
2:H:55:TYR:HB3	2:H:92:ARG:HG3	1.70	0.74
2:L:258:ARG:NH2	2:L:263:VAL:HG23	2.02	0.74
2:D:57:THR:HG21	2:D:89:GLU:OE1	1.87	0.74
1:G:162:LEU:HD21	1:G:177:LEU:HD12	1.68	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:211:ASN:HD22	2:P:269:GLN:H	1.36	0.74
1:K:2:VAL:HG12	1:K:24:ASN:HA	1.69	0.74
2:H:40:THR:CG2	2:H:41:GLN:HE21	2.00	0.74
2:D:201:THR:HG21	2:D:206:ASN:OD1	1.89	0.73
2:F:184:THR:CG2	2:F:247:ALA:HB1	2.18	0.73
2:H:201:THR:HG21	2:H:206:ASN:OD1	1.87	0.73
1:O:2:VAL:HG12	1:O:24:ASN:HA	1.69	0.73
2:D:184:THR:CG2	2:D:247:ALA:HB1	2.18	0.73
2:N:40:THR:HG22	2:N:41:GLN:HE21	1.54	0.73
2:P:138:ASN:H	2:P:138:ASN:HD22	1.35	0.73
2:F:201:THR:HG21	2:F:206:ASN:OD1	1.89	0.73
2:B:55:TYR:HB3	2:B:92:ARG:HG3	1.70	0.73
2:J:226:THR:HG22	2:J:253:THR:HB	1.69	0.73
2:J:40:THR:HG22	2:J:41:GLN:HE21	1.54	0.73
2:L:211:ASN:HD22	2:L:269:GLN:H	1.36	0.72
2:H:184:THR:CG2	2:H:247:ALA:HB1	2.19	0.72
2:N:211:ASN:HD22	2:N:269:GLN:H	1.38	0.72
2:N:122:ALA:HB2	2:N:153:ASP:H	1.54	0.72
2:B:184:THR:CG2	2:B:247:ALA:HB1	2.19	0.71
1:I:2:VAL:HG12	1:I:24:ASN:HA	1.72	0.71
2:L:29:ASN:HB2	2:L:32:GLN:HE22	1.54	0.71
2:B:57:THR:HG21	2:B:89:GLU:OE1	1.91	0.71
1:C:45:ASP:HB3	1:C:47:ARG:H	1.55	0.71
2:B:77:TYR:CD2	2:B:90:THR:HG21	2.26	0.71
2:P:58:LEU:H	2:P:90:THR:CG2	2.04	0.71
2:J:29:ASN:HB2	2:J:32:GLN:HE22	1.54	0.71
2:J:122:ALA:HB2	2:J:153:ASP:H	1.54	0.71
2:P:40:THR:HG22	2:P:41:GLN:HE21	1.57	0.70
2:P:201:THR:HG21	2:P:206:ASN:ND2	2.06	0.70
2:L:201:THR:HG21	2:L:206:ASN:ND2	2.06	0.70
2:H:57:THR:HG21	2:H:89:GLU:OE1	1.91	0.70
2:N:29:ASN:HB2	2:N:32:GLN:HE22	1.54	0.70
2:H:40:THR:HG22	2:H:41:GLN:HE21	1.57	0.70
2:H:77:TYR:CD2	2:H:90:THR:HG21	2.26	0.70
1:I:169:PRO:O	1:I:170:MET:HB2	1.92	0.70
1:I:126:GLN:HG2	1:I:130:LYS:HZ2	1.57	0.70
1:M:169:PRO:O	1:M:170:MET:HB2	1.92	0.70
2:N:101:LYS:HG2	2:N:102:PRO:HD2	1.73	0.70
2:B:211:ASN:ND2	2:B:269:GLN:H	1.90	0.70
2:L:58:LEU:H	2:L:90:THR:CG2	2.04	0.70
2:B:40:THR:HG22	2:B:41:GLN:HE21	1.57	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:138:ASN:HD21	2:D:140:ASP:HB2	1.57	0.69
2:H:211:ASN:ND2	2:H:269:GLN:H	1.90	0.69
2:J:211:ASN:HD22	2:J:269:GLN:H	1.38	0.69
1:M:126:GLN:HG2	1:M:130:LYS:HZ2	1.57	0.69
2:J:101:LYS:HG2	2:J:102:PRO:HD2	1.73	0.69
1:O:126:GLN:HG2	1:O:130:LYS:HZ2	1.56	0.69
2:F:55:TYR:HB3	2:F:92:ARG:HG3	1.75	0.69
2:F:138:ASN:HD21	2:F:140:ASP:HB2	1.57	0.69
1:E:45:ASP:HB3	1:E:47:ARG:H	1.55	0.69
1:M:2:VAL:HG12	1:M:24:ASN:HA	1.72	0.69
2:L:40:THR:HG22	2:L:41:GLN:HE21	1.57	0.69
2:P:29:ASN:HB2	2:P:32:GLN:HE22	1.53	0.69
2:D:55:TYR:HB3	2:D:92:ARG:HG3	1.75	0.69
2:H:226:THR:CG2	2:H:253:THR:HB	2.22	0.69
2:F:138:ASN:C	2:F:138:ASN:HD22	2.01	0.68
2:B:226:THR:CG2	2:B:253:THR:HB	2.21	0.68
2:F:84:PHE:HA	2:F:85:PRO:C	2.19	0.68
2:J:58:LEU:H	2:J:90:THR:CG2	2.06	0.68
2:N:201:THR:HG21	2:N:206:ASN:ND2	2.09	0.68
2:D:84:PHE:HA	2:D:85:PRO:C	2.19	0.68
1:O:7:THR:HG22	2:P:278:TYR:CD2	2.29	0.68
2:P:101:LYS:HG2	2:P:102:PRO:HD2	1.75	0.68
2:P:211:ASN:ND2	2:P:269:GLN:H	1.91	0.68
1:A:23:THR:HG22	1:A:62:GLU:HG3	1.76	0.67
2:J:58:LEU:H	2:J:90:THR:HG21	1.59	0.67
1:K:35:SER:HB3	1:K:50:VAL:HG11	1.77	0.67
1:K:7:THR:HG22	2:L:278:TYR:CD2	2.29	0.67
1:K:169:PRO:O	1:K:170:MET:HB2	1.93	0.67
2:B:38:LEU:HD13	2:B:129:LEU:HD11	1.77	0.67
1:G:23:THR:HG22	1:G:62:GLU:HG3	1.76	0.67
2:J:201:THR:HG21	2:J:206:ASN:ND2	2.09	0.67
2:L:211:ASN:ND2	2:L:269:GLN:H	1.91	0.67
2:D:138:ASN:C	2:D:138:ASN:HD22	2.01	0.67
2:N:58:LEU:H	2:N:90:THR:CG2	2.07	0.67
2:N:58:LEU:H	2:N:90:THR:HG21	1.59	0.67
2:P:211:ASN:HD21	2:P:268:VAL:HA	1.60	0.67
2:D:40:THR:HG23	2:D:41:GLN:HE21	1.60	0.67
2:N:211:ASN:ND2	2:N:269:GLN:H	1.93	0.67
1:I:7:THR:HG22	2:J:278:TYR:CD2	2.31	0.66
1:O:169:PRO:O	1:O:170:MET:HB2	1.93	0.66
2:L:211:ASN:HD21	2:L:268:VAL:HA	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:7:THR:HG22	2:N:278:TYR:CD2	2.31	0.66
1:C:103:LEU:HD11	2:D:272:ILE:HD12	1.77	0.66
1:G:103:LEU:HD11	2:H:272:ILE:HD12	1.77	0.66
2:L:101:LYS:HG2	2:L:102:PRO:HD2	1.75	0.66
1:A:103:LEU:HD11	2:B:272:ILE:HD12	1.77	0.66
1:O:35:SER:HB3	1:O:50:VAL:HG11	1.77	0.66
2:D:226:THR:CG2	2:D:253:THR:HB	2.25	0.66
2:J:211:ASN:ND2	2:J:269:GLN:H	1.93	0.66
1:M:35:SER:HB3	1:M:50:VAL:HG11	1.78	0.66
1:K:156:ASN:ND2	1:K:156:ASN:OD1	2.28	0.66
2:B:84:PHE:HA	2:B:85:PRO:C	2.21	0.65
2:H:84:PHE:HA	2:H:85:PRO:C	2.21	0.65
1:E:103:LEU:HD11	2:F:272:ILE:HD12	1.77	0.65
2:H:38:LEU:HD13	2:H:129:LEU:HD11	1.77	0.65
1:I:147:PRO:O	1:I:169:PRO:HB3	1.96	0.65
1:I:35:SER:HB3	1:I:50:VAL:HG11	1.78	0.65
2:D:77:TYR:CD2	2:D:90:THR:HG21	2.32	0.65
2:J:259:THR:HG22	2:J:260:GLY:H	1.61	0.65
1:M:147:PRO:O	1:M:169:PRO:HB3	1.96	0.65
2:P:179:VAL:HG23	2:P:254:ALA:HB3	1.79	0.65
2:F:40:THR:HG23	2:F:41:GLN:HE21	1.60	0.65
2:J:211:ASN:HD21	2:J:268:VAL:HA	1.61	0.65
2:P:122:ALA:HB2	2:P:153:ASP:H	1.61	0.65
1:C:23:THR:HG22	1:C:62:GLU:HG3	1.79	0.65
2:L:259:THR:HG22	2:L:260:GLY:H	1.61	0.65
2:F:77:TYR:CD2	2:F:90:THR:HG21	2.32	0.65
2:L:122:ALA:HB2	2:L:153:ASP:H	1.61	0.65
1:A:45:ASP:HB3	1:A:47:ARG:H	1.62	0.65
2:F:38:LEU:HD13	2:F:129:LEU:HD11	1.79	0.65
1:I:23:THR:HB	1:I:62:GLU:HB2	1.79	0.64
2:J:195:TYR:CE1	2:J:240:LEU:HD21	2.32	0.64
2:B:138:ASN:C	2:B:138:ASN:HD22	2.05	0.64
2:D:38:LEU:HD13	2:D:129:LEU:HD11	1.79	0.64
2:N:195:TYR:CE1	2:N:240:LEU:HD21	2.32	0.64
2:N:259:THR:HG22	2:N:260:GLY:H	1.61	0.64
2:L:179:VAL:HG23	2:L:254:ALA:HB3	1.78	0.64
1:G:45:ASP:HB3	1:G:47:ARG:H	1.62	0.64
1:K:79:ARG:HB3	1:K:170:MET:CE	2.27	0.64
1:O:79:ARG:HB3	1:O:170:MET:CE	2.27	0.64
2:P:53:THR:N	2:P:136:ASN:HD21	1.90	0.64
1:M:79:ARG:HB3	1:M:170:MET:CE	2.28	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:211:ASN:HD21	2:N:268:VAL:HA	1.61	0.64
1:I:4:LEU:CD2	1:I:87:VAL:HG21	2.27	0.64
2:L:211:ASN:ND2	2:L:268:VAL:HA	2.13	0.64
2:P:259:THR:HG22	2:P:260:GLY:H	1.61	0.64
2:H:59:GLN:HE22	2:H:132:ARG:CZ	2.11	0.64
1:O:50:VAL:HG22	1:O:67:ILE:HG12	1.80	0.64
2:L:240:LEU:HD11	2:L:250:LEU:HD21	1.80	0.64
1:K:23:THR:HB	1:K:62:GLU:HB2	1.80	0.63
1:K:50:VAL:HG22	1:K:67:ILE:HG12	1.80	0.63
1:O:23:THR:HB	1:O:62:GLU:HB2	1.80	0.63
1:K:18:VAL:HG12	1:K:19:GLN:N	2.14	0.63
1:O:4:LEU:CD2	1:O:87:VAL:HG21	2.25	0.63
2:P:58:LEU:H	2:P:90:THR:HG21	1.63	0.63
1:E:23:THR:HG22	1:E:62:GLU:HG3	1.79	0.63
2:D:211:ASN:ND2	2:D:269:GLN:H	1.97	0.63
1:I:50:VAL:HG22	1:I:67:ILE:HG12	1.81	0.63
2:D:211:ASN:ND2	2:D:213:ALA:H	1.97	0.63
1:G:104:GLN:CG	2:H:168:VAL:HG23	2.29	0.63
1:A:104:GLN:CG	2:B:168:VAL:HG23	2.29	0.63
2:B:59:GLN:HE22	2:B:132:ARG:CZ	2.11	0.63
2:H:138:ASN:C	2:H:138:ASN:HD22	2.05	0.63
1:I:79:ARG:HB3	1:I:170:MET:CE	2.28	0.63
1:M:50:VAL:HG22	1:M:67:ILE:HG12	1.81	0.63
2:N:211:ASN:ND2	2:N:268:VAL:HA	2.14	0.63
1:E:104:GLN:CG	2:F:168:VAL:HG23	2.29	0.62
2:F:211:ASN:ND2	2:F:269:GLN:H	1.97	0.62
1:M:101:ASN:ND2	2:N:268:VAL:O	2.32	0.62
2:P:211:ASN:ND2	2:P:268:VAL:HA	2.13	0.62
2:F:226:THR:CG2	2:F:253:THR:HB	2.25	0.62
1:M:23:THR:HB	1:M:62:GLU:HB2	1.79	0.62
2:N:258:ARG:HH21	2:N:263:VAL:HG23	1.63	0.62
1:C:104:GLN:CG	2:D:168:VAL:HG23	2.29	0.62
2:P:240:LEU:HD11	2:P:250:LEU:HD21	1.80	0.62
2:J:211:ASN:ND2	2:J:268:VAL:HA	2.14	0.62
2:J:258:ARG:HH21	2:J:263:VAL:HG23	1.63	0.62
1:K:147:PRO:O	1:K:169:PRO:HB3	1.98	0.62
2:L:195:TYR:CE1	2:L:240:LEU:HD21	2.33	0.62
1:I:101:ASN:ND2	2:J:268:VAL:O	2.32	0.62
1:O:147:PRO:O	1:O:169:PRO:HB3	1.98	0.62
2:P:195:TYR:CE1	2:P:240:LEU:HD21	2.33	0.62
2:H:138:ASN:HD21	2:H:140:ASP:HB2	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:70:ASN:HB2	2:N:115:ALA:CB	2.29	0.62
2:B:138:ASN:HD21	2:B:140:ASP:HB2	1.65	0.62
2:F:211:ASN:ND2	2:F:213:ALA:H	1.97	0.62
1:K:4:LEU:CD2	1:K:87:VAL:HG21	2.25	0.62
1:M:4:LEU:CD2	1:M:87:VAL:HG21	2.27	0.62
2:N:14:GLY:HA2	2:N:142:PHE:CG	2.35	0.62
2:F:38:LEU:HD13	2:F:129:LEU:CD1	2.30	0.62
1:K:100:GLU:O	1:K:101:ASN:HB2	2.00	0.62
2:L:58:LEU:H	2:L:90:THR:HG21	1.63	0.62
1:O:144:ASN:HD22	1:O:170:MET:H	1.48	0.62
2:J:179:VAL:HG23	2:J:254:ALA:HB3	1.81	0.61
2:B:211:ASN:HD22	2:B:212:THR:H	1.48	0.61
1:M:18:VAL:HG12	1:M:19:GLN:N	2.15	0.61
2:J:195:TYR:HE1	2:J:240:LEU:HD21	1.66	0.61
2:F:59:GLN:HE22	2:F:132:ARG:CZ	2.13	0.61
2:J:14:GLY:HA2	2:J:142:PHE:CG	2.35	0.61
2:D:38:LEU:HD13	2:D:129:LEU:CD1	2.30	0.61
2:N:179:VAL:HG23	2:N:254:ALA:HB3	1.81	0.61
1:O:24:ASN:HD21	1:O:31:TYR:HD1	1.48	0.61
1:O:85:MET:HE2	1:O:86:ASN:H	1.66	0.61
2:J:70:ASN:HB2	2:J:115:ALA:CB	2.29	0.61
2:J:103:TRP:CE3	2:J:131:LEU:HD12	2.36	0.61
1:K:85:MET:HE2	1:K:86:ASN:H	1.66	0.61
2:D:138:ASN:ND2	2:D:140:ASP:H	1.99	0.61
1:I:100:GLU:O	1:I:101:ASN:HB2	2.01	0.61
2:D:59:GLN:HE22	2:D:132:ARG:CZ	2.13	0.60
2:L:195:TYR:HE1	2:L:240:LEU:HD21	1.65	0.60
2:N:195:TYR:HE1	2:N:240:LEU:HD21	1.66	0.60
1:I:18:VAL:HG12	1:I:19:GLN:N	2.15	0.60
2:D:29:ASN:HB2	2:D:32:GLN:HG3	1.82	0.60
1:K:7:THR:HG22	2:L:278:TYR:HD2	1.65	0.60
1:K:24:ASN:HD21	1:K:31:TYR:HD1	1.48	0.60
2:N:103:TRP:CE3	2:N:131:LEU:HD12	2.36	0.60
1:G:33:ILE:CD1	1:G:57:MET:HE3	2.31	0.60
2:B:38:LEU:HD13	2:B:129:LEU:CD1	2.31	0.60
1:I:32:LEU:HD11	1:I:54:LEU:HD21	1.83	0.60
2:L:40:THR:HG23	2:L:41:GLN:HE21	1.66	0.60
2:P:195:TYR:HE1	2:P:240:LEU:HD21	1.65	0.60
2:F:138:ASN:ND2	2:F:140:ASP:H	1.99	0.60
1:A:33:ILE:CD1	1:A:57:MET:HE3	2.31	0.60
2:L:53:THR:N	2:L:136:ASN:HD21	1.90	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:100:GLU:O	1:M:101:ASN:HB2	2.01	0.60
1:O:78:ASP:O	1:O:147:PRO:HB3	2.02	0.60
2:H:38:LEU:HD13	2:H:129:LEU:CD1	2.31	0.60
2:F:29:ASN:HB2	2:F:32:GLN:HG3	1.83	0.60
2:H:126:ILE:HD13	2:H:150:ALA:HB2	1.84	0.60
2:H:211:ASN:HD22	2:H:212:THR:H	1.48	0.60
2:L:70:ASN:HB2	2:L:115:ALA:CB	2.30	0.60
1:O:18:VAL:HG12	1:O:19:GLN:N	2.14	0.60
1:M:32:LEU:HD11	1:M:54:LEU:HD21	1.83	0.59
2:D:90:THR:HG23	2:D:91:PRO:O	2.02	0.59
1:K:16:LYS:O	1:K:68:LEU:HD23	2.03	0.59
1:O:7:THR:HG22	2:P:278:TYR:HD2	1.65	0.59
1:O:100:GLU:O	1:O:101:ASN:HB2	2.00	0.59
2:N:29:ASN:OD1	2:N:157:PRO:HG2	2.03	0.59
2:P:40:THR:HG23	2:P:41:GLN:HE21	1.67	0.59
1:K:24:ASN:HD22	1:K:57:MET:HB2	1.68	0.59
1:K:78:ASP:O	1:K:147:PRO:HB3	2.02	0.59
1:K:111:ILE:HG22	2:L:278:TYR:HB2	1.84	0.59
1:O:111:ILE:HG22	2:P:278:TYR:HB2	1.84	0.59
1:A:37:VAL:HG11	1:A:48:PHE:HB2	1.84	0.59
2:N:57:THR:HG22	2:N:132:ARG:HB3	1.85	0.59
1:G:104:GLN:HG3	2:H:168:VAL:HG23	1.84	0.59
2:H:29:ASN:HB2	2:H:32:GLN:HG3	1.85	0.59
1:A:197:THR:HB	1:A:198:PRO:CD	2.33	0.59
1:C:104:GLN:HG3	2:D:168:VAL:HG23	1.84	0.59
1:E:104:GLN:HG3	2:F:168:VAL:HG23	1.84	0.59
2:H:189:LYS:O	2:H:191:GLN:HG2	2.03	0.59
2:J:29:ASN:OD1	2:J:157:PRO:HG2	2.03	0.59
1:K:144:ASN:HD22	1:K:170:MET:H	1.48	0.59
1:C:33:ILE:CD1	1:C:57:MET:HE3	2.33	0.59
2:H:53:THR:H	2:H:136:ASN:ND2	2.01	0.59
1:K:48:PHE:HE1	1:K:113:LEU:HG	1.67	0.59
2:B:189:LYS:O	2:B:191:GLN:HG2	2.03	0.58
2:F:59:GLN:NE2	2:F:132:ARG:NH2	2.51	0.58
2:F:90:THR:HG23	2:F:91:PRO:O	2.02	0.58
2:P:70:ASN:HB2	2:P:115:ALA:CB	2.30	0.58
2:J:189:LYS:O	2:J:191:GLN:NE2	2.36	0.58
2:L:14:GLY:HA2	2:L:142:PHE:CG	2.39	0.58
1:M:48:PHE:HE1	1:M:113:LEU:HG	1.68	0.58
1:O:16:LYS:O	1:O:68:LEU:HD23	2.03	0.58
1:O:48:PHE:HE1	1:O:113:LEU:HG	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:29:ASN:HB2	2:B:32:GLN:HG3	1.85	0.58
1:G:37:VAL:HG11	1:G:48:PHE:HB2	1.84	0.58
1:I:144:ASN:HD22	1:I:170:MET:H	1.51	0.58
2:J:57:THR:HG22	2:J:132:ARG:HB3	1.85	0.58
1:O:32:LEU:HD11	1:O:54:LEU:HD21	1.85	0.58
2:B:53:THR:H	2:B:136:ASN:ND2	2.01	0.58
2:J:240:LEU:HD11	2:J:250:LEU:HD21	1.86	0.58
2:N:240:LEU:HD11	2:N:250:LEU:HD21	1.86	0.58
1:E:47:ARG:HG3	1:E:71:THR:HG22	1.85	0.58
2:F:183:LEU:HD13	2:F:250:LEU:HD12	1.86	0.58
2:F:211:ASN:HD22	2:F:212:THR:H	1.50	0.58
1:M:78:ASP:O	1:M:147:PRO:HB3	2.04	0.58
1:M:144:ASN:HD22	1:M:170:MET:H	1.51	0.58
1:M:162:LEU:HD22	1:M:176:LYS:O	2.04	0.58
1:O:24:ASN:HD22	1:O:57:MET:HB2	1.68	0.58
1:M:24:ASN:HD21	1:M:31:TYR:HD1	1.52	0.58
2:P:189:LYS:O	2:P:191:GLN:NE2	2.37	0.58
2:J:138:ASN:ND2	2:J:140:ASP:OD1	2.37	0.58
2:P:57:THR:HG22	2:P:132:ARG:HB3	1.86	0.58
2:D:211:ASN:HD22	2:D:212:THR:H	1.50	0.58
1:E:33:ILE:CD1	1:E:57:MET:HE3	2.33	0.58
1:C:47:ARG:HG3	1:C:71:THR:HG22	1.85	0.57
1:I:111:ILE:HG22	2:J:278:TYR:HB2	1.86	0.57
2:L:57:THR:HG22	2:L:132:ARG:HB3	1.86	0.57
2:B:113:SER:HB2	2:P:81:SER:HB2	1.86	0.57
2:B:211:ASN:ND2	2:B:213:ALA:H	2.02	0.57
2:D:59:GLN:NE2	2:D:132:ARG:NH2	2.51	0.57
2:F:40:THR:HG22	2:F:41:GLN:HE21	1.68	0.57
1:A:104:GLN:HG3	2:B:168:VAL:HG23	1.84	0.57
1:C:16:LYS:H	1:C:16:LYS:HD2	1.70	0.57
1:K:32:LEU:HD11	1:K:54:LEU:HD21	1.85	0.57
2:L:201:THR:HG21	2:L:206:ASN:HD22	1.68	0.57
2:N:138:ASN:ND2	2:N:140:ASP:OD1	2.37	0.57
1:O:162:LEU:HD22	1:O:176:LYS:O	2.05	0.57
2:P:201:THR:HG21	2:P:206:ASN:HD22	1.68	0.57
2:P:208:ILE:HD13	2:P:257:ALA:HB3	1.87	0.57
2:H:211:ASN:ND2	2:H:213:ALA:H	2.02	0.57
2:B:126:ILE:HD13	2:B:150:ALA:HB2	1.84	0.57
1:C:37:VAL:HG11	1:C:48:PHE:HB2	1.87	0.57
1:I:24:ASN:HD21	1:I:31:TYR:HD1	1.51	0.57
1:K:162:LEU:HD22	1:K:176:LYS:O	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:189:LYS:O	2:L:191:GLN:NE2	2.37	0.57
1:M:35:SER:O	1:M:36:TRP:HB3	2.04	0.57
1:E:16:LYS:H	1:E:16:LYS:HD2	1.70	0.57
1:I:48:PHE:HE1	1:I:113:LEU:HG	1.69	0.57
1:I:78:ASP:O	1:I:147:PRO:HB3	2.04	0.57
1:C:151:THR:O	1:C:189:THR:HA	2.05	0.57
2:D:53:THR:H	2:D:136:ASN:ND2	2.02	0.57
2:D:183:LEU:HD13	2:D:250:LEU:HD12	1.86	0.57
2:F:53:THR:H	2:F:136:ASN:ND2	2.02	0.57
1:I:85:MET:HE2	1:I:86:ASN:H	1.70	0.57
2:J:201:THR:HG21	2:J:206:ASN:HD22	1.70	0.57
1:I:35:SER:O	1:I:36:TRP:HB3	2.04	0.57
1:M:111:ILE:HG22	2:N:278:TYR:HB2	1.86	0.57
2:P:38:LEU:HD13	2:P:129:LEU:HD11	1.87	0.57
2:J:40:THR:HG23	2:J:41:GLN:HE21	1.70	0.57
1:K:126:GLN:HG2	1:K:130:LYS:HZ2	1.70	0.57
2:P:5:THR:HG22	2:P:7:ASN:H	1.69	0.57
2:D:126:ILE:HD13	2:D:150:ALA:HB2	1.87	0.56
1:I:162:LEU:HD22	1:I:176:LYS:O	2.04	0.56
2:L:5:THR:HG22	2:L:7:ASN:H	1.69	0.56
2:L:38:LEU:HD13	2:L:129:LEU:HD11	1.87	0.56
2:N:208:ILE:HD13	2:N:257:ALA:HB3	1.87	0.56
2:P:138:ASN:ND2	2:P:140:ASP:OD1	2.38	0.56
1:G:104:GLN:HB2	2:H:271:ILE:HG13	1.88	0.56
2:H:90:THR:HG23	2:H:91:PRO:O	2.05	0.56
2:L:208:ILE:HD13	2:L:257:ALA:HB3	1.87	0.56
2:F:77:TYR:CE2	2:F:90:THR:HG21	2.41	0.56
2:J:208:ILE:HD13	2:J:257:ALA:HB3	1.87	0.56
2:L:121:LYS:O	2:L:122:ALA:C	2.48	0.56
2:N:189:LYS:O	2:N:191:GLN:NE2	2.36	0.56
2:P:14:GLY:HA2	2:P:142:PHE:CG	2.39	0.56
2:F:126:ILE:HD13	2:F:150:ALA:HB2	1.87	0.56
2:H:113:SER:HB2	2:L:81:SER:HB2	1.88	0.56
2:N:122:ALA:HB2	2:N:153:ASP:N	2.20	0.56
2:D:40:THR:HG22	2:D:41:GLN:HE21	1.68	0.56
2:F:189:LYS:O	2:F:191:GLN:HG2	2.05	0.56
1:K:35:SER:O	1:K:36:TRP:HB3	2.06	0.56
2:L:138:ASN:ND2	2:L:140:ASP:OD1	2.38	0.56
1:M:68:LEU:O	1:M:69:ASP:HB2	2.06	0.56
1:M:85:MET:HE2	1:M:86:ASN:H	1.70	0.56
2:N:201:THR:HG21	2:N:206:ASN:HD22	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:37:VAL:HG11	1:E:48:PHE:HB2	1.87	0.56
1:E:140:LEU:HB2	1:E:177:LEU:HD13	1.88	0.56
2:F:59:GLN:HE22	2:F:132:ARG:NH2	2.04	0.56
1:K:68:LEU:O	1:K:69:ASP:HB2	2.06	0.56
1:K:101:ASN:ND2	2:L:268:VAL:O	2.39	0.56
2:D:189:LYS:O	2:D:191:GLN:HG2	2.05	0.56
1:G:197:THR:HB	1:G:198:PRO:CD	2.33	0.56
1:E:151:THR:O	1:E:189:THR:HA	2.05	0.55
2:J:121:LYS:O	2:J:122:ALA:C	2.48	0.55
1:A:104:GLN:HB2	2:B:271:ILE:HG13	1.88	0.55
2:B:77:TYR:CE2	2:B:90:THR:HG21	2.41	0.55
2:B:90:THR:HG23	2:B:91:PRO:O	2.05	0.55
2:D:59:GLN:HE22	2:D:132:ARG:NH2	2.04	0.55
1:K:13:ALA:HB2	1:K:117:PRO:HA	1.89	0.55
2:N:121:LYS:O	2:N:122:ALA:C	2.48	0.55
1:O:35:SER:O	1:O:36:TRP:HB3	2.06	0.55
2:H:77:TYR:CE2	2:H:90:THR:HG21	2.41	0.55
2:L:170:VAL:O	2:L:179:VAL:HG11	2.07	0.55
1:M:12:PRO:HA	1:M:116:ARG:O	2.06	0.55
1:K:69:ASP:O	1:K:70:ALA:HB2	2.06	0.55
1:O:101:ASN:ND2	2:P:268:VAL:O	2.39	0.55
1:C:33:ILE:HG12	1:C:57:MET:CE	2.37	0.55
1:I:68:LEU:O	1:I:69:ASP:HB2	2.06	0.55
1:O:69:ASP:O	1:O:70:ALA:HB2	2.06	0.55
2:P:170:VAL:O	2:P:179:VAL:HG11	2.07	0.55
2:B:59:GLN:NE2	2:B:132:ARG:CZ	2.70	0.55
1:O:13:ALA:HB2	1:O:117:PRO:HA	1.89	0.55
2:B:57:THR:HG22	2:B:132:ARG:HB3	1.89	0.55
1:C:104:GLN:HB2	2:D:271:ILE:HG13	1.89	0.55
2:D:77:TYR:CE2	2:D:90:THR:HG21	2.41	0.55
1:O:12:PRO:HA	1:O:116:ARG:O	2.07	0.55
1:O:68:LEU:O	1:O:69:ASP:HB2	2.06	0.55
1:K:12:PRO:HA	1:K:116:ARG:O	2.07	0.55
1:M:7:THR:HG22	2:N:278:TYR:HD2	1.71	0.54
1:M:30:THR:HG23	1:M:58:LYS:CE	2.37	0.54
1:A:51:THR:O	1:A:52:PRO:C	2.46	0.54
1:C:140:LEU:HB2	1:C:177:LEU:HD13	1.88	0.54
1:I:30:THR:HG23	1:I:58:LYS:CE	2.37	0.54
2:B:163:VAL:CG2	2:B:185:VAL:HG13	2.35	0.54
1:O:30:THR:HG23	1:O:58:LYS:CE	2.38	0.54
1:E:33:ILE:HG12	1:E:57:MET:CE	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:53:THR:N	2:N:136:ASN:HD21	1.91	0.54
2:N:131:LEU:HD23	2:N:131:LEU:C	2.32	0.54
2:D:57:THR:HG22	2:D:132:ARG:HB3	1.90	0.54
2:J:5:THR:HA	2:J:41:GLN:O	2.08	0.54
2:J:170:VAL:O	2:J:179:VAL:HG11	2.07	0.54
2:L:258:ARG:HH21	2:L:263:VAL:HG23	1.70	0.54
2:N:5:THR:HA	2:N:41:GLN:O	2.08	0.54
1:C:33:ILE:HG12	1:C:57:MET:HE3	1.90	0.54
2:J:24:LEU:O	2:J:25:ALA:C	2.51	0.54
1:K:30:THR:HG23	1:K:58:LYS:CE	2.38	0.54
1:I:9:VAL:HG12	1:I:10:ILE:N	2.23	0.54
2:P:258:ARG:HH21	2:P:263:VAL:HG23	1.70	0.54
1:I:24:ASN:HD22	1:I:57:MET:HB2	1.73	0.54
1:E:104:GLN:HB2	2:F:271:ILE:HG13	1.89	0.54
2:H:163:VAL:CG2	2:H:185:VAL:HG13	2.35	0.54
2:J:131:LEU:C	2:J:131:LEU:HD23	2.32	0.54
2:L:131:LEU:HD23	2:L:131:LEU:C	2.33	0.54
2:N:170:VAL:O	2:N:179:VAL:HG11	2.07	0.54
2:F:218:ALA:HB1	2:F:264:THR:O	2.08	0.53
1:K:9:VAL:HG12	1:K:10:ILE:N	2.23	0.53
1:M:9:VAL:HG12	1:M:10:ILE:N	2.23	0.53
1:M:69:ASP:O	1:M:70:ALA:HB2	2.08	0.53
1:E:51:THR:O	1:E:52:PRO:C	2.48	0.53
1:G:123:PRO:HG2	1:G:126:GLN:HB2	1.90	0.53
2:H:57:THR:HG22	2:H:132:ARG:HB3	1.89	0.53
1:I:12:PRO:HA	1:I:116:ARG:O	2.06	0.53
2:P:24:LEU:O	2:P:25:ALA:C	2.51	0.53
1:E:162:LEU:HB3	1:E:175:VAL:HG11	1.90	0.53
1:G:51:THR:O	1:G:52:PRO:C	2.46	0.53
1:G:151:THR:O	1:G:189:THR:HA	2.08	0.53
2:H:59:GLN:NE2	2:H:132:ARG:CZ	2.70	0.53
2:J:59:GLN:HG3	2:J:132:ARG:HD3	1.90	0.53
1:M:198:PRO:O	1:M:200:MET:HE2	2.09	0.53
1:I:4:LEU:HD21	1:I:87:VAL:HG11	1.91	0.53
1:I:142:LEU:N	1:I:173:SER:O	2.41	0.53
2:J:201:THR:HG21	2:J:206:ASN:HA	1.90	0.53
2:P:201:THR:HG21	2:P:206:ASN:HA	1.90	0.53
1:C:162:LEU:HB3	1:C:175:VAL:HG11	1.90	0.53
2:L:201:THR:HG21	2:L:206:ASN:HA	1.90	0.53
2:P:122:ALA:HB2	2:P:153:ASP:N	2.23	0.53
1:A:185:ILE:O	1:A:202:GLY:N	2.37	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:163:VAL:CG2	2:F:185:VAL:HG13	2.35	0.53
1:K:198:PRO:O	1:K:199:LYS:C	2.52	0.53
1:A:123:PRO:HG2	1:A:126:GLN:HB2	1.90	0.53
1:C:185:ILE:O	1:C:202:GLY:N	2.37	0.53
1:I:7:THR:HG22	2:J:278:TYR:HD2	1.71	0.53
2:J:122:ALA:HB2	2:J:153:ASP:N	2.20	0.53
2:N:40:THR:HG23	2:N:41:GLN:HE21	1.70	0.53
1:O:198:PRO:O	1:O:199:LYS:C	2.52	0.53
1:A:22:VAL:HG11	1:A:57:MET:HE1	1.91	0.53
2:F:57:THR:HG22	2:F:132:ARG:HB3	1.90	0.53
1:M:48:PHE:CE1	1:M:113:LEU:HG	2.44	0.53
1:A:151:THR:O	1:A:189:THR:HA	2.08	0.53
1:A:162:LEU:HD21	1:A:177:LEU:CD1	2.39	0.53
2:P:121:LYS:O	2:P:122:ALA:C	2.48	0.53
1:E:33:ILE:HG12	1:E:57:MET:HE3	1.90	0.53
1:M:4:LEU:HD21	1:M:87:VAL:HG11	1.91	0.53
2:P:131:LEU:C	2:P:131:LEU:HD23	2.33	0.53
2:B:120:ILE:HG23	2:B:126:ILE:HD11	1.90	0.52
1:C:51:THR:O	1:C:52:PRO:C	2.48	0.52
2:D:163:VAL:CG2	2:D:185:VAL:HG13	2.35	0.52
2:H:201:THR:CG2	2:H:206:ASN:HA	2.39	0.52
1:I:16:LYS:O	1:I:68:LEU:HD23	2.09	0.52
2:N:201:THR:HG21	2:N:206:ASN:HA	1.90	0.52
2:N:212:THR:N	2:N:269:GLN:O	2.43	0.52
1:G:22:VAL:HG11	1:G:57:MET:HE1	1.91	0.52
1:I:48:PHE:CE1	1:I:113:LEU:HG	2.44	0.52
1:M:24:ASN:HD22	1:M:57:MET:HB2	1.73	0.52
2:N:24:LEU:O	2:N:25:ALA:C	2.51	0.52
1:O:9:VAL:HG12	1:O:10:ILE:N	2.24	0.52
1:A:16:LYS:H	1:A:16:LYS:HD2	1.75	0.52
2:D:218:ALA:HB1	2:D:264:THR:O	2.08	0.52
1:G:16:LYS:H	1:G:16:LYS:HD2	1.75	0.52
1:G:47:ARG:HG3	1:G:71:THR:HG22	1.90	0.52
1:A:101:ASN:HB2	2:B:171:THR:O	2.10	0.52
1:K:151:THR:CG2	1:K:190:ILE:HD12	2.37	0.52
2:N:59:GLN:HG3	2:N:132:ARG:HD3	1.90	0.52
1:A:47:ARG:HG3	1:A:71:THR:HG22	1.90	0.52
2:D:5:THR:HA	2:D:41:GLN:O	2.10	0.52
1:I:151:THR:CG2	1:I:190:ILE:HD12	2.37	0.52
1:I:198:PRO:O	1:I:200:MET:HE2	2.09	0.52
1:O:126:GLN:HG2	1:O:130:LYS:NZ	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:201:THR:CG2	2:B:206:ASN:HA	2.39	0.52
1:E:22:VAL:HG11	1:E:57:MET:HE1	1.92	0.52
1:I:10:ILE:HD11	1:I:192:ASP:HB3	1.91	0.52
1:K:126:GLN:HG2	1:K:130:LYS:NZ	2.25	0.52
2:P:59:GLN:HG3	2:P:132:ARG:HD3	1.91	0.52
1:C:197:THR:HB	1:C:198:PRO:CD	2.38	0.52
2:F:5:THR:HA	2:F:41:GLN:O	2.10	0.52
2:F:59:GLN:NE2	2:F:132:ARG:CZ	2.73	0.52
2:H:120:ILE:HG23	2:H:126:ILE:HD11	1.90	0.52
1:M:142:LEU:N	1:M:173:SER:O	2.41	0.52
1:M:198:PRO:O	1:M:199:LYS:C	2.53	0.52
2:J:212:THR:N	2:J:269:GLN:O	2.43	0.52
1:K:103:LEU:CD1	2:L:272:ILE:HD12	2.40	0.52
1:O:48:PHE:CE1	1:O:113:LEU:HG	2.45	0.52
2:D:59:GLN:NE2	2:D:132:ARG:CZ	2.73	0.52
2:H:218:ALA:HB1	2:H:264:THR:O	2.10	0.52
1:M:16:LYS:O	1:M:68:LEU:HD23	2.09	0.52
2:P:59:GLN:HG3	2:P:132:ARG:CD	2.40	0.52
2:B:179:VAL:HG12	2:B:180:PRO:HD2	1.91	0.52
2:D:179:VAL:HG12	2:D:180:PRO:HD2	1.92	0.51
1:I:32:LEU:HD13	1:I:32:LEU:O	2.10	0.51
2:L:212:THR:N	2:L:269:GLN:O	2.43	0.51
1:M:102:THR:HA	2:N:169:THR:O	2.10	0.51
2:P:259:THR:CG2	2:P:260:GLY:H	2.23	0.51
1:E:27:GLU:CD	1:E:60:LYS:HG3	2.36	0.51
1:A:97:LYS:HZ2	2:B:170:VAL:HG23	1.74	0.51
1:C:22:VAL:HG11	1:C:57:MET:HE1	1.92	0.51
1:C:27:GLU:CD	1:C:60:LYS:HG3	2.36	0.51
2:F:131:LEU:C	2:F:131:LEU:HD23	2.36	0.51
2:L:59:GLN:HG3	2:L:132:ARG:HD3	1.91	0.51
2:L:259:THR:CG2	2:L:260:GLY:H	2.23	0.51
1:M:103:LEU:HD11	2:N:272:ILE:HD12	1.92	0.51
1:G:27:GLU:CD	1:G:60:LYS:HG3	2.36	0.51
2:J:259:THR:CG2	2:J:260:GLY:H	2.24	0.51
1:K:102:THR:HA	2:L:169:THR:O	2.10	0.51
1:M:11:TYR:CE1	1:M:18:VAL:HG23	2.46	0.51
2:P:58:LEU:H	2:P:90:THR:HG22	1.76	0.51
2:B:218:ALA:HB1	2:B:264:THR:O	2.10	0.51
1:E:162:LEU:HD21	1:E:177:LEU:CD1	2.40	0.51
1:G:33:ILE:HG12	1:G:57:MET:HE3	1.93	0.51
2:H:77:TYR:O	2:H:78:SER:C	2.54	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:69:ASP:O	1:I:70:ALA:HB2	2.08	0.51
2:L:5:THR:HA	2:L:41:GLN:O	2.10	0.51
1:O:102:THR:HA	2:P:169:THR:O	2.10	0.51
1:O:103:LEU:CD1	2:P:272:ILE:HD12	2.40	0.51
2:D:120:ILE:HG23	2:D:126:ILE:HD11	1.93	0.51
1:G:162:LEU:HD21	1:G:177:LEU:CD1	2.39	0.51
1:I:13:ALA:HB2	1:I:117:PRO:HA	1.93	0.51
1:I:102:THR:HA	2:J:169:THR:O	2.10	0.51
1:I:120:LEU:HD22	1:I:147:PRO:HG3	1.93	0.51
2:L:122:ALA:HB2	2:L:153:ASP:N	2.23	0.51
1:O:134:ARG:HA	1:O:205:GLU:HB3	1.92	0.51
2:P:5:THR:HA	2:P:41:GLN:O	2.10	0.51
2:P:90:THR:HG23	2:P:91:PRO:O	2.10	0.51
2:B:59:GLN:NE2	2:B:132:ARG:NH2	2.59	0.51
2:L:59:GLN:HG3	2:L:132:ARG:CD	2.40	0.51
2:L:90:THR:HG23	2:L:91:PRO:O	2.10	0.51
2:N:195:TYR:HA	2:N:275:THR:O	2.11	0.51
1:A:27:GLU:CD	1:A:60:LYS:HG3	2.36	0.51
1:I:103:LEU:HD11	2:J:272:ILE:HD12	1.92	0.51
1:I:198:PRO:O	1:I:199:LYS:C	2.53	0.51
2:J:195:TYR:HA	2:J:275:THR:O	2.11	0.51
1:M:13:ALA:HB2	1:M:117:PRO:HA	1.93	0.51
1:A:33:ILE:HG12	1:A:57:MET:HE3	1.93	0.51
1:G:101:ASN:HB2	2:H:171:THR:O	2.10	0.51
2:H:179:VAL:HG12	2:H:180:PRO:HD2	1.91	0.51
1:K:134:ARG:HA	1:K:205:GLU:HB3	1.92	0.51
1:M:32:LEU:HD13	1:M:32:LEU:O	2.11	0.51
1:M:120:LEU:HD22	1:M:147:PRO:HG3	1.93	0.51
2:N:187:CYS:O	2:N:245:THR:HA	2.11	0.51
2:P:96:ASN:ND2	2:P:96:ASN:H	2.09	0.51
2:B:135:ASN:HD21	2:B:138:ASN:ND2	2.09	0.50
1:C:162:LEU:HD21	1:C:177:LEU:CD1	2.40	0.50
2:J:190:SER:HA	2:J:244:GLY:HA2	1.92	0.50
1:M:10:ILE:HD11	1:M:192:ASP:HB3	1.91	0.50
1:C:101:ASN:HB2	2:D:171:THR:O	2.12	0.50
1:E:101:ASN:HB2	2:F:171:THR:O	2.12	0.50
1:E:185:ILE:HB	1:E:202:GLY:HA3	1.93	0.50
2:H:59:GLN:NE2	2:H:132:ARG:NH2	2.59	0.50
2:H:135:ASN:HD21	2:H:138:ASN:ND2	2.09	0.50
2:J:52:ILE:HG23	2:J:137:TYR:HB2	1.93	0.50
2:J:187:CYS:O	2:J:245:THR:HA	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:77:TYR:O	2:B:78:SER:C	2.54	0.50
2:B:201:THR:HG23	2:B:206:ASN:HA	1.93	0.50
1:C:185:ILE:HB	1:C:202:GLY:HA3	1.93	0.50
1:K:10:ILE:HD11	1:K:192:ASP:HB3	1.93	0.50
1:K:118:ALA:O	1:K:119:LYS:HB2	2.12	0.50
1:K:120:LEU:HD22	1:K:147:PRO:HG3	1.93	0.50
1:O:120:LEU:HD22	1:O:147:PRO:HG3	1.93	0.50
2:P:29:ASN:OD1	2:P:157:PRO:HD2	2.11	0.50
2:L:24:LEU:O	2:L:25:ALA:C	2.51	0.50
1:O:142:LEU:N	1:O:173:SER:O	2.44	0.50
2:D:131:LEU:C	2:D:131:LEU:HD23	2.36	0.50
2:H:201:THR:HG23	2:H:206:ASN:HA	1.93	0.50
2:L:29:ASN:OD1	2:L:157:PRO:HD2	2.11	0.50
2:N:90:THR:HG23	2:N:91:PRO:O	2.11	0.50
2:N:190:SER:HA	2:N:244:GLY:HA2	1.92	0.50
2:B:138:ASN:ND2	2:B:140:ASP:H	2.10	0.50
2:F:179:VAL:HG12	2:F:180:PRO:HD2	1.92	0.50
2:H:40:THR:HG23	2:H:41:GLN:HE21	1.75	0.50
2:J:90:THR:HG23	2:J:91:PRO:O	2.11	0.50
1:K:48:PHE:CE1	1:K:113:LEU:HG	2.45	0.50
2:L:231:ILE:HG22	2:L:232:ILE:N	2.26	0.50
1:E:27:GLU:OE2	1:E:60:LYS:HG3	2.12	0.50
1:M:151:THR:CG2	1:M:190:ILE:HD12	2.37	0.50
2:N:259:THR:CG2	2:N:260:GLY:H	2.24	0.50
1:O:103:LEU:HD11	2:P:272:ILE:HD12	1.93	0.50
2:L:96:ASN:H	2:L:96:ASN:ND2	2.09	0.50
1:O:10:ILE:HD11	1:O:192:ASP:HB3	1.93	0.50
1:O:118:ALA:O	1:O:119:LYS:HB2	2.12	0.50
1:A:162:LEU:HB3	1:A:175:VAL:HG11	1.93	0.49
1:C:27:GLU:OE2	1:C:60:LYS:HG3	2.12	0.49
2:N:126:ILE:HG22	2:N:127:ALA:HB2	1.94	0.49
2:J:5:THR:HG22	2:J:7:ASN:H	1.77	0.49
1:K:103:LEU:HD11	2:L:272:ILE:HD12	1.93	0.49
1:K:153:THR:O	1:K:154:GLU:C	2.54	0.49
2:P:231:ILE:HG22	2:P:232:ILE:N	2.26	0.49
2:D:103:TRP:CH2	2:D:131:LEU:HB2	2.48	0.49
1:E:185:ILE:O	1:E:202:GLY:N	2.37	0.49
2:F:103:TRP:CH2	2:F:131:LEU:HB2	2.47	0.49
1:M:153:THR:O	1:M:154:GLU:C	2.55	0.49
2:H:138:ASN:ND2	2:H:140:ASP:H	2.10	0.49
1:I:11:TYR:CE1	1:I:18:VAL:HG23	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:18:VAL:CG1	1:M:19:GLN:H	2.22	0.49
1:O:153:THR:O	1:O:154:GLU:C	2.54	0.49
2:H:53:THR:H	2:H:136:ASN:HD21	1.59	0.49
1:I:30:THR:HG23	1:I:58:LYS:HE3	1.94	0.49
1:I:32:LEU:CD1	1:I:54:LEU:HD11	2.34	0.49
1:I:153:THR:O	1:I:154:GLU:C	2.55	0.49
1:K:2:VAL:HG12	1:K:24:ASN:CA	2.41	0.49
2:B:211:ASN:HD21	2:B:269:GLN:H	1.61	0.49
2:D:138:ASN:HD21	2:D:140:ASP:CB	2.25	0.49
2:N:28:VAL:HG23	2:N:154:VAL:CG1	2.42	0.49
1:C:123:PRO:HG2	1:C:126:GLN:HB2	1.94	0.49
1:C:156:ASN:O	1:C:185:ILE:HA	2.12	0.49
2:N:38:LEU:CD2	2:N:148:ILE:HD12	2.43	0.49
2:F:120:ILE:HG23	2:F:126:ILE:HD11	1.93	0.49
1:G:162:LEU:HB3	1:G:175:VAL:HG11	1.93	0.49
2:J:218:ALA:HA	2:J:264:THR:O	2.13	0.49
2:L:52:ILE:HG23	2:L:137:TYR:HB2	1.95	0.49
1:M:45:ASP:OD1	1:M:47:ARG:HD2	2.13	0.49
2:N:5:THR:HG22	2:N:7:ASN:H	1.77	0.49
2:P:212:THR:N	2:P:269:GLN:O	2.43	0.49
2:F:120:ILE:CG2	2:F:126:ILE:HD11	2.43	0.49
1:I:50:VAL:HG21	1:I:85:MET:CE	2.43	0.49
1:I:103:LEU:CD1	2:J:272:ILE:HD12	2.43	0.49
1:K:24:ASN:ND2	1:K:31:TYR:HD1	2.11	0.49
1:M:134:ARG:HA	1:M:205:GLU:HB3	1.94	0.49
2:N:224:GLN:CD	2:N:231:ILE:HD13	2.38	0.49
1:O:57:MET:HE1	1:O:63:ASN:H	1.78	0.49
2:B:53:THR:H	2:B:136:ASN:HD21	1.60	0.49
1:C:185:ILE:HD12	1:C:204:MET:HE1	1.95	0.49
1:G:185:ILE:O	1:G:202:GLY:N	2.37	0.49
2:J:28:VAL:HG23	2:J:154:VAL:CG1	2.42	0.49
2:J:224:GLN:CD	2:J:231:ILE:HD13	2.38	0.49
1:K:4:LEU:HD22	1:K:20:LEU:HD21	1.95	0.49
1:K:57:MET:HE1	1:K:63:ASN:H	1.78	0.49
1:E:123:PRO:HG2	1:E:126:GLN:HB2	1.94	0.48
1:I:4:LEU:HD21	1:I:87:VAL:CG2	2.35	0.48
1:I:82:LEU:HD11	1:I:84:TRP:NE1	2.27	0.48
1:K:128:ALA:O	1:K:187:TYR:OH	2.25	0.48
1:M:32:LEU:CD1	1:M:54:LEU:HD11	2.34	0.48
1:O:30:THR:HG23	1:O:58:LYS:HE3	1.95	0.48
1:E:185:ILE:HD12	1:E:204:MET:HE1	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:120:ILE:CG2	2:H:126:ILE:HD11	2.43	0.48
1:M:103:LEU:CD1	2:N:272:ILE:HD12	2.42	0.48
1:M:118:ALA:O	1:M:119:LYS:HB2	2.12	0.48
1:O:4:LEU:HD22	1:O:20:LEU:HD21	1.95	0.48
1:O:144:ASN:ND2	1:O:170:MET:H	2.11	0.48
2:P:218:ALA:HA	2:P:264:THR:O	2.13	0.48
1:A:140:LEU:HB2	1:A:177:LEU:HD13	1.95	0.48
2:H:211:ASN:HD21	2:H:269:GLN:H	1.61	0.48
1:I:82:LEU:HB3	1:I:149:TYR:CE1	2.48	0.48
1:I:118:ALA:O	1:I:119:LYS:HB2	2.13	0.48
2:L:187:CYS:O	2:L:245:THR:HA	2.14	0.48
2:N:96:ASN:H	2:N:96:ASN:ND2	2.11	0.48
1:O:24:ASN:ND2	1:O:31:TYR:HD1	2.11	0.48
1:O:151:THR:CG2	1:O:190:ILE:HD12	2.37	0.48
2:J:53:THR:N	2:J:136:ASN:HD21	1.91	0.48
1:K:30:THR:HG23	1:K:58:LYS:HE3	1.95	0.48
2:L:38:LEU:CD2	2:L:148:ILE:HD12	2.43	0.48
1:M:82:LEU:HB3	1:M:149:TYR:CE1	2.48	0.48
2:N:38:LEU:HD13	2:N:129:LEU:HD11	1.95	0.48
2:B:183:LEU:HD13	2:B:250:LEU:HD12	1.94	0.48
2:H:183:LEU:HD13	2:H:250:LEU:HD12	1.94	0.48
2:H:227:ARG:HH11	2:H:227:ARG:HD3	1.44	0.48
1:I:45:ASP:OD1	1:I:47:ARG:HD2	2.13	0.48
1:K:32:LEU:HD13	1:K:32:LEU:O	2.14	0.48
1:K:198:PRO:O	1:K:200:MET:HE2	2.13	0.48
2:L:58:LEU:H	2:L:90:THR:HG22	1.76	0.48
2:L:191:GLN:O	2:L:242:ALA:HA	2.14	0.48
1:M:82:LEU:HD11	1:M:84:TRP:NE1	2.27	0.48
1:A:69:ASP:OD2	1:A:71:THR:OG1	2.28	0.48
2:B:120:ILE:CG2	2:B:126:ILE:HD11	2.43	0.48
1:E:156:ASN:O	1:E:185:ILE:HA	2.12	0.48
1:G:22:VAL:CG1	1:G:57:MET:HE1	2.44	0.48
1:I:134:ARG:HA	1:I:205:GLU:HB3	1.94	0.48
2:J:96:ASN:H	2:J:96:ASN:ND2	2.11	0.48
1:M:30:THR:HG23	1:M:58:LYS:HE3	1.94	0.48
2:N:52:ILE:HG23	2:N:137:TYR:HB2	1.93	0.48
1:I:57:MET:HE1	1:I:63:ASN:H	1.79	0.48
2:J:38:LEU:CD2	2:J:148:ILE:HD12	2.43	0.48
1:M:50:VAL:HG21	1:M:85:MET:CE	2.43	0.48
1:O:198:PRO:O	1:O:200:MET:HE2	2.13	0.48
2:B:40:THR:HG23	2:B:41:GLN:HE21	1.75	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:197:THR:HB	1:E:198:PRO:CD	2.38	0.48
2:J:126:ILE:HG22	2:J:127:ALA:HB2	1.94	0.48
1:K:85:MET:HB2	1:K:111:ILE:HG13	1.96	0.48
2:L:195:TYR:HA	2:L:275:THR:O	2.14	0.48
2:L:216:SER:O	2:L:267:ASN:HB2	2.14	0.48
2:L:218:ALA:HA	2:L:264:THR:O	2.13	0.48
1:O:85:MET:HB2	1:O:111:ILE:HG13	1.96	0.48
1:G:140:LEU:HB2	1:G:177:LEU:HD13	1.95	0.48
1:I:9:VAL:HG12	1:I:10:ILE:H	1.78	0.48
1:I:150:LEU:HD23	1:I:150:LEU:HA	1.67	0.48
1:K:45:ASP:OD1	1:K:47:ARG:HD2	2.14	0.48
1:K:82:LEU:HB3	1:K:149:TYR:CE1	2.49	0.48
1:M:11:TYR:CD1	1:M:18:VAL:HG23	2.49	0.48
2:N:42:ILE:HB	2:N:103:TRP:CD1	2.49	0.48
2:D:120:ILE:CG2	2:D:126:ILE:HD11	2.43	0.48
2:L:28:VAL:HG23	2:L:154:VAL:CG1	2.43	0.48
2:N:42:ILE:HB	2:N:103:TRP:HD1	1.78	0.48
1:O:82:LEU:HD11	1:O:84:TRP:NE1	2.29	0.48
2:P:28:VAL:HG23	2:P:154:VAL:CG1	2.43	0.48
2:J:42:ILE:HB	2:J:103:TRP:CD1	2.49	0.47
2:J:42:ILE:HB	2:J:103:TRP:HD1	1.78	0.47
2:J:208:ILE:HD13	2:J:257:ALA:CB	2.44	0.47
1:K:37:VAL:HG22	1:K:85:MET:HE3	1.97	0.47
1:K:37:VAL:CG2	1:K:85:MET:HE3	2.44	0.47
2:P:52:ILE:HG23	2:P:137:TYR:HB2	1.95	0.47
2:P:191:GLN:O	2:P:242:ALA:HA	2.14	0.47
2:H:195:TYR:HA	2:H:275:THR:O	2.14	0.47
2:J:38:LEU:HD13	2:J:129:LEU:HD11	1.95	0.47
2:N:218:ALA:HA	2:N:264:THR:O	2.13	0.47
2:P:216:SER:O	2:P:267:ASN:HB2	2.14	0.47
1:A:22:VAL:CG1	1:A:57:MET:HE1	2.44	0.47
1:I:11:TYR:CD1	1:I:18:VAL:HG23	2.49	0.47
1:K:142:LEU:N	1:K:173:SER:O	2.44	0.47
2:N:231:ILE:HG22	2:N:232:ILE:N	2.29	0.47
1:O:4:LEU:HD21	1:O:87:VAL:HG11	1.97	0.47
2:P:38:LEU:CD2	2:P:148:ILE:HD12	2.43	0.47
2:P:126:ILE:HG22	2:P:127:ALA:HB2	1.96	0.47
1:C:30:THR:OG1	1:C:58:LYS:HG2	2.15	0.47
1:G:27:GLU:OE2	1:G:60:LYS:HG3	2.14	0.47
1:O:45:ASP:OD1	1:O:47:ARG:HD2	2.14	0.47
2:P:103:TRP:CE3	2:P:131:LEU:HD12	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:195:TYR:HA	2:B:275:THR:O	2.14	0.47
1:I:2:VAL:HG12	1:I:24:ASN:CA	2.44	0.47
1:I:11:TYR:HB3	1:I:115:TYR:HA	1.96	0.47
1:I:82:LEU:C	1:I:82:LEU:HD12	2.39	0.47
1:O:13:ALA:CB	1:O:118:ALA:H	2.28	0.47
1:O:18:VAL:CG1	1:O:19:GLN:H	2.22	0.47
1:O:32:LEU:HD13	1:O:32:LEU:O	2.14	0.47
2:B:103:TRP:CH2	2:B:131:LEU:HB2	2.49	0.47
2:D:161:CYS:HB3	2:D:186:TYR:O	2.14	0.47
2:J:218:ALA:HB3	2:J:268:VAL:HG23	1.96	0.47
1:M:82:LEU:C	1:M:82:LEU:HD12	2.39	0.47
1:A:27:GLU:OE2	1:A:60:LYS:HG3	2.14	0.47
2:F:161:CYS:HB3	2:F:186:TYR:O	2.14	0.47
1:K:2:VAL:HG22	1:K:89:ALA:HB2	1.95	0.47
1:K:13:ALA:CB	1:K:118:ALA:H	2.28	0.47
2:N:208:ILE:HD13	2:N:257:ALA:CB	2.44	0.47
1:O:37:VAL:CG2	1:O:85:MET:HE3	2.44	0.47
1:O:82:LEU:HB3	1:O:149:TYR:CE1	2.49	0.47
2:P:187:CYS:O	2:P:245:THR:HA	2.14	0.47
2:L:103:TRP:CE3	2:L:131:LEU:HD12	2.50	0.47
1:O:2:VAL:HG22	1:O:89:ALA:HB2	1.95	0.47
1:O:37:VAL:HG22	1:O:85:MET:HE3	1.96	0.47
1:A:33:ILE:HG12	1:A:57:MET:CE	2.45	0.47
2:B:5:THR:HA	2:B:41:GLN:O	2.15	0.47
1:C:22:VAL:CG1	1:C:57:MET:HE1	2.45	0.47
2:D:202:ALA:CB	2:D:259:THR:CG2	2.93	0.47
2:F:138:ASN:ND2	2:F:140:ASP:HB2	2.28	0.47
1:I:24:ASN:ND2	1:I:31:TYR:HD1	2.13	0.47
1:K:11:TYR:CE1	1:K:18:VAL:HG23	2.50	0.47
1:K:144:ASN:ND2	1:K:170:MET:H	2.11	0.47
1:O:11:TYR:CE1	1:O:18:VAL:HG23	2.50	0.47
1:O:13:ALA:HB3	1:O:118:ALA:H	1.80	0.47
2:D:138:ASN:ND2	2:D:140:ASP:HB2	2.28	0.47
2:F:202:ALA:CB	2:F:259:THR:CG2	2.93	0.47
2:H:103:TRP:CH2	2:H:131:LEU:HB2	2.49	0.47
1:K:82:LEU:HD11	1:K:84:TRP:NE1	2.29	0.47
2:L:42:ILE:HB	2:L:103:TRP:HD1	1.80	0.47
2:L:126:ILE:HG22	2:L:127:ALA:HB2	1.96	0.47
1:M:24:ASN:ND2	1:M:31:TYR:HD1	2.12	0.47
2:P:29:ASN:OD1	2:P:157:PRO:HG2	2.15	0.47
2:P:195:TYR:HA	2:P:275:THR:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:33:ILE:HG12	1:G:57:MET:CE	2.45	0.46
2:L:42:ILE:HB	2:L:103:TRP:CD1	2.50	0.46
2:P:190:SER:HA	2:P:244:GLY:HA2	1.97	0.46
1:I:18:VAL:CG1	1:I:19:GLN:H	2.22	0.46
2:J:216:SER:O	2:J:267:ASN:HB2	2.15	0.46
1:K:149:TYR:CE2	1:K:169:PRO:HD3	2.50	0.46
1:K:149:TYR:CZ	1:K:169:PRO:HD3	2.50	0.46
1:M:9:VAL:HG12	1:M:10:ILE:H	1.78	0.46
1:C:204:MET:N	1:C:204:MET:HE2	2.31	0.46
2:F:84:PHE:CA	2:F:85:PRO:C	2.87	0.46
2:J:231:ILE:HG22	2:J:232:ILE:N	2.29	0.46
1:O:116:ARG:HA	1:O:117:PRO:HD2	1.77	0.46
2:D:29:ASN:HB2	2:D:32:GLN:CG	2.45	0.46
2:D:240:LEU:HD21	2:D:250:LEU:CD2	2.46	0.46
1:G:156:ASN:O	1:G:185:ILE:HA	2.15	0.46
1:I:90:ILE:HG23	1:I:91:PRO:HD2	1.98	0.46
2:N:189:LYS:HA	2:N:189:LYS:HD3	1.58	0.46
2:N:218:ALA:HB3	2:N:268:VAL:HG23	1.96	0.46
2:F:138:ASN:HD21	2:F:140:ASP:CB	2.25	0.46
1:M:57:MET:HE1	1:M:63:ASN:H	1.79	0.46
2:P:42:ILE:HB	2:P:103:TRP:CD1	2.50	0.46
2:B:202:ALA:HB1	2:B:259:THR:HG22	1.98	0.46
2:J:29:ASN:OD1	2:J:157:PRO:HD2	2.16	0.46
2:L:190:SER:HA	2:L:244:GLY:HA2	1.97	0.46
1:O:149:TYR:CZ	1:O:169:PRO:HD3	2.50	0.46
1:A:24:ASN:O	1:A:60:LYS:HA	2.16	0.46
1:E:110:ARG:HH11	1:E:110:ARG:HD3	1.26	0.46
2:F:227:ARG:HH11	2:F:227:ARG:HD3	1.36	0.46
1:G:97:LYS:HZ2	2:H:170:VAL:HG23	1.80	0.46
2:P:42:ILE:HB	2:P:103:TRP:HD1	1.80	0.46
2:B:202:ALA:CB	2:B:259:THR:CG2	2.94	0.46
1:E:22:VAL:CG1	1:E:57:MET:HE1	2.45	0.46
2:F:240:LEU:HD21	2:F:250:LEU:CD2	2.46	0.46
1:K:4:LEU:HD21	1:K:87:VAL:HG11	1.96	0.46
1:K:13:ALA:HB3	1:K:118:ALA:H	1.80	0.46
1:K:50:VAL:HG21	1:K:85:MET:HE1	1.98	0.46
2:L:208:ILE:HD13	2:L:257:ALA:CB	2.46	0.46
2:N:140:ASP:HB3	2:N:142:PHE:CE1	2.51	0.46
2:H:202:ALA:HB1	2:H:259:THR:HG22	1.98	0.46
2:J:59:GLN:HG3	2:J:132:ARG:CD	2.46	0.46
2:N:216:SER:O	2:N:267:ASN:HB2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:149:TYR:CE2	1:O:169:PRO:HD3	2.50	0.46
2:D:53:THR:H	2:D:136:ASN:HD21	1.64	0.46
1:E:30:THR:OG1	1:E:58:LYS:HG2	2.15	0.46
2:H:5:THR:HA	2:H:41:GLN:O	2.15	0.46
2:H:131:LEU:C	2:H:131:LEU:HD23	2.40	0.46
1:A:156:ASN:O	1:A:185:ILE:HA	2.15	0.45
2:B:59:GLN:HE22	2:B:132:ARG:NH2	2.14	0.45
1:E:59:GLY:O	1:E:61:LYS:HB2	2.15	0.45
2:H:70:ASN:HB3	2:H:115:ALA:HB2	1.98	0.45
1:I:120:LEU:HD23	1:I:120:LEU:HA	1.88	0.45
1:M:24:ASN:H	1:M:57:MET:HE2	1.81	0.45
1:M:144:ASN:ND2	1:M:170:MET:H	2.14	0.45
1:M:150:LEU:HD23	1:M:150:LEU:HA	1.67	0.45
2:B:40:THR:CG2	2:B:41:GLN:NE2	2.76	0.45
2:F:92:ARG:HG2	2:F:92:ARG:NH1	2.18	0.45
2:J:140:ASP:HB3	2:J:142:PHE:CE1	2.51	0.45
1:K:11:TYR:HB3	1:K:115:TYR:HA	1.98	0.45
1:K:85:MET:HE2	1:K:86:ASN:N	2.30	0.45
2:L:75:VAL:O	2:L:81:SER:HA	2.17	0.45
1:O:9:VAL:HG12	1:O:10:ILE:H	1.81	0.45
2:B:39:SER:O	2:B:102:PRO:HB3	2.17	0.45
2:B:131:LEU:HD23	2:B:131:LEU:C	2.40	0.45
1:E:204:MET:N	1:E:204:MET:HE2	2.31	0.45
2:F:39:SER:O	2:F:102:PRO:HB3	2.16	0.45
2:H:39:SER:O	2:H:102:PRO:HB3	2.17	0.45
2:H:77:TYR:CD2	2:H:90:THR:CG2	2.99	0.45
2:J:140:ASP:HB3	2:J:142:PHE:CZ	2.51	0.45
1:K:33:ILE:HG13	1:K:57:MET:HG2	1.98	0.45
1:K:133:PHE:CD2	1:K:140:LEU:HD11	2.51	0.45
1:M:50:VAL:HG21	1:M:85:MET:HE1	1.99	0.45
2:B:84:PHE:CA	2:B:85:PRO:C	2.89	0.45
2:D:211:ASN:HD22	2:D:212:THR:N	2.13	0.45
1:K:9:VAL:HG12	1:K:10:ILE:H	1.81	0.45
1:K:32:LEU:HD12	1:K:90:ILE:HD12	1.99	0.45
2:N:29:ASN:OD1	2:N:157:PRO:HD2	2.16	0.45
2:N:182:PRO:O	2:N:183:LEU:HG	2.16	0.45
2:P:224:GLN:CD	2:P:231:ILE:HD13	2.41	0.45
2:B:70:ASN:HB3	2:B:115:ALA:HB2	1.98	0.45
1:C:59:GLY:O	1:C:61:LYS:HB2	2.16	0.45
2:F:166:ARG:HG3	2:F:167:ASP:OD1	2.17	0.45
1:I:88:LYS:HE3	1:I:108:ILE:HD11	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:126:GLN:HE21	1:K:126:GLN:HB2	1.47	0.45
1:M:11:TYR:HB3	1:M:115:TYR:HA	1.97	0.45
2:N:140:ASP:OD1	2:N:140:ASP:N	2.47	0.45
2:N:227:ARG:HG2	2:N:227:ARG:O	2.17	0.45
1:O:32:LEU:HD12	1:O:90:ILE:HD12	1.99	0.45
1:O:50:VAL:HG21	1:O:85:MET:CE	2.46	0.45
1:O:50:VAL:HG21	1:O:85:MET:HE1	1.98	0.45
1:K:88:LYS:HE3	1:K:108:ILE:HD11	1.99	0.45
1:K:129:GLU:H	1:K:129:GLU:HG3	1.75	0.45
1:K:150:LEU:HD23	1:K:150:LEU:HA	1.70	0.45
2:N:140:ASP:HB3	2:N:142:PHE:CZ	2.51	0.45
1:O:4:LEU:HD21	1:O:87:VAL:CG2	2.33	0.45
1:A:27:GLU:OE1	1:A:60:LYS:HG3	2.17	0.45
2:B:77:TYR:CD2	2:B:90:THR:CG2	2.99	0.45
2:D:77:TYR:O	2:D:78:SER:C	2.59	0.45
1:G:185:ILE:HB	1:G:202:GLY:HA3	1.99	0.45
2:H:202:ALA:CB	2:H:259:THR:CG2	2.94	0.45
1:I:2:VAL:HG22	1:I:89:ALA:HB2	1.98	0.45
1:I:144:ASN:ND2	1:I:170:MET:H	2.14	0.45
1:I:149:TYR:CZ	1:I:169:PRO:HD3	2.52	0.45
2:L:101:LYS:HA	2:L:102:PRO:HD3	1.90	0.45
1:M:2:VAL:HG22	1:M:89:ALA:HB2	1.98	0.45
2:P:75:VAL:O	2:P:81:SER:HA	2.16	0.45
2:P:208:ILE:HD13	2:P:257:ALA:CB	2.46	0.45
2:D:95:TYR:OH	2:D:103:TRP:HA	2.17	0.45
2:F:211:ASN:HD22	2:F:212:THR:N	2.13	0.45
1:I:24:ASN:H	1:I:57:MET:HE2	1.81	0.45
2:J:250:LEU:HB2	2:J:252:LEU:HG	1.98	0.45
1:K:18:VAL:CG1	1:K:19:GLN:H	2.22	0.45
1:M:149:TYR:CZ	1:M:169:PRO:HD3	2.52	0.45
2:F:95:TYR:OH	2:F:103:TRP:HA	2.17	0.45
1:I:33:ILE:HG13	1:I:57:MET:HG2	1.99	0.45
2:J:227:ARG:O	2:J:227:ARG:HG2	2.17	0.45
2:L:29:ASN:OD1	2:L:157:PRO:HG2	2.15	0.45
2:L:189:LYS:HA	2:L:189:LYS:HD3	1.56	0.45
1:M:13:ALA:CB	1:M:118:ALA:H	2.30	0.45
1:O:33:ILE:HG13	1:O:57:MET:HG2	1.98	0.45
2:P:161:CYS:HB3	2:P:186:TYR:O	2.17	0.45
1:A:185:ILE:HB	1:A:202:GLY:HA3	1.99	0.45
2:D:166:ARG:HG3	2:D:167:ASP:OD1	2.17	0.45
1:G:24:ASN:O	1:G:60:LYS:HA	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:191:GLN:O	2:J:242:ALA:HA	2.17	0.45
2:J:258:ARG:HH21	2:J:263:VAL:CG2	2.30	0.45
1:K:50:VAL:HG21	1:K:85:MET:CE	2.46	0.45
1:M:13:ALA:HB3	1:M:118:ALA:H	1.82	0.45
1:A:59:GLY:O	1:A:61:LYS:HB2	2.17	0.44
2:J:182:PRO:O	2:J:183:LEU:HG	2.16	0.44
2:L:218:ALA:HB3	2:L:268:VAL:HG23	1.99	0.44
2:L:224:GLN:CD	2:L:231:ILE:HD13	2.41	0.44
1:O:133:PHE:CD2	1:O:140:LEU:HD11	2.51	0.44
1:C:128:ALA:HB1	1:C:200:MET:HE1	2.00	0.44
2:D:39:SER:O	2:D:102:PRO:HB3	2.16	0.44
2:F:168:VAL:O	2:F:168:VAL:HG13	2.18	0.44
1:M:90:ILE:HG23	1:M:91:PRO:HD2	1.98	0.44
1:M:153:THR:HB	1:M:190:ILE:HD11	1.99	0.44
2:N:250:LEU:HB2	2:N:252:LEU:HG	1.98	0.44
1:O:2:VAL:HG12	1:O:24:ASN:CA	2.41	0.44
1:C:4:LEU:HD13	1:C:111:ILE:HD13	1.98	0.44
1:E:4:LEU:HD13	1:E:111:ILE:HD13	1.98	0.44
1:E:145:PRO:HD2	1:E:146:THR:HG23	1.99	0.44
2:F:202:ALA:HB1	2:F:259:THR:HG22	1.99	0.44
2:J:129:LEU:HD12	2:J:148:ILE:HD11	1.99	0.44
2:J:138:ASN:H	2:J:138:ASN:ND2	2.10	0.44
1:M:80:GLU:OE2	1:M:148:TYR:HA	2.17	0.44
1:M:88:LYS:HE3	1:M:108:ILE:HD11	1.99	0.44
1:O:11:TYR:HB3	1:O:115:TYR:HA	1.98	0.44
1:O:80:GLU:OE2	1:O:148:TYR:HA	2.18	0.44
2:P:218:ALA:HB3	2:P:268:VAL:HG23	1.99	0.44
1:M:4:LEU:HD22	1:M:20:LEU:HD21	2.00	0.44
2:N:38:LEU:HD22	2:N:148:ILE:HD12	1.99	0.44
2:N:59:GLN:HG3	2:N:132:ARG:CD	2.46	0.44
2:N:75:VAL:O	2:N:81:SER:HA	2.18	0.44
2:P:227:ARG:O	2:P:227:ARG:HG2	2.18	0.44
2:F:29:ASN:HB2	2:F:32:GLN:CG	2.45	0.44
2:F:135:ASN:HD21	2:F:138:ASN:ND2	2.16	0.44
1:I:4:LEU:HD22	1:I:20:LEU:HD21	2.00	0.44
2:L:38:LEU:HD13	2:L:129:LEU:CD1	2.48	0.44
2:L:161:CYS:HB3	2:L:186:TYR:O	2.17	0.44
2:L:201:THR:CG2	2:L:206:ASN:HA	2.47	0.44
2:N:191:GLN:O	2:N:242:ALA:HA	2.17	0.44
2:B:227:ARG:HH11	2:B:227:ARG:HD3	1.44	0.44
1:C:51:THR:HB	1:C:66:ARG:HB2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:202:ALA:HB1	2:D:259:THR:HG22	1.99	0.44
1:G:4:LEU:HD13	1:G:111:ILE:HD13	1.99	0.44
2:H:40:THR:CG2	2:H:41:GLN:NE2	2.76	0.44
1:I:149:TYR:CE2	1:I:169:PRO:HD3	2.52	0.44
2:J:136:ASN:H	2:J:136:ASN:HD22	1.66	0.44
2:L:140:ASP:OD1	2:L:140:ASP:N	2.49	0.44
2:P:193:LEU:HD21	2:P:278:TYR:CE2	2.53	0.44
1:C:145:PRO:HD2	1:C:146:THR:HG23	1.99	0.44
1:I:116:ARG:HA	1:I:117:PRO:HD2	1.80	0.44
1:K:7:THR:O	1:K:8:ARG:NH2	2.49	0.44
1:K:19:GLN:HB2	1:K:66:ARG:HD3	2.00	0.44
1:K:32:LEU:CD1	1:K:54:LEU:HD11	2.37	0.44
2:L:227:ARG:O	2:L:227:ARG:HG2	2.18	0.44
1:O:19:GLN:HB2	1:O:66:ARG:HD3	2.00	0.44
1:O:88:LYS:HE3	1:O:108:ILE:HD11	1.99	0.44
1:O:120:LEU:HD23	1:O:120:LEU:HA	1.86	0.44
2:D:135:ASN:HD21	2:D:138:ASN:ND2	2.16	0.44
2:D:195:TYR:HA	2:D:275:THR:O	2.18	0.44
2:D:226:THR:HA	2:D:230:THR:O	2.17	0.44
1:E:142:LEU:N	1:E:142:LEU:HD23	2.33	0.44
1:E:154:GLU:O	1:E:187:TYR:HA	2.18	0.44
2:F:226:THR:HA	2:F:230:THR:O	2.17	0.44
1:G:27:GLU:H	1:G:27:GLU:HG2	1.39	0.44
1:I:126:GLN:HG2	1:I:130:LYS:NZ	2.29	0.44
1:M:19:GLN:HB2	1:M:66:ARG:HD3	2.00	0.44
2:B:92:ARG:HG2	2:B:92:ARG:NH1	2.21	0.44
2:F:116:GLY:O	2:F:117:GLY:C	2.61	0.44
1:G:37:VAL:HA	1:G:84:TRP:O	2.18	0.44
1:G:59:GLY:O	1:G:61:LYS:HB2	2.17	0.44
1:I:13:ALA:CB	1:I:118:ALA:H	2.30	0.44
1:K:11:TYR:CD1	1:K:18:VAL:HG23	2.53	0.44
2:L:193:LEU:HD21	2:L:278:TYR:CE2	2.53	0.44
1:M:149:TYR:CE2	1:M:169:PRO:HD3	2.52	0.44
2:N:201:THR:CG2	2:N:206:ASN:HA	2.47	0.44
1:A:142:LEU:HD23	1:A:142:LEU:N	2.33	0.43
2:B:112:VAL:HG12	2:P:74:THR:CG2	2.48	0.43
2:B:112:VAL:HG12	2:P:74:THR:HG22	2.00	0.43
1:C:110:ARG:HH11	1:C:110:ARG:HD3	1.26	0.43
1:I:50:VAL:HG21	1:I:85:MET:HE1	1.98	0.43
1:I:101:ASN:HD21	2:J:268:VAL:H	1.66	0.43
1:I:116:ARG:HH12	1:I:124:PRO:HB3	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:75:VAL:O	2:J:81:SER:HA	2.18	0.43
2:J:201:THR:CG2	2:J:206:ASN:HA	2.47	0.43
1:M:32:LEU:HD12	1:M:90:ILE:HD12	2.00	0.43
1:M:126:GLN:HG2	1:M:130:LYS:NZ	2.29	0.43
2:N:162:ASP:HB3	2:N:186:TYR:CD2	2.53	0.43
2:P:38:LEU:HD13	2:P:129:LEU:CD1	2.48	0.43
2:P:163:VAL:HG12	2:P:185:VAL:HG12	2.00	0.43
2:P:201:THR:CG2	2:P:206:ASN:HA	2.47	0.43
1:C:154:GLU:O	1:C:187:TYR:HA	2.18	0.43
2:F:53:THR:H	2:F:136:ASN:HD21	1.63	0.43
2:F:77:TYR:O	2:F:78:SER:C	2.59	0.43
1:G:27:GLU:OE1	1:G:60:LYS:HG3	2.17	0.43
1:K:24:ASN:H	1:K:57:MET:HE2	1.83	0.43
1:K:29:SER:O	1:K:58:LYS:HA	2.17	0.43
2:N:161:CYS:HB3	2:N:186:TYR:O	2.18	0.43
1:O:11:TYR:CD1	1:O:18:VAL:HG23	2.53	0.43
2:P:136:ASN:H	2:P:136:ASN:HD22	1.66	0.43
2:P:189:LYS:HD3	2:P:189:LYS:HA	1.55	0.43
1:E:163:GLU:HB2	1:E:175:VAL:HG13	2.00	0.43
1:G:201:THR:O	1:G:203:VAL:HG23	2.18	0.43
1:I:133:PHE:CD2	1:I:140:LEU:HD11	2.53	0.43
2:J:161:CYS:HB3	2:J:186:TYR:O	2.18	0.43
1:K:153:THR:HB	1:K:190:ILE:HD11	2.00	0.43
1:K:202:GLY:O	1:K:203:VAL:C	2.61	0.43
2:L:140:ASP:HB3	2:L:142:PHE:CZ	2.54	0.43
1:M:154:GLU:HG3	1:M:196:LEU:HD21	2.01	0.43
1:O:85:MET:HE2	1:O:86:ASN:N	2.30	0.43
1:A:37:VAL:HA	1:A:84:TRP:O	2.18	0.43
1:A:201:THR:O	1:A:203:VAL:HG23	2.18	0.43
2:D:138:ASN:C	2:D:138:ASN:ND2	2.74	0.43
1:E:47:ARG:HH11	1:E:47:ARG:HD2	1.57	0.43
1:M:33:ILE:HG13	1:M:57:MET:HG2	1.99	0.43
1:O:29:SER:O	1:O:58:LYS:HA	2.17	0.43
1:O:202:GLY:O	1:O:203:VAL:C	2.61	0.43
1:A:4:LEU:HD13	1:A:111:ILE:HD13	1.99	0.43
1:A:145:PRO:HD2	1:A:146:THR:HG23	1.99	0.43
1:A:163:GLU:HB2	1:A:175:VAL:HG13	2.01	0.43
2:B:226:THR:O	2:B:252:LEU:HA	2.19	0.43
2:D:40:THR:CG2	2:D:41:GLN:NE2	2.76	0.43
1:E:51:THR:N	1:E:66:ARG:O	2.39	0.43
2:F:195:TYR:HA	2:F:275:THR:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:59:GLN:HE22	2:H:132:ARG:NH2	2.14	0.43
2:J:25:ALA:HA	2:J:26:PRO:HD3	1.84	0.43
2:N:136:ASN:HD22	2:N:136:ASN:H	1.66	0.43
2:N:164:SER:HB3	2:N:184:THR:OG1	2.19	0.43
1:O:82:LEU:HD12	1:O:82:LEU:C	2.44	0.43
2:P:164:SER:HB3	2:P:184:THR:OG1	2.19	0.43
1:C:163:GLU:HB2	1:C:175:VAL:HG13	2.00	0.43
2:H:226:THR:O	2:H:252:LEU:HA	2.19	0.43
1:I:80:GLU:OE2	1:I:148:TYR:HA	2.17	0.43
1:I:202:GLY:O	1:I:203:VAL:C	2.61	0.43
2:L:163:VAL:HG12	2:L:185:VAL:HG12	2.00	0.43
1:M:133:PHE:CD2	1:M:140:LEU:HD11	2.53	0.43
2:N:129:LEU:HD12	2:N:148:ILE:HD11	1.99	0.43
1:O:153:THR:HB	1:O:190:ILE:HD11	2.00	0.43
2:B:136:ASN:C	2:B:136:ASN:HD22	2.26	0.43
1:E:128:ALA:HB1	1:E:200:MET:HE1	2.00	0.43
2:H:126:ILE:CD1	2:H:150:ALA:HB2	2.49	0.43
1:M:202:GLY:O	1:M:203:VAL:C	2.61	0.43
1:O:128:ALA:O	1:O:187:TYR:OH	2.25	0.43
2:P:182:PRO:O	2:P:183:LEU:HG	2.18	0.43
1:I:13:ALA:HB3	1:I:118:ALA:H	1.82	0.43
1:I:144:ASN:ND2	1:I:168:PRO:O	2.52	0.43
2:J:38:LEU:HD22	2:J:148:ILE:HD12	1.99	0.43
1:M:39:ASN:HA	1:M:83:PHE:CD2	2.54	0.43
1:A:204:MET:HE2	1:A:204:MET:N	2.33	0.43
2:B:168:VAL:O	2:B:168:VAL:HG13	2.19	0.43
1:C:142:LEU:N	1:C:142:LEU:HD23	2.33	0.43
2:D:168:VAL:HG13	2:D:168:VAL:O	2.18	0.43
2:H:95:TYR:OH	2:H:103:TRP:HA	2.19	0.43
2:H:168:VAL:O	2:H:168:VAL:HG13	2.19	0.43
2:J:58:LEU:O	2:J:90:THR:HB	2.19	0.43
2:J:84:PHE:HA	2:J:85:PRO:C	2.44	0.43
1:K:4:LEU:HD21	1:K:87:VAL:CG2	2.33	0.43
1:K:82:LEU:C	1:K:82:LEU:HD12	2.44	0.43
2:L:126:ILE:HD13	2:L:126:ILE:HG21	1.72	0.43
2:L:164:SER:HB3	2:L:184:THR:OG1	2.19	0.43
1:M:37:VAL:CG2	1:M:85:MET:HE3	2.48	0.43
1:M:116:ARG:HH12	1:M:124:PRO:HB3	1.83	0.43
2:N:84:PHE:HA	2:N:85:PRO:C	2.44	0.43
2:N:258:ARG:HH21	2:N:263:VAL:CG2	2.30	0.43
1:O:24:ASN:H	1:O:57:MET:HE2	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:122:LEU:HD11	1:O:130:LYS:HE2	2.01	0.43
2:P:90:THR:HA	2:P:91:PRO:HD3	1.89	0.43
1:C:37:VAL:HA	1:C:84:TRP:O	2.19	0.43
1:G:145:PRO:HD2	1:G:146:THR:HG23	1.99	0.43
1:I:29:SER:O	1:I:58:LYS:HA	2.18	0.43
1:I:37:VAL:CG2	1:I:85:MET:HE3	2.48	0.43
1:I:39:ASN:HA	1:I:83:PHE:CD2	2.54	0.43
2:J:162:ASP:HB3	2:J:186:TYR:CD2	2.53	0.43
2:J:193:LEU:HD21	2:J:278:TYR:CE2	2.54	0.43
1:K:80:GLU:OE2	1:K:148:TYR:HA	2.18	0.43
1:A:88:LYS:HB2	1:A:108:ILE:HG12	2.01	0.42
2:B:95:TYR:OH	2:B:103:TRP:HA	2.19	0.42
2:H:112:VAL:HG12	2:L:74:THR:CG2	2.49	0.42
1:I:32:LEU:HD12	1:I:90:ILE:HD12	2.01	0.42
1:I:153:THR:HB	1:I:190:ILE:HD11	1.99	0.42
2:L:136:ASN:HD22	2:L:136:ASN:H	1.66	0.42
2:L:182:PRO:O	2:L:183:LEU:HG	2.18	0.42
1:M:122:LEU:HD11	1:M:130:LYS:HE2	2.01	0.42
2:B:136:ASN:ND2	2:B:136:ASN:C	2.77	0.42
1:G:88:LYS:HB2	1:G:108:ILE:HG12	2.01	0.42
1:G:142:LEU:N	1:G:142:LEU:HD23	2.33	0.42
1:K:122:LEU:HD11	1:K:130:LYS:HE2	2.01	0.42
1:M:101:ASN:HD21	2:N:268:VAL:H	1.66	0.42
2:P:103:TRP:CE2	2:P:105:VAL:HG21	2.54	0.42
2:P:140:ASP:HB3	2:P:142:PHE:CZ	2.54	0.42
2:F:5:THR:HB	2:F:9:THR:O	2.20	0.42
1:I:19:GLN:HB2	1:I:66:ARG:HD3	2.00	0.42
2:L:103:TRP:CE2	2:L:105:VAL:HG21	2.54	0.42
1:M:2:VAL:HG12	1:M:24:ASN:CA	2.44	0.42
1:O:33:ILE:HG13	1:O:57:MET:CG	2.49	0.42
2:P:225:LEU:HD21	2:P:272:ILE:CD1	2.49	0.42
1:A:47:ARG:HH11	1:A:47:ARG:HD2	1.54	0.42
1:C:33:ILE:CG1	1:C:57:MET:HE3	2.50	0.42
2:D:211:ASN:HD21	2:D:269:GLN:H	1.67	0.42
1:E:27:GLU:OE1	1:E:60:LYS:HG3	2.20	0.42
1:I:37:VAL:HG22	1:I:85:MET:HE3	2.02	0.42
1:I:126:GLN:HE21	1:I:126:GLN:HB2	1.46	0.42
1:I:154:GLU:HG3	1:I:196:LEU:HD21	2.01	0.42
2:J:164:SER:HB3	2:J:184:THR:OG1	2.19	0.42
1:M:33:ILE:HG13	1:M:57:MET:CG	2.49	0.42
1:M:144:ASN:ND2	1:M:168:PRO:O	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:126:ILE:CD1	2:B:150:ALA:HB2	2.49	0.42
2:J:103:TRP:CD2	2:J:131:LEU:HD12	2.54	0.42
1:K:103:LEU:CD2	2:L:181:ILE:HG12	2.50	0.42
2:N:193:LEU:HD21	2:N:278:TYR:CE2	2.54	0.42
1:O:150:LEU:HD23	1:O:150:LEU:HA	1.70	0.42
1:O:154:GLU:HG3	1:O:196:LEU:HD21	2.01	0.42
1:A:128:ALA:O	1:A:129:GLU:C	2.62	0.42
2:B:83:PRO:O	2:B:86:THR:HA	2.20	0.42
2:B:126:ILE:HD13	2:B:150:ALA:CB	2.49	0.42
1:E:51:THR:HB	1:E:66:ARG:HB2	2.00	0.42
2:F:40:THR:HG23	2:F:41:GLN:NE2	2.32	0.42
1:G:204:MET:HE2	1:G:204:MET:N	2.33	0.42
2:H:83:PRO:O	2:H:86:THR:HA	2.20	0.42
2:H:136:ASN:C	2:H:136:ASN:HD22	2.26	0.42
1:K:168:PRO:HA	1:K:169:PRO:HD3	1.80	0.42
2:N:58:LEU:O	2:N:90:THR:HB	2.19	0.42
2:N:135:ASN:OD1	2:N:137:TYR:N	2.43	0.42
1:O:193:TYR:CB	2:P:155:VAL:HG11	2.50	0.42
2:P:126:ILE:HG21	2:P:126:ILE:HD13	1.72	0.42
2:J:163:VAL:HG12	2:J:185:VAL:HG12	2.01	0.42
1:K:104:GLN:N	2:L:270:SER:O	2.48	0.42
1:K:144:ASN:ND2	1:K:168:PRO:O	2.53	0.42
2:L:207:SER:HA	2:L:233:PRO:HA	2.01	0.42
2:N:103:TRP:CD2	2:N:131:LEU:HD12	2.54	0.42
2:N:126:ILE:HG21	2:N:126:ILE:HD13	1.66	0.42
2:P:55:TYR:O	2:P:133:GLN:HA	2.19	0.42
1:A:185:ILE:HD12	1:A:204:MET:HE1	2.02	0.42
2:F:58:LEU:H	2:F:90:THR:CG2	2.33	0.42
1:G:163:GLU:HB2	1:G:175:VAL:HG13	2.01	0.42
2:H:136:ASN:ND2	2:H:136:ASN:C	2.77	0.42
2:H:138:ASN:ND2	2:H:140:ASP:HB2	2.33	0.42
1:I:33:ILE:HG13	1:I:57:MET:CG	2.49	0.42
1:K:116:ARG:HA	1:K:117:PRO:HD2	1.76	0.42
1:K:154:GLU:HG3	1:K:196:LEU:HD21	2.01	0.42
2:N:163:VAL:HG12	2:N:185:VAL:HG12	2.01	0.42
1:O:144:ASN:ND2	1:O:168:PRO:O	2.53	0.42
1:G:154:GLU:O	1:G:187:TYR:HA	2.20	0.42
1:K:39:ASN:HA	1:K:83:PHE:CD2	2.54	0.42
1:K:193:TYR:CB	2:L:155:VAL:HG11	2.50	0.42
2:L:55:TYR:O	2:L:133:GLN:HA	2.19	0.42
1:M:29:SER:O	1:M:58:LYS:HA	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:55:PHE:N	1:O:55:PHE:CD2	2.88	0.42
2:F:138:ASN:C	2:F:138:ASN:ND2	2.74	0.42
2:H:112:VAL:HG12	2:L:74:THR:HG22	2.01	0.42
1:I:122:LEU:HD11	1:I:130:LYS:HE2	2.01	0.42
2:L:225:LEU:HD21	2:L:272:ILE:CD1	2.49	0.42
2:N:256:TYR:HE2	2:N:268:VAL:HG11	1.85	0.42
1:O:39:ASN:HA	1:O:83:PHE:CD2	2.54	0.42
1:O:103:LEU:CD2	2:P:181:ILE:HG12	2.50	0.42
2:P:1:PHE:HB2	2:P:54:ASP:OD2	2.20	0.42
1:A:197:THR:CB	1:A:198:PRO:CD	2.98	0.41
1:C:27:GLU:OE1	1:C:60:LYS:HG3	2.20	0.41
2:D:5:THR:HB	2:D:9:THR:O	2.20	0.41
2:F:211:ASN:HD21	2:F:269:GLN:H	1.67	0.41
2:H:84:PHE:CA	2:H:85:PRO:C	2.89	0.41
1:I:85:MET:HE2	1:I:85:MET:HA	2.02	0.41
1:I:105:LEU:HA	2:J:272:ILE:O	2.20	0.41
1:O:7:THR:O	1:O:8:ARG:NH2	2.49	0.41
2:B:227:ARG:HD3	2:B:232:ILE:HG12	2.02	0.41
2:D:116:GLY:O	2:D:117:GLY:C	2.61	0.41
2:J:207:SER:HA	2:J:233:PRO:HA	2.01	0.41
1:K:33:ILE:HG13	1:K:57:MET:CG	2.49	0.41
1:K:55:PHE:CD2	1:K:55:PHE:N	2.88	0.41
2:L:158:THR:HB	2:L:189:LYS:HG2	2.02	0.41
1:M:85:MET:HE2	1:M:85:MET:HA	2.02	0.41
1:O:90:ILE:HG23	1:O:91:PRO:HD2	2.01	0.41
2:P:207:SER:HA	2:P:233:PRO:HA	2.01	0.41
2:B:57:THR:HG23	2:B:89:GLU:HG3	2.03	0.41
1:I:153:THR:OG1	1:I:154:GLU:N	2.53	0.41
1:K:90:ILE:HG23	1:K:91:PRO:HD2	2.01	0.41
1:M:57:MET:SD	1:M:63:ASN:HB2	2.61	0.41
2:P:96:ASN:ND2	2:P:96:ASN:N	2.67	0.41
1:A:27:GLU:H	1:A:27:GLU:HG2	1.39	0.41
1:C:51:THR:N	1:C:66:ARG:O	2.39	0.41
2:D:227:ARG:HD3	2:D:232:ILE:HG12	2.01	0.41
1:E:37:VAL:HA	1:E:84:TRP:O	2.19	0.41
1:G:128:ALA:O	1:G:129:GLU:C	2.62	0.41
2:J:135:ASN:OD1	2:J:137:TYR:N	2.43	0.41
2:L:1:PHE:HB2	2:L:54:ASP:OD2	2.20	0.41
1:M:37:VAL:HG22	1:M:85:MET:HE3	2.02	0.41
2:P:171:THR:HG22	2:P:256:TYR:CZ	2.55	0.41
1:A:101:ASN:O	2:B:171:THR:N	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:169:PRO:O	1:A:170:MET:C	2.63	0.41
1:A:197:THR:CB	1:A:198:PRO:HD2	2.42	0.41
2:J:256:TYR:HE2	2:J:268:VAL:HG11	1.85	0.41
1:O:90:ILE:HA	1:O:91:PRO:HD3	1.92	0.41
1:I:43:VAL:O	1:I:45:ASP:N	2.54	0.41
2:J:40:THR:HG23	2:J:41:GLN:NE2	2.35	0.41
1:K:79:ARG:HA	1:K:147:PRO:CB	2.51	0.41
1:M:43:VAL:O	1:M:45:ASP:N	2.54	0.41
2:N:207:SER:HA	2:N:233:PRO:HA	2.01	0.41
2:P:28:VAL:O	2:P:156:VAL:HA	2.20	0.41
1:A:110:ARG:HH11	1:A:110:ARG:HD3	1.34	0.41
1:A:154:GLU:O	1:A:187:TYR:HA	2.20	0.41
1:E:33:ILE:CG1	1:E:57:MET:HE3	2.50	0.41
2:F:103:TRP:CZ3	2:F:131:LEU:HB2	2.55	0.41
1:I:140:LEU:HB2	1:I:177:LEU:CD1	2.51	0.41
1:K:122:LEU:HA	1:K:123:PRO:HD3	1.94	0.41
2:L:28:VAL:O	2:L:156:VAL:HA	2.20	0.41
1:M:105:LEU:HA	2:N:272:ILE:O	2.21	0.41
1:M:193:TYR:CB	2:N:155:VAL:HG11	2.51	0.41
2:N:38:LEU:HD13	2:N:129:LEU:CD1	2.51	0.41
2:P:158:THR:HB	2:P:189:LYS:HG2	2.02	0.41
2:B:46:ASN:O	2:B:98:ARG:HA	2.21	0.41
2:H:57:THR:HG23	2:H:89:GLU:HG3	2.03	0.41
2:J:38:LEU:HD13	2:J:129:LEU:CD1	2.51	0.41
2:L:12:PRO:O	2:L:15:GLY:HA3	2.21	0.41
2:L:256:TYR:HE2	2:L:268:VAL:HG11	1.86	0.41
1:M:4:LEU:HD21	1:M:87:VAL:CG2	2.35	0.41
2:N:96:ASN:ND2	2:N:96:ASN:N	2.68	0.41
2:B:138:ASN:ND2	2:B:140:ASP:HB2	2.33	0.41
2:D:38:LEU:HD22	2:D:148:ILE:HD12	2.03	0.41
2:D:58:LEU:H	2:D:90:THR:CG2	2.33	0.41
1:G:33:ILE:CG1	1:G:57:MET:HE3	2.50	0.41
1:I:197:THR:CB	1:I:198:PRO:CD	2.89	0.41
2:J:58:LEU:H	2:J:90:THR:HG22	1.85	0.41
2:J:126:ILE:HD13	2:J:126:ILE:HG21	1.66	0.41
2:J:171:THR:HG22	2:J:256:TYR:CZ	2.56	0.41
2:J:267:ASN:HD22	2:J:267:ASN:HA	1.73	0.41
2:L:38:LEU:HD22	2:L:148:ILE:HD12	2.02	0.41
2:L:171:THR:HG22	2:L:256:TYR:CZ	2.55	0.41
2:L:240:LEU:HD21	2:L:250:LEU:HD22	2.03	0.41
2:L:267:ASN:HD22	2:L:267:ASN:HA	1.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:120:LEU:HD23	1:M:120:LEU:HA	1.88	0.41
1:M:153:THR:OG1	1:M:154:GLU:N	2.54	0.41
2:N:67:VAL:O	2:N:71:PHE:HB2	2.21	0.41
1:O:79:ARG:HB3	1:O:170:MET:HE2	2.01	0.41
1:O:116:ARG:HH12	1:O:124:PRO:HB3	1.86	0.41
2:D:40:THR:HG23	2:D:41:GLN:NE2	2.32	0.41
2:F:40:THR:CG2	2:F:41:GLN:NE2	2.76	0.41
2:F:83:PRO:O	2:F:86:THR:HA	2.21	0.41
2:H:211:ASN:HD22	2:H:212:THR:N	2.16	0.41
1:I:57:MET:SD	1:I:63:ASN:HB2	2.61	0.41
2:L:162:ASP:N	2:L:186:TYR:O	2.46	0.41
1:M:85:MET:HE2	1:M:86:ASN:N	2.36	0.41
1:M:85:MET:HB2	1:M:111:ILE:HG13	2.03	0.41
1:O:79:ARG:HA	1:O:147:PRO:CB	2.51	0.41
1:O:104:GLN:N	2:P:270:SER:O	2.48	0.41
1:O:123:PRO:HA	1:O:124:PRO:HD2	1.95	0.41
2:P:152:ASN:OD1	2:P:152:ASN:N	2.54	0.41
1:A:33:ILE:CG1	1:A:57:MET:HE3	2.50	0.40
1:A:101:ASN:CB	2:B:171:THR:O	2.69	0.40
2:D:42:ILE:HD12	2:D:103:TRP:HE1	1.87	0.40
2:D:103:TRP:CZ3	2:D:131:LEU:HB2	2.55	0.40
2:F:189:LYS:HB3	2:F:189:LYS:HE3	1.93	0.40
1:G:101:ASN:OD1	2:H:268:VAL:N	2.45	0.40
2:H:58:LEU:H	2:H:90:THR:CG2	2.34	0.40
2:H:126:ILE:HD13	2:H:150:ALA:CB	2.49	0.40
1:I:104:GLN:N	2:J:270:SER:O	2.50	0.40
1:K:103:LEU:HD21	1:K:105:LEU:HD21	2.02	0.40
2:L:84:PHE:HA	2:L:85:PRO:C	2.45	0.40
2:N:112:VAL:O	2:N:112:VAL:HG23	2.21	0.40
1:O:4:LEU:CD2	1:O:22:VAL:HG22	2.51	0.40
1:C:47:ARG:HH11	1:C:47:ARG:HD2	1.58	0.40
2:D:1:PHE:O	2:D:13:ILE:HA	2.21	0.40
2:F:227:ARG:HD3	2:F:232:ILE:HG12	2.01	0.40
1:G:185:ILE:HD12	1:G:204:MET:HE1	2.02	0.40
2:H:92:ARG:HG2	2:H:92:ARG:NH1	2.21	0.40
2:L:40:THR:HG23	2:L:41:GLN:NE2	2.34	0.40
1:M:140:LEU:HB2	1:M:177:LEU:CD1	2.51	0.40
1:A:30:THR:OG1	1:A:58:LYS:HG2	2.22	0.40
1:C:59:GLY:O	1:C:60:LYS:C	2.65	0.40
2:F:1:PHE:O	2:F:13:ILE:HA	2.21	0.40
2:F:136:ASN:C	2:F:136:ASN:HD22	2.29	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:101:ASN:CB	2:H:171:THR:O	2.69	0.40
2:H:138:ASN:C	2:H:138:ASN:ND2	2.77	0.40
2:L:58:LEU:O	2:L:90:THR:HB	2.21	0.40
2:N:136:ASN:HD22	2:N:136:ASN:N	2.19	0.40
2:P:256:TYR:HE2	2:P:268:VAL:HG11	1.86	0.40
2:F:38:LEU:HD22	2:F:148:ILE:HD12	2.03	0.40
1:I:193:TYR:CB	2:J:155:VAL:HG11	2.51	0.40
1:M:204:MET:O	1:M:205:GLU:HB2	2.21	0.40
1:O:85:MET:HE2	1:O:85:MET:HA	2.04	0.40
2:P:84:PHE:HA	2:P:85:PRO:C	2.45	0.40
2:P:162:ASP:HB3	2:P:186:TYR:CD2	2.57	0.40
1:A:11:TYR:HA	1:A:18:VAL:HG21	2.03	0.40
2:B:29:ASN:HB2	2:B:32:GLN:CG	2.51	0.40
2:B:58:LEU:H	2:B:90:THR:CG2	2.34	0.40
1:C:101:ASN:O	2:D:171:THR:N	2.46	0.40
2:D:126:ILE:CD1	2:D:150:ALA:HB2	2.51	0.40
2:F:46:ASN:O	2:F:98:ARG:HA	2.21	0.40
2:F:136:ASN:ND2	2:F:136:ASN:C	2.77	0.40
1:G:197:THR:CB	1:G:198:PRO:CD	2.98	0.40
1:I:39:ASN:HB3	1:I:45:ASP:OD2	2.22	0.40
1:I:204:MET:O	1:I:205:GLU:HB2	2.21	0.40
2:J:220:GLY:C	2:J:259:THR:HB	2.46	0.40
1:M:39:ASN:HB3	1:M:45:ASP:OD2	2.22	0.40
2:N:5:THR:O	2:N:8:GLY:N	2.53	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 X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	A	196/205 (96%)	185 (94%)	11 (6%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	C	196/205 (96%)	184 (94%)	12 (6%)	0	100	100
1	E	196/205 (96%)	184 (94%)	12 (6%)	0	100	100
1	G	196/205 (96%)	185 (94%)	11 (6%)	0	100	100
1	I	190/205 (93%)	135 (71%)	37 (20%)	18 (10%)	0	1
1	K	190/205 (93%)	134 (70%)	37 (20%)	19 (10%)	0	1
1	M	190/205 (93%)	135 (71%)	37 (20%)	18 (10%)	0	1
1	O	190/205 (93%)	134 (70%)	37 (20%)	19 (10%)	0	1
2	B	277/279 (99%)	253 (91%)	23 (8%)	1 (0%)	30	60
2	D	277/279 (99%)	254 (92%)	22 (8%)	1 (0%)	30	60
2	F	277/279 (99%)	254 (92%)	22 (8%)	1 (0%)	30	60
2	H	277/279 (99%)	253 (91%)	23 (8%)	1 (0%)	30	60
2	J	275/279 (99%)	238 (86%)	25 (9%)	12 (4%)	2	7
2	L	277/279 (99%)	242 (87%)	24 (9%)	11 (4%)	2	8
2	N	275/279 (99%)	238 (86%)	25 (9%)	12 (4%)	2	7
2	P	277/279 (99%)	242 (87%)	24 (9%)	11 (4%)	2	8
All	All	3756/3872 (97%)	3250 (86%)	382 (10%)	124 (3%)	3	11

All (124) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	B	176	PRO
2	D	176	PRO
2	F	176	PRO
2	H	176	PRO
1	I	68	LEU
1	I	70	ALA
1	I	101	ASN
1	I	134	ARG
1	I	135	ARG
1	I	194	GLY
1	I	204	MET
2	J	166	ARG
2	J	168	VAL
2	J	175	TYR
2	J	177	GLY
1	K	68	LEU
1	K	70	ALA

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Mol	Chain	Res	Type
1	K	101	ASN
1	K	134	ARG
1	K	135	ARG
1	K	194	GLY
1	K	204	MET
2	L	166	ARG
2	L	168	VAL
2	L	175	TYR
2	L	177	GLY
1	M	68	LEU
1	M	70	ALA
1	M	101	ASN
1	M	134	ARG
1	M	135	ARG
1	M	194	GLY
1	M	204	MET
2	N	166	ARG
2	N	168	VAL
2	N	175	TYR
2	N	177	GLY
1	O	68	LEU
1	O	70	ALA
1	O	101	ASN
1	O	134	ARG
1	O	135	ARG
1	O	194	GLY
1	O	204	MET
2	P	166	ARG
2	P	168	VAL
2	P	175	TYR
2	P	177	GLY
1	I	33	ILE
1	I	44	LYS
1	I	69	ASP
1	I	157	ALA
1	I	158	GLY
2	J	165	ALA
2	J	260	GLY
1	K	33	ILE
1	K	44	LYS
1	K	157	ALA
2	L	260	GLY

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Mol	Chain	Res	Type
1	M	33	ILE
1	M	44	LYS
1	M	69	ASP
1	M	157	ALA
1	M	158	GLY
2	N	165	ALA
2	N	260	GLY
1	O	33	ILE
1	O	44	LYS
1	O	157	ALA
2	P	260	GLY
1	I	96	SER
1	K	69	ASP
1	K	96	SER
1	K	154	GLU
2	L	243	VAL
1	M	96	SER
1	O	69	ASP
1	O	96	SER
1	O	154	GLU
2	P	243	VAL
1	I	94	ASP
1	I	154	GLU
1	K	94	ASP
2	L	165	ALA
1	M	94	ASP
1	M	154	GLU
1	O	94	ASP
2	P	165	ALA
1	I	36	TRP
1	K	36	TRP
1	K	170	MET
2	L	216	SER
1	M	36	TRP
1	O	36	TRP
1	O	170	MET
2	P	216	SER
2	J	176	PRO
2	J	178	SER
2	J	182	PRO
2	J	216	SER
2	J	243	VAL

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Mol	Chain	Res	Type
1	K	158	GLY
2	L	176	PRO
2	L	178	SER
2	N	176	PRO
2	N	178	SER
2	N	182	PRO
2	N	216	SER
2	N	243	VAL
1	O	158	GLY
2	P	176	PRO
2	P	178	SER
1	I	76	PRO
1	K	76	PRO
2	L	182	PRO
1	M	76	PRO
1	O	76	PRO
2	P	182	PRO
1	I	91	PRO
1	K	91	PRO
1	M	91	PRO
1	O	91	PRO
2	J	116	GLY
2	N	116	GLY

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	169/175 (97%)	130 (77%)	39 (23%)	1	3
1	C	169/175 (97%)	128 (76%)	41 (24%)	1	2
1	E	169/175 (97%)	128 (76%)	41 (24%)	1	2
1	G	169/175 (97%)	130 (77%)	39 (23%)	1	3
1	I	169/175 (97%)	117 (69%)	52 (31%)	0	1
1	K	169/175 (97%)	118 (70%)	51 (30%)	0	1

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	M	169/175 (97%)	117 (69%)	52 (31%)	0	1
1	O	169/175 (97%)	118 (70%)	51 (30%)	0	1
2	B	226/226 (100%)	179 (79%)	47 (21%)	1	4
2	D	226/226 (100%)	181 (80%)	45 (20%)	1	5
2	F	226/226 (100%)	181 (80%)	45 (20%)	1	5
2	H	226/226 (100%)	179 (79%)	47 (21%)	1	4
2	J	226/226 (100%)	181 (80%)	45 (20%)	1	5
2	L	226/226 (100%)	181 (80%)	45 (20%)	1	5
2	N	226/226 (100%)	181 (80%)	45 (20%)	1	5
2	P	226/226 (100%)	181 (80%)	45 (20%)	1	5
All	All	3160/3208 (98%)	2430 (77%)	730 (23%)	1	3

All (730) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	8	ARG
1	A	15	GLN
1	A	16	LYS
1	A	22	VAL
1	A	23	THR
1	A	26	ASP
1	A	43	VAL
1	A	44	LYS
1	A	47	ARG
1	A	49	ILE
1	A	51	THR
1	A	60	LYS
1	A	61	LYS
1	A	62	GLU
1	A	73	ASN
1	A	79	ARG
1	A	85	MET
1	A	92	SER
1	A	95	LYS
1	A	96	SER
1	A	102	THR
1	A	104	GLN
1	A	111	ILE

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Mol	Chain	Res	Type
1	A	122	LEU
1	A	125	ASP
1	A	126	GLN
1	A	136	SER
1	A	138	ASN
1	A	139	SER
1	A	142	LEU
1	A	143	ILE
1	A	146	THR
1	A	159	THR
1	A	160	ARG
1	A	163	GLU
1	A	172	GLU
1	A	176	LYS
1	A	183	SER
1	A	204	MET
2	B	4	LYS
2	B	5	THR
2	B	13	ILE
2	B	40	THR
2	B	41	GLN
2	B	46	ASN
2	B	51	THR
2	B	52	ILE
2	B	57	THR
2	B	59	GLN
2	B	60	ARG
2	B	72	SER
2	B	90	THR
2	B	92	ARG
2	B	96	ASN
2	B	101	LYS
2	B	103	TRP
2	B	107	LEU
2	B	110	THR
2	B	113	SER
2	B	126	ILE
2	B	131	LEU
2	B	136	ASN
2	B	138	ASN
2	B	158	THR
2	B	164	SER

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Mol	Chain	Res	Type
2	B	166	ARG
2	B	167	ASP
2	B	172	LEU
2	B	175	TYR
2	B	176	PRO
2	B	179	VAL
2	B	183	LEU
2	B	184	THR
2	B	185	VAL
2	B	191	GLN
2	B	201	THR
2	B	212	THR
2	B	215	PHE
2	B	216	SER
2	B	226	THR
2	B	239	SER
2	B	245	THR
2	B	259	THR
2	B	264	THR
2	B	270	SER
2	B	271	ILE
1	C	8	ARG
1	C	15	GLN
1	C	16	LYS
1	C	22	VAL
1	C	23	THR
1	C	26	ASP
1	C	34	GLN
1	C	43	VAL
1	C	44	LYS
1	C	47	ARG
1	C	49	ILE
1	C	51	THR
1	C	60	LYS
1	C	61	LYS
1	C	62	GLU
1	C	73	ASN
1	C	79	ARG
1	C	85	MET
1	C	92	SER
1	C	95	LYS
1	C	96	SER

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Mol	Chain	Res	Type
1	C	102	THR
1	C	104	GLN
1	C	111	ILE
1	C	122	LEU
1	C	125	ASP
1	C	126	GLN
1	C	129	GLU
1	C	136	SER
1	C	138	ASN
1	C	139	SER
1	C	142	LEU
1	C	143	ILE
1	C	146	THR
1	C	159	THR
1	C	160	ARG
1	C	163	GLU
1	C	172	GLU
1	C	176	LYS
1	C	183	SER
1	C	204	MET
2	D	4	LYS
2	D	5	THR
2	D	40	THR
2	D	41	GLN
2	D	46	ASN
2	D	51	THR
2	D	52	ILE
2	D	57	THR
2	D	59	GLN
2	D	60	ARG
2	D	72	SER
2	D	90	THR
2	D	92	ARG
2	D	96	ASN
2	D	101	LYS
2	D	103	TRP
2	D	107	LEU
2	D	110	THR
2	D	113	SER
2	D	126	ILE
2	D	131	LEU
2	D	136	ASN

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Mol	Chain	Res	Type
2	D	138	ASN
2	D	158	THR
2	D	164	SER
2	D	166	ARG
2	D	167	ASP
2	D	172	LEU
2	D	175	TYR
2	D	179	VAL
2	D	183	LEU
2	D	184	THR
2	D	185	VAL
2	D	201	THR
2	D	212	THR
2	D	215	PHE
2	D	216	SER
2	D	226	THR
2	D	239	SER
2	D	245	THR
2	D	255	ASN
2	D	259	THR
2	D	264	THR
2	D	270	SER
2	D	271	ILE
1	E	8	ARG
1	E	15	GLN
1	E	16	LYS
1	E	22	VAL
1	E	23	THR
1	E	26	ASP
1	E	34	GLN
1	E	43	VAL
1	E	44	LYS
1	E	47	ARG
1	E	49	ILE
1	E	51	THR
1	E	60	LYS
1	E	61	LYS
1	E	62	GLU
1	E	73	ASN
1	E	79	ARG
1	E	85	MET
1	E	92	SER

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Mol	Chain	Res	Type
1	E	95	LYS
1	E	96	SER
1	E	102	THR
1	E	104	GLN
1	E	111	ILE
1	E	122	LEU
1	E	125	ASP
1	E	126	GLN
1	E	129	GLU
1	E	136	SER
1	E	138	ASN
1	E	139	SER
1	E	142	LEU
1	E	143	ILE
1	E	146	THR
1	E	159	THR
1	E	160	ARG
1	E	163	GLU
1	E	172	GLU
1	E	176	LYS
1	E	183	SER
1	E	204	MET
2	F	4	LYS
2	F	5	THR
2	F	40	THR
2	F	41	GLN
2	F	46	ASN
2	F	51	THR
2	F	52	ILE
2	F	57	THR
2	F	59	GLN
2	F	60	ARG
2	F	72	SER
2	F	90	THR
2	F	92	ARG
2	F	96	ASN
2	F	101	LYS
2	F	103	TRP
2	F	107	LEU
2	F	110	THR
2	F	113	SER
2	F	126	ILE

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Mol	Chain	Res	Type
2	F	131	LEU
2	F	136	ASN
2	F	138	ASN
2	F	158	THR
2	F	164	SER
2	F	166	ARG
2	F	167	ASP
2	F	172	LEU
2	F	175	TYR
2	F	179	VAL
2	F	183	LEU
2	F	184	THR
2	F	185	VAL
2	F	201	THR
2	F	212	THR
2	F	215	PHE
2	F	216	SER
2	F	226	THR
2	F	239	SER
2	F	245	THR
2	F	255	ASN
2	F	259	THR
2	F	264	THR
2	F	270	SER
2	F	271	ILE
1	G	8	ARG
1	G	15	GLN
1	G	16	LYS
1	G	22	VAL
1	G	23	THR
1	G	26	ASP
1	G	43	VAL
1	G	44	LYS
1	G	47	ARG
1	G	49	ILE
1	G	51	THR
1	G	60	LYS
1	G	61	LYS
1	G	62	GLU
1	G	73	ASN
1	G	79	ARG
1	G	85	MET

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Mol	Chain	Res	Type
1	G	92	SER
1	G	95	LYS
1	G	96	SER
1	G	102	THR
1	G	104	GLN
1	G	111	ILE
1	G	122	LEU
1	G	125	ASP
1	G	126	GLN
1	G	136	SER
1	G	138	ASN
1	G	139	SER
1	G	142	LEU
1	G	143	ILE
1	G	146	THR
1	G	159	THR
1	G	160	ARG
1	G	163	GLU
1	G	172	GLU
1	G	176	LYS
1	G	183	SER
1	G	204	MET
2	H	4	LYS
2	H	5	THR
2	H	13	ILE
2	H	40	THR
2	H	41	GLN
2	H	46	ASN
2	H	51	THR
2	H	52	ILE
2	H	57	THR
2	H	59	GLN
2	H	60	ARG
2	H	72	SER
2	H	90	THR
2	H	92	ARG
2	H	96	ASN
2	H	101	LYS
2	H	103	TRP
2	H	107	LEU
2	H	110	THR
2	H	113	SER

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Mol	Chain	Res	Type
2	H	126	ILE
2	H	131	LEU
2	H	136	ASN
2	H	138	ASN
2	H	158	THR
2	H	164	SER
2	H	166	ARG
2	H	167	ASP
2	H	172	LEU
2	H	175	TYR
2	H	176	PRO
2	H	179	VAL
2	H	183	LEU
2	H	184	THR
2	H	185	VAL
2	H	191	GLN
2	H	201	THR
2	H	212	THR
2	H	215	PHE
2	H	216	SER
2	H	226	THR
2	H	239	SER
2	H	245	THR
2	H	259	THR
2	H	264	THR
2	H	270	SER
2	H	271	ILE
1	I	8	ARG
1	I	15	GLN
1	I	19	GLN
1	I	20	LEU
1	I	23	THR
1	I	27	GLU
1	I	28	ASN
1	I	32	LEU
1	I	34	GLN
1	I	41	ASP
1	I	43	VAL
1	I	47	ARG
1	I	49	ILE
1	I	55	PHE
1	I	58	LYS

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Mol	Chain	Res	Type
1	I	63	ASN
1	I	71	THR
1	I	72	ASN
1	I	73	ASN
1	I	82	LEU
1	I	85	MET
1	I	90	ILE
1	I	91	PRO
1	I	92	SER
1	I	93	MET
1	I	94	ASP
1	I	96	SER
1	I	97	LYS
1	I	101	ASN
1	I	105	LEU
1	I	113	LEU
1	I	126	GLN
1	I	129	GLU
1	I	131	LEU
1	I	132	ARG
1	I	136	SER
1	I	143	ILE
1	I	146	THR
1	I	155	LEU
1	I	163	GLU
1	I	167	VAL
1	I	175	VAL
1	I	176	LYS
1	I	177	LEU
1	I	183	SER
1	I	184	ASN
1	I	185	ILE
1	I	192	ASP
1	I	199	LYS
1	I	201	THR
1	I	203	VAL
1	I	205	GLU
2	J	17	SER
2	J	28	VAL
2	J	36	VAL
2	J	40	THR
2	J	51	THR

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Mol	Chain	Res	Type
2	J	53	THR
2	J	57	THR
2	J	60	ARG
2	J	72	SER
2	J	80	SER
2	J	90	THR
2	J	94	VAL
2	J	96	ASN
2	J	98	ARG
2	J	107	LEU
2	J	110	THR
2	J	120	ILE
2	J	121	LYS
2	J	136	ASN
2	J	138	ASN
2	J	140	ASP
2	J	158	THR
2	J	163	VAL
2	J	168	VAL
2	J	170	VAL
2	J	172	LEU
2	J	174	ASP
2	J	178	SER
2	J	179	VAL
2	J	189	LYS
2	J	190	SER
2	J	193	LEU
2	J	201	THR
2	J	206	ASN
2	J	224	GLN
2	J	225	LEU
2	J	226	THR
2	J	227	ARG
2	J	228	ASN
2	J	236	ASN
2	J	253	THR
2	J	255	ASN
2	J	259	THR
2	J	267	ASN
2	J	270	SER
1	K	8	ARG
1	K	15	GLN

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Mol	Chain	Res	Type
1	K	19	GLN
1	K	20	LEU
1	K	23	THR
1	K	27	GLU
1	K	28	ASN
1	K	32	LEU
1	K	41	ASP
1	K	43	VAL
1	K	47	ARG
1	K	49	ILE
1	K	55	PHE
1	K	58	LYS
1	K	63	ASN
1	K	71	THR
1	K	72	ASN
1	K	73	ASN
1	K	82	LEU
1	K	85	MET
1	K	90	ILE
1	K	91	PRO
1	K	92	SER
1	K	93	MET
1	K	94	ASP
1	K	96	SER
1	K	97	LYS
1	K	101	ASN
1	K	105	LEU
1	K	113	LEU
1	K	126	GLN
1	K	129	GLU
1	K	131	LEU
1	K	132	ARG
1	K	143	ILE
1	K	144	ASN
1	K	146	THR
1	K	155	LEU
1	K	163	GLU
1	K	167	VAL
1	K	175	VAL
1	K	176	LYS
1	K	177	LEU
1	K	183	SER

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Mol	Chain	Res	Type
1	K	184	ASN
1	K	185	ILE
1	K	192	ASP
1	K	199	LYS
1	K	201	THR
1	K	203	VAL
1	K	205	GLU
2	L	17	SER
2	L	28	VAL
2	L	36	VAL
2	L	40	THR
2	L	51	THR
2	L	53	THR
2	L	57	THR
2	L	60	ARG
2	L	72	SER
2	L	80	SER
2	L	90	THR
2	L	94	VAL
2	L	96	ASN
2	L	98	ARG
2	L	107	LEU
2	L	110	THR
2	L	120	ILE
2	L	121	LYS
2	L	136	ASN
2	L	138	ASN
2	L	140	ASP
2	L	158	THR
2	L	163	VAL
2	L	168	VAL
2	L	170	VAL
2	L	172	LEU
2	L	174	ASP
2	L	178	SER
2	L	179	VAL
2	L	189	LYS
2	L	190	SER
2	L	193	LEU
2	L	201	THR
2	L	206	ASN
2	L	224	GLN

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Mol	Chain	Res	Type
2	L	225	LEU
2	L	226	THR
2	L	227	ARG
2	L	228	ASN
2	L	236	ASN
2	L	253	THR
2	L	255	ASN
2	L	259	THR
2	L	267	ASN
2	L	270	SER
1	M	8	ARG
1	M	15	GLN
1	M	19	GLN
1	M	20	LEU
1	M	23	THR
1	M	27	GLU
1	M	28	ASN
1	M	32	LEU
1	M	34	GLN
1	M	41	ASP
1	M	43	VAL
1	M	47	ARG
1	M	49	ILE
1	M	55	PHE
1	M	58	LYS
1	M	63	ASN
1	M	71	THR
1	M	72	ASN
1	M	73	ASN
1	M	82	LEU
1	M	85	MET
1	M	90	ILE
1	M	91	PRO
1	M	92	SER
1	M	93	MET
1	M	94	ASP
1	M	96	SER
1	M	97	LYS
1	M	101	ASN
1	M	105	LEU
1	M	113	LEU
1	M	126	GLN

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Mol	Chain	Res	Type
1	M	129	GLU
1	M	131	LEU
1	M	132	ARG
1	M	136	SER
1	M	143	ILE
1	M	146	THR
1	M	155	LEU
1	M	163	GLU
1	M	167	VAL
1	M	175	VAL
1	M	176	LYS
1	M	177	LEU
1	M	183	SER
1	M	184	ASN
1	M	185	ILE
1	M	192	ASP
1	M	199	LYS
1	M	201	THR
1	M	203	VAL
1	M	205	GLU
2	N	17	SER
2	N	28	VAL
2	N	36	VAL
2	N	40	THR
2	N	51	THR
2	N	53	THR
2	N	57	THR
2	N	60	ARG
2	N	72	SER
2	N	80	SER
2	N	90	THR
2	N	94	VAL
2	N	96	ASN
2	N	98	ARG
2	N	107	LEU
2	N	110	THR
2	N	120	ILE
2	N	121	LYS
2	N	136	ASN
2	N	138	ASN
2	N	140	ASP
2	N	158	THR

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Mol	Chain	Res	Type
2	N	163	VAL
2	N	168	VAL
2	N	170	VAL
2	N	172	LEU
2	N	174	ASP
2	N	178	SER
2	N	179	VAL
2	N	189	LYS
2	N	190	SER
2	N	193	LEU
2	N	201	THR
2	N	206	ASN
2	N	224	GLN
2	N	225	LEU
2	N	226	THR
2	N	227	ARG
2	N	228	ASN
2	N	236	ASN
2	N	253	THR
2	N	255	ASN
2	N	259	THR
2	N	267	ASN
2	N	270	SER
1	O	8	ARG
1	O	15	GLN
1	O	19	GLN
1	O	20	LEU
1	O	23	THR
1	O	27	GLU
1	O	28	ASN
1	O	32	LEU
1	O	41	ASP
1	O	43	VAL
1	O	47	ARG
1	O	49	ILE
1	O	55	PHE
1	O	58	LYS
1	O	63	ASN
1	O	71	THR
1	O	72	ASN
1	O	73	ASN
1	O	82	LEU

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Mol	Chain	Res	Type
1	O	85	MET
1	O	90	ILE
1	O	91	PRO
1	O	92	SER
1	O	93	MET
1	O	94	ASP
1	O	96	SER
1	O	97	LYS
1	O	101	ASN
1	O	105	LEU
1	O	113	LEU
1	O	126	GLN
1	O	129	GLU
1	O	131	LEU
1	O	132	ARG
1	O	143	ILE
1	O	144	ASN
1	O	146	THR
1	O	155	LEU
1	O	163	GLU
1	O	167	VAL
1	O	175	VAL
1	O	176	LYS
1	O	177	LEU
1	O	183	SER
1	O	184	ASN
1	O	185	ILE
1	O	192	ASP
1	O	199	LYS
1	O	201	THR
1	O	203	VAL
1	O	205	GLU
2	P	17	SER
2	P	28	VAL
2	P	36	VAL
2	P	40	THR
2	P	51	THR
2	P	53	THR
2	P	57	THR
2	P	60	ARG
2	P	72	SER
2	P	80	SER

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Mol	Chain	Res	Type
2	P	90	THR
2	P	94	VAL
2	P	96	ASN
2	P	98	ARG
2	P	107	LEU
2	P	110	THR
2	P	120	ILE
2	P	121	LYS
2	P	136	ASN
2	P	138	ASN
2	P	140	ASP
2	P	158	THR
2	P	163	VAL
2	P	168	VAL
2	P	170	VAL
2	P	172	LEU
2	P	174	ASP
2	P	178	SER
2	P	179	VAL
2	P	189	LYS
2	P	190	SER
2	P	193	LEU
2	P	201	THR
2	P	206	ASN
2	P	224	GLN
2	P	225	LEU
2	P	226	THR
2	P	227	ARG
2	P	228	ASN
2	P	236	ASN
2	P	253	THR
2	P	255	ASN
2	P	259	THR
2	P	267	ASN
2	P	270	SER

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (132) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	74	GLN
1	A	77	GLN
1	A	126	GLN

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Mol	Chain	Res	Type
1	A	156	ASN
1	A	184	ASN
2	B	33	ASN
2	B	41	GLN
2	B	59	GLN
2	B	96	ASN
2	B	136	ASN
2	B	138	ASN
2	B	211	ASN
2	B	236	ASN
2	B	267	ASN
2	B	279	GLN
1	C	15	GLN
1	C	74	GLN
1	C	77	GLN
1	C	126	GLN
1	C	156	ASN
1	C	184	ASN
2	D	33	ASN
2	D	41	GLN
2	D	59	GLN
2	D	96	ASN
2	D	136	ASN
2	D	138	ASN
2	D	211	ASN
2	D	267	ASN
2	D	279	GLN
1	E	15	GLN
1	E	74	GLN
1	E	77	GLN
1	E	126	GLN
1	E	156	ASN
1	E	184	ASN
2	F	33	ASN
2	F	41	GLN
2	F	59	GLN
2	F	96	ASN
2	F	136	ASN
2	F	138	ASN
2	F	211	ASN
2	F	267	ASN
2	F	279	GLN

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Mol	Chain	Res	Type
1	G	74	GLN
1	G	77	GLN
1	G	126	GLN
1	G	156	ASN
1	G	184	ASN
2	H	33	ASN
2	H	41	GLN
2	H	59	GLN
2	H	96	ASN
2	H	136	ASN
2	H	138	ASN
2	H	211	ASN
2	H	236	ASN
2	H	267	ASN
2	H	279	GLN
1	I	24	ASN
1	I	34	GLN
1	I	63	ASN
1	I	77	GLN
1	I	101	ASN
1	I	126	GLN
1	I	144	ASN
2	J	19	ASN
2	J	41	GLN
2	J	96	ASN
2	J	136	ASN
2	J	138	ASN
2	J	143	GLN
2	J	206	ASN
2	J	211	ASN
2	J	228	ASN
2	J	267	ASN
2	J	279	GLN
1	K	24	ASN
1	K	63	ASN
1	K	101	ASN
1	K	126	GLN
1	K	144	ASN
2	L	19	ASN
2	L	41	GLN
2	L	70	ASN
2	L	96	ASN

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Mol	Chain	Res	Type
2	L	136	ASN
2	L	138	ASN
2	L	143	GLN
2	L	147	ASN
2	L	206	ASN
2	L	211	ASN
2	L	219	GLN
2	L	228	ASN
2	L	267	ASN
2	L	279	GLN
1	M	24	ASN
1	M	63	ASN
1	M	101	ASN
1	M	126	GLN
1	M	144	ASN
2	N	19	ASN
2	N	41	GLN
2	N	96	ASN
2	N	136	ASN
2	N	138	ASN
2	N	143	GLN
2	N	206	ASN
2	N	211	ASN
2	N	228	ASN
2	N	267	ASN
2	N	279	GLN
1	O	24	ASN
1	O	63	ASN
1	O	101	ASN
1	O	126	GLN
1	O	144	ASN
2	P	19	ASN
2	P	41	GLN
2	P	70	ASN
2	P	96	ASN
2	P	136	ASN
2	P	138	ASN
2	P	143	GLN
2	P	147	ASN
2	P	206	ASN
2	P	211	ASN
2	P	219	GLN

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Mol	Chain	Res	Type
2	P	228	ASN
2	P	267	ASN
2	P	279	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	I	5
1	M	5
1	K	5
1	O	5
2	J	2
2	N	2
2	L	2
2	P	2
2	B	2

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Mol	Chain	Number of breaks
2	H	2
2	D	2
2	F	2

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	J	173:PRO	C	174:ASP	N	2.75
1	N	173:PRO	C	174:ASP	N	2.75
1	I	74:GLN	C	75:LEU	N	2.13
1	M	74:GLN	C	75:LEU	N	2.13
1	K	74:GLN	C	75:LEU	N	2.05
1	O	74:GLN	C	75:LEU	N	2.05
1	L	167:ASP	C	168:VAL	N	1.77
1	P	167:ASP	C	168:VAL	N	1.77
1	J	167:ASP	C	168:VAL	N	1.71
1	N	167:ASP	C	168:VAL	N	1.71
1	I	139:SER	C	140:LEU	N	1.15
1	M	139:SER	C	140:LEU	N	1.15
1	K	139:SER	C	140:LEU	N	1.14
1	O	139:SER	C	140:LEU	N	1.14
1	L	165:ALA	C	166:ARG	N	1.13
1	P	165:ALA	C	166:ARG	N	1.13
1	B	175:TYR	C	176:PRO	N	1.10
1	H	175:TYR	C	176:PRO	N	1.10
1	D	175:TYR	C	176:PRO	N	1.09
1	F	175:TYR	C	176:PRO	N	1.09
1	K	185:ILE	C	186:THR	N	1.09
1	O	185:ILE	C	186:THR	N	1.09
1	I	185:ILE	C	186:THR	N	1.08
1	M	185:ILE	C	186:THR	N	1.08
1	B	173:PRO	C	174:ASP	N	0.91
1	H	173:PRO	C	174:ASP	N	0.91
1	D	173:PRO	C	174:ASP	N	0.90
1	F	173:PRO	C	174:ASP	N	0.90
1	I	161:VAL	C	162:LEU	N	0.87
1	M	161:VAL	C	162:LEU	N	0.87
1	K	161:VAL	C	162:LEU	N	0.71
1	O	161:VAL	C	162:LEU	N	0.71
1	I	135:ARG	C	136:SER	N	0.63
1	M	135:ARG	C	136:SER	N	0.63
1	K	135:ARG	C	136:SER	N	0.58
1	O	135:ARG	C	136:SER	N	0.58

6 Fit of model and data

6.1 Protein, DNA and RNA chains

EDS was not executed - this section is therefore empty.

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

EDS was not executed - this section is therefore empty.

6.3 Carbohydrates

EDS was not executed - this section is therefore empty.

6.4 Ligands

EDS was not executed - this section is therefore empty.

6.5 Other polymers

EDS was not executed - this section is therefore empty.