



Full wwPDB EM Validation Report ⓘ

Mar 5, 2026 – 09:50 PM UTC

PDB ID : 5A9E / pdb_00005a9e
EMDB ID : EMD-3101
Title : Cryo-electron tomography and subtomogram averaging of Rous-Sarcoma-Virus deltaMBD virus-like particles
Authors : Schur, F.K.M.; Dick, R.A.; Hagen, W.J.H.; Vogt, V.M.; Briggs, J.A.G.
Deposited on : 2015-07-21
Resolution : 7.70 Å(reported)

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

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

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

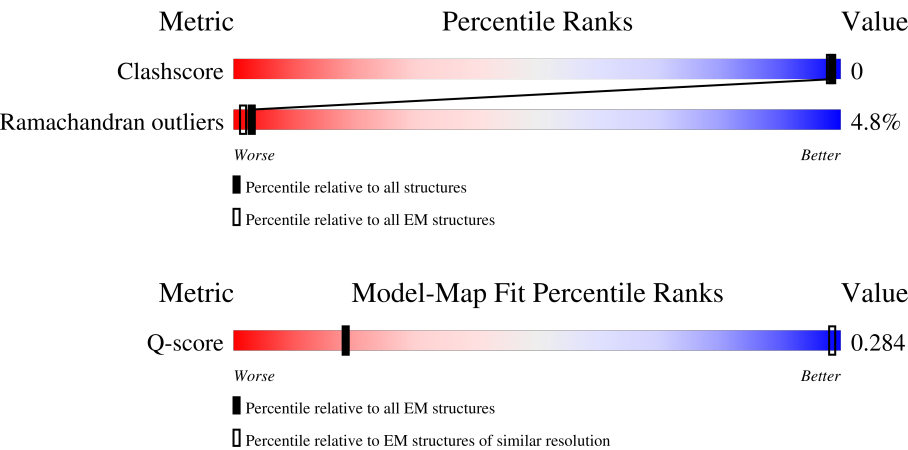
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

1 Overall quality at a glance i

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

The reported resolution of this entry is 7.70 Å.

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



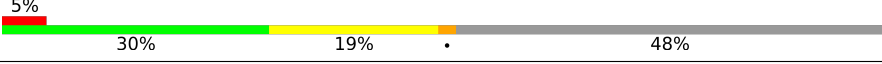
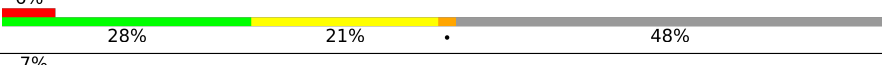
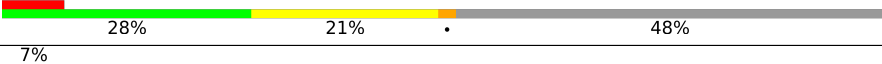
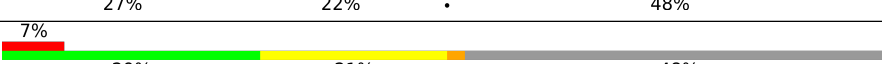
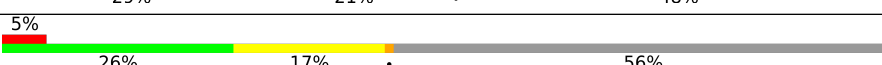
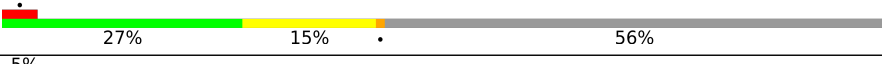
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Q-score	-	25397	384 (7.20 - 8.20)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	495	5% 28% 21% • 48%
1	B	495	5% 29% 19% • 48%
1	C	495	5% 26% 23% • 48%
1	D	495	5% 28% 22% • 48%
1	E	495	6% 28% 21% •• 48%

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Mol	Chain	Length	Quality of chain
1	F	495	
1	G	495	
1	H	495	
1	I	495	
1	J	495	
1	K	495	
1	L	495	
1	M	495	
1	N	495	
1	O	495	
1	P	495	
1	Q	495	
1	R	495	

2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 17406 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called DELTAMBD GAG PROTEIN.

Mol	Chain	Residues	Atoms				AltConf	Trace
1	A	255	Total	C	N	O	0	0
			1019	510	255	254		
1	B	255	Total	C	N	O	0	0
			1019	510	255	254		
1	C	255	Total	C	N	O	0	0
			1019	510	255	254		
1	D	255	Total	C	N	O	0	0
			1019	510	255	254		
1	E	255	Total	C	N	O	0	0
			1019	510	255	254		
1	F	255	Total	C	N	O	0	0
			1019	510	255	254		
1	G	255	Total	C	N	O	0	0
			1019	510	255	254		
1	H	255	Total	C	N	O	0	0
			1019	510	255	254		
1	I	255	Total	C	N	O	0	0
			1019	510	255	254		
1	J	255	Total	C	N	O	0	0
			1019	510	255	254		
1	K	255	Total	C	N	O	0	0
			1019	510	255	254		
1	L	255	Total	C	N	O	0	0
			1019	510	255	254		
1	M	216	Total	C	N	O	0	0
			863	432	216	215		
1	N	216	Total	C	N	O	0	0
			863	432	216	215		
1	O	216	Total	C	N	O	0	0
			863	432	216	215		
1	P	216	Total	C	N	O	0	0
			863	432	216	215		
1	Q	216	Total	C	N	O	0	0
			863	432	216	215		

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Mol	Chain	Residues	Atoms				AltConf	Trace
1	R	216	Total 863	C 432	N 216	O 215	0	0

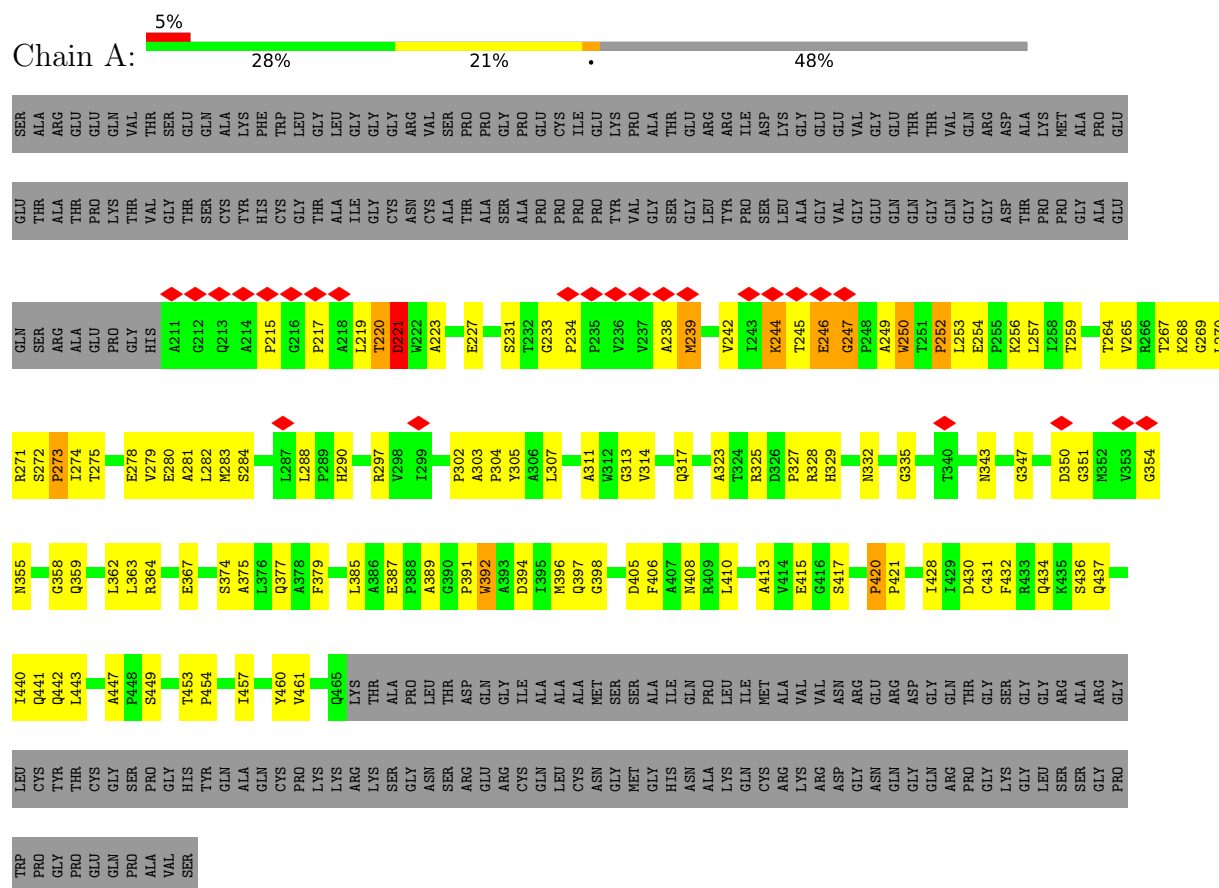
There are 36 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	83	SER	-	expression tag	UNP P03322
A	573	GLN	PRO	conflict	UNP P03322
B	83	SER	-	expression tag	UNP P03322
B	573	GLN	PRO	conflict	UNP P03322
C	83	SER	-	expression tag	UNP P03322
C	573	GLN	PRO	conflict	UNP P03322
D	83	SER	-	expression tag	UNP P03322
D	573	GLN	PRO	conflict	UNP P03322
E	83	SER	-	expression tag	UNP P03322
E	573	GLN	PRO	conflict	UNP P03322
F	83	SER	-	expression tag	UNP P03322
F	573	GLN	PRO	conflict	UNP P03322
G	83	SER	-	expression tag	UNP P03322
G	573	GLN	PRO	conflict	UNP P03322
H	83	SER	-	expression tag	UNP P03322
H	573	GLN	PRO	conflict	UNP P03322
I	83	SER	-	expression tag	UNP P03322
I	573	GLN	PRO	conflict	UNP P03322
J	83	SER	-	expression tag	UNP P03322
J	573	GLN	PRO	conflict	UNP P03322
K	83	SER	-	expression tag	UNP P03322
K	573	GLN	PRO	conflict	UNP P03322
L	83	SER	-	expression tag	UNP P03322
L	573	GLN	PRO	conflict	UNP P03322
M	83	SER	-	expression tag	UNP P03322
M	573	GLN	PRO	conflict	UNP P03322
N	83	SER	-	expression tag	UNP P03322
N	573	GLN	PRO	conflict	UNP P03322
O	83	SER	-	expression tag	UNP P03322
O	573	GLN	PRO	conflict	UNP P03322
P	83	SER	-	expression tag	UNP P03322
P	573	GLN	PRO	conflict	UNP P03322
Q	83	SER	-	expression tag	UNP P03322
Q	573	GLN	PRO	conflict	UNP P03322
R	83	SER	-	expression tag	UNP P03322
R	573	GLN	PRO	conflict	UNP P03322

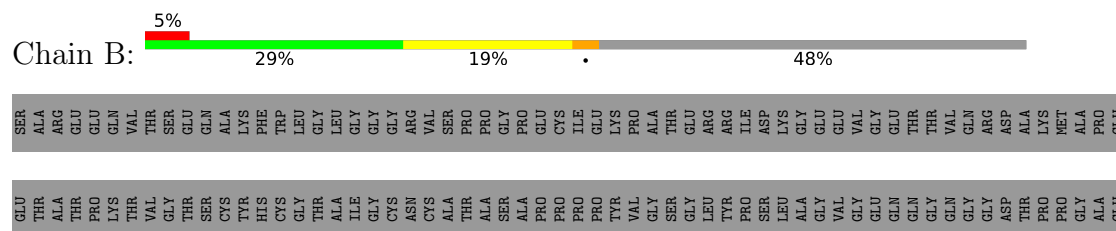
3 Residue-property plots

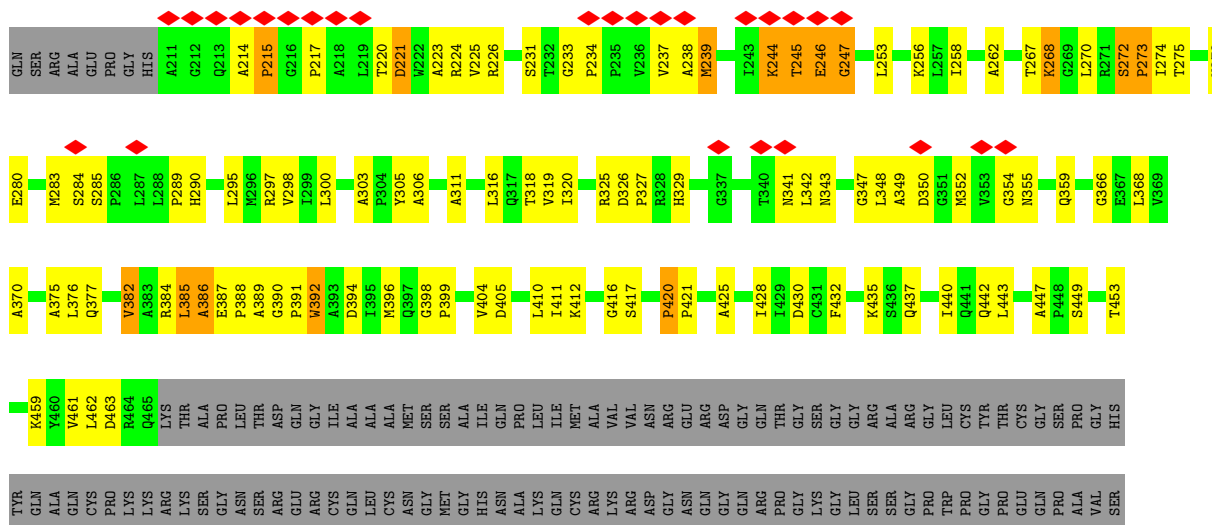
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion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

• Molecule 1: DELTAMBD GAG PROTEIN

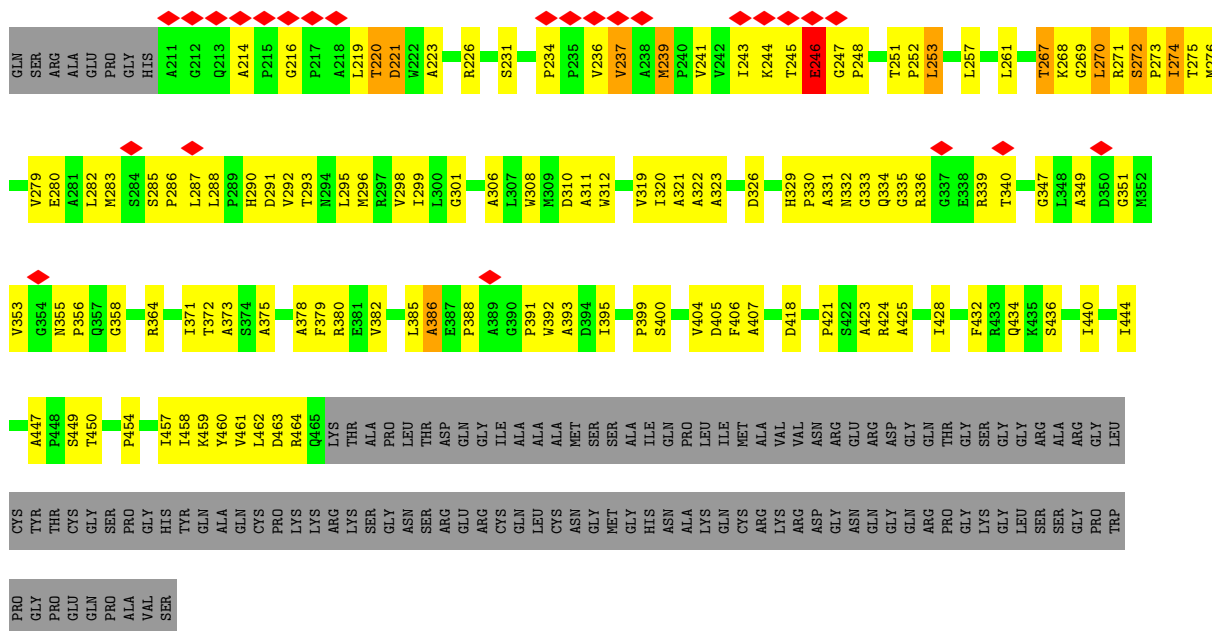
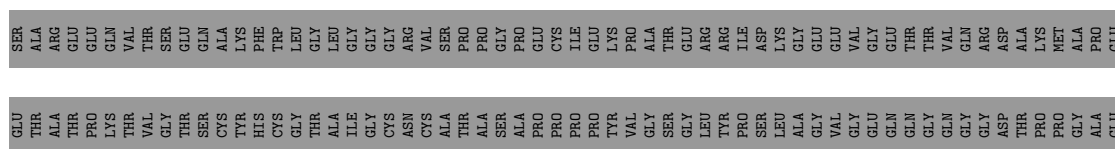
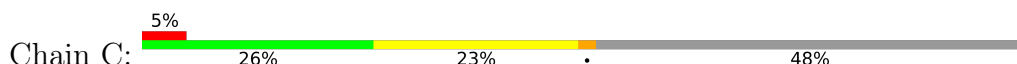


• Molecule 1: DELTAMBD GAG PROTEIN

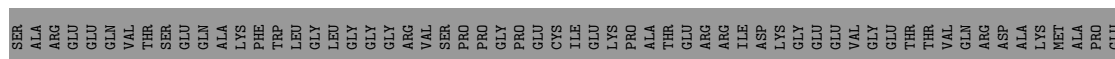
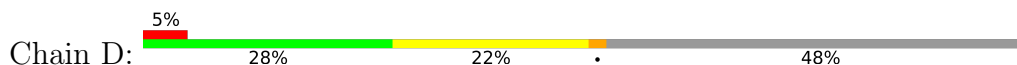


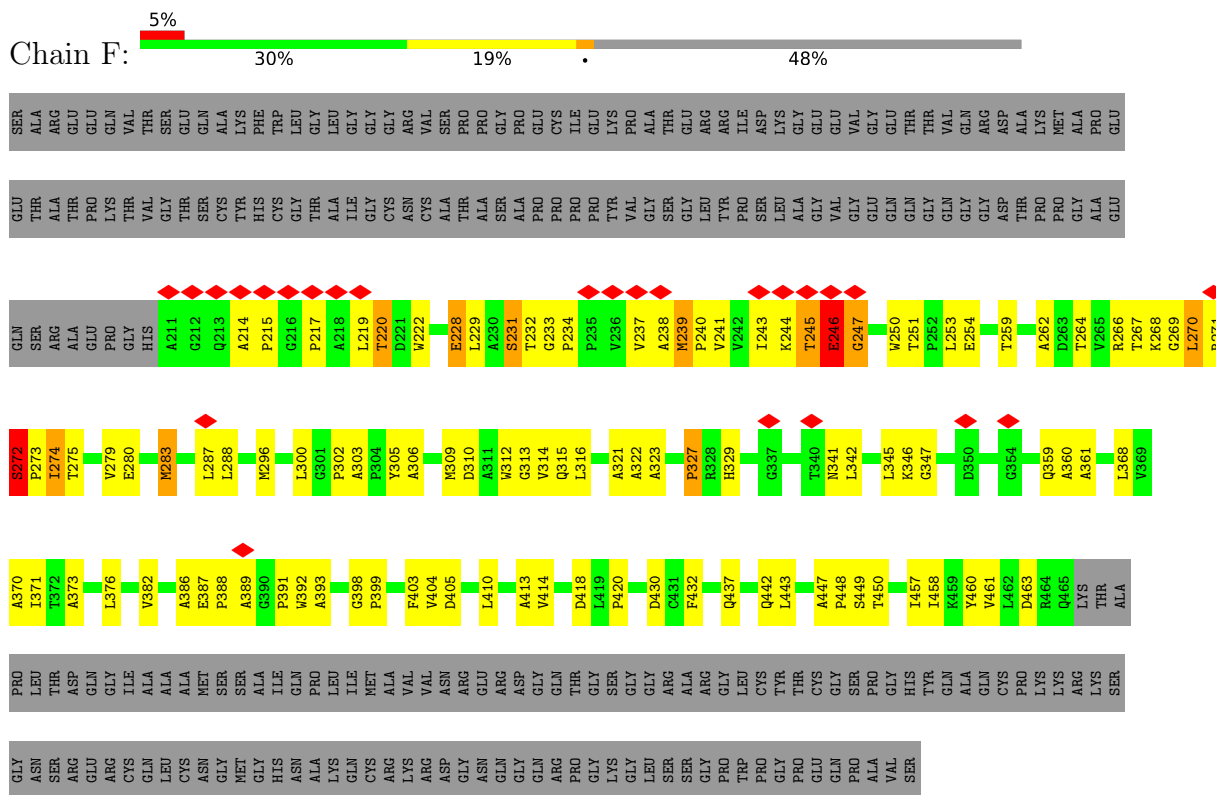


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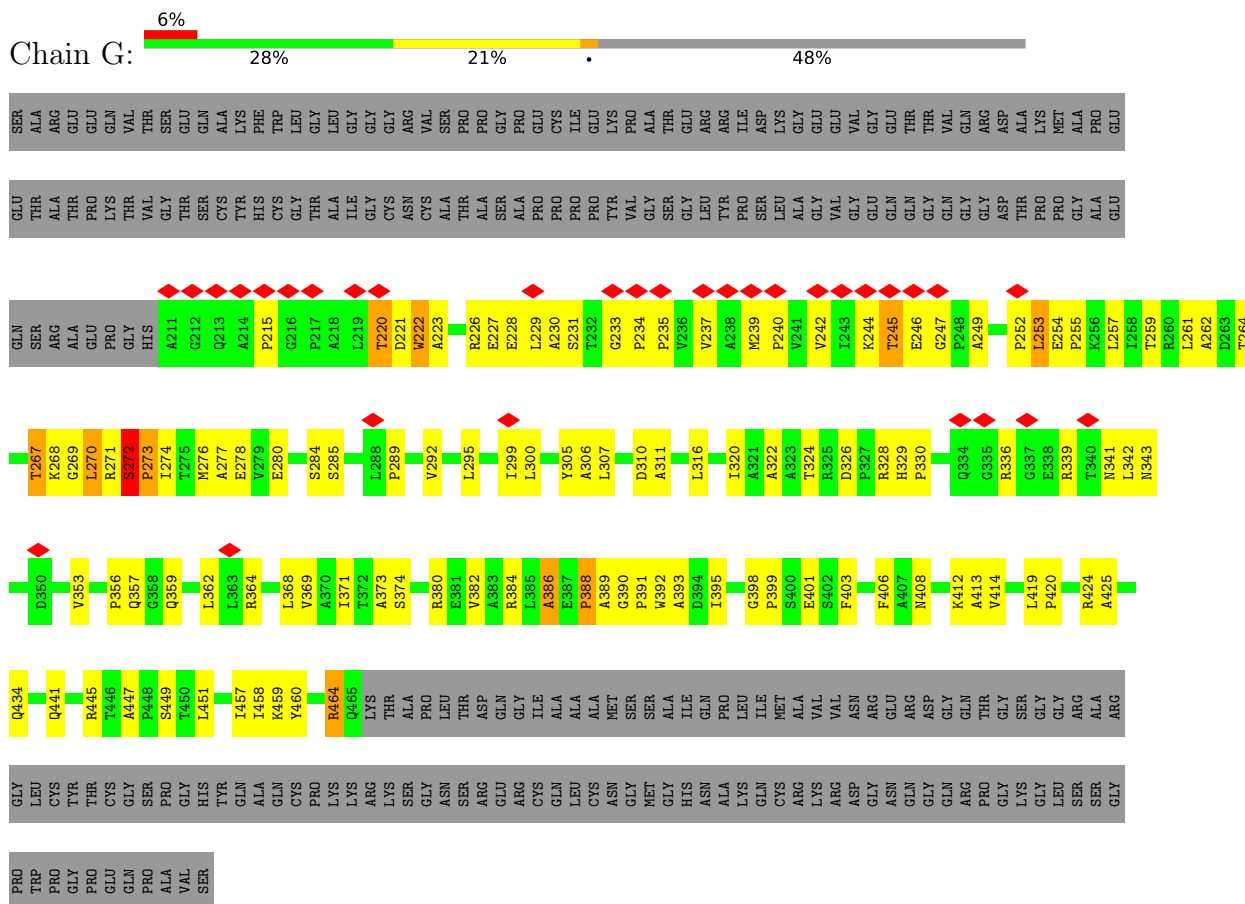


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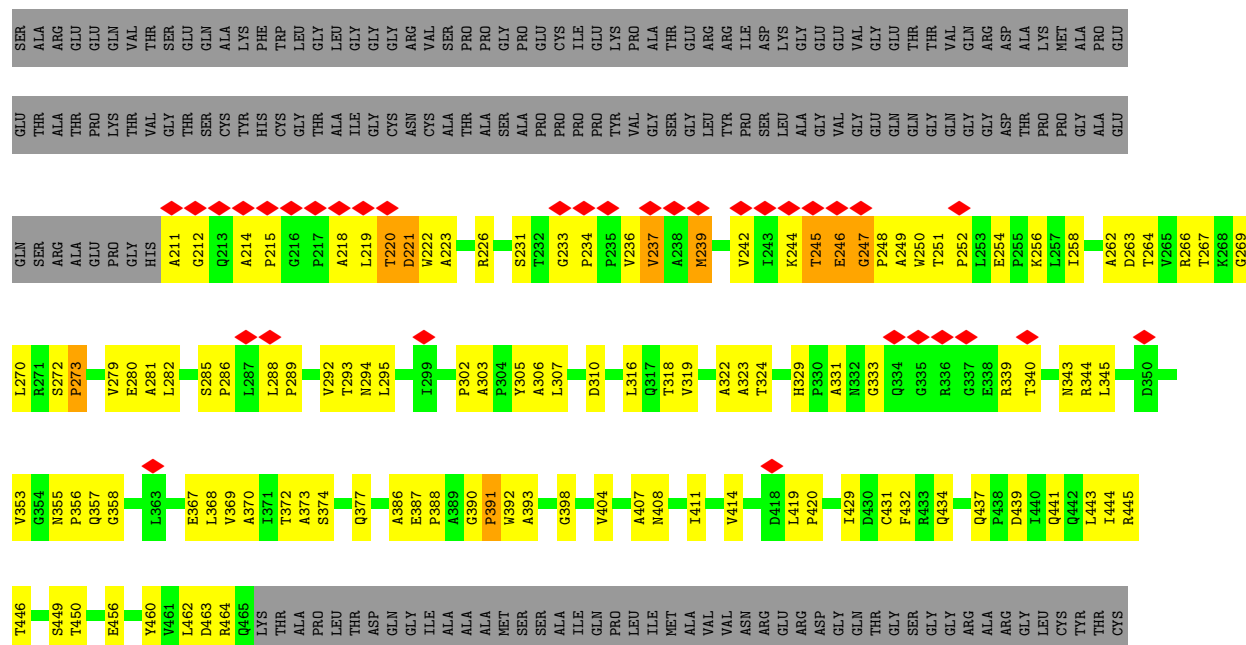
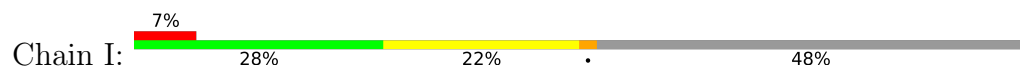




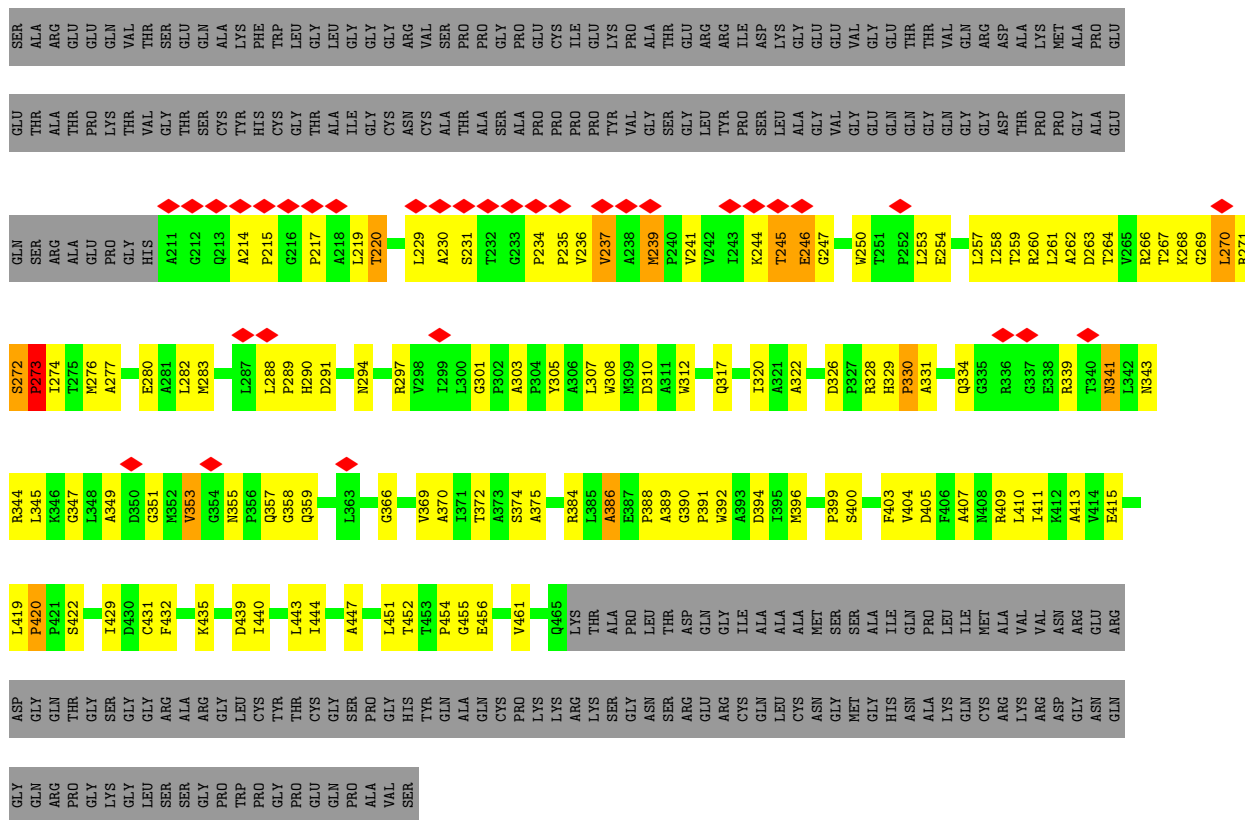
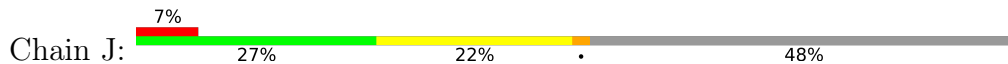
- Molecule 1: DELTAMBD GAG PROTEIN



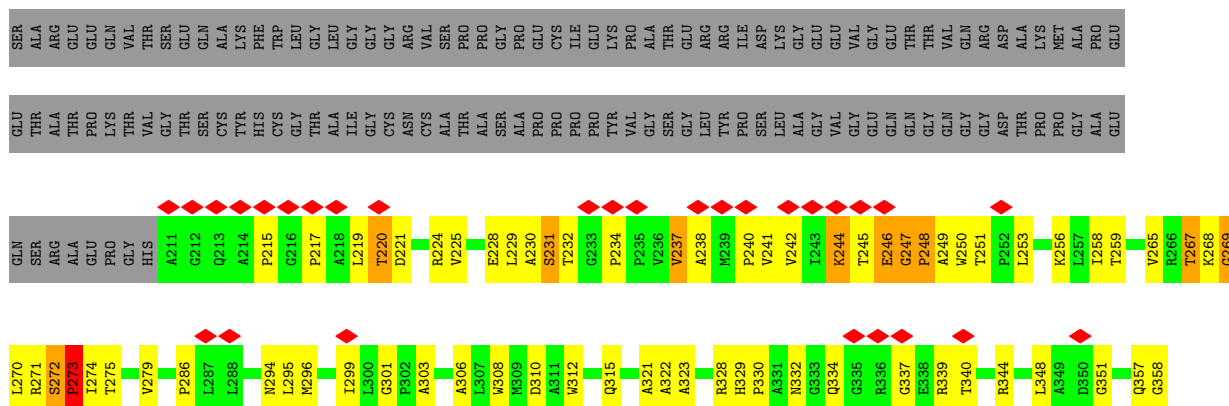
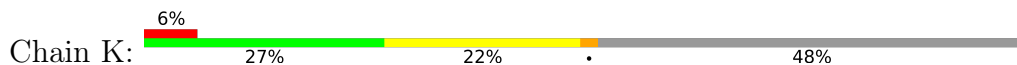
Chain H: 7% 28% 21% 48%

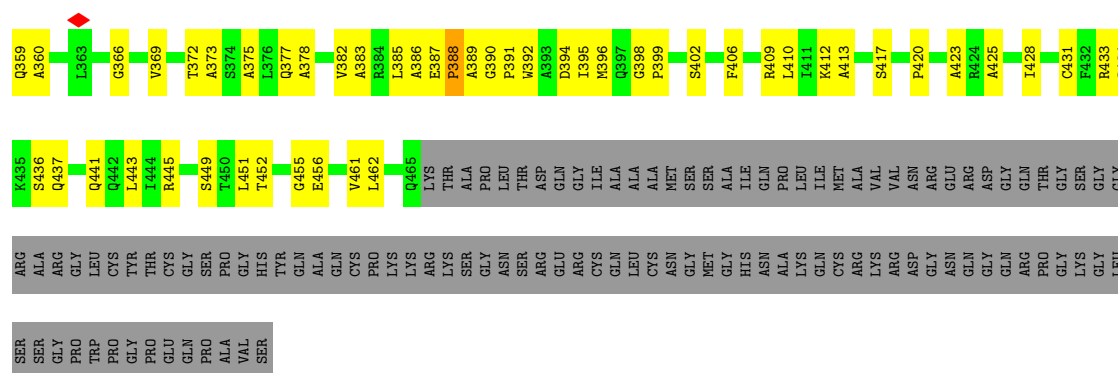


- Molecule 1: DELTAMBD GAG PROTEIN

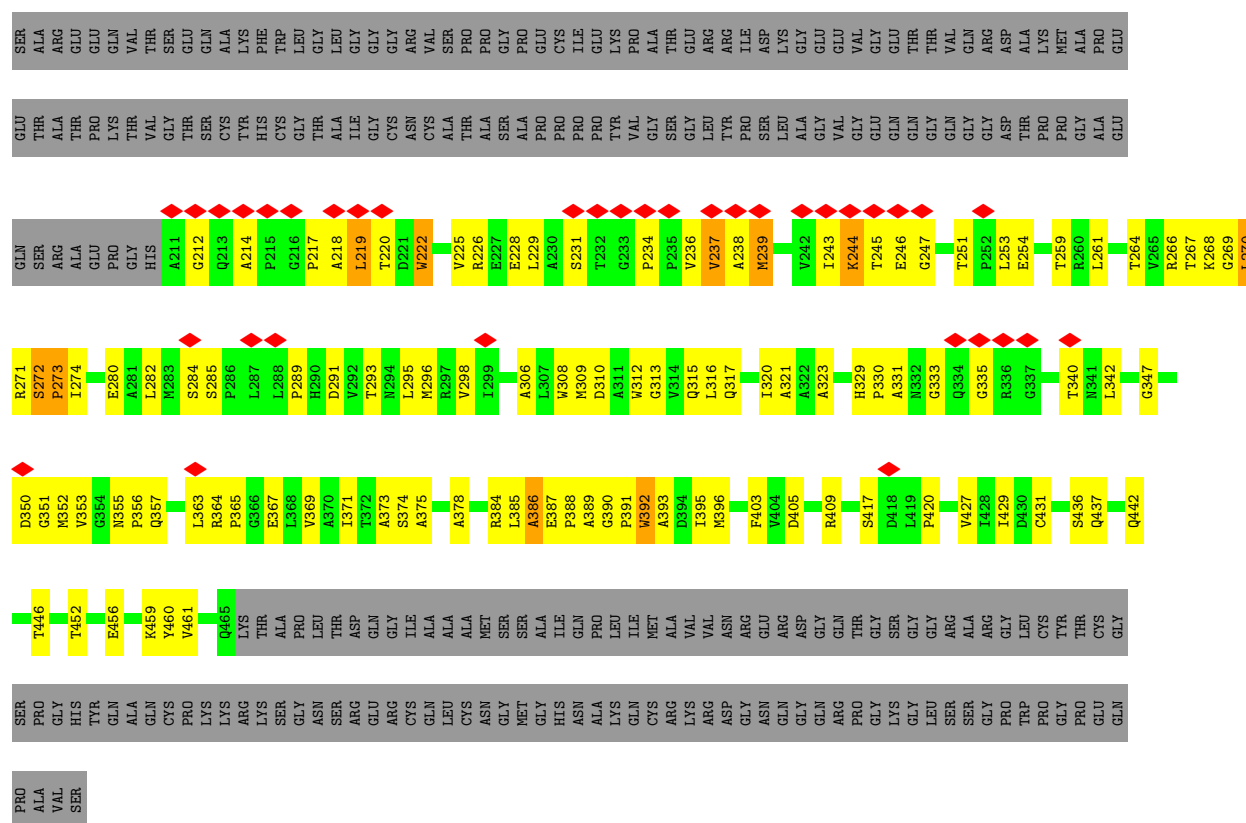
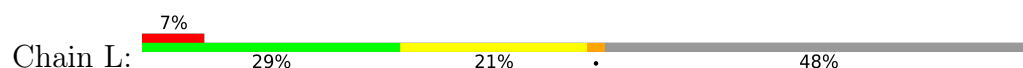


- Molecule 1: DELTAMBD GAG PROTEIN

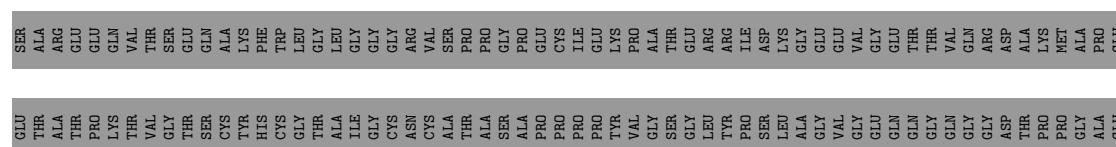




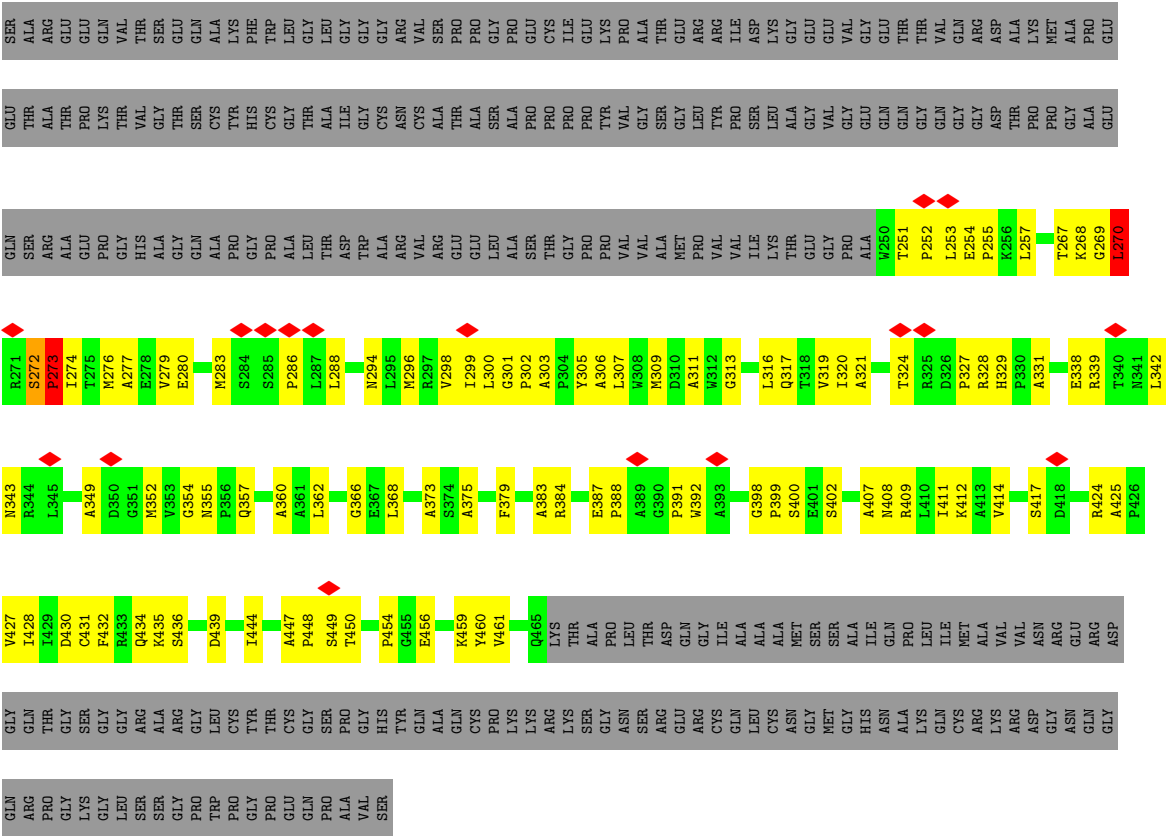
• Molecule 1: DELTAMBD GAG PROTEIN



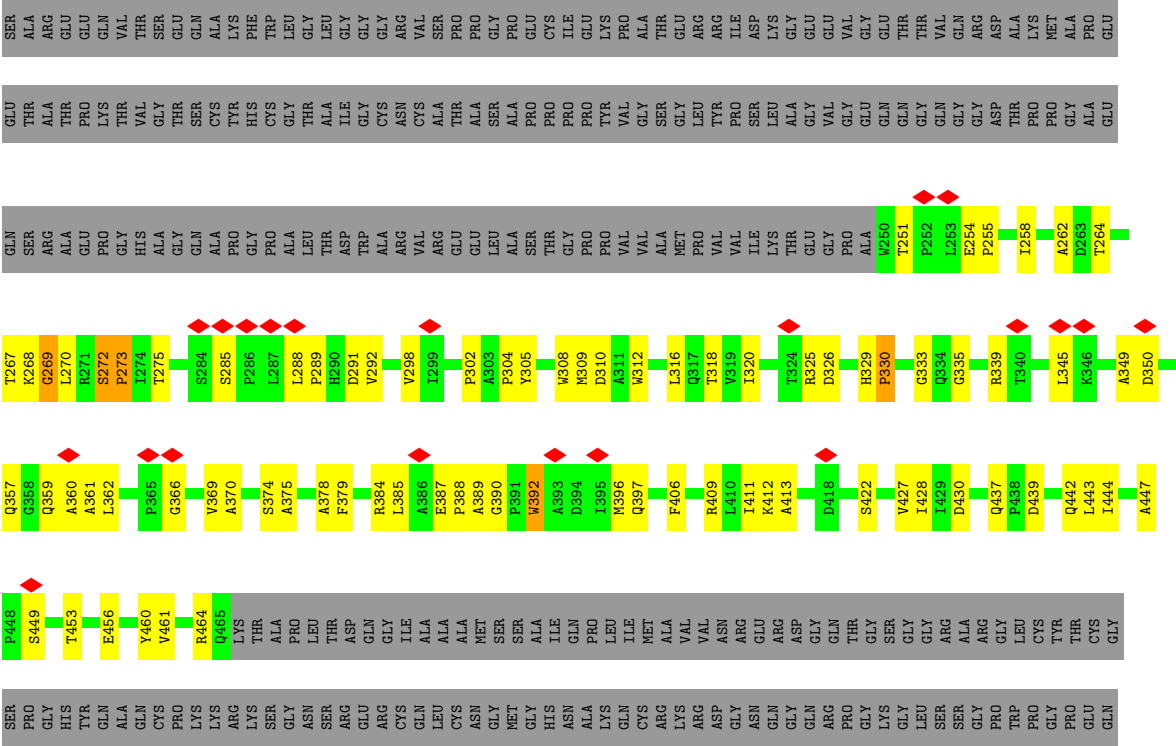
• Molecule 1: DELTAMBD GAG PROTEIN



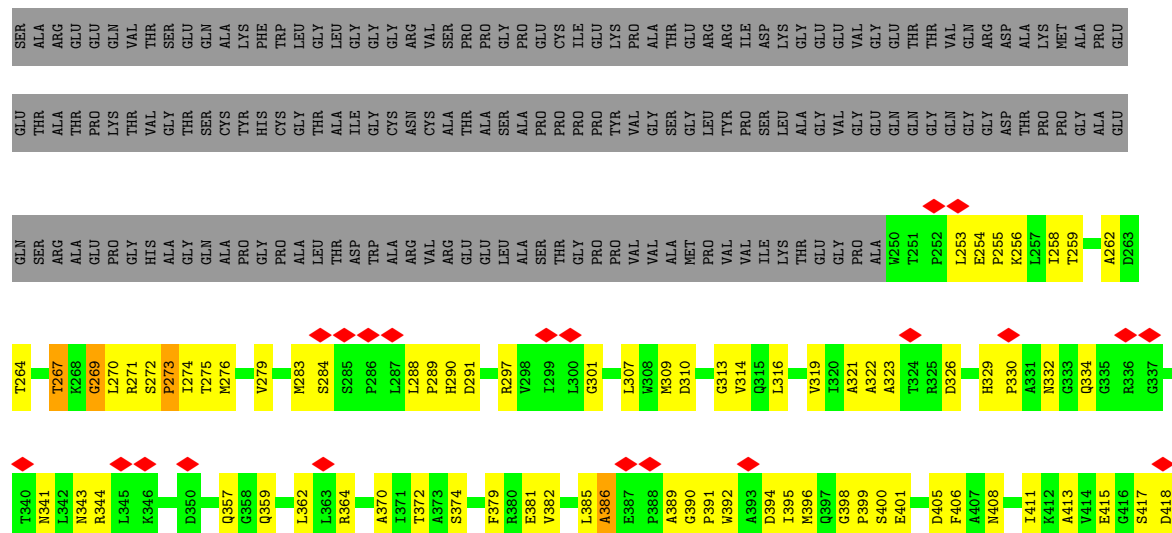


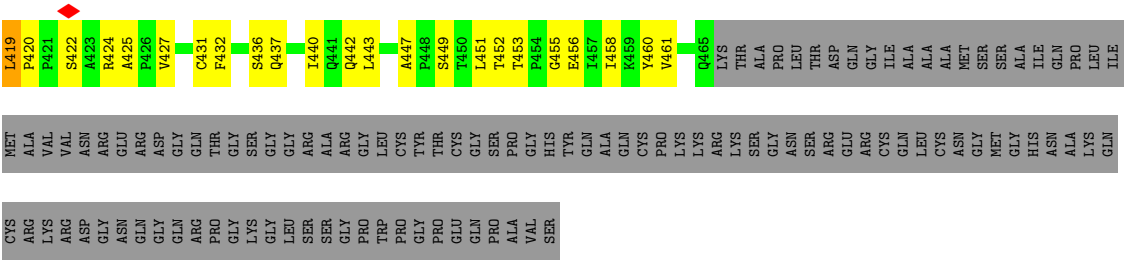


• Molecule 1: DELTAMBD GAG PROTEIN



Chain Q:





4 Experimental information

Property	Value	Source
EM reconstruction method	TOMOGRAPHY	Depositor
Imposed symmetry	POINT, C6	Depositor
Number of tilted images used	8375	Depositor
Resolution determination method	Not provided	
CTF correction method	PHASE-FLIPPING OF INDIVIDUAL MICROGRAPHS	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/\text{\AA}^2$)	34	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	5000	Depositor
Magnification	81000	Depositor
Image detector	GATAN MULTISCAN	Depositor
Maximum voxel value	8.247	Depositor
Minimum voxel value	-6.577	Depositor
Average voxel value	-0.000	Depositor
Voxel value standard deviation	0.761	Depositor
Recommended contour level	2	Depositor
Tomogram size ($\text{\AA}$)	248.4, 248.4, 248.4	wwPDB
Tomogram dimensions	120, 120, 120	wwPDB
Tomogram angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Grid spacing ($\text{\AA}$)	2.07, 2.07, 2.07	Depositor

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	2.33	31/1018 (3.0%)	3.00	126/1271 (9.9%)
1	B	2.28	38/1018 (3.7%)	2.86	107/1271 (8.4%)
1	C	2.39	49/1018 (4.8%)	2.94	128/1271 (10.1%)
1	D	2.42	43/1018 (4.2%)	2.99	117/1271 (9.2%)
1	E	2.42	51/1018 (5.0%)	2.95	127/1271 (10.0%)
1	F	2.44	45/1018 (4.4%)	3.02	108/1271 (8.5%)
1	G	2.40	38/1018 (3.7%)	3.08	118/1271 (9.3%)
1	H	2.55	55/1018 (5.4%)	2.94	102/1271 (8.0%)
1	I	2.42	47/1018 (4.6%)	2.98	119/1271 (9.4%)
1	J	2.48	45/1018 (4.4%)	3.03	123/1271 (9.7%)
1	K	2.42	43/1018 (4.2%)	2.98	125/1271 (9.8%)
1	L	2.44	48/1018 (4.7%)	2.93	94/1271 (7.4%)
1	M	2.42	31/862 (3.6%)	2.96	96/1076 (8.9%)
1	N	2.28	30/862 (3.5%)	2.98	98/1076 (9.1%)
1	O	2.45	30/862 (3.5%)	3.05	108/1076 (10.0%)
1	P	2.32	29/862 (3.4%)	2.91	98/1076 (9.1%)
1	Q	2.45	39/862 (4.5%)	3.00	101/1076 (9.4%)
1	R	2.42	37/862 (4.3%)	2.97	108/1076 (10.0%)
All	All	2.41	729/17388 (4.2%)	2.98	2003/21708 (9.2%)

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	11
1	B	0	10
1	C	0	10
1	D	0	9
1	E	0	12
1	F	0	11
1	G	0	13

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Mol	Chain	#Chirality outliers	#Planarity outliers
1	H	0	11
1	I	0	9
1	J	0	13
1	K	0	11
1	L	0	11
1	M	0	3
1	N	0	4
1	O	0	5
1	P	0	4
1	Q	0	6
1	R	0	5
All	All	0	158

All (729) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	333	GLY	N-CA	11.92	1.55	1.44
1	F	420	PRO	CA-C	-11.36	1.45	1.51
1	R	271	ARG	CA-C	11.25	1.58	1.52
1	D	397	GLN	CA-C	-11.14	1.38	1.52
1	H	252	PRO	CA-C	10.92	1.64	1.52
1	H	274	ILE	N-CA	-10.70	1.36	1.46
1	F	359	GLN	CA-C	10.63	1.66	1.52
1	J	326	ASP	C-N	-10.61	1.22	1.34
1	E	420	PRO	CA-C	-9.71	1.43	1.52
1	J	429	ILE	N-CA	-9.47	1.35	1.46
1	D	333	GLY	CA-C	-9.39	1.43	1.52
1	K	303	ALA	N-CA	-9.25	1.39	1.46
1	D	344	ARG	CA-C	-9.24	1.41	1.52
1	H	419	LEU	CA-C	-9.22	1.42	1.53
1	H	447	ALA	CA-C	9.12	1.63	1.52
1	D	214	ALA	CA-C	9.09	1.61	1.52
1	K	382	VAL	CA-C	-9.05	1.42	1.53
1	I	242	VAL	CA-C	-9.00	1.42	1.52
1	G	420	PRO	CA-C	8.97	1.60	1.52
1	R	447	ALA	CA-C	8.96	1.62	1.53
1	J	452	THR	N-CA	8.94	1.57	1.45
1	R	344	ARG	CA-C	-8.93	1.41	1.52
1	K	389	ALA	N-CA	-8.90	1.35	1.46
1	D	343	ASN	N-CA	-8.77	1.35	1.46
1	K	286	PRO	CA-C	8.71	1.62	1.52
1	M	422	SER	CA-C	-8.71	1.40	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	H	445	ARG	CA-C	-8.69	1.40	1.52
1	R	437	GLN	C-N	8.69	1.46	1.33
1	D	420	PRO	CA-C	-8.54	1.47	1.51
1	E	355	ASN	CA-C	-8.48	1.42	1.52
1	K	433	ARG	N-CA	-8.42	1.35	1.46
1	O	296	MET	CA-C	-8.34	1.42	1.52
1	M	355	ASN	N-CA	-8.26	1.34	1.46
1	O	362	LEU	N-CA	-8.25	1.35	1.46
1	H	315	GLN	CA-C	-8.14	1.42	1.52
1	P	362	LEU	CA-C	-8.12	1.42	1.52
1	A	440	ILE	CA-C	-8.11	1.42	1.52
1	O	313	GLY	C-N	8.09	1.44	1.33
1	K	230	ALA	N-CA	8.04	1.55	1.46
1	D	313	GLY	CA-C	-8.03	1.43	1.52
1	H	395	ILE	CA-C	-8.01	1.45	1.53
1	R	326	ASP	N-CA	-7.99	1.36	1.46
1	D	432	PHE	N-CA	-7.97	1.36	1.46
1	I	358	GLY	CA-C	-7.95	1.43	1.52
1	L	405	ASP	CA-C	-7.95	1.42	1.52
1	O	366	GLY	CA-C	-7.93	1.43	1.52
1	K	329	HIS	CA-C	7.92	1.62	1.52
1	I	305	TYR	N-CA	-7.88	1.36	1.46
1	E	251	THR	CA-C	-7.88	1.46	1.52
1	G	460	TYR	C-N	-7.88	1.24	1.33
1	J	303	ALA	N-CA	-7.88	1.40	1.46
1	B	453	THR	CA-C	-7.83	1.44	1.52
1	K	369	VAL	CA-C	-7.83	1.42	1.52
1	G	326	ASP	C-N	-7.81	1.25	1.34
1	O	294	ASN	CA-C	-7.74	1.42	1.52
1	H	343	ASN	CA-C	-7.73	1.42	1.52
1	G	458	ILE	CA-C	-7.71	1.43	1.52
1	J	454	PRO	N-CA	-7.68	1.37	1.47
1	M	408	ASN	CA-C	-7.67	1.43	1.52
1	G	289	PRO	C-N	7.63	1.44	1.33
1	Q	297	ARG	CA-C	-7.63	1.42	1.52
1	C	236	VAL	CA-C	-7.62	1.43	1.52
1	E	235	PRO	CA-C	-7.62	1.45	1.52
1	M	277	ALA	N-CA	-7.54	1.37	1.46
1	E	245	THR	N-CA	-7.52	1.36	1.46
1	E	270	LEU	N-CA	-7.50	1.39	1.46
1	A	396	MET	N-CA	-7.49	1.36	1.46
1	H	238	ALA	CA-C	7.48	1.62	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	J	349	ALA	CA-C	-7.48	1.43	1.53
1	I	339	ARG	N-CA	-7.47	1.37	1.45
1	I	372	THR	CA-C	-7.45	1.43	1.52
1	K	340	THR	C-N	7.44	1.44	1.33
1	L	237	VAL	N-CA	-7.42	1.37	1.46
1	E	375	ALA	N-CA	-7.41	1.37	1.46
1	M	303	ALA	CA-C	7.36	1.60	1.52
1	J	263	ASP	CA-C	-7.34	1.43	1.52
1	H	418	ASP	CA-C	7.34	1.62	1.52
1	Q	258	ILE	CA-C	-7.33	1.42	1.52
1	B	366	GLY	CA-C	-7.33	1.43	1.52
1	E	424	ARG	CA-C	-7.33	1.43	1.52
1	E	231	SER	CA-C	7.31	1.62	1.52
1	J	229	LEU	C-N	7.29	1.42	1.33
1	F	237	VAL	N-CA	7.26	1.54	1.46
1	B	226	ARG	CA-C	-7.26	1.43	1.52
1	J	370	ALA	CA-C	-7.25	1.43	1.52
1	C	375	ALA	N-CA	-7.22	1.37	1.46
1	F	403	PHE	N-CA	-7.21	1.37	1.46
1	I	233	GLY	C-N	-7.20	1.24	1.33
1	F	420	PRO	C-O	7.19	1.31	1.25
1	L	310	ASP	N-CA	-7.17	1.38	1.46
1	B	396	MET	C-N	7.16	1.43	1.33
1	J	277	ALA	N-CA	-7.16	1.37	1.46
1	E	456	GLU	CA-C	-7.13	1.43	1.52
1	N	434	GLN	N-CA	7.13	1.55	1.46
1	D	326	ASP	N-CA	-7.12	1.38	1.46
1	C	292	VAL	CA-C	-7.11	1.44	1.52
1	B	238	ALA	C-O	-7.08	1.15	1.24
1	I	393	ALA	N-CA	-7.06	1.36	1.46
1	C	373	ALA	CA-C	-7.06	1.43	1.52
1	J	262	ALA	CA-C	-7.05	1.43	1.52
1	C	276	MET	CA-C	-7.03	1.43	1.52
1	H	329	HIS	CA-C	7.02	1.61	1.52
1	A	343	ASN	CA-C	-7.01	1.43	1.52
1	R	319	VAL	CA-C	-6.99	1.43	1.52
1	M	312	TRP	CA-C	-6.99	1.43	1.52
1	L	365	PRO	CA-C	-6.99	1.42	1.52
1	L	284	SER	N-CA	-6.98	1.37	1.46
1	D	394	ASP	CA-C	-6.98	1.43	1.52
1	L	364	ARG	CA-C	6.98	1.63	1.53
1	G	445	ARG	N-CA	-6.96	1.37	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	I	215	PRO	C-N	6.96	1.43	1.33
1	I	434	GLN	N-CA	-6.95	1.36	1.45
1	P	447	ALA	N-CA	6.95	1.54	1.45
1	Q	463	ASP	CA-C	6.95	1.62	1.52
1	H	244	LYS	N-CA	6.94	1.55	1.46
1	R	256	LYS	N-CA	-6.94	1.38	1.46
1	Q	456	GLU	N-CA	-6.93	1.38	1.46
1	J	410	LEU	CA-C	-6.93	1.43	1.52
1	P	439	ASP	N-CA	-6.93	1.37	1.46
1	D	428	ILE	CA-C	-6.91	1.44	1.52
1	F	447	ALA	CA-C	6.91	1.60	1.53
1	H	370	ALA	C-N	6.91	1.43	1.33
1	G	441	GLN	CA-C	-6.88	1.43	1.52
1	C	247	GLY	C-N	-6.87	1.25	1.33
1	E	257	LEU	CA-C	-6.86	1.43	1.52
1	P	437	GLN	CA-C	6.82	1.60	1.53
1	Q	333	GLY	CA-C	-6.82	1.42	1.51
1	G	295	LEU	C-O	-6.81	1.16	1.24
1	H	387	GLU	CA-C	-6.81	1.44	1.52
1	Q	338	GLU	N-CA	-6.81	1.38	1.46
1	F	283	MET	CA-C	-6.79	1.43	1.52
1	Q	437	GLN	CA-C	6.79	1.60	1.53
1	O	354	GLY	CA-C	-6.79	1.42	1.51
1	J	260	ARG	N-CA	-6.78	1.37	1.46
1	E	304	PRO	CA-C	-6.78	1.41	1.52
1	D	385	LEU	CA-C	-6.77	1.44	1.52
1	H	214	ALA	C-N	6.76	1.41	1.33
1	N	296	MET	N-CA	-6.76	1.38	1.46
1	Q	444	ILE	N-CA	-6.76	1.38	1.46
1	F	303	ALA	N-CA	-6.75	1.41	1.46
1	E	253	LEU	CA-C	6.74	1.60	1.52
1	R	314	VAL	CA-C	-6.74	1.44	1.52
1	K	337	GLY	CA-C	-6.71	1.42	1.51
1	L	225	VAL	C-N	6.71	1.43	1.33
1	F	305	TYR	N-CA	-6.71	1.38	1.46
1	A	283	MET	CA-C	-6.69	1.44	1.53
1	E	332	ASN	C-N	6.67	1.40	1.33
1	F	398	GLY	C-N	6.67	1.40	1.33
1	C	440	ILE	N-CA	-6.67	1.38	1.46
1	H	337	GLY	C-N	6.66	1.42	1.33
1	G	254	GLU	CA-C	-6.63	1.44	1.52
1	L	386	ALA	N-CA	6.63	1.54	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Q	353	VAL	N-CA	-6.62	1.38	1.46
1	D	328	ARG	CA-C	-6.61	1.44	1.52
1	H	374	SER	CA-C	-6.61	1.44	1.52
1	B	377	GLN	CA-C	-6.61	1.44	1.52
1	L	306	ALA	CA-C	-6.59	1.44	1.52
1	E	360	ALA	N-CA	-6.57	1.38	1.46
1	R	254	GLU	CA-C	-6.56	1.44	1.52
1	D	340	THR	CA-C	-6.55	1.44	1.52
1	J	274	ILE	N-CA	-6.55	1.39	1.46
1	F	296	MET	CA-C	-6.54	1.44	1.52
1	R	385	LEU	CA-C	-6.53	1.45	1.52
1	L	429	ILE	N-CA	-6.50	1.38	1.46
1	A	420	PRO	CA-C	-6.49	1.46	1.52
1	G	336	ARG	C-N	-6.49	1.26	1.33
1	C	436	SER	N-CA	6.49	1.54	1.45
1	P	412	LYS	N-CA	-6.49	1.38	1.46
1	I	414	VAL	CA-C	-6.49	1.44	1.52
1	E	408	ASN	N-CA	-6.49	1.38	1.46
1	R	400	SER	CA-C	-6.45	1.44	1.52
1	Q	425	ALA	N-CA	6.44	1.52	1.46
1	M	414	VAL	CA-C	-6.43	1.44	1.52
1	O	402	SER	CA-C	-6.42	1.44	1.52
1	R	419	LEU	CA-C	6.42	1.60	1.52
1	P	264	THR	CA-C	-6.40	1.44	1.52
1	P	370	ALA	N-CA	-6.40	1.38	1.46
1	A	332	ASN	N-CA	-6.39	1.38	1.46
1	L	323	ALA	CA-C	-6.38	1.44	1.52
1	G	274	ILE	CA-C	-6.38	1.46	1.52
1	A	443	LEU	C-N	-6.37	1.26	1.33
1	L	442	GLN	CA-C	-6.37	1.44	1.52
1	H	385	LEU	CA-C	-6.37	1.45	1.52
1	L	357	GLN	CA-C	-6.37	1.44	1.52
1	F	279	VAL	CA-C	-6.37	1.45	1.52
1	R	362	LEU	N-CA	-6.37	1.38	1.46
1	J	283	MET	CA-C	-6.36	1.45	1.53
1	A	394	ASP	C-N	6.35	1.39	1.33
1	R	258	ILE	N-CA	-6.34	1.38	1.46
1	D	444	ILE	C-O	-6.34	1.16	1.24
1	H	377	GLN	N-CA	-6.33	1.38	1.46
1	N	313	GLY	N-CA	6.33	1.53	1.45
1	L	442	GLN	N-CA	-6.33	1.38	1.46
1	Q	447	ALA	C-N	-6.33	1.26	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	303	ALA	N-CA	-6.33	1.41	1.46
1	F	239	MET	CA-C	6.33	1.60	1.52
1	O	407	ALA	N-CA	-6.33	1.38	1.46
1	N	300	LEU	N-CA	-6.32	1.38	1.46
1	J	280	GLU	N-CA	-6.31	1.38	1.46
1	I	463	ASP	CA-C	6.31	1.61	1.52
1	M	464	ARG	N-CA	-6.30	1.36	1.45
1	P	325	ARG	C-N	6.30	1.39	1.33
1	F	254	GLU	CA-C	-6.29	1.45	1.52
1	F	264	THR	C-N	6.29	1.41	1.33
1	E	377	GLN	CA-C	-6.29	1.45	1.52
1	R	399	PRO	C-N	6.29	1.42	1.33
1	O	431	CYS	N-CA	-6.29	1.38	1.46
1	Q	332	ASN	CA-C	6.27	1.60	1.52
1	N	316	LEU	CA-C	6.26	1.60	1.52
1	L	396	MET	CA-C	-6.26	1.45	1.52
1	O	417	SER	CA-C	-6.26	1.45	1.52
1	O	430	ASP	N-CA	-6.26	1.39	1.46
1	E	294	ASN	CA-C	-6.25	1.44	1.52
1	A	443	LEU	CA-C	-6.25	1.44	1.52
1	J	245	THR	N-CA	6.25	1.54	1.46
1	N	277	ALA	CA-C	6.24	1.60	1.52
1	M	352	MET	C-O	-6.23	1.16	1.24
1	R	283	MET	N-CA	-6.23	1.38	1.46
1	I	292	VAL	CA-C	6.23	1.60	1.52
1	I	294	ASN	CA-C	6.23	1.60	1.52
1	P	251	THR	CA-C	-6.23	1.47	1.52
1	R	422	SER	CA-C	-6.22	1.43	1.52
1	L	363	LEU	N-CA	-6.21	1.38	1.45
1	H	292	VAL	N-CA	-6.21	1.39	1.46
1	N	343	ASN	CA-C	-6.21	1.45	1.52
1	P	411	ILE	CA-C	-6.20	1.45	1.52
1	L	259	THR	CA-C	-6.20	1.45	1.52
1	I	431	CYS	CA-C	-6.18	1.44	1.52
1	I	279	VAL	CA-C	-6.18	1.45	1.52
1	J	215	PRO	C-O	6.17	1.31	1.23
1	K	417	SER	CA-C	-6.17	1.45	1.52
1	E	269	GLY	CA-C	-6.16	1.44	1.52
1	H	379	PHE	CA-C	-6.16	1.44	1.52
1	E	224	ARG	C-N	6.16	1.41	1.33
1	B	352	MET	CA-C	-6.16	1.44	1.52
1	R	389	ALA	N-CA	-6.15	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	279	VAL	C-N	6.15	1.41	1.33
1	F	310	ASP	C-O	-6.15	1.17	1.24
1	Q	315	GLN	N-CA	-6.14	1.39	1.46
1	C	355	ASN	N-CA	-6.13	1.40	1.46
1	J	403	PHE	C-O	-6.13	1.17	1.24
1	Q	325	ARG	C-N	6.13	1.39	1.33
1	K	225	VAL	C-N	6.13	1.41	1.33
1	D	291	ASP	N-CA	-6.12	1.39	1.46
1	K	251	THR	N-CA	-6.12	1.38	1.45
1	C	459	LYS	C-O	-6.11	1.17	1.24
1	E	274	ILE	N-CA	-6.11	1.38	1.46
1	J	375	ALA	N-CA	-6.11	1.39	1.46
1	C	241	VAL	CA-C	-6.11	1.45	1.52
1	C	239	MET	C-N	6.10	1.41	1.33
1	A	252	PRO	CA-C	-6.10	1.43	1.52
1	M	329	HIS	CA-C	-6.10	1.45	1.53
1	B	348	LEU	N-CA	-6.10	1.39	1.46
1	E	462	LEU	CA-C	6.10	1.60	1.52
1	D	235	PRO	CA-C	6.09	1.61	1.52
1	M	435	LYS	CA-C	-6.09	1.44	1.52
1	C	261	LEU	CA-C	-6.09	1.44	1.52
1	B	390	GLY	CA-C	-6.08	1.41	1.52
1	G	414	VAL	CA-C	-6.08	1.45	1.52
1	C	331	ALA	N-CA	6.08	1.53	1.46
1	F	314	VAL	C-N	-6.07	1.26	1.33
1	H	403	PHE	CA-C	6.07	1.60	1.52
1	L	266	ARG	CA-C	-6.07	1.44	1.52
1	Q	353	VAL	CA-C	-6.07	1.45	1.52
1	M	384	ARG	CA-C	-6.07	1.44	1.52
1	Q	448	PRO	N-CA	6.07	1.54	1.47
1	G	252	PRO	N-CA	6.06	1.55	1.47
1	I	462	LEU	CA-C	-6.06	1.44	1.52
1	M	440	ILE	N-CA	-6.06	1.39	1.46
1	Q	266	ARG	N-CA	6.06	1.54	1.46
1	J	359	GLN	N-CA	-6.05	1.39	1.46
1	D	393	ALA	CA-C	-6.05	1.44	1.52
1	I	254	GLU	CA-C	6.04	1.60	1.52
1	O	425	ALA	N-CA	-6.04	1.41	1.46
1	G	311	ALA	C-N	6.04	1.41	1.33
1	G	264	THR	N-CA	6.04	1.53	1.46
1	L	261	LEU	CA-C	6.04	1.60	1.52
1	G	254	GLU	C-N	6.03	1.42	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	J	331	ALA	C-O	-6.03	1.17	1.24
1	M	415	GLU	CA-C	6.03	1.60	1.52
1	H	224	ARG	CA-C	-6.03	1.45	1.52
1	J	308	TRP	CA-C	-6.02	1.44	1.52
1	K	224	ARG	C-N	6.02	1.41	1.33
1	D	453	THR	CA-C	-6.00	1.46	1.52
1	L	373	ALA	C-N	-5.99	1.26	1.33
1	K	375	ALA	C-N	5.99	1.41	1.33
1	I	411	ILE	N-CA	-5.99	1.39	1.46
1	R	401	GLU	C-O	-5.99	1.16	1.23
1	L	315	GLN	CA-C	-5.98	1.45	1.52
1	N	287	LEU	CA-C	5.97	1.60	1.52
1	G	434	GLN	N-CA	-5.97	1.37	1.46
1	K	323	ALA	N-CA	-5.97	1.38	1.46
1	P	442	GLN	C-O	-5.97	1.17	1.24
1	B	428	ILE	N-CA	-5.96	1.39	1.46
1	H	292	VAL	C-O	-5.96	1.17	1.24
1	K	372	THR	CA-C	-5.96	1.45	1.52
1	K	395	ILE	N-CA	-5.95	1.39	1.46
1	D	398	GLY	C-N	5.93	1.39	1.33
1	E	275	THR	N-CA	-5.93	1.39	1.46
1	O	311	ALA	N-CA	-5.93	1.39	1.46
1	K	334	GLN	CA-C	-5.93	1.44	1.52
1	N	386	ALA	CA-C	5.93	1.60	1.52
1	E	397	GLN	N-CA	5.92	1.53	1.46
1	A	242	VAL	C-O	5.92	1.30	1.24
1	F	315	GLN	N-CA	-5.92	1.39	1.46
1	K	259	THR	N-CA	-5.91	1.39	1.46
1	J	366	GLY	N-CA	-5.91	1.38	1.45
1	H	340	THR	CA-C	-5.91	1.45	1.52
1	E	380	ARG	CA-C	-5.91	1.45	1.52
1	C	286	PRO	N-CA	-5.90	1.40	1.47
1	F	458	ILE	C-O	-5.90	1.17	1.24
1	H	226	ARG	CA-C	5.88	1.60	1.52
1	F	341	ASN	CA-C	-5.88	1.45	1.52
1	R	398	GLY	CA-C	-5.88	1.43	1.51
1	B	258	ILE	N-CA	5.88	1.53	1.46
1	E	225	VAL	C-O	-5.88	1.17	1.24
1	K	275	THR	C-N	5.87	1.41	1.33
1	Q	303	ALA	C-O	-5.86	1.19	1.24
1	B	300	LEU	N-CA	-5.86	1.38	1.46
1	B	443	LEU	CA-C	-5.86	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	H	367	GLU	N-CA	-5.85	1.39	1.46
1	C	290	HIS	N-CA	-5.85	1.39	1.46
1	C	335	GLY	C-O	5.85	1.29	1.23
1	P	291	ASP	N-CA	-5.84	1.39	1.46
1	F	442	GLN	CA-C	-5.84	1.45	1.52
1	P	312	TRP	N-CA	-5.84	1.39	1.46
1	E	295	LEU	CA-C	-5.83	1.45	1.52
1	M	429	ILE	C-N	5.83	1.41	1.33
1	G	447	ALA	CA-C	5.83	1.59	1.53
1	B	223	ALA	CA-C	-5.83	1.45	1.52
1	K	301	GLY	N-CA	5.83	1.52	1.44
1	A	443	LEU	N-CA	-5.83	1.39	1.46
1	D	355	ASN	C-O	-5.82	1.18	1.24
1	E	263	ASP	N-CA	-5.82	1.39	1.46
1	D	246	GLU	N-CA	-5.82	1.38	1.46
1	L	282	LEU	CA-C	5.82	1.60	1.52
1	F	361	ALA	N-CA	-5.82	1.38	1.46
1	J	276	MET	N-CA	-5.82	1.39	1.46
1	L	347	GLY	CA-C	-5.81	1.43	1.51
1	I	292	VAL	C-O	-5.81	1.17	1.24
1	I	331	ALA	CA-C	-5.80	1.45	1.52
1	F	373	ALA	C-N	5.80	1.41	1.33
1	H	274	ILE	CA-C	-5.80	1.46	1.52
1	Q	253	LEU	CA-C	-5.79	1.45	1.52
1	I	432	PHE	C-O	-5.79	1.17	1.24
1	O	319	VAL	C-N	-5.79	1.27	1.34
1	G	459	LYS	C-O	-5.79	1.17	1.24
1	B	394	ASP	CA-C	-5.79	1.45	1.52
1	N	413	ALA	C-O	-5.78	1.17	1.24
1	Q	398	GLY	N-CA	5.78	1.52	1.44
1	P	292	VAL	CA-C	-5.78	1.46	1.52
1	R	313	GLY	CA-C	-5.78	1.45	1.52
1	H	403	PHE	N-CA	-5.78	1.39	1.46
1	F	371	ILE	N-CA	-5.78	1.40	1.46
1	L	431	CYS	N-CA	-5.77	1.39	1.46
1	C	404	VAL	CA-C	-5.77	1.45	1.52
1	G	229	LEU	C-N	5.76	1.41	1.33
1	L	298	VAL	N-CA	-5.76	1.39	1.46
1	M	353	VAL	CA-C	-5.76	1.46	1.52
1	F	250	TRP	N-CA	-5.76	1.38	1.45
1	I	446	THR	CA-C	-5.76	1.44	1.52
1	B	224	ARG	CA-C	-5.75	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	H	245	THR	C-N	5.75	1.41	1.33
1	D	259	THR	CA-C	-5.75	1.45	1.52
1	L	356	PRO	C-N	5.75	1.41	1.33
1	P	326	ASP	N-CA	-5.74	1.40	1.46
1	R	396	MET	CA-C	-5.74	1.45	1.52
1	I	411	ILE	C-N	5.74	1.41	1.33
1	A	273	PRO	N-CA	5.73	1.54	1.47
1	C	399	PRO	N-CA	5.73	1.53	1.47
1	K	241	VAL	N-CA	-5.73	1.39	1.46
1	I	441	GLN	N-CA	-5.72	1.39	1.46
1	F	280	GLU	CA-C	-5.72	1.45	1.52
1	I	324	THR	C-N	5.71	1.41	1.33
1	C	326	ASP	N-CA	5.70	1.52	1.46
1	C	336	ARG	CA-C	-5.70	1.45	1.52
1	L	308	TRP	CA-C	-5.70	1.45	1.52
1	N	263	ASP	N-CA	-5.70	1.39	1.46
1	R	432	PHE	N-CA	-5.70	1.39	1.46
1	G	447	ALA	N-CA	-5.69	1.38	1.45
1	A	279	VAL	N-CA	5.69	1.53	1.46
1	B	385	LEU	C-N	5.69	1.41	1.33
1	H	374	SER	N-CA	-5.69	1.39	1.46
1	C	423	ALA	CA-C	5.69	1.60	1.52
1	J	394	ASP	C-N	5.69	1.39	1.33
1	B	298	VAL	CA-C	-5.68	1.45	1.52
1	I	306	ALA	N-CA	-5.68	1.39	1.46
1	A	257	LEU	N-CA	-5.68	1.39	1.46
1	A	436	SER	CA-C	-5.68	1.45	1.53
1	K	344	ARG	CA-C	-5.68	1.45	1.52
1	D	225	VAL	CA-C	-5.68	1.46	1.52
1	J	259	THR	CA-C	-5.68	1.45	1.52
1	K	294	ASN	N-CA	-5.67	1.39	1.46
1	K	328	ARG	CA-C	-5.67	1.45	1.52
1	Q	326	ASP	N-CA	-5.67	1.40	1.46
1	E	293	THR	CA-C	-5.67	1.45	1.52
1	I	302	PRO	CA-C	-5.67	1.44	1.52
1	C	237	VAL	C-N	5.67	1.41	1.33
1	E	312	TRP	N-CA	-5.67	1.39	1.46
1	Q	287	LEU	N-CA	5.67	1.52	1.45
1	Q	342	LEU	N-CA	-5.67	1.39	1.46
1	K	373	ALA	C-N	-5.67	1.26	1.33
1	B	386	ALA	N-CA	-5.67	1.39	1.46
1	C	293	THR	CA-C	-5.67	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	295	LEU	CA-C	-5.66	1.45	1.52
1	M	340	THR	CA-C	5.65	1.60	1.52
1	B	275	THR	N-CA	5.65	1.53	1.46
1	K	410	LEU	CA-C	-5.65	1.45	1.52
1	B	453	THR	C-O	5.65	1.29	1.24
1	J	317	GLN	C-O	-5.65	1.17	1.24
1	D	349	ALA	CA-C	5.65	1.60	1.53
1	A	304	PRO	N-CA	-5.64	1.40	1.47
1	C	274	ILE	CA-C	-5.63	1.47	1.52
1	H	400	SER	CA-C	-5.63	1.45	1.52
1	M	275	THR	N-CA	-5.63	1.39	1.46
1	P	330	PRO	N-CA	-5.63	1.40	1.47
1	Q	410	LEU	C-O	-5.63	1.17	1.24
1	H	215	PRO	CA-C	5.62	1.58	1.53
1	L	460	TYR	C-O	-5.62	1.17	1.24
1	M	432	PHE	CA-C	-5.62	1.45	1.52
1	L	323	ALA	N-CA	-5.62	1.39	1.46
1	M	257	LEU	C-N	5.61	1.41	1.33
1	B	349	ALA	CA-C	-5.61	1.45	1.53
1	H	341	ASN	CA-C	-5.61	1.45	1.52
1	J	444	ILE	CA-C	-5.61	1.45	1.52
1	G	412	LYS	C-O	-5.61	1.17	1.24
1	F	457	ILE	N-CA	-5.60	1.39	1.46
1	I	220	THR	N-CA	-5.60	1.38	1.45
1	K	443	LEU	CA-C	-5.60	1.45	1.52
1	J	440	ILE	CA-C	-5.60	1.45	1.52
1	N	450	THR	C-N	5.59	1.40	1.33
1	R	343	ASN	CA-C	-5.59	1.45	1.52
1	B	225	VAL	C-N	5.58	1.40	1.33
1	K	399	PRO	N-CA	-5.58	1.40	1.47
1	F	414	VAL	CA-C	-5.58	1.46	1.52
1	B	350	ASP	N-CA	-5.58	1.39	1.46
1	O	408	ASN	N-CA	-5.58	1.39	1.46
1	D	260	ARG	CA-C	-5.57	1.45	1.52
1	I	407	ALA	C-O	-5.57	1.17	1.24
1	B	305	TYR	N-CA	-5.56	1.39	1.46
1	B	463	ASP	CA-C	5.56	1.60	1.52
1	C	379	PHE	C-N	5.56	1.41	1.33
1	Q	292	VAL	N-CA	-5.56	1.40	1.46
1	L	385	LEU	N-CA	-5.55	1.39	1.46
1	C	257	LEU	N-CA	-5.55	1.39	1.46
1	F	303	ALA	C-O	-5.55	1.19	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	N	290	HIS	CA-C	-5.55	1.45	1.52
1	D	378	ALA	CA-C	5.54	1.60	1.52
1	P	298	VAL	CA-C	-5.54	1.45	1.52
1	Q	362	LEU	CA-C	-5.54	1.45	1.52
1	C	306	ALA	CA-C	-5.54	1.45	1.52
1	F	215	PRO	C-N	5.53	1.41	1.33
1	N	291	ASP	N-CA	-5.53	1.39	1.46
1	B	417	SER	CA-C	-5.53	1.46	1.53
1	Q	441	GLN	C-N	5.53	1.41	1.33
1	R	417	SER	CA-C	-5.53	1.45	1.52
1	A	375	ALA	C-N	-5.53	1.26	1.33
1	M	265	VAL	N-CA	5.53	1.53	1.46
1	B	319	VAL	N-CA	-5.52	1.39	1.46
1	D	423	ALA	N-CA	-5.52	1.38	1.46
1	N	254	GLU	CA-C	-5.52	1.45	1.52
1	H	456	GLU	C-O	-5.52	1.17	1.24
1	I	444	ILE	CA-C	5.51	1.60	1.52
1	M	256	LYS	C-O	-5.51	1.17	1.24
1	C	393	ALA	N-CA	-5.51	1.38	1.46
1	K	360	ALA	CA-C	-5.51	1.45	1.52
1	P	461	VAL	CA-C	-5.50	1.46	1.52
1	J	215	PRO	C-N	5.50	1.41	1.33
1	R	372	THR	N-CA	5.50	1.53	1.46
1	N	324	THR	C-N	5.50	1.40	1.33
1	F	346	LYS	C-N	5.50	1.41	1.33
1	G	270	LEU	CA-C	-5.50	1.45	1.52
1	N	303	ALA	N-CA	-5.50	1.42	1.46
1	R	451	LEU	CA-C	5.49	1.60	1.52
1	J	282	LEU	CA-C	5.48	1.60	1.52
1	M	401	GLU	CA-C	-5.48	1.46	1.52
1	C	404	VAL	C-O	-5.48	1.17	1.24
1	H	448	PRO	CA-C	-5.48	1.45	1.52
1	L	403	PHE	N-CA	-5.48	1.39	1.46
1	E	234	PRO	CA-C	5.48	1.57	1.52
1	C	358	GLY	N-CA	5.48	1.52	1.45
1	P	392	TRP	CA-C	5.48	1.60	1.52
1	H	450	THR	CA-C	-5.47	1.45	1.52
1	O	283	MET	N-CA	-5.47	1.39	1.46
1	Q	296	MET	CA-C	-5.47	1.45	1.52
1	Q	347	GLY	CA-C	-5.47	1.43	1.51
1	J	439	ASP	CA-C	5.46	1.60	1.52
1	N	443	LEU	C-N	5.46	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	K	441	GLN	N-CA	-5.46	1.39	1.46
1	L	352	MET	N-CA	-5.46	1.38	1.46
1	C	457	ILE	CA-C	-5.46	1.45	1.52
1	I	355	ASN	N-CA	-5.45	1.41	1.46
1	C	291	ASP	CA-C	-5.45	1.46	1.52
1	J	432	PHE	CA-C	-5.45	1.46	1.52
1	O	343	ASN	C-O	-5.45	1.17	1.24
1	Q	428	ILE	N-CA	-5.45	1.40	1.46
1	A	363	LEU	N-CA	-5.44	1.38	1.45
1	A	305	TYR	N-CA	-5.44	1.39	1.46
1	E	365	PRO	N-CA	-5.44	1.40	1.47
1	H	407	ALA	C-O	-5.44	1.17	1.24
1	K	385	LEU	N-CA	-5.44	1.39	1.45
1	G	464	ARG	CA-C	-5.43	1.45	1.52
1	N	318	THR	N-CA	-5.43	1.39	1.46
1	I	377	GLN	CA-C	-5.43	1.46	1.52
1	K	451	LEU	CA-C	5.43	1.59	1.52
1	E	344	ARG	CA-C	-5.42	1.46	1.52
1	B	325	ARG	CA-C	-5.42	1.45	1.52
1	L	254	GLU	C-N	-5.42	1.26	1.33
1	L	456	GLU	CA-C	-5.42	1.45	1.52
1	C	378	ALA	CA-C	-5.41	1.45	1.52
1	G	341	ASN	CA-C	-5.41	1.45	1.53
1	H	283	MET	N-CA	-5.41	1.39	1.46
1	Q	445	ARG	CA-C	5.41	1.60	1.52
1	R	275	THR	CA-C	-5.41	1.46	1.52
1	K	431	CYS	C-O	-5.41	1.17	1.24
1	D	327	PRO	N-CA	-5.40	1.40	1.47
1	O	460	TYR	N-CA	-5.39	1.40	1.46
1	C	214	ALA	C-N	-5.39	1.26	1.33
1	Q	452	THR	N-CA	5.39	1.51	1.46
1	B	435	LYS	CA-C	-5.39	1.45	1.52
1	O	362	LEU	C-N	5.39	1.40	1.33
1	H	266	ARG	C-N	-5.39	1.26	1.33
1	A	304	PRO	C-O	-5.39	1.17	1.24
1	B	297	ARG	N-CA	-5.39	1.39	1.46
1	H	426	PRO	N-CA	-5.39	1.40	1.47
1	N	341	ASN	CA-C	-5.39	1.45	1.52
1	P	366	GLY	CA-C	5.39	1.58	1.52
1	P	411	ILE	N-CA	-5.38	1.40	1.46
1	Q	278	GLU	CA-C	-5.38	1.45	1.52
1	L	335	GLY	C-O	-5.38	1.16	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	I	374	SER	C-N	5.38	1.40	1.33
1	R	425	ALA	CA-C	-5.38	1.45	1.52
1	I	215	PRO	N-CA	5.38	1.53	1.47
1	A	389	ALA	N-CA	-5.38	1.39	1.46
1	I	333	GLY	CA-C	5.38	1.57	1.51
1	P	320	ILE	C-N	-5.38	1.26	1.33
1	M	263	ASP	CA-C	5.37	1.59	1.52
1	R	332	ASN	CA-C	-5.37	1.46	1.52
1	H	434	GLN	N-CA	-5.36	1.39	1.46
1	I	249	ALA	N-CA	-5.36	1.40	1.46
1	D	315	GLN	CA-C	-5.36	1.45	1.52
1	E	280	GLU	CA-C	-5.36	1.45	1.52
1	N	430	ASP	CA-C	-5.36	1.45	1.52
1	K	366	GLY	N-CA	-5.35	1.38	1.45
1	G	292	VAL	N-CA	-5.35	1.40	1.46
1	I	310	ASP	N-CA	-5.35	1.40	1.46
1	N	322	ALA	CA-C	5.35	1.60	1.52
1	C	349	ALA	CA-C	-5.35	1.45	1.52
1	I	432	PHE	N-CA	-5.35	1.40	1.46
1	B	325	ARG	C-O	-5.34	1.18	1.24
1	G	403	PHE	N-CA	-5.34	1.40	1.46
1	C	447	ALA	N-CA	-5.34	1.39	1.45
1	D	292	VAL	C-O	-5.34	1.18	1.24
1	R	329	HIS	CA-C	5.33	1.59	1.53
1	B	370	ALA	N-CA	-5.33	1.40	1.46
1	G	259	THR	CA-C	-5.33	1.46	1.52
1	E	319	VAL	N-CA	-5.33	1.39	1.46
1	N	408	ASN	N-CA	-5.33	1.40	1.46
1	O	450	THR	C-N	5.32	1.40	1.33
1	G	419	LEU	C-N	5.32	1.39	1.33
1	O	251	THR	CA-C	5.32	1.58	1.52
1	G	307	LEU	C-N	5.32	1.40	1.33
1	D	257	LEU	CA-C	-5.31	1.45	1.52
1	E	240	PRO	CA-C	5.31	1.58	1.52
1	F	228	GLU	N-CA	5.31	1.53	1.46
1	F	376	LEU	CA-C	-5.31	1.46	1.52
1	L	321	ALA	N-CA	-5.31	1.40	1.46
1	P	430	ASP	C-O	-5.31	1.18	1.24
1	J	334	GLN	CA-C	5.31	1.59	1.52
1	H	328	ARG	N-CA	-5.30	1.40	1.46
1	I	293	THR	C-N	-5.30	1.26	1.33
1	E	370	ALA	CA-C	-5.30	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	F	345	LEU	C-O	-5.30	1.17	1.24
1	G	230	ALA	N-CA	-5.30	1.40	1.46
1	I	441	GLN	CA-C	-5.30	1.45	1.52
1	N	452	THR	CA-C	-5.30	1.45	1.52
1	H	396	MET	CA-C	5.29	1.58	1.52
1	F	393	ALA	C-O	-5.29	1.17	1.24
1	E	277	ALA	C-O	5.29	1.30	1.24
1	G	382	VAL	N-CA	-5.29	1.40	1.46
1	H	279	VAL	CA-C	-5.29	1.46	1.52
1	I	369	VAL	C-N	5.29	1.40	1.33
1	J	241	VAL	CA-C	5.29	1.58	1.52
1	L	329	HIS	CA-C	5.28	1.59	1.52
1	D	364	ARG	C-N	5.28	1.41	1.33
1	F	342	LEU	CA-C	-5.28	1.45	1.52
1	A	250	TRP	CA-C	-5.28	1.45	1.52
1	F	232	THR	CA-C	-5.27	1.46	1.52
1	J	400	SER	N-CA	-5.27	1.39	1.46
1	F	312	TRP	N-CA	-5.27	1.40	1.46
1	F	240	PRO	N-CA	-5.27	1.40	1.47
1	O	355	ASN	C-N	-5.27	1.27	1.33
1	E	296	MET	C-O	-5.26	1.18	1.24
1	R	431	CYS	C-O	-5.26	1.18	1.24
1	F	437	GLN	CA-C	5.26	1.58	1.53
1	J	307	LEU	N-CA	-5.26	1.40	1.46
1	K	377	GLN	N-CA	-5.26	1.40	1.46
1	Q	300	LEU	CA-C	-5.26	1.45	1.52
1	G	278	GLU	N-CA	-5.25	1.39	1.46
1	P	412	LYS	CA-C	-5.25	1.46	1.52
1	A	233	GLY	C-N	5.25	1.39	1.33
1	C	320	ILE	CA-C	5.25	1.59	1.52
1	A	259	THR	CA-C	-5.24	1.46	1.52
1	E	441	GLN	N-CA	-5.24	1.40	1.46
1	O	298	VAL	CA-C	-5.24	1.46	1.52
1	D	294	ASN	N-CA	-5.24	1.40	1.46
1	G	328	ARG	N-CA	-5.22	1.39	1.46
1	I	356	PRO	C-O	-5.22	1.17	1.24
1	N	355	ASN	CA-C	5.22	1.59	1.52
1	O	375	ALA	CA-C	-5.22	1.46	1.52
1	A	259	THR	C-O	-5.21	1.18	1.24
1	A	355	ASN	CA-C	-5.21	1.45	1.52
1	E	283	MET	CA-C	-5.21	1.46	1.53
1	E	407	ALA	N-CA	-5.20	1.40	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	L	291	ASP	N-CA	-5.20	1.40	1.46
1	P	361	ALA	N-CA	-5.20	1.39	1.46
1	L	296	MET	N-CA	-5.19	1.40	1.46
1	I	464	ARG	CA-C	-5.19	1.45	1.52
1	L	333	GLY	C-O	5.19	1.28	1.23
1	P	464	ARG	C-N	5.19	1.40	1.33
1	K	348	LEU	CA-C	-5.18	1.46	1.52
1	H	443	LEU	N-CA	-5.18	1.40	1.46
1	D	234	PRO	C-O	-5.18	1.18	1.24
1	I	263	ASP	CA-C	-5.18	1.46	1.52
1	O	317	GLN	CA-C	5.18	1.59	1.52
1	R	359	GLN	C-N	5.18	1.41	1.34
1	M	319	VAL	CA-C	-5.17	1.44	1.52
1	H	459	LYS	C-O	-5.17	1.18	1.24
1	N	374	SER	N-CA	-5.17	1.40	1.46
1	L	373	ALA	C-O	-5.17	1.18	1.24
1	O	277	ALA	C-N	5.17	1.41	1.34
1	L	293	THR	C-N	5.17	1.40	1.33
1	R	374	SER	N-CA	5.17	1.52	1.46
1	H	352	MET	N-CA	-5.17	1.40	1.46
1	A	215	PRO	C-O	5.16	1.29	1.23
1	J	322	ALA	CA-C	5.16	1.59	1.52
1	K	267	THR	CA-C	-5.16	1.45	1.52
1	H	417	SER	CA-C	-5.16	1.46	1.52
1	G	419	LEU	N-CA	-5.16	1.41	1.45
1	F	246	GLU	C-N	5.16	1.41	1.33
1	J	258	ILE	N-CA	-5.15	1.40	1.46
1	Q	298	VAL	C-N	-5.15	1.27	1.33
1	J	403	PHE	N-CA	-5.15	1.40	1.46
1	A	374	SER	C-O	-5.15	1.18	1.24
1	C	298	VAL	CA-C	-5.15	1.46	1.52
1	B	376	LEU	C-N	-5.14	1.27	1.33
1	D	448	PRO	N-CA	-5.14	1.41	1.47
1	I	450	THR	C-N	5.14	1.40	1.33
1	D	429	ILE	N-CA	5.14	1.52	1.46
1	L	417	SER	CA-C	5.14	1.59	1.52
1	A	362	LEU	N-CA	-5.14	1.39	1.46
1	E	230	ALA	N-CA	-5.14	1.40	1.46
1	H	420	PRO	C-N	-5.13	1.26	1.33
1	J	326	ASP	N-CA	-5.13	1.41	1.46
1	M	283	MET	CA-C	-5.13	1.45	1.52
1	L	375	ALA	CA-C	-5.12	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	434	GLN	CA-C	5.12	1.59	1.52
1	K	402	SER	C-N	5.12	1.40	1.33
1	C	424	ARG	CA-C	5.12	1.59	1.52
1	E	286	PRO	N-CA	5.12	1.52	1.47
1	C	323	ALA	N-CA	-5.11	1.39	1.46
1	J	411	ILE	CA-C	-5.11	1.46	1.52
1	H	373	ALA	C-O	5.11	1.30	1.24
1	K	406	PHE	C-O	-5.11	1.18	1.24
1	F	310	ASP	CA-C	-5.10	1.46	1.52
1	M	442	GLN	C-O	-5.10	1.18	1.24
1	C	323	ALA	CA-C	-5.10	1.46	1.52
1	E	237	VAL	CA-C	5.09	1.59	1.52
1	H	456	GLU	CA-C	-5.09	1.46	1.52
1	B	326	ASP	C-O	-5.09	1.19	1.24
1	D	352	MET	CA-C	-5.09	1.46	1.52
1	M	295	LEU	N-CA	5.09	1.52	1.46
1	F	272	SER	C-O	5.08	1.30	1.24
1	E	386	ALA	C-N	5.08	1.40	1.33
1	N	363	LEU	C-O	-5.08	1.17	1.23
1	C	319	VAL	C-N	5.08	1.39	1.34
1	D	371	ILE	C-N	5.08	1.40	1.33
1	L	313	GLY	N-CA	-5.08	1.39	1.45
1	P	339	ARG	CA-C	-5.07	1.46	1.52
1	H	364	ARG	C-O	-5.07	1.18	1.23
1	G	326	ASP	N-CA	-5.07	1.39	1.46
1	P	406	PHE	CA-C	-5.07	1.46	1.52
1	F	448	PRO	C-N	5.07	1.41	1.34
1	B	359	GLN	N-CA	-5.06	1.40	1.46
1	O	384	ARG	C-N	5.06	1.39	1.33
1	B	347	GLY	CA-C	-5.06	1.44	1.51
1	O	301	GLY	CA-C	5.06	1.59	1.51
1	D	368	LEU	N-CA	-5.06	1.40	1.46
1	L	369	VAL	C-O	-5.06	1.18	1.24
1	G	393	ALA	N-CA	-5.05	1.39	1.46
1	P	449	SER	N-CA	5.05	1.52	1.46
1	R	461	VAL	CA-C	-5.05	1.46	1.52
1	D	424	ARG	CA-C	-5.05	1.46	1.52
1	E	407	ALA	CA-C	-5.05	1.46	1.52
1	H	407	ALA	N-CA	-5.05	1.40	1.46
1	M	366	GLY	C-N	5.05	1.40	1.33
1	B	295	LEU	N-CA	-5.04	1.40	1.46
1	L	417	SER	C-N	5.04	1.42	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	299	ILE	C-O	-5.04	1.17	1.24
1	F	279	VAL	N-CA	5.04	1.52	1.46
1	J	431	CYS	CA-C	-5.04	1.46	1.52
1	K	269	GLY	CA-C	5.04	1.58	1.51
1	N	358	GLY	C-N	5.04	1.40	1.33
1	D	405	ASP	C-O	-5.04	1.18	1.24
1	M	369	VAL	C-O	-5.04	1.18	1.24
1	R	262	ALA	CA-C	5.04	1.59	1.52
1	L	459	LYS	C-O	-5.03	1.18	1.24
1	Q	372	THR	C-O	-5.03	1.18	1.24
1	C	400	SER	N-CA	-5.03	1.40	1.46
1	E	439	ASP	N-CA	-5.03	1.39	1.46
1	I	345	LEU	C-O	-5.03	1.17	1.24
1	I	443	LEU	CA-C	-5.03	1.46	1.52
1	N	441	GLN	CA-C	5.03	1.59	1.52
1	D	277	ALA	N-CA	-5.02	1.40	1.46
1	Q	349	ALA	C-N	5.02	1.40	1.33
1	G	262	ALA	C-O	-5.02	1.18	1.24
1	Q	295	LEU	CA-C	-5.02	1.46	1.52
1	A	447	ALA	N-CA	-5.02	1.38	1.45
1	E	362	LEU	N-CA	-5.02	1.39	1.46
1	C	335	GLY	CA-C	-5.02	1.45	1.52
1	H	259	THR	CA-C	-5.02	1.46	1.52
1	R	322	ALA	N-CA	-5.02	1.39	1.46
1	J	254	GLU	CA-C	-5.02	1.46	1.52
1	K	274	ILE	CA-C	-5.01	1.47	1.52
1	M	351	GLY	CA-C	-5.01	1.45	1.51
1	N	265	VAL	N-CA	-5.00	1.39	1.46
1	Q	336	ARG	N-CA	-5.00	1.40	1.46
1	E	438	PRO	C-O	-5.00	1.17	1.24
1	O	454	PRO	C-O	-5.00	1.17	1.24

All (2003) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	F	420	PRO	O-C-N	16.69	128.99	121.31
1	R	420	PRO	O-C-N	-12.74	115.45	121.31
1	I	251	THR	O-C-N	-12.56	110.86	121.54
1	G	399	PRO	CA-C-N	12.50	137.03	120.28
1	G	399	PRO	C-N-CA	12.50	137.03	120.28
1	B	274	ILE	N-CA-C	-11.52	102.44	112.12
1	B	420	PRO	CA-C-N	11.28	132.18	119.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	420	PRO	C-N-CA	11.28	132.18	119.32
1	C	285	SER	N-CA-C	-11.28	98.03	108.07
1	F	329	HIS	N-CA-C	11.11	122.37	109.60
1	N	383	ALA	N-CA-C	11.00	125.86	113.21
1	A	234	PRO	N-CA-C	10.96	124.07	110.70
1	F	238	ALA	N-CA-C	10.66	123.39	110.91
1	A	461	VAL	CA-C-N	10.63	135.59	120.28
1	A	461	VAL	C-N-CA	10.63	135.59	120.28
1	H	328	ARG	N-CA-C	10.62	122.85	111.28
1	A	329	HIS	N-CA-C	10.61	123.11	109.64
1	D	312	TRP	CA-C-N	10.55	131.61	120.00
1	D	312	TRP	C-N-CA	10.55	131.61	120.00
1	D	222	TRP	N-CA-C	10.48	125.17	111.75
1	O	355	ASN	CA-C-N	10.47	130.80	119.28
1	O	355	ASN	C-N-CA	10.47	130.80	119.28
1	H	420	PRO	CA-C-N	10.42	131.20	119.32
1	H	420	PRO	C-N-CA	10.42	131.20	119.32
1	D	333	GLY	N-CA-C	10.33	123.81	111.93
1	F	316	LEU	CA-C-N	10.27	134.04	120.28
1	F	316	LEU	C-N-CA	10.27	134.04	120.28
1	H	217	PRO	CA-C-N	10.19	140.04	121.70
1	H	217	PRO	C-N-CA	10.19	140.04	121.70
1	N	414	VAL	O-C-N	-10.12	111.41	121.83
1	I	233	GLY	CA-C-N	10.00	130.68	120.38
1	I	233	GLY	C-N-CA	10.00	130.68	120.38
1	F	274	ILE	N-CA-C	-9.99	103.73	112.12
1	R	275	THR	CA-C-O	9.92	131.24	120.82
1	B	399	PRO	N-CA-C	-9.89	100.76	114.80
1	J	358	GLY	O-C-N	-9.86	112.72	122.19
1	F	432	PHE	N-CA-C	9.85	122.93	111.11
1	F	234	PRO	N-CA-C	9.82	122.68	110.70
1	J	461	VAL	CA-C-N	9.79	133.40	120.28
1	J	461	VAL	C-N-CA	9.79	133.40	120.28
1	O	424	ARG	N-CA-C	9.63	121.54	111.14
1	B	326	ASP	O-C-N	-9.63	115.55	121.71
1	A	239	MET	O-C-N	-9.57	110.32	121.32
1	G	274	ILE	O-C-N	-9.49	114.67	121.98
1	Q	335	GLY	CA-C-N	9.47	133.33	120.54
1	Q	335	GLY	C-N-CA	9.47	133.33	120.54
1	N	389	ALA	CA-C-N	9.41	138.63	121.70
1	N	389	ALA	C-N-CA	9.41	138.63	121.70
1	K	449	SER	CA-C-N	9.40	132.66	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	K	449	SER	C-N-CA	9.40	132.66	120.44
1	L	214	ALA	CA-C-N	9.33	131.50	119.84
1	L	214	ALA	C-N-CA	9.33	131.50	119.84
1	J	290	HIS	CA-C-N	9.32	133.12	120.44
1	J	290	HIS	C-N-CA	9.32	133.12	120.44
1	C	329	HIS	CA-C-N	9.31	131.48	119.84
1	C	329	HIS	C-N-CA	9.31	131.48	119.84
1	J	234	PRO	N-CA-C	9.29	122.04	110.70
1	M	309	MET	CA-C-N	9.26	132.48	120.44
1	M	309	MET	C-N-CA	9.26	132.48	120.44
1	F	220	THR	CA-C-N	9.21	136.73	122.08
1	F	220	THR	C-N-CA	9.21	136.73	122.08
1	F	253	LEU	N-CA-C	9.16	121.68	110.41
1	M	274	ILE	N-CA-C	-9.16	104.48	111.90
1	N	307	LEU	CA-C-O	-9.13	111.13	120.90
1	H	420	PRO	O-C-N	-9.12	117.11	121.31
1	O	357	GLN	CA-C-N	9.12	130.10	119.98
1	O	357	GLN	C-N-CA	9.12	130.10	119.98
1	J	334	GLN	CA-C-N	9.11	128.75	120.10
1	J	334	GLN	C-N-CA	9.11	128.75	120.10
1	R	424	ARG	N-CA-C	9.08	120.95	111.14
1	F	437	GLN	CA-C-N	9.06	129.65	119.32
1	F	437	GLN	C-N-CA	9.06	129.65	119.32
1	F	287	LEU	CA-C-O	-9.04	111.78	121.45
1	H	289	PRO	N-CA-C	8.98	127.13	113.75
1	L	289	PRO	N-CA-C	8.97	127.11	113.75
1	R	259	THR	N-CA-C	8.96	121.04	111.28
1	Q	288	LEU	CA-C-O	-8.94	112.68	120.19
1	H	212	GLY	CA-C-N	8.92	137.76	121.70
1	H	212	GLY	C-N-CA	8.92	137.76	121.70
1	H	274	ILE	N-CA-C	-8.91	104.58	111.62
1	G	240	PRO	CA-C-N	8.82	133.88	122.95
1	G	240	PRO	C-N-CA	8.82	133.88	122.95
1	N	329	HIS	CA-C-N	8.81	130.85	119.84
1	N	329	HIS	C-N-CA	8.81	130.85	119.84
1	N	437	GLN	CA-C-N	8.78	129.33	119.32
1	N	437	GLN	C-N-CA	8.78	129.33	119.32
1	P	333	GLY	O-C-N	-8.76	114.95	122.92
1	A	421	PRO	CA-C-N	8.76	134.61	120.60
1	A	421	PRO	C-N-CA	8.76	134.61	120.60
1	Q	359	GLN	CA-C-N	8.73	132.85	120.28
1	Q	359	GLN	C-N-CA	8.73	132.85	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	R	357	GLN	CA-C-N	8.72	129.62	119.94
1	R	357	GLN	C-N-CA	8.72	129.62	119.94
1	L	280	GLU	CA-C-N	8.70	132.28	120.54
1	L	280	GLU	C-N-CA	8.70	132.28	120.54
1	E	217	PRO	CA-C-N	8.69	137.34	121.70
1	E	217	PRO	C-N-CA	8.69	137.34	121.70
1	G	374	SER	O-C-N	-8.68	113.06	122.09
1	B	217	PRO	CA-C-N	8.68	137.32	121.70
1	B	217	PRO	C-N-CA	8.68	137.32	121.70
1	L	329	HIS	CA-C-N	8.67	130.68	119.84
1	L	329	HIS	C-N-CA	8.67	130.68	119.84
1	J	407	ALA	N-CA-C	-8.66	101.80	111.07
1	K	329	HIS	N-CA-C	8.65	128.94	109.81
1	E	442	GLN	CA-C-O	8.64	129.58	120.42
1	K	258	ILE	O-C-N	-8.64	112.93	121.83
1	N	275	THR	O-C-N	8.64	130.97	122.07
1	L	437	GLN	CA-C-N	8.63	129.16	119.32
1	L	437	GLN	C-N-CA	8.63	129.16	119.32
1	C	288	LEU	N-CA-C	8.63	120.59	109.64
1	J	357	GLN	CA-C-N	8.62	129.55	119.98
1	J	357	GLN	C-N-CA	8.62	129.55	119.98
1	I	305	TYR	N-CA-C	8.59	121.73	111.33
1	E	336	ARG	N-CA-C	8.57	121.57	111.71
1	D	234	PRO	CA-C-O	-8.55	108.17	120.56
1	D	260	ARG	N-CA-C	8.55	121.54	111.71
1	D	419	LEU	O-C-N	-8.53	111.51	121.32
1	A	247	GLY	O-C-N	-8.52	113.25	121.77
1	B	385	LEU	N-CA-C	8.51	128.93	110.80
1	A	325	ARG	N-CA-C	8.50	121.62	111.33
1	B	398	GLY	CA-C-O	-8.48	114.23	122.46
1	P	330	PRO	N-CA-C	8.47	129.91	112.47
1	C	406	PHE	CA-C-O	-8.43	111.97	120.82
1	J	369	VAL	CA-C-N	8.43	131.78	120.65
1	J	369	VAL	C-N-CA	8.43	131.78	120.65
1	Q	412	LYS	CA-C-N	8.41	131.55	120.28
1	Q	412	LYS	C-N-CA	8.41	131.55	120.28
1	M	425	ALA	CA-C-N	8.37	127.95	119.24
1	M	425	ALA	C-N-CA	8.37	127.95	119.24
1	D	425	ALA	O-C-N	-8.36	113.04	120.48
1	O	444	ILE	O-C-N	-8.35	112.36	121.80
1	Q	464	ARG	N-CA-C	-8.35	102.87	113.72
1	O	432	PHE	O-C-N	8.34	130.66	122.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	374	SER	CA-C-O	8.33	129.81	120.90
1	E	326	ASP	CA-C-N	8.33	129.36	120.12
1	E	326	ASP	C-N-CA	8.33	129.36	120.12
1	C	312	TRP	CA-C-N	8.33	129.16	120.00
1	C	312	TRP	C-N-CA	8.33	129.16	120.00
1	B	284	SER	CA-C-O	8.32	129.01	119.27
1	N	349	ALA	N-CA-C	8.32	121.06	110.33
1	D	239	MET	O-C-N	-8.31	111.77	121.32
1	R	341	ASN	N-CA-C	8.29	123.51	110.32
1	K	321	ALA	N-CA-C	-8.29	100.55	111.24
1	K	357	GLN	CA-C-N	8.29	129.14	119.94
1	K	357	GLN	C-N-CA	8.29	129.14	119.94
1	R	440	ILE	CA-C-O	-8.28	111.85	120.71
1	H	449	SER	CA-C-N	8.27	131.19	120.44
1	H	449	SER	C-N-CA	8.27	131.19	120.44
1	K	237	VAL	N-CA-C	8.27	126.55	109.34
1	L	437	GLN	N-CA-C	-8.27	99.64	110.39
1	C	444	ILE	CA-C-N	8.25	132.16	120.28
1	C	444	ILE	C-N-CA	8.25	132.16	120.28
1	L	393	ALA	CA-C-O	8.25	129.53	119.38
1	M	387	GLU	CA-C-N	8.21	130.10	119.84
1	M	387	GLU	C-N-CA	8.21	130.10	119.84
1	M	342	LEU	O-C-N	-8.21	113.56	122.09
1	M	405	ASP	CA-C-N	8.19	131.26	120.28
1	M	405	ASP	C-N-CA	8.19	131.26	120.28
1	E	396	MET	O-C-N	-8.18	113.29	123.27
1	G	374	SER	CA-C-N	8.15	131.41	120.65
1	G	374	SER	C-N-CA	8.15	131.41	120.65
1	I	223	ALA	N-CA-C	8.15	119.79	111.07
1	F	247	GLY	O-C-N	-8.13	113.64	121.77
1	E	390	GLY	CA-C-N	8.10	129.97	119.84
1	E	390	GLY	C-N-CA	8.10	129.97	119.84
1	L	226	ARG	CA-C-N	8.10	132.97	120.82
1	L	226	ARG	C-N-CA	8.10	132.97	120.82
1	O	321	ALA	N-CA-C	-8.09	100.81	111.24
1	I	372	THR	CA-C-O	8.07	128.97	120.42
1	G	284	SER	O-C-N	-8.07	112.75	122.11
1	E	413	ALA	CA-C-N	8.05	131.85	120.42
1	E	413	ALA	C-N-CA	8.05	131.85	120.42
1	P	254	GLU	CA-C-N	8.03	129.87	119.84
1	P	254	GLU	C-N-CA	8.03	129.87	119.84
1	R	291	ASP	CA-C-N	8.00	130.64	120.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	R	291	ASP	C-N-CA	8.00	130.64	120.56
1	Q	261	LEU	CA-C-N	8.00	130.83	120.44
1	Q	261	LEU	C-N-CA	8.00	130.83	120.44
1	J	239	MET	O-C-N	-7.99	112.13	121.32
1	R	321	ALA	CA-C-O	-7.97	112.43	120.80
1	D	387	GLU	CA-C-O	-7.96	111.30	118.63
1	I	329	HIS	CA-C-N	7.96	129.79	119.84
1	I	329	HIS	C-N-CA	7.96	129.79	119.84
1	P	309	MET	CA-C-N	7.95	131.15	120.65
1	P	309	MET	C-N-CA	7.95	131.15	120.65
1	I	237	VAL	N-CA-C	7.94	125.86	109.34
1	E	261	LEU	CA-C-N	7.93	130.75	120.44
1	E	261	LEU	C-N-CA	7.93	130.75	120.44
1	G	311	ALA	O-C-N	-7.91	113.73	122.12
1	R	301	GLY	CA-C-N	7.91	127.46	119.24
1	R	301	GLY	C-N-CA	7.91	127.46	119.24
1	O	296	MET	N-CA-C	7.90	119.53	111.07
1	O	324	THR	CA-C-O	-7.89	112.10	120.55
1	D	229	LEU	CA-C-N	7.88	131.04	120.65
1	D	229	LEU	C-N-CA	7.88	131.04	120.65
1	D	431	CYS	N-CA-C	7.87	119.86	111.28
1	R	262	ALA	N-CA-C	-7.87	102.64	111.07
1	H	223	ALA	N-CA-C	7.86	119.54	110.97
1	J	220	THR	N-CA-C	7.85	122.23	111.17
1	G	253	LEU	N-CA-C	7.84	127.50	110.80
1	I	408	ASN	CA-C-O	7.84	129.05	120.82
1	E	449	SER	CA-C-N	7.83	133.79	120.72
1	E	449	SER	C-N-CA	7.83	133.79	120.72
1	J	270	LEU	N-CA-C	-7.82	102.66	112.90
1	H	251	THR	CA-C-O	-7.82	113.31	120.50
1	K	406	PHE	N-CA-C	7.82	119.43	111.07
1	J	455	GLY	O-C-N	-7.80	114.70	122.19
1	O	461	VAL	CA-C-N	7.79	130.72	120.28
1	O	461	VAL	C-N-CA	7.79	130.72	120.28
1	P	460	TYR	CA-C-N	7.79	130.38	120.56
1	P	460	TYR	C-N-CA	7.79	130.38	120.56
1	H	234	PRO	N-CA-C	7.78	120.19	110.70
1	O	439	ASP	CA-C-O	7.78	128.89	120.10
1	H	395	ILE	N-CA-C	7.76	118.39	107.37
1	A	453	THR	O-C-N	7.72	127.28	121.65
1	B	256	LYS	CA-C-O	7.71	128.72	120.55
1	L	237	VAL	N-CA-C	7.70	125.36	109.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	N	357	GLN	CA-C-N	7.70	128.53	119.98
1	N	357	GLN	C-N-CA	7.70	128.53	119.98
1	R	419	LEU	CA-C-N	7.69	125.27	119.66
1	R	419	LEU	C-N-CA	7.69	125.27	119.66
1	N	429	ILE	CA-C-N	7.68	130.90	120.54
1	N	429	ILE	C-N-CA	7.68	130.90	120.54
1	P	453	THR	CA-C-N	7.68	127.57	119.05
1	P	453	THR	C-N-CA	7.68	127.57	119.05
1	B	329	HIS	CA-C-N	7.67	127.71	119.28
1	B	329	HIS	C-N-CA	7.67	127.71	119.28
1	I	286	PRO	CA-C-O	-7.66	112.29	121.48
1	K	389	ALA	N-CA-C	-7.65	97.43	108.60
1	G	234	PRO	N-CA-C	7.64	120.03	110.70
1	K	215	PRO	CA-C-N	7.64	135.46	121.70
1	K	215	PRO	C-N-CA	7.64	135.46	121.70
1	M	389	ALA	N-CA-C	-7.64	97.45	109.07
1	G	310	ASP	O-C-N	7.64	129.97	122.03
1	I	460	TYR	CA-C-O	7.62	128.63	120.55
1	F	233	GLY	CA-C-N	7.62	128.22	120.38
1	F	233	GLY	C-N-CA	7.62	128.22	120.38
1	D	273	PRO	N-CA-C	7.61	128.14	112.47
1	Q	261	LEU	O-C-N	-7.61	113.48	122.15
1	A	220	THR	CA-C-N	7.60	136.06	121.54
1	A	220	THR	C-N-CA	7.60	136.06	121.54
1	O	257	LEU	N-CA-C	7.58	120.43	111.71
1	L	251	THR	O-C-N	-7.57	115.29	121.80
1	H	267	THR	CA-C-N	7.57	130.28	120.44
1	H	267	THR	C-N-CA	7.57	130.28	120.44
1	G	406	PHE	CA-C-N	7.55	130.26	120.44
1	G	406	PHE	C-N-CA	7.55	130.26	120.44
1	J	229	LEU	CA-C-N	7.55	130.62	120.65
1	J	229	LEU	C-N-CA	7.55	130.62	120.65
1	Q	342	LEU	N-CA-C	7.55	120.17	111.11
1	I	319	VAL	O-C-N	-7.55	113.27	121.80
1	G	322	ALA	CA-C-N	7.55	131.01	120.29
1	G	322	ALA	C-N-CA	7.55	131.01	120.29
1	R	398	GLY	O-C-N	-7.54	114.22	121.77
1	P	396	MET	N-CA-C	-7.54	95.34	108.69
1	L	384	ARG	N-CA-C	-7.54	103.02	112.90
1	O	373	ALA	CA-C-N	7.54	130.72	120.54
1	O	373	ALA	C-N-CA	7.54	130.72	120.54
1	G	239	MET	N-CA-C	7.53	122.20	108.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	284	SER	CA-C-O	7.53	128.71	120.80
1	J	399	PRO	CA-C-N	7.53	133.28	120.71
1	J	399	PRO	C-N-CA	7.53	133.28	120.71
1	R	319	VAL	N-CA-C	7.52	119.19	111.00
1	H	260	ARG	CA-C-N	7.51	130.96	120.29
1	H	260	ARG	C-N-CA	7.51	130.96	120.29
1	E	251	THR	CA-C-O	-7.51	112.65	119.86
1	P	397	GLN	N-CA-C	7.51	121.15	109.96
1	R	420	PRO	N-CA-C	-7.51	103.26	110.47
1	F	463	ASP	O-C-N	-7.49	113.05	122.27
1	Q	378	ALA	N-CA-C	7.49	121.33	111.75
1	H	411	ILE	O-C-N	-7.48	114.58	121.91
1	M	382	VAL	O-C-N	-7.48	113.22	122.57
1	O	409	ARG	CA-C-N	7.48	130.62	120.44
1	O	409	ARG	C-N-CA	7.48	130.62	120.44
1	I	214	ALA	CA-C-N	7.47	127.47	119.78
1	I	214	ALA	C-N-CA	7.47	127.47	119.78
1	I	289	PRO	N-CA-C	7.47	124.88	113.75
1	K	334	GLN	N-CA-C	7.47	122.22	113.18
1	R	382	VAL	N-CA-C	-7.46	105.50	112.96
1	M	303	ALA	O-C-N	-7.46	114.49	120.38
1	D	272	SER	CA-C-O	-7.45	112.09	119.69
1	E	275	THR	CA-C-N	7.44	130.12	120.44
1	E	275	THR	C-N-CA	7.44	130.12	120.44
1	C	424	ARG	CA-C-O	-7.43	113.02	120.82
1	K	456	GLU	O-C-N	-7.41	114.26	122.12
1	G	343	ASN	N-CA-C	-7.41	103.20	111.28
1	D	325	ARG	N-CA-C	7.40	120.28	111.33
1	E	329	HIS	O-C-N	-7.40	113.76	121.60
1	C	418	ASP	CA-C-N	7.39	131.23	120.51
1	C	418	ASP	C-N-CA	7.39	131.23	120.51
1	D	413	ALA	CA-C-N	7.39	130.91	120.42
1	D	413	ALA	C-N-CA	7.39	130.91	120.42
1	B	386	ALA	N-CA-C	7.38	120.54	109.25
1	G	239	MET	CA-C-N	7.37	128.46	120.13
1	G	239	MET	C-N-CA	7.37	128.46	120.13
1	N	329	HIS	O-C-N	-7.37	113.18	121.43
1	K	334	GLN	CA-C-N	7.36	129.92	120.64
1	K	334	GLN	C-N-CA	7.36	129.92	120.64
1	A	457	ILE	CA-C-N	7.36	129.84	120.56
1	A	457	ILE	C-N-CA	7.36	129.84	120.56
1	H	316	LEU	CA-C-N	7.36	130.15	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	H	316	LEU	C-N-CA	7.36	130.15	120.28
1	L	374	SER	O-C-N	-7.36	114.44	122.09
1	E	288	LEU	CA-C-N	7.35	127.70	119.32
1	E	288	LEU	C-N-CA	7.35	127.70	119.32
1	N	338	GLU	CA-C-O	7.33	127.51	119.15
1	C	406	PHE	O-C-N	7.32	129.61	122.07
1	R	411	ILE	O-C-N	-7.32	114.78	121.87
1	D	387	GLU	N-CA-C	7.31	122.76	113.25
1	Q	271	ARG	N-CA-C	-7.30	95.76	108.69
1	M	447	ALA	CA-C-O	-7.30	113.24	119.59
1	B	461	VAL	O-C-N	7.29	129.48	121.90
1	F	420	PRO	CA-C-O	-7.29	115.65	120.90
1	I	367	GLU	O-C-N	-7.29	113.84	122.15
1	G	357	GLN	CA-C-N	7.29	128.01	120.00
1	G	357	GLN	C-N-CA	7.29	128.01	120.00
1	H	292	VAL	O-C-N	-7.29	114.77	121.91
1	K	398	GLY	O-C-N	-7.28	114.49	121.77
1	M	390	GLY	CA-C-N	7.28	128.94	119.84
1	M	390	GLY	C-N-CA	7.28	128.94	119.84
1	K	445	ARG	CA-C-O	7.28	128.32	120.10
1	K	372	THR	CA-C-N	7.28	129.90	120.44
1	K	372	THR	C-N-CA	7.28	129.90	120.44
1	N	378	ALA	CA-C-N	7.27	130.33	120.44
1	N	378	ALA	C-N-CA	7.27	130.33	120.44
1	L	389	ALA	O-C-N	-7.27	114.96	123.25
1	M	384	ARG	CA-C-O	7.27	128.87	120.00
1	K	358	GLY	N-CA-C	-7.27	104.06	112.50
1	A	387	GLU	CA-C-O	-7.27	110.20	120.16
1	B	420	PRO	N-CA-C	7.27	119.56	110.70
1	B	285	SER	N-CA-C	7.26	119.93	109.84
1	C	253	LEU	N-CA-C	7.26	126.26	110.80
1	K	312	TRP	CA-C-N	7.25	127.98	120.00
1	K	312	TRP	C-N-CA	7.25	127.98	120.00
1	K	425	ALA	O-C-N	-7.25	114.03	120.48
1	J	420	PRO	N-CA-C	7.25	119.54	110.70
1	P	264	THR	O-C-N	-7.24	114.45	122.12
1	R	442	GLN	CA-C-N	7.24	129.85	120.44
1	R	442	GLN	C-N-CA	7.24	129.85	120.44
1	K	220	THR	CA-C-N	7.23	130.97	120.71
1	K	220	THR	C-N-CA	7.23	130.97	120.71
1	M	387	GLU	CA-C-O	-7.22	110.26	120.16
1	E	329	HIS	CA-C-N	7.22	128.87	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	329	HIS	C-N-CA	7.22	128.87	119.84
1	I	295	LEU	CA-C-N	7.22	129.96	120.28
1	I	295	LEU	C-N-CA	7.22	129.96	120.28
1	J	341	ASN	N-CA-C	7.22	126.17	110.80
1	I	249	ALA	N-CA-C	-7.21	103.79	112.59
1	C	279	VAL	CA-C-N	7.21	132.66	121.19
1	C	279	VAL	C-N-CA	7.21	132.66	121.19
1	Q	402	SER	O-C-N	-7.21	114.24	122.68
1	A	413	ALA	CA-C-N	7.21	130.66	120.42
1	A	413	ALA	C-N-CA	7.21	130.66	120.42
1	J	288	LEU	CA-C-N	7.21	127.54	119.32
1	J	288	LEU	C-N-CA	7.21	127.54	119.32
1	H	413	ALA	O-C-N	-7.20	114.49	122.12
1	A	408	ASN	CA-C-N	7.20	129.92	120.28
1	A	408	ASN	C-N-CA	7.20	129.92	120.28
1	P	308	TRP	O-C-N	-7.18	114.67	122.07
1	G	274	ILE	N-CA-C	-7.18	105.95	111.62
1	G	425	ALA	O-C-N	-7.18	114.09	120.48
1	B	411	ILE	O-C-N	-7.17	114.91	121.87
1	F	368	LEU	N-CA-C	7.17	119.10	111.28
1	O	338	GLU	N-CA-C	-7.17	104.53	113.28
1	Q	254	GLU	N-CA-C	7.17	118.68	109.72
1	B	449	SER	CA-C-N	7.16	129.87	120.28
1	B	449	SER	C-N-CA	7.16	129.87	120.28
1	D	428	ILE	O-C-N	-7.15	114.91	121.91
1	R	323	ALA	N-CA-C	-7.14	102.91	111.69
1	Q	434	GLN	O-C-N	-7.13	113.69	122.25
1	O	459	LYS	CA-C-N	7.13	129.70	120.44
1	O	459	LYS	C-N-CA	7.13	129.70	120.44
1	H	428	ILE	CA-C-N	7.12	130.22	120.46
1	H	428	ILE	C-N-CA	7.12	130.22	120.46
1	M	333	GLY	CA-C-N	7.12	130.14	120.38
1	M	333	GLY	C-N-CA	7.12	130.14	120.38
1	C	405	ASP	CA-C-N	7.12	129.69	120.44
1	C	405	ASP	C-N-CA	7.12	129.69	120.44
1	C	432	PHE	N-CA-C	7.12	118.68	111.07
1	K	247	GLY	CA-C-N	7.12	128.73	119.84
1	K	247	GLY	C-N-CA	7.12	128.73	119.84
1	B	303	ALA	O-C-N	-7.11	114.76	120.38
1	H	254	GLU	CA-C-N	7.11	127.42	119.32
1	H	254	GLU	C-N-CA	7.11	127.42	119.32
1	H	225	VAL	N-CA-C	7.11	117.82	110.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	R	394	ASP	N-CA-C	-7.10	104.22	113.17
1	N	265	VAL	CA-C-N	7.10	135.10	121.54
1	N	265	VAL	C-N-CA	7.10	135.10	121.54
1	D	262	ALA	N-CA-C	-7.10	103.48	111.07
1	I	220	THR	CA-C-N	7.09	135.09	121.54
1	I	220	THR	C-N-CA	7.09	135.09	121.54
1	E	332	ASN	CA-C-N	-7.09	114.19	122.77
1	E	332	ASN	C-N-CA	-7.09	114.19	122.77
1	C	388	PRO	CA-C-O	-7.09	113.35	121.36
1	F	460	TYR	O-C-N	-7.09	114.61	122.12
1	P	390	GLY	CA-C-N	7.08	126.92	119.05
1	P	390	GLY	C-N-CA	7.08	126.92	119.05
1	D	223	ALA	O-C-N	-7.08	114.77	122.07
1	K	372	THR	O-C-N	-7.08	114.08	122.15
1	B	272	SER	CA-C-N	7.07	128.68	119.84
1	B	272	SER	C-N-CA	7.07	128.68	119.84
1	P	374	SER	CA-C-N	7.07	129.64	120.44
1	P	374	SER	C-N-CA	7.07	129.64	120.44
1	L	367	GLU	CA-C-N	7.07	129.76	120.28
1	L	367	GLU	C-N-CA	7.07	129.76	120.28
1	E	403	PHE	CA-C-N	7.07	130.14	120.46
1	E	403	PHE	C-N-CA	7.07	130.14	120.46
1	J	220	THR	O-C-N	-7.07	114.38	122.86
1	M	437	GLN	CA-C-N	7.07	127.38	119.32
1	M	437	GLN	C-N-CA	7.07	127.38	119.32
1	M	275	THR	CA-C-N	7.06	129.62	120.44
1	M	275	THR	C-N-CA	7.06	129.62	120.44
1	G	285	SER	N-CA-C	7.06	119.65	109.84
1	K	390	GLY	CA-C-N	7.06	128.66	119.84
1	K	390	GLY	C-N-CA	7.06	128.66	119.84
1	L	316	LEU	CA-C-N	7.06	129.74	120.28
1	L	316	LEU	C-N-CA	7.06	129.74	120.28
1	L	315	GLN	O-C-N	-7.05	114.75	122.09
1	F	241	VAL	O-C-N	-7.05	114.92	122.61
1	P	357	GLN	CA-C-N	7.04	127.80	119.98
1	P	357	GLN	C-N-CA	7.04	127.80	119.98
1	C	234	PRO	N-CA-C	7.04	119.28	110.70
1	C	364	ARG	CA-C-N	7.03	126.55	119.24
1	C	364	ARG	C-N-CA	7.03	126.55	119.24
1	C	388	PRO	N-CA-C	7.03	122.26	111.15
1	O	331	ALA	N-CA-C	7.02	119.96	111.82
1	B	239	MET	O-C-N	-7.01	113.25	121.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	H	387	GLU	CA-C-O	-7.01	111.54	118.34
1	L	390	GLY	CA-C-N	7.01	128.60	119.84
1	L	390	GLY	C-N-CA	7.01	128.60	119.84
1	J	344	ARG	CA-C-N	7.01	130.61	120.38
1	J	344	ARG	C-N-CA	7.01	130.61	120.38
1	O	349	ALA	O-C-N	-7.01	114.59	122.86
1	D	234	PRO	N-CA-C	7.00	119.25	110.70
1	G	254	GLU	O-C-N	-7.00	113.27	121.32
1	Q	437	GLN	CA-C-N	7.00	126.82	119.05
1	Q	437	GLN	C-N-CA	7.00	126.82	119.05
1	H	419	LEU	O-C-N	-7.00	113.83	121.53
1	H	420	PRO	CA-C-O	-7.00	115.86	120.90
1	G	276	MET	N-CA-C	7.00	119.79	111.33
1	C	220	THR	N-CA-C	6.99	118.89	111.28
1	D	311	ALA	CA-C-O	6.98	127.95	120.55
1	F	347	GLY	CA-C-O	6.98	128.19	119.25
1	K	351	GLY	O-C-N	-6.98	113.53	122.39
1	L	239	MET	O-C-N	-6.97	113.31	121.32
1	L	389	ALA	N-CA-C	-6.96	98.49	109.07
1	R	405	ASP	CA-C-N	6.95	129.47	120.44
1	R	405	ASP	C-N-CA	6.95	129.47	120.44
1	A	284	SER	CA-C-O	6.94	126.77	119.14
1	O	274	ILE	N-CA-C	-6.94	105.59	111.56
1	D	420	PRO	O-C-N	-6.93	118.12	121.31
1	I	266	ARG	CA-C-N	6.92	134.76	121.54
1	I	266	ARG	C-N-CA	6.92	134.76	121.54
1	J	375	ALA	CA-C-N	6.91	129.53	120.28
1	J	375	ALA	C-N-CA	6.91	129.53	120.28
1	A	274	ILE	O-C-N	-6.90	116.67	121.98
1	Q	301	GLY	CA-C-N	6.90	128.46	119.84
1	Q	301	GLY	C-N-CA	6.90	128.46	119.84
1	J	390	GLY	CA-C-N	6.89	128.45	119.84
1	J	390	GLY	C-N-CA	6.89	128.45	119.84
1	Q	300	LEU	N-CA-C	6.89	119.81	111.82
1	K	383	ALA	CA-C-N	6.88	129.80	120.44
1	K	383	ALA	C-N-CA	6.88	129.80	120.44
1	C	311	ALA	CA-C-O	6.88	127.84	120.55
1	G	369	VAL	CA-C-N	6.88	129.38	120.44
1	G	369	VAL	C-N-CA	6.88	129.38	120.44
1	H	237	VAL	N-CA-C	6.88	123.65	109.34
1	C	444	ILE	O-C-N	-6.87	114.93	121.87
1	E	382	VAL	CA-C-O	6.86	125.06	119.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	272	SER	CA-C-O	-6.86	110.76	120.16
1	J	435	LYS	CA-C-O	6.86	126.82	119.34
1	N	300	LEU	N-CA-C	6.86	118.84	111.36
1	N	284	SER	N-CA-C	-6.86	104.73	113.23
1	F	272	SER	CA-C-O	6.85	128.17	119.54
1	Q	457	ILE	CA-C-N	6.85	129.19	120.56
1	Q	457	ILE	C-N-CA	6.85	129.19	120.56
1	D	308	TRP	CA-C-N	6.85	129.78	120.54
1	D	308	TRP	C-N-CA	6.85	129.78	120.54
1	Q	362	LEU	N-CA-C	-6.85	104.56	113.12
1	D	337	GLY	O-C-N	-6.84	112.06	122.26
1	H	290	HIS	N-CA-C	6.84	118.39	111.07
1	D	226	ARG	CA-C-N	6.84	129.78	120.54
1	D	226	ARG	C-N-CA	6.84	129.78	120.54
1	A	221	ASP	N-CA-C	6.83	125.35	110.80
1	E	284	SER	CA-C-N	6.83	130.19	120.49
1	E	284	SER	C-N-CA	6.83	130.19	120.49
1	G	424	ARG	CA-C-N	6.83	129.41	120.26
1	G	424	ARG	C-N-CA	6.83	129.41	120.26
1	G	449	SER	CA-C-N	6.83	129.98	120.29
1	G	449	SER	C-N-CA	6.83	129.98	120.29
1	K	388	PRO	N-CA-C	6.82	126.53	112.47
1	L	459	LYS	O-C-N	-6.82	114.89	122.12
1	O	417	SER	N-CA-C	-6.82	98.58	109.76
1	I	248	PRO	CA-C-O	-6.82	113.89	121.32
1	H	453	THR	CA-C-N	6.81	126.61	119.05
1	H	453	THR	C-N-CA	6.81	126.61	119.05
1	M	457	ILE	CA-C-N	6.81	129.14	120.56
1	M	457	ILE	C-N-CA	6.81	129.14	120.56
1	E	243	ILE	CA-C-N	6.81	134.54	121.54
1	E	243	ILE	C-N-CA	6.81	134.54	121.54
1	K	461	VAL	CA-C-N	6.81	129.40	120.28
1	K	461	VAL	C-N-CA	6.81	129.40	120.28
1	C	380	ARG	N-CA-C	-6.80	103.87	111.28
1	F	251	THR	O-C-N	-6.80	115.13	121.32
1	C	380	ARG	CA-C-N	6.80	130.31	120.38
1	C	380	ARG	C-N-CA	6.80	130.31	120.38
1	D	267	THR	CA-C-N	6.79	129.27	120.44
1	D	267	THR	C-N-CA	6.79	129.27	120.44
1	A	329	HIS	CA-C-N	6.79	127.34	119.47
1	A	329	HIS	C-N-CA	6.79	127.34	119.47
1	J	429	ILE	N-CA-C	-6.78	103.91	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	I	305	TYR	CA-C-O	6.77	127.94	120.63
1	J	444	ILE	CA-C-N	6.76	130.02	120.28
1	J	444	ILE	C-N-CA	6.76	130.02	120.28
1	G	380	ARG	CA-C-N	6.76	131.42	120.60
1	G	380	ARG	C-N-CA	6.76	131.42	120.60
1	Q	430	ASP	CA-C-N	6.76	129.34	120.28
1	Q	430	ASP	C-N-CA	6.76	129.34	120.28
1	A	431	CYS	N-CA-C	6.76	118.64	111.28
1	C	399	PRO	CA-C-N	6.76	130.01	120.28
1	C	399	PRO	C-N-CA	6.76	130.01	120.28
1	M	365	PRO	CA-C-N	6.75	127.59	120.03
1	M	365	PRO	C-N-CA	6.75	127.59	120.03
1	P	289	PRO	O-C-N	-6.75	114.48	122.24
1	C	382	VAL	CA-C-O	6.73	124.95	119.29
1	L	270	LEU	N-CA-C	-6.73	104.09	112.90
1	B	410	LEU	N-CA-C	-6.72	104.03	111.36
1	J	339	ARG	N-CA-C	6.72	119.62	110.55
1	Q	461	VAL	O-C-N	-6.72	115.33	121.91
1	K	238	ALA	O-C-N	-6.71	116.58	123.29
1	K	265	VAL	O-C-N	-6.71	114.91	121.83
1	N	408	ASN	O-C-N	6.70	128.98	122.07
1	A	449	SER	CA-C-O	6.69	127.66	120.10
1	G	311	ALA	CA-C-O	6.69	127.64	120.55
1	E	331	ALA	N-CA-C	6.69	118.57	111.28
1	Q	290	HIS	CA-C-O	6.69	127.64	120.55
1	C	355	ASN	CA-C-O	-6.68	113.47	121.22
1	C	271	ARG	N-CA-C	6.68	120.30	111.75
1	F	389	ALA	O-C-N	-6.68	114.67	122.95
1	B	341	ASN	N-CA-C	6.68	119.17	110.43
1	G	457	ILE	CA-C-N	6.68	128.97	120.56
1	G	457	ILE	C-N-CA	6.68	128.97	120.56
1	P	262	ALA	CA-C-O	-6.67	113.81	120.82
1	P	272	SER	CA-C-N	6.67	128.18	119.84
1	P	272	SER	C-N-CA	6.67	128.18	119.84
1	E	274	ILE	N-CA-C	-6.67	105.83	111.56
1	R	395	ILE	CA-C-O	6.66	127.81	120.48
1	M	371	ILE	O-C-N	-6.66	115.28	121.94
1	Q	425	ALA	CA-C-N	6.66	126.44	119.05
1	Q	425	ALA	C-N-CA	6.66	126.44	119.05
1	R	330	PRO	N-CA-C	6.66	123.47	113.81
1	R	406	PHE	N-CA-C	6.66	118.19	111.07
1	J	305	TYR	N-CA-C	6.65	118.53	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	J	355	ASN	CA-C-N	6.65	126.59	119.28
1	J	355	ASN	C-N-CA	6.65	126.59	119.28
1	D	405	ASP	CA-C-O	6.64	127.54	120.70
1	I	294	ASN	O-C-N	-6.64	115.08	122.12
1	K	217	PRO	CA-C-N	6.64	133.65	121.70
1	K	217	PRO	C-N-CA	6.64	133.65	121.70
1	B	300	LEU	N-CA-C	6.64	119.52	111.82
1	M	355	ASN	CA-C-N	6.64	126.58	119.28
1	M	355	ASN	C-N-CA	6.64	126.58	119.28
1	J	443	LEU	N-CA-C	-6.64	103.97	111.07
1	I	449	SER	CA-C-O	6.63	127.67	119.05
1	B	214	ALA	N-CA-C	6.63	119.06	109.84
1	Q	427	VAL	CA-C-N	6.63	128.91	120.56
1	Q	427	VAL	C-N-CA	6.63	128.91	120.56
1	O	254	GLU	CA-C-N	6.63	128.12	119.84
1	O	254	GLU	C-N-CA	6.63	128.12	119.84
1	A	265	VAL	N-CA-C	6.62	117.41	110.72
1	P	268	LYS	N-CA-C	6.61	119.33	111.33
1	F	405	ASP	CA-C-N	6.60	129.02	120.44
1	F	405	ASP	C-N-CA	6.60	129.02	120.44
1	F	399	PRO	N-CA-C	-6.60	106.10	114.35
1	K	413	ALA	CA-C-O	6.60	127.56	120.10
1	O	444	ILE	CA-C-O	6.60	127.60	120.47
1	R	284	SER	N-CA-C	-6.59	105.27	113.38
1	K	398	GLY	CA-C-N	6.59	128.08	119.84
1	K	398	GLY	C-N-CA	6.59	128.08	119.84
1	M	370	ALA	CA-C-N	6.59	129.10	120.60
1	M	370	ALA	C-N-CA	6.59	129.10	120.60
1	K	240	PRO	N-CA-C	6.59	122.58	111.32
1	L	385	LEU	N-CA-C	6.59	120.23	109.76
1	N	326	ASP	O-C-N	-6.58	115.33	121.32
1	A	313	GLY	O-C-N	-6.58	115.80	122.19
1	K	322	ALA	N-CA-C	6.58	120.41	112.38
1	D	406	PHE	N-CA-C	6.58	118.11	111.07
1	E	214	ALA	CA-C-O	-6.58	112.15	120.04
1	Q	323	ALA	CA-C-O	6.58	127.55	119.79
1	A	311	ALA	CA-C-N	6.57	129.09	120.28
1	A	311	ALA	C-N-CA	6.57	129.09	120.28
1	L	378	ALA	CA-C-N	6.57	129.37	120.44
1	L	378	ALA	C-N-CA	6.57	129.37	120.44
1	A	275	THR	O-C-N	-6.57	115.31	122.07
1	C	372	THR	CA-C-O	6.56	127.51	120.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	251	THR	CA-C-O	-6.56	114.28	119.66
1	D	286	PRO	N-CA-C	6.55	121.50	111.15
1	F	306	ALA	O-C-N	-6.55	115.32	122.07
1	I	234	PRO	N-CA-C	6.55	118.69	110.70
1	K	242	VAL	CA-C-O	6.55	127.57	120.43
1	L	229	LEU	CA-C-N	6.55	129.29	120.65
1	L	229	LEU	C-N-CA	6.55	129.29	120.65
1	N	303	ALA	O-C-N	-6.55	115.21	120.38
1	O	307	LEU	CA-C-N	6.54	129.37	120.54
1	O	307	LEU	C-N-CA	6.54	129.37	120.54
1	O	391	PRO	CA-C-N	6.54	134.03	121.54
1	O	391	PRO	C-N-CA	6.54	134.03	121.54
1	Q	345	LEU	N-CA-C	6.54	120.36	112.38
1	C	292	VAL	CA-C-N	6.54	129.36	120.54
1	C	292	VAL	C-N-CA	6.54	129.36	120.54
1	L	364	ARG	CA-C-N	6.54	126.04	119.24
1	L	364	ARG	C-N-CA	6.54	126.04	119.24
1	H	256	LYS	CA-C-N	6.53	130.24	120.31
1	H	256	LYS	C-N-CA	6.53	130.24	120.31
1	G	235	PRO	N-CA-C	-6.53	103.65	114.75
1	H	421	PRO	O-C-N	6.53	129.75	122.24
1	D	215	PRO	O-C-N	-6.53	113.83	122.64
1	E	220	THR	CA-C-N	6.53	130.68	121.02
1	E	220	THR	C-N-CA	6.53	130.68	121.02
1	C	243	ILE	CA-C-O	-6.53	112.62	120.78
1	E	389	ALA	O-C-N	-6.51	114.86	122.87
1	G	223	ALA	CA-C-O	-6.51	113.58	120.55
1	H	270	LEU	N-CA-C	-6.51	105.49	113.50
1	L	234	PRO	CA-C-O	-6.51	111.12	120.56
1	N	445	ARG	CA-C-O	6.51	127.45	120.55
1	J	308	TRP	N-CA-C	6.50	118.91	111.11
1	R	276	MET	CA-C-N	6.50	128.89	120.44
1	R	276	MET	C-N-CA	6.50	128.89	120.44
1	N	461	VAL	CA-C-N	6.50	129.64	120.28
1	N	461	VAL	C-N-CA	6.50	129.64	120.28
1	B	430	ASP	O-C-N	-6.49	115.38	122.07
1	L	254	GLU	CA-C-N	6.49	125.99	119.24
1	L	254	GLU	C-N-CA	6.49	125.99	119.24
1	L	320	ILE	CA-C-O	6.49	127.88	120.03
1	O	388	PRO	CA-C-N	6.49	133.93	121.54
1	O	388	PRO	C-N-CA	6.49	133.93	121.54
1	E	442	GLN	O-C-N	-6.48	114.76	122.15

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	374	SER	CA-C-N	6.47	129.28	120.54
1	A	374	SER	C-N-CA	6.47	129.28	120.54
1	L	387	GLU	CA-C-O	-6.47	112.68	118.63
1	I	256	LYS	CA-C-O	6.47	127.40	120.55
1	M	459	LYS	O-C-N	-6.47	115.37	122.09
1	D	380	ARG	CA-C-N	6.46	130.94	120.60
1	D	380	ARG	C-N-CA	6.46	130.94	120.60
1	F	442	GLN	CA-C-N	6.46	128.84	120.44
1	F	442	GLN	C-N-CA	6.46	128.84	120.44
1	J	359	GLN	CA-C-N	6.46	129.58	120.28
1	J	359	GLN	C-N-CA	6.46	129.58	120.28
1	B	306	ALA	CA-C-O	6.46	127.60	120.82
1	B	432	PHE	O-C-N	-6.46	115.42	122.07
1	H	390	GLY	CA-C-N	6.46	127.91	119.84
1	H	390	GLY	C-N-CA	6.46	127.91	119.84
1	B	270	LEU	N-CA-C	-6.45	101.87	111.81
1	M	332	ASN	N-CA-C	-6.45	100.61	109.71
1	M	280	GLU	O-C-N	-6.45	115.39	122.09
1	A	420	PRO	N-CA-C	6.44	118.56	110.70
1	F	246	GLU	O-C-N	-6.44	114.02	122.59
1	M	384	ARG	O-C-N	-6.44	112.81	122.28
1	O	276	MET	CA-C-N	6.44	128.82	120.44
1	O	276	MET	C-N-CA	6.44	128.82	120.44
1	E	254	GLU	CA-C-N	6.44	126.36	119.28
1	E	254	GLU	C-N-CA	6.44	126.36	119.28
1	H	222	TRP	O-C-N	-6.43	115.11	121.93
1	O	399	PRO	N-CA-C	-6.43	105.59	114.27
1	R	271	ARG	O-C-N	6.42	126.48	120.71
1	G	277	ALA	CA-C-O	6.42	127.56	120.82
1	D	398	GLY	N-CA-C	-6.41	99.25	112.34
1	L	461	VAL	O-C-N	-6.41	115.65	121.87
1	G	267	THR	CA-C-N	6.41	129.15	120.44
1	G	267	THR	C-N-CA	6.41	129.15	120.44
1	P	388	PRO	N-CA-C	-6.40	100.37	111.32
1	I	220	THR	N-CA-C	-6.40	99.34	109.07
1	A	460	TYR	O-C-N	-6.39	115.45	122.09
1	B	280	GLU	CA-C-N	6.38	128.74	120.44
1	B	280	GLU	C-N-CA	6.38	128.74	120.44
1	G	389	ALA	O-C-N	-6.38	115.45	123.17
1	A	288	LEU	N-CA-C	6.37	117.83	109.93
1	E	225	VAL	CA-C-N	6.37	129.65	120.79
1	E	225	VAL	C-N-CA	6.37	129.65	120.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	408	ASN	CA-C-N	6.37	129.10	120.38
1	G	408	ASN	C-N-CA	6.37	129.10	120.38
1	N	315	GLN	N-CA-C	6.37	119.04	111.33
1	R	408	ASN	N-CA-C	6.37	117.88	111.07
1	A	335	GLY	O-C-N	-6.37	116.03	122.59
1	A	354	GLY	CA-C-O	6.36	127.48	119.72
1	E	284	SER	N-CA-C	-6.36	105.52	113.28
1	R	427	VAL	O-C-N	-6.36	115.70	121.87
1	D	349	ALA	N-CA-C	-6.36	102.14	110.53
1	O	384	ARG	N-CA-C	-6.36	104.43	111.36
1	H	219	LEU	O-C-N	-6.35	116.59	123.26
1	M	312	TRP	CA-C-O	6.35	127.28	120.55
1	R	267	THR	CA-C-N	6.35	128.69	120.44
1	R	267	THR	C-N-CA	6.35	128.69	120.44
1	D	397	GLN	CA-C-O	-6.34	113.67	120.46
1	C	220	THR	CA-C-N	6.34	133.65	121.54
1	C	220	THR	C-N-CA	6.34	133.65	121.54
1	J	289	PRO	O-C-N	-6.34	114.95	122.24
1	P	310	ASP	CA-C-O	-6.34	114.34	121.00
1	G	364	ARG	CA-C-N	6.34	126.55	119.32
1	G	364	ARG	C-N-CA	6.34	126.55	119.32
1	P	378	ALA	CA-C-N	6.34	129.06	120.44
1	P	378	ALA	C-N-CA	6.34	129.06	120.44
1	P	379	PHE	CA-C-N	6.34	128.78	120.28
1	P	379	PHE	C-N-CA	6.34	128.78	120.28
1	E	236	VAL	O-C-N	6.33	129.65	122.18
1	J	273	PRO	N-CA-C	6.33	125.51	112.47
1	E	391	PRO	CA-C-N	6.33	133.63	121.54
1	E	391	PRO	C-N-CA	6.33	133.63	121.54
1	A	359	GLN	CA-C-N	6.32	129.92	120.31
1	A	359	GLN	C-N-CA	6.32	129.92	120.31
1	O	306	ALA	N-CA-C	-6.31	104.32	111.07
1	O	400	SER	N-CA-C	-6.31	105.62	113.38
1	C	301	GLY	O-C-N	-6.31	115.46	121.77
1	J	237	VAL	N-CA-C	6.30	122.45	109.34
1	L	312	TRP	CA-C-N	6.30	126.94	120.00
1	L	312	TRP	C-N-CA	6.30	126.94	120.00
1	R	425	ALA	CA-C-O	-6.30	112.55	118.73
1	N	274	ILE	N-CA-C	-6.30	106.83	112.12
1	C	226	ARG	CA-C-N	6.30	129.04	120.54
1	C	226	ARG	C-N-CA	6.30	129.04	120.54
1	O	324	THR	CA-C-N	6.30	129.01	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	O	324	THR	C-N-CA	6.30	129.01	120.38
1	F	322	ALA	CA-C-N	6.30	131.35	120.58
1	F	322	ALA	C-N-CA	6.30	131.35	120.58
1	M	284	SER	CA-C-N	6.30	132.90	120.94
1	M	284	SER	C-N-CA	6.30	132.90	120.94
1	D	272	SER	CA-C-N	6.29	127.70	119.84
1	D	272	SER	C-N-CA	6.29	127.70	119.84
1	Q	419	LEU	N-CA-C	-6.29	100.82	110.32
1	E	273	PRO	N-CA-C	6.29	125.42	112.47
1	C	301	GLY	CA-C-N	6.29	127.70	119.84
1	C	301	GLY	C-N-CA	6.29	127.70	119.84
1	A	280	GLU	CA-C-N	6.29	129.03	120.54
1	A	280	GLU	C-N-CA	6.29	129.03	120.54
1	B	245	THR	O-C-N	-6.28	115.58	123.17
1	R	309	MET	CA-C-N	6.28	128.60	120.44
1	R	309	MET	C-N-CA	6.28	128.60	120.44
1	R	274	ILE	O-C-N	-6.27	115.57	121.97
1	A	220	THR	O-C-N	-6.27	115.61	122.07
1	M	322	ALA	N-CA-C	6.27	120.03	112.38
1	L	409	ARG	CA-C-N	6.27	128.96	120.44
1	L	409	ARG	C-N-CA	6.27	128.96	120.44
1	K	308	TRP	N-CA-C	6.26	118.62	111.11
1	L	243	ILE	N-CA-C	-6.26	105.63	111.45
1	L	342	LEU	N-CA-C	6.26	118.62	111.11
1	C	418	ASP	CA-C-O	6.26	126.67	119.35
1	F	312	TRP	O-C-N	-6.26	115.49	122.12
1	G	215	PRO	O-C-N	-6.26	115.04	122.99
1	C	356	PRO	CA-C-N	6.25	128.66	120.28
1	C	356	PRO	C-N-CA	6.25	128.66	120.28
1	C	270	LEU	CA-C-N	6.25	129.51	120.38
1	C	270	LEU	C-N-CA	6.25	129.51	120.38
1	F	229	LEU	CA-C-N	6.25	128.90	120.65
1	F	229	LEU	C-N-CA	6.25	128.90	120.65
1	B	355	ASN	CA-C-N	6.25	125.99	119.05
1	B	355	ASN	C-N-CA	6.25	125.99	119.05
1	O	436	SER	O-C-N	-6.25	115.67	122.79
1	D	446	THR	CA-C-N	6.25	129.15	120.65
1	D	446	THR	C-N-CA	6.25	129.15	120.65
1	B	375	ALA	N-CA-C	6.24	118.60	111.11
1	M	276	MET	CA-C-N	6.24	128.56	120.44
1	M	276	MET	C-N-CA	6.24	128.56	120.44
1	E	331	ALA	CA-C-N	6.24	133.46	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	331	ALA	C-N-CA	6.24	133.46	121.54
1	D	299	ILE	N-CA-C	6.24	117.80	111.00
1	M	458	ILE	N-CA-C	-6.24	104.43	110.42
1	A	290	HIS	CA-C-O	6.23	127.16	120.55
1	M	265	VAL	CA-C-N	6.23	133.44	121.54
1	M	265	VAL	C-N-CA	6.23	133.44	121.54
1	M	426	PRO	N-CA-C	-6.23	103.69	113.78
1	D	329	HIS	CA-C-N	6.23	126.42	119.32
1	D	329	HIS	C-N-CA	6.23	126.42	119.32
1	M	445	ARG	O-C-N	-6.23	114.94	122.22
1	G	324	THR	N-CA-C	-6.22	103.81	111.40
1	H	357	GLN	CA-C-N	6.22	126.89	119.98
1	H	357	GLN	C-N-CA	6.22	126.89	119.98
1	D	363	LEU	CA-C-O	6.22	128.13	121.16
1	H	361	ALA	CA-C-O	6.22	126.88	119.60
1	N	307	LEU	O-C-N	6.22	128.56	122.09
1	N	458	ILE	N-CA-C	-6.22	104.45	110.42
1	E	306	ALA	CA-C-N	6.21	129.43	120.79
1	E	306	ALA	C-N-CA	6.21	129.43	120.79
1	R	364	ARG	CA-C-N	6.21	125.70	119.24
1	R	364	ARG	C-N-CA	6.21	125.70	119.24
1	B	461	VAL	CA-C-N	6.20	129.21	120.28
1	B	461	VAL	C-N-CA	6.20	129.21	120.28
1	B	325	ARG	N-CA-C	6.20	118.55	111.11
1	L	264	THR	CA-C-N	6.20	128.96	120.46
1	L	264	THR	C-N-CA	6.20	128.96	120.46
1	G	270	LEU	CA-C-N	6.20	133.38	121.54
1	G	270	LEU	C-N-CA	6.20	133.38	121.54
1	G	316	LEU	O-C-N	-6.20	115.08	122.15
1	J	260	ARG	N-CA-C	6.20	118.84	111.71
1	C	282	LEU	O-C-N	-6.20	114.13	122.43
1	D	379	PHE	O-C-N	-6.20	115.40	122.09
1	O	321	ALA	CA-C-N	6.19	130.51	120.60
1	O	321	ALA	C-N-CA	6.19	130.51	120.60
1	A	406	PHE	O-C-N	6.19	128.53	122.09
1	D	401	GLU	O-C-N	-6.19	115.68	123.17
1	E	309	MET	CA-C-O	6.19	127.52	120.90
1	F	306	ALA	CA-C-O	6.19	127.32	120.82
1	G	257	LEU	CA-C-O	6.19	127.09	119.97
1	G	368	LEU	CA-C-O	6.19	127.11	120.55
1	G	420	PRO	N-CA-C	-6.19	103.15	110.70
1	R	310	ASP	CA-C-N	6.19	128.57	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	R	310	ASP	C-N-CA	6.19	128.57	120.28
1	A	217	PRO	CA-C-N	6.19	132.83	121.70
1	A	217	PRO	C-N-CA	6.19	132.83	121.70
1	A	417	SER	CA-C-N	6.19	131.16	120.58
1	A	417	SER	C-N-CA	6.19	131.16	120.58
1	D	453	THR	CA-C-O	-6.19	114.81	120.50
1	L	350	ASP	CA-C-O	6.19	129.35	120.51
1	E	386	ALA	CA-C-O	6.18	129.35	120.51
1	F	327	PRO	CA-C-N	6.18	128.57	120.28
1	F	327	PRO	C-N-CA	6.18	128.57	120.28
1	G	220	THR	CA-C-N	6.18	133.35	121.54
1	G	220	THR	C-N-CA	6.18	133.35	121.54
1	P	437	GLN	CA-C-N	6.18	126.37	119.32
1	P	437	GLN	C-N-CA	6.18	126.37	119.32
1	L	395	ILE	O-C-N	-6.18	115.39	122.62
1	J	375	ALA	N-CA-C	6.17	117.68	111.07
1	P	333	GLY	CA-C-O	6.17	129.13	122.03
1	G	384	ARG	N-CA-C	-6.17	105.70	113.72
1	H	458	ILE	CA-C-O	6.17	127.71	121.17
1	J	422	SER	N-CA-C	6.17	120.27	112.87
1	F	234	PRO	CA-C-O	-6.17	111.62	120.56
1	G	234	PRO	CA-C-O	-6.17	111.62	120.56
1	I	288	LEU	O-C-N	-6.17	114.89	121.42
1	P	325	ARG	N-CA-C	6.16	118.79	111.33
1	Q	329	HIS	CA-C-N	6.16	127.54	119.84
1	Q	329	HIS	C-N-CA	6.16	127.54	119.84
1	K	375	ALA	N-CA-C	6.16	117.66	111.07
1	J	351	GLY	CA-C-O	6.15	126.19	119.55
1	L	420	PRO	CA-C-N	6.15	126.33	119.32
1	L	420	PRO	C-N-CA	6.15	126.33	119.32
1	P	378	ALA	O-C-N	-6.15	114.41	122.59
1	G	277	ALA	O-C-N	-6.14	115.75	122.07
1	J	409	ARG	CA-C-N	6.14	129.01	120.29
1	J	409	ARG	C-N-CA	6.14	129.01	120.29
1	B	459	LYS	O-C-N	-6.14	115.75	122.07
1	F	270	LEU	CA-C-N	6.13	133.26	121.54
1	F	270	LEU	C-N-CA	6.13	133.26	121.54
1	I	280	GLU	O-C-N	-6.13	115.06	122.11
1	M	461	VAL	CA-C-N	6.13	128.50	120.28
1	M	461	VAL	C-N-CA	6.13	128.50	120.28
1	A	254	GLU	CA-C-O	-6.13	112.97	119.22
1	C	239	MET	O-C-N	-6.13	114.27	121.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	307	LEU	N-CA-C	-6.13	103.54	111.02
1	C	236	VAL	CA-C-N	6.13	133.00	121.97
1	C	236	VAL	C-N-CA	6.13	133.00	121.97
1	A	329	HIS	CA-C-O	-6.12	113.80	120.17
1	E	387	GLU	N-CA-C	6.12	121.86	113.16
1	L	373	ALA	CA-C-O	6.12	127.25	120.82
1	K	256	LYS	N-CA-C	6.12	117.95	111.28
1	C	285	SER	CA-C-N	6.12	126.60	119.99
1	C	285	SER	C-N-CA	6.12	126.60	119.99
1	F	413	ALA	CA-C-N	6.12	128.39	120.56
1	F	413	ALA	C-N-CA	6.12	128.39	120.56
1	J	413	ALA	CA-C-N	6.12	129.11	120.42
1	J	413	ALA	C-N-CA	6.12	129.11	120.42
1	G	382	VAL	O-C-N	-6.12	115.44	122.17
1	C	464	ARG	N-CA-C	-6.12	105.77	113.72
1	H	260	ARG	N-CA-C	6.11	118.74	111.71
1	K	232	THR	CA-C-N	6.11	131.47	121.87
1	K	232	THR	C-N-CA	6.11	131.47	121.87
1	A	364	ARG	O-C-N	-6.11	115.70	121.20
1	C	267	THR	O-C-N	-6.11	114.47	122.59
1	H	372	THR	CA-C-O	6.11	127.02	120.55
1	R	418	ASP	CA-C-O	-6.11	114.36	120.90
1	A	244	LYS	O-C-N	-6.11	114.47	122.59
1	B	442	GLN	CA-C-O	6.10	126.89	120.42
1	E	215	PRO	O-C-N	-6.10	115.69	123.14
1	N	359	GLN	CA-C-N	6.10	129.07	120.28
1	N	359	GLN	C-N-CA	6.10	129.07	120.28
1	I	303	ALA	O-C-N	-6.10	115.56	120.38
1	E	302	PRO	N-CA-C	6.10	125.04	112.47
1	P	264	THR	CA-C-N	6.10	130.31	120.30
1	P	264	THR	C-N-CA	6.10	130.31	120.30
1	P	387	GLU	O-C-N	-6.10	115.56	120.38
1	R	417	SER	CA-C-N	6.10	128.78	120.54
1	R	417	SER	C-N-CA	6.10	128.78	120.54
1	P	360	ALA	CA-C-N	6.10	131.81	121.14
1	P	360	ALA	C-N-CA	6.10	131.81	121.14
1	I	211	ALA	CA-C-N	6.09	130.25	121.54
1	I	211	ALA	C-N-CA	6.09	130.25	121.54
1	Q	410	LEU	O-C-N	-6.09	115.21	122.15
1	R	443	LEU	CA-C-N	6.09	130.29	120.30
1	R	443	LEU	C-N-CA	6.09	130.29	120.30
1	B	284	SER	CA-C-N	6.09	129.91	120.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	284	SER	C-N-CA	6.09	129.91	120.60
1	C	386	ALA	CA-C-N	6.08	128.41	120.26
1	C	386	ALA	C-N-CA	6.08	128.41	120.26
1	I	250	TRP	CA-C-O	6.08	127.60	120.43
1	J	274	ILE	N-CA-C	-6.08	107.02	112.12
1	A	398	GLY	CA-C-N	6.07	127.19	120.45
1	A	398	GLY	C-N-CA	6.07	127.19	120.45
1	E	294	ASN	CA-C-N	6.07	128.33	120.44
1	E	294	ASN	C-N-CA	6.07	128.33	120.44
1	K	394	ASP	CA-C-O	6.07	126.54	119.32
1	L	331	ALA	N-CA-C	-6.06	104.75	111.36
1	R	322	ALA	N-CA-C	6.06	119.78	112.38
1	A	227	GLU	CA-C-O	6.06	127.71	120.92
1	P	288	LEU	CA-C-N	6.06	126.23	119.32
1	P	288	LEU	C-N-CA	6.06	126.23	119.32
1	O	409	ARG	CA-C-O	6.06	127.17	120.63
1	J	261	LEU	N-CA-C	-6.05	104.76	111.36
1	K	306	ALA	CA-C-N	6.05	128.31	120.44
1	K	306	ALA	C-N-CA	6.05	128.31	120.44
1	R	415	GLU	N-CA-C	6.05	117.88	111.28
1	M	408	ASN	N-CA-C	6.05	117.96	111.36
1	H	358	GLY	N-CA-C	-6.05	105.47	112.73
1	I	318	THR	CA-C-O	6.05	126.82	119.38
1	C	406	PHE	CA-C-N	6.05	128.30	120.44
1	C	406	PHE	C-N-CA	6.05	128.30	120.44
1	Q	383	ALA	N-CA-C	6.05	120.16	113.21
1	E	430	ASP	O-C-N	-6.04	115.71	122.12
1	J	374	SER	CA-C-N	6.04	128.30	120.44
1	J	374	SER	C-N-CA	6.04	128.30	120.44
1	N	379	PHE	O-C-N	-6.04	115.56	122.09
1	A	430	ASP	N-CA-C	6.04	117.53	111.07
1	C	270	LEU	N-CA-C	-6.04	105.49	112.92
1	H	389	ALA	N-CA-C	-6.04	99.89	109.07
1	D	387	GLU	O-C-N	6.04	126.29	120.55
1	F	296	MET	O-C-N	-6.04	115.57	122.09
1	F	447	ALA	CA-C-N	6.04	125.98	119.76
1	F	447	ALA	C-N-CA	6.04	125.98	119.76
1	J	235	PRO	N-CA-C	-6.04	106.12	114.27
1	E	274	ILE	CA-C-N	6.04	128.28	120.44
1	E	274	ILE	C-N-CA	6.04	128.28	120.44
1	I	319	VAL	CA-C-O	6.03	126.98	120.47
1	N	390	GLY	O-C-N	-6.03	113.35	123.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	R	329	HIS	CA-C-N	6.03	126.46	119.47
1	R	329	HIS	C-N-CA	6.03	126.46	119.47
1	C	310	ASP	O-C-N	6.03	128.30	122.03
1	D	428	ILE	CA-C-O	6.02	127.55	121.17
1	M	446	THR	CA-C-O	6.02	126.82	119.11
1	I	221	ASP	CA-C-N	6.02	133.03	121.54
1	I	221	ASP	C-N-CA	6.02	133.03	121.54
1	M	421	PRO	O-C-N	6.02	129.16	122.24
1	B	306	ALA	N-CA-C	6.01	117.50	111.07
1	Q	350	ASP	CA-C-N	6.01	133.20	121.41
1	Q	350	ASP	C-N-CA	6.01	133.20	121.41
1	K	462	LEU	CA-C-N	6.01	130.76	120.72
1	K	462	LEU	C-N-CA	6.01	130.76	120.72
1	N	398	GLY	CA-C-N	6.01	125.63	119.56
1	N	398	GLY	C-N-CA	6.01	125.63	119.56
1	M	429	ILE	O-C-N	-6.00	116.05	121.87
1	P	305	TYR	CA-C-O	-6.00	114.14	120.63
1	C	423	ALA	N-CA-C	-6.00	106.00	113.38
1	M	325	ARG	N-CA-C	6.00	118.59	111.33
1	G	420	PRO	CA-C-N	6.00	126.16	119.32
1	G	420	PRO	C-N-CA	6.00	126.16	119.32
1	M	360	ALA	CA-C-O	6.00	126.88	120.10
1	A	282	LEU	CA-C-O	6.00	126.84	119.05
1	J	328	ARG	CA-C-N	6.00	129.77	120.60
1	J	328	ARG	C-N-CA	6.00	129.77	120.60
1	N	264	THR	O-C-N	-6.00	115.76	122.12
1	I	247	GLY	CA-C-N	6.00	126.34	119.93
1	I	247	GLY	C-N-CA	6.00	126.34	119.93
1	I	273	PRO	N-CA-C	5.99	124.82	112.47
1	J	384	ARG	N-CA-C	-5.99	106.01	113.38
1	C	319	VAL	CA-C-O	-5.99	114.30	120.71
1	A	249	ALA	N-CA-C	-5.99	104.11	112.25
1	C	440	ILE	N-CA-C	5.99	116.77	110.72
1	R	255	PRO	CA-C-N	5.99	128.30	120.28
1	R	255	PRO	C-N-CA	5.99	128.30	120.28
1	E	378	ALA	CA-C-N	5.98	128.58	120.44
1	E	378	ALA	C-N-CA	5.98	128.58	120.44
1	A	264	THR	O-C-N	-5.98	115.78	122.12
1	E	253	LEU	O-C-N	-5.98	115.09	123.11
1	P	427	VAL	O-C-N	-5.98	116.05	121.91
1	K	423	ALA	CA-C-O	5.98	125.96	119.15
1	A	442	GLN	CA-C-N	5.98	128.29	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	442	GLN	C-N-CA	5.98	128.29	120.28
1	Q	274	ILE	N-CA-C	-5.97	107.10	112.12
1	E	385	LEU	N-CA-C	5.97	118.68	109.07
1	G	395	ILE	N-CA-C	5.97	115.85	107.37
1	L	396	MET	O-C-N	-5.97	115.47	123.23
1	K	437	GLN	CA-C-N	5.97	126.12	119.32
1	K	437	GLN	C-N-CA	5.97	126.12	119.32
1	O	431	CYS	CA-C-N	5.97	128.20	120.44
1	O	431	CYS	C-N-CA	5.97	128.20	120.44
1	F	449	SER	CA-C-N	5.96	128.27	120.28
1	F	449	SER	C-N-CA	5.96	128.27	120.28
1	A	234	PRO	CA-C-O	-5.96	111.92	120.56
1	M	396	MET	N-CA-C	-5.96	98.14	108.69
1	I	355	ASN	CA-C-N	5.96	125.66	119.05
1	I	355	ASN	C-N-CA	5.96	125.66	119.05
1	K	412	LYS	O-C-N	-5.96	115.93	122.07
1	P	310	ASP	N-CA-C	-5.96	104.48	110.97
1	O	286	PRO	CA-C-O	-5.96	114.24	121.03
1	D	455	GLY	CA-C-N	5.95	128.74	120.29
1	D	455	GLY	C-N-CA	5.95	128.74	120.29
1	E	345	LEU	N-CA-C	5.95	118.55	111.71
1	F	259	THR	N-CA-C	5.95	117.44	111.07
1	P	464	ARG	CA-C-O	-5.95	112.17	118.77
1	O	435	LYS	N-CA-C	5.95	122.53	113.61
1	I	431	CYS	CA-C-N	5.94	128.17	120.44
1	I	431	CYS	C-N-CA	5.94	128.17	120.44
1	Q	284	SER	N-CA-C	-5.94	105.99	113.72
1	G	386	ALA	CA-C-O	5.94	129.00	120.51
1	K	420	PRO	CA-C-N	5.94	126.09	119.32
1	K	420	PRO	C-N-CA	5.94	126.09	119.32
1	L	236	VAL	CA-C-N	5.94	132.66	121.97
1	L	236	VAL	C-N-CA	5.94	132.66	121.97
1	H	379	PHE	CA-C-N	5.94	128.24	120.28
1	H	379	PHE	C-N-CA	5.94	128.24	120.28
1	G	371	ILE	CA-C-N	5.94	128.23	120.28
1	G	371	ILE	C-N-CA	5.94	128.23	120.28
1	K	258	ILE	N-CA-C	-5.94	104.72	110.72
1	O	317	GLN	O-C-N	-5.94	115.83	122.12
1	B	417	SER	CA-C-N	5.93	131.52	121.14
1	B	417	SER	C-N-CA	5.93	131.52	121.14
1	K	385	LEU	N-CA-C	5.93	118.86	110.50
1	G	362	LEU	N-CA-C	-5.93	105.71	113.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	H	367	GLU	CA-C-O	-5.93	114.14	120.42
1	O	288	LEU	CA-C-N	5.93	126.08	119.32
1	O	288	LEU	C-N-CA	5.93	126.08	119.32
1	P	428	ILE	O-C-N	-5.92	116.11	121.91
1	C	463	ASP	N-CA-C	-5.92	105.32	112.54
1	I	391	PRO	CA-C-N	5.92	132.85	121.54
1	I	391	PRO	C-N-CA	5.92	132.85	121.54
1	F	313	GLY	CA-C-O	5.92	126.85	120.75
1	I	460	TYR	O-C-N	-5.92	115.85	122.12
1	N	267	THR	CA-C-N	5.92	128.69	120.29
1	N	267	THR	C-N-CA	5.92	128.69	120.29
1	Q	455	GLY	CA-C-N	5.92	128.21	120.28
1	Q	455	GLY	C-N-CA	5.92	128.21	120.28
1	E	375	ALA	CA-C-N	5.92	128.69	120.29
1	E	375	ALA	C-N-CA	5.92	128.69	120.29
1	M	360	ALA	O-C-N	-5.92	115.30	122.22
1	E	221	ASP	CA-C-N	5.92	128.21	120.28
1	E	221	ASP	C-N-CA	5.92	128.21	120.28
1	B	416	GLY	O-C-N	-5.91	113.45	122.26
1	P	412	LYS	N-CA-C	5.91	117.39	111.07
1	B	412	LYS	O-C-N	-5.91	115.94	122.09
1	E	249	ALA	CA-C-N	5.91	132.82	121.54
1	E	249	ALA	C-N-CA	5.91	132.82	121.54
1	N	419	LEU	N-CA-C	-5.91	99.33	108.55
1	R	417	SER	CA-C-O	5.91	127.36	120.80
1	Q	442	GLN	CA-C-N	5.91	128.12	120.44
1	Q	442	GLN	C-N-CA	5.91	128.12	120.44
1	E	275	THR	CA-C-O	5.90	127.02	120.82
1	P	349	ALA	O-C-N	-5.90	116.12	122.85
1	E	400	SER	O-C-N	5.90	130.60	122.46
1	L	212	GLY	O-C-N	-5.90	117.31	122.91
1	G	359	GLN	O-C-N	-5.90	115.87	122.12
1	E	312	TRP	CA-C-N	5.90	126.53	119.98
1	E	312	TRP	C-N-CA	5.90	126.53	119.98
1	F	430	ASP	N-CA-C	5.89	117.37	111.07
1	P	461	VAL	CA-C-N	5.89	128.76	120.28
1	P	461	VAL	C-N-CA	5.89	128.76	120.28
1	H	389	ALA	CA-C-O	-5.89	114.97	121.33
1	K	385	LEU	CA-C-N	5.89	132.79	121.54
1	K	385	LEU	C-N-CA	5.89	132.79	121.54
1	C	339	ARG	CA-C-O	5.89	128.70	121.87
1	Q	394	ASP	CA-C-O	5.88	126.23	119.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	P	318	THR	CA-C-O	5.88	126.62	119.38
1	K	215	PRO	O-C-N	-5.88	115.79	122.91
1	J	396	MET	CA-C-N	5.88	129.72	121.02
1	J	396	MET	C-N-CA	5.88	129.72	121.02
1	Q	297	ARG	N-CA-C	5.88	118.47	111.71
1	L	285	SER	CA-C-O	-5.88	115.60	120.71
1	N	347	GLY	CA-C-N	5.88	132.09	121.92
1	N	347	GLY	C-N-CA	5.88	132.09	121.92
1	A	397	GLN	N-CA-C	5.87	118.22	109.59
1	Q	403	PHE	CA-C-N	5.87	128.76	120.42
1	Q	403	PHE	C-N-CA	5.87	128.76	120.42
1	I	460	TYR	CA-C-N	5.87	127.95	120.56
1	I	460	TYR	C-N-CA	5.87	127.95	120.56
1	D	447	ALA	N-CA-C	5.86	117.92	109.48
1	O	255	PRO	CA-C-N	5.86	128.14	120.28
1	O	255	PRO	C-N-CA	5.86	128.14	120.28
1	I	445	ARG	CA-C-O	5.86	126.72	120.10
1	J	264	THR	O-C-N	-5.86	115.91	122.12
1	J	310	ASP	CA-C-N	5.86	128.13	120.28
1	J	310	ASP	C-N-CA	5.86	128.13	120.28
1	J	343	ASN	CA-C-N	5.86	128.05	120.44
1	J	343	ASN	C-N-CA	5.86	128.05	120.44
1	I	439	ASP	O-C-N	-5.86	115.07	122.27
1	L	214	ALA	O-C-N	-5.86	115.76	121.56
1	L	274	ILE	CA-C-N	5.86	128.05	120.44
1	L	274	ILE	C-N-CA	5.86	128.05	120.44
1	K	296	MET	N-CA-C	-5.85	104.90	111.28
1	Q	453	THR	CA-C-N	5.85	125.99	119.32
1	Q	453	THR	C-N-CA	5.85	125.99	119.32
1	F	323	ALA	O-C-N	-5.85	114.62	122.23
1	M	280	GLU	CA-C-N	5.85	128.05	120.44
1	M	280	GLU	C-N-CA	5.85	128.05	120.44
1	M	461	VAL	CA-C-O	5.85	127.04	120.95
1	J	236	VAL	CA-C-N	5.85	132.49	121.97
1	J	236	VAL	C-N-CA	5.85	132.49	121.97
1	D	237	VAL	CA-C-O	5.85	128.09	120.78
1	O	309	MET	CA-C-N	5.85	128.04	120.44
1	O	309	MET	C-N-CA	5.85	128.04	120.44
1	H	398	GLY	O-C-N	-5.84	115.93	121.77
1	M	425	ALA	N-CA-C	5.84	120.69	112.75
1	I	390	GLY	CA-C-N	5.84	127.14	119.84
1	I	390	GLY	C-N-CA	5.84	127.14	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Q	349	ALA	N-CA-C	5.83	118.52	109.60
1	B	404	VAL	N-CA-C	5.83	116.56	110.62
1	G	464	ARG	N-CA-C	-5.82	106.15	113.72
1	C	347	GLY	CA-C-N	5.82	131.68	122.60
1	C	347	GLY	C-N-CA	5.82	131.68	122.60
1	G	413	ALA	CA-C-N	5.82	128.69	120.42
1	G	413	ALA	C-N-CA	5.82	128.69	120.42
1	P	413	ALA	CA-C-N	5.82	128.01	120.56
1	P	413	ALA	C-N-CA	5.82	128.01	120.56
1	P	379	PHE	O-C-N	-5.82	115.81	122.09
1	F	360	ALA	CA-C-O	5.81	126.67	120.10
1	E	310	ASP	N-CA-C	5.81	117.29	111.07
1	N	352	MET	O-C-N	-5.81	115.33	122.19
1	N	442	GLN	CA-C-N	5.81	127.99	120.44
1	N	442	GLN	C-N-CA	5.81	127.99	120.44
1	B	405	ASP	CA-C-N	5.81	127.99	120.44
1	B	405	ASP	C-N-CA	5.81	127.99	120.44
1	H	420	PRO	N-CA-C	-5.81	104.89	110.47
1	P	369	VAL	CA-C-N	5.80	127.98	120.44
1	P	369	VAL	C-N-CA	5.80	127.98	120.44
1	R	391	PRO	CA-C-N	5.80	132.62	121.54
1	R	391	PRO	C-N-CA	5.80	132.62	121.54
1	G	390	GLY	CA-C-N	5.80	127.09	119.84
1	G	390	GLY	C-N-CA	5.80	127.09	119.84
1	R	334	GLN	N-CA-C	5.80	117.47	111.03
1	E	361	ALA	N-CA-C	-5.79	106.04	113.23
1	O	339	ARG	O-C-N	-5.79	115.90	122.97
1	H	382	VAL	N-CA-C	-5.79	107.17	112.96
1	K	295	LEU	CA-C-N	5.79	128.03	120.28
1	K	295	LEU	C-N-CA	5.79	128.03	120.28
1	P	422	SER	CA-C-O	-5.79	112.49	119.49
1	N	419	LEU	CA-C-O	-5.78	115.18	120.50
1	Q	372	THR	O-C-N	-5.78	115.99	122.12
1	F	239	MET	O-C-N	-5.77	114.68	121.32
1	P	335	GLY	N-CA-C	5.77	122.01	112.89
1	P	409	ARG	CA-C-N	5.77	128.29	120.44
1	P	409	ARG	C-N-CA	5.77	128.29	120.44
1	N	444	ILE	N-CA-C	-5.76	104.90	110.72
1	C	454	PRO	CA-C-N	5.76	126.33	119.94
1	C	454	PRO	C-N-CA	5.76	126.33	119.94
1	P	308	TRP	CA-C-O	5.76	126.87	120.82
1	H	411	ILE	CA-C-O	5.76	127.27	121.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	261	LEU	CA-C-N	5.76	127.92	120.44
1	D	261	LEU	C-N-CA	5.76	127.92	120.44
1	D	446	THR	CA-C-O	5.76	126.48	119.11
1	J	294	ASN	CA-C-O	5.75	126.65	120.55
1	H	229	LEU	CA-C-O	5.75	128.74	120.51
1	M	266	ARG	CA-C-N	5.75	132.53	121.54
1	M	266	ARG	C-N-CA	5.75	132.53	121.54
1	J	451	LEU	CA-C-O	-5.75	114.93	121.66
1	G	289	PRO	O-C-N	-5.75	115.63	122.24
1	I	262	ALA	CA-C-N	5.74	128.29	120.54
1	I	262	ALA	C-N-CA	5.74	128.29	120.54
1	J	330	PRO	N-CA-C	5.74	124.30	112.47
1	R	264	THR	N-CA-C	5.74	117.54	111.28
1	K	273	PRO	CA-C-N	5.74	129.25	123.16
1	K	273	PRO	C-N-CA	5.74	129.25	123.16
1	Q	305	TYR	CA-C-N	5.74	127.90	120.44
1	Q	305	TYR	C-N-CA	5.74	127.90	120.44
1	D	425	ALA	CA-C-N	5.74	125.86	119.32
1	D	425	ALA	C-N-CA	5.74	125.86	119.32
1	P	427	VAL	N-CA-C	5.74	115.93	110.42
1	F	370	ALA	O-C-N	-5.73	116.16	122.07
1	C	287	LEU	CA-C-N	5.73	128.36	120.39
1	C	287	LEU	C-N-CA	5.73	128.36	120.39
1	R	390	GLY	CA-C-N	5.73	127.01	119.84
1	R	390	GLY	C-N-CA	5.73	127.01	119.84
1	N	268	LYS	CA-C-O	5.73	126.49	120.42
1	E	301	GLY	O-C-N	-5.73	116.04	121.77
1	I	316	LEU	CA-C-N	5.73	127.96	120.28
1	I	316	LEU	C-N-CA	5.73	127.96	120.28
1	I	386	ALA	N-CA-C	5.73	118.55	109.96
1	H	406	PHE	CA-C-N	5.73	127.88	120.44
1	H	406	PHE	C-N-CA	5.73	127.88	120.44
1	K	279	VAL	CA-C-O	-5.72	114.69	121.05
1	Q	373	ALA	CA-C-N	5.72	128.27	120.54
1	Q	373	ALA	C-N-CA	5.72	128.27	120.54
1	B	421	PRO	CA-C-N	5.72	129.75	120.60
1	B	421	PRO	C-N-CA	5.72	129.75	120.60
1	J	257	LEU	N-CA-C	5.72	118.45	111.82
1	P	385	LEU	CA-C-N	5.72	132.47	121.54
1	P	385	LEU	C-N-CA	5.72	132.47	121.54
1	B	279	VAL	CA-C-N	5.72	128.74	120.79
1	B	279	VAL	C-N-CA	5.72	128.74	120.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	F	450	THR	O-C-N	5.72	128.18	122.12
1	G	330	PRO	N-CA-C	5.71	122.26	113.75
1	B	443	LEU	CA-C-N	5.71	129.49	120.47
1	B	443	LEU	C-N-CA	5.71	129.49	120.47
1	E	443	LEU	N-CA-C	-5.71	105.06	111.28
1	K	221	ASP	CA-C-O	-5.71	114.91	121.19
1	B	354	GLY	O-C-N	-5.70	115.15	122.39
1	H	405	ASP	CA-C-N	5.70	127.85	120.44
1	H	405	ASP	C-N-CA	5.70	127.85	120.44
1	A	432	PHE	N-CA-C	-5.70	104.97	111.07
1	D	285	SER	CA-C-N	5.70	125.71	119.90
1	D	285	SER	C-N-CA	5.70	125.71	119.90
1	J	389	ALA	O-C-N	-5.70	115.31	123.06
1	B	215	PRO	CA-C-N	5.69	131.95	121.70
1	B	215	PRO	C-N-CA	5.69	131.95	121.70
1	D	387	GLU	CA-C-N	5.69	126.95	119.84
1	D	387	GLU	C-N-CA	5.69	126.95	119.84
1	I	281	ALA	CA-C-N	5.69	130.22	120.72
1	I	281	ALA	C-N-CA	5.69	130.22	120.72
1	P	255	PRO	CA-C-N	5.69	127.90	120.28
1	P	255	PRO	C-N-CA	5.69	127.90	120.28
1	C	340	THR	O-C-N	-5.68	115.70	122.46
1	C	407	ALA	CA-C-N	5.68	127.83	120.44
1	C	407	ALA	C-N-CA	5.68	127.83	120.44
1	G	240	PRO	O-C-N	-5.68	116.61	123.03
1	R	279	VAL	CA-C-N	5.68	128.69	120.79
1	R	279	VAL	C-N-CA	5.68	128.69	120.79
1	G	419	LEU	CA-C-O	-5.68	115.11	120.34
1	M	446	THR	O-C-N	-5.68	114.14	122.43
1	R	461	VAL	CA-C-N	5.68	127.89	120.28
1	R	461	VAL	C-N-CA	5.68	127.89	120.28
1	E	337	GLY	CA-C-N	5.67	129.76	120.63
1	E	337	GLY	C-N-CA	5.67	129.76	120.63
1	E	309	MET	O-C-N	-5.67	116.19	122.09
1	A	367	GLU	CA-C-N	5.67	127.88	120.28
1	A	367	GLU	C-N-CA	5.67	127.88	120.28
1	E	441	GLN	CA-C-N	5.67	128.34	120.29
1	E	441	GLN	C-N-CA	5.67	128.34	120.29
1	R	370	ALA	O-C-N	5.67	127.91	122.07
1	C	283	MET	O-C-N	5.67	129.60	121.95
1	Q	422	SER	N-CA-C	5.67	119.30	112.38
1	H	266	ARG	O-C-N	5.67	130.13	122.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	234	PRO	N-CA-C	5.67	117.61	110.70
1	D	410	LEU	CA-C-O	5.66	126.42	120.42
1	D	431	CYS	CA-C-N	5.66	127.80	120.44
1	D	431	CYS	C-N-CA	5.66	127.80	120.44
1	J	320	ILE	N-CA-C	-5.66	105.65	113.00
1	O	327	PRO	N-CA-C	-5.66	107.28	114.35
1	F	321	ALA	CA-C-N	5.65	129.65	120.60
1	F	321	ALA	C-N-CA	5.65	129.65	120.60
1	R	254	GLU	CA-C-N	5.65	126.91	119.84
1	R	254	GLU	C-N-CA	5.65	126.91	119.84
1	A	238	ALA	N-CA-C	5.65	122.83	110.80
1	J	312	TRP	CA-C-N	5.64	126.21	120.00
1	J	312	TRP	C-N-CA	5.64	126.21	120.00
1	K	231	SER	CA-C-N	5.64	131.07	122.95
1	K	231	SER	C-N-CA	5.64	131.07	122.95
1	Q	317	GLN	N-CA-C	5.64	117.43	111.28
1	G	227	GLU	N-CA-C	5.64	118.16	111.33
1	E	395	ILE	O-C-N	-5.64	116.02	122.62
1	E	424	ARG	N-CA-C	5.64	117.10	111.07
1	J	447	ALA	CA-C-N	5.64	125.64	119.89
1	J	447	ALA	C-N-CA	5.64	125.64	119.89
1	O	414	VAL	CA-C-N	5.64	127.84	120.28
1	O	414	VAL	C-N-CA	5.64	127.84	120.28
1	R	458	ILE	N-CA-C	-5.64	105.01	110.42
1	C	461	VAL	CA-C-N	5.64	127.83	120.28
1	C	461	VAL	C-N-CA	5.64	127.83	120.28
1	D	326	ASP	CA-C-N	5.63	125.73	119.87
1	D	326	ASP	C-N-CA	5.63	125.73	119.87
1	K	461	VAL	N-CA-C	-5.63	105.01	110.42
1	E	378	ALA	CA-C-O	5.63	126.51	120.20
1	P	292	VAL	CA-C-N	5.63	128.14	120.54
1	P	292	VAL	C-N-CA	5.63	128.14	120.54
1	I	239	MET	N-CA-C	5.63	122.25	109.81
1	A	278	GLU	CA-C-O	5.62	126.44	119.97
1	C	321	ALA	CA-C-N	5.62	129.59	120.60
1	C	321	ALA	C-N-CA	5.62	129.59	120.60
1	F	404	VAL	O-C-N	-5.62	116.42	121.87
1	C	391	PRO	O-C-N	5.62	129.85	122.27
1	E	388	PRO	CA-C-N	5.62	128.69	120.71
1	E	388	PRO	C-N-CA	5.62	128.69	120.71
1	F	461	VAL	CA-C-N	5.62	128.08	120.38
1	F	461	VAL	C-N-CA	5.62	128.08	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	305	TYR	O-C-N	-5.62	116.17	122.12
1	I	437	GLN	CA-C-N	5.61	125.72	119.32
1	I	437	GLN	C-N-CA	5.61	125.72	119.32
1	A	254	GLU	CA-C-N	5.61	125.28	119.05
1	A	254	GLU	C-N-CA	5.61	125.28	119.05
1	L	270	LEU	CA-C-N	5.61	132.26	121.54
1	L	270	LEU	C-N-CA	5.61	132.26	121.54
1	C	246	GLU	O-C-N	-5.61	115.13	122.59
1	C	459	LYS	CA-C-O	5.61	126.49	120.55
1	O	352	MET	N-CA-C	-5.61	103.97	112.04
1	F	418	ASP	N-CA-C	5.60	119.81	112.92
1	D	338	GLU	CA-C-O	5.60	126.48	119.59
1	G	373	ALA	CA-C-N	5.60	128.10	120.54
1	G	373	ALA	C-N-CA	5.60	128.10	120.54
1	K	232	THR	CA-C-O	5.60	128.31	120.52
1	N	382	VAL	CA-C-N	-5.60	111.18	122.55
1	N	382	VAL	C-N-CA	-5.60	111.18	122.55
1	N	457	ILE	CA-C-N	5.60	127.62	120.56
1	N	457	ILE	C-N-CA	5.60	127.62	120.56
1	G	414	VAL	N-CA-C	-5.60	105.06	110.72
1	L	222	TRP	N-CA-C	5.60	122.73	110.80
1	R	382	VAL	CA-C-O	5.60	123.99	119.29
1	E	438	PRO	O-C-N	-5.60	116.14	122.18
1	A	350	ASP	CA-C-O	5.59	127.34	121.19
1	J	456	GLU	CA-C-O	5.59	126.48	120.55
1	E	292	VAL	CA-C-N	5.59	128.56	120.79
1	E	292	VAL	C-N-CA	5.59	128.56	120.79
1	N	255	PRO	CA-C-N	5.59	127.77	120.28
1	N	255	PRO	C-N-CA	5.59	127.77	120.28
1	R	316	LEU	O-C-N	-5.59	115.78	122.15
1	C	276	MET	N-CA-C	5.59	118.09	111.33
1	R	273	PRO	CA-C-N	-5.59	116.90	122.77
1	R	273	PRO	C-N-CA	-5.59	116.90	122.77
1	C	333	GLY	N-CA-C	-5.59	102.80	111.12
1	B	437	GLN	CA-C-N	5.58	125.69	119.32
1	B	437	GLN	C-N-CA	5.58	125.69	119.32
1	N	451	LEU	CA-C-O	-5.58	115.63	121.55
1	B	389	ALA	N-CA-C	-5.58	99.94	108.76
1	N	368	LEU	CA-C-N	5.58	128.35	120.42
1	N	368	LEU	C-N-CA	5.58	128.35	120.42
1	C	332	ASN	N-CA-C	5.58	117.53	110.33
1	F	214	ALA	N-CA-C	5.58	122.14	109.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	F	309	MET	CA-C-N	5.58	127.69	120.44
1	F	309	MET	C-N-CA	5.58	127.69	120.44
1	M	296	MET	N-CA-C	5.57	117.03	111.07
1	M	378	ALA	CA-C-N	5.57	128.02	120.44
1	M	378	ALA	C-N-CA	5.57	128.02	120.44
1	I	420	PRO	N-CA-C	-5.57	104.62	110.58
1	K	396	MET	CA-C-N	5.57	129.26	121.24
1	K	396	MET	C-N-CA	5.57	129.26	121.24
1	A	454	PRO	CA-C-N	5.57	126.16	119.98
1	A	454	PRO	C-N-CA	5.57	126.16	119.98
1	O	328	ARG	N-CA-C	-5.57	105.17	112.41
1	A	350	ASP	O-C-N	-5.57	116.02	122.87
1	C	371	ILE	N-CA-C	5.56	116.20	110.36
1	D	349	ALA	O-C-N	-5.56	116.45	122.79
1	F	222	TRP	N-CA-C	5.56	122.65	110.80
1	G	306	ALA	N-CA-C	5.56	117.02	111.07
1	O	411	ILE	CA-C-N	5.56	127.67	120.44
1	O	411	ILE	C-N-CA	5.56	127.67	120.44
1	O	300	LEU	CA-C-O	5.56	126.31	120.42
1	E	327	PRO	N-CA-C	-5.55	107.53	114.20
1	E	355	ASN	CA-C-N	5.55	125.39	119.28
1	E	355	ASN	C-N-CA	5.55	125.39	119.28
1	K	434	GLN	CA-C-N	5.55	130.92	122.37
1	K	434	GLN	C-N-CA	5.55	130.92	122.37
1	N	343	ASN	N-CA-C	-5.55	105.13	111.07
1	Q	261	LEU	CA-C-O	5.55	126.31	120.42
1	J	347	GLY	N-CA-C	-5.55	107.58	115.30
1	Q	461	VAL	CA-C-N	5.55	128.28	120.28
1	Q	461	VAL	C-N-CA	5.55	128.28	120.28
1	D	357	GLN	CA-C-O	5.55	126.30	120.42
1	D	408	ASN	O-C-N	-5.55	116.36	122.07
1	I	307	LEU	O-C-N	5.55	127.79	122.07
1	N	333	GLY	N-CA-C	5.55	126.33	113.18
1	C	421	PRO	CA-C-N	5.55	129.47	120.60
1	C	421	PRO	C-N-CA	5.55	129.47	120.60
1	D	217	PRO	CA-C-N	5.55	131.68	121.70
1	D	217	PRO	C-N-CA	5.55	131.68	121.70
1	L	315	GLN	CA-C-O	5.54	126.83	120.90
1	Q	354	GLY	CA-C-O	5.54	125.27	119.06
1	A	323	ALA	CA-C-O	5.54	126.39	120.24
1	G	215	PRO	CA-C-N	5.54	131.68	121.70
1	G	215	PRO	C-N-CA	5.54	131.68	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	L	392	TRP	N-CA-C	5.54	122.60	110.80
1	N	299	ILE	N-CA-C	5.54	116.19	110.82
1	Q	461	VAL	CA-C-O	5.54	127.04	121.17
1	M	458	ILE	O-C-N	5.54	127.34	121.91
1	O	329	HIS	CA-C-O	-5.54	114.45	120.87
1	A	343	ASN	CA-C-N	5.54	127.96	120.65
1	A	343	ASN	C-N-CA	5.54	127.96	120.65
1	H	330	PRO	N-CA-C	5.54	123.87	112.47
1	E	308	TRP	N-CA-C	5.53	116.99	111.07
1	D	396	MET	N-CA-C	-5.53	101.00	109.41
1	L	217	PRO	CA-C-N	5.53	131.66	121.70
1	L	217	PRO	C-N-CA	5.53	131.66	121.70
1	C	450	THR	CA-C-N	5.53	130.19	121.56
1	C	450	THR	C-N-CA	5.53	130.19	121.56
1	B	290	HIS	CA-C-N	5.53	127.96	120.44
1	B	290	HIS	C-N-CA	5.53	127.96	120.44
1	B	268	LYS	CA-C-O	5.52	126.06	119.60
1	N	391	PRO	CA-C-N	5.52	132.09	121.54
1	N	391	PRO	C-N-CA	5.52	132.09	121.54
1	M	368	LEU	O-C-N	5.52	127.97	122.12
1	O	279	VAL	CA-C-N	5.52	129.97	121.19
1	O	279	VAL	C-N-CA	5.52	129.97	121.19
1	C	220	THR	O-C-N	-5.52	116.27	122.12
1	I	370	ALA	N-CA-C	-5.52	105.16	111.07
1	K	246	GLU	O-C-N	-5.52	114.49	121.67
1	N	459	LYS	CA-C-N	5.52	127.67	120.28
1	N	459	LYS	C-N-CA	5.52	127.67	120.28
1	B	387	GLU	N-CA-C	5.51	120.42	113.25
1	D	368	LEU	N-CA-C	5.51	117.29	111.28
1	M	453	THR	CA-C-N	5.51	125.60	119.32
1	M	453	THR	C-N-CA	5.51	125.60	119.32
1	P	316	LEU	O-C-N	-5.51	116.28	122.12
1	E	398	GLY	O-C-N	-5.51	116.26	121.77
1	I	282	LEU	CA-C-O	5.51	126.16	119.38
1	L	295	LEU	O-C-N	-5.51	116.39	122.07
1	E	408	ASN	O-C-N	-5.51	116.40	122.07
1	A	392	TRP	O-C-N	-5.51	115.27	122.59
1	J	230	ALA	O-C-N	-5.50	116.30	122.03
1	F	302	PRO	N-CA-C	5.50	123.81	112.47
1	M	273	PRO	N-CA-C	5.50	123.80	112.47
1	Q	308	TRP	CA-C-O	-5.50	115.01	120.90
1	E	405	ASP	CA-C-N	5.50	127.59	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	405	ASP	C-N-CA	5.50	127.59	120.44
1	H	394	ASP	N-CA-C	-5.50	106.24	113.17
1	Q	385	LEU	CA-C-N	5.50	132.04	121.54
1	Q	385	LEU	C-N-CA	5.50	132.04	121.54
1	R	419	LEU	CA-C-O	-5.50	112.63	120.16
1	D	445	ARG	O-C-N	5.50	128.65	122.22
1	C	248	PRO	CA-C-O	-5.49	114.40	122.31
1	E	288	LEU	O-C-N	-5.49	115.38	121.53
1	F	389	ALA	N-CA-C	5.49	118.29	110.10
1	N	262	ALA	N-CA-C	-5.49	105.19	111.07
1	H	358	GLY	O-C-N	-5.49	116.92	122.19
1	K	455	GLY	CA-C-O	5.49	126.40	120.75
1	N	445	ARG	O-C-N	-5.49	116.30	122.12
1	C	449	SER	CA-C-N	5.49	128.08	120.29
1	C	449	SER	C-N-CA	5.49	128.08	120.29
1	K	229	LEU	N-CA-C	5.49	122.49	110.80
1	C	462	LEU	CA-C-N	5.48	129.88	120.72
1	C	462	LEU	C-N-CA	5.48	129.88	120.72
1	F	315	GLN	N-CA-C	5.48	117.69	111.11
1	L	351	GLY	O-C-N	-5.48	115.47	122.43
1	O	398	GLY	CA-C-N	5.48	125.96	120.04
1	O	398	GLY	C-N-CA	5.48	125.96	120.04
1	K	413	ALA	O-C-N	-5.48	115.81	122.22
1	L	238	ALA	O-C-N	-5.48	116.11	123.23
1	R	269	GLY	O-C-N	5.48	129.82	122.70
1	N	288	LEU	CA-C-N	5.48	125.56	119.32
1	N	288	LEU	C-N-CA	5.48	125.56	119.32
1	B	318	THR	CA-C-O	5.47	126.11	119.38
1	L	306	ALA	CA-C-N	5.47	127.93	120.54
1	L	306	ALA	C-N-CA	5.47	127.93	120.54
1	P	251	THR	CA-C-N	5.47	126.68	119.84
1	P	251	THR	C-N-CA	5.47	126.68	119.84
1	Q	283	MET	CA-C-O	5.47	127.80	121.34
1	F	382	VAL	CA-C-O	5.47	123.89	119.29
1	J	415	GLU	CA-C-O	5.47	126.35	120.55
1	A	354	GLY	O-C-N	-5.47	116.51	122.41
1	L	388	PRO	CA-C-N	5.47	131.21	121.75
1	L	388	PRO	C-N-CA	5.47	131.21	121.75
1	E	453	THR	CA-C-N	5.46	125.55	119.32
1	E	453	THR	C-N-CA	5.46	125.55	119.32
1	I	292	VAL	CA-C-O	5.46	126.96	121.17
1	E	236	VAL	CA-C-O	-5.46	113.31	119.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	L	363	LEU	N-CA-C	5.46	118.20	110.50
1	A	215	PRO	CA-C-N	5.46	131.52	121.70
1	A	215	PRO	C-N-CA	5.46	131.52	121.70
1	C	322	ALA	CA-C-N	5.46	129.91	120.58
1	C	322	ALA	C-N-CA	5.46	129.91	120.58
1	F	231	SER	CA-C-N	5.46	130.35	122.44
1	F	231	SER	C-N-CA	5.46	130.35	122.44
1	O	343	ASN	CA-C-O	-5.46	114.77	120.55
1	A	415	GLU	CA-C-O	5.46	126.33	120.55
1	F	302	PRO	CA-C-N	5.46	127.53	120.44
1	F	302	PRO	C-N-CA	5.46	127.53	120.44
1	D	211	ALA	O-C-N	-5.45	114.28	123.00
1	F	346	LYS	CA-C-O	5.45	125.88	119.28
1	B	320	ILE	CA-C-O	5.45	126.67	119.53
1	H	233	GLY	CA-C-N	5.45	126.00	120.38
1	H	233	GLY	C-N-CA	5.45	126.00	120.38
1	D	427	VAL	CA-C-O	-5.45	115.07	120.85
1	H	229	LEU	O-C-N	-5.45	115.34	122.59
1	J	290	HIS	N-CA-C	5.45	117.22	111.28
1	I	340	THR	O-C-N	-5.45	116.84	123.16
1	G	222	TRP	N-CA-C	5.44	122.39	110.80
1	L	244	LYS	N-CA-C	5.44	118.85	111.17
1	A	275	THR	CA-C-O	5.44	126.53	120.82
1	H	293	THR	N-CA-C	5.44	117.66	111.02
1	C	275	THR	O-C-N	-5.44	116.47	122.07
1	I	323	ALA	CA-C-N	5.44	129.79	120.71
1	I	323	ALA	C-N-CA	5.44	129.79	120.71
1	C	395	ILE	CA-C-O	5.44	126.39	120.57
1	L	452	THR	CA-C-O	5.44	124.93	118.79
1	D	398	GLY	CA-C-N	5.43	126.48	120.45
1	D	398	GLY	C-N-CA	5.43	126.48	120.45
1	J	439	ASP	CA-C-O	5.43	126.22	119.97
1	M	312	TRP	O-C-N	-5.43	116.36	122.12
1	O	427	VAL	N-CA-C	5.43	116.16	110.62
1	R	425	ALA	O-C-N	-5.43	115.64	120.48
1	F	270	LEU	CA-C-O	5.43	125.34	119.15
1	M	392	TRP	N-CA-C	5.43	122.37	110.80
1	P	375	ALA	N-CA-C	5.43	116.88	111.07
1	M	292	VAL	CA-C-O	5.43	126.92	121.27
1	P	359	GLN	CA-C-N	5.43	128.10	120.28
1	P	359	GLN	C-N-CA	5.43	128.10	120.28
1	P	345	LEU	N-CA-C	5.43	118.70	111.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	K	378	ALA	CA-C-N	5.43	127.82	120.44
1	K	378	ALA	C-N-CA	5.43	127.82	120.44
1	A	441	GLN	CA-C-O	5.42	126.30	120.55
1	J	353	VAL	N-CA-C	5.42	120.62	109.34
1	K	265	VAL	CA-C-N	5.42	131.90	121.54
1	K	265	VAL	C-N-CA	5.42	131.90	121.54
1	Q	451	LEU	O-C-N	-5.42	115.45	122.77
1	N	272	SER	N-CA-C	5.42	117.29	109.48
1	B	289	PRO	N-CA-C	5.42	121.83	113.75
1	H	298	VAL	N-CA-C	5.42	116.08	110.82
1	P	392	TRP	N-CA-C	5.42	122.34	110.80
1	P	285	SER	O-C-N	-5.41	117.24	121.14
1	F	262	ALA	CA-C-O	-5.41	115.14	120.82
1	G	398	GLY	O-C-N	-5.41	116.36	121.77
1	R	359	GLN	CA-C-N	5.41	128.07	120.28
1	R	359	GLN	C-N-CA	5.41	128.07	120.28
1	D	249	ALA	CA-C-O	5.41	126.19	119.97
1	K	315	GLN	N-CA-C	5.41	117.88	111.33
1	E	234	PRO	CA-C-O	-5.41	112.72	120.56
1	I	212	GLY	O-C-N	-5.41	117.02	122.59
1	Q	419	LEU	CA-C-N	-5.41	114.81	120.38
1	Q	419	LEU	C-N-CA	-5.41	114.81	120.38
1	D	446	THR	O-C-N	-5.41	114.54	122.43
1	J	372	THR	N-CA-C	5.41	117.17	111.28
1	B	417	SER	O-C-N	-5.40	116.04	122.63
1	I	343	ASN	CA-C-N	5.40	127.47	120.44
1	I	343	ASN	C-N-CA	5.40	127.47	120.44
1	K	396	MET	O-C-N	-5.40	117.09	123.41
1	R	297	ARG	N-CA-C	5.40	117.92	111.71
1	A	250	TRP	N-CA-C	-5.40	99.30	110.80
1	G	329	HIS	CA-C-N	5.40	125.48	119.32
1	G	329	HIS	C-N-CA	5.40	125.48	119.32
1	O	342	LEU	O-C-N	-5.40	116.47	122.09
1	Q	355	ASN	O-C-N	-5.40	115.11	121.32
1	G	229	LEU	N-CA-C	5.40	122.30	110.80
1	I	279	VAL	CA-C-N	5.40	128.92	120.82
1	I	279	VAL	C-N-CA	5.40	128.92	120.82
1	A	332	ASN	CA-C-N	5.39	126.91	121.35
1	A	332	ASN	C-N-CA	5.39	126.91	121.35
1	F	251	THR	CA-C-N	5.39	126.58	119.84
1	F	251	THR	C-N-CA	5.39	126.58	119.84
1	M	368	LEU	N-CA-C	5.39	117.15	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	I	303	ALA	CA-C-N	5.39	125.20	119.28
1	I	303	ALA	C-N-CA	5.39	125.20	119.28
1	E	453	THR	O-C-N	-5.38	118.06	121.88
1	M	458	ILE	CA-C-O	-5.38	115.46	121.17
1	O	412	LYS	CA-C-O	-5.38	115.17	120.82
1	O	316	LEU	CA-C-O	-5.38	114.84	120.55
1	E	222	TRP	N-CA-C	5.38	117.14	111.28
1	I	456	GLU	N-CA-C	-5.38	105.50	111.36
1	Q	350	ASP	N-CA-C	5.38	118.60	110.64
1	I	437	GLN	O-C-N	-5.38	115.61	121.53
1	Q	315	GLN	CA-C-N	5.38	127.49	120.28
1	Q	315	GLN	C-N-CA	5.38	127.49	120.28
1	C	407	ALA	N-CA-C	-5.38	105.32	111.07
1	R	307	LEU	CA-C-N	5.38	127.80	120.54
1	R	307	LEU	C-N-CA	5.38	127.80	120.54
1	I	251	THR	CA-C-N	5.38	125.67	119.92
1	I	251	THR	C-N-CA	5.38	125.67	119.92
1	K	279	VAL	O-C-N	5.37	127.49	121.90
1	Q	251	THR	CA-C-N	5.37	126.65	120.85
1	Q	251	THR	C-N-CA	5.37	126.65	120.85
1	B	221	ASP	O-C-N	5.37	128.97	122.85
1	C	237	VAL	N-CA-C	5.37	120.51	109.34
1	C	428	ILE	CA-C-O	5.37	126.86	121.17
1	A	377	GLN	CA-C-N	5.36	128.21	120.38
1	A	377	GLN	C-N-CA	5.36	128.21	120.38
1	A	314	VAL	CA-C-N	5.36	127.72	120.38
1	A	314	VAL	C-N-CA	5.36	127.72	120.38
1	F	217	PRO	CA-C-N	5.36	131.34	121.70
1	F	217	PRO	C-N-CA	5.36	131.34	121.70
1	F	313	GLY	O-C-N	-5.36	117.05	122.19
1	E	379	PHE	CA-C-N	5.36	127.46	120.28
1	E	379	PHE	C-N-CA	5.36	127.46	120.28
1	O	434	GLN	CA-C-N	-5.36	113.94	122.29
1	O	434	GLN	C-N-CA	-5.36	113.94	122.29
1	D	243	ILE	CA-C-N	5.35	131.76	121.54
1	D	243	ILE	C-N-CA	5.35	131.76	121.54
1	H	321	ALA	N-CA-C	-5.35	104.34	111.24
1	E	399	PRO	CA-C-N	5.35	130.50	121.14
1	E	399	PRO	C-N-CA	5.35	130.50	121.14
1	N	273	PRO	N-CA-C	5.35	123.49	112.47
1	N	379	PHE	CA-C-N	5.35	127.45	120.28
1	N	379	PHE	C-N-CA	5.35	127.45	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	H	224	ARG	N-CA-C	-5.35	105.45	111.28
1	O	273	PRO	N-CA-C	5.35	123.48	112.47
1	Q	332	ASN	N-CA-C	-5.35	97.93	107.98
1	A	437	GLN	CA-C-O	-5.34	114.61	120.17
1	I	251	THR	CA-C-O	5.34	125.36	120.71
1	D	215	PRO	CA-C-N	5.34	131.32	121.70
1	D	215	PRO	C-N-CA	5.34	131.32	121.70
1	M	445	ARG	CA-C-O	5.34	126.14	120.10
1	C	308	TRP	N-CA-C	5.34	117.51	111.11
1	J	266	ARG	CA-C-N	5.34	131.73	121.54
1	J	266	ARG	C-N-CA	5.34	131.73	121.54
1	L	427	VAL	N-CA-C	5.34	116.06	110.62
1	P	350	ASP	O-C-N	-5.33	115.50	122.59
1	J	246	GLU	O-C-N	-5.33	115.50	122.59
1	J	419	LEU	CA-C-N	5.33	125.87	120.38
1	J	419	LEU	C-N-CA	5.33	125.87	120.38
1	D	444	ILE	O-C-N	-5.33	116.70	121.87
1	R	415	GLU	CA-C-O	5.33	126.20	120.55
1	D	406	PHE	CA-C-N	5.33	127.37	120.44
1	D	406	PHE	C-N-CA	5.33	127.37	120.44
1	E	272	SER	O-C-N	5.33	126.20	121.19
1	R	398	GLY	CA-C-N	5.33	124.94	119.56
1	R	398	GLY	C-N-CA	5.33	124.94	119.56
1	Q	347	GLY	CA-C-O	5.33	126.50	119.58
1	D	464	ARG	N-CA-C	-5.33	106.80	113.72
1	A	431	CYS	CA-C-N	5.32	127.36	120.44
1	A	431	CYS	C-N-CA	5.32	127.36	120.44
1	P	444	ILE	O-C-N	-5.32	116.49	121.87
1	D	289	PRO	CA-C-N	5.32	127.41	120.28
1	D	289	PRO	C-N-CA	5.32	127.41	120.28
1	G	320	ILE	N-CA-C	-5.32	106.08	113.00
1	F	272	SER	CA-C-N	5.32	126.49	119.84
1	F	272	SER	C-N-CA	5.32	126.49	119.84
1	K	237	VAL	CA-C-N	5.32	131.98	122.09
1	K	237	VAL	C-N-CA	5.32	131.98	122.09
1	F	250	TRP	N-CA-C	-5.32	101.04	108.96
1	M	271	ARG	N-CA-C	5.32	118.58	111.24
1	O	320	ILE	CA-C-O	5.32	126.49	119.53
1	B	440	ILE	N-CA-C	-5.31	105.35	110.72
1	A	256	LYS	CA-C-N	5.31	127.93	120.28
1	A	256	LYS	C-N-CA	5.31	127.93	120.28
1	H	379	PHE	O-C-N	-5.31	116.49	122.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	328	ARG	O-C-N	-5.31	116.49	122.12
1	F	341	ASN	CA-C-O	5.31	127.55	121.28
1	N	310	ASP	O-C-N	-5.31	116.51	122.03
1	B	311	ALA	N-CA-C	5.31	117.75	111.33
1	G	389	ALA	CA-C-O	5.31	127.40	121.40
1	M	423	ALA	N-CA-C	5.31	119.91	113.38
1	B	343	ASN	CA-C-N	5.31	127.34	120.44
1	B	343	ASN	C-N-CA	5.31	127.34	120.44
1	H	291	ASP	CA-C-O	-5.31	115.23	120.70
1	F	245	THR	N-CA-C	5.30	118.16	110.42
1	A	417	SER	O-C-N	-5.30	116.57	122.93
1	O	383	ALA	CA-C-O	5.30	127.39	119.23
1	H	322	ALA	CA-C-N	5.30	128.37	120.31
1	H	322	ALA	C-N-CA	5.30	128.37	120.31
1	I	368	LEU	N-CA-C	5.30	117.06	111.28
1	I	236	VAL	CA-C-N	5.30	131.51	121.97
1	I	236	VAL	C-N-CA	5.30	131.51	121.97
1	N	286	PRO	N-CA-C	-5.30	101.56	112.47
1	H	342	LEU	CA-C-O	5.30	126.85	120.92
1	K	249	ALA	CA-C-N	5.29	131.87	122.45
1	K	249	ALA	C-N-CA	5.29	131.87	122.45
1	L	340	THR	CA-C-O	-5.29	115.79	121.56
1	B	350	ASP	O-C-N	-5.29	116.39	122.95
1	B	382	VAL	CA-C-O	5.29	123.56	118.90
1	D	214	ALA	O-C-N	-5.29	117.71	121.84
1	H	436	SER	CA-C-O	-5.29	115.96	121.99
1	O	459	LYS	O-C-N	-5.29	116.51	122.12
1	M	408	ASN	O-C-N	-5.29	116.12	122.15
1	N	375	ALA	CA-C-N	5.29	127.36	120.28
1	N	375	ALA	C-N-CA	5.29	127.36	120.28
1	D	370	ALA	N-CA-C	-5.29	105.21	110.97
1	D	382	VAL	CA-C-O	5.29	123.73	119.29
1	K	339	ARG	CA-C-N	5.28	128.72	120.75
1	K	339	ARG	C-N-CA	5.28	128.72	120.75
1	C	351	GLY	O-C-N	-5.28	117.16	122.65
1	H	343	ASN	N-CA-C	5.28	117.04	111.28
1	J	264	THR	CA-C-O	5.28	126.15	120.55
1	B	391	PRO	CA-C-N	5.28	131.62	121.54
1	B	391	PRO	C-N-CA	5.28	131.62	121.54
1	I	404	VAL	CA-C-N	5.28	127.62	120.44
1	I	404	VAL	C-N-CA	5.28	127.62	120.44
1	J	405	ASP	CA-C-N	5.28	127.66	120.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	J	405	ASP	C-N-CA	5.28	127.66	120.54
1	L	309	MET	CA-C-N	5.27	127.61	120.65
1	L	309	MET	C-N-CA	5.27	127.61	120.65
1	K	425	ALA	CA-C-N	5.27	124.90	119.05
1	K	425	ALA	C-N-CA	5.27	124.90	119.05
1	K	425	ALA	CA-C-O	-5.27	113.56	118.73
1	N	464	ARG	N-CA-C	-5.27	106.80	114.12
1	B	234	PRO	O-C-N	-5.27	115.25	121.46
1	G	342	LEU	N-CA-C	5.27	117.43	111.11
1	H	317	GLN	N-CA-C	-5.27	105.54	111.28
1	R	289	PRO	N-CA-C	5.27	121.60	113.75
1	K	330	PRO	CA-C-O	-5.26	111.02	120.60
1	Q	379	PHE	N-CA-C	5.26	116.82	111.14
1	C	296	MET	N-CA-C	5.26	116.82	111.14
1	N	263	ASP	N-CA-C	5.26	117.42	111.11
1	P	409	ARG	N-CA-C	5.26	117.01	111.28
1	A	284	SER	N-CA-C	-5.26	107.03	113.50
1	H	443	LEU	CA-C-O	5.26	126.34	120.82
1	B	442	GLN	O-C-N	-5.26	116.16	122.15
1	D	335	GLY	N-CA-C	-5.26	100.72	113.18
1	J	455	GLY	CA-C-N	5.26	127.32	120.28
1	J	455	GLY	C-N-CA	5.26	127.32	120.28
1	N	403	PHE	O-C-N	-5.26	116.55	122.12
1	I	373	ALA	O-C-N	-5.25	116.41	122.09
1	A	405	ASP	CA-C-O	5.25	126.34	120.82
1	E	305	TYR	N-CA-C	5.25	117.69	111.33
1	K	409	ARG	CA-C-N	5.25	127.75	120.29
1	K	409	ARG	C-N-CA	5.25	127.75	120.29
1	M	297	ARG	CA-C-N	5.25	128.25	120.74
1	M	297	ARG	C-N-CA	5.25	128.25	120.74
1	A	303	ALA	CA-C-O	-5.25	114.10	119.08
1	C	458	ILE	N-CA-C	-5.25	105.38	110.42
1	J	239	MET	CA-C-O	-5.25	112.97	120.16
1	D	261	LEU	CA-C-O	5.25	125.98	120.42
1	L	291	ASP	CA-C-O	-5.25	114.86	120.42
1	P	389	ALA	CA-C-N	5.25	131.14	121.70
1	P	389	ALA	C-N-CA	5.25	131.14	121.70
1	R	290	HIS	O-C-N	5.25	127.68	122.12
1	L	219	LEU	N-CA-C	-5.24	99.04	108.48
1	O	299	ILE	N-CA-C	5.24	116.71	111.00
1	D	415	GLU	CA-C-O	5.24	126.10	120.55
1	F	288	LEU	CA-C-N	5.24	125.55	119.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	F	288	LEU	C-N-CA	5.24	125.55	119.47
1	H	287	LEU	CA-C-N	5.24	130.90	120.94
1	H	287	LEU	C-N-CA	5.24	130.90	120.94
1	D	331	ALA	CA-C-O	5.24	125.97	119.79
1	E	375	ALA	O-C-N	-5.24	116.68	122.07
1	O	428	ILE	CA-C-N	5.24	127.16	120.56
1	O	428	ILE	C-N-CA	5.24	127.16	120.56
1	A	302	PRO	N-CA-C	5.24	123.25	112.47
1	I	294	ASN	CA-C-N	5.24	127.25	120.44
1	I	294	ASN	C-N-CA	5.24	127.25	120.44
1	L	446	THR	N-CA-C	-5.24	106.84	113.18
1	R	418	ASP	O-C-N	5.24	127.53	122.09
1	J	409	ARG	CA-C-O	5.23	126.28	120.63
1	P	275	THR	N-CA-C	5.23	116.67	111.07
1	A	434	GLN	O-C-N	-5.23	116.15	122.48
1	B	425	ALA	CA-C-N	5.23	124.86	119.05
1	B	425	ALA	C-N-CA	5.23	124.86	119.05
1	Q	351	GLY	CA-C-N	5.23	127.60	120.54
1	Q	351	GLY	C-N-CA	5.23	127.60	120.54
1	R	322	ALA	CA-C-N	5.23	129.52	120.58
1	R	322	ALA	C-N-CA	5.23	129.52	120.58
1	R	456	GLU	CA-C-O	5.23	126.09	120.55
1	R	460	TYR	N-CA-C	5.23	116.98	111.28
1	R	381	GLU	O-C-N	-5.22	116.11	122.22
1	A	379	PHE	CA-C-N	5.22	127.28	120.28
1	A	379	PHE	C-N-CA	5.22	127.28	120.28
1	D	251	THR	N-CA-C	5.22	117.79	109.64
1	D	413	ALA	N-CA-C	5.22	116.97	111.28
1	E	244	LYS	CA-C-N	5.22	130.21	123.00
1	E	244	LYS	C-N-CA	5.22	130.21	123.00
1	N	441	GLN	CA-C-N	5.22	127.71	120.29
1	N	441	GLN	C-N-CA	5.22	127.71	120.29
1	G	261	LEU	CA-C-O	5.22	125.95	120.42
1	E	280	GLU	CA-C-N	5.22	127.59	120.54
1	E	280	GLU	C-N-CA	5.22	127.59	120.54
1	R	395	ILE	CA-C-N	5.22	130.13	122.77
1	R	395	ILE	C-N-CA	5.22	130.13	122.77
1	C	391	PRO	CA-C-N	5.22	131.50	121.54
1	C	391	PRO	C-N-CA	5.22	131.50	121.54
1	G	233	GLY	CA-C-O	-5.21	114.06	121.52
1	P	275	THR	CA-C-O	-5.21	115.35	120.82
1	J	386	ALA	CA-C-O	5.21	127.96	120.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	432	PHE	CA-C-N	5.21	127.78	120.28
1	A	432	PHE	C-N-CA	5.21	127.78	120.28
1	D	274	ILE	N-CA-C	-5.21	107.51	111.62
1	J	217	PRO	CA-C-N	5.21	131.07	121.70
1	J	217	PRO	C-N-CA	5.21	131.07	121.70
1	A	437	GLN	N-CA-C	5.21	116.25	109.64
1	B	247	GLY	CA-C-N	5.21	126.35	119.84
1	B	247	GLY	C-N-CA	5.21	126.35	119.84
1	O	286	PRO	O-C-N	5.21	128.93	123.10
1	P	456	GLU	N-CA-C	5.21	116.96	111.28
1	N	254	GLU	CA-C-O	-5.20	115.46	119.99
1	F	264	THR	CA-C-N	5.20	128.83	120.30
1	F	264	THR	C-N-CA	5.20	128.83	120.30
1	G	249	ALA	N-CA-C	-5.20	105.61	111.28
1	I	429	ILE	N-CA-C	5.20	115.41	110.42
1	Q	399	PRO	CA-C-N	5.20	129.39	120.71
1	Q	399	PRO	C-N-CA	5.20	129.39	120.71
1	R	417	SER	O-C-N	-5.20	117.10	123.19
1	N	306	ALA	CA-C-N	5.20	127.56	120.54
1	N	306	ALA	C-N-CA	5.20	127.56	120.54
1	O	447	ALA	CA-C-N	5.20	125.65	120.14
1	O	447	ALA	C-N-CA	5.20	125.65	120.14
1	O	448	PRO	N-CA-C	-5.20	103.00	111.68
1	A	440	ILE	N-CA-C	-5.20	105.47	110.72
1	Q	329	HIS	CA-C-O	-5.20	114.64	120.25
1	R	271	ARG	CA-C-O	-5.19	116.38	119.55
1	I	264	THR	N-CA-C	5.19	116.94	111.28
1	L	317	GLN	O-C-N	-5.19	116.61	122.12
1	H	256	LYS	O-C-N	-5.19	116.72	122.07
1	H	444	ILE	CA-C-O	-5.19	115.02	120.57
1	K	344	ARG	CA-C-O	5.19	126.27	120.82
1	B	399	PRO	CA-C-N	5.18	128.19	120.31
1	B	399	PRO	C-N-CA	5.18	128.19	120.31
1	A	256	LYS	N-CA-C	5.18	116.93	111.28
1	B	342	LEU	N-CA-C	5.18	117.33	111.11
1	C	308	TRP	CA-C-O	-5.18	115.36	120.90
1	A	278	GLU	O-C-N	-5.18	115.90	122.27
1	G	237	VAL	N-CA-C	5.18	117.97	109.78
1	N	310	ASP	CA-C-N	5.18	127.22	120.28
1	N	310	ASP	C-N-CA	5.18	127.22	120.28
1	I	322	ALA	CA-C-O	5.18	125.76	119.49
1	I	324	THR	CA-C-O	-5.18	115.01	120.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	I	398	GLY	CA-C-N	5.18	124.68	119.19
1	I	398	GLY	C-N-CA	5.18	124.68	119.19
1	Q	309	MET	CA-C-O	5.18	126.44	120.90
1	E	226	ARG	CA-C-N	5.18	127.47	120.38
1	E	226	ARG	C-N-CA	5.18	127.47	120.38
1	H	459	LYS	CA-C-N	5.18	127.17	120.44
1	H	459	LYS	C-N-CA	5.18	127.17	120.44
1	J	291	ASP	N-CA-C	-5.17	105.55	111.14
1	D	462	LEU	CA-C-O	5.17	125.99	120.20
1	I	443	LEU	O-C-N	-5.17	116.74	122.07
1	K	436	SER	N-CA-C	5.17	116.60	110.19
1	L	371	ILE	N-CA-C	5.17	115.61	110.23
1	M	254	GLU	CA-C-N	5.17	126.31	119.84
1	M	254	GLU	C-N-CA	5.17	126.31	119.84
1	O	456	GLU	N-CA-C	5.17	116.92	111.28
1	G	226	ARG	N-CA-C	5.17	117.33	111.02
1	J	404	VAL	O-C-N	-5.17	116.86	121.87
1	I	226	ARG	CA-C-N	5.17	127.46	120.38
1	I	226	ARG	C-N-CA	5.17	127.46	120.38
1	H	234	PRO	CA-C-O	-5.17	113.07	120.56
1	J	329	HIS	CA-C-N	5.16	126.29	119.84
1	J	329	HIS	C-N-CA	5.16	126.29	119.84
1	R	453	THR	N-CA-C	-5.16	102.65	110.39
1	K	366	GLY	O-C-N	-5.16	116.77	122.24
1	A	317	GLN	O-C-N	-5.16	116.65	122.12
1	B	262	ALA	CA-C-N	5.16	127.51	120.54
1	B	262	ALA	C-N-CA	5.16	127.51	120.54
1	G	458	ILE	CA-C-N	5.16	127.15	120.44
1	G	458	ILE	C-N-CA	5.16	127.15	120.44
1	F	391	PRO	CA-C-N	5.16	131.39	121.54
1	F	391	PRO	C-N-CA	5.16	131.39	121.54
1	B	233	GLY	CA-C-N	5.16	125.69	120.38
1	B	233	GLY	C-N-CA	5.16	125.69	120.38
1	M	311	ALA	CA-C-N	5.16	127.19	120.28
1	M	311	ALA	C-N-CA	5.16	127.19	120.28
1	A	391	PRO	N-CA-C	-5.16	106.36	113.53
1	J	253	LEU	O-C-N	-5.16	116.56	122.95
1	K	332	ASN	CA-C-N	-5.16	115.44	120.34
1	K	332	ASN	C-N-CA	-5.16	115.44	120.34
1	K	434	GLN	O-C-N	-5.16	116.24	122.48
1	O	360	ALA	CA-C-O	5.16	125.93	120.10
1	A	273	PRO	N-CA-C	5.15	123.09	112.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	H	332	ASN	N-CA-C	-5.15	103.24	110.35
1	M	300	LEU	CA-C-O	5.15	125.96	120.24
1	H	331	ALA	CA-C-O	5.15	125.89	119.97
1	F	259	THR	CA-C-O	5.15	126.22	120.82
1	F	275	THR	CA-C-O	5.15	126.22	120.82
1	R	379	PHE	CA-C-N	5.15	127.17	120.28
1	R	379	PHE	C-N-CA	5.15	127.17	120.28
1	K	452	THR	CA-C-O	5.14	124.38	119.08
1	M	440	ILE	N-CA-C	-5.14	105.39	111.00
1	Q	402	SER	CA-C-O	5.14	127.91	121.89
1	J	320	ILE	CA-C-O	5.14	126.27	119.53
1	J	353	VAL	CA-C-O	5.14	127.21	120.78
1	Q	370	ALA	CA-C-O	-5.14	115.42	120.82
1	B	462	LEU	N-CA-C	-5.14	105.80	111.71
1	J	410	LEU	CA-C-N	5.14	127.50	120.46
1	J	410	LEU	C-N-CA	5.14	127.50	120.46
1	M	371	ILE	N-CA-C	-5.14	104.96	110.36
1	R	274	ILE	CA-C-O	5.14	125.02	120.34
1	B	392	TRP	O-C-N	-5.14	115.76	122.59
1	L	355	ASN	CA-C-N	5.14	124.93	119.28
1	L	355	ASN	C-N-CA	5.14	124.93	119.28
1	C	351	GLY	CA-C-O	5.14	125.10	119.55
1	M	444	ILE	CA-C-N	5.14	127.68	120.28
1	M	444	ILE	C-N-CA	5.14	127.68	120.28
1	R	413	ALA	CA-C-N	5.14	127.71	120.42
1	R	413	ALA	C-N-CA	5.14	127.71	120.42
1	K	310	ASP	CA-C-N	5.13	127.16	120.28
1	K	310	ASP	C-N-CA	5.13	127.16	120.28
1	J	400	SER	O-C-N	-5.13	115.97	122.17
1	D	392	TRP	CA-C-N	5.12	129.28	120.72
1	D	392	TRP	C-N-CA	5.12	129.28	120.72
1	C	425	ALA	CA-C-O	-5.12	113.71	118.73
1	K	246	GLU	N-CA-C	-5.12	108.78	114.62
1	O	387	GLU	N-CA-C	5.12	120.44	113.16
1	G	356	PRO	O-C-N	-5.12	116.09	122.23
1	A	215	PRO	O-C-N	-5.12	116.96	123.10
1	A	347	GLY	CA-C-N	5.11	130.98	122.54
1	A	347	GLY	C-N-CA	5.11	130.98	122.54
1	F	300	LEU	N-CA-C	5.11	116.93	111.36
1	E	246	GLU	O-C-N	-5.11	115.79	122.59
1	I	234	PRO	CA-C-O	-5.11	113.15	120.56
1	I	419	LEU	CA-C-N	5.11	123.34	119.66

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	I	419	LEU	C-N-CA	5.11	123.34	119.66
1	C	385	LEU	CA-C-N	5.11	131.30	121.54
1	C	385	LEU	C-N-CA	5.11	131.30	121.54
1	G	299	ILE	CA-C-N	5.11	127.55	120.29
1	G	299	ILE	C-N-CA	5.11	127.55	120.29
1	K	428	ILE	CA-C-O	5.11	126.59	121.17
1	Q	379	PHE	CA-C-N	5.11	127.13	120.28
1	Q	379	PHE	C-N-CA	5.11	127.13	120.28
1	I	344	ARG	O-C-N	5.11	127.33	122.07
1	Q	265	VAL	O-C-N	-5.11	116.92	121.87
1	G	220	THR	O-C-N	-5.11	116.37	122.65
1	I	357	GLN	CA-C-N	5.11	125.65	119.98
1	I	357	GLN	C-N-CA	5.11	125.65	119.98
1	J	246	GLU	CA-C-N	5.11	129.88	121.87
1	J	246	GLU	C-N-CA	5.11	129.88	121.87
1	J	431	CYS	O-C-N	-5.11	116.71	122.12
1	P	302	PRO	CA-C-N	5.11	127.08	120.44
1	P	302	PRO	C-N-CA	5.11	127.08	120.44
1	B	388	PRO	N-CA-C	5.10	119.25	111.34
1	K	359	GLN	O-C-N	5.10	127.53	122.12
1	M	259	THR	N-CA-C	5.10	116.53	111.07
1	E	428	ILE	CA-C-N	5.10	127.45	120.46
1	E	428	ILE	C-N-CA	5.10	127.45	120.46
1	G	300	LEU	CA-C-O	5.10	125.83	120.42
1	I	414	VAL	CA-C-N	5.10	127.11	120.28
1	I	414	VAL	C-N-CA	5.10	127.11	120.28
1	O	294	ASN	CA-C-N	5.10	127.07	120.44
1	O	294	ASN	C-N-CA	5.10	127.07	120.44
1	D	308	TRP	N-CA-C	5.10	117.23	111.11
1	O	280	GLU	CA-C-N	5.10	127.07	120.44
1	O	280	GLU	C-N-CA	5.10	127.07	120.44
1	C	280	GLU	CA-C-N	5.10	127.06	120.44
1	C	280	GLU	C-N-CA	5.10	127.06	120.44
1	I	220	THR	O-C-N	-5.10	117.44	123.25
1	J	297	ARG	CA-C-O	5.09	125.86	120.10
1	P	304	PRO	O-C-N	-5.09	115.39	122.27
1	R	436	SER	O-C-N	-5.09	116.44	122.65
1	G	339	ARG	CA-C-O	5.09	127.47	121.36
1	N	364	ARG	CA-C-N	5.09	124.54	119.24
1	N	364	ARG	C-N-CA	5.09	124.54	119.24
1	K	244	LYS	N-CA-C	5.09	117.68	110.50
1	K	299	ILE	CA-C-O	-5.09	115.27	120.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	K	330	PRO	N-CA-C	5.09	122.96	112.47
1	K	387	GLU	O-C-N	-5.09	115.47	121.32
1	J	358	GLY	CA-C-O	5.08	125.99	120.75
1	F	386	ALA	O-C-N	-5.08	115.83	122.59
1	O	388	PRO	N-CA-C	5.08	122.94	112.47
1	A	281	ALA	O-C-N	-5.08	116.81	122.09
1	H	320	ILE	O-C-N	-5.08	115.40	122.31
1	K	299	ILE	N-CA-C	5.08	116.53	111.00
1	P	384	ARG	CA-C-O	-5.08	115.26	120.54
1	A	410	LEU	N-CA-C	-5.08	105.83	111.36
1	C	216	GLY	O-C-N	-5.08	114.88	123.00
1	Q	424	ARG	N-CA-C	5.08	116.62	111.14
1	A	364	ARG	CA-C-N	5.07	124.52	119.24
1	A	364	ARG	C-N-CA	5.07	124.52	119.24
1	G	255	PRO	N-CA-C	5.07	122.00	113.78
1	N	252	PRO	CA-C-N	5.07	131.23	121.54
1	N	252	PRO	C-N-CA	5.07	131.23	121.54
1	N	447	ALA	O-C-N	5.07	126.53	121.30
1	F	266	ARG	CA-C-O	5.07	127.76	120.51
1	N	458	ILE	O-C-N	-5.07	116.94	121.91
1	O	357	GLN	N-CA-C	-5.07	105.83	111.36
1	I	344	ARG	CA-C-O	-5.07	115.50	120.82
1	N	290	HIS	CA-C-O	5.07	125.92	120.55
1	F	443	LEU	N-CA-C	-5.07	105.65	111.07
1	N	264	THR	CA-C-O	5.07	125.92	120.55
1	B	316	LEU	O-C-N	-5.06	116.75	122.12
1	H	279	VAL	CA-C-O	-5.06	115.43	121.05
1	B	368	LEU	CA-C-N	5.06	127.61	120.42
1	B	368	LEU	C-N-CA	5.06	127.61	120.42
1	B	412	LYS	CA-C-N	5.06	127.06	120.28
1	B	412	LYS	C-N-CA	5.06	127.06	120.28
1	C	460	TYR	N-CA-C	5.06	116.79	111.28
1	J	345	LEU	O-C-N	-5.06	116.43	122.20
1	B	447	ALA	O-C-N	-5.06	115.22	121.64
1	N	313	GLY	CA-C-O	5.06	125.96	120.75
1	O	270	LEU	O-C-N	-5.06	115.86	122.59
1	C	423	ALA	O-C-N	-5.05	115.80	122.42
1	J	214	ALA	CA-C-N	5.05	126.31	120.85
1	J	214	ALA	C-N-CA	5.05	126.31	120.85
1	O	329	HIS	CA-C-N	5.05	126.16	119.84
1	O	329	HIS	C-N-CA	5.05	126.16	119.84
1	G	242	VAL	O-C-N	-5.05	117.42	122.62

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	280	GLU	CA-C-N	5.05	127.36	120.54
1	G	280	GLU	C-N-CA	5.05	127.36	120.54
1	L	317	GLN	CA-C-N	5.05	129.15	120.72
1	L	317	GLN	C-N-CA	5.05	129.15	120.72
1	O	302	PRO	N-CA-C	5.05	122.87	112.47
1	H	443	LEU	CA-C-N	5.05	128.45	120.47
1	H	443	LEU	C-N-CA	5.05	128.45	120.47
1	B	283	MET	N-CA-C	-5.04	104.04	111.81
1	D	343	ASN	CA-C-N	5.04	127.31	120.65
1	D	343	ASN	C-N-CA	5.04	127.31	120.65
1	H	212	GLY	O-C-N	-5.04	117.31	122.60
1	P	443	LEU	CA-C-N	5.04	128.43	120.47
1	P	443	LEU	C-N-CA	5.04	128.43	120.47
1	Q	267	THR	CA-C-N	5.04	127.54	120.28
1	Q	267	THR	C-N-CA	5.04	127.54	120.28
1	A	307	LEU	O-C-N	5.04	127.26	122.07
1	G	401	GLU	N-CA-C	5.04	117.82	109.46
1	D	253	LEU	N-CA-C	5.04	121.53	110.80
1	R	455	GLY	CA-C-N	5.04	127.03	120.28
1	R	455	GLY	C-N-CA	5.04	127.03	120.28
1	A	297	ARG	N-CA-C	5.03	116.77	111.28
1	D	248	PRO	CA-C-O	-5.03	115.06	122.31
1	I	258	ILE	N-CA-C	-5.03	105.51	111.00
1	M	306	ALA	CA-C-O	5.03	126.11	120.82
1	H	229	LEU	CA-C-N	5.03	127.47	120.63
1	H	229	LEU	C-N-CA	5.03	127.47	120.63
1	P	308	TRP	CA-C-N	5.03	127.33	120.54
1	P	308	TRP	C-N-CA	5.03	127.33	120.54
1	G	342	LEU	CA-C-O	5.03	126.28	120.90
1	K	234	PRO	CA-C-O	-5.03	113.27	120.56
1	K	402	SER	O-C-N	-5.02	116.47	122.65
1	Q	409	ARG	CA-C-N	5.02	127.42	120.29
1	Q	409	ARG	C-N-CA	5.02	127.42	120.29
1	F	264	THR	N-CA-C	5.02	116.75	111.28
1	O	368	LEU	CA-C-O	5.02	125.87	120.55
1	B	253	LEU	N-CA-C	5.02	117.30	109.52
1	F	410	LEU	CA-C-N	5.02	127.34	120.46
1	F	410	LEU	C-N-CA	5.02	127.34	120.46
1	A	428	ILE	CA-C-N	5.02	126.88	120.56
1	A	428	ILE	C-N-CA	5.02	126.88	120.56
1	I	252	PRO	CA-C-N	5.02	127.00	120.28
1	I	252	PRO	C-N-CA	5.02	127.00	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	I	387	GLU	CA-C-N	-5.02	113.57	119.84
1	I	387	GLU	C-N-CA	-5.02	113.57	119.84
1	O	379	PHE	CA-C-N	5.02	126.96	120.44
1	O	379	PHE	C-N-CA	5.02	126.96	120.44
1	E	420	PRO	CA-C-O	-5.01	113.29	120.56
1	F	243	ILE	N-CA-C	5.01	116.33	112.12
1	C	214	ALA	N-CA-C	5.01	120.89	109.81
1	O	305	TYR	CA-C-N	5.01	126.96	120.44
1	O	305	TYR	C-N-CA	5.01	126.96	120.44
1	P	329	HIS	CA-C-N	5.01	126.11	119.84
1	P	329	HIS	C-N-CA	5.01	126.11	119.84
1	C	375	ALA	CA-C-O	5.01	126.08	120.82
1	P	258	ILE	CA-C-O	-5.01	115.35	120.71
1	D	305	TYR	CA-C-O	5.01	126.04	120.63
1	M	384	ARG	N-CA-C	-5.01	105.49	112.45
1	Q	375	ALA	N-CA-C	5.01	116.43	111.07
1	C	364	ARG	N-CA-C	-5.00	103.66	110.36
1	D	242	VAL	O-C-N	-5.00	117.88	123.03
1	O	428	ILE	CA-C-O	5.00	126.47	121.17
1	F	329	HIS	CA-C-N	5.00	126.09	119.84
1	F	329	HIS	C-N-CA	5.00	126.09	119.84
1	Q	441	GLN	O-C-N	-5.00	116.82	122.12

There are no chirality outliers.

All (158) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	219	LEU	Peptide
1	A	220	THR	Peptide
1	A	221	ASP	Peptide
1	A	244	LYS	Peptide
1	A	245	THR	Peptide
1	A	246	GLU	Peptide
1	A	247	GLY	Peptide
1	A	268	LYS	Peptide
1	A	269	GLY	Peptide
1	A	270	LEU	Peptide
1	A	272	SER	Peptide
1	B	220	THR	Peptide
1	B	221	ASP	Peptide
1	B	244	LYS	Peptide
1	B	245	THR	Peptide

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Mol	Chain	Res	Type	Group
1	B	246	GLU	Peptide
1	B	247	GLY	Peptide
1	B	268	LYS	Peptide
1	B	272	SER	Peptide
1	B	273	PRO	Peptide
1	B	386	ALA	Peptide
1	C	219	LEU	Peptide
1	C	220	THR	Peptide
1	C	221	ASP	Peptide
1	C	244	LYS	Peptide
1	C	245	THR	Peptide
1	C	246	GLU	Peptide
1	C	268	LYS	Peptide
1	C	269	GLY	Peptide
1	C	270	LEU	Peptide
1	C	272	SER	Peptide
1	D	220	THR	Peptide
1	D	244	LYS	Peptide
1	D	245	THR	Peptide
1	D	246	GLU	Peptide
1	D	247	GLY	Peptide
1	D	268	LYS	Peptide
1	D	269	GLY	Peptide
1	D	270	LEU	Peptide
1	D	272	SER	Peptide
1	E	219	LEU	Peptide
1	E	220	THR	Peptide
1	E	242	VAL	Peptide
1	E	244	LYS	Peptide
1	E	245	THR	Peptide
1	E	246	GLU	Peptide
1	E	247	GLY	Peptide
1	E	268	LYS	Peptide
1	E	269	GLY	Peptide
1	E	270	LEU	Peptide
1	E	272	SER	Peptide
1	E	273	PRO	Peptide
1	F	219	LEU	Peptide
1	F	220	THR	Peptide
1	F	244	LYS	Peptide
1	F	245	THR	Peptide
1	F	246	GLU	Peptide

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Mol	Chain	Res	Type	Group
1	F	247	GLY	Peptide
1	F	268	LYS	Peptide
1	F	269	GLY	Peptide
1	F	270	LEU	Peptide
1	F	272	SER	Peptide
1	F	283	MET	Mainchain
1	G	220	THR	Peptide
1	G	244	LYS	Peptide
1	G	245	THR	Peptide
1	G	246	GLU	Peptide
1	G	247	GLY	Peptide
1	G	268	LYS	Peptide
1	G	269	GLY	Mainchain
1	G	270	LEU	Peptide
1	G	272	SER	Peptide
1	G	273	PRO	Peptide
1	G	386	ALA	Peptide
1	G	388	PRO	Mainchain
1	G	464	ARG	Mainchain
1	H	220	THR	Peptide
1	H	244	LYS	Peptide
1	H	245	THR	Peptide,Mainchain
1	H	246	GLU	Peptide
1	H	247	GLY	Peptide
1	H	268	LYS	Peptide
1	H	269	GLY	Peptide
1	H	270	LEU	Peptide
1	H	272	SER	Peptide
1	H	273	PRO	Peptide
1	I	220	THR	Peptide
1	I	244	LYS	Peptide
1	I	245	THR	Peptide
1	I	246	GLU	Peptide
1	I	247	GLY	Peptide
1	I	269	GLY	Peptide
1	I	270	LEU	Peptide
1	I	272	SER	Peptide
1	I	285	SER	Mainchain
1	J	219	LEU	Mainchain
1	J	220	THR	Peptide,Mainchain
1	J	244	LYS	Peptide
1	J	245	THR	Peptide

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Mol	Chain	Res	Type	Group
1	J	246	GLU	Peptide
1	J	247	GLY	Peptide
1	J	268	LYS	Peptide
1	J	269	GLY	Mainchain
1	J	270	LEU	Peptide
1	J	272	SER	Peptide
1	J	273	PRO	Peptide
1	J	301	GLY	Mainchain
1	K	219	LEU	Peptide
1	K	220	THR	Peptide
1	K	244	LYS	Peptide
1	K	245	THR	Peptide
1	K	246	GLU	Peptide
1	K	247	GLY	Peptide
1	K	268	LYS	Peptide
1	K	269	GLY	Peptide
1	K	270	LEU	Peptide
1	K	272	SER	Peptide
1	K	273	PRO	Peptide
1	L	219	LEU	Peptide
1	L	220	THR	Peptide
1	L	244	LYS	Peptide
1	L	245	THR	Peptide
1	L	246	GLU	Peptide
1	L	247	GLY	Peptide
1	L	268	LYS	Peptide
1	L	269	GLY	Peptide
1	L	270	LEU	Peptide
1	L	272	SER	Peptide
1	L	273	PRO	Peptide
1	M	269	GLY	Peptide
1	M	270	LEU	Peptide
1	M	272	SER	Peptide
1	N	268	LYS	Peptide
1	N	269	GLY	Peptide
1	N	272	SER	Peptide
1	N	273	PRO	Peptide
1	O	268	LYS	Peptide
1	O	269	GLY	Peptide
1	O	270	LEU	Peptide
1	O	272	SER	Peptide
1	O	273	PRO	Peptide

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Mol	Chain	Res	Type	Group
1	P	269	GLY	Peptide
1	P	270	LEU	Peptide
1	P	272	SER	Peptide
1	P	273	PRO	Peptide
1	Q	268	LYS	Peptide
1	Q	269	GLY	Mainchain
1	Q	270	LEU	Peptide
1	Q	272	SER	Peptide
1	Q	273	PRO	Peptide
1	Q	386	ALA	Peptide
1	R	269	GLY	Peptide
1	R	270	LEU	Peptide
1	R	272	SER	Peptide
1	R	288	LEU	Mainchain
1	R	386	ALA	Peptide

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	1019	0	266	1	0
1	B	1019	0	266	1	0
1	C	1019	0	266	1	0
1	D	1019	0	266	0	0
1	E	1019	0	266	0	0
1	F	1019	0	266	1	0
1	G	1019	0	266	0	0
1	H	1019	0	266	0	0
1	I	1019	0	266	0	0
1	J	1019	0	266	0	0
1	K	1019	0	266	1	0
1	L	1019	0	266	0	0
1	M	863	0	225	0	0
1	N	863	0	225	0	0
1	O	863	0	225	0	0
1	P	863	0	225	0	0
1	Q	863	0	225	0	0
1	R	863	0	225	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
All	All	17406	0	4542	5	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 0.

All (5) 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:B:382:VAL:C	1:B:384:ARG:H	2.21	0.46
1:K:248:PRO:C	1:K:250:TRP:H	2.24	0.46
1:C:272:SER:C	1:C:274:ILE:H	2.25	0.44
1:F:272:SER:C	1:F:274:ILE:H	2.25	0.43
1:A:351:GLY:O	1:A:358:GLY:HA3	2.20	0.42

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	253/495 (51%)	210 (83%)	28 (11%)	15 (6%)	1	13
1	B	253/495 (51%)	216 (85%)	25 (10%)	12 (5%)	2	16
1	C	253/495 (51%)	218 (86%)	20 (8%)	15 (6%)	1	13
1	D	253/495 (51%)	220 (87%)	22 (9%)	11 (4%)	2	17
1	E	253/495 (51%)	224 (88%)	18 (7%)	11 (4%)	2	17
1	F	253/495 (51%)	222 (88%)	20 (8%)	11 (4%)	2	17
1	G	253/495 (51%)	221 (87%)	17 (7%)	15 (6%)	1	13
1	H	253/495 (51%)	212 (84%)	27 (11%)	14 (6%)	1	14
1	I	253/495 (51%)	218 (86%)	20 (8%)	15 (6%)	1	13

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	J	253/495 (51%)	218 (86%)	19 (8%)	16 (6%)	1	13
1	K	253/495 (51%)	224 (88%)	16 (6%)	13 (5%)	1	15
1	L	253/495 (51%)	214 (85%)	22 (9%)	17 (7%)	1	12
1	M	214/495 (43%)	190 (89%)	17 (8%)	7 (3%)	3	21
1	N	214/495 (43%)	188 (88%)	17 (8%)	9 (4%)	2	17
1	O	214/495 (43%)	195 (91%)	11 (5%)	8 (4%)	2	20
1	P	214/495 (43%)	191 (89%)	18 (8%)	5 (2%)	5	28
1	Q	214/495 (43%)	188 (88%)	19 (9%)	7 (3%)	3	21
1	R	214/495 (43%)	191 (89%)	15 (7%)	8 (4%)	2	20
All	All	4320/8910 (48%)	3760 (87%)	351 (8%)	209 (5%)	3	16

All (209) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	246	GLU
1	A	267	THR
1	A	271	ARG
1	A	273	PRO
1	A	327	PRO
1	A	392	TRP
1	B	246	GLU
1	B	267	THR
1	B	273	PRO
1	B	385	LEU
1	C	253	LEU
1	C	267	THR
1	C	386	ALA
1	C	392	TRP
1	D	273	PRO
1	D	386	ALA
1	E	267	THR
1	E	273	PRO
1	F	246	GLU
1	F	273	PRO
1	F	392	TRP
1	G	221	ASP
1	G	245	THR
1	G	253	LEU
1	G	273	PRO

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Mol	Chain	Res	Type
1	H	246	GLU
1	H	273	PRO
1	I	237	VAL
1	I	245	THR
1	I	273	PRO
1	I	353	VAL
1	I	388	PRO
1	I	392	TRP
1	J	237	VAL
1	J	273	PRO
1	J	353	VAL
1	J	388	PRO
1	K	237	VAL
1	K	267	THR
1	K	392	TRP
1	L	237	VAL
1	L	267	THR
1	L	273	PRO
1	L	386	ALA
1	M	273	PRO
1	M	392	TRP
1	N	273	PRO
1	N	392	TRP
1	O	273	PRO
1	O	392	TRP
1	P	267	THR
1	P	273	PRO
1	P	392	TRP
1	Q	386	ALA
1	Q	392	TRP
1	R	253	LEU
1	R	267	THR
1	R	273	PRO
1	R	392	TRP
1	R	419	LEU
1	A	221	ASP
1	A	250	TRP
1	A	253	LEU
1	A	420	PRO
1	B	215	PRO
1	B	237	VAL
1	B	392	TRP

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Mol	Chain	Res	Type
1	C	221	ASP
1	C	223	ALA
1	C	237	VAL
1	C	273	PRO
1	C	334	GLN
1	C	353	VAL
1	D	267	THR
1	D	392	TRP
1	E	237	VAL
1	E	392	TRP
1	E	436	SER
1	F	267	THR
1	F	271	ARG
1	F	327	PRO
1	F	388	PRO
1	G	267	THR
1	G	271	ARG
1	G	272	SER
1	G	392	TRP
1	H	267	THR
1	H	353	VAL
1	H	388	PRO
1	H	392	TRP
1	H	418	ASP
1	I	218	ALA
1	I	221	ASP
1	I	222	TRP
1	I	231	SER
1	J	267	THR
1	J	271	ARG
1	J	272	SER
1	J	341	ASN
1	J	392	TRP
1	J	420	PRO
1	L	218	ALA
1	L	271	ARG
1	L	272	SER
1	M	253	LEU
1	M	267	THR
1	M	269	GLY
1	N	253	LEU
1	N	267	THR

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Mol	Chain	Res	Type
1	O	252	PRO
1	O	267	THR
1	P	269	GLY
1	Q	267	THR
1	R	386	ALA
1	R	449	SER
1	A	231	SER
1	A	252	PRO
1	A	385	LEU
1	B	244	LYS
1	B	327	PRO
1	B	420	PRO
1	C	252	PRO
1	D	228	GLU
1	D	244	LYS
1	E	244	LYS
1	F	387	GLU
1	G	388	PRO
1	H	231	SER
1	I	267	THR
1	J	250	TRP
1	K	271	ARG
1	K	272	SER
1	K	391	PRO
1	L	222	TRP
1	L	231	SER
1	L	253	LEU
1	L	391	PRO
1	L	392	TRP
1	L	436	SER
1	M	252	PRO
1	N	252	PRO
1	N	387	GLU
1	N	390	GLY
1	O	253	LEU
1	O	270	LEU
1	O	272	SER
1	P	330	PRO
1	Q	387	GLU
1	Q	390	GLY
1	B	231	SER
1	D	271	ARG

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Mol	Chain	Res	Type
1	D	388	PRO
1	E	231	SER
1	E	246	GLU
1	F	231	SER
1	G	222	TRP
1	G	451	LEU
1	H	228	GLU
1	H	248	PRO
1	H	272	SER
1	I	246	GLU
1	J	231	SER
1	K	228	GLU
1	K	231	SER
1	K	273	PRO
1	K	386	ALA
1	L	228	GLU
1	L	353	VAL
1	M	268	LYS
1	Q	449	SER
1	A	223	ALA
1	C	246	GLU
1	C	330	PRO
1	D	253	LEU
1	F	239	MET
1	G	228	GLU
1	G	231	SER
1	G	353	VAL
1	H	213	GLN
1	H	330	PRO
1	J	386	ALA
1	K	248	PRO
1	K	253	LEU
1	K	388	PRO
1	N	386	ALA
1	O	449	SER
1	R	452	THR
1	A	239	MET
1	C	231	SER
1	D	231	SER
1	E	239	MET
1	E	388	PRO
1	E	391	PRO

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Mol	Chain	Res	Type
1	F	228	GLU
1	H	218	ALA
1	I	219	LEU
1	J	330	PRO
1	L	330	PRO
1	N	286	PRO
1	D	239	MET
1	G	391	PRO
1	Q	333	GLY
1	B	239	MET
1	I	391	PRO
1	J	239	MET
1	C	239	MET
1	J	391	PRO
1	L	239	MET
1	I	239	MET

5.3.2 Protein sidechains [i](#)

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

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no 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.

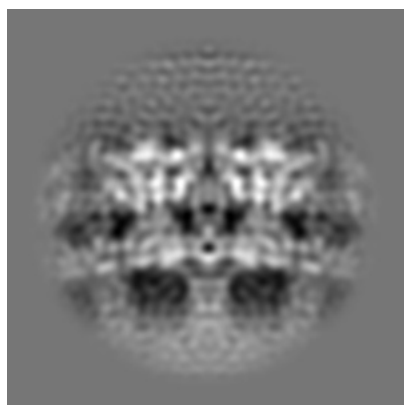
5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

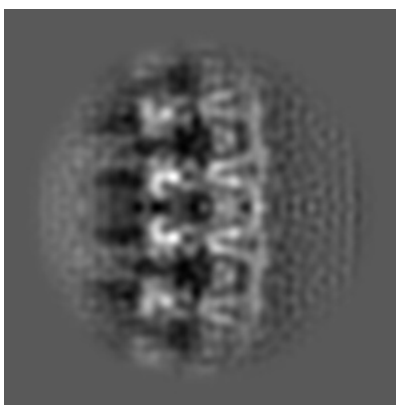
6 Tomogram visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-3101. These allow visual inspection of the internal detail of the tomogram and identification of artifacts.

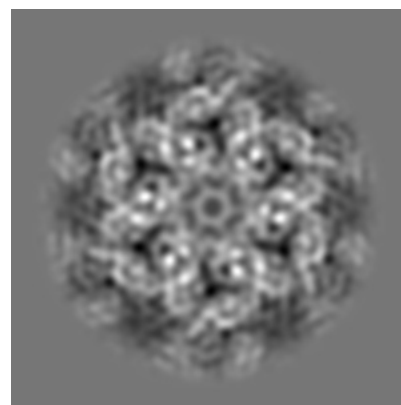
6.1 Orthogonal projections [i](#)



X



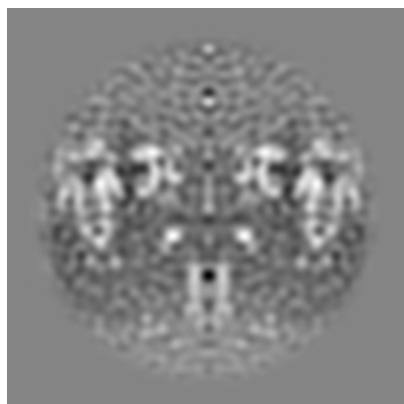
Y



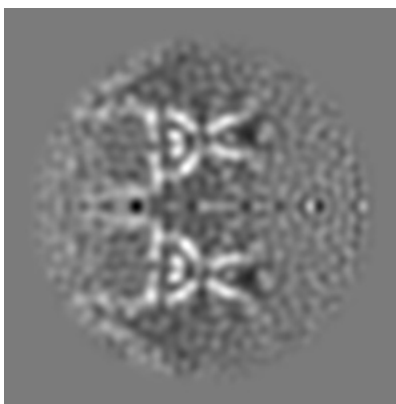
Z

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

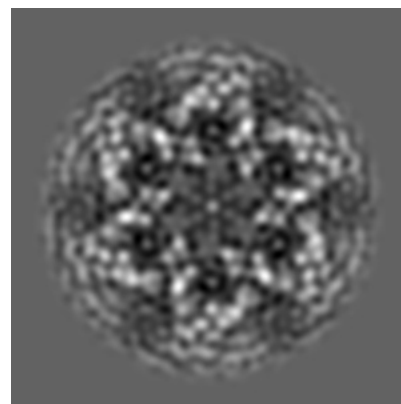
6.2 Central slices [i](#)



X Index: 60



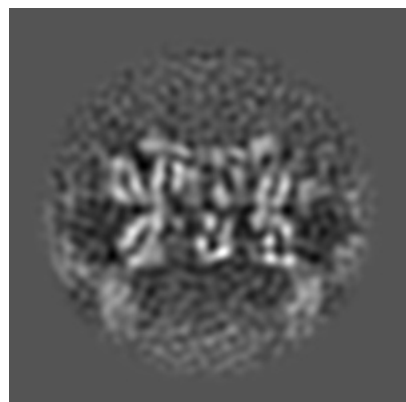
Y Index: 60



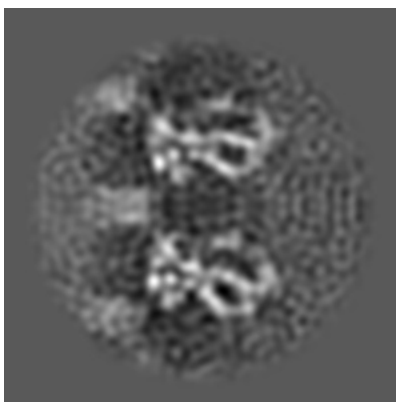
Z Index: 60

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

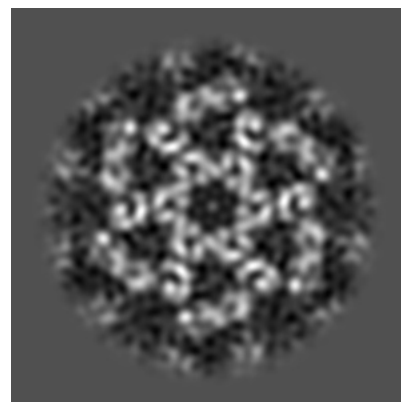
6.3 Largest variance slices [i](#)



X Index: 47



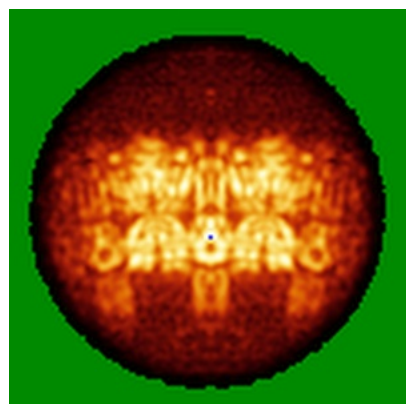
Y Index: 57



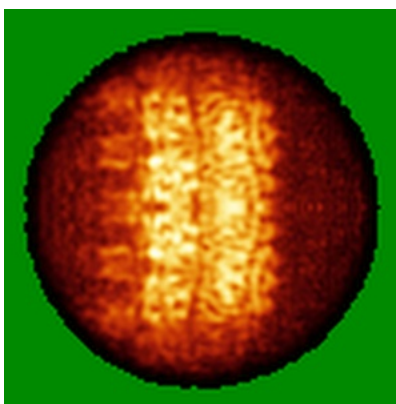
Z Index: 50

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

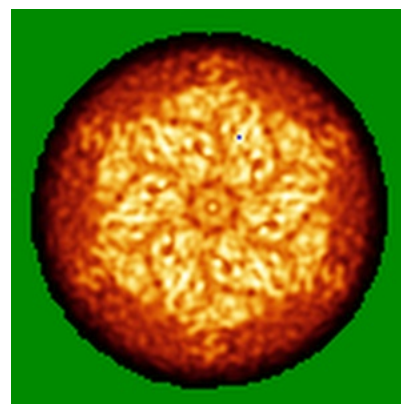
6.4 Orthogonal standard-deviation projections (False-color) [i](#)



X



Y



Z

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

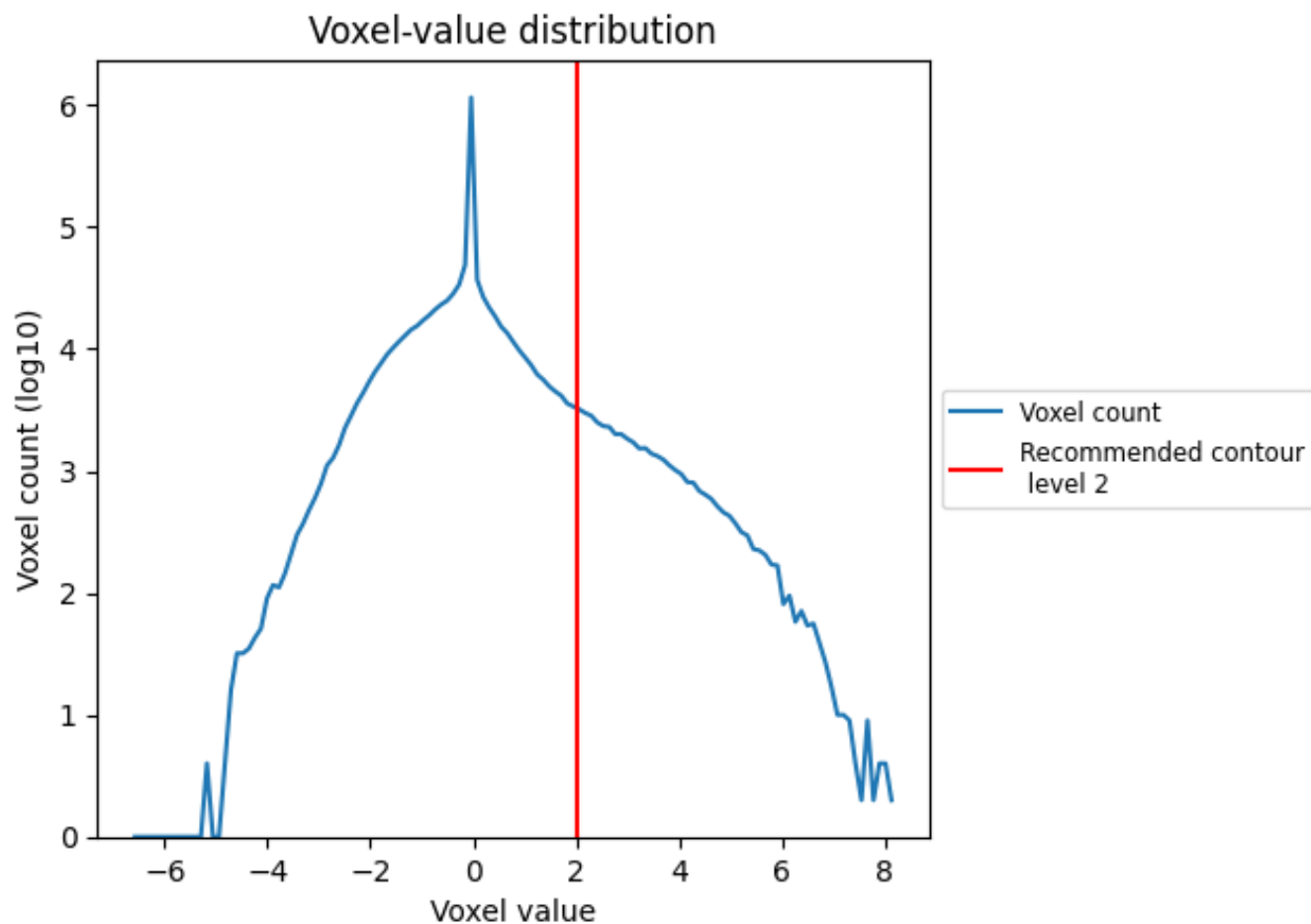
6.5 Mask visualisation [i](#)

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

7 Tomogram analysis [i](#)

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

7.1 Voxel-value distribution [i](#)



The voxel-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic.

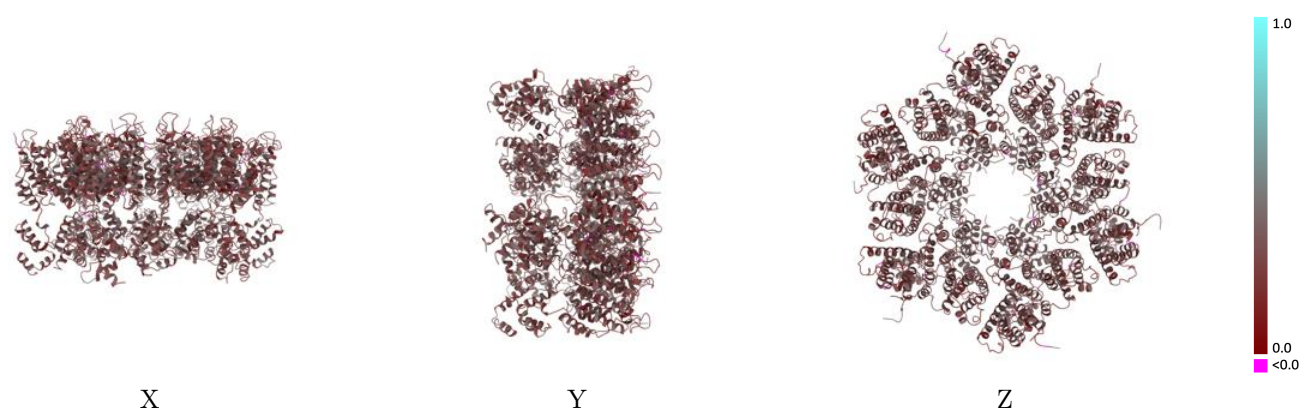
8 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-3101 and PDB model 5A9E. Per-residue inclusion information can be found in section 3 on page 6.

8.1 Map-model overlay [i](#)

This section was not generated.

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

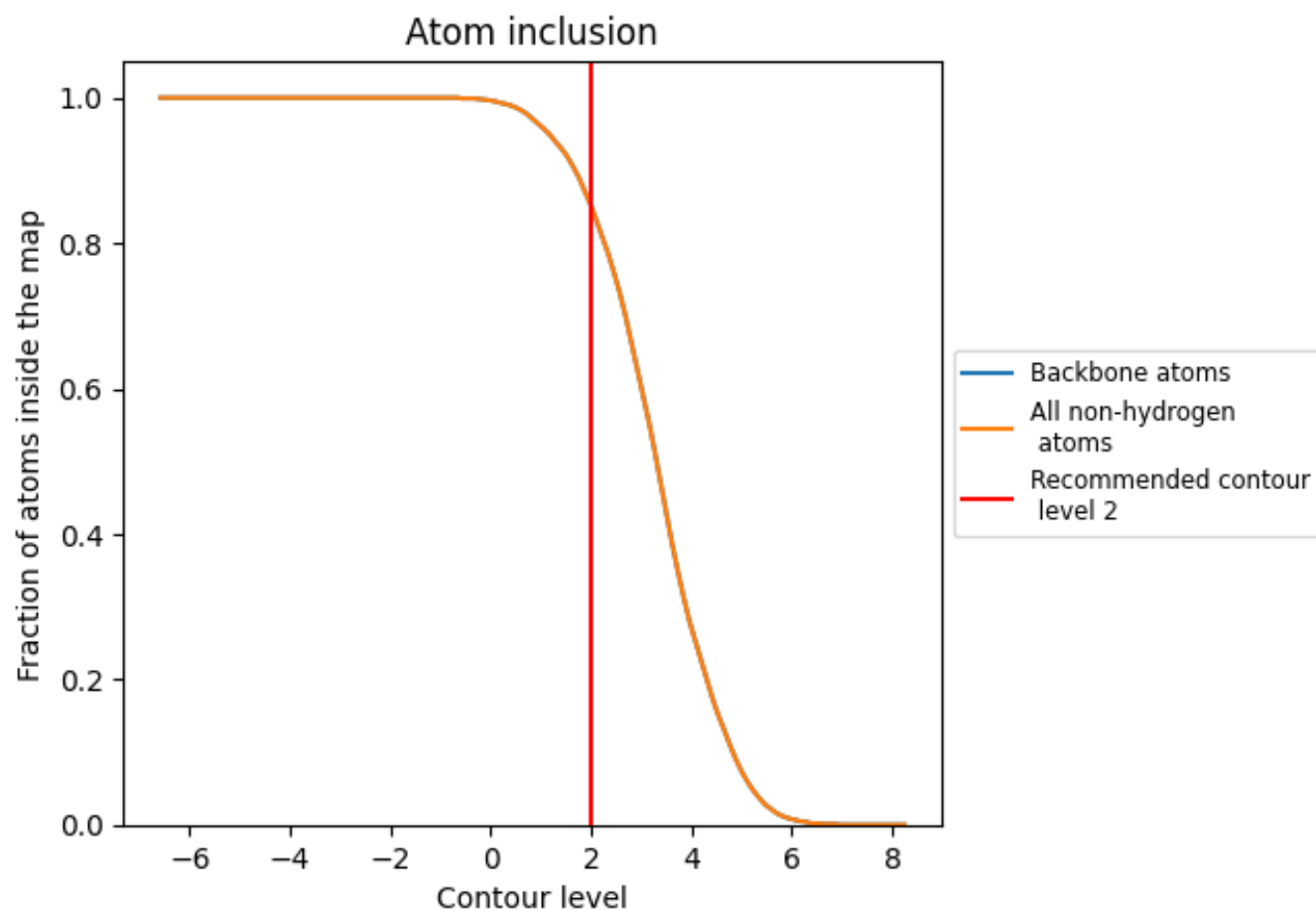


The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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

This section was not generated.

8.4 Atom inclusion [i](#)



At the recommended contour level, 85% of all backbone atoms, 85% of all non-hydrogen atoms, are inside the map.

8.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (2) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.8520	 0.2840
A	 0.8750	 0.2960
B	 0.8680	 0.2980
C	 0.8760	 0.2960
D	 0.8670	 0.2920
E	 0.8670	 0.2920
F	 0.8670	 0.2930
G	 0.8350	 0.2850
H	 0.8390	 0.2810
I	 0.8280	 0.2790
J	 0.8370	 0.2800
K	 0.8400	 0.2860
L	 0.8380	 0.2760
M	 0.8440	 0.2780
N	 0.8340	 0.2730
O	 0.8680	 0.2750
P	 0.8560	 0.2740
Q	 0.8450	 0.2750
R	 0.8550	 0.2710

