Full wwPDB X-ray Structure Validation Report ⓘ

Mar 9, 2026 – 02:04 PM UTC

PDB ID	:	2V16 / pdb_00002v16
Title	:	Crystal Structure of Renin with Inhibitor 3
Authors	:	Rahuel, J.; Rasetti, V.; Maibaum, J.; Rueger, H.; Goschke, R.; Cohen, N.C.; Stutz, S.; Cumin, F.; Fuhrer, W.; Wood, J.M.; Grutter, M.G.
Deposited on	:	2007-05-22
Resolution	:	2.80 Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

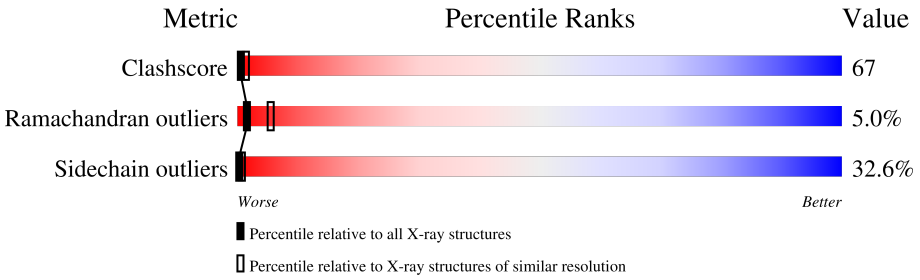
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	NOT EXECUTED
EDS	:	NOT EXECUTED
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 2.80 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
Clashscore	190562	4276 (2.80-2.80)
Ramachandran outliers	187476	4196 (2.80-2.80)
Sidechain outliers	187428	4198 (2.80-2.80)

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

Note EDS was not executed.

Mol	Chain	Length	Quality of chain
1	C	340	31% 49% 18%
1	O	340	21% 49% 26%

2 Entry composition

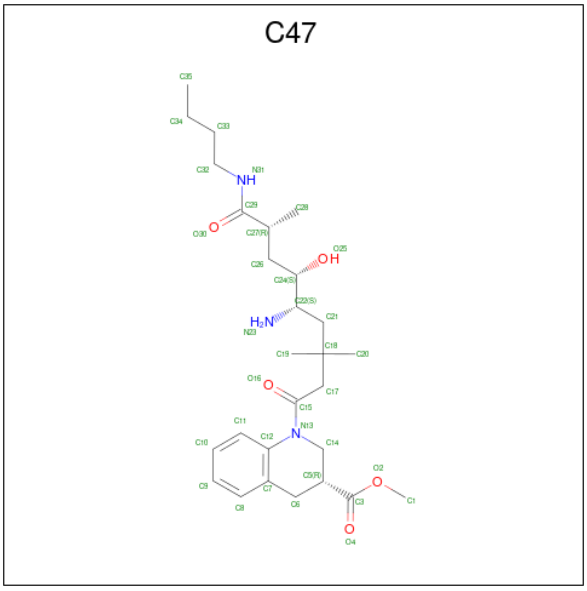
There are 3 unique types of molecules in this entry. The entry contains 5216 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called RENIN.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	C	334	Total	C	N	O	S	0	0	1
			2567	1639	416	498	14			
1	O	332	Total	C	N	O	S	0	0	1
			2557	1634	414	495	14			

- Molecule 2 is METHYL (3R)-1-[(5S,6S,8R)-5-AMINO-9-BUTYLAMINO-6-HYDROXY-3,3,8-TRIMETHYL-9-OXO-NONANOYL]-3,4-DIHYDRO-2H-QUINOLINE-3-CARBOXYLATE (CCD ID: C47) (formula: $C_{27}H_{43}N_3O_5$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
2	C	1	Total	C	N	O	0	0
			35	27	3	5		
2	O	1	Total	C	N	O	0	0
			35	27	3	5		

- Molecule 3 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	C	15	Total O 15 15	0	0
3	O	7	Total O 7 7	0	0

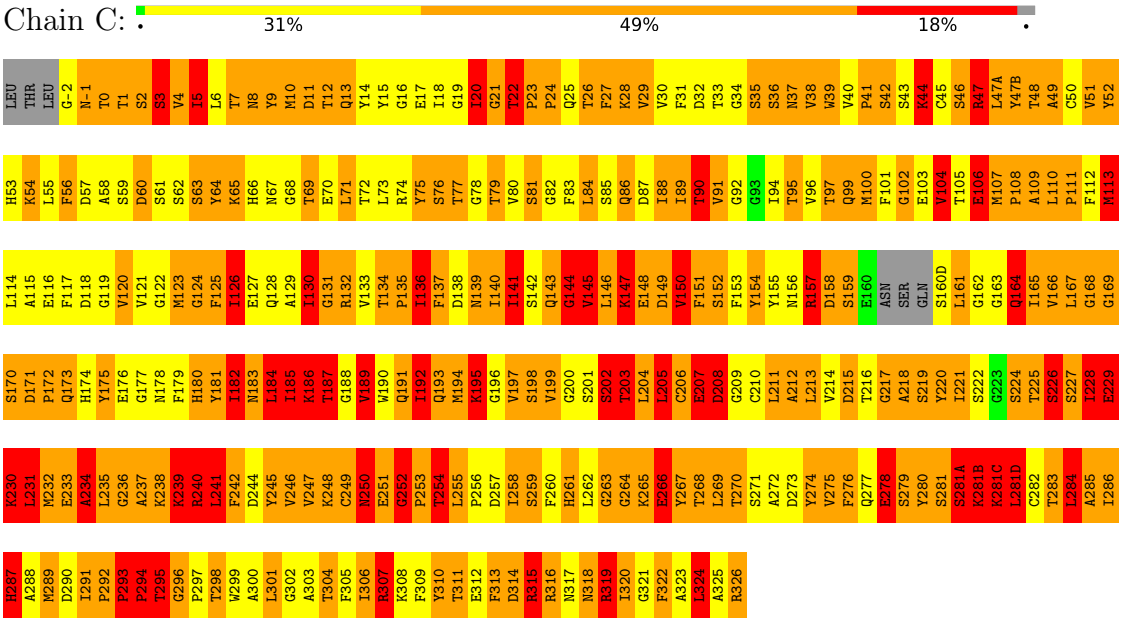
3 Residue-property plots (i)

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

Note EDS was not executed.

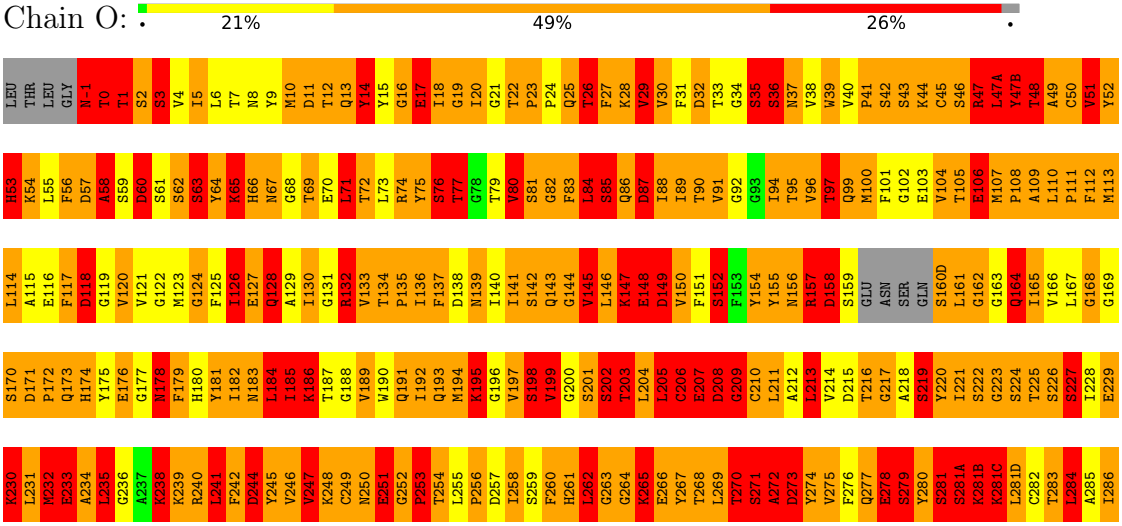
• Molecule 1: RENIN

Chain C:



• Molecule 1: RENIN

Chain O:




H287
A288
M289
D290
T291
P292
P293
P294
T295
G296
P297
T298
W299
A300
L301
G302
A303
T304
F305
I306
R307
K308
F309
Y310
T311
E312
F313
D314
R315
R316
M317
N318
R319
I320
G321
F322
A323
L324
A325
R326

4 Data and refinement statistics (i)

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

Property	Value	Source
Space group	P 21 3	Depositor
Cell constants a, b, c, α, β, γ	142.90Å 142.90Å 142.90Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	10.00 – 2.80	Depositor
% Data completeness (in resolution range)	(Not available) (10.00-2.80)	Depositor
R_{merge}	0.10	Depositor
R_{sym}	(Not available)	Depositor
Refinement program	TNT	Depositor
R, R_{free}	0.214 , (Not available)	Depositor
Estimated twinning fraction	No twinning to report.	Xtriage
Total number of atoms	5216	wwPDB-VP
Average B, all atoms (Å^2)	15.0	wwPDB-VP

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: C47

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	C	5.36	762/2626 (29.0%)	4.40	819/3560 (23.0%)
1	O	5.13	694/2616 (26.5%)	4.57	837/3547 (23.6%)
All	All	5.25	1456/5242 (27.8%)	4.48	1656/7107 (23.3%)

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	C	2	2
1	O	5	3
All	All	7	5

All (1456) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	316	ARG	CZ-NH1	28.15	1.72	1.32
1	C	293	PRO	C-O	27.16	1.54	1.24
1	C	287	HIS	ND1-CE1	26.99	1.59	1.32
1	C	157	ARG	NE-CZ	26.06	1.61	1.33
1	C	240	ARG	CZ-NH2	25.54	1.66	1.33
1	O	74	ARG	NE-CZ	25.46	1.61	1.33
1	C	240	ARG	NE-CZ	25.38	1.60	1.33
1	C	316	ARG	CZ-NH2	24.17	1.64	1.33
1	C	74	ARG	CZ-NH2	22.01	1.62	1.33
1	C	157	ARG	CZ-NH1	21.68	1.63	1.32
1	O	132	ARG	NE-CZ	21.51	1.56	1.33
1	O	171	ASP	CA-C	-21.41	1.35	1.52
1	O	240	ARG	C-O	21.38	1.50	1.24
1	C	119	GLY	C-O	-21.26	1.07	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	64	TYR	C-N	-21.17	1.06	1.33
1	O	180	HIS	CG-ND1	20.96	1.61	1.38
1	C	208	ASP	N-CA	20.31	1.68	1.46
1	O	158	ASP	CG-OD1	20.18	1.63	1.25
1	O	266	GLU	CD-OE2	19.84	1.63	1.25
1	O	201	SER	C-O	19.79	1.48	1.23
1	O	240	ARG	NE-CZ	19.75	1.54	1.33
1	C	60	ASP	C-O	-19.17	1.09	1.23
1	O	207	GLU	CD-OE2	19.11	1.61	1.25
1	O	180	HIS	CD2-NE2	19.00	1.58	1.37
1	O	132	ARG	CZ-NH2	18.95	1.58	1.33
1	C	315	ARG	CZ-NH1	18.73	1.58	1.32
1	O	158	ASP	CG-OD2	18.60	1.60	1.25
1	C	240	ARG	CZ-NH1	18.43	1.58	1.32
1	C	39	TRP	NE1-CE2	-18.38	1.17	1.37
1	O	155	TYR	CA-C	18.34	1.74	1.52
1	O	294	PRO	C-N	18.22	1.56	1.33
1	C	233	GLU	CD-OE1	18.16	1.59	1.25
1	O	294	PRO	C-O	17.88	1.47	1.24
1	O	45	CYS	C-O	17.86	1.45	1.24
1	C	269	LEU	C-O	-17.59	1.02	1.24
1	O	244	ASP	CG-OD1	17.49	1.58	1.25
1	O	107	MET	CA-C	17.47	1.71	1.52
1	C	266	GLU	CD-OE2	17.28	1.58	1.25
1	C	201	SER	C-O	17.19	1.47	1.24
1	O	256	PRO	C-O	-17.11	1.01	1.24
1	O	33	THR	C-O	17.09	1.46	1.24
1	C	74	ARG	CZ-NH1	17.06	1.56	1.32
1	C	148	GLU	CD-OE2	17.02	1.57	1.25
1	C	60	ASP	CA-C	-16.99	1.38	1.52
1	C	-1	ASN	CG-OD1	16.92	1.55	1.23
1	O	70	GLU	CD-OE2	16.91	1.57	1.25
1	O	53	HIS	C-O	16.82	1.45	1.24
1	O	173	GLN	CD-NE2	16.69	1.68	1.33
1	C	64	TYR	C-O	-16.69	1.00	1.23
1	O	157	ARG	NE-CZ	16.52	1.51	1.33
1	C	47	ARG	CZ-NH1	16.46	1.55	1.32
1	C	103	GLU	C-O	-16.41	1.04	1.24
1	C	149	ASP	CA-C	-16.40	1.35	1.53
1	C	42	SER	CA-C	-16.39	1.33	1.52
1	C	157	ARG	CZ-NH2	16.30	1.54	1.33
1	C	207	GLU	C-O	16.20	1.44	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	156	ASN	CG-OD1	16.20	1.54	1.23
1	O	202	SER	CB-OG	16.06	1.74	1.42
1	O	47	ARG	NE-CZ	16.02	1.50	1.33
1	C	292	PRO	CA-C	-15.79	1.41	1.52
1	C	173	GLN	CD-NE2	15.76	1.66	1.33
1	O	193	GLN	CD-OE1	15.62	1.53	1.23
1	C	42	SER	C-N	-15.60	1.12	1.33
1	C	173	GLN	CD-OE1	15.57	1.53	1.23
1	O	155	TYR	C-N	15.57	1.55	1.33
1	O	197	VAL	C-O	15.53	1.40	1.24
1	O	251	GLU	CA-CB	15.46	1.80	1.53
1	C	315	ARG	NE-CZ	15.44	1.50	1.33
1	C	60	ASP	N-CA	-15.42	1.33	1.47
1	C	180	HIS	ND1-CE1	15.40	1.48	1.32
1	C	-2	GLY	C-O	15.37	1.54	1.23
1	C	250	ASN	CG-OD1	15.31	1.52	1.23
1	O	74	ARG	CZ-NH2	15.28	1.53	1.33
1	O	173	GLN	CD-OE1	15.22	1.52	1.23
1	C	187	THR	CA-C	15.15	1.71	1.52
1	O	157	ARG	CZ-NH1	15.11	1.53	1.32
1	O	58	ALA	C-O	14.99	1.42	1.24
1	O	233	GLU	CD-OE2	14.99	1.53	1.25
1	C	215	ASP	C-O	-14.96	1.07	1.24
1	C	264	GLY	C-O	14.95	1.44	1.23
1	C	64	TYR	CA-C	-14.90	1.33	1.53
1	C	55	LEU	C-O	14.87	1.42	1.23
1	O	180	HIS	CE1-NE2	14.84	1.47	1.32
1	C	263	GLY	C-O	14.82	1.44	1.23
1	O	139	ASN	CG-OD1	14.75	1.51	1.23
1	C	278	GLU	CD-OE2	14.70	1.53	1.25
1	C	27	PHE	N-CA	-14.57	1.27	1.45
1	O	47	ARG	CZ-NH2	14.53	1.52	1.33
1	O	132	ARG	CZ-NH1	14.51	1.53	1.32
1	O	250	ASN	CG-OD1	14.48	1.51	1.23
1	C	7	THR	C-O	-14.48	1.06	1.24
1	C	115	ALA	C-O	-14.47	1.06	1.24
1	C	251	GLU	CD-OE2	14.43	1.52	1.25
1	O	66	HIS	CG-ND1	14.39	1.54	1.38
1	C	294	PRO	C-O	14.36	1.42	1.24
1	O	107	MET	C-O	14.29	1.40	1.24
1	O	326	ARG	CZ-NH2	14.20	1.51	1.33
1	C	134	THR	N-CA	14.19	1.64	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	261	HIS	CD2-NE2	14.15	1.53	1.37
1	C	27	PHE	C-O	-14.12	1.05	1.23
1	O	176	GLU	CD-OE2	14.09	1.52	1.25
1	C	33	THR	N-CA	-14.06	1.27	1.46
1	C	22	THR	CA-C	-14.05	1.35	1.52
1	O	272	ALA	C-O	-13.90	1.06	1.24
1	O	229	GLU	CD-OE2	13.90	1.51	1.25
1	C	132	ARG	CZ-NH2	13.87	1.51	1.33
1	O	76	SER	C-O	13.87	1.44	1.24
1	O	207	GLU	C-O	13.73	1.40	1.23
1	C	305	PHE	C-O	-13.71	1.07	1.24
1	C	105	THR	CB-OG1	-13.69	1.21	1.43
1	C	314	ASP	CG-OD2	13.69	1.51	1.25
1	C	251	GLU	C-O	13.67	1.40	1.24
1	O	99	GLN	C-O	13.60	1.40	1.23
1	O	158	ASP	C-O	13.56	1.50	1.23
1	O	25	GLN	CD-OE1	13.53	1.49	1.23
1	C	144	GLY	C-O	13.53	1.42	1.23
1	C	266	GLU	C-N	13.52	1.52	1.33
1	C	316	ARG	CA-C	-13.51	1.34	1.52
1	C	266	GLU	C-O	13.49	1.39	1.24
1	C	233	GLU	CD-OE2	13.48	1.50	1.25
1	O	84	LEU	C-O	13.46	1.40	1.23
1	C	237	ALA	N-CA	13.43	1.61	1.45
1	C	170	SER	C-O	-13.38	1.07	1.24
1	O	24	PRO	CA-C	-13.36	1.37	1.52
1	C	70	GLU	CD-OE2	13.35	1.50	1.25
1	O	250	ASN	CA-C	13.33	1.71	1.52
1	O	122	GLY	C-O	13.29	1.37	1.24
1	C	278	GLU	CD-OE1	13.29	1.50	1.25
1	C	44	LYS	CA-C	13.29	1.71	1.52
1	O	129	ALA	C-O	-13.28	1.07	1.23
1	C	159	SER	C-N	13.28	1.51	1.33
1	O	17	GLU	CD-OE2	13.27	1.50	1.25
1	C	263	GLY	CA-C	13.27	1.70	1.51
1	O	120	VAL	C-O	-13.27	1.10	1.24
1	C	-2	GLY	N-CA	13.21	1.66	1.45
1	O	305	PHE	C-O	-13.18	1.07	1.24
1	O	62	SER	C-O	-13.17	1.08	1.24
1	O	257	ASP	CG-OD2	13.16	1.50	1.25
1	C	132	ARG	CZ-NH1	13.11	1.51	1.32
1	O	204	LEU	CB-CG	13.09	1.79	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	272	ALA	CA-C	-13.09	1.35	1.52
1	O	66	HIS	ND1-CE1	13.08	1.45	1.32
1	O	161	LEU	C-O	13.08	1.42	1.23
1	O	173	GLN	CG-CD	13.08	1.84	1.52
1	O	143	GLN	C-O	13.06	1.40	1.24
1	C	186	LYS	CA-CB	13.02	1.75	1.53
1	C	240	ARG	CA-C	13.02	1.70	1.52
1	O	56	PHE	C-N	-12.96	1.17	1.33
1	O	121	VAL	C-O	-12.92	1.10	1.24
1	O	278	GLU	CD-OE2	12.90	1.49	1.25
1	C	47	ARG	C-O	-12.84	1.07	1.24
1	C	70	GLU	CD-OE1	12.84	1.49	1.25
1	C	159	SER	C-O	12.83	1.49	1.23
1	O	181	TYR	N-CA	-12.81	1.30	1.45
1	C	-1	ASN	CG-ND2	12.79	1.60	1.33
1	O	216	THR	C-O	12.77	1.40	1.24
1	C	201	SER	C-N	12.77	1.50	1.33
1	C	257	ASP	C-O	-12.69	1.07	1.23
1	C	313	PHE	N-CA	-12.69	1.30	1.46
1	O	182	ILE	N-CA	-12.68	1.29	1.46
1	C	318	ASN	C-N	-12.67	1.18	1.33
1	O	180	HIS	CA-C	12.64	1.67	1.52
1	C	180	HIS	CG-CD2	12.58	1.49	1.35
1	O	139	ASN	C-O	-12.58	1.09	1.24
1	C	294	PRO	CA-CB	12.55	1.71	1.53
1	O	225	THR	C-N	-12.47	1.15	1.33
1	C	47	ARG	CA-C	-12.44	1.34	1.52
1	O	32	ASP	N-CA	12.43	1.61	1.46
1	O	322	PHE	C-O	-12.40	1.10	1.24
1	C	80	VAL	C-O	-12.32	1.11	1.24
1	C	58	ALA	CA-C	-12.32	1.35	1.52
1	O	314	ASP	CA-C	-12.21	1.38	1.52
1	C	180	HIS	C-O	12.19	1.38	1.24
1	O	251	GLU	CD-OE2	12.19	1.48	1.25
1	C	199	VAL	C-O	-12.13	1.10	1.24
1	C	49	ALA	C-O	-12.13	1.08	1.24
1	O	160(D)	SER	N-CA	12.09	1.69	1.46
1	C	26	THR	C-O	-12.00	1.09	1.24
1	C	149	ASP	CG-OD2	11.99	1.48	1.25
1	C	162	GLY	C-O	-11.97	1.07	1.23
1	O	219	SER	N-CA	-11.96	1.30	1.46
1	C	90	THR	CB-OG1	11.96	1.62	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	42	SER	C-O	-11.95	1.09	1.23
1	O	163	GLY	CA-C	-11.95	1.39	1.51
1	C	181	TYR	C-O	-11.94	1.09	1.23
1	O	47(A)	LEU	CA-C	11.93	1.68	1.52
1	O	40	VAL	C-N	11.90	1.48	1.33
1	O	275	VAL	CA-CB	-11.90	1.39	1.54
1	C	62	SER	C-O	11.89	1.38	1.24
1	O	229	GLU	CD-OE1	11.88	1.48	1.25
1	O	287	HIS	ND1-CE1	11.87	1.44	1.32
1	C	197	VAL	C-O	11.85	1.36	1.24
1	O	7	THR	C-O	-11.84	1.09	1.23
1	O	48	THR	C-O	11.83	1.37	1.24
1	O	176	GLU	CD-OE1	11.83	1.47	1.25
1	O	258	ILE	CA-C	-11.83	1.38	1.52
1	C	0	THR	C-O	11.80	1.38	1.23
1	C	53	HIS	N-CA	-11.80	1.31	1.45
1	O	326	ARG	CD-NE	11.78	1.62	1.46
1	C	241	LEU	C-O	-11.77	1.09	1.24
1	C	106	GLU	C-N	-11.76	1.24	1.33
1	C	58	ALA	C-N	-11.75	1.18	1.33
1	C	71	LEU	N-CA	-11.73	1.32	1.46
1	C	226	SER	CA-C	-11.71	1.36	1.52
1	O	309	PHE	N-CA	-11.71	1.31	1.46
1	O	-1	ASN	C-O	11.65	1.46	1.23
1	O	253	PRO	C-N	11.65	1.50	1.33
1	C	112	PHE	C-O	-11.63	1.09	1.24
1	O	201	SER	C-N	11.62	1.49	1.33
1	C	199	VAL	N-CA	-11.61	1.31	1.46
1	O	129	ALA	CA-C	-11.61	1.37	1.52
1	C	180	HIS	CD2-NE2	11.60	1.50	1.37
1	C	86	GLN	CA-C	-11.55	1.38	1.52
1	C	249	CYS	C-O	-11.54	1.09	1.24
1	O	228	ILE	C-O	11.53	1.37	1.24
1	C	133	VAL	N-CA	11.50	1.59	1.46
1	O	202	SER	C-O	11.50	1.38	1.24
1	O	290	ASP	C-N	11.50	1.46	1.33
1	O	89	ILE	CA-CB	-11.49	1.40	1.54
1	C	156	ASN	CA-C	-11.48	1.37	1.53
1	C	319	ARG	NE-CZ	11.47	1.45	1.33
1	O	129	ALA	C-N	-11.47	1.22	1.33
1	O	74	ARG	CD-NE	11.46	1.62	1.46
1	C	25	GLN	C-O	-11.43	1.10	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	228	ILE	N-CA	11.42	1.60	1.46
1	O	273	ASP	N-CA	-11.40	1.31	1.46
1	C	193	GLN	CD-OE1	11.38	1.45	1.23
1	C	170	SER	CA-C	-11.38	1.37	1.52
1	O	261	HIS	CG-CD2	11.38	1.48	1.35
1	O	276	PHE	C-O	11.34	1.38	1.23
1	C	99	GLN	CA-C	-11.31	1.39	1.52
1	C	190	TRP	C-O	-11.28	1.09	1.24
1	O	0	THR	N-CA	11.25	1.59	1.45
1	O	156	ASN	CA-CB	11.25	1.72	1.53
1	C	174	HIS	CG-ND1	11.23	1.50	1.38
1	C	58	ALA	N-CA	-11.22	1.31	1.46
1	O	114	LEU	C-O	-11.21	1.09	1.24
1	O	254	THR	N-CA	11.18	1.61	1.46
1	O	116	GLU	CD-OE2	11.17	1.46	1.25
1	O	315	ARG	N-CA	-11.13	1.31	1.46
1	O	294	PRO	N-CD	11.12	1.63	1.47
1	C	4	VAL	CA-CB	-11.11	1.39	1.54
1	O	315	ARG	NE-CZ	11.08	1.45	1.33
1	C	33	THR	C-O	-11.08	1.09	1.24
1	C	244	ASP	CG-OD1	11.07	1.46	1.25
1	C	207	GLU	CD-OE2	11.03	1.46	1.25
1	O	280	TYR	C-O	11.03	1.38	1.24
1	C	248	LYS	CA-CB	-11.03	1.36	1.53
1	O	11	ASP	N-CA	-11.01	1.31	1.46
1	C	200	GLY	C-N	-11.01	1.17	1.33
1	O	261	HIS	CG-ND1	10.99	1.50	1.38
1	C	226	SER	CB-OG	10.99	1.64	1.42
1	O	252	GLY	CA-C	-10.92	1.36	1.51
1	O	202	SER	C-N	10.92	1.49	1.33
1	O	79	THR	CB-OG1	10.92	1.61	1.43
1	C	282	CYS	CA-C	-10.89	1.39	1.52
1	C	132	ARG	CD-NE	10.86	1.61	1.46
1	C	181	TYR	CA-CB	-10.84	1.36	1.53
1	C	224	SER	CB-OG	10.84	1.63	1.42
1	C	75	TYR	C-O	-10.83	1.10	1.24
1	C	295	THR	C-O	-10.82	1.07	1.23
1	C	268	THR	C-N	-10.80	1.19	1.33
1	O	115	ALA	C-O	-10.79	1.11	1.23
1	C	6	LEU	N-CA	10.79	1.58	1.45
1	O	190	TRP	CA-C	10.79	1.65	1.53
1	O	258	ILE	C-N	-10.77	1.20	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	60	ASP	CG-OD2	10.77	1.45	1.25
1	C	116	GLU	CD-OE1	10.77	1.45	1.25
1	O	17	GLU	CD-OE1	10.76	1.45	1.25
1	C	124	GLY	C-O	-10.74	1.12	1.23
1	C	199	VAL	CA-CB	-10.71	1.41	1.54
1	C	287	HIS	CG-CD2	10.69	1.47	1.35
1	C	267	TYR	C-O	-10.68	1.10	1.23
1	C	138	ASP	CA-CB	-10.66	1.35	1.53
1	C	70	GLU	CA-C	-10.65	1.38	1.52
1	O	43	SER	C-O	10.65	1.37	1.24
1	O	73	LEU	CA-C	-10.63	1.40	1.52
1	C	92	GLY	CA-C	-10.63	1.40	1.51
1	C	316	ARG	CZ-NH1	10.60	1.47	1.32
1	C	96	VAL	C-N	10.60	1.48	1.33
1	C	325	ALA	N-CA	-10.60	1.32	1.46
1	O	171	ASP	N-CA	-10.60	1.28	1.45
1	C	67	ASN	CG-ND2	10.58	1.55	1.33
1	O	232	MET	N-CA	-10.58	1.32	1.46
1	O	47	ARG	CZ-NH1	10.57	1.47	1.32
1	O	158	ASP	CB-CG	10.56	1.78	1.52
1	C	184	LEU	CA-C	-10.54	1.39	1.52
1	O	201	SER	CA-CB	10.54	1.70	1.53
1	C	151	PHE	CA-C	10.54	1.65	1.52
1	O	155	TYR	N-CA	-10.54	1.33	1.46
1	C	1	THR	CA-C	-10.53	1.39	1.52
1	O	109	ALA	CA-C	-10.53	1.38	1.52
1	C	111	PRO	C-N	-10.52	1.19	1.33
1	C	80	VAL	N-CA	-10.51	1.33	1.46
1	C	14	TYR	C-O	-10.50	1.11	1.24
1	O	250	ASN	CA-CB	10.49	1.70	1.53
1	O	139	ASN	CA-C	-10.49	1.39	1.52
1	O	127	GLU	C-O	-10.49	1.10	1.24
1	C	207	GLU	CD-OE1	10.47	1.45	1.25
1	C	51	VAL	CA-CB	10.45	1.67	1.54
1	O	67	ASN	CA-C	-10.43	1.38	1.52
1	C	43	SER	C-O	-10.41	1.11	1.24
1	C	294	PRO	N-CD	10.41	1.62	1.47
1	C	97	THR	C-O	10.39	1.36	1.24
1	O	148	GLU	CD-OE1	10.39	1.45	1.25
1	O	47	ARG	CD-NE	10.38	1.60	1.46
1	C	197	VAL	N-CA	-10.38	1.34	1.46
1	C	229	GLU	CD-OE2	10.33	1.45	1.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	230	LYS	CE-NZ	10.31	1.80	1.49
1	O	106	GLU	CD-OE1	10.30	1.45	1.25
1	O	242	PHE	CA-CB	10.30	1.69	1.53
1	O	192	ILE	N-CA	-10.29	1.33	1.46
1	C	89	ILE	N-CA	-10.27	1.34	1.46
1	O	67	ASN	C-O	-10.26	1.11	1.24
1	C	242	PHE	CA-C	10.26	1.66	1.52
1	O	39	TRP	CD2-CE3	-10.25	1.23	1.40
1	C	205	LEU	C-O	-10.24	1.11	1.23
1	O	170	SER	C-O	-10.22	1.10	1.23
1	O	233	GLU	CD-OE1	10.21	1.44	1.25
1	C	90	THR	CA-CB	10.20	1.67	1.53
1	C	270	THR	C-N	-10.20	1.20	1.34
1	C	286	ILE	C-O	-10.20	1.13	1.24
1	O	9	TYR	CA-CB	-10.20	1.40	1.53
1	O	16	GLY	C-O	-10.19	1.10	1.23
1	C	318	ASN	CG-OD1	10.16	1.42	1.23
1	O	-1	ASN	CG-OD1	10.15	1.42	1.23
1	O	178	ASN	N-CA	-10.14	1.33	1.46
1	C	43	SER	N-CA	-10.13	1.33	1.46
1	C	121	VAL	C-O	-10.12	1.11	1.23
1	C	120	VAL	N-CA	-10.12	1.34	1.46
1	O	186	LYS	CB-CG	10.12	1.82	1.52
1	C	78	GLY	C-O	-10.11	1.09	1.23
1	C	113	MET	C-O	-10.09	1.11	1.24
1	O	273	ASP	CA-C	-10.08	1.39	1.52
1	C	47(A)	LEU	C-O	-10.07	1.10	1.24
1	O	251	GLU	CG-CD	10.07	1.77	1.52
1	C	250	ASN	C-O	-10.06	1.12	1.24
1	C	116	GLU	C-O	-10.05	1.11	1.24
1	C	158	ASP	CG-OD1	10.05	1.44	1.25
1	C	47	ARG	NE-CZ	10.03	1.44	1.33
1	O	182	ILE	CA-CB	-10.01	1.40	1.54
1	C	44	LYS	CD-CE	10.00	1.82	1.52
1	C	176	GLU	CD-OE1	-10.00	1.06	1.25
1	C	89	ILE	C-O	-9.98	1.14	1.24
1	O	178	ASN	CG-ND2	9.97	1.54	1.33
1	C	135	PRO	C-O	-9.96	1.12	1.23
1	O	9	TYR	C-O	-9.96	1.12	1.24
1	C	247	VAL	CA-CB	-9.95	1.38	1.54
1	O	-1	ASN	CG-ND2	9.94	1.54	1.33
1	C	269	LEU	CA-C	-9.93	1.40	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	208	ASP	CG-OD2	9.92	1.44	1.25
1	C	47	ARG	CZ-NH2	9.91	1.46	1.33
1	C	208	ASP	CG-OD1	9.91	1.44	1.25
1	C	127	GLU	N-CA	-9.88	1.34	1.46
1	O	284	LEU	C-N	9.88	1.46	1.33
1	O	62	SER	CA-C	-9.88	1.40	1.52
1	O	220	TYR	N-CA	-9.86	1.32	1.45
1	C	56	PHE	C-O	-9.86	1.12	1.24
1	C	311	THR	C-O	-9.85	1.11	1.24
1	O	281(A)	SER	CA-C	9.85	1.66	1.52
1	C	64	TYR	CB-CG	-9.84	1.30	1.51
1	O	194	MET	C-N	-9.84	1.20	1.33
1	O	194	MET	CA-CB	-9.83	1.35	1.53
1	O	315	ARG	CZ-NH2	9.81	1.46	1.33
1	O	147	LYS	CG-CD	9.79	1.81	1.52
1	C	174	HIS	CD2-NE2	9.78	1.48	1.37
1	C	106	GLU	C-O	-9.77	1.12	1.23
1	C	267	TYR	CA-C	-9.77	1.40	1.52
1	C	237	ALA	C-O	9.76	1.35	1.23
1	C	305	PHE	N-CA	-9.73	1.34	1.46
1	C	181	TYR	CA-C	-9.73	1.40	1.52
1	C	307	ARG	CA-CB	-9.71	1.36	1.53
1	O	156	ASN	CA-C	9.70	1.65	1.52
1	O	298	THR	C-O	9.69	1.35	1.23
1	C	187	THR	N-CA	9.69	1.58	1.45
1	C	159	SER	N-CA	9.67	1.64	1.46
1	C	281(A)	SER	CB-OG	9.67	1.61	1.42
1	O	178	ASN	CB-CG	9.61	1.76	1.52
1	O	70	GLU	CD-OE1	9.61	1.43	1.25
1	O	30	VAL	N-CA	-9.57	1.34	1.46
1	O	314	ASP	N-CA	-9.56	1.35	1.46
1	C	238	LYS	CE-NZ	9.56	1.78	1.49
1	C	217	GLY	C-O	-9.55	1.15	1.24
1	O	15	TYR	CZ-OH	-9.54	1.18	1.38
1	C	26	THR	N-CA	-9.53	1.34	1.46
1	C	189	VAL	CA-C	9.53	1.64	1.52
1	O	72	THR	CB-OG1	9.52	1.58	1.43
1	O	191	GLN	CD-NE2	9.52	1.53	1.33
1	C	130	ILE	CA-CB	-9.50	1.43	1.54
1	O	169	GLY	C-N	9.49	1.46	1.33
1	C	176	GLU	C-O	9.48	1.35	1.23
1	C	74	ARG	CA-CB	-9.46	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	109	ALA	CA-C	-9.45	1.40	1.52
1	C	229	GLU	C-O	9.45	1.35	1.24
1	C	149	ASP	N-CA	-9.45	1.34	1.46
1	C	316	ARG	NE-CZ	9.44	1.43	1.33
1	O	317	ASN	CG-OD1	-9.44	1.05	1.23
1	C	74	ARG	NE-CZ	9.43	1.43	1.33
1	O	66	HIS	CD2-NE2	9.40	1.48	1.37
1	O	227	SER	C-N	9.40	1.45	1.33
1	O	193	GLN	C-O	-9.39	1.12	1.24
1	O	281(C)	LYS	CA-C	9.39	1.64	1.52
1	C	32	ASP	C-O	-9.38	1.12	1.24
1	C	156	ASN	CG-ND2	-9.37	1.13	1.33
1	C	117	PHE	N-CA	-9.34	1.34	1.45
1	C	244	ASP	CG-OD2	9.32	1.43	1.25
1	C	107	MET	C-O	-9.32	1.15	1.24
1	O	47(A)	LEU	CB-CG	9.32	1.72	1.53
1	C	322	PHE	N-CA	9.31	1.56	1.45
1	C	156	ASN	CG-OD1	-9.30	1.05	1.23
1	O	87	ASP	CG-OD2	9.27	1.43	1.25
1	C	62	SER	CA-C	9.27	1.64	1.52
1	O	108	PRO	C-N	-9.27	1.21	1.33
1	O	317	ASN	N-CA	-9.22	1.33	1.46
1	C	219	SER	CA-C	-9.22	1.40	1.52
1	C	31	PHE	C-O	-9.21	1.13	1.24
1	O	128	GLN	CD-NE2	9.20	1.52	1.33
1	O	67	ASN	CG-ND2	9.20	1.52	1.33
1	O	258	ILE	C-O	-9.20	1.14	1.24
1	C	186	LYS	N-CA	9.20	1.58	1.46
1	C	238	LYS	N-CA	9.19	1.57	1.45
1	C	278	GLU	CG-CD	9.18	1.75	1.52
1	O	240	ARG	CZ-NH2	9.18	1.45	1.33
1	O	230	LYS	CD-CE	9.17	1.79	1.52
1	O	144	GLY	C-O	-9.17	1.11	1.23
1	O	320	ILE	C-O	-9.16	1.14	1.24
1	C	287	HIS	C-O	9.16	1.34	1.23
1	O	150	VAL	C-N	-9.16	1.22	1.33
1	C	96	VAL	N-CA	-9.15	1.35	1.46
1	O	65	LYS	C-O	9.15	1.34	1.23
1	O	207	GLU	CD-OE1	9.14	1.42	1.25
1	O	257	ASP	C-O	-9.13	1.12	1.23
1	C	273	ASP	C-O	9.12	1.35	1.24
1	O	106	GLU	CD-OE2	9.12	1.42	1.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	247	VAL	N-CA	-9.12	1.35	1.46
1	C	191	GLN	CD-OE1	9.10	1.40	1.23
1	C	240	ARG	CD-NE	9.10	1.58	1.46
1	O	103	GLU	CD-OE2	9.08	1.42	1.25
1	O	6	LEU	N-CA	-9.08	1.35	1.45
1	O	199	VAL	CA-C	-9.08	1.41	1.52
1	C	39	TRP	CA-C	-9.07	1.41	1.52
1	C	58	ALA	CA-CB	-9.04	1.38	1.53
1	O	261	HIS	CB-CG	9.04	1.62	1.50
1	O	41	PRO	C-N	9.03	1.45	1.33
1	C	180	HIS	CG-ND1	9.02	1.48	1.38
1	O	212	ALA	CA-C	-9.02	1.41	1.52
1	C	210	CYS	C-O	9.02	1.35	1.24
1	C	137	PHE	C-O	9.01	1.34	1.24
1	C	313	PHE	C-O	-9.00	1.13	1.24
1	C	187	THR	CB-OG1	8.99	1.58	1.43
1	O	171	ASP	CA-CB	-8.98	1.35	1.54
1	O	20	ILE	N-CA	-8.98	1.35	1.46
1	O	123	MET	C-O	-8.96	1.12	1.24
1	C	190	TRP	CG-CD2	8.96	1.59	1.43
1	O	187	THR	CB-OG1	8.95	1.58	1.43
1	C	88	ILE	C-O	-8.94	1.12	1.24
1	O	287	HIS	CG-ND1	8.92	1.48	1.38
1	C	27	PHE	CA-C	-8.92	1.42	1.52
1	C	39	TRP	C-O	-8.92	1.12	1.23
1	C	226	SER	C-O	-8.91	1.12	1.24
1	O	171	ASP	CG-OD2	8.90	1.42	1.25
1	C	113	MET	C-N	-8.90	1.21	1.33
1	C	261	HIS	ND1-CE1	8.90	1.41	1.32
1	C	274	TYR	C-N	-8.89	1.19	1.33
1	O	204	LEU	CG-CD2	8.89	1.81	1.52
1	O	286	ILE	CA-CB	-8.88	1.42	1.54
1	O	242	PHE	C-N	8.87	1.46	1.33
1	C	294	PRO	CA-C	8.85	1.65	1.52
1	C	230	LYS	C-N	8.85	1.44	1.33
1	O	270	THR	CB-OG1	-8.85	1.29	1.43
1	O	9	TYR	N-CA	-8.85	1.35	1.46
1	O	44	LYS	CE-NZ	8.85	1.75	1.49
1	C	189	VAL	N-CA	8.83	1.57	1.46
1	O	41	PRO	N-CD	8.82	1.60	1.47
1	C	6	LEU	CA-C	-8.82	1.42	1.52
1	C	230	LYS	CA-CB	-8.81	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	166	VAL	CA-CB	-8.81	1.42	1.53
1	O	202	SER	CA-C	8.80	1.63	1.52
1	C	47	ARG	CD-NE	8.80	1.58	1.46
1	O	242	PHE	C-O	8.80	1.35	1.23
1	O	128	GLN	CD-OE1	8.80	1.40	1.23
1	O	61	SER	CA-C	-8.79	1.43	1.52
1	C	108	PRO	CA-CB	-8.79	1.42	1.53
1	C	59	SER	N-CA	8.78	1.58	1.46
1	O	172	PRO	CA-C	-8.78	1.39	1.52
1	O	178	ASN	CG-OD1	8.78	1.40	1.23
1	C	135	PRO	CA-C	-8.78	1.43	1.52
1	C	281(B)	LYS	CG-CD	8.77	1.78	1.52
1	C	156	ASN	N-CA	-8.74	1.35	1.45
1	O	15	TYR	CA-C	-8.74	1.42	1.52
1	O	305	PHE	C-N	-8.71	1.23	1.33
1	O	64	TYR	C-O	8.71	1.34	1.23
1	C	264	GLY	C-N	8.70	1.45	1.33
1	O	240	ARG	CA-CB	-8.70	1.38	1.53
1	C	16	GLY	N-CA	-8.70	1.32	1.45
1	O	133	VAL	C-N	-8.69	1.19	1.33
1	O	211	LEU	C-O	-8.69	1.12	1.23
1	C	292	PRO	CA-CB	-8.68	1.46	1.54
1	O	211	LEU	CA-C	-8.68	1.42	1.52
1	O	135	PRO	CA-C	8.67	1.62	1.52
1	O	247	VAL	CA-C	8.67	1.63	1.52
1	C	69	THR	CB-OG1	-8.67	1.29	1.43
1	C	309	PHE	C-O	-8.67	1.14	1.24
1	C	188	GLY	C-O	-8.64	1.13	1.24
1	O	83	PHE	C-O	-8.64	1.12	1.23
1	C	219	SER	N-CA	-8.64	1.34	1.46
1	C	240	ARG	C-O	8.64	1.34	1.24
1	C	316	ARG	N-CA	-8.63	1.35	1.46
1	O	278	GLU	C-N	8.63	1.45	1.33
1	C	111	PRO	N-CA	-8.62	1.32	1.47
1	O	273	ASP	C-O	-8.62	1.13	1.24
1	C	141	ILE	C-O	-8.61	1.11	1.24
1	C	3	SER	CA-C	-8.61	1.42	1.52
1	C	40	VAL	CA-C	-8.60	1.43	1.52
1	C	155	TYR	N-CA	-8.59	1.35	1.46
1	C	193	GLN	C-O	8.58	1.34	1.23
1	C	312	GLU	CD-OE2	8.58	1.41	1.25
1	O	15	TYR	C-N	-8.58	1.21	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	289	MET	C-O	8.57	1.33	1.23
1	O	163	GLY	C-O	-8.56	1.11	1.23
1	C	102	GLY	CA-C	-8.52	1.46	1.52
1	O	113	MET	SD-CE	8.52	2.00	1.79
1	C	76	SER	N-CA	-8.52	1.36	1.46
1	O	294	PRO	CA-C	8.52	1.64	1.52
1	C	39	TRP	CD2-CE2	-8.51	1.26	1.41
1	O	154	TYR	CA-C	8.51	1.62	1.52
1	O	302	GLY	C-O	-8.51	1.15	1.23
1	O	162	GLY	CA-C	-8.51	1.39	1.51
1	O	315	ARG	CA-CB	-8.51	1.39	1.53
1	O	231	LEU	C-N	-8.50	1.22	1.34
1	O	313	PHE	C-O	-8.50	1.13	1.24
1	O	252	GLY	N-CA	-8.49	1.33	1.44
1	O	144	GLY	N-CA	8.49	1.57	1.45
1	C	241	LEU	CA-C	-8.49	1.41	1.52
1	O	42	SER	CA-C	-8.48	1.42	1.52
1	C	86	GLN	C-O	-8.47	1.13	1.23
1	O	219	SER	CA-CB	-8.46	1.39	1.53
1	O	274	TYR	CA-CB	-8.46	1.40	1.53
1	C	66	HIS	CG-ND1	8.46	1.47	1.38
1	O	142	SER	C-O	-8.45	1.12	1.24
1	C	114	LEU	N-CA	-8.45	1.35	1.46
1	O	165	ILE	CA-CB	-8.43	1.43	1.54
1	C	306	ILE	C-N	-8.42	1.21	1.33
1	C	57	ASP	N-CA	-8.42	1.35	1.46
1	O	128	GLN	C-O	-8.42	1.12	1.24
1	O	38	VAL	CA-C	-8.40	1.42	1.52
1	C	165	ILE	C-N	-8.39	1.22	1.33
1	C	312	GLU	CD-OE1	8.38	1.41	1.25
1	C	295	THR	CA-C	-8.37	1.40	1.52
1	O	219	SER	CA-C	-8.37	1.41	1.52
1	C	28	LYS	CA-CB	-8.36	1.40	1.53
1	O	39	TRP	CA-CB	-8.36	1.39	1.53
1	O	36	SER	CB-OG	8.35	1.58	1.42
1	O	210	CYS	N-CA	-8.34	1.35	1.46
1	O	300	ALA	N-CA	8.34	1.56	1.46
1	C	3	SER	C-N	-8.33	1.22	1.33
1	C	160(D)	SER	CA-C	8.33	1.70	1.52
1	C	178	ASN	CA-CB	-8.33	1.40	1.53
1	O	316	ARG	NE-CZ	8.33	1.42	1.33
1	C	232	MET	C-N	-8.32	1.23	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	167	LEU	CA-C	8.31	1.63	1.52
1	O	226	SER	C-O	8.29	1.34	1.24
1	C	157	ARG	CA-C	-8.28	1.41	1.52
1	O	161	LEU	N-CA	-8.28	1.35	1.46
1	O	40	VAL	CA-CB	-8.26	1.43	1.54
1	C	242	PHE	C-N	8.25	1.43	1.33
1	C	84	LEU	N-CA	-8.23	1.35	1.46
1	C	238	LYS	C-O	8.23	1.34	1.23
1	C	91	VAL	CA-C	8.23	1.62	1.52
1	C	193	GLN	CA-C	-8.22	1.41	1.52
1	C	136	ILE	CA-CB	-8.21	1.43	1.54
1	C	10	MET	N-CA	-8.21	1.34	1.46
1	O	225	THR	C-O	-8.21	1.14	1.24
1	O	280	TYR	CB-CG	8.20	1.69	1.51
1	C	148	GLU	CA-CB	-8.19	1.39	1.53
1	C	258	ILE	N-CA	-8.19	1.36	1.46
1	O	148	GLU	CD-OE2	8.18	1.40	1.25
1	O	74	ARG	CZ-NH1	8.18	1.44	1.32
1	C	43	SER	CA-C	-8.18	1.42	1.52
1	O	82	GLY	C-N	8.17	1.43	1.33
1	C	125	PHE	CA-CB	-8.16	1.40	1.53
1	O	325	ALA	CA-C	-8.16	1.42	1.52
1	O	262	LEU	CA-C	-8.15	1.42	1.52
1	O	164	GLN	CD-NE2	8.14	1.50	1.33
1	O	60	ASP	C-O	-8.14	1.13	1.24
1	O	110	LEU	N-CA	-8.13	1.34	1.46
1	C	126	ILE	N-CA	8.13	1.56	1.46
1	C	214	VAL	C-O	-8.12	1.15	1.24
1	C	10	MET	SD-CE	8.12	1.99	1.79
1	O	199	VAL	N-CA	-8.12	1.36	1.46
1	O	209	GLY	C-O	8.11	1.34	1.23
1	C	306	ILE	C-O	-8.11	1.13	1.24
1	O	223	GLY	C-O	8.11	1.32	1.23
1	C	262	LEU	C-O	8.11	1.33	1.24
1	O	107	MET	C-N	8.10	1.43	1.33
1	C	176	GLU	N-CA	-8.10	1.36	1.46
1	C	228	ILE	C-O	8.10	1.33	1.24
1	O	123	MET	N-CA	-8.10	1.36	1.46
1	C	1	THR	N-CA	-8.09	1.35	1.45
1	C	186	LYS	CG-CD	8.09	1.76	1.52
1	C	61	SER	C-O	8.08	1.33	1.24
1	O	281(B)	LYS	CE-NZ	8.07	1.73	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	66	HIS	CD2-NE2	8.06	1.46	1.37
1	O	152	SER	CA-CB	-8.06	1.41	1.53
1	C	281(C)	LYS	CD-CE	8.06	1.76	1.52
1	O	240	ARG	CD-NE	8.04	1.57	1.46
1	C	164	GLN	CD-NE2	8.03	1.50	1.33
1	O	125	PHE	C-O	-8.03	1.14	1.23
1	O	239	LYS	CD-CE	8.03	1.76	1.52
1	O	47(A)	LEU	CA-CB	8.02	1.66	1.53
1	O	233	GLU	N-CA	-8.02	1.36	1.46
1	C	251	GLU	CA-CB	8.01	1.65	1.53
1	O	177	GLY	C-O	-8.00	1.14	1.23
1	C	180	HIS	N-CA	-8.00	1.37	1.46
1	C	281(A)	SER	C-O	8.00	1.34	1.24
1	C	132	ARG	CA-C	-8.00	1.43	1.53
1	C	177	GLY	C-O	7.99	1.38	1.24
1	O	311	THR	N-CA	7.99	1.55	1.46
1	O	86	GLN	CD-OE1	7.98	1.38	1.23
1	C	174	HIS	ND1-CE1	-7.98	1.24	1.32
1	O	70	GLU	C-O	7.97	1.33	1.23
1	O	201	SER	CB-OG	7.96	1.58	1.42
1	C	122	GLY	C-N	-7.96	1.23	1.33
1	C	208	ASP	C-O	7.95	1.34	1.24
1	C	196	GLY	CA-C	7.94	1.63	1.51
1	C	101	PHE	CA-CB	7.93	1.66	1.53
1	C	256	PRO	C-O	-7.93	1.13	1.24
1	O	261	HIS	CE1-NE2	7.93	1.40	1.32
1	C	30	VAL	C-O	-7.92	1.14	1.24
1	C	326	ARG	CZ-NH1	7.92	1.43	1.32
1	O	173	GLN	CB-CG	7.92	1.76	1.52
1	C	44	LYS	C-N	7.91	1.44	1.33
1	O	104	VAL	CA-C	-7.91	1.43	1.52
1	C	161	LEU	N-CA	-7.91	1.35	1.46
1	C	128	GLN	CD-OE1	7.90	1.38	1.23
1	C	50	CYS	C-O	-7.89	1.13	1.24
1	C	72	THR	C-N	7.88	1.44	1.33
1	O	33	THR	C-N	7.88	1.43	1.34
1	C	160(D)	SER	CB-OG	7.87	1.57	1.42
1	O	297	PRO	CA-CB	7.87	1.68	1.53
1	C	184	LEU	C-O	-7.86	1.14	1.24
1	C	82	GLY	C-O	-7.86	1.13	1.23
1	C	104	VAL	CA-C	-7.86	1.43	1.52
1	C	126	ILE	C-N	-7.85	1.23	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	325	ALA	CA-CB	-7.85	1.40	1.53
1	C	37	ASN	CG-OD1	-7.84	1.08	1.23
1	C	62	SER	C-N	7.84	1.44	1.33
1	C	39	TRP	CG-CD2	-7.83	1.29	1.43
1	C	211	LEU	N-CA	7.83	1.55	1.46
1	O	176	GLU	N-CA	-7.83	1.36	1.46
1	C	26	THR	CB-OG1	-7.81	1.31	1.43
1	C	39	TRP	CE2-CZ2	-7.80	1.23	1.39
1	C	203	THR	C-N	-7.80	1.23	1.34
1	O	83	PHE	C-N	-7.80	1.22	1.33
1	C	272	ALA	N-CA	-7.79	1.36	1.46
1	C	186	LYS	CD-CE	7.79	1.75	1.52
1	O	61	SER	C-O	7.78	1.33	1.23
1	O	138	ASP	CA-C	-7.78	1.42	1.52
1	O	124	GLY	CA-C	7.76	1.65	1.52
1	C	218	ALA	C-N	-7.75	1.21	1.33
1	C	44	LYS	CE-NZ	7.75	1.72	1.49
1	C	171	ASP	CG-OD1	-7.75	1.10	1.25
1	C	258	ILE	CA-C	-7.74	1.43	1.52
1	O	26	THR	CA-CB	7.74	1.67	1.53
1	O	1	THR	CB-OG1	-7.74	1.31	1.43
1	O	248	LYS	C-O	7.74	1.33	1.23
1	C	41	PRO	CA-CB	-7.73	1.44	1.53
1	C	138	ASP	CG-OD2	7.72	1.40	1.25
1	C	92	GLY	N-CA	-7.70	1.34	1.45
1	O	181	TYR	CA-C	-7.70	1.43	1.52
1	O	35	SER	C-O	7.70	1.33	1.23
1	O	31	PHE	N-CA	-7.69	1.36	1.46
1	O	45	CYS	CA-CB	7.69	1.64	1.53
1	O	238	LYS	CE-NZ	7.68	1.72	1.49
1	C	189	VAL	C-N	7.67	1.44	1.33
1	C	132	ARG	NE-CZ	7.66	1.41	1.33
1	O	52	TYR	CZ-OH	7.65	1.54	1.38
1	O	161	LEU	CA-CB	-7.65	1.41	1.54
1	O	0	THR	C-O	7.65	1.33	1.23
1	O	95	THR	CA-C	-7.65	1.43	1.52
1	O	238	LYS	CG-CD	7.65	1.75	1.52
1	C	17	GLU	C-N	-7.65	1.23	1.33
1	C	290	ASP	CA-C	7.65	1.62	1.52
1	O	276	PHE	CA-CB	-7.64	1.41	1.52
1	C	32	ASP	CG-OD1	-7.63	1.10	1.25
1	C	167	LEU	N-CA	-7.63	1.36	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	206	CYS	C-N	7.63	1.43	1.33
1	C	195	LYS	N-CA	7.62	1.57	1.46
1	C	22	THR	N-CA	-7.62	1.35	1.46
1	O	112	PHE	C-O	-7.61	1.14	1.24
1	C	53	HIS	CB-CG	-7.60	1.39	1.50
1	C	168	GLY	C-N	7.60	1.42	1.33
1	O	297	PRO	N-CA	-7.60	1.34	1.47
1	O	-1	ASN	C-N	7.59	1.44	1.33
1	C	97	THR	N-CA	7.59	1.55	1.46
1	C	229	GLU	CG-CD	7.58	1.71	1.52
1	O	267	TYR	CA-CB	7.58	1.63	1.53
1	O	54	LYS	C-O	7.56	1.33	1.23
1	O	285	ALA	CA-CB	-7.56	1.42	1.52
1	C	281(C)	LYS	CE-NZ	7.56	1.72	1.49
1	C	54	LYS	C-O	-7.55	1.14	1.23
1	C	50	CYS	N-CA	-7.55	1.36	1.46
1	C	205	LEU	CA-C	-7.54	1.43	1.52
1	C	282	CYS	N-CA	-7.54	1.36	1.46
1	O	41	PRO	C-O	7.54	1.32	1.23
1	C	155	TYR	CA-C	7.52	1.61	1.52
1	O	208	ASP	CG-OD1	7.52	1.39	1.25
1	O	251	GLU	C-O	-7.52	1.14	1.24
1	C	52	TYR	C-O	-7.51	1.14	1.24
1	C	4	VAL	C-N	-7.50	1.24	1.33
1	C	137	PHE	N-CA	-7.50	1.37	1.46
1	C	116	GLU	CD-OE2	7.50	1.39	1.25
1	O	288	ALA	CA-C	-7.50	1.43	1.53
1	O	318	ASN	CG-ND2	7.50	1.49	1.33
1	C	173	GLN	CA-C	-7.49	1.42	1.52
1	C	246	VAL	CA-CB	-7.49	1.47	1.55
1	O	261	HIS	ND1-CE1	7.49	1.40	1.32
1	O	287	HIS	CG-CD2	7.49	1.44	1.35
1	C	138	ASP	C-N	-7.48	1.24	1.33
1	O	285	ALA	N-CA	-7.48	1.36	1.46
1	C	47(B)	TYR	N-CA	7.47	1.55	1.46
1	C	24	PRO	CA-C	-7.47	1.43	1.52
1	C	178	ASN	CG-ND2	7.47	1.49	1.33
1	O	312	GLU	N-CA	-7.47	1.37	1.46
1	C	184	LEU	C-N	-7.47	1.23	1.33
1	C	105	THR	C-O	-7.46	1.14	1.24
1	O	95	THR	C-O	-7.46	1.15	1.24
1	C	225	THR	N-CA	-7.43	1.37	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	160(D)	SER	C-O	7.42	1.38	1.23
1	O	128	GLN	N-CA	-7.42	1.36	1.46
1	O	80	VAL	N-CA	7.42	1.54	1.46
1	C	32	ASP	CG-OD2	7.41	1.39	1.25
1	O	27	PHE	C-N	7.41	1.44	1.33
1	O	115	ALA	N-CA	-7.41	1.36	1.46
1	C	282	CYS	CA-CB	-7.41	1.40	1.53
1	C	181	TYR	N-CA	-7.41	1.36	1.46
1	O	275	VAL	C-N	7.40	1.44	1.33
1	O	250	ASN	N-CA	-7.40	1.37	1.46
1	C	96	VAL	CA-C	-7.40	1.44	1.52
1	O	149	ASP	CG-OD1	7.39	1.39	1.25
1	C	8	ASN	CG-OD1	-7.39	1.09	1.23
1	C	68	GLY	N-CA	-7.37	1.34	1.45
1	C	215	ASP	CA-C	-7.37	1.44	1.52
1	C	298	THR	C-O	7.37	1.32	1.23
1	C	14	TYR	N-CA	-7.36	1.37	1.46
1	C	287	HIS	CD2-NE2	7.35	1.46	1.37
1	C	12	THR	C-N	-7.33	1.24	1.33
1	C	302	GLY	CA-C	-7.33	1.42	1.51
1	C	76	SER	CA-CB	7.33	1.64	1.53
1	C	57	ASP	CA-CB	-7.32	1.43	1.53
1	O	178	ASN	C-O	-7.32	1.15	1.24
1	C	196	GLY	C-O	-7.31	1.14	1.23
1	C	101	PHE	CA-C	-7.31	1.43	1.52
1	O	224	SER	C-N	-7.31	1.24	1.33
1	O	202	SER	CA-CB	7.30	1.66	1.53
1	C	149	ASP	C-O	-7.30	1.13	1.23
1	C	325	ALA	C-O	7.29	1.32	1.23
1	O	208	ASP	C-N	7.29	1.44	1.33
1	O	70	GLU	CG-CD	7.29	1.70	1.52
1	C	148	GLU	CD-OE1	7.29	1.39	1.25
1	O	54	LYS	CA-CB	-7.29	1.41	1.53
1	C	166	VAL	N-CA	-7.28	1.37	1.46
1	C	167	LEU	CA-C	-7.28	1.43	1.52
1	C	318	ASN	N-CA	-7.28	1.35	1.46
1	C	183	ASN	CA-CB	-7.27	1.41	1.53
1	O	88	ILE	CA-CB	-7.27	1.45	1.54
1	O	102	GLY	N-CA	-7.26	1.37	1.45
1	O	305	PHE	CA-CB	-7.25	1.41	1.53
1	C	108	PRO	CA-C	-7.24	1.44	1.52
1	C	67	ASN	CG-OD1	7.24	1.37	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	171	ASP	C-O	-7.23	1.15	1.24
1	O	110	LEU	CB-CG	7.23	1.68	1.53
1	C	10	MET	CA-C	-7.22	1.43	1.53
1	C	244	ASP	CA-C	-7.22	1.43	1.52
1	C	249	CYS	CA-C	-7.21	1.42	1.52
1	O	222	SER	CA-C	-7.21	1.44	1.52
1	C	222	SER	CA-CB	-7.21	1.40	1.54
1	C	141	ILE	CA-CB	-7.20	1.45	1.54
1	C	289	MET	SD-CE	7.20	1.97	1.79
1	C	236	GLY	C-N	7.19	1.43	1.33
1	C	274	TYR	CB-CG	-7.19	1.35	1.51
1	C	17	GLU	C-O	7.19	1.33	1.24
1	C	269	LEU	N-CA	-7.19	1.37	1.46
1	O	58	ALA	CA-CB	-7.19	1.41	1.53
1	C	89	ILE	CA-C	-7.19	1.43	1.52
1	O	312	GLU	CA-C	-7.19	1.44	1.52
1	C	50	CYS	C-N	-7.18	1.25	1.33
1	O	74	ARG	C-N	7.18	1.44	1.33
1	O	116	GLU	CA-C	-7.18	1.42	1.52
1	O	127	GLU	C-N	-7.17	1.24	1.33
1	O	230	LYS	CA-C	-7.17	1.43	1.52
1	C	220	TYR	CZ-OH	7.17	1.53	1.38
1	C	-2	GLY	C-N	7.16	1.43	1.33
1	C	292	PRO	C-N	-7.16	1.25	1.33
1	O	240	ARG	CA-C	-7.16	1.43	1.52
1	O	215	ASP	CG-OD1	-7.15	1.11	1.25
1	O	135	PRO	N-CD	7.15	1.57	1.47
1	C	287	HIS	CA-CB	-7.14	1.41	1.53
1	O	103	GLU	C-O	-7.13	1.15	1.24
1	C	141	ILE	C-N	-7.12	1.23	1.33
1	O	66	HIS	C-N	7.12	1.43	1.33
1	O	168	GLY	CA-C	-7.12	1.41	1.51
1	C	84	LEU	CA-C	-7.12	1.43	1.52
1	C	289	MET	CG-SD	7.11	1.98	1.80
1	O	54	LYS	CA-C	7.11	1.62	1.52
1	O	117	PHE	N-CA	7.11	1.55	1.45
1	O	304	THR	C-N	7.10	1.44	1.33
1	O	280	TYR	CZ-OH	7.09	1.52	1.38
1	C	273	ASP	N-CA	-7.09	1.36	1.46
1	O	64	TYR	N-CA	-7.09	1.37	1.46
1	O	193	GLN	CD-NE2	7.09	1.48	1.33
1	O	195	LYS	CG-CD	7.09	1.73	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	115	ALA	CA-CB	-7.08	1.43	1.53
1	O	306	ILE	C-O	7.07	1.33	1.24
1	C	79	THR	C-O	7.07	1.33	1.23
1	C	299	TRP	CD2-CE3	-7.07	1.28	1.40
1	C	16	GLY	C-O	-7.07	1.14	1.23
1	C	315	ARG	CG-CD	7.06	1.73	1.52
1	C	306	ILE	CA-C	-7.05	1.42	1.52
1	O	244	ASP	CG-OD2	7.05	1.38	1.25
1	C	121	VAL	N-CA	-7.05	1.36	1.46
1	C	207	GLU	C-N	7.04	1.42	1.33
1	O	133	VAL	C-O	-7.03	1.16	1.24
1	O	310	TYR	C-N	7.03	1.43	1.33
1	C	326	ARG	NE-CZ	7.03	1.40	1.33
1	O	223	GLY	C-N	-7.03	1.23	1.33
1	O	309	PHE	C-O	-7.03	1.15	1.24
1	C	19	GLY	C-O	-7.02	1.14	1.23
1	O	291	ILE	C-O	7.02	1.33	1.24
1	C	167	LEU	C-O	-7.02	1.15	1.24
1	C	315	ARG	CZ-NH2	7.02	1.42	1.33
1	O	134	THR	C-N	7.01	1.42	1.33
1	O	272	ALA	CA-CB	-7.01	1.41	1.53
1	C	119	GLY	C-N	-7.01	1.24	1.33
1	O	184	LEU	CA-C	-7.00	1.42	1.52
1	C	115	ALA	N-CA	-7.00	1.37	1.46
1	C	281(B)	LYS	N-CA	6.99	1.56	1.46
1	O	255	LEU	C-O	6.99	1.32	1.23
1	O	238	LYS	CD-CE	6.99	1.73	1.52
1	C	231	LEU	N-CA	-6.99	1.38	1.46
1	O	54	LYS	N-CA	-6.98	1.37	1.46
1	O	217	GLY	C-O	-6.98	1.14	1.23
1	C	148	GLU	C-O	-6.98	1.15	1.23
1	C	120	VAL	CA-C	6.97	1.61	1.52
1	C	320	ILE	CA-C	6.97	1.61	1.52
1	C	261	HIS	CA-CB	6.97	1.61	1.53
1	O	198	SER	C-N	-6.96	1.23	1.33
1	C	326	ARG	C-O	-6.96	1.09	1.23
1	O	48	THR	C-N	6.95	1.43	1.33
1	O	53	HIS	ND1-CE1	6.94	1.39	1.32
1	O	218	ALA	C-O	-6.93	1.15	1.23
1	C	190	TRP	CZ3-CH2	-6.92	1.23	1.40
1	O	210	CYS	CA-CB	-6.92	1.41	1.53
1	O	305	PHE	CA-C	-6.92	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	53	HIS	CA-CB	-6.92	1.40	1.53
1	C	320	ILE	N-CA	6.92	1.54	1.46
1	O	196	GLY	C-N	6.92	1.42	1.33
1	O	283	THR	C-N	-6.91	1.24	1.33
1	C	115	ALA	CA-C	-6.91	1.44	1.52
1	C	129	ALA	CA-C	-6.90	1.44	1.52
1	C	61	SER	CB-OG	-6.89	1.28	1.42
1	C	281(C)	LYS	C-O	6.89	1.32	1.24
1	O	260	PHE	N-CA	-6.89	1.37	1.46
1	O	83	PHE	CA-C	-6.89	1.43	1.52
1	C	35	SER	N-CA	6.89	1.54	1.46
1	C	63	SER	C-N	6.89	1.42	1.33
1	C	139	ASN	CA-CB	6.88	1.64	1.53
1	O	44	LYS	CA-C	-6.88	1.43	1.52
1	O	114	LEU	N-CA	6.88	1.55	1.46
1	O	172	PRO	C-O	-6.88	1.15	1.24
1	C	130	ILE	CA-C	-6.87	1.44	1.52
1	O	216	THR	N-CA	-6.87	1.36	1.46
1	C	20	ILE	N-CA	6.87	1.54	1.46
1	O	314	ASP	C-O	-6.87	1.15	1.24
1	O	273	ASP	CA-CB	-6.85	1.41	1.53
1	O	140	ILE	C-N	6.85	1.43	1.33
1	C	121	VAL	CA-C	6.84	1.59	1.52
1	C	43	SER	C-N	-6.83	1.24	1.33
1	O	92	GLY	C-N	-6.83	1.23	1.33
1	C	281	SER	CA-CB	6.83	1.62	1.53
1	O	96	VAL	C-N	-6.83	1.23	1.33
1	O	180	HIS	CG-CD2	6.82	1.43	1.35
1	C	125	PHE	C-O	-6.82	1.14	1.23
1	O	169	GLY	N-CA	-6.82	1.38	1.45
1	O	81	SER	CB-OG	6.81	1.55	1.42
1	O	44	LYS	C-O	-6.81	1.15	1.24
1	O	111	PRO	CA-C	-6.81	1.39	1.52
1	C	287	HIS	CB-CG	-6.80	1.40	1.50
1	C	274	TYR	C-O	-6.79	1.15	1.24
1	C	253	PRO	N-CD	6.79	1.57	1.47
1	O	108	PRO	CA-CB	6.79	1.62	1.53
1	O	216	THR	CB-OG1	-6.78	1.32	1.43
1	O	232	MET	C-O	6.78	1.32	1.24
1	O	68	GLY	C-O	6.76	1.33	1.23
1	C	128	GLN	CA-CB	6.76	1.63	1.53
1	O	180	HIS	ND1-CE1	6.75	1.39	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	322	PHE	CA-C	-6.75	1.44	1.52
1	O	135	PRO	N-CA	-6.75	1.39	1.47
1	O	103	GLU	CA-CB	-6.74	1.44	1.53
1	C	276	PHE	CA-C	-6.74	1.45	1.53
1	C	307	ARG	CZ-NH1	6.74	1.42	1.32
1	O	189	VAL	CA-C	-6.73	1.44	1.52
1	C	270	THR	CA-C	-6.73	1.43	1.52
1	C	173	GLN	N-CA	-6.72	1.38	1.46
1	C	77	THR	N-CA	-6.72	1.38	1.46
1	O	147	LYS	C-O	-6.72	1.15	1.24
1	C	111	PRO	CA-C	-6.72	1.39	1.52
1	O	47	ARG	C-O	6.71	1.41	1.24
1	O	242	PHE	CA-C	6.71	1.61	1.52
1	O	181	TYR	CZ-OH	-6.70	1.24	1.38
1	C	2	SER	C-O	6.70	1.31	1.23
1	O	59	SER	C-N	-6.70	1.24	1.33
1	C	100	MET	C-O	-6.69	1.15	1.24
1	C	258	ILE	CA-CB	-6.68	1.45	1.54
1	O	222	SER	N-CA	-6.68	1.38	1.45
1	O	319	ARG	CA-C	6.68	1.60	1.52
1	O	207	GLU	CG-CD	6.68	1.68	1.52
1	O	229	GLU	CG-CD	6.67	1.68	1.52
1	C	95	THR	N-CA	-6.67	1.38	1.46
1	C	8	ASN	C-N	6.67	1.43	1.33
1	O	66	HIS	C-O	6.66	1.31	1.23
1	C	44	LYS	CG-CD	6.66	1.72	1.52
1	C	159	SER	CB-OG	6.65	1.55	1.42
1	O	181	TYR	CA-CB	-6.63	1.43	1.53
1	C	34	GLY	N-CA	-6.63	1.35	1.45
1	O	17	GLU	CA-C	-6.63	1.44	1.52
1	O	13	GLN	N-CA	6.62	1.54	1.45
1	O	192	ILE	C-N	6.62	1.42	1.33
1	C	100	MET	CA-C	-6.62	1.44	1.52
1	C	96	VAL	CA-CB	-6.62	1.43	1.54
1	C	74	ARG	C-O	-6.61	1.16	1.24
1	C	113	MET	CA-C	6.61	1.61	1.52
1	C	181	TYR	C-N	6.61	1.41	1.33
1	O	138	ASP	CG-OD2	6.60	1.37	1.25
1	O	200	GLY	C-N	-6.60	1.24	1.33
1	C	131	GLY	N-CA	6.60	1.55	1.45
1	C	160(D)	SER	C-N	6.59	1.42	1.33
1	C	50	CYS	CA-C	-6.59	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	70	GLU	CG-CD	6.58	1.68	1.52
1	C	139	ASN	N-CA	6.57	1.54	1.46
1	C	53	HIS	CG-ND1	6.57	1.45	1.38
1	O	6	LEU	C-N	6.57	1.42	1.33
1	O	155	TYR	CA-CB	-6.56	1.43	1.53
1	C	307	ARG	CB-CG	-6.55	1.32	1.52
1	C	21	GLY	C-O	-6.55	1.15	1.23
1	C	49	ALA	CA-CB	-6.54	1.42	1.53
1	O	166	VAL	C-N	-6.54	1.24	1.33
1	C	109	ALA	N-CA	6.54	1.54	1.46
1	O	5	ILE	C-O	-6.54	1.16	1.24
1	C	260	PHE	N-CA	-6.54	1.38	1.46
1	O	53	HIS	CE1-NE2	6.54	1.39	1.32
1	O	85	SER	CA-CB	6.54	1.64	1.53
1	O	282	CYS	C-N	6.54	1.42	1.33
1	C	247	VAL	CA-C	-6.54	1.45	1.52
1	C	292	PRO	N-CA	6.53	1.55	1.46
1	O	137	PHE	C-O	-6.53	1.15	1.24
1	C	309	PHE	C-N	-6.53	1.24	1.33
1	O	83	PHE	N-CA	6.52	1.53	1.46
1	C	192	ILE	CA-C	-6.52	1.45	1.52
1	O	203	THR	CA-C	6.51	1.61	1.52
1	C	57	ASP	C-N	-6.48	1.24	1.33
1	O	39	TRP	CA-C	-6.48	1.44	1.52
1	C	220	TYR	CA-CB	6.48	1.64	1.53
1	C	295	THR	CA-CB	6.48	1.65	1.54
1	O	150	VAL	CA-C	6.47	1.60	1.52
1	O	110	LEU	C-O	6.46	1.32	1.24
1	O	154	TYR	C-N	6.46	1.42	1.33
1	C	37	ASN	CA-CB	-6.46	1.42	1.53
1	O	53	HIS	CB-CG	-6.46	1.41	1.50
1	C	324	LEU	N-CA	-6.45	1.38	1.46
1	O	274	TYR	C-N	-6.45	1.24	1.33
1	C	147	LYS	CA-CB	-6.45	1.42	1.53
1	C	80	VAL	C-N	-6.45	1.24	1.33
1	O	116	GLU	N-CA	-6.45	1.37	1.46
1	O	156	ASN	CG-ND2	6.44	1.46	1.33
1	C	182	ILE	CA-CB	6.44	1.62	1.54
1	C	296	GLY	C-O	6.44	1.32	1.24
1	O	249	CYS	C-N	6.44	1.41	1.33
1	C	231	LEU	C-N	-6.43	1.25	1.33
1	C	294	PRO	C-N	-6.42	1.22	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	269	LEU	C-O	-6.42	1.15	1.23
1	C	275	VAL	C-O	6.42	1.31	1.24
1	O	260	PHE	C-O	6.42	1.31	1.24
1	C	31	PHE	C-N	-6.41	1.23	1.33
1	O	127	GLU	CA-C	-6.41	1.44	1.52
1	O	312	GLU	CD-OE2	-6.41	1.13	1.25
1	O	321	GLY	C-O	6.41	1.32	1.23
1	O	323	ALA	C-O	-6.41	1.15	1.23
1	O	42	SER	N-CA	6.40	1.53	1.45
1	O	95	THR	CA-CB	-6.39	1.43	1.53
1	C	308	LYS	N-CA	-6.39	1.38	1.46
1	O	198	SER	C-O	-6.39	1.16	1.24
1	O	217	GLY	N-CA	-6.39	1.36	1.45
1	O	267	TYR	CZ-OH	-6.39	1.24	1.38
1	C	233	GLU	CA-C	-6.39	1.44	1.52
1	O	290	ASP	CG-OD1	6.39	1.37	1.25
1	C	180	HIS	CE1-NE2	6.38	1.39	1.32
1	O	176	GLU	CA-CB	-6.37	1.42	1.53
1	O	115	ALA	CA-C	6.37	1.60	1.52
1	O	264	GLY	C-N	6.37	1.42	1.33
1	C	207	GLU	CB-CG	6.37	1.71	1.52
1	C	241	LEU	CB-CG	6.37	1.66	1.53
1	O	171	ASP	CG-OD1	6.36	1.37	1.25
1	O	63	SER	C-O	6.35	1.32	1.24
1	O	106	GLU	N-CA	-6.34	1.38	1.46
1	C	70	GLU	C-O	-6.34	1.15	1.23
1	O	162	GLY	C-N	-6.33	1.25	1.32
1	C	31	PHE	CA-C	-6.33	1.44	1.52
1	O	247	VAL	CA-CB	-6.33	1.44	1.54
1	O	25	GLN	N-CA	6.33	1.53	1.46
1	C	123	MET	C-O	6.33	1.32	1.24
1	C	186	LYS	C-N	-6.31	1.25	1.33
1	O	323	ALA	CA-C	-6.30	1.44	1.52
1	C	165	ILE	C-O	-6.30	1.16	1.24
1	C	237	ALA	CA-CB	6.30	1.63	1.53
1	C	-2	GLY	CA-C	6.30	1.63	1.52
1	O	100	MET	C-O	6.29	1.31	1.23
1	C	169	GLY	CA-C	6.28	1.60	1.51
1	O	38	VAL	C-N	-6.28	1.25	1.33
1	O	130	ILE	N-CA	6.28	1.53	1.46
1	O	281	SER	CB-OG	6.28	1.54	1.42
1	C	70	GLU	C-N	-6.27	1.25	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	146	LEU	N-CA	6.27	1.54	1.45
1	O	46	SER	CB-OG	6.26	1.54	1.42
1	O	304	THR	N-CA	-6.26	1.38	1.46
1	O	317	ASN	C-N	-6.26	1.25	1.33
1	C	87	ASP	N-CA	-6.25	1.38	1.46
1	C	47	ARG	C-N	-6.25	1.19	1.34
1	C	146	LEU	CA-CB	6.25	1.62	1.53
1	C	213	LEU	C-O	-6.25	1.16	1.23
1	O	268	THR	CA-C	-6.25	1.45	1.52
1	O	236	GLY	C-N	6.25	1.42	1.33
1	C	291	ILE	CA-CB	-6.24	1.46	1.54
1	C	305	PHE	C-N	-6.24	1.27	1.34
1	C	46	SER	N-CA	-6.23	1.38	1.46
1	C	193	GLN	CD-NE2	6.23	1.46	1.33
1	C	74	ARG	C-N	-6.22	1.25	1.33
1	O	228	ILE	N-CA	-6.22	1.39	1.46
1	C	39	TRP	CZ2-CH2	-6.22	1.25	1.37
1	C	17	GLU	CD-OE2	6.21	1.37	1.25
1	C	62	SER	N-CA	-6.21	1.38	1.46
1	C	256	PRO	N-CA	-6.21	1.39	1.47
1	O	61	SER	C-N	-6.21	1.25	1.33
1	C	17	GLU	N-CA	6.20	1.53	1.46
1	C	11	ASP	CG-OD2	6.20	1.37	1.25
1	C	272	ALA	C-O	-6.20	1.16	1.24
1	C	304	THR	N-CA	6.20	1.53	1.46
1	C	263	GLY	N-CA	-6.19	1.36	1.45
1	O	137	PHE	CA-CB	-6.19	1.43	1.53
1	C	7	THR	C-N	-6.18	1.24	1.33
1	C	103	GLU	CD-OE2	6.18	1.37	1.25
1	O	281(B)	LYS	CA-CB	6.18	1.64	1.53
1	O	287	HIS	N-CA	-6.18	1.38	1.46
1	O	234	ALA	CA-CB	-6.18	1.43	1.53
1	C	272	ALA	CA-C	-6.18	1.44	1.52
1	C	322	PHE	CA-C	6.17	1.60	1.52
1	C	84	LEU	CA-CB	-6.17	1.44	1.53
1	C	48	THR	CB-OG1	-6.17	1.33	1.43
1	C	248	LYS	CE-NZ	6.17	1.67	1.49
1	C	297	PRO	CA-C	-6.17	1.40	1.52
1	C	204	LEU	CA-C	6.17	1.61	1.52
1	O	50	CYS	C-O	-6.16	1.16	1.24
1	C	72	THR	C-O	6.16	1.31	1.24
1	C	281(A)	SER	C-N	6.16	1.48	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	129	ALA	CA-CB	-6.16	1.44	1.53
1	O	172	PRO	N-CA	6.15	1.55	1.47
1	C	266	GLU	CD-OE1	6.14	1.37	1.25
1	O	174	HIS	CG-ND1	-6.14	1.31	1.38
1	O	154	TYR	C-O	6.14	1.30	1.23
1	O	311	THR	CB-OG1	-6.14	1.33	1.43
1	C	206	CYS	C-N	-6.13	1.25	1.33
1	C	138	ASP	N-CA	-6.13	1.38	1.46
1	C	272	ALA	CA-CB	-6.13	1.43	1.53
1	C	265	LYS	CE-NZ	6.13	1.67	1.49
1	O	111	PRO	N-CD	6.12	1.56	1.47
1	C	60	ASP	C-N	-6.12	1.25	1.33
1	O	3	SER	N-CA	-6.12	1.38	1.45
1	O	36	SER	N-CA	-6.12	1.39	1.46
1	C	307	ARG	C-O	-6.11	1.16	1.24
1	C	286	ILE	C-N	-6.11	1.25	1.33
1	C	255	LEU	N-CA	-6.10	1.37	1.45
1	C	6	LEU	C-N	-6.10	1.25	1.33
1	C	278	GLU	N-CA	6.10	1.53	1.46
1	C	23	PRO	CA-C	-6.09	1.40	1.52
1	O	96	VAL	CA-CB	6.09	1.63	1.54
1	C	22	THR	CA-CB	6.08	1.63	1.53
1	C	157	ARG	N-CA	6.08	1.54	1.46
1	O	174	HIS	CE1-NE2	-6.08	1.26	1.32
1	O	212	ALA	C-O	-6.08	1.17	1.24
1	C	305	PHE	CA-CB	-6.07	1.44	1.53
1	C	172	PRO	C-N	-6.07	1.25	1.33
1	O	36	SER	C-O	-6.07	1.15	1.24
1	C	268	THR	C-O	-6.06	1.16	1.24
1	O	281(D)	LEU	CA-CB	-6.06	1.44	1.53
1	C	182	ILE	C-O	-6.05	1.17	1.24
1	O	242	PHE	CB-CG	6.05	1.64	1.50
1	C	118	ASP	CA-CB	-6.05	1.43	1.53
1	O	42	SER	C-O	-6.05	1.16	1.23
1	O	195	LYS	CD-CE	6.04	1.70	1.52
1	C	128	GLN	C-O	-6.04	1.16	1.24
1	C	326	ARG	CA-C	-6.04	1.40	1.52
1	C	67	ASN	C-O	-6.04	1.16	1.24
1	O	326	ARG	CZ-NH1	-6.03	1.24	1.32
1	C	233	GLU	CG-CD	6.03	1.67	1.52
1	O	208	ASP	CG-OD2	6.03	1.36	1.25
1	O	236	GLY	CA-C	6.03	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	268	THR	C-O	6.01	1.31	1.24
1	O	239	LYS	C-N	6.01	1.42	1.33
1	C	209	GLY	N-CA	6.01	1.54	1.45
1	O	218	ALA	CA-CB	-6.01	1.38	1.54
1	O	44	LYS	CD-CE	6.00	1.70	1.52
1	C	128	GLN	CD-NE2	6.00	1.45	1.33
1	O	33	THR	CA-C	6.00	1.61	1.52
1	O	229	GLU	N-CA	-6.00	1.39	1.46
1	C	20	ILE	CA-C	6.00	1.60	1.52
1	O	295	THR	CA-C	-6.00	1.45	1.52
1	C	152	SER	C-N	6.00	1.42	1.33
1	C	148	GLU	N-CA	-5.99	1.38	1.45
1	O	18	ILE	CA-CB	5.99	1.65	1.55
1	C	160(D)	SER	N-CA	5.99	1.57	1.46
1	C	280	TYR	C-O	5.99	1.32	1.24
1	O	195	LYS	N-CA	-5.99	1.38	1.46
1	O	259	SER	CB-OG	5.98	1.54	1.42
1	C	315	ARG	C-O	5.98	1.31	1.24
1	O	296	GLY	CA-C	-5.98	1.43	1.51
1	C	204	LEU	N-CA	-5.97	1.38	1.46
1	O	65	LYS	CA-C	5.97	1.59	1.53
1	O	43	SER	CB-OG	5.96	1.54	1.42
1	C	91	VAL	N-CA	-5.96	1.39	1.46
1	O	207	GLU	CA-C	-5.95	1.45	1.52
1	C	55	LEU	CA-CB	-5.95	1.43	1.53
1	C	210	CYS	CA-CB	-5.94	1.44	1.53
1	C	9	TYR	C-N	-5.94	1.25	1.33
1	O	280	TYR	CA-C	5.94	1.60	1.52
1	O	303	ALA	C-O	-5.93	1.17	1.24
1	C	2	SER	N-CA	5.92	1.53	1.46
1	C	246	VAL	C-O	5.92	1.32	1.23
1	O	282	CYS	N-CA	-5.92	1.39	1.46
1	C	212	ALA	N-CA	-5.92	1.39	1.46
1	C	289	MET	CA-CB	5.91	1.63	1.53
1	C	211	LEU	CA-C	5.91	1.59	1.52
1	O	315	ARG	CZ-NH1	5.90	1.41	1.32
1	C	248	LYS	C-N	-5.90	1.25	1.33
1	C	15	TYR	C-O	-5.89	1.16	1.23
1	O	230	LYS	CG-CD	5.89	1.70	1.52
1	O	283	THR	N-CA	5.89	1.53	1.45
1	O	47(A)	LEU	N-CA	5.89	1.53	1.46
1	C	190	TRP	CZ2-CH2	-5.88	1.26	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	291	ILE	N-CA	-5.88	1.40	1.46
1	C	46	SER	CA-CB	-5.88	1.43	1.53
1	O	204	LEU	CG-CD1	5.88	1.72	1.52
1	C	118	ASP	CG-OD1	-5.88	1.14	1.25
1	O	195	LYS	CB-CG	5.88	1.70	1.52
1	C	278	GLU	CB-CG	5.88	1.70	1.52
1	O	83	PHE	CB-CG	5.87	1.64	1.50
1	O	138	ASP	N-CA	-5.86	1.39	1.46
1	C	290	ASP	C-N	5.85	1.37	1.32
1	O	66	HIS	CA-CB	-5.85	1.43	1.53
1	C	281(B)	LYS	CE-NZ	5.85	1.66	1.49
1	C	10	MET	CG-SD	5.85	1.95	1.80
1	C	230	LYS	CD-CE	5.85	1.70	1.52
1	O	260	PHE	CA-CB	-5.85	1.45	1.53
1	C	281	SER	C-O	-5.84	1.17	1.24
1	C	307	ARG	CA-C	-5.84	1.44	1.52
1	O	300	ALA	CA-CB	5.83	1.63	1.53
1	O	169	GLY	CA-C	5.83	1.60	1.51
1	O	250	ASN	CG-ND2	5.82	1.45	1.33
1	C	125	PHE	N-CA	-5.82	1.39	1.45
1	O	34	GLY	C-O	5.82	1.30	1.24
1	C	75	TYR	CZ-OH	-5.81	1.25	1.38
1	O	40	VAL	CA-C	5.81	1.58	1.52
1	O	130	ILE	CA-C	5.81	1.59	1.53
1	C	204	LEU	C-O	5.80	1.31	1.24
1	C	104	VAL	CA-CB	5.80	1.61	1.54
1	O	204	LEU	CA-CB	5.80	1.62	1.53
1	C	183	ASN	C-N	5.80	1.41	1.33
1	O	161	LEU	CA-C	-5.80	1.46	1.52
1	C	234	ALA	C-O	5.79	1.31	1.24
1	O	190	TRP	N-CA	5.79	1.53	1.46
1	O	8	ASN	N-CA	-5.79	1.39	1.46
1	O	239	LYS	N-CA	5.79	1.53	1.46
1	O	130	ILE	CA-CB	-5.78	1.47	1.53
1	C	135	PRO	N-CA	-5.78	1.40	1.46
1	O	22	THR	CA-C	-5.78	1.45	1.52
1	O	257	ASP	N-CA	-5.78	1.38	1.45
1	O	87	ASP	CA-C	5.78	1.60	1.52
1	O	190	TRP	C-N	5.78	1.41	1.33
1	C	78	GLY	N-CA	-5.78	1.38	1.45
1	O	94	ILE	CB-CG1	-5.77	1.42	1.53
1	O	324	LEU	C-N	5.77	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	86	GLN	N-CA	-5.77	1.38	1.46
1	C	281(B)	LYS	C-O	-5.76	1.15	1.23
1	C	65	LYS	CA-CB	-5.76	1.43	1.53
1	O	124	GLY	C-N	5.76	1.42	1.33
1	C	73	LEU	N-CA	-5.76	1.39	1.46
1	O	190	TRP	CZ3-CH2	-5.75	1.26	1.40
1	C	290	ASP	N-CA	5.75	1.53	1.46
1	O	79	THR	N-CA	5.75	1.52	1.45
1	O	28	LYS	C-N	5.74	1.42	1.33
1	C	178	ASN	C-N	5.74	1.41	1.33
1	O	204	LEU	CA-C	-5.73	1.45	1.52
1	C	142	SER	CA-C	-5.73	1.44	1.52
1	O	109	ALA	C-O	5.73	1.31	1.24
1	O	29	VAL	C-O	-5.72	1.18	1.24
1	C	213	LEU	CA-C	-5.72	1.45	1.52
1	C	171	ASP	CB-CG	-5.71	1.37	1.52
1	C	220	TYR	C-N	-5.71	1.25	1.33
1	O	49	ALA	C-O	5.71	1.31	1.24
1	C	36	SER	N-CA	-5.71	1.39	1.46
1	C	184	LEU	CA-CB	-5.71	1.44	1.53
1	O	12	THR	C-O	-5.70	1.16	1.24
1	O	88	ILE	N-CA	-5.70	1.39	1.46
1	C	302	GLY	C-O	-5.69	1.17	1.24
1	C	90	THR	CA-C	5.69	1.60	1.52
1	O	26	THR	CA-C	-5.69	1.46	1.52
1	O	258	ILE	N-CA	-5.68	1.39	1.46
1	O	105	THR	CA-C	5.68	1.60	1.52
1	C	75	TYR	N-CA	-5.68	1.38	1.46
1	C	298	THR	CB-OG1	-5.67	1.34	1.43
1	O	178	ASN	CA-CB	5.67	1.64	1.53
1	C	244	ASP	C-N	5.66	1.41	1.33
1	C	54	LYS	CE-NZ	5.66	1.66	1.49
1	O	143	GLN	N-CA	-5.66	1.38	1.46
1	C	277	GLN	C-O	-5.65	1.16	1.24
1	O	287	HIS	CE1-NE2	5.64	1.38	1.32
1	C	122	GLY	N-CA	-5.64	1.39	1.45
1	C	69	THR	N-CA	5.64	1.53	1.45
1	O	270	THR	C-O	-5.63	1.16	1.23
1	C	39	TRP	CD1-NE1	-5.63	1.26	1.37
1	C	49	ALA	CA-C	5.63	1.60	1.52
1	C	133	VAL	CA-C	-5.63	1.46	1.52
1	O	75	TYR	N-CA	-5.62	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	293	PRO	C-N	5.62	1.47	1.33
1	C	175	TYR	N-CA	-5.61	1.39	1.45
1	O	112	PHE	C-N	-5.61	1.26	1.33
1	C	66	HIS	N-CA	-5.60	1.39	1.46
1	O	30	VAL	CB-CG2	-5.60	1.34	1.52
1	C	173	GLN	CA-CB	5.59	1.61	1.53
1	O	85	SER	CA-C	-5.59	1.45	1.52
1	O	100	MET	C-N	-5.58	1.24	1.33
1	C	104	VAL	C-O	-5.58	1.17	1.24
1	O	84	LEU	C-N	5.58	1.41	1.33
1	O	172	PRO	C-N	-5.58	1.26	1.33
1	O	282	CYS	C-O	-5.58	1.17	1.24
1	C	24	PRO	N-CA	-5.58	1.40	1.47
1	O	103	GLU	N-CA	5.58	1.53	1.46
1	O	275	VAL	N-CA	-5.57	1.39	1.46
1	C	253	PRO	CA-CB	5.57	1.61	1.53
1	O	56	PHE	CA-CB	-5.57	1.46	1.53
1	O	325	ALA	CA-CB	-5.56	1.44	1.53
1	C	5	ILE	N-CA	5.55	1.52	1.46
1	C	107	MET	SD-CE	-5.55	1.65	1.79
1	C	63	SER	C-O	5.55	1.31	1.23
1	O	154	TYR	CB-CG	-5.54	1.39	1.51
1	C	147	LYS	C-O	-5.53	1.16	1.24
1	O	281	SER	CA-C	-5.53	1.44	1.52
1	C	141	ILE	N-CA	-5.53	1.39	1.46
1	C	253	PRO	N-CA	5.53	1.54	1.47
1	O	231	LEU	C-O	-5.53	1.17	1.24
1	C	299	TRP	NE1-CE2	5.52	1.43	1.37
1	O	303	ALA	N-CA	-5.52	1.39	1.46
1	C	261	HIS	CA-C	-5.51	1.45	1.53
1	O	186	LYS	CA-CB	5.51	1.62	1.53
1	O	191	GLN	CD-OE1	5.50	1.34	1.23
1	O	9	TYR	C-N	-5.50	1.25	1.33
1	O	69	THR	N-CA	-5.50	1.39	1.46
1	O	149	ASP	C-N	5.50	1.41	1.33
1	O	304	THR	CA-C	-5.49	1.45	1.52
1	O	253	PRO	C-O	5.49	1.31	1.24
1	C	205	LEU	CA-CB	5.48	1.63	1.53
1	C	239	LYS	CG-CD	5.47	1.68	1.52
1	O	147	LYS	N-CA	-5.47	1.39	1.46
1	O	315	ARG	CD-NE	5.47	1.53	1.46
1	O	-1	ASN	CB-CG	5.47	1.65	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	127	GLU	CA-CB	5.46	1.61	1.53
1	O	150	VAL	C-O	-5.46	1.17	1.23
1	O	46	SER	N-CA	5.46	1.53	1.46
1	O	165	ILE	CB-CG1	-5.46	1.42	1.53
1	C	280	TYR	CZ-OH	-5.45	1.26	1.38
1	C	103	GLU	N-CA	-5.44	1.39	1.46
1	C	217	GLY	C-N	-5.44	1.26	1.33
1	O	195	LYS	CE-NZ	5.44	1.65	1.49
1	C	298	THR	CA-C	5.44	1.59	1.52
1	O	254	THR	C-N	5.44	1.41	1.33
1	C	85	SER	CB-OG	-5.43	1.31	1.42
1	O	20	ILE	CA-C	5.43	1.59	1.52
1	C	11	ASP	N-CA	-5.43	1.39	1.46
1	C	129	ALA	C-N	-5.43	1.27	1.33
1	O	267	TYR	C-O	-5.43	1.17	1.24
1	C	186	LYS	CB-CG	5.43	1.68	1.52
1	O	296	GLY	C-O	-5.41	1.16	1.24
1	O	181	TYR	C-N	-5.41	1.26	1.33
1	O	248	LYS	C-N	5.41	1.40	1.33
1	C	182	ILE	CB-CG1	5.41	1.64	1.53
1	O	189	VAL	C-N	5.41	1.40	1.33
1	C	283	THR	C-O	-5.41	1.17	1.23
1	C	319	ARG	C-O	-5.40	1.17	1.24
1	O	120	VAL	CA-CB	5.40	1.62	1.54
1	C	13	GLN	CA-C	5.40	1.58	1.52
1	C	213	LEU	CA-CB	-5.39	1.45	1.53
1	O	100	MET	SD-CE	5.38	1.93	1.79
1	C	187	THR	CA-CB	5.38	1.63	1.53
1	O	100	MET	CG-SD	5.38	1.94	1.80
1	C	319	ARG	CA-C	-5.37	1.45	1.53
1	O	240	ARG	N-CA	-5.37	1.39	1.46
1	C	162	GLY	CA-C	-5.37	1.44	1.51
1	O	68	GLY	CA-C	5.37	1.59	1.51
1	O	269	LEU	C-N	-5.37	1.25	1.33
1	C	202	SER	C-O	5.36	1.30	1.23
1	C	208	ASP	C-N	5.36	1.41	1.33
1	O	126	ILE	CA-C	-5.36	1.45	1.52
1	O	315	ARG	C-O	5.36	1.30	1.24
1	C	230	LYS	CE-NZ	5.36	1.65	1.49
1	C	276	PHE	C-O	-5.35	1.16	1.23
1	C	253	PRO	CA-C	-5.35	1.44	1.52
1	O	105	THR	C-O	5.35	1.30	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	281(B)	LYS	CA-C	5.35	1.60	1.52
1	O	221	ILE	N-CA	-5.35	1.39	1.46
1	O	123	MET	CG-SD	-5.34	1.67	1.80
1	O	307	ARG	CZ-NH1	-5.33	1.25	1.32
1	C	9	TYR	C-O	-5.32	1.18	1.24
1	C	199	VAL	CA-C	-5.32	1.46	1.52
1	C	6	LEU	CA-CB	5.31	1.62	1.53
1	C	126	ILE	CB-CG1	-5.31	1.42	1.53
1	C	154	TYR	CA-CB	5.31	1.61	1.53
1	C	290	ASP	CG-OD2	5.31	1.35	1.25
1	O	152	SER	CB-OG	-5.30	1.31	1.42
1	O	53	HIS	CD2-NE2	5.30	1.43	1.37
1	C	94	ILE	C-O	-5.30	1.18	1.24
1	C	13	GLN	C-O	-5.29	1.17	1.23
1	C	49	ALA	N-CA	-5.28	1.39	1.46
1	O	51	VAL	C-O	5.28	1.30	1.24
1	O	56	PHE	C-O	5.27	1.30	1.24
1	C	9	TYR	N-CA	-5.27	1.40	1.46
1	C	56	PHE	N-CA	-5.27	1.39	1.46
1	O	10	MET	SD-CE	5.27	1.92	1.79
1	O	225	THR	CA-C	-5.26	1.45	1.52
1	C	284	LEU	C-O	-5.26	1.17	1.23
1	C	138	ASP	CA-C	-5.26	1.45	1.52
1	O	296	GLY	N-CA	5.25	1.51	1.44
1	C	110	LEU	N-CA	5.25	1.52	1.46
1	C	230	LYS	CA-C	-5.25	1.46	1.52
1	C	140	ILE	C-O	-5.25	1.18	1.24
1	O	273	ASP	C-N	-5.25	1.26	1.33
1	C	265	LYS	N-CA	-5.25	1.39	1.45
1	O	167	LEU	CB-CG	-5.25	1.43	1.53
1	O	259	SER	CA-C	-5.25	1.46	1.52
1	O	91	VAL	CA-C	-5.24	1.46	1.52
1	O	193	GLN	CG-CD	5.24	1.65	1.52
1	O	269	LEU	CA-C	5.24	1.59	1.52
1	O	96	VAL	N-CA	5.24	1.52	1.46
1	O	112	PHE	CA-C	-5.24	1.45	1.52
1	O	70	GLU	CA-C	5.22	1.59	1.52
1	O	147	LYS	CE-NZ	-5.22	1.33	1.49
1	C	186	LYS	CA-C	5.22	1.59	1.52
1	O	118	ASP	N-CA	-5.22	1.39	1.46
1	O	99	GLN	CA-CB	5.22	1.63	1.54
1	C	64	TYR	N-CA	-5.22	1.39	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	139	ASN	C-O	-5.22	1.18	1.24
1	O	257	ASP	CA-CB	-5.21	1.41	1.53
1	C	322	PHE	CA-CB	5.21	1.62	1.53
1	O	97	THR	CA-C	-5.21	1.46	1.52
1	C	192	ILE	CB-CG1	5.20	1.63	1.53
1	C	215	ASP	C-N	-5.20	1.26	1.33
1	O	261	HIS	N-CA	5.20	1.52	1.46
1	O	290	ASP	N-CA	-5.20	1.39	1.46
1	O	293	PRO	CA-CB	-5.20	1.47	1.54
1	C	62	SER	CA-CB	5.19	1.61	1.53
1	C	31	PHE	N-CA	-5.19	1.39	1.46
1	C	4	VAL	CB-CG1	5.19	1.69	1.52
1	C	268	THR	CA-C	-5.19	1.46	1.52
1	C	287	HIS	CG-ND1	5.19	1.44	1.38
1	O	255	LEU	CB-CG	-5.19	1.43	1.53
1	O	281(A)	SER	CB-OG	5.19	1.52	1.42
1	C	252	GLY	CA-C	5.18	1.59	1.51
1	C	20	ILE	C-N	-5.18	1.25	1.33
1	O	112	PHE	CA-CB	-5.18	1.45	1.53
1	C	4	VAL	N-CA	-5.18	1.39	1.46
1	C	207	GLU	CG-CD	5.17	1.65	1.52
1	O	82	GLY	C-O	5.17	1.30	1.23
1	O	27	PHE	N-CA	5.17	1.52	1.45
1	C	107	MET	N-CA	-5.17	1.41	1.46
1	C	202	SER	CB-OG	5.16	1.52	1.42
1	C	251	GLU	CD-OE1	5.16	1.35	1.25
1	C	97	THR	CA-CB	5.15	1.60	1.53
1	C	186	LYS	CE-NZ	5.15	1.64	1.49
1	O	190	TRP	CA-CB	-5.15	1.46	1.52
1	C	48	THR	CA-C	-5.14	1.45	1.52
1	O	59	SER	CA-CB	-5.14	1.37	1.53
1	C	176	GLU	C-N	-5.14	1.24	1.33
1	O	288	ALA	CA-CB	-5.14	1.45	1.53
1	C	317	ASN	CG-OD1	5.14	1.33	1.23
1	O	89	ILE	CA-C	-5.13	1.46	1.52
1	O	119	GLY	CA-C	-5.13	1.42	1.51
1	O	251	GLU	N-CA	5.13	1.53	1.46
1	C	318	ASN	CA-C	-5.13	1.46	1.53
1	C	28	LYS	CA-C	5.12	1.59	1.52
1	O	81	SER	CA-C	5.12	1.58	1.52
1	C	47(B)	TYR	CA-C	5.12	1.59	1.52
1	O	57	ASP	C-N	5.12	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	295	THR	CB-OG1	5.12	1.51	1.43
1	O	190	TRP	CB-CG	-5.11	1.34	1.50
1	C	245	TYR	CB-CG	-5.11	1.40	1.51
1	O	187	THR	C-N	-5.11	1.26	1.33
1	C	39	TRP	CG-CD1	-5.11	1.24	1.36
1	O	111	PRO	CG-CD	5.11	1.65	1.51
1	O	11	ASP	C-O	-5.09	1.17	1.24
1	O	235	LEU	N-CA	5.09	1.52	1.46
1	O	270	THR	CA-C	-5.09	1.46	1.52
1	O	188	GLY	N-CA	5.09	1.52	1.45
1	O	126	ILE	C-N	-5.09	1.26	1.34
1	O	65	LYS	CA-CB	5.08	1.60	1.52
1	O	254	THR	CA-C	5.08	1.59	1.52
1	C	59	SER	CA-C	5.08	1.60	1.52
1	O	276	PHE	CA-C	5.08	1.59	1.53
1	C	86	GLN	CA-CB	-5.08	1.43	1.53
1	C	177	GLY	CA-C	5.08	1.58	1.52
1	O	151	PHE	CA-C	-5.08	1.46	1.52
1	C	73	LEU	C-O	-5.07	1.18	1.24
1	O	208	ASP	C-O	-5.07	1.16	1.23
1	C	197	VAL	CA-CB	-5.07	1.48	1.54
1	C	163	GLY	CA-C	-5.07	1.47	1.52
1	O	181	TYR	C-O	-5.07	1.17	1.23
1	O	281(C)	LYS	CE-NZ	5.06	1.64	1.49
1	C	26	THR	CA-CB	-5.06	1.46	1.53
1	C	65	LYS	CB-CG	-5.06	1.37	1.52
1	C	97	THR	C-N	5.06	1.41	1.33
1	C	221	ILE	CA-CB	-5.06	1.48	1.54
1	C	115	ALA	C-N	-5.06	1.26	1.33
1	C	155	TYR	CA-CB	-5.05	1.45	1.53
1	C	319	ARG	CZ-NH1	5.05	1.39	1.32
1	O	271	SER	CA-C	-5.05	1.46	1.52
1	O	326	ARG	NE-CZ	-5.05	1.27	1.33
1	C	281(C)	LYS	CA-CB	-5.05	1.45	1.53
1	O	75	TYR	C-O	5.05	1.30	1.24
1	O	46	SER	C-O	5.04	1.29	1.23
1	C	251	GLU	CG-CD	5.04	1.64	1.52
1	O	146	LEU	C-O	-5.04	1.16	1.23
1	C	207	GLU	CA-CB	5.03	1.61	1.53
1	O	244	ASP	CA-CB	-5.03	1.45	1.53
1	O	296	GLY	C-N	-5.03	1.24	1.34
1	O	110	LEU	CG-CD2	5.03	1.69	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	304	THR	CA-C	-5.03	1.46	1.52
1	C	152	SER	N-CA	5.03	1.52	1.45
1	C	319	ARG	CA-CB	-5.03	1.47	1.53
1	C	48	THR	CB-CG2	5.02	1.69	1.52
1	C	211	LEU	C-N	-5.02	1.26	1.33
1	O	185	ILE	C-O	5.02	1.31	1.24
1	C	206	CYS	CA-CB	-5.02	1.45	1.53
1	O	65	LYS	CE-NZ	5.02	1.64	1.49
1	C	107	MET	CA-C	-5.01	1.46	1.52
1	O	84	LEU	N-CA	-5.01	1.40	1.46
1	C	185	ILE	CB-CG2	5.00	1.69	1.52
1	O	132	ARG	CA-CB	5.00	1.61	1.53
1	C	101	PHE	CB-CG	5.00	1.62	1.50
1	O	95	THR	N-CA	-5.00	1.40	1.46

All (1656) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	O	74	ARG	NE-CZ-NH2	24.68	141.41	119.20
1	C	244	ASP	CA-CB-CG	23.85	136.45	112.60
1	C	320	ILE	CA-C-N	-23.09	100.03	122.66
1	C	320	ILE	C-N-CA	-23.09	100.03	122.66
1	O	178	ASN	CA-CB-CG	-21.85	90.75	112.60
1	O	316	ARG	NE-CZ-NH1	21.35	142.85	121.50
1	O	62	SER	CA-C-O	-20.99	98.30	120.55
1	O	251	GLU	CB-CG-CD	20.60	147.62	112.60
1	O	122	GLY	CA-C-O	18.84	138.69	120.98
1	O	37	ASN	CA-CB-CG	18.30	130.91	112.60
1	C	287	HIS	CA-CB-CG	-18.20	95.60	113.80
1	C	132	ARG	N-CA-CB	-18.16	84.70	112.13
1	O	194	MET	CA-C-O	17.84	139.63	120.36
1	O	326	ARG	CD-NE-CZ	-17.77	99.52	124.40
1	C	215	ASP	CA-CB-CG	17.74	130.34	112.60
1	C	60	ASP	CA-CB-CG	17.15	129.75	112.60
1	C	208	ASP	CA-CB-CG	-17.05	95.55	112.60
1	O	157	ARG	NE-CZ-NH1	16.20	137.70	121.50
1	O	292	PRO	CA-C-N	16.13	137.00	120.38
1	O	292	PRO	C-N-CA	16.13	137.00	120.38
1	C	289	MET	N-CA-CB	16.11	137.45	110.71
1	O	32	ASP	CA-CB-CG	16.09	128.69	112.60
1	O	316	ARG	NE-CZ-NH2	-16.00	104.80	119.20
1	O	30	VAL	N-CA-CB	15.97	130.16	110.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	250	ASN	CA-C-N	15.75	141.38	120.28
1	C	250	ASN	C-N-CA	15.75	141.38	120.28
1	O	315	ARG	NE-CZ-NH2	15.75	133.37	119.20
1	C	108	PRO	N-CA-CB	15.71	117.41	103.27
1	C	177	GLY	CA-C-N	-15.70	92.58	122.73
1	C	177	GLY	C-N-CA	-15.70	92.58	122.73
1	C	25	GLN	CA-C-O	-15.66	103.31	120.38
1	O	76	SER	CB-CA-C	-15.44	87.55	111.17
1	C	310	TYR	CA-C-O	-15.10	104.50	120.96
1	O	193	GLN	CA-C-O	-15.05	104.75	120.71
1	O	250	ASN	CA-C-N	15.04	145.84	120.72
1	O	250	ASN	C-N-CA	15.04	145.84	120.72
1	O	107	MET	CA-C-N	14.98	136.01	119.83
1	O	107	MET	C-N-CA	14.98	136.01	119.83
1	C	159	SER	O-C-N	14.96	146.93	123.00
1	C	239	LYS	N-CA-CB	-14.83	88.22	110.61
1	O	278	GLU	CA-C-O	-14.46	99.83	120.51
1	O	165	ILE	CA-CB-CG1	-14.41	85.90	110.40
1	C	47(A)	LEU	N-CA-C	-14.40	95.84	113.41
1	O	182	ILE	CB-CA-C	-14.37	94.02	110.41
1	C	195	LYS	N-CA-C	14.37	130.28	113.19
1	C	77	THR	N-CA-C	14.10	131.01	111.56
1	O	242	PHE	N-CA-C	-14.05	89.48	110.14
1	O	290	ASP	CA-C-O	-13.90	104.37	120.49
1	O	152	SER	N-CA-CB	-13.88	90.23	111.05
1	O	157	ARG	NE-CZ-NH2	-13.83	106.75	119.20
1	O	310	TYR	CA-C-O	-13.79	105.98	121.15
1	C	281	SER	N-CA-C	13.72	130.25	109.25
1	C	291	ILE	CA-C-O	13.64	128.65	119.38
1	O	292	PRO	N-CA-C	13.56	127.24	110.70
1	O	325	ALA	N-CA-CB	13.55	132.50	110.41
1	O	80	VAL	N-CA-C	-13.47	86.99	108.81
1	C	32	ASP	CA-CB-CG	13.33	125.93	112.60
1	O	150	VAL	O-C-N	-13.31	107.97	123.02
1	C	181	TYR	CA-C-O	-13.31	106.03	120.80
1	C	294	PRO	N-CA-CB	-13.30	89.28	103.25
1	C	69	THR	CA-CB-OG1	-13.19	89.82	109.60
1	O	250	ASN	CA-CB-CG	-13.09	99.51	112.60
1	C	319	ARG	NE-CZ-NH1	13.08	134.58	121.50
1	O	13	GLN	CA-C-O	-13.08	105.89	121.06
1	O	163	GLY	CA-C-O	-13.07	108.50	121.83
1	O	112	PHE	N-CA-C	13.04	129.41	113.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	O	85	SER	CA-C-O	-12.89	107.09	121.40
1	O	252	GLY	O-C-N	12.89	134.66	121.77
1	C	47(B)	TYR	CA-C-O	-12.87	105.30	120.62
1	O	132	ARG	NE-CZ-NH2	12.85	130.76	119.20
1	C	244	ASP	CA-C-O	-12.77	107.54	121.33
1	O	121	VAL	CA-C-O	-12.75	106.45	120.48
1	C	239	LYS	N-CA-C	12.73	130.35	113.30
1	O	109	ALA	O-C-N	12.64	139.91	122.46
1	C	257	ASP	CA-C-O	-12.60	106.85	121.72
1	C	174	HIS	CE1-NE2-CD2	12.60	121.60	109.00
1	O	132	ARG	CD-NE-CZ	12.60	142.03	124.40
1	O	207	GLU	CA-C-N	-12.59	103.85	122.36
1	O	207	GLU	C-N-CA	-12.59	103.85	122.36
1	O	65	LYS	CB-CA-C	12.59	129.10	111.23
1	O	183	ASN	N-CA-C	12.55	128.80	110.10
1	O	13	GLN	N-CA-CB	-12.41	88.45	111.53
1	C	291	ILE	CA-C-N	12.36	128.56	119.66
1	C	291	ILE	C-N-CA	12.36	128.56	119.66
1	O	52	TYR	CA-CB-CG	-12.35	91.68	113.90
1	O	307	ARG	NE-CZ-NH2	12.28	130.25	119.20
1	O	103	GLU	CA-C-O	-12.22	106.88	120.32
1	O	0	THR	N-CA-C	12.22	128.31	110.59
1	O	130	ILE	CB-CA-C	-12.19	98.07	111.23
1	C	289	MET	CB-CA-C	-12.14	89.17	109.80
1	C	157	ARG	CA-C-N	-12.13	103.54	122.59
1	C	157	ARG	C-N-CA	-12.13	103.54	122.59
1	O	74	ARG	CD-NE-CZ	12.12	141.37	124.40
1	O	296	GLY	CA-C-O	-12.12	104.19	121.52
1	O	285	ALA	N-CA-CB	-12.12	90.47	110.22
1	C	255	LEU	N-CA-CB	-12.10	92.44	110.11
1	O	207	GLU	N-CA-CB	12.10	127.83	110.04
1	O	134	THR	O-C-N	12.10	130.91	121.47
1	O	110	LEU	N-CA-CB	-12.09	88.85	110.37
1	C	278	GLU	CB-CG-CD	12.06	133.11	112.60
1	O	161	LEU	CA-C-N	-12.06	97.78	121.41
1	O	161	LEU	C-N-CA	-12.06	97.78	121.41
1	C	53	HIS	N-CA-CB	-12.04	91.69	111.20
1	O	108	PRO	CB-CA-C	-12.04	96.47	111.64
1	O	77	THR	OG1-CB-CG2	-12.03	85.25	109.30
1	O	56	PHE	CA-C-O	11.99	134.15	120.60
1	O	179	PHE	CA-C-N	11.87	139.74	123.00
1	O	179	PHE	C-N-CA	11.87	139.74	123.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	O	156	ASN	N-CA-CB	11.83	130.49	110.49
1	C	157	ARG	CB-CG-CD	11.83	138.51	111.30
1	O	180	HIS	CA-CB-CG	-11.83	101.97	113.80
1	O	143	GLN	OE1-CD-NE2	-11.82	110.78	122.60
1	O	318	ASN	CB-CG-ND2	11.80	134.10	116.40
1	C	325	ALA	CA-C-O	11.78	134.04	121.55
1	C	174	HIS	CG-CD2-NE2	-11.76	95.44	107.20
1	C	134	THR	CA-CB-OG1	-11.74	91.99	109.60
1	O	160(D)	SER	CB-CA-C	-11.73	87.81	110.10
1	C	110	LEU	CA-C-O	-11.71	108.82	119.59
1	O	269	LEU	O-C-N	-11.69	107.44	123.11
1	O	109	ALA	CB-CA-C	-11.67	86.36	110.17
1	O	74	ARG	NE-CZ-NH1	-11.66	109.84	121.50
1	O	81	SER	CA-C-O	-11.63	107.50	121.11
1	C	13	GLN	OE1-CD-NE2	11.63	134.23	122.60
1	C	239	LYS	CB-CA-C	11.63	129.82	110.17
1	O	240	ARG	NE-CZ-NH2	11.62	129.66	119.20
1	O	115	ALA	CB-CA-C	-11.60	90.47	109.72
1	C	287	HIS	CB-CA-C	-11.57	84.40	111.95
1	O	122	GLY	O-C-N	-11.57	112.59	122.77
1	C	316	ARG	O-C-N	11.54	136.46	122.27
1	O	145	VAL	N-CA-CB	-11.54	92.19	111.23
1	O	291	ILE	CA-C-N	11.54	132.26	120.38
1	O	291	ILE	C-N-CA	11.54	132.26	120.38
1	O	175	TYR	CA-C-N	-11.47	106.30	122.93
1	O	175	TYR	C-N-CA	-11.47	106.30	122.93
1	C	76	SER	N-CA-CB	-11.43	93.31	110.12
1	O	202	SER	CB-CA-C	11.43	129.95	109.38
1	O	197	VAL	N-CA-C	-11.41	92.14	108.11
1	C	183	ASN	CB-CA-C	-11.40	89.21	109.62
1	C	182	ILE	CA-CB-CG2	11.38	129.85	110.50
1	O	244	ASP	CA-CB-CG	11.37	123.97	112.60
1	C	293	PRO	CA-C-N	-11.37	105.62	119.84
1	C	293	PRO	C-N-CA	-11.37	105.62	119.84
1	O	96	VAL	CB-CA-C	-11.37	92.64	110.95
1	C	150	VAL	CA-CB-CG1	-11.35	91.11	110.40
1	C	49	ALA	O-C-N	-11.35	108.95	122.22
1	C	133	VAL	CB-CA-C	-11.31	97.85	111.08
1	C	77	THR	CA-C-O	-11.30	107.20	120.53
1	C	293	PRO	CA-N-CD	-11.29	96.20	112.00
1	C	289	MET	CA-CB-CG	11.28	136.66	114.10
1	C	248	LYS	N-CA-CB	-11.26	93.06	110.06

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	O	100	MET	CA-C-O	11.24	132.61	120.92
1	O	104	VAL	CG1-CB-CG2	-11.23	86.09	110.80
1	O	138	ASP	CA-CB-CG	11.23	123.83	112.60
1	O	235	LEU	CA-C-O	11.19	133.03	119.49
1	O	96	VAL	O-C-N	-11.18	111.35	122.98
1	C	233	GLU	CB-CG-CD	-11.18	93.60	112.60
1	C	315	ARG	NE-CZ-NH1	-11.17	110.33	121.50
1	O	311	THR	OG1-CB-CG2	-11.13	87.03	109.30
1	C	170	SER	CA-C-O	-11.13	104.60	120.51
1	O	205	LEU	N-CA-CB	-11.10	93.73	110.60
1	O	274	TYR	N-CA-C	11.05	128.11	113.30
1	O	94	ILE	CA-C-O	-11.04	108.62	121.98
1	C	207	GLU	CA-C-N	-11.00	105.89	122.83
1	C	207	GLU	C-N-CA	-11.00	105.89	122.83
1	C	290	ASP	O-C-N	-11.00	110.68	123.22
1	C	70	GLU	N-CA-CB	10.94	126.92	110.29
1	C	173	GLN	CA-CB-CG	-10.94	92.21	114.10
1	C	122	GLY	CA-C-O	10.93	131.26	120.98
1	C	191	GLN	CA-C-N	-10.93	105.42	122.68
1	C	191	GLN	C-N-CA	-10.93	105.42	122.68
1	O	242	PHE	CA-CB-CG	10.93	124.73	113.80
1	C	293	PRO	N-CA-CB	10.83	113.58	103.08
1	C	304	THR	O-C-N	10.83	133.60	122.12
1	O	269	LEU	CD1-CG-CD2	-10.83	86.97	110.80
1	C	5	ILE	CA-CB-CG1	-10.82	92.01	110.40
1	O	157	ARG	O-C-N	-10.80	110.05	122.68
1	O	176	GLU	CB-CG-CD	-10.79	94.25	112.60
1	C	291	ILE	N-CA-C	-10.77	96.15	107.89
1	O	26	THR	CA-C-O	-10.76	109.31	120.71
1	O	212	ALA	CA-C-O	-10.73	108.41	120.32
1	C	287	HIS	CA-C-N	-10.72	106.68	122.65
1	C	287	HIS	C-N-CA	-10.72	106.68	122.65
1	O	0	THR	N-CA-CB	-10.72	94.13	110.42
1	O	193	GLN	OE1-CD-NE2	-10.70	111.90	122.60
1	C	233	GLU	CB-CA-C	-10.69	93.04	110.79
1	C	185	ILE	N-CA-CB	-10.67	93.63	111.23
1	O	252	GLY	CA-C-O	-10.67	106.27	121.52
1	O	51	VAL	CA-C-O	10.62	132.10	120.85
1	C	47	ARG	NE-CZ-NH2	-10.60	109.66	119.20
1	O	46	SER	CB-CA-C	-10.59	93.38	109.90
1	C	116	GLU	CG-CD-OE2	-10.58	94.06	118.40
1	C	169	GLY	O-C-N	-10.58	115.02	123.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	69	THR	OG1-CB-CG2	-10.57	88.16	109.30
1	C	148	GLU	CB-CG-CD	-10.57	94.64	112.60
1	O	111	PRO	N-CD-CG	-10.55	91.14	103.80
1	O	154	TYR	CB-CG-CD2	10.52	136.58	120.80
1	O	250	ASN	OD1-CG-ND2	-10.47	112.13	122.60
1	O	318	ASN	CB-CA-C	-10.47	95.62	112.06
1	O	28	LYS	CB-CA-C	-10.45	93.15	110.29
1	C	232	MET	CA-C-O	10.45	132.62	120.92
1	O	149	ASP	CB-CG-OD2	-10.37	94.55	118.40
1	O	323	ALA	CA-C-O	-10.35	109.58	121.58
1	C	240	ARG	CA-CB-CG	10.33	134.77	114.10
1	C	185	ILE	O-C-N	-10.33	109.66	122.57
1	O	221	ILE	N-CA-C	-10.33	93.59	108.36
1	C	113	MET	CG-SD-CE	10.32	123.60	100.90
1	C	293	PRO	CB-CA-C	10.30	123.48	110.92
1	O	199	VAL	N-CA-C	-10.29	93.65	108.36
1	O	87	ASP	CA-CB-CG	-10.27	102.33	112.60
1	C	260	PHE	CA-C-O	10.24	131.09	120.24
1	C	188	GLY	N-CA-C	-10.23	100.18	115.32
1	C	-1	ASN	CA-CB-CG	-10.22	102.38	112.60
1	C	146	LEU	CA-C-N	-10.21	101.67	121.58
1	C	146	LEU	C-N-CA	-10.21	101.67	121.58
1	O	171	ASP	CA-CB-CG	10.18	122.78	112.60
1	C	158	ASP	CB-CG-OD2	-10.16	95.03	118.40
1	C	152	SER	CA-C-O	-10.16	109.56	121.44
1	C	90	THR	CA-C-O	-10.15	109.60	120.46
1	O	246	VAL	O-C-N	10.15	134.16	123.00
1	C	13	GLN	CB-CG-CD	-10.14	95.36	112.60
1	C	74	ARG	NE-CZ-NH1	-10.14	111.36	121.50
1	O	29	VAL	CA-CB-CG2	-10.13	93.18	110.40
1	C	128	GLN	CA-C-O	10.11	131.81	119.78
1	C	155	TYR	O-C-N	-10.11	111.36	123.29
1	O	124	GLY	CA-C-N	-10.11	104.33	122.12
1	O	124	GLY	C-N-CA	-10.11	104.33	122.12
1	O	178	ASN	OD1-CG-ND2	-10.10	112.50	122.60
1	C	4	VAL	CA-CB-CG2	-10.09	93.24	110.40
1	C	227	SER	CB-CA-C	-10.07	90.96	109.29
1	O	240	ARG	N-CA-CB	10.06	127.50	110.49
1	O	324	LEU	CB-CA-C	-10.03	93.08	109.72
1	O	44	LYS	O-C-N	-10.02	109.26	122.59
1	O	322	PHE	CA-C-O	-9.99	109.65	120.24
1	C	132	ARG	CB-CG-CD	-9.96	88.39	111.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	169	GLY	CA-C-O	9.96	128.91	121.04
1	O	88	ILE	CB-CG1-CD1	-9.92	92.97	113.80
1	C	26	THR	O-C-N	-9.90	111.93	123.22
1	C	13	GLN	CG-CD-NE2	-9.90	101.56	116.40
1	O	161	LEU	N-CA-CB	-9.89	93.13	110.34
1	C	142	SER	CA-CB-OG	-9.88	91.33	111.10
1	C	114	LEU	CB-CA-C	-9.86	93.69	110.64
1	O	291	ILE	CA-CB-CG2	-9.86	93.74	110.50
1	C	186	LYS	CB-CG-CD	9.85	133.96	111.30
1	O	288	ALA	CB-CA-C	-9.85	89.25	109.65
1	C	176	GLU	CA-C-O	9.85	131.72	120.89
1	O	228	ILE	N-CA-CB	9.85	123.94	110.54
1	C	58	ALA	CB-CA-C	-9.78	93.75	110.09
1	C	8	ASN	CA-CB-CG	9.77	122.37	112.60
1	O	293	PRO	N-CA-C	9.76	122.60	110.70
1	C	57	ASP	CB-CA-C	-9.74	94.92	110.79
1	O	270	THR	OG1-CB-CG2	-9.73	89.83	109.30
1	C	74	ARG	NH1-CZ-NH2	9.73	131.95	119.30
1	O	120	VAL	CG1-CB-CG2	-9.73	89.39	110.80
1	O	213	LEU	N-CA-C	-9.72	96.13	110.52
1	O	227	SER	O-C-N	9.72	134.23	122.27
1	C	292	PRO	O-C-N	9.71	125.72	121.15
1	C	7	THR	OG1-CB-CG2	-9.71	89.88	109.30
1	O	58	ALA	O-C-N	-9.68	109.72	122.59
1	O	145	VAL	CA-CB-CG1	9.65	126.81	110.40
1	C	318	ASN	N-CA-C	9.64	124.66	111.54
1	O	261	HIS	CA-C-N	-9.64	104.98	121.94
1	O	261	HIS	C-N-CA	-9.64	104.98	121.94
1	O	45	CYS	CA-C-N	-9.63	107.24	120.82
1	O	45	CYS	C-N-CA	-9.63	107.24	120.82
1	O	281(C)	LYS	CA-CB-CG	-9.63	94.84	114.10
1	C	239	LYS	CA-CB-CG	9.61	133.33	114.10
1	C	60	ASP	N-CA-C	-9.58	99.80	113.21
1	C	287	HIS	CE1-NE2-CD2	-9.57	99.43	109.00
1	C	300	ALA	CA-C-O	-9.57	109.79	120.32
1	C	47(B)	TYR	CB-CG-CD1	-9.57	106.45	120.80
1	C	249	CYS	N-CA-C	9.56	124.48	113.01
1	O	201	SER	O-C-N	9.56	135.21	122.30
1	C	195	LYS	CA-C-O	-9.54	103.64	118.91
1	O	125	PHE	CA-CB-CG	9.54	123.34	113.80
1	O	311	THR	CA-C-N	-9.53	109.56	123.00
1	O	311	THR	C-N-CA	-9.53	109.56	123.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	O	251	GLU	CB-CA-C	9.53	130.22	110.31
1	C	266	GLU	CA-CB-CG	-9.52	95.07	114.10
1	O	208	ASP	O-C-N	9.51	133.42	122.67
1	O	75	TYR	N-CA-C	-9.50	95.48	109.63
1	O	58	ALA	CA-C-N	-9.49	108.62	123.24
1	O	58	ALA	C-N-CA	-9.49	108.62	123.24
1	C	242	PHE	CB-CG-CD1	-9.49	104.57	120.70
1	C	91	VAL	O-C-N	-9.49	113.22	123.18
1	O	102	GLY	O-C-N	-9.47	112.48	123.18
1	O	281(A)	SER	N-CA-CB	-9.47	93.82	110.39
1	C	250	ASN	N-CA-C	-9.43	101.08	111.36
1	C	134	THR	CA-CB-CG2	9.42	126.52	110.50
1	O	176	GLU	CG-CD-OE2	-9.42	96.74	118.40
1	O	57	ASP	CA-CB-CG	9.41	122.01	112.60
1	O	24	PRO	CA-C-O	-9.39	110.32	121.03
1	O	292	PRO	O-C-N	9.37	132.52	121.46
1	O	17	GLU	N-CA-C	9.36	124.28	109.50
1	O	149	ASP	CB-CG-OD1	9.34	139.88	118.40
1	O	287	HIS	O-C-N	-9.33	111.89	123.27
1	O	304	THR	CA-CB-OG1	9.33	123.59	109.60
1	O	309	PHE	CA-CB-CG	-9.30	104.50	113.80
1	O	120	VAL	CA-C-O	-9.30	110.53	120.76
1	C	49	ALA	N-CA-CB	-9.29	95.91	110.22
1	O	151	PHE	N-CA-CB	9.29	126.27	110.57
1	O	254	THR	N-CA-CB	-9.29	94.14	110.39
1	C	105	THR	O-C-N	-9.28	111.25	122.20
1	O	320	ILE	N-CA-CB	-9.28	98.61	111.41
1	O	66	HIS	CB-CA-C	-9.27	93.24	109.64
1	C	46	SER	CA-CB-OG	-9.26	92.58	111.10
1	C	106	GLU	CA-C-N	9.26	133.26	122.52
1	C	106	GLU	C-N-CA	9.26	133.26	122.52
1	C	287	HIS	ND1-CE1-NE2	9.25	117.65	108.40
1	C	183	ASN	CB-CG-ND2	-9.25	102.53	116.40
1	O	22	THR	CA-CB-OG1	-9.24	95.74	109.60
1	C	90	THR	CA-CB-OG1	9.22	123.43	109.60
1	O	21	GLY	CA-C-O	-9.22	113.13	122.26
1	C	54	LYS	CB-CA-C	-9.21	93.90	109.65
1	O	319	ARG	NE-CZ-NH2	-9.21	110.91	119.20
1	O	145	VAL	N-CA-C	9.21	128.49	109.34
1	O	293	PRO	N-CA-CB	9.21	112.01	103.08
1	C	262	LEU	N-CA-CB	-9.20	95.22	110.68
1	C	285	ALA	CA-C-N	9.20	135.96	122.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	285	ALA	C-N-CA	9.20	135.96	122.71
1	O	157	ARG	CD-NE-CZ	9.20	137.28	124.40
1	O	134	THR	CA-C-O	-9.19	111.60	119.59
1	C	9	TYR	CA-C-O	9.19	130.04	120.40
1	C	22	THR	CA-C-O	-9.19	107.58	120.16
1	C	280	TYR	N-CA-CB	9.18	126.72	111.49
1	C	323	ALA	CA-C-O	-9.17	111.42	121.23
1	O	84	LEU	CA-C-N	-9.17	107.76	122.53
1	O	84	LEU	C-N-CA	-9.17	107.76	122.53
1	C	77	THR	CA-C-N	9.17	138.26	121.67
1	C	77	THR	C-N-CA	9.17	138.26	121.67
1	C	261	HIS	CA-C-O	-9.16	110.95	120.84
1	O	272	ALA	CA-C-O	-9.16	107.41	120.51
1	C	18	ILE	O-C-N	9.15	133.20	123.04
1	C	316	ARG	N-CA-CB	9.15	124.47	110.28
1	C	314	ASP	CA-C-O	9.15	130.68	120.43
1	C	149	ASP	O-C-N	9.15	134.15	122.71
1	O	64	TYR	CA-CB-CG	-9.13	97.47	113.90
1	C	79	THR	CA-CB-CG2	9.12	126.01	110.50
1	O	60	ASP	N-CA-C	-9.12	91.37	110.80
1	C	74	ARG	O-C-N	-9.10	112.98	123.27
1	O	143	GLN	CA-C-N	-9.10	103.57	121.41
1	O	143	GLN	C-N-CA	-9.10	103.57	121.41
1	C	314	ASP	CA-CB-CG	9.10	121.70	112.60
1	O	59	SER	CA-CB-OG	-9.10	92.91	111.10
1	O	191	GLN	OE1-CD-NE2	-9.10	113.50	122.60
1	C	99	GLN	N-CA-CB	-9.09	94.82	111.37
1	C	12	THR	CA-C-O	9.09	129.05	119.05
1	O	164	GLN	CB-CG-CD	-9.06	97.19	112.60
1	C	261	HIS	O-C-N	9.04	133.99	122.87
1	O	301	LEU	CA-C-N	9.03	132.49	122.55
1	O	301	LEU	C-N-CA	9.03	132.49	122.55
1	C	308	LYS	CB-CA-C	9.03	124.45	109.56
1	C	96	VAL	CA-C-O	-9.03	112.19	121.67
1	C	287	HIS	N-CA-C	9.02	121.19	108.74
1	O	106	GLU	CB-CA-C	-9.02	98.42	111.23
1	C	151	PHE	O-C-N	-9.02	111.80	123.16
1	C	132	ARG	CA-CB-CG	8.99	132.09	114.10
1	O	91	VAL	CG1-CB-CG2	-8.98	91.04	110.80
1	C	184	LEU	N-CA-CB	-8.97	96.04	109.95
1	C	75	TYR	CA-C-N	8.96	132.29	120.28
1	C	75	TYR	C-N-CA	8.96	132.29	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	O	246	VAL	CA-C-N	8.96	136.83	122.68
1	O	246	VAL	C-N-CA	8.96	136.83	122.68
1	O	134	THR	CB-CA-C	-8.95	96.08	109.60
1	O	94	ILE	CA-CB-CG1	-8.93	95.21	110.40
1	O	270	THR	CB-CA-C	-8.93	93.44	110.24
1	C	320	ILE	CA-CB-CG2	-8.93	95.32	110.50
1	O	315	ARG	CG-CD-NE	8.93	131.63	112.00
1	O	87	ASP	CB-CG-OD2	-8.92	97.89	118.40
1	C	32	ASP	N-CA-C	8.91	123.44	108.20
1	C	315	ARG	CG-CD-NE	-8.91	92.41	112.00
1	O	76	SER	O-C-N	8.89	133.97	122.06
1	O	252	GLY	CA-C-N	8.88	130.94	119.84
1	O	252	GLY	C-N-CA	8.88	130.94	119.84
1	O	12	THR	O-C-N	-8.87	110.31	122.46
1	O	280	TYR	OH-CZ-CE2	-8.86	93.31	119.90
1	C	283	THR	CA-CB-OG1	-8.85	96.33	109.60
1	O	250	ASN	N-CA-CB	-8.84	94.69	109.72
1	C	174	HIS	ND1-CE1-NE2	-8.84	99.56	108.40
1	C	269	LEU	CA-C-N	8.82	137.16	122.07
1	C	269	LEU	C-N-CA	8.82	137.16	122.07
1	C	316	ARG	CD-NE-CZ	-8.80	112.08	124.40
1	C	325	ALA	O-C-N	-8.79	112.00	122.81
1	O	155	TYR	CA-CB-CG	8.78	129.70	113.90
1	C	201	SER	CA-C-O	-8.77	108.83	119.18
1	C	158	ASP	CB-CG-OD1	8.77	138.57	118.40
1	O	242	PHE	N-CA-CB	-8.76	97.65	110.70
1	O	154	TYR	CA-C-N	-8.76	110.65	123.00
1	O	154	TYR	C-N-CA	-8.76	110.65	123.00
1	C	208	ASP	CB-CA-C	-8.75	97.50	111.06
1	C	0	THR	OG1-CB-CG2	8.74	126.79	109.30
1	C	191	GLN	CA-CB-CG	8.74	131.57	114.10
1	C	59	SER	CA-CB-OG	-8.73	93.64	111.10
1	C	184	LEU	CA-C-N	8.73	137.68	121.97
1	C	184	LEU	C-N-CA	8.73	137.68	121.97
1	O	150	VAL	N-CA-CB	-8.71	96.24	112.36
1	C	100	MET	CA-C-O	-8.71	110.67	120.43
1	O	17	GLU	CG-CD-OE2	-8.71	98.37	118.40
1	C	233	GLU	O-C-N	8.71	131.35	122.12
1	O	295	THR	CB-CA-C	8.69	124.34	110.96
1	O	224	SER	CB-CA-C	-8.67	92.51	109.76
1	O	27	PHE	CA-C-N	8.66	134.28	121.72
1	O	27	PHE	C-N-CA	8.66	134.28	121.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	O	208	ASP	CA-C-O	-8.66	111.09	121.40
1	O	258	ILE	N-CA-C	-8.65	95.52	108.85
1	O	157	ARG	N-CA-C	-8.65	98.05	110.59
1	O	24	PRO	O-C-N	8.65	132.78	123.10
1	C	245	TYR	CA-C-N	-8.64	112.43	122.11
1	C	245	TYR	C-N-CA	-8.64	112.43	122.11
1	C	323	ALA	N-CA-C	-8.63	95.58	108.79
1	O	222	SER	CB-CA-C	-8.63	93.57	109.37
1	O	100	MET	CA-C-N	-8.62	107.31	123.27
1	O	100	MET	C-N-CA	-8.62	107.31	123.27
1	C	193	GLN	CA-CB-CG	-8.62	96.87	114.10
1	O	111	PRO	CB-CA-C	-8.62	90.46	112.00
1	C	128	GLN	CB-CA-C	8.61	125.14	110.94
1	O	43	SER	CA-C-O	8.61	129.82	120.10
1	O	108	PRO	CA-C-O	8.60	130.44	121.23
1	C	30	VAL	CA-CB-CG1	8.60	125.02	110.40
1	C	284	LEU	CA-C-O	8.59	132.14	121.66
1	C	294	PRO	CA-C-O	8.59	136.23	120.60
1	O	226	SER	CA-C-N	-8.59	107.25	120.31
1	O	226	SER	C-N-CA	-8.59	107.25	120.31
1	C	304	THR	CA-CB-OG1	8.58	122.47	109.60
1	O	318	ASN	CA-CB-CG	8.55	121.16	112.60
1	O	47	ARG	CD-NE-CZ	-8.55	112.42	124.40
1	C	106	GLU	CB-CG-CD	8.53	127.11	112.60
1	C	206	CYS	N-CA-CB	8.53	124.90	110.49
1	O	33	THR	CA-C-N	8.52	131.08	120.34
1	O	33	THR	C-N-CA	8.52	131.08	120.34
1	O	254	THR	OG1-CB-CG2	8.51	126.31	109.30
1	O	204	LEU	CA-C-N	-8.50	107.54	123.27
1	O	204	LEU	C-N-CA	-8.50	107.54	123.27
1	O	58	ALA	CA-C-O	8.48	132.64	120.51
1	C	231	LEU	N-CA-C	-8.48	100.67	111.02
1	C	318	ASN	CA-C-N	-8.48	108.48	122.39
1	C	318	ASN	C-N-CA	-8.48	108.48	122.39
1	O	268	THR	CA-CB-CG2	8.48	124.91	110.50
1	O	13	GLN	CA-C-N	8.48	134.93	122.39
1	O	13	GLN	C-N-CA	8.48	134.93	122.39
1	C	186	LYS	O-C-N	-8.47	111.32	122.59
1	C	149	ASP	CA-C-O	-8.47	111.71	122.63
1	O	209	GLY	O-C-N	8.46	133.69	122.70
1	C	250	ASN	OD1-CG-ND2	-8.44	114.16	122.60
1	O	36	SER	O-C-N	-8.44	110.70	122.26

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	O	307	ARG	CA-CB-CG	8.44	130.97	114.10
1	O	284	LEU	N-CA-CB	8.42	123.82	110.85
1	C	179	PHE	CA-C-N	8.42	134.65	122.44
1	C	179	PHE	C-N-CA	8.42	134.65	122.44
1	O	17	GLU	O-C-N	8.42	133.59	123.24
1	O	278	GLU	CB-CA-C	-8.41	93.69	110.42
1	O	198	SER	CA-CB-OG	-8.40	94.29	111.10
1	O	62	SER	CA-CB-OG	-8.39	94.32	111.10
1	C	287	HIS	CG-CD2-NE2	8.38	115.58	107.20
1	C	284	LEU	O-C-N	-8.38	113.56	123.03
1	C	102	GLY	O-C-N	8.36	132.69	123.49
1	O	47(A)	LEU	CA-C-O	8.36	129.28	120.42
1	C	311	THR	CA-CB-CG2	8.35	124.70	110.50
1	O	172	PRO	CA-C-O	8.35	129.42	118.90
1	C	103	GLU	CA-C-O	-8.34	111.86	120.54
1	C	324	LEU	N-CA-CB	-8.34	96.28	109.87
1	C	197	VAL	CG1-CB-CG2	-8.34	92.46	110.80
1	C	80	VAL	N-CA-C	-8.33	96.11	108.45
1	C	213	LEU	CD1-CG-CD2	-8.32	92.49	110.80
1	C	47(B)	TYR	CB-CA-C	-8.32	98.03	110.67
1	C	195	LYS	CA-CB-CG	-8.32	97.46	114.10
1	O	178	ASN	CB-CA-C	8.32	124.93	109.71
1	C	33	THR	O-C-N	-8.31	110.10	122.39
1	O	48	THR	CA-CB-CG2	-8.30	96.39	110.50
1	C	260	PHE	CA-CB-CG	8.29	122.09	113.80
1	O	143	GLN	N-CA-C	-8.29	103.07	113.01
1	C	57	ASP	CA-C-N	-8.28	108.89	122.54
1	C	57	ASP	C-N-CA	-8.28	108.89	122.54
1	C	207	GLU	N-CA-C	8.28	128.43	110.80
1	C	81	SER	CA-CB-OG	-8.25	94.61	111.10
1	C	235	LEU	O-C-N	-8.24	111.63	122.59
1	O	183	ASN	CA-C-N	8.24	133.21	121.02
1	O	183	ASN	C-N-CA	8.24	133.21	121.02
1	O	74	ARG	NH1-CZ-NH2	-8.23	108.60	119.30
1	C	-2	GLY	O-C-N	8.22	136.15	123.00
1	O	190	TRP	N-CA-CB	8.22	120.80	110.45
1	O	317	ASN	OD1-CG-ND2	-8.21	114.39	122.60
1	O	253	PRO	CB-CA-C	-8.21	98.02	111.56
1	O	311	THR	CA-CB-OG1	-8.21	97.29	109.60
1	O	281(D)	LEU	N-CA-CB	-8.20	97.69	110.57
1	C	124	GLY	O-C-N	-8.20	114.15	122.59
1	O	123	MET	N-CA-C	-8.20	102.59	112.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	-2	GLY	CA-C-N	-8.19	105.90	121.54
1	C	-2	GLY	C-N-CA	-8.19	105.90	121.54
1	O	232	MET	N-CA-CB	-8.17	97.62	110.28
1	O	281(C)	LYS	CB-CA-C	8.17	126.53	109.79
1	O	-1	ASN	CA-C-O	8.17	134.68	120.80
1	C	125	PHE	N-CA-CB	-8.16	97.82	110.46
1	C	148	GLU	N-CA-CB	-8.15	96.35	111.52
1	O	94	ILE	CA-CB-CG2	-8.14	96.66	110.50
1	O	29	VAL	CA-C-O	-8.13	111.84	121.28
1	O	128	GLN	N-CA-C	-8.13	102.91	112.92
1	C	181	TYR	CB-CA-C	-8.13	95.82	109.48
1	O	289	MET	CA-CB-CG	-8.13	97.84	114.10
1	C	180	HIS	CA-C-O	8.13	130.49	120.25
1	O	208	ASP	CA-C-N	8.12	137.33	121.41
1	O	208	ASP	C-N-CA	8.12	137.33	121.41
1	O	233	GLU	N-CA-C	-8.12	102.37	111.71
1	O	301	LEU	N-CA-CB	-8.12	98.25	110.35
1	O	84	LEU	N-CA-C	8.12	122.14	109.96
1	O	114	LEU	CA-C-O	-8.12	110.11	119.60
1	C	255	LEU	N-CA-C	-8.11	98.89	110.08
1	O	88	ILE	N-CA-CB	-8.11	100.22	111.25
1	O	268	THR	N-CA-C	8.10	122.44	109.24
1	C	201	SER	O-C-N	8.10	131.76	122.20
1	C	173	GLN	CB-CG-CD	8.10	126.36	112.60
1	O	164	GLN	CG-CD-OE1	-8.09	104.61	120.80
1	O	281	SER	CB-CA-C	-8.06	98.85	110.06
1	O	219	SER	N-CA-C	8.06	123.22	113.23
1	C	178	ASN	N-CA-CB	-8.06	95.49	110.07
1	C	309	PHE	CA-C-O	8.05	128.85	120.40
1	O	183	ASN	OD1-CG-ND2	-8.04	114.56	122.60
1	C	291	ILE	N-CA-CB	-8.03	103.01	111.61
1	O	117	PHE	CA-C-O	-8.03	112.21	121.68
1	C	285	ALA	CB-CA-C	8.03	123.45	111.17
1	C	0	THR	CA-C-N	-8.02	109.22	122.21
1	C	0	THR	C-N-CA	-8.02	109.22	122.21
1	C	85	SER	CA-C-O	-8.01	112.88	121.45
1	O	229	GLU	N-CA-CB	-8.00	98.41	110.01
1	C	281	SER	CA-C-O	-8.00	111.22	120.49
1	C	44	LYS	CG-CD-CE	8.00	129.69	111.30
1	O	146	LEU	CA-C-O	-7.98	112.89	121.99
1	O	325	ALA	O-C-N	7.97	131.99	123.06
1	O	282	CYS	O-C-N	-7.96	113.90	123.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	281(B)	LYS	CG-CD-CE	7.95	129.59	111.30
1	O	220	TYR	CA-C-N	7.95	132.95	122.93
1	O	220	TYR	C-N-CA	7.95	132.95	122.93
1	C	160(D)	SER	CA-C-N	7.94	133.95	121.56
1	C	160(D)	SER	C-N-CA	7.94	133.95	121.56
1	C	86	GLN	N-CA-CB	7.94	125.34	111.13
1	O	144	GLY	O-C-N	-7.94	112.38	122.70
1	C	17	GLU	CA-CB-CG	-7.94	98.22	114.10
1	C	217	GLY	CA-C-N	7.93	134.43	122.93
1	C	217	GLY	C-N-CA	7.93	134.43	122.93
1	C	47(B)	TYR	CA-CB-CG	-7.93	99.63	113.90
1	O	8	ASN	N-CA-CB	-7.92	98.11	110.55
1	O	178	ASN	CA-C-O	-7.91	111.82	120.36
1	C	282	CYS	CA-C-N	-7.91	108.35	122.74
1	C	282	CYS	C-N-CA	-7.91	108.35	122.74
1	O	48	THR	O-C-N	7.90	130.31	122.09
1	C	66	HIS	CA-C-O	-7.90	112.50	121.19
1	C	193	GLN	CA-C-N	-7.89	111.90	123.11
1	C	193	GLN	C-N-CA	-7.89	111.90	123.11
1	C	293	PRO	N-CA-C	7.89	120.33	110.70
1	C	38	VAL	CA-CB-CG2	-7.88	97.01	110.40
1	O	208	ASP	N-CA-C	7.88	122.82	111.56
1	O	30	VAL	CB-CA-C	-7.88	100.13	110.84
1	O	182	ILE	CA-C-N	7.87	131.92	120.82
1	O	182	ILE	C-N-CA	7.87	131.92	120.82
1	O	14	TYR	CA-C-O	7.87	129.80	120.20
1	C	294	PRO	O-C-N	-7.87	112.02	122.64
1	O	171	ASP	CA-C-O	7.87	127.41	119.86
1	O	165	ILE	CA-C-N	-7.85	112.61	123.13
1	O	165	ILE	C-N-CA	-7.85	112.61	123.13
1	C	95	THR	CA-C-O	-7.84	111.83	120.38
1	C	132	ARG	CA-C-O	-7.84	111.94	121.28
1	C	230	LYS	CG-CD-CE	7.84	129.34	111.30
1	C	281(C)	LYS	CB-CA-C	-7.84	94.82	110.42
1	O	72	THR	CA-CB-OG1	-7.83	97.85	109.60
1	O	67	ASN	CB-CG-ND2	7.82	128.13	116.40
1	O	142	SER	CB-CA-C	7.82	123.26	109.65
1	C	218	ALA	CA-C-O	7.82	129.00	120.71
1	O	80	VAL	CB-CA-C	7.82	124.71	110.71
1	C	158	ASP	CA-C-N	7.82	135.77	121.70
1	C	158	ASP	C-N-CA	7.82	135.77	121.70
1	C	194	MET	O-C-N	-7.82	113.28	123.13

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	O	72	THR	CA-C-N	-7.82	111.76	122.86
1	O	72	THR	C-N-CA	-7.82	111.76	122.86
1	O	270	THR	CA-CB-CG2	-7.82	97.21	110.50
1	C	67	ASN	CA-CB-CG	7.81	120.41	112.60
1	O	219	SER	CA-CB-OG	7.81	126.72	111.10
1	C	112	PHE	N-CA-C	7.81	121.91	112.38
1	O	203	THR	N-CA-CB	7.81	123.68	110.49
1	O	62	SER	O-C-N	7.80	130.39	122.12
1	O	265	LYS	CG-CD-CE	-7.79	93.39	111.30
1	C	292	PRO	N-CA-CB	7.78	107.27	103.22
1	C	235	LEU	CA-C-N	-7.77	110.22	122.10
1	C	235	LEU	C-N-CA	-7.77	110.22	122.10
1	O	281(B)	LYS	CB-CG-CD	7.76	129.15	111.30
1	C	86	GLN	CB-CG-CD	-7.75	99.43	112.60
1	O	312	GLU	CG-CD-OE1	7.75	136.22	118.40
1	O	223	GLY	CA-C-N	-7.74	105.06	121.32
1	O	223	GLY	C-N-CA	-7.74	105.06	121.32
1	O	318	ASN	N-CA-CB	-7.74	99.94	111.71
1	C	237	ALA	O-C-N	7.73	131.77	123.03
1	O	122	GLY	N-CA-C	7.73	121.85	111.03
1	C	17	GLU	CA-C-O	7.73	129.04	120.70
1	C	71	LEU	N-CA-CB	-7.72	97.52	110.57
1	C	287	HIS	N-CA-CB	-7.72	98.32	111.21
1	C	150	VAL	CA-C-O	-7.72	112.02	120.43
1	C	67	ASN	CB-CG-ND2	7.71	127.97	116.40
1	C	10	MET	CA-CB-CG	-7.71	98.69	114.10
1	C	179	PHE	CA-C-O	-7.70	112.63	121.72
1	O	255	LEU	CD1-CG-CD2	-7.70	93.86	110.80
1	C	250	ASN	CA-C-O	-7.67	112.29	120.42
1	C	115	ALA	O-C-N	-7.67	114.31	123.13
1	O	195	LYS	CA-C-O	-7.67	110.16	119.59
1	O	26	THR	O-C-N	7.67	132.95	123.21
1	O	100	MET	CG-SD-CE	-7.66	84.04	100.90
1	O	-1	ASN	N-CA-CB	7.66	123.52	110.50
1	C	48	THR	CB-CA-C	7.66	126.31	110.31
1	C	25	GLN	CB-CG-CD	7.65	125.61	112.60
1	C	268	THR	OG1-CB-CG2	7.65	124.60	109.30
1	O	318	ASN	CB-CG-OD1	-7.65	105.50	120.80
1	C	103	GLU	CB-CG-CD	7.65	125.61	112.60
1	C	99	GLN	O-C-N	7.65	132.65	123.24
1	O	276	PHE	CB-CG-CD1	-7.64	107.70	120.70
1	C	39	TRP	CA-C-O	-7.63	113.08	121.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	184	LEU	CA-C-O	-7.63	111.99	120.69
1	O	125	PHE	CD1-CE1-CZ	-7.63	106.26	120.00
1	O	85	SER	O-C-N	7.63	132.93	122.78
1	C	246	VAL	N-CA-CB	-7.62	98.38	110.96
1	C	28	LYS	CB-CA-C	-7.62	97.41	109.84
1	O	183	ASN	CB-CA-C	7.62	121.78	109.90
1	O	201	SER	CA-C-N	-7.62	111.89	122.93
1	O	201	SER	C-N-CA	-7.62	111.89	122.93
1	O	107	MET	CA-C-O	7.61	126.85	119.55
1	C	319	ARG	N-CA-C	-7.60	98.38	108.34
1	O	156	ASN	CA-C-O	7.60	131.38	120.51
1	C	1	THR	CA-C-O	-7.59	112.82	121.40
1	C	212	ALA	N-CA-CB	-7.59	99.30	110.84
1	O	210	CYS	CA-C-N	-7.59	110.79	122.62
1	O	210	CYS	C-N-CA	-7.59	110.79	122.62
1	O	279	SER	CA-CB-OG	7.58	126.27	111.10
1	O	182	ILE	N-CA-CB	-7.58	102.49	112.34
1	C	258	ILE	CA-C-O	7.58	129.15	120.67
1	O	249	CYS	O-C-N	7.57	129.97	122.09
1	O	68	GLY	O-C-N	-7.57	112.86	122.70
1	O	231	LEU	N-CA-CB	-7.55	99.06	110.01
1	C	113	MET	O-C-N	-7.55	112.04	122.46
1	C	150	VAL	N-CA-C	7.54	119.18	108.17
1	O	164	GLN	N-CA-CB	-7.53	98.21	111.39
1	O	176	GLU	CA-C-N	-7.53	109.33	122.66
1	O	176	GLU	C-N-CA	-7.53	109.33	122.66
1	O	104	VAL	CA-C-O	-7.53	112.35	121.54
1	C	47(B)	TYR	CB-CG-CD2	7.53	132.09	120.80
1	C	97	THR	N-CA-CB	7.52	122.36	110.55
1	O	261	HIS	ND1-CE1-NE2	7.52	115.92	108.40
1	C	1	THR	N-CA-C	-7.52	97.89	109.24
1	C	76	SER	CA-C-O	7.52	128.52	120.55
1	C	84	LEU	CD1-CG-CD2	-7.52	94.26	110.80
1	O	33	THR	CA-C-O	7.52	128.38	119.28
1	O	234	ALA	N-CA-CB	-7.52	99.00	110.20
1	O	309	PHE	CE1-CZ-CE2	7.52	133.53	120.00
1	C	173	GLN	O-C-N	7.50	131.49	122.26
1	C	199	VAL	O-C-N	-7.50	114.32	123.10
1	O	213	LEU	N-CA-CB	-7.50	98.46	110.46
1	C	60	ASP	N-CA-CB	-7.50	97.83	110.65
1	C	17	GLU	N-CA-C	7.49	121.60	109.40
1	O	271	SER	N-CA-CB	7.47	123.12	110.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	O	278	GLU	N-CA-CB	7.47	123.11	110.49
1	C	191	GLN	CB-CA-C	7.46	122.04	109.80
1	C	189	VAL	CB-CA-C	-7.45	99.08	111.29
1	C	27	PHE	N-CA-CB	-7.45	98.35	111.08
1	C	44	LYS	CA-CB-CG	7.44	128.99	114.10
1	C	120	VAL	N-CA-CB	-7.44	99.25	111.45
1	O	47(B)	TYR	CB-CA-C	-7.43	98.35	110.77
1	O	179	PHE	CB-CA-C	-7.43	94.27	109.65
1	O	180	HIS	O-C-N	-7.43	114.65	123.27
1	O	111	PRO	CA-C-N	-7.41	108.62	121.66
1	O	111	PRO	C-N-CA	-7.41	108.62	121.66
1	O	239	LYS	CA-C-N	-7.41	107.39	121.54
1	O	239	LYS	C-N-CA	-7.41	107.39	121.54
1	C	7	THR	O-C-N	-7.41	114.90	123.27
1	C	238	LYS	CA-C-O	-7.40	112.86	121.82
1	O	227	SER	CA-C-O	-7.40	111.46	119.97
1	O	174	HIS	CA-CB-CG	-7.40	106.40	113.80
1	C	313	PHE	CA-C-O	-7.39	112.45	120.36
1	C	194	MET	CA-C-O	7.38	128.35	120.46
1	C	67	ASN	N-CA-CB	7.37	122.95	110.49
1	C	105	THR	CA-C-O	7.37	127.88	119.18
1	O	230	LYS	CD-CE-NZ	7.37	135.48	111.90
1	O	127	GLU	CA-CB-CG	7.37	128.83	114.10
1	C	178	ASN	CA-CB-CG	-7.36	105.24	112.60
1	C	134	THR	CA-C-O	7.35	127.82	120.17
1	C	166	VAL	O-C-N	7.35	131.00	123.07
1	C	130	ILE	N-CA-CB	-7.34	98.68	110.13
1	O	246	VAL	CG1-CB-CG2	7.34	126.95	110.80
1	O	276	PHE	CA-CB-CG	7.34	121.14	113.80
1	C	65	LYS	N-CA-CB	-7.34	98.48	110.59
1	C	86	GLN	OE1-CD-NE2	-7.34	115.26	122.60
1	C	64	TYR	CA-C-O	7.33	129.94	121.87
1	C	110	LEU	N-CA-C	-7.32	95.12	109.10
1	O	315	ARG	NH1-CZ-NH2	-7.32	109.79	119.30
1	O	156	ASN	CA-C-N	7.31	136.72	122.03
1	O	156	ASN	C-N-CA	7.31	136.72	122.03
1	C	230	LYS	CB-CA-C	-7.30	99.36	110.90
1	C	286	ILE	O-C-N	-7.30	114.94	123.05
1	O	249	CYS	N-CA-CB	7.30	120.82	109.94
1	C	94	ILE	CA-C-O	-7.30	112.74	120.48
1	O	203	THR	CA-C-O	7.29	130.94	120.51
1	C	257	ASP	N-CA-CB	-7.29	98.79	110.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	99	GLN	CA-C-O	-7.29	112.58	121.11
1	O	247	VAL	N-CA-CB	-7.29	100.20	112.44
1	O	97	THR	OG1-CB-CG2	-7.28	94.74	109.30
1	C	47	ARG	CB-CG-CD	-7.28	94.56	111.30
1	C	226	SER	CA-C-O	-7.28	110.29	119.31
1	C	27	PHE	CA-C-N	7.27	131.90	121.50
1	C	27	PHE	C-N-CA	7.27	131.90	121.50
1	C	175	TYR	O-C-N	-7.26	114.76	123.10
1	C	139	ASN	CB-CG-ND2	7.25	127.28	116.40
1	C	192	ILE	CA-CB-CG1	7.24	122.71	110.40
1	O	130	ILE	N-CA-CB	7.24	119.79	111.39
1	C	167	LEU	CD1-CG-CD2	-7.24	94.87	110.80
1	O	77	THR	CB-CA-C	-7.23	96.03	110.42
1	O	290	ASP	CB-CG-OD1	7.22	135.02	118.40
1	O	189	VAL	CA-CB-CG1	7.21	122.66	110.40
1	O	307	ARG	NH1-CZ-NH2	-7.21	109.92	119.30
1	O	213	LEU	CA-C-O	-7.21	113.22	121.72
1	O	79	THR	O-C-N	-7.21	114.81	123.10
1	C	227	SER	N-CA-C	-7.21	104.64	113.50
1	C	233	GLU	CA-C-O	-7.20	112.92	120.55
1	O	261	HIS	CA-CB-CG	-7.17	106.63	113.80
1	O	26	THR	CA-C-N	7.17	134.12	122.29
1	O	26	THR	C-N-CA	7.17	134.12	122.29
1	C	149	ASP	CA-CB-CG	-7.17	105.43	112.60
1	O	191	GLN	CA-C-N	-7.17	109.06	121.97
1	O	191	GLN	C-N-CA	-7.17	109.06	121.97
1	O	236	GLY	CA-C-N	-7.17	109.69	122.74
1	O	236	GLY	C-N-CA	-7.17	109.69	122.74
1	O	32	ASP	N-CA-CB	-7.17	98.36	110.83
1	O	54	LYS	CA-C-O	7.16	129.18	121.16
1	C	225	THR	CA-CB-CG2	-7.16	98.33	110.50
1	C	8	ASN	OD1-CG-ND2	-7.16	115.44	122.60
1	O	100	MET	N-CA-CB	-7.15	99.69	110.35
1	O	182	ILE	CA-CB-CG1	7.15	122.55	110.40
1	C	179	PHE	N-CA-C	-7.14	99.95	110.52
1	C	136	ILE	CA-C-N	-7.14	110.15	120.29
1	C	136	ILE	C-N-CA	-7.14	110.15	120.29
1	O	182	ILE	CA-CB-CG2	-7.13	98.37	110.50
1	C	131	GLY	CA-C-N	7.13	132.24	122.19
1	C	131	GLY	C-N-CA	7.13	132.24	122.19
1	C	152	SER	CA-C-N	7.13	133.63	122.94
1	C	152	SER	C-N-CA	7.13	133.63	122.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	158	ASP	N-CA-C	7.12	120.56	109.52
1	O	181	TYR	CA-CB-CG	-7.12	101.09	113.90
1	C	108	PRO	O-C-N	-7.11	114.83	123.01
1	C	226	SER	CA-CB-OG	-7.11	96.88	111.10
1	C	263	GLY	O-C-N	-7.11	113.46	122.70
1	C	137	PHE	CA-C-N	-7.11	109.51	120.31
1	C	137	PHE	C-N-CA	-7.11	109.51	120.31
1	C	289	MET	CG-SD-CE	7.10	116.52	100.90
1	C	295	THR	N-CA-CB	-7.09	100.31	110.81
1	O	25	GLN	OE1-CD-NE2	7.08	129.68	122.60
1	C	281(D)	LEU	CA-C-O	-7.08	112.66	120.38
1	O	235	LEU	N-CA-CB	-7.08	98.29	110.32
1	C	272	ALA	CA-C-O	-7.07	111.44	119.79
1	O	233	GLU	CA-C-O	7.07	128.09	120.10
1	C	30	VAL	CG1-CB-CG2	-7.07	95.26	110.80
1	C	181	TYR	CA-CB-CG	-7.06	101.19	113.90
1	O	47	ARG	NE-CZ-NH2	7.06	125.56	119.20
1	O	132	ARG	NE-CZ-NH1	-7.06	114.44	121.50
1	O	183	ASN	CA-CB-CG	7.06	119.66	112.60
1	O	307	ARG	CA-C-N	7.06	131.48	120.89
1	O	307	ARG	C-N-CA	7.06	131.48	120.89
1	C	310	TYR	CG-CD1-CE1	7.05	131.78	121.20
1	C	34	GLY	O-C-N	-7.05	111.53	122.18
1	C	260	PHE	CA-C-N	-7.05	113.05	122.85
1	C	260	PHE	C-N-CA	-7.05	113.05	122.85
1	C	8	ASN	CA-C-O	-7.05	112.82	120.36
1	O	62	SER	CB-CA-C	-7.04	99.09	110.79
1	C	242	PHE	CB-CG-CD2	7.04	132.67	120.70
1	O	22	THR	CB-CA-C	-7.04	96.31	110.17
1	C	158	ASP	CA-C-O	-7.04	113.21	121.44
1	O	13	GLN	OE1-CD-NE2	7.03	129.63	122.60
1	C	323	ALA	CB-CA-C	-7.03	97.55	110.62
1	O	174	HIS	N-CA-C	7.03	121.54	112.41
1	O	310	TYR	N-CA-CB	-7.02	98.52	109.69
1	O	136	ILE	CA-C-N	-7.02	109.64	120.31
1	O	136	ILE	C-N-CA	-7.02	109.64	120.31
1	O	186	LYS	CB-CG-CD	7.02	127.45	111.30
1	O	13	GLN	O-C-N	7.01	131.41	123.27
1	O	99	GLN	O-C-N	7.01	131.66	123.17
1	O	291	ILE	O-C-N	7.01	129.10	121.10
1	C	239	LYS	O-C-N	-7.01	113.76	122.24
1	O	-1	ASN	O-C-N	-7.01	111.79	123.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	O	72	THR	OG1-CB-CG2	7.01	123.31	109.30
1	O	113	MET	N-CA-C	-7.00	104.47	112.87
1	C	20	ILE	N-CA-CB	7.00	118.34	110.72
1	C	86	GLN	O-C-N	7.00	131.80	123.33
1	O	230	LYS	N-CA-CB	-6.99	99.84	110.12
1	O	92	GLY	CA-C-N	-6.99	107.71	121.41
1	O	92	GLY	C-N-CA	-6.99	107.71	121.41
1	C	13	GLN	CB-CA-C	-6.99	100.04	110.24
1	C	181	TYR	N-CA-C	6.98	121.21	109.76
1	C	35	SER	CA-C-N	-6.98	111.62	122.37
1	C	35	SER	C-N-CA	-6.98	111.62	122.37
1	C	132	ARG	NE-CZ-NH1	-6.98	114.52	121.50
1	C	0	THR	N-CA-C	-6.98	98.42	109.23
1	C	96	VAL	CG1-CB-CG2	-6.98	95.45	110.80
1	C	310	TYR	N-CA-C	-6.98	99.98	110.24
1	O	250	ASN	CB-CA-C	6.98	122.42	110.84
1	O	280	TYR	CE1-CZ-OH	6.98	140.83	119.90
1	O	138	ASP	O-C-N	6.97	130.10	122.15
1	C	43	SER	N-CA-C	-6.97	103.76	111.36
1	O	106	GLU	CB-CG-CD	-6.96	100.78	112.60
1	C	165	ILE	CA-CB-CG2	6.95	122.32	110.50
1	C	76	SER	N-CA-C	-6.95	103.71	111.28
1	O	164	GLN	OE1-CD-NE2	6.94	129.54	122.60
1	O	189	VAL	CG1-CB-CG2	-6.94	95.52	110.80
1	O	71	LEU	CD1-CG-CD2	-6.94	95.53	110.80
1	C	323	ALA	CA-C-N	6.94	131.78	121.72
1	C	323	ALA	C-N-CA	6.94	131.78	121.72
1	O	66	HIS	N-CA-C	6.94	119.26	110.24
1	O	107	MET	CB-CG-SD	-6.93	91.90	112.70
1	O	254	THR	O-C-N	-6.93	112.89	122.46
1	O	309	PHE	CD1-CE1-CZ	-6.93	107.53	120.00
1	C	190	TRP	CB-CG-CD2	6.92	136.49	126.80
1	O	137	PHE	O-C-N	-6.92	113.76	122.27
1	C	270	THR	OG1-CB-CG2	-6.91	95.48	109.30
1	O	113	MET	CB-CA-C	6.91	125.34	110.21
1	O	150	VAL	CG1-CB-CG2	-6.91	95.60	110.80
1	O	165	ILE	CA-CB-CG2	6.91	122.24	110.50
1	C	70	GLU	CB-CG-CD	6.91	124.34	112.60
1	O	247	VAL	CB-CA-C	6.91	121.05	110.55
1	C	159	SER	CA-C-O	-6.90	109.07	120.80
1	O	100	MET	O-C-N	-6.89	113.93	122.68
1	O	203	THR	OG1-CB-CG2	-6.89	95.52	109.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	267	TYR	OH-CZ-CE2	-6.89	99.23	119.90
1	C	4	VAL	O-C-N	-6.89	113.96	122.57
1	C	63	SER	CA-C-N	6.88	132.49	120.87
1	C	63	SER	C-N-CA	6.88	132.49	120.87
1	C	83	PHE	CB-CG-CD1	6.87	132.38	120.70
1	O	304	THR	OG1-CB-CG2	-6.87	95.55	109.30
1	C	228	ILE	N-CA-CB	6.87	118.11	110.62
1	O	249	CYS	CB-CA-C	6.87	121.80	110.81
1	O	180	HIS	N-CA-CB	6.86	121.36	110.65
1	C	173	GLN	CA-C-O	-6.86	111.86	119.95
1	C	251	GLU	O-C-N	6.85	129.38	122.12
1	O	69	THR	CA-CB-CG2	6.85	122.15	110.50
1	C	15	TYR	N-CA-C	6.84	120.66	109.72
1	C	87	ASP	CA-C-O	-6.84	113.99	121.31
1	C	127	GLU	CG-CD-OE1	6.84	134.12	118.40
1	C	22	THR	C-N-CD	-6.83	105.57	120.60
1	C	261	HIS	CA-CB-CG	-6.83	106.97	113.80
1	O	227	SER	CB-CA-C	6.83	123.77	110.67
1	O	154	TYR	CG-CD2-CE2	6.82	131.44	121.20
1	C	23	PRO	N-CD-CG	-6.82	95.62	103.80
1	C	89	ILE	CA-CB-CG2	-6.82	98.91	110.50
1	O	190	TRP	CB-CG-CD1	-6.82	116.67	126.90
1	C	65	LYS	CB-CG-CD	-6.81	95.63	111.30
1	O	238	LYS	CG-CD-CE	6.81	126.97	111.30
1	O	239	LYS	CA-C-O	-6.81	113.54	120.96
1	C	121	VAL	O-C-N	-6.81	112.33	122.20
1	C	205	LEU	CA-C-O	-6.81	114.16	121.45
1	O	145	VAL	CA-C-N	-6.81	108.26	121.06
1	O	145	VAL	C-N-CA	-6.81	108.26	121.06
1	O	70	GLU	CA-CB-CG	-6.80	100.50	114.10
1	O	190	TRP	CG-CD2-CE3	6.80	140.70	133.90
1	O	114	LEU	N-CA-CB	6.79	120.51	110.33
1	O	276	PHE	CB-CG-CD2	6.79	132.24	120.70
1	O	281(D)	LEU	CA-C-N	6.78	132.36	123.00
1	O	281(D)	LEU	C-N-CA	6.78	132.36	123.00
1	C	84	LEU	N-CA-C	6.78	121.35	109.96
1	O	289	MET	CA-C-N	-6.78	111.89	121.72
1	O	289	MET	C-N-CA	-6.78	111.89	121.72
1	C	294	PRO	N-CA-C	-6.78	98.51	112.47
1	O	238	LYS	CB-CG-CD	6.77	126.88	111.30
1	C	250	ASN	N-CA-CB	-6.77	100.14	110.16
1	O	241	LEU	CA-C-O	6.76	130.18	120.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	259	SER	CB-CA-C	6.76	123.50	109.38
1	O	180	HIS	CB-CG-CD2	-6.76	122.42	131.20
1	O	57	ASP	N-CA-C	6.75	120.31	108.56
1	O	302	GLY	O-C-N	-6.75	116.28	122.96
1	C	45	CYS	CB-CA-C	-6.75	99.38	109.90
1	O	112	PHE	CZ-CE2-CD2	-6.75	107.86	120.00
1	C	205	LEU	CA-C-N	6.73	134.40	121.54
1	C	205	LEU	C-N-CA	6.73	134.40	121.54
1	C	315	ARG	O-C-N	6.73	132.18	122.28
1	C	201	SER	CA-C-N	-6.72	111.33	122.21
1	C	201	SER	C-N-CA	-6.72	111.33	122.21
1	C	190	TRP	CE2-CD2-CE3	-6.71	112.09	118.80
1	C	47	ARG	N-CA-C	-6.71	105.07	112.72
1	C	80	VAL	O-C-N	-6.71	115.61	123.05
1	C	63	SER	N-CA-C	6.70	121.61	113.17
1	O	47	ARG	NH1-CZ-NH2	-6.70	110.59	119.30
1	C	22	THR	CA-C-N	6.70	143.08	127.00
1	C	22	THR	C-N-CA	6.70	143.08	127.00
1	C	193	GLN	N-CA-CB	-6.69	99.88	109.85
1	C	316	ARG	CA-C-O	-6.68	112.28	119.97
1	C	258	ILE	N-CA-C	-6.68	98.50	108.46
1	O	254	THR	N-CA-C	6.67	121.02	113.01
1	C	10	MET	N-CA-CB	-6.67	102.01	112.08
1	C	55	LEU	CA-C-N	-6.67	113.91	122.77
1	C	55	LEU	C-N-CA	-6.67	113.91	122.77
1	O	48	THR	CA-CB-OG1	6.67	119.60	109.60
1	O	96	VAL	CA-CB-CG2	6.66	121.72	110.40
1	O	135	PRO	CB-CA-C	6.66	120.60	110.75
1	O	295	THR	CA-CB-OG1	-6.66	99.62	109.60
1	C	244	ASP	N-CA-CB	-6.65	100.55	111.66
1	C	281(C)	LYS	N-CA-C	-6.65	96.63	110.80
1	C	294	PRO	CA-C-N	-6.65	110.65	122.42
1	C	294	PRO	C-N-CA	-6.65	110.65	122.42
1	O	156	ASN	O-C-N	-6.65	113.74	122.59
1	O	75	TYR	CB-CG-CD1	-6.63	110.85	120.80
1	C	13	GLN	CA-C-N	6.62	133.13	123.13
1	C	13	GLN	C-N-CA	6.62	133.13	123.13
1	C	255	LEU	CA-C-O	-6.62	113.48	120.70
1	O	195	LYS	N-CA-C	6.61	120.34	112.93
1	O	120	VAL	CB-CA-C	6.61	122.14	110.71
1	O	202	SER	CA-CB-OG	6.61	124.31	111.10
1	O	276	PHE	CZ-CE2-CD2	-6.60	108.11	120.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	83	PHE	CD1-CE1-CZ	-6.60	108.12	120.00
1	C	207	GLU	CA-CB-CG	-6.60	100.90	114.10
1	O	201	SER	CA-C-O	-6.59	112.07	120.31
1	C	166	VAL	CA-CB-CG1	-6.59	99.20	110.40
1	C	281(A)	SER	CB-CA-C	-6.59	97.31	110.42
1	O	251	GLU	N-CA-C	-6.59	104.50	112.54
1	O	148	GLU	CA-CB-CG	-6.59	100.93	114.10
1	O	293	PRO	CA-C-N	-6.58	111.61	119.84
1	O	293	PRO	C-N-CA	-6.58	111.61	119.84
1	C	178	ASN	CA-C-O	-6.58	113.27	121.55
1	C	213	LEU	N-CA-C	-6.57	98.92	109.96
1	O	189	VAL	N-CA-CB	6.57	124.08	111.93
1	O	160(D)	SER	N-CA-CB	6.56	121.65	110.50
1	C	251	GLU	CA-C-O	6.56	127.50	120.55
1	O	298	THR	N-CA-CB	-6.55	101.41	111.56
1	O	143	GLN	CG-CD-OE1	6.55	133.90	120.80
1	O	163	GLY	O-C-N	6.54	130.12	123.78
1	O	307	ARG	N-CA-C	-6.54	104.23	111.82
1	C	132	ARG	CA-C-N	6.53	130.94	121.80
1	C	132	ARG	C-N-CA	6.53	130.94	121.80
1	C	235	LEU	CB-CA-C	-6.53	97.43	110.42
1	O	189	VAL	CB-CA-C	-6.53	100.25	110.69
1	O	275	VAL	CA-C-N	-6.53	113.11	122.77
1	O	275	VAL	C-N-CA	-6.53	113.11	122.77
1	C	28	LYS	O-C-N	-6.52	115.41	123.04
1	O	211	LEU	CA-C-O	-6.52	113.48	121.11
1	C	165	ILE	CB-CA-C	-6.52	100.45	110.95
1	C	187	THR	CA-CB-CG2	-6.52	99.42	110.50
1	C	85	SER	CB-CA-C	6.51	125.88	111.09
1	O	191	GLN	O-C-N	-6.51	114.76	123.23
1	C	120	VAL	CG1-CB-CG2	-6.51	96.48	110.80
1	O	282	CYS	N-CA-C	6.50	119.54	109.07
1	O	277	GLN	OE1-CD-NE2	-6.50	116.10	122.60
1	O	134	THR	CA-C-N	-6.50	114.09	120.52
1	O	134	THR	C-N-CA	-6.50	114.09	120.52
1	C	72	THR	OG1-CB-CG2	6.49	122.29	109.30
1	C	130	ILE	CB-CG1-CD1	-6.49	100.16	113.80
1	C	238	LYS	O-C-N	6.49	130.25	122.20
1	O	114	LEU	CA-CB-CG	-6.49	93.58	116.30
1	C	113	MET	CA-CB-CG	-6.49	101.12	114.10
1	O	207	GLU	N-CA-C	-6.49	101.53	110.35
1	O	278	GLU	O-C-N	6.48	131.21	122.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	109	ALA	CB-CA-C	-6.48	98.23	110.67
1	C	20	ILE	CB-CA-C	-6.47	102.88	110.91
1	C	106	GLU	CB-CA-C	-6.47	100.79	110.24
1	C	123	MET	N-CA-CB	6.47	120.01	110.56
1	C	292	PRO	CA-C-N	6.46	127.04	120.38
1	C	292	PRO	C-N-CA	6.46	127.04	120.38
1	O	77	THR	CA-C-O	-6.46	111.27	120.51
1	C	198	SER	O-C-N	-6.46	115.67	123.29
1	C	191	GLN	OE1-CD-NE2	-6.45	116.15	122.60
1	C	26	THR	CA-CB-OG1	-6.45	99.92	109.60
1	O	102	GLY	CA-C-N	-6.45	114.02	123.05
1	O	102	GLY	C-N-CA	-6.45	114.02	123.05
1	C	123	MET	O-C-N	6.45	130.07	122.34
1	C	8	ASN	CA-C-N	6.44	132.47	123.07
1	C	8	ASN	C-N-CA	6.44	132.47	123.07
1	O	20	ILE	O-C-N	-6.44	116.42	123.18
1	O	311	THR	N-CA-C	6.44	119.90	109.40
1	O	131	GLY	CA-C-O	-6.44	111.82	118.97
1	O	117	PHE	CD1-CG-CD2	-6.44	108.94	118.60
1	C	21	GLY	N-CA-C	6.44	128.44	113.18
1	C	104	VAL	CA-C-O	-6.44	113.44	120.71
1	C	326	ARG	N-CA-C	-6.44	92.98	111.00
1	C	247	VAL	N-CA-CB	-6.43	101.63	112.44
1	O	132	ARG	N-CA-C	-6.43	102.37	111.24
1	C	158	ASP	CA-CB-CG	-6.43	106.17	112.60
1	O	273	ASP	CA-C-O	-6.43	111.32	120.51
1	C	53	HIS	CA-CB-CG	-6.43	107.37	113.80
1	C	213	LEU	CA-C-O	-6.43	113.53	120.92
1	C	285	ALA	N-CA-C	6.43	119.78	112.97
1	O	277	GLN	CB-CG-CD	6.43	123.53	112.60
1	C	22	THR	N-CA-C	6.42	124.01	109.81
1	C	319	ARG	NE-CZ-NH2	-6.42	113.42	119.20
1	C	91	VAL	N-CA-C	-6.41	99.19	108.17
1	O	136	ILE	O-C-N	-6.41	115.65	121.87
1	C	7	THR	CA-CB-OG1	6.41	119.22	109.60
1	O	181	TYR	CG-CD2-CE2	-6.41	111.58	121.20
1	O	121	VAL	CG1-CB-CG2	-6.41	96.70	110.80
1	O	117	PHE	CB-CA-C	-6.40	98.20	110.24
1	C	166	VAL	CA-C-O	-6.40	113.45	120.43
1	C	186	LYS	CA-C-O	6.39	129.65	120.51
1	O	105	THR	CA-C-N	-6.39	112.88	122.47
1	O	105	THR	C-N-CA	-6.39	112.88	122.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	109	ALA	CA-C-O	6.39	127.32	119.97
1	C	317	ASN	OD1-CG-ND2	-6.39	116.21	122.60
1	C	59	SER	CA-C-O	6.39	131.92	120.42
1	C	299	TRP	CE3-CZ3-CH2	6.39	129.40	121.10
1	O	303	ALA	N-CA-CB	-6.39	100.48	110.06
1	O	287	HIS	CA-CB-CG	-6.38	107.42	113.80
1	C	20	ILE	CA-CB-CG1	6.38	121.25	110.40
1	C	79	THR	CA-C-O	6.38	128.32	121.11
1	O	131	GLY	O-C-N	6.37	129.79	122.33
1	O	326	ARG	N-CA-CB	-6.37	99.67	110.50
1	C	90	THR	CA-C-N	-6.37	115.29	123.19
1	C	90	THR	C-N-CA	-6.37	115.29	123.19
1	C	306	ILE	CA-CB-CG1	6.37	121.23	110.40
1	C	322	PHE	O-C-N	-6.37	114.89	123.10
1	O	70	GLU	CA-C-N	-6.37	112.69	122.62
1	O	70	GLU	C-N-CA	-6.37	112.69	122.62
1	C	77	THR	O-C-N	6.37	130.72	122.19
1	C	68	GLY	CA-C-O	-6.36	112.84	119.27
1	C	313	PHE	CG-CD1-CE1	-6.36	109.89	120.70
1	O	283	THR	CA-C-N	-6.36	111.73	122.92
1	O	283	THR	C-N-CA	-6.36	111.73	122.92
1	C	182	ILE	N-CA-C	-6.35	98.48	107.75
1	C	270	THR	CA-C-N	6.35	129.65	120.38
1	C	270	THR	C-N-CA	6.35	129.65	120.38
1	C	105	THR	CA-CB-OG1	-6.34	100.08	109.60
1	C	116	GLU	CG-CD-OE1	6.34	132.99	118.40
1	C	188	GLY	O-C-N	-6.34	114.83	122.38
1	C	110	LEU	N-CA-CB	-6.34	99.27	110.05
1	O	99	GLN	CB-CA-C	-6.34	96.13	110.07
1	C	258	ILE	CA-CB-CG1	-6.34	99.63	110.40
1	C	132	ARG	CG-CD-NE	6.33	125.92	112.00
1	O	289	MET	CG-SD-CE	-6.33	86.98	100.90
1	C	25	GLN	OE1-CD-NE2	6.32	128.92	122.60
1	C	0	THR	O-C-N	6.32	130.60	123.27
1	O	316	ARG	CA-C-N	6.32	133.82	122.38
1	O	316	ARG	C-N-CA	6.32	133.82	122.38
1	C	187	THR	CA-CB-OG1	6.32	119.08	109.60
1	C	141	ILE	O-C-N	-6.32	113.72	122.31
1	O	259	SER	CA-CB-OG	-6.31	98.47	111.10
1	O	235	LEU	CB-CG-CD1	-6.31	91.78	110.70
1	O	-1	ASN	CA-C-N	-6.30	109.36	122.03
1	O	-1	ASN	C-N-CA	-6.30	109.36	122.03

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	O	131	GLY	N-CA-C	-6.30	105.93	115.00
1	C	79	THR	CA-CB-OG1	-6.30	100.15	109.60
1	O	308	LYS	N-CA-CB	6.30	119.04	110.10
1	O	186	LYS	CB-CA-C	-6.29	97.90	110.42
1	C	31	PHE	CA-C-N	6.29	131.01	122.84
1	C	31	PHE	C-N-CA	6.29	131.01	122.84
1	C	104	VAL	CB-CA-C	-6.29	103.12	110.91
1	C	18	ILE	N-CA-C	-6.28	98.58	108.95
1	O	47(A)	LEU	CD1-CG-CD2	-6.28	96.99	110.80
1	C	72	THR	CA-C-O	-6.28	113.58	120.30
1	C	245	TYR	O-C-N	-6.28	114.42	122.20
1	C	199	VAL	N-CA-C	-6.27	98.71	107.80
1	O	217	GLY	CA-C-N	6.27	132.40	122.62
1	O	217	GLY	C-N-CA	6.27	132.40	122.62
1	C	268	THR	CB-CA-C	-6.27	98.10	109.38
1	O	103	GLU	O-C-N	6.26	130.66	123.27
1	O	63	SER	CA-CB-OG	6.26	123.61	111.10
1	C	116	GLU	CB-CA-C	-6.25	97.41	110.17
1	O	31	PHE	CD1-CG-CD2	-6.25	109.22	118.60
1	O	77	THR	CA-CB-CG2	6.25	121.13	110.50
1	O	181	TYR	CB-CG-CD2	-6.25	111.42	120.80
1	C	108	PRO	CB-CA-C	6.25	119.52	111.64
1	O	165	ILE	CB-CG1-CD1	-6.25	100.67	113.80
1	C	178	ASN	CB-CG-ND2	6.24	125.76	116.40
1	O	230	LYS	CG-CD-CE	6.24	125.65	111.30
1	C	312	GLU	CA-C-N	-6.24	114.48	122.77
1	C	312	GLU	C-N-CA	-6.24	114.48	122.77
1	O	7	THR	O-C-N	-6.23	115.90	123.19
1	O	139	ASN	CA-C-N	6.23	128.54	120.56
1	O	139	ASN	C-N-CA	6.23	128.54	120.56
1	O	244	ASP	CA-C-O	6.23	129.42	120.51
1	O	28	LYS	N-CA-CB	6.23	120.03	109.87
1	O	283	THR	CA-CB-OG1	-6.23	100.25	109.60
1	C	63	SER	N-CA-CB	-6.23	101.27	110.49
1	O	90	THR	OG1-CB-CG2	-6.23	96.84	109.30
1	C	215	ASP	N-CA-CB	-6.22	101.38	110.84
1	C	228	ILE	N-CA-C	-6.22	104.26	110.30
1	O	74	ARG	CA-C-N	-6.22	109.63	122.82
1	O	74	ARG	C-N-CA	-6.22	109.63	122.82
1	O	255	LEU	O-C-N	-6.22	114.69	121.53
1	C	169	GLY	N-CA-C	6.21	120.81	111.42
1	O	105	THR	CA-CB-OG1	-6.21	100.28	109.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	O	154	TYR	CD1-CG-CD2	-6.21	108.78	118.10
1	O	314	ASP	O-C-N	6.21	131.21	123.14
1	C	241	LEU	CB-CA-C	-6.21	98.07	110.42
1	O	281(C)	LYS	N-CA-C	6.21	119.14	109.52
1	C	318	ASN	OD1-CG-ND2	-6.20	116.40	122.60
1	O	262	LEU	CB-CG-CD1	-6.20	92.10	110.70
1	O	172	PRO	CB-CA-C	6.19	120.39	111.04
1	O	18	ILE	CB-CG1-CD1	-6.19	100.79	113.80
1	C	291	ILE	CB-CG1-CD1	-6.19	100.80	113.80
1	C	89	ILE	O-C-N	-6.19	116.48	123.10
1	C	208	ASP	N-CA-CB	-6.19	101.13	110.91
1	C	193	GLN	OE1-CD-NE2	6.18	128.78	122.60
1	C	70	GLU	CA-CB-CG	6.18	126.46	114.10
1	O	128	GLN	O-C-N	-6.18	114.92	122.34
1	C	46	SER	CB-CA-C	-6.18	98.56	109.62
1	O	39	TRP	CA-C-N	6.17	133.55	122.13
1	O	39	TRP	C-N-CA	6.17	133.55	122.13
1	O	92	GLY	CA-C-O	6.17	130.04	121.40
1	O	295	THR	N-CA-CB	-6.17	100.90	109.91
1	C	187	THR	CA-C-O	6.17	128.42	121.51
1	O	61	SER	CA-C-O	6.17	127.20	119.98
1	C	254	THR	OG1-CB-CG2	6.16	121.63	109.30
1	C	145	VAL	N-CA-CB	-6.16	101.06	111.23
1	O	114	LEU	CB-CA-C	-6.16	97.28	109.67
1	C	41	PRO	O-C-N	-6.16	115.37	123.13
1	O	266	GLU	CG-CD-OE2	6.16	132.57	118.40
1	C	251	GLU	OE1-CD-OE2	-6.15	108.14	122.90
1	O	270	THR	CA-C-O	-6.14	114.43	121.68
1	C	125	PHE	O-C-N	-6.14	115.71	122.84
1	C	123	MET	CA-C-N	6.14	130.32	121.54
1	C	123	MET	C-N-CA	6.14	130.32	121.54
1	O	313	PHE	CE1-CZ-CE2	6.14	131.05	120.00
1	C	125	PHE	CA-CB-CG	6.13	119.93	113.80
1	C	142	SER	CA-C-O	6.13	127.02	119.79
1	O	29	VAL	N-CA-CB	6.13	123.28	111.93
1	O	314	ASP	CA-CB-CG	6.13	118.73	112.60
1	C	9	TYR	CB-CG-CD2	6.13	129.99	120.80
1	O	281(A)	SER	CA-CB-OG	6.13	123.36	111.10
1	O	199	VAL	N-CA-CB	6.13	118.34	110.99
1	O	164	GLN	CG-CD-NE2	6.12	125.59	116.40
1	O	250	ASN	CA-C-O	6.12	128.19	121.02
1	C	156	ASN	OD1-CG-ND2	-6.12	116.48	122.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	288	ALA	N-CA-CB	6.12	120.61	110.52
1	C	55	LEU	CA-C-O	6.12	128.07	121.16
1	O	67	ASN	CB-CG-OD1	-6.11	108.57	120.80
1	C	48	THR	CA-CB-OG1	-6.11	100.43	109.60
1	C	41	PRO	N-CA-CB	6.11	109.07	103.15
1	C	117	PHE	N-CA-CB	-6.11	100.69	110.46
1	C	159	SER	CA-C-N	-6.11	103.98	116.20
1	C	296	GLY	N-CA-C	-6.10	99.89	112.34
1	O	317	ASN	CB-CG-ND2	6.10	125.55	116.40
1	O	157	ARG	CB-CG-CD	6.10	125.33	111.30
1	O	13	GLN	N-CA-C	-6.09	99.79	109.23
1	O	204	LEU	N-CA-CB	6.09	119.03	110.07
1	C	269	LEU	O-C-N	-6.09	116.05	123.30
1	O	286	ILE	CA-C-O	-6.09	114.12	120.27
1	O	64	TYR	CZ-CE2-CD2	-6.08	108.65	119.60
1	C	249	CYS	N-CA-CB	6.08	121.03	110.39
1	O	323	ALA	CB-CA-C	-6.08	98.26	110.30
1	C	77	THR	N-CA-CB	-6.08	102.72	111.54
1	C	32	ASP	CB-CA-C	-6.08	101.06	110.78
1	C	222	SER	CA-C-O	6.07	128.26	121.40
1	C	203	THR	CA-C-N	-6.07	111.54	120.28
1	C	203	THR	C-N-CA	-6.07	111.54	120.28
1	O	276	PHE	CB-CA-C	-6.07	101.54	111.68
1	C	68	GLY	CA-C-N	-6.07	111.42	120.94
1	C	68	GLY	C-N-CA	-6.07	111.42	120.94
1	C	84	LEU	N-CA-CB	-6.07	100.40	110.23
1	C	189	VAL	CA-CB-CG2	-6.06	100.09	110.40
1	O	25	GLN	CG-CD-NE2	-6.06	107.31	116.40
1	C	191	GLN	N-CA-CB	-6.06	100.17	110.16
1	O	64	TYR	CG-CD2-CE2	6.06	130.29	121.20
1	O	216	THR	CA-CB-OG1	6.06	118.68	109.60
1	C	1	THR	CB-CA-C	6.05	123.39	110.07
1	O	51	VAL	N-CA-C	6.05	116.83	110.72
1	O	216	THR	CA-C-O	6.05	126.92	119.05
1	O	197	VAL	CA-C-O	6.05	126.74	120.39
1	O	110	LEU	CA-C-O	6.04	128.43	120.16
1	O	289	MET	N-CA-CB	6.04	120.16	110.86
1	C	250	ASN	CA-CB-CG	6.04	118.64	112.60
1	C	64	TYR	CB-CG-CD1	6.03	129.85	120.80
1	C	257	ASP	CB-CG-OD1	6.03	132.27	118.40
1	O	114	LEU	CA-C-N	-6.03	112.15	120.71
1	O	114	LEU	C-N-CA	-6.03	112.15	120.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	O	276	PHE	CG-CD2-CE2	6.03	130.95	120.70
1	C	233	GLU	N-CA-CB	6.03	118.98	110.12
1	O	37	ASN	CA-C-N	6.02	130.66	123.19
1	O	37	ASN	C-N-CA	6.02	130.66	123.19
1	O	112	PHE	CE1-CZ-CE2	6.02	130.84	120.00
1	O	154	TYR	OH-CZ-CE2	6.02	137.96	119.90
1	O	191	GLN	CA-CB-CG	6.02	126.14	114.10
1	O	244	ASP	CB-CG-OD2	-6.02	104.56	118.40
1	C	173	GLN	CG-CD-OE1	-6.02	108.77	120.80
1	O	33	THR	CB-CA-C	6.01	120.83	110.01
1	C	26	THR	CB-CA-C	6.01	119.93	110.19
1	C	279	SER	N-CA-CB	-6.01	101.54	111.69
1	O	135	PRO	N-CA-CB	-6.01	95.40	103.15
1	O	281	SER	N-CA-CB	6.01	119.13	109.28
1	O	214	VAL	CA-C-N	-6.00	114.64	123.05
1	O	214	VAL	C-N-CA	-6.00	114.64	123.05
1	C	313	PHE	CD1-CE1-CZ	6.00	130.80	120.00
1	O	71	LEU	CA-C-O	-6.00	114.09	121.11
1	O	193	GLN	CA-C-N	5.99	131.44	122.99
1	O	193	GLN	C-N-CA	5.99	131.44	122.99
1	O	265	LYS	N-CA-C	-5.99	100.86	110.14
1	C	35	SER	CA-CB-OG	-5.98	99.14	111.10
1	O	206	CYS	CA-C-N	-5.98	111.72	120.75
1	O	206	CYS	C-N-CA	-5.98	111.72	120.75
1	C	67	ASN	O-C-N	-5.98	114.64	122.59
1	O	35	SER	CB-CA-C	-5.97	97.74	111.95
1	O	47(A)	LEU	N-CA-C	-5.97	104.85	111.36
1	O	64	TYR	CB-CA-C	5.97	119.31	109.70
1	O	313	PHE	CZ-CE2-CD2	-5.97	109.25	120.00
1	C	89	ILE	CA-C-O	5.97	127.35	120.67
1	C	295	THR	CA-C-O	-5.96	111.61	119.06
1	O	151	PHE	N-CA-C	-5.96	98.54	108.32
1	O	263	GLY	O-C-N	-5.96	114.42	122.35
1	O	1	THR	N-CA-CB	-5.96	100.43	111.52
1	O	308	LYS	CA-CB-CG	-5.96	102.17	114.10
1	C	107	MET	CB-CG-SD	5.96	130.58	112.70
1	O	262	LEU	CD1-CG-CD2	-5.96	97.69	110.80
1	C	41	PRO	CB-CA-C	5.96	119.15	110.63
1	O	165	ILE	CB-CA-C	-5.96	101.36	110.95
1	C	238	LYS	CA-CB-CG	-5.95	102.19	114.10
1	O	215	ASP	N-CA-CB	-5.95	101.20	110.55
1	C	117	PHE	CB-CA-C	5.95	120.25	109.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	O	39	TRP	CB-CG-CD1	-5.95	117.97	126.90
1	C	23	PRO	O-C-N	5.95	132.41	121.10
1	C	102	GLY	CA-C-N	5.95	130.57	122.84
1	C	102	GLY	C-N-CA	5.95	130.57	122.84
1	O	155	TYR	N-CA-CB	-5.95	101.38	110.65
1	O	164	GLN	CA-C-N	-5.94	113.77	122.68
1	O	164	GLN	C-N-CA	-5.94	113.77	122.68
1	O	323	ALA	N-CA-C	-5.94	100.39	109.41
1	C	65	LYS	O-C-N	5.94	131.47	123.34
1	C	141	ILE	CA-CB-CG1	5.93	120.48	110.40
1	O	145	VAL	CA-C-O	-5.93	113.37	120.78
1	O	191	GLN	CB-CG-CD	-5.93	102.53	112.60
1	O	193	GLN	CA-CB-CG	5.93	125.95	114.10
1	O	207	GLU	CB-CA-C	-5.93	99.01	109.62
1	C	120	VAL	N-CA-C	5.92	117.22	108.45
1	O	266	GLU	CG-CD-OE1	-5.92	104.77	118.40
1	C	240	ARG	CB-CA-C	5.92	122.20	110.42
1	C	201	SER	CB-CA-C	-5.91	99.70	109.99
1	C	113	MET	CA-C-O	5.91	126.73	119.05
1	O	146	LEU	N-CA-CB	5.91	118.47	110.38
1	O	70	GLU	CA-C-O	5.91	127.40	120.96
1	C	86	GLN	CA-C-O	-5.91	113.51	120.60
1	C	56	PHE	CB-CA-C	5.90	119.75	110.19
1	C	293	PRO	CA-CB-CG	-5.90	93.28	104.50
1	O	265	LYS	N-CA-CB	-5.90	101.76	110.85
1	O	265	LYS	CB-CA-C	5.90	120.33	109.71
1	C	181	TYR	O-C-N	5.89	130.09	123.19
1	C	132	ARG	N-CA-C	-5.87	103.82	111.74
1	C	254	THR	N-CA-CB	-5.87	99.85	110.88
1	C	16	GLY	N-CA-C	-5.87	99.28	113.18
1	C	309	PHE	CB-CG-CD2	-5.87	110.73	120.70
1	C	202	SER	O-C-N	-5.86	116.07	123.17
1	C	97	THR	N-CA-C	-5.86	98.97	108.52
1	C	221	ILE	N-CA-C	-5.86	99.98	108.36
1	O	183	ASN	O-C-N	5.86	130.21	122.95
1	O	240	ARG	CG-CD-NE	-5.86	99.11	112.00
1	C	-1	ASN	N-CA-CB	5.86	120.39	110.49
1	O	324	LEU	CA-C-O	-5.85	114.76	121.19
1	O	32	ASP	CB-CA-C	-5.84	98.21	109.37
1	C	170	SER	CA-CB-OG	5.84	122.78	111.10
1	O	314	ASP	N-CA-CB	-5.84	101.79	110.90
1	O	240	ARG	O-C-N	5.84	130.35	122.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	33	THR	CA-CB-OG1	5.83	118.34	109.60
1	C	148	GLU	CA-CB-CG	-5.83	102.44	114.10
1	O	312	GLU	CG-CD-OE2	-5.83	104.99	118.40
1	C	61	SER	CA-CB-OG	-5.83	99.45	111.10
1	O	176	GLU	CG-CD-OE1	5.83	131.80	118.40
1	C	14	TYR	CA-CB-CG	5.82	124.38	113.90
1	O	134	THR	CA-CB-CG2	-5.82	100.60	110.50
1	C	267	TYR	CB-CA-C	5.82	121.19	111.30
1	C	275	VAL	CA-C-O	-5.82	114.01	121.40
1	C	200	GLY	CA-C-O	5.82	130.69	120.57
1	C	222	SER	CB-CA-C	-5.82	97.27	110.07
1	C	231	LEU	N-CA-CB	-5.82	100.97	109.82
1	O	10	MET	N-CA-C	5.82	119.96	112.86
1	O	240	ARG	NE-CZ-NH1	-5.82	115.68	121.50
1	C	47	ARG	N-CA-CB	5.81	119.36	110.70
1	O	39	TRP	CH2-CZ2-CE2	-5.81	109.94	117.50
1	O	39	TRP	N-CA-CB	5.80	121.63	111.13
1	O	160(D)	SER	CA-C-O	-5.80	110.94	120.80
1	O	140	ILE	CA-C-N	5.79	132.40	121.97
1	O	140	ILE	C-N-CA	5.79	132.40	121.97
1	C	162	GLY	O-C-N	-5.79	115.17	122.70
1	O	18	ILE	O-C-N	-5.79	116.48	123.02
1	O	320	ILE	O-C-N	-5.79	117.01	123.26
1	O	76	SER	CA-C-O	-5.79	112.05	119.80
1	O	197	VAL	N-CA-CB	5.79	119.39	111.41
1	O	57	ASP	CB-CG-OD2	-5.78	105.10	118.40
1	O	205	LEU	CB-CA-C	5.78	122.52	111.48
1	C	315	ARG	CD-NE-CZ	5.78	132.49	124.40
1	O	9	TYR	O-C-N	-5.78	116.17	123.05
1	O	145	VAL	O-C-N	-5.78	115.35	122.57
1	O	266	GLU	CA-CB-CG	5.77	125.65	114.10
1	C	304	THR	N-CA-CB	5.77	118.72	110.06
1	C	37	ASN	N-CA-CB	-5.77	101.62	110.85
1	C	310	TYR	CD1-CE1-CZ	-5.77	109.22	119.60
1	C	218	ALA	O-C-N	-5.77	115.89	123.21
1	O	59	SER	CA-C-N	5.77	132.56	121.54
1	O	59	SER	C-N-CA	5.77	132.56	121.54
1	C	164	GLN	CB-CA-C	-5.77	98.95	110.42
1	C	248	LYS	CA-C-N	-5.76	109.77	121.18
1	C	248	LYS	C-N-CA	-5.76	109.77	121.18
1	O	320	ILE	CA-C-O	-5.76	114.34	120.39
1	C	83	PHE	CG-CD1-CE1	5.76	130.49	120.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	O	204	LEU	CA-C-O	5.76	126.85	120.80
1	C	121	VAL	CA-CB-CG2	5.76	120.19	110.40
1	C	299	TRP	CD2-CE3-CZ3	-5.76	111.12	118.60
1	O	41	PRO	O-C-N	-5.76	115.98	123.00
1	O	64	TYR	CG-CD1-CE1	-5.75	112.57	121.20
1	O	197	VAL	CA-C-N	-5.75	114.89	123.00
1	O	197	VAL	C-N-CA	-5.75	114.89	123.00
1	C	5	ILE	CB-CG1-CD1	5.75	125.88	113.80
1	O	188	GLY	CA-C-N	5.75	131.83	122.69
1	O	188	GLY	C-N-CA	5.75	131.83	122.69
1	C	195	LYS	O-C-N	5.75	131.61	122.41
1	O	151	PHE	CA-CB-CG	-5.74	108.06	113.80
1	O	299	TRP	N-CA-C	-5.74	101.98	110.48
1	C	99	GLN	CB-CA-C	5.74	121.37	109.38
1	O	170	SER	CA-C-O	-5.74	114.93	121.58
1	O	75	TYR	CA-C-N	5.73	132.00	122.66
1	O	75	TYR	C-N-CA	5.73	132.00	122.66
1	O	326	ARG	CA-CB-CG	-5.73	102.63	114.10
1	O	173	GLN	CB-CG-CD	5.73	122.34	112.60
1	O	20	ILE	CB-CG1-CD1	-5.73	101.77	113.80
1	C	118	ASP	CA-CB-CG	5.72	118.32	112.60
1	O	308	LYS	O-C-N	5.72	128.86	122.11
1	C	58	ALA	CA-C-O	5.72	126.04	119.35
1	C	279	SER	CA-C-N	-5.72	112.59	122.14
1	C	279	SER	C-N-CA	-5.72	112.59	122.14
1	C	3	SER	CA-C-N	-5.71	111.68	121.97
1	C	3	SER	C-N-CA	-5.71	111.68	121.97
1	C	31	PHE	CA-C-O	5.71	126.48	120.54
1	O	94	ILE	N-CA-CB	-5.71	101.90	111.38
1	O	139	ASN	CA-C-O	-5.71	114.37	120.42
1	C	67	ASN	CB-CG-OD1	-5.71	109.39	120.80
1	C	8	ASN	O-C-N	5.70	129.72	123.22
1	O	265	LYS	CA-CB-CG	-5.70	102.70	114.10
1	C	231	LEU	CA-C-O	5.70	127.34	121.07
1	C	47(A)	LEU	CB-CA-C	5.70	119.21	109.24
1	C	17	GLU	CB-CG-CD	-5.69	102.92	112.60
1	O	58	ALA	N-CA-C	5.69	122.93	110.80
1	O	294	PRO	N-CA-CB	-5.69	97.27	103.25
1	O	143	GLN	CB-CA-C	-5.69	98.56	110.17
1	C	54	LYS	CA-C-N	5.69	132.03	122.87
1	C	54	LYS	C-N-CA	5.69	132.03	122.87
1	C	242	PHE	CA-CB-CG	-5.69	108.11	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	287	HIS	CG-ND1-CE1	-5.68	99.64	109.30
1	C	127	GLU	CG-CD-OE2	-5.68	105.33	118.40
1	C	70	GLU	CG-CD-OE2	-5.68	105.35	118.40
1	O	282	CYS	CA-C-N	5.66	130.79	121.39
1	O	282	CYS	C-N-CA	5.66	130.79	121.39
1	C	178	ASN	CB-CG-OD1	-5.66	109.48	120.80
1	C	183	ASN	CB-CG-OD1	5.66	132.12	120.80
1	O	186	LYS	N-CA-C	-5.65	98.76	110.80
1	O	1	THR	CA-CB-OG1	-5.65	101.12	109.60
1	C	109	ALA	N-CA-C	5.65	118.37	111.82
1	O	194	MET	CG-SD-CE	5.65	113.32	100.90
1	C	7	THR	CA-CB-CG2	5.65	120.10	110.50
1	O	85	SER	CB-CA-C	5.64	125.19	111.65
1	O	174	HIS	N-CA-CB	-5.64	101.89	111.20
1	C	202	SER	CA-C-O	5.64	127.77	121.40
1	C	319	ARG	NH1-CZ-NH2	-5.64	111.97	119.30
1	O	71	LEU	N-CA-CB	-5.64	101.11	111.37
1	C	97	THR	O-C-N	5.64	129.92	123.27
1	O	25	GLN	CB-CA-C	-5.64	100.81	110.22
1	C	179	PHE	O-C-N	5.63	129.25	122.94
1	O	35	SER	O-C-N	5.63	129.51	122.92
1	C	47	ARG	NH1-CZ-NH2	5.62	126.61	119.30
1	C	130	ILE	CA-CB-CG1	-5.62	100.85	110.40
1	O	205	LEU	N-CA-C	5.62	118.04	109.95
1	O	19	GLY	N-CA-C	-5.62	99.87	113.18
1	C	315	ARG	NE-CZ-NH2	5.61	124.25	119.20
1	O	319	ARG	CA-C-N	5.61	130.49	123.14
1	O	319	ARG	C-N-CA	5.61	130.49	123.14
1	O	158	ASP	O-C-N	5.61	131.97	123.00
1	O	18	ILE	CA-C-O	5.61	127.18	121.63
1	C	89	ILE	N-CA-C	-5.60	100.11	108.46
1	C	72	THR	CA-CB-OG1	-5.60	101.20	109.60
1	C	85	SER	N-CA-C	5.59	117.29	108.96
1	C	3	SER	CB-CA-C	-5.59	98.04	109.38
1	C	242	PHE	CA-C-N	-5.59	112.08	121.75
1	C	242	PHE	C-N-CA	-5.59	112.08	121.75
1	O	80	VAL	CA-CB-CG2	-5.58	100.91	110.40
1	C	281(C)	LYS	CB-CG-CD	5.58	124.13	111.30
1	O	17	GLU	CG-CD-OE1	5.58	131.22	118.40
1	O	105	THR	N-CA-CB	5.57	118.98	110.95
1	O	275	VAL	CA-CB-CG2	-5.57	100.93	110.40
1	O	2	SER	O-C-N	-5.57	115.90	123.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	O	28	LYS	N-CA-C	-5.57	100.73	109.25
1	C	196	GLY	O-C-N	-5.57	115.46	122.70
1	C	325	ALA	N-CA-CB	-5.57	101.86	110.04
1	C	23	PRO	CB-CG-CD	5.57	118.20	105.40
1	O	44	LYS	CB-CG-CD	5.57	124.10	111.30
1	O	75	TYR	O-C-N	5.55	128.31	122.20
1	O	311	THR	CA-CB-CG2	5.55	119.94	110.50
1	C	157	ARG	NE-CZ-NH1	5.55	127.05	121.50
1	C	66	HIS	CB-CA-C	-5.55	100.51	109.72
1	C	118	ASP	CB-CG-OD1	5.55	131.16	118.40
1	O	124	GLY	N-CA-C	5.55	121.08	112.60
1	C	157	ARG	NH1-CZ-NH2	-5.54	112.09	119.30
1	O	192	ILE	N-CA-CB	-5.54	102.08	111.23
1	C	311	THR	O-C-N	-5.54	116.02	123.23
1	O	34	GLY	O-C-N	5.54	128.71	122.34
1	O	123	MET	O-C-N	-5.54	115.44	122.26
1	C	313	PHE	N-CA-CB	-5.54	101.39	110.42
1	O	43	SER	CA-CB-OG	-5.53	100.04	111.10
1	O	285	ALA	CB-CA-C	5.53	118.02	111.22
1	O	72	THR	CA-C-O	-5.53	114.73	120.70
1	C	112	PHE	CA-CB-CG	-5.52	108.28	113.80
1	C	319	ARG	CA-C-N	5.52	130.37	123.14
1	C	319	ARG	C-N-CA	5.52	130.37	123.14
1	O	14	TYR	O-C-N	-5.52	116.22	123.28
1	C	58	ALA	O-C-N	-5.51	115.45	122.34
1	C	6	LEU	CD1-CG-CD2	5.50	122.91	110.80
1	O	135	PRO	CA-C-O	5.50	129.40	122.15
1	O	185	ILE	CA-C-O	5.49	126.73	119.53
1	C	266	GLU	O-C-N	5.49	129.69	123.27
1	C	104	VAL	CA-C-N	5.49	130.85	122.29
1	C	104	VAL	C-N-CA	5.49	130.85	122.29
1	O	139	ASN	CA-CB-CG	-5.49	107.11	112.60
1	O	87	ASP	CB-CG-OD1	5.48	131.01	118.40
1	C	17	GLU	OE1-CD-OE2	-5.48	109.75	122.90
1	O	242	PHE	CB-CA-C	5.48	120.11	110.36
1	O	29	VAL	O-C-N	5.47	128.86	123.00
1	C	271	SER	O-C-N	-5.47	115.96	122.20
1	C	104	VAL	CA-CB-CG1	5.47	119.70	110.40
1	C	195	LYS	CB-CG-CD	5.47	123.88	111.30
1	O	47(B)	TYR	CA-C-O	5.47	126.78	120.60
1	C	59	SER	N-CA-C	-5.46	105.29	112.72
1	O	72	THR	N-CA-CB	-5.46	101.32	110.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	83	PHE	CB-CG-CD2	-5.46	111.42	120.70
1	C	108	PRO	CA-CB-CG	-5.46	94.13	104.50
1	C	184	LEU	CB-CA-C	5.46	118.74	109.84
1	C	253	PRO	O-C-N	5.46	130.01	122.64
1	O	136	ILE	CA-CB-CG1	5.45	119.66	110.40
1	O	267	TYR	CA-C-O	-5.44	114.64	120.46
1	C	263	GLY	CA-C-O	5.44	130.04	120.57
1	C	306	ILE	CA-CB-CG2	5.44	119.75	110.50
1	O	132	ARG	CA-CB-CG	-5.44	103.22	114.10
1	O	240	ARG	CA-C-N	-5.43	111.16	121.54
1	O	240	ARG	C-N-CA	-5.43	111.16	121.54
1	O	307	ARG	CB-CA-C	5.43	121.10	110.67
1	O	312	GLU	CA-C-O	-5.43	114.48	120.30
1	C	229	GLU	CB-CG-CD	5.43	121.83	112.60
1	O	150	VAL	CA-CB-CG1	5.43	119.64	110.40
1	C	35	SER	CA-C-O	5.43	127.14	121.38
1	C	38	VAL	CB-CA-C	-5.43	103.45	110.84
1	C	172	PRO	CA-C-O	5.42	130.47	120.60
1	O	53	HIS	CA-CB-CG	-5.42	108.38	113.80
1	O	309	PHE	CB-CA-C	-5.42	101.40	110.19
1	O	133	VAL	CA-CB-CG2	5.42	119.62	110.40
1	C	6	LEU	N-CA-C	5.42	118.54	110.14
1	C	139	ASN	CB-CG-OD1	-5.42	109.96	120.80
1	C	64	TYR	O-C-N	-5.42	116.41	122.75
1	C	58	ALA	CA-C-N	-5.41	112.11	122.61
1	C	58	ALA	C-N-CA	-5.41	112.11	122.61
1	O	44	LYS	N-CA-CB	5.41	119.63	110.49
1	C	278	GLU	CG-CD-OE1	5.41	130.83	118.40
1	C	11	ASP	O-C-N	-5.40	115.41	122.59
1	C	251	GLU	CG-CD-OE2	5.40	130.82	118.40
1	O	222	SER	CA-C-N	-5.40	111.83	121.93
1	O	222	SER	C-N-CA	-5.40	111.83	121.93
1	O	294	PRO	CA-C-N	-5.40	113.52	120.65
1	O	294	PRO	C-N-CA	-5.40	113.52	120.65
1	C	227	SER	CA-C-N	5.40	127.45	120.70
1	C	227	SER	C-N-CA	5.40	127.45	120.70
1	C	167	LEU	CA-C-N	5.40	129.65	120.91
1	C	167	LEU	C-N-CA	5.40	129.65	120.91
1	C	175	TYR	CZ-CE2-CD2	-5.40	109.89	119.60
1	O	308	LYS	N-CA-C	5.40	119.40	111.04
1	C	148	GLU	OE1-CD-OE2	5.39	135.85	122.90
1	O	46	SER	N-CA-C	5.39	118.14	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	270	THR	N-CA-C	-5.39	101.75	110.32
1	O	260	PHE	CD1-CG-CD2	-5.39	110.52	118.60
1	C	220	TYR	CD1-CG-CD2	-5.39	110.02	118.10
1	O	228	ILE	CA-CB-CG2	5.39	119.66	110.50
1	O	245	TYR	N-CA-C	-5.39	101.50	110.17
1	C	11	ASP	CA-C-N	-5.39	113.69	122.26
1	C	11	ASP	C-N-CA	-5.39	113.69	122.26
1	C	322	PHE	CZ-CE2-CD2	5.38	129.69	120.00
1	C	55	LEU	CB-CG-CD2	5.38	126.85	110.70
1	C	251	GLU	N-CA-C	-5.38	105.41	111.28
1	C	230	LYS	N-CA-C	5.38	116.95	111.14
1	C	182	ILE	CA-C-O	5.37	125.97	120.39
1	O	120	VAL	CA-CB-CG1	5.37	119.53	110.40
1	C	88	ILE	CA-C-O	-5.37	114.20	121.02
1	C	48	THR	OG1-CB-CG2	-5.37	98.57	109.30
1	O	38	VAL	N-CA-CB	-5.36	103.96	111.25
1	O	316	ARG	NH1-CZ-NH2	-5.36	112.33	119.30
1	O	179	PHE	CA-C-O	-5.36	115.97	121.87
1	C	238	LYS	CA-C-N	-5.35	114.19	122.49
1	C	238	LYS	C-N-CA	-5.35	114.19	122.49
1	O	111	PRO	N-CA-CB	5.35	108.49	102.60
1	C	44	LYS	CD-CE-NZ	5.35	129.02	111.90
1	C	157	ARG	N-CA-CB	5.35	119.53	110.49
1	C	241	LEU	N-CA-CB	5.35	119.53	110.49
1	O	115	ALA	N-CA-C	5.35	117.98	110.23
1	C	18	ILE	CA-C-O	-5.34	116.06	121.67
1	C	110	LEU	CB-CA-C	5.34	116.10	110.17
1	O	38	VAL	CA-CB-CG2	5.34	119.48	110.40
1	O	170	SER	CA-C-N	-5.34	113.03	122.48
1	O	170	SER	C-N-CA	-5.34	113.03	122.48
1	C	162	GLY	CA-C-N	5.34	128.28	120.91
1	C	162	GLY	C-N-CA	5.34	128.28	120.91
1	O	226	SER	CB-CA-C	-5.34	99.50	110.38
1	C	305	PHE	O-C-N	-5.33	115.92	122.11
1	C	220	TYR	CB-CA-C	5.33	120.27	110.24
1	O	41	PRO	N-CA-CB	-5.33	97.78	103.38
1	O	235	LEU	O-C-N	-5.33	115.47	122.39
1	O	205	LEU	CA-CB-CG	5.32	134.93	116.30
1	O	280	TYR	N-CA-C	-5.32	105.48	113.89
1	C	9	TYR	CB-CG-CD1	-5.32	112.82	120.80
1	C	299	TRP	N-CA-C	-5.31	102.62	110.48
1	O	31	PHE	CE1-CZ-CE2	-5.31	110.44	120.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	O	229	GLU	CB-CG-CD	5.31	121.63	112.60
1	O	169	GLY	CA-C-O	-5.31	116.84	121.04
1	C	57	ASP	CA-CB-CG	-5.31	107.29	112.60
1	C	322	PHE	CG-CD2-CE2	-5.30	111.69	120.70
1	C	319	ARG	CG-CD-NE	-5.30	100.35	112.00
1	C	65	LYS	CA-CB-CG	-5.29	103.51	114.10
1	C	310	TYR	O-C-N	5.29	129.41	123.06
1	O	316	ARG	O-C-N	5.29	127.54	122.03
1	C	71	LEU	N-CA-C	-5.29	99.64	108.32
1	O	114	LEU	CB-CG-CD2	-5.29	94.83	110.70
1	C	292	PRO	CA-CB-CG	-5.29	94.45	104.50
1	C	248	LYS	CA-CB-CG	-5.29	103.52	114.10
1	O	48	THR	N-CA-C	-5.28	104.77	111.11
1	C	277	GLN	CA-C-O	-5.28	112.97	120.51
1	C	153	PHE	N-CA-CB	-5.27	101.66	110.83
1	C	71	LEU	O-C-N	5.27	129.42	123.42
1	C	309	PHE	CA-C-N	5.27	128.58	121.05
1	C	309	PHE	C-N-CA	5.27	128.58	121.05
1	C	144	GLY	CA-C-N	-5.26	112.50	121.97
1	C	144	GLY	C-N-CA	-5.26	112.50	121.97
1	C	239	LYS	CA-C-N	5.26	131.59	121.54
1	C	239	LYS	C-N-CA	5.26	131.59	121.54
1	O	284	LEU	CA-C-O	-5.26	115.19	121.56
1	O	158	ASP	N-CA-CB	5.25	119.43	110.50
1	O	286	ILE	N-CA-CB	-5.25	104.68	111.82
1	C	29	VAL	N-CA-CB	-5.25	101.65	111.62
1	C	88	ILE	CA-CB-CG1	-5.25	101.48	110.40
1	O	58	ALA	N-CA-CB	5.25	119.36	110.49
1	O	316	ARG	N-CA-C	-5.25	105.25	110.97
1	C	175	TYR	CE1-CZ-CE2	5.24	130.79	120.30
1	O	49	ALA	CB-CA-C	-5.24	99.99	110.42
1	O	102	GLY	CA-C-O	5.24	126.07	120.94
1	O	182	ILE	CA-C-O	5.24	124.88	120.22
1	C	128	GLN	CB-CG-CD	5.24	121.50	112.60
1	O	137	PHE	CA-C-O	5.24	125.99	119.97
1	O	166	VAL	O-C-N	-5.24	117.39	122.99
1	C	14	TYR	CA-C-N	5.23	131.03	122.81
1	C	14	TYR	C-N-CA	5.23	131.03	122.81
1	C	166	VAL	CA-C-N	5.22	129.93	122.72
1	C	166	VAL	C-N-CA	5.22	129.93	122.72
1	O	166	VAL	CA-C-O	5.22	126.22	120.48
1	C	35	SER	N-CA-CB	5.22	119.50	111.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	259	SER	CA-C-N	5.22	130.13	122.77
1	C	259	SER	C-N-CA	5.22	130.13	122.77
1	O	0	THR	OG1-CB-CG2	-5.22	98.86	109.30
1	O	86	GLN	CG-CD-NE2	-5.22	108.57	116.40
1	C	301	LEU	CA-C-O	-5.21	115.55	121.39
1	O	262	LEU	O-C-N	5.21	129.51	123.41
1	O	41	PRO	CA-CB-CG	5.21	114.40	104.50
1	C	108	PRO	CA-N-CD	-5.21	104.71	112.00
1	C	187	THR	O-C-N	-5.21	116.40	122.96
1	O	292	PRO	N-CD-CG	-5.21	95.39	103.20
1	C	111	PRO	N-CA-CB	-5.20	96.88	102.60
1	O	195	LYS	CG-CD-CE	5.20	123.27	111.30
1	O	316	ARG	CB-CG-CD	5.20	123.27	111.30
1	O	15	TYR	CZ-CE2-CD2	-5.20	110.24	119.60
1	C	208	ASP	CB-CG-OD1	5.19	130.34	118.40
1	O	184	LEU	CD1-CG-CD2	5.19	122.22	110.80
1	C	216	THR	N-CA-C	5.19	118.87	112.54
1	O	19	GLY	O-C-N	5.19	129.44	122.70
1	O	161	LEU	CA-C-O	5.19	127.07	120.07
1	C	17	GLU	CG-CD-OE2	5.18	130.32	118.40
1	C	311	THR	CA-CB-OG1	5.18	117.38	109.60
1	O	10	MET	CA-C-O	-5.18	114.20	120.32
1	O	89	ILE	CA-CB-CG2	-5.18	101.69	110.50
1	O	279	SER	CB-CA-C	-5.18	100.11	110.42
1	O	142	SER	O-C-N	-5.18	115.63	122.42
1	O	170	SER	O-C-N	-5.17	115.85	122.94
1	C	36	SER	N-CA-C	5.17	120.23	112.94
1	C	173	GLN	OE1-CD-NE2	5.17	127.77	122.60
1	O	121	VAL	CA-CB-CG1	5.16	119.18	110.40
1	O	273	ASP	N-CA-CB	-5.16	101.77	110.49
1	O	315	ARG	N-CA-C	5.16	118.73	112.23
1	C	220	TYR	CG-CD2-CE2	5.16	128.94	121.20
1	O	296	GLY	O-C-N	5.16	126.93	121.77
1	C	91	VAL	CG1-CB-CG2	-5.16	99.45	110.80
1	C	318	ASN	O-C-N	-5.16	115.64	122.40
1	C	258	ILE	CA-CB-CG2	5.16	119.26	110.50
1	O	176	GLU	O-C-N	-5.16	116.66	123.21
1	C	42	SER	O-C-N	5.15	129.65	123.16
1	O	275	VAL	N-CA-C	5.15	116.00	108.53
1	C	257	ASP	CB-CA-C	-5.15	100.82	109.83
1	O	79	THR	CA-C-N	-5.15	114.96	122.58
1	O	79	THR	C-N-CA	-5.15	114.96	122.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	74	ARG	N-CA-C	5.14	117.63	109.24
1	O	90	THR	CB-CA-C	5.14	119.12	109.71
1	C	195	LYS	N-CA-CB	5.14	119.47	110.42
1	O	157	ARG	CB-CA-C	5.14	120.22	110.51
1	O	1	THR	O-C-N	-5.14	117.52	123.33
1	O	311	THR	CA-C-O	-5.13	115.16	120.70
1	O	313	PHE	CA-C-O	-5.13	114.84	120.43
1	C	191	GLN	N-CA-C	5.13	117.97	109.46
1	O	52	TYR	CA-C-N	5.13	131.33	121.54
1	O	52	TYR	C-N-CA	5.13	131.33	121.54
1	O	319	ARG	NE-CZ-NH1	5.13	126.63	121.50
1	C	319	ARG	CA-C-O	-5.12	115.27	121.32
1	C	297	PRO	O-C-N	5.12	130.82	121.10
1	C	225	THR	CA-C-O	5.12	125.88	120.10
1	C	165	ILE	CA-CB-CG1	-5.12	101.70	110.40
1	C	193	GLN	O-C-N	5.12	129.22	122.93
1	C	95	THR	N-CA-CB	-5.11	102.54	110.57
1	O	303	ALA	CB-CA-C	-5.11	101.99	110.68
1	O	57	ASP	CA-C-O	-5.11	116.49	122.37
1	O	294	PRO	N-CA-C	-5.11	101.94	112.47
1	O	316	ARG	CD-NE-CZ	-5.11	117.25	124.40
1	C	242	PHE	CB-CA-C	-5.11	101.11	109.99
1	C	229	GLU	N-CA-CB	-5.10	101.46	109.78
1	C	230	LYS	CA-C-N	5.10	127.88	120.79
1	C	230	LYS	C-N-CA	5.10	127.88	120.79
1	O	20	ILE	CA-CB-CG2	5.10	119.17	110.50
1	O	47	ARG	CA-CB-CG	5.10	124.30	114.10
1	O	97	THR	CB-CA-C	-5.10	101.83	110.19
1	C	123	MET	CG-SD-CE	5.09	112.10	100.90
1	O	119	GLY	CA-C-N	-5.09	115.38	122.71
1	O	119	GLY	C-N-CA	-5.09	115.38	122.71
1	O	281(B)	LYS	CD-CE-NZ	5.09	128.19	111.90
1	O	276	PHE	CG-CD1-CE1	-5.09	112.05	120.70
1	O	276	PHE	N-CA-C	5.09	117.44	107.57
1	C	116	GLU	CB-CG-CD	-5.09	103.95	112.60
1	C	165	ILE	O-C-N	-5.09	117.69	122.98
1	C	139	ASN	CA-CB-CG	5.09	117.69	112.60
1	O	96	VAL	CA-C-O	5.08	127.85	121.40
1	C	237	ALA	CA-C-O	-5.08	115.47	121.66
1	C	188	GLY	CA-C-N	5.07	131.10	121.97
1	C	188	GLY	C-N-CA	5.07	131.10	121.97
1	O	72	THR	CA-CB-CG2	-5.07	101.89	110.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	114	LEU	O-C-N	5.06	128.31	122.19
1	C	228	ILE	CB-CA-C	5.06	118.14	111.81
1	O	165	ILE	O-C-N	-5.06	117.71	122.98
1	O	31	PHE	CG-CD2-CE2	5.06	129.30	120.70
1	O	72	THR	O-C-N	-5.06	116.65	123.23
1	C	165	ILE	CA-C-O	5.06	127.82	121.40
1	O	125	PHE	CE1-CZ-CE2	5.06	129.11	120.00
1	O	244	ASP	CB-CG-OD1	5.06	130.03	118.40
1	O	266	GLU	N-CA-C	-5.06	100.93	109.07
1	C	133	VAL	CA-C-O	-5.05	114.78	120.74
1	C	152	SER	N-CA-C	-5.05	101.69	109.52
1	O	293	PRO	CA-CB-CG	-5.05	94.90	104.50
1	O	190	TRP	CB-CG-CD2	5.05	133.87	126.80
1	O	166	VAL	N-CA-C	-5.05	99.25	107.28
1	C	47	ARG	CA-C-O	5.05	125.78	119.78
1	C	121	VAL	N-CA-CB	-5.05	106.50	112.40
1	O	210	CYS	CB-CA-C	5.04	120.46	110.42
1	O	143	GLN	CB-CG-CD	-5.04	104.03	112.60
1	C	60	ASP	CB-CG-OD1	5.04	130.00	118.40
1	C	134	THR	O-C-N	-5.04	116.11	121.30
1	O	21	GLY	N-CA-C	5.04	118.15	111.70
1	C	64	TYR	CB-CG-CD2	-5.04	113.24	120.80
1	C	54	LYS	O-C-N	-5.04	116.75	122.89
1	O	268	THR	CA-CB-OG1	-5.03	102.05	109.60
1	C	130	ILE	O-C-N	5.03	128.09	122.61
1	O	147	LYS	N-CA-CB	5.03	118.05	110.30
1	C	47	ARG	CD-NE-CZ	5.02	131.43	124.40
1	C	257	ASP	CA-C-N	5.02	129.91	122.94
1	C	257	ASP	C-N-CA	5.02	129.91	122.94
1	C	1	THR	CA-CB-OG1	-5.02	102.08	109.60
1	O	178	ASN	CB-CG-ND2	5.01	123.92	116.40
1	C	47	ARG	CB-CA-C	5.01	119.21	110.94
1	O	80	VAL	CA-CB-CG1	5.01	118.92	110.40
1	O	215	ASP	N-CA-C	5.01	116.68	108.52
1	O	24	PRO	CA-C-N	5.00	129.05	122.30
1	O	24	PRO	C-N-CA	5.00	129.05	122.30

All (7) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	C	182	ILE	CB
1	C	311	THR	CB

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Mol	Chain	Res	Type	Atom
1	O	156	ASN	CA
1	O	183	ASN	CA
1	O	202	SER	CA
1	O	208	ASP	CA
1	O	249	CYS	CA

All (5) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	C	154	TYR	Sidechain
1	C	220	TYR	Sidechain
1	O	157	ARG	Mainchain
1	O	272	ALA	Mainchain
1	O	310	TYR	Sidechain

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	C	2567	0	2499	310	0
1	O	2557	0	2493	373	0
2	C	35	0	43	11	0
2	O	35	0	43	15	0
3	C	15	0	0	3	0
3	O	7	0	0	2	0
All	All	5216	0	5078	685	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 67.

All (685) 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:C:186:LYS:CE	1:C:186:LYS:CD	1.75	1.64
1:C:186:LYS:CD	1:C:186:LYS:CG	1.76	1.61
1:O:204:LEU:CB	1:O:204:LEU:CG	1.79	1.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:281(C):LYS:CD	1:C:281(C):LYS:CE	1.76	1.59
1:O:173:GLN:CG	1:O:173:GLN:CB	1.76	1.59
1:C:278:GLU:CG	1:C:278:GLU:CD	1.75	1.59
1:O:204:LEU:CG	1:O:204:LEU:CD2	1.81	1.58
1:O:238:LYS:CD	1:O:238:LYS:CG	1.75	1.57
1:C:281(B):LYS:CD	1:C:281(B):LYS:CG	1.78	1.57
1:O:186:LYS:CG	1:O:186:LYS:CB	1.82	1.57
1:C:44:LYS:CE	1:C:44:LYS:CD	1.82	1.57
1:O:239:LYS:CE	1:O:239:LYS:CD	1.76	1.56
1:O:251:GLU:CG	1:O:251:GLU:CD	1.77	1.56
1:C:186:LYS:CB	1:C:186:LYS:CA	1.75	1.56
1:O:158:ASP:CG	1:O:158:ASP:CB	1.78	1.55
1:C:265:LYS:CE	1:C:265:LYS:NZ	1.67	1.55
1:O:178:ASN:CG	1:O:178:ASN:CB	1.76	1.55
1:O:251:GLU:CA	1:O:251:GLU:CB	1.80	1.55
1:C:248:LYS:CE	1:C:248:LYS:NZ	1.67	1.54
1:C:44:LYS:CE	1:C:44:LYS:NZ	1.72	1.53
1:O:147:LYS:CG	1:O:147:LYS:CD	1.81	1.53
1:C:208:ASP:N	1:C:208:ASP:CA	1.68	1.52
1:O:160(D):SER:N	1:O:160(D):SER:CA	1.69	1.51
1:O:230:LYS:CE	1:O:230:LYS:CD	1.80	1.51
1:O:173:GLN:CG	1:O:173:GLN:CD	1.84	1.50
1:O:238:LYS:CE	1:O:238:LYS:NZ	1.72	1.50
1:O:316:ARG:NH1	1:O:316:ARG:CZ	1.72	1.50
1:C:281(C):LYS:CE	1:C:281(C):LYS:NZ	1.72	1.48
1:O:281(B):LYS:NZ	1:O:281(B):LYS:CE	1.73	1.47
1:O:173:GLN:CD	1:O:173:GLN:NE2	1.68	1.47
1:O:44:LYS:NZ	1:O:44:LYS:CE	1.75	1.45
1:C:238:LYS:CE	1:C:238:LYS:NZ	1.78	1.45
1:C:226:SER:CB	1:C:226:SER:OG	1.64	1.44
1:C:224:SER:OG	1:C:224:SER:CB	1.63	1.43
1:O:230:LYS:CE	1:O:230:LYS:NZ	1.80	1.42
1:O:158:ASP:CG	1:O:158:ASP:OD1	1.63	1.37
1:O:202:SER:CB	1:O:202:SER:OG	1.74	1.32
1:C:47:ARG:HE	1:C:47:ARG:N	1.36	1.22
1:C:47:ARG:H	1:C:47:ARG:NE	1.39	1.21
1:C:250:ASN:HD22	1:C:251:GLU:N	1.39	1.20
1:C:205:LEU:HD12	1:C:227:SER:HB3	1.30	1.11
1:C:49:ALA:HA	1:C:113:MET:HE3	1.30	1.10
1:C:88:ILE:HG22	1:C:97:THR:HG22	1.14	1.09
1:O:279:SER:OG	1:O:281(C):LYS:HD3	1.48	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:194:MET:HE2	1:O:197:VAL:HG22	1.34	1.04
1:C:41:PRO:HG3	1:C:107:MET:HE1	1.42	1.02
1:O:-1:ASN:HA	1:O:147:LYS:HD2	1.36	1.02
1:O:251:GLU:CB	1:O:251:GLU:HA	1.92	0.97
1:O:-1:ASN:HA	1:O:147:LYS:CD	1.96	0.94
1:O:194:MET:CE	1:O:197:VAL:HG22	1.97	0.94
1:O:178:ASN:CG	1:O:178:ASN:CA	2.42	0.93
1:O:64:TYR:HE1	1:O:85:SER:HG	1.03	0.93
1:C:261:HIS:HB2	1:C:266:GLU:OE2	1.68	0.92
1:O:273:ASP:OD1	1:O:308:LYS:HE2	1.69	0.92
1:O:250:ASN:HB2	1:O:281(A):SER:HA	1.52	0.92
1:C:-1:ASN:C	1:C:-1:ASN:HD22	1.75	0.92
1:O:-1:ASN:N	1:O:147:LYS:HE3	1.84	0.91
1:O:185:ILE:HG22	1:O:186:LYS:HG2	1.52	0.91
1:C:49:ALA:HA	1:C:113:MET:CE	2.01	0.91
1:C:250:ASN:ND2	1:C:251:GLU:N	2.18	0.91
1:C:293:PRO:HA	1:C:296:GLY:O	1.71	0.91
1:O:126:ILE:CD1	1:O:132:ARG:HG3	2.02	0.90
1:C:147:LYS:HB3	1:C:147:LYS:HZ3	1.36	0.89
1:O:-1:ASN:CA	1:O:147:LYS:HE3	2.03	0.88
1:C:250:ASN:HD21	1:C:251:GLU:HG3	1.37	0.88
1:O:178:ASN:CG	1:O:178:ASN:HA	1.97	0.88
1:O:194:MET:HE2	1:O:197:VAL:CG2	2.03	0.87
1:C:207:GLU:C	1:C:208:ASP:CA	2.48	0.86
1:O:47:ARG:HB2	1:O:51:VAL:HG22	1.56	0.86
1:C:172:PRO:HA	1:C:175:TYR:CE1	2.11	0.86
1:O:240:ARG:HH12	1:O:242:PHE:HB2	1.38	0.85
1:C:-1:ASN:C	1:C:-1:ASN:ND2	2.34	0.85
1:O:203:THR:CG2	1:O:207:GLU:HG3	2.06	0.85
1:C:147:LYS:HB3	1:C:147:LYS:NZ	1.91	0.84
1:O:194:MET:O	1:O:209:GLY:HA2	1.78	0.83
1:C:88:ILE:HG22	1:C:97:THR:CG2	2.06	0.83
1:O:195:LYS:HD2	3:O:2006:HOH:O	1.78	0.83
1:O:198:SER:HB2	1:O:203:THR:HA	1.60	0.83
1:C:225:THR:O	1:C:229:GLU:HB2	1.79	0.82
1:O:326:ARG:HB3	1:O:326:ARG:HH21	1.41	0.82
1:O:126:ILE:HD11	1:O:132:ARG:HG3	1.60	0.82
1:C:157:ARG:HH21	1:O:161:LEU:HD13	1.45	0.82
1:O:47:ARG:HB2	1:O:51:VAL:CG2	2.10	0.81
1:O:205:LEU:CG	1:O:230:LYS:HE2	2.09	0.81
1:O:281:SER:HB2	1:O:281(C):LYS:HD2	1.62	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:71:LEU:HD13	1:O:84:LEU:HD13	1.62	0.80
1:C:65:LYS:HB3	1:C:86:GLN:HG3	1.64	0.80
1:O:51:VAL:HG12	1:O:52:TYR:CD2	2.16	0.79
1:O:99:GLN:NE2	1:O:139:ASN:ND2	2.30	0.79
1:O:205:LEU:HB2	1:O:230:LYS:NZ	1.97	0.79
1:O:205:LEU:HG	1:O:230:LYS:HE2	1.63	0.79
1:C:143:GLN:HB2	1:C:145:VAL:HG11	1.65	0.79
1:O:281:SER:CB	1:O:281(C):LYS:HD2	2.12	0.78
1:C:292:PRO:HB2	1:C:294:PRO:HD2	1.65	0.78
1:O:275:VAL:HG22	1:O:284:LEU:HD22	1.63	0.78
1:O:157:ARG:O	1:O:159:SER:N	2.17	0.78
1:O:148:GLU:HG3	1:O:168:GLY:O	1.83	0.77
1:C:41:PRO:HB3	1:C:107:MET:HE2	1.65	0.77
1:C:194:MET:HE2	1:C:212:ALA:HB2	1.63	0.77
1:C:226:SER:OG	1:C:226:SER:CA	2.33	0.77
1:O:195:LYS:NZ	1:O:264:GLY:HA2	2.00	0.77
1:C:149:ASP:H	1:C:316:ARG:CD	1.98	0.77
1:C:183:ASN:HA	1:C:319:ARG:HB3	1.67	0.76
1:C:147:LYS:NZ	1:C:147:LYS:CB	2.48	0.76
1:C:274:TYR:CD1	1:C:275:VAL:HG23	2.20	0.76
1:O:286:ILE:O	1:O:287:HIS:HD2	1.68	0.75
1:O:202:SER:O	1:O:204:LEU:HD23	1.87	0.75
1:O:240:ARG:NH1	1:O:242:PHE:O	2.20	0.75
1:C:149:ASP:H	1:C:316:ARG:HD2	1.52	0.75
1:O:156:ASN:OD1	1:O:162:GLY:N	2.18	0.75
1:O:240:ARG:CG	1:O:241:LEU:H	1.98	0.75
1:O:18:ILE:HG12	1:O:29:VAL:HG11	1.67	0.74
1:O:240:ARG:HH11	1:O:242:PHE:H	1.34	0.74
1:C:146:LEU:HD22	1:C:168:GLY:HA3	1.68	0.73
1:C:238:LYS:HD3	1:C:238:LYS:N	2.04	0.73
1:O:203:THR:HG23	1:O:207:GLU:HG3	1.69	0.73
1:O:326:ARG:HH21	1:O:326:ARG:CB	2.01	0.73
1:C:221:ILE:O	1:C:286:ILE:HA	1.87	0.73
1:C:51:VAL:HG23	1:C:52:TYR:CD1	2.23	0.72
1:C:226:SER:OG	1:C:226:SER:N	2.22	0.72
1:O:99:GLN:NE2	1:O:139:ASN:HD22	1.86	0.72
1:C:326:ARG:NH1	1:O:1:THR:HG22	2.05	0.71
1:O:3:SER:HA	1:O:165:ILE:O	1.90	0.71
1:O:262:LEU:HD23	1:O:267:TYR:CD1	2.25	0.71
1:C:248:LYS:CB	1:C:251:GLU:OE1	2.38	0.71
1:O:270:THR:O	1:O:273:ASP:HB2	1.89	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:144:GLY:C	1:C:145:VAL:HG12	2.14	0.71
1:O:126:ILE:HD13	1:O:132:ARG:HD3	1.73	0.70
1:O:205:LEU:HD21	1:O:227:SER:HB2	1.72	0.70
1:C:208:ASP:N	1:C:208:ASP:CB	2.53	0.70
1:O:291:ILE:O	1:O:296:GLY:HA3	1.92	0.70
1:C:234:ALA:O	1:C:236:GLY:N	2.24	0.69
1:C:326:ARG:HH11	1:O:1:THR:HG22	1.57	0.69
1:O:141:ILE:HD13	1:O:146:LEU:HD12	1.74	0.69
1:O:206:CYS:O	1:O:206:CYS:SG	2.50	0.69
1:C:250:ASN:ND2	1:C:251:GLU:HG3	2.06	0.69
1:C:185:ILE:HG23	1:C:186:LYS:N	2.05	0.69
1:O:47(B):TYR:OH	1:O:106:GLU:HG3	1.91	0.69
1:O:126:ILE:HD13	1:O:132:ARG:HG3	1.73	0.69
1:C:86:GLN:HB3	1:C:100:MET:HE2	1.75	0.69
1:O:39:TRP:NE1	1:O:120:VAL:HG12	2.08	0.69
1:C:41:PRO:CG	1:C:107:MET:HE1	2.19	0.69
1:C:250:ASN:HD22	1:C:250:ASN:C	2.01	0.69
1:O:182:ILE:HD12	1:O:263:GLY:HA3	1.75	0.69
1:O:29:VAL:HG23	1:O:30:VAL:N	1.96	0.68
1:O:46:SER:OG	1:O:47(A):LEU:N	2.23	0.68
1:O:0:THR:O	1:O:147:LYS:N	2.26	0.68
1:O:18:ILE:HG12	1:O:29:VAL:CG1	2.23	0.68
1:O:204:LEU:HB2	1:O:230:LYS:NZ	2.09	0.68
1:O:240:ARG:NH1	1:O:242:PHE:H	1.92	0.68
1:O:51:VAL:O	1:O:52:TYR:CD2	2.47	0.68
1:O:155:TYR:OH	1:O:216:THR:O	2.10	0.68
1:O:222:SER:HA	1:O:287:HIS:O	1.93	0.68
1:O:203:THR:HG21	1:O:207:GLU:HG3	1.77	0.67
1:C:126:ILE:HG12	1:C:132:ARG:NH2	2.08	0.67
1:C:189:VAL:HG12	1:C:189:VAL:O	1.87	0.67
1:C:205:LEU:N	1:C:205:LEU:HD23	2.10	0.67
1:C:248:LYS:HB3	1:C:251:GLU:CD	2.20	0.67
1:O:51:VAL:O	1:O:52:TYR:HD2	1.77	0.67
1:O:202:SER:C	1:O:204:LEU:HD23	2.20	0.67
1:C:52:TYR:HB2	1:C:113:MET:CE	2.24	0.67
1:O:195:LYS:HZ2	1:O:264:GLY:HA2	1.57	0.66
1:O:204:LEU:CD2	1:O:204:LEU:HG	2.15	0.66
1:C:276:PHE:CE1	1:C:285:ALA:HB2	2.30	0.66
1:O:96:VAL:HG21	1:O:136:ILE:HD11	1.77	0.66
1:O:28:LYS:HB2	1:O:117:PHE:CA	2.26	0.66
1:C:226:SER:CB	1:C:226:SER:HG	2.07	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:67:ASN:HB3	1:O:84:LEU:O	1.96	0.66
1:C:293:PRO:O	1:C:294:PRO:O	2.13	0.66
1:C:291:ILE:O	1:C:296:GLY:HA3	1.96	0.66
1:C:292:PRO:O	1:C:294:PRO:N	2.29	0.66
1:O:265:LYS:HG2	1:O:267:TYR:CE1	2.30	0.66
1:C:20:ILE:HD12	1:C:89:ILE:HG12	1.77	0.66
1:O:108:PRO:HG2	1:O:112:PHE:HD2	1.60	0.65
1:C:195:LYS:NZ	1:C:261:HIS:NE2	2.43	0.65
1:O:194:MET:CE	1:O:260:PHE:HD2	2.10	0.65
1:C:2:SER:O	1:C:167:LEU:N	2.25	0.65
1:C:3:SER:HA	1:C:165:ILE:O	1.96	0.65
1:O:109:ALA:O	1:O:113:MET:HB3	1.96	0.65
1:O:204:LEU:CG	1:O:204:LEU:CA	2.73	0.65
1:C:293:PRO:O	1:C:294:PRO:C	2.39	0.65
1:O:14:TYR:O	1:O:30:VAL:HG12	1.97	0.65
1:C:11:ASP:OD1	1:C:158:ASP:HB2	1.96	0.65
1:O:28:LYS:CB	1:O:117:PHE:HA	2.26	0.65
1:C:185:ILE:HG23	1:C:186:LYS:H	1.62	0.65
1:O:141:ILE:CD1	1:O:146:LEU:HD12	2.26	0.64
1:O:-1:ASN:HA	1:O:147:LYS:CE	2.27	0.64
1:O:84:LEU:HD21	1:O:133:VAL:HG21	1.78	0.64
1:C:203:THR:CG2	1:C:207:GLU:HB3	2.28	0.64
1:C:292:PRO:C	1:C:294:PRO:HD2	2.23	0.64
1:O:-1:ASN:C	1:O:147:LYS:HG2	2.22	0.64
1:O:311:THR:HG23	1:O:322:PHE:CE2	2.32	0.64
1:O:-1:ASN:CA	1:O:147:LYS:CD	2.74	0.64
1:O:46:SER:OG	1:O:47(A):LEU:HB2	1.98	0.64
1:O:240:ARG:HG3	1:O:241:LEU:H	1.61	0.64
1:C:182:ILE:HG21	1:C:192:ILE:HG13	1.79	0.64
1:C:250:ASN:HD22	1:C:251:GLU:H	1.43	0.64
1:C:293:PRO:CD	1:C:294:PRO:HD2	2.27	0.64
1:O:293:PRO:HA	1:O:297:PRO:HD3	1.80	0.64
1:C:27:PHE:CZ	1:C:56:PHE:HB2	2.33	0.63
1:O:126:ILE:HD13	1:O:132:ARG:CD	2.28	0.63
1:O:183:ASN:HB3	1:O:319:ARG:HB3	1.81	0.63
1:O:296:GLY:HA2	1:O:298:THR:HG22	1.79	0.63
1:C:52:TYR:HB2	1:C:113:MET:HE2	1.80	0.63
1:O:-1:ASN:CA	1:O:147:LYS:CE	2.76	0.63
1:O:132:ARG:HA	1:O:132:ARG:HH21	1.63	0.63
1:O:170:SER:O	1:O:172:PRO:HD3	1.97	0.63
1:O:240:ARG:NH1	1:O:242:PHE:HB2	2.13	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:181:TYR:CD2	1:C:321:GLY:HA3	2.34	0.63
1:C:191:GLN:OE1	1:C:211:LEU:HB3	1.99	0.63
1:O:43:SER:C	1:O:45:CYS:H	2.06	0.63
1:O:46:SER:HG	1:O:47(A):LEU:H	1.47	0.63
1:C:0:THR:HG22	1:C:1:THR:N	2.13	0.62
1:C:248:LYS:HB3	1:C:251:GLU:OE1	1.99	0.62
1:O:132:ARG:HB2	1:O:132:ARG:CZ	2.29	0.62
1:O:204:LEU:CB	1:O:230:LYS:HZ3	2.12	0.62
1:O:84:LEU:HB3	1:O:100:MET:CE	2.29	0.62
1:O:28:LYS:HB2	1:O:117:PHE:HA	1.80	0.62
1:O:240:ARG:CG	1:O:241:LEU:N	2.63	0.62
1:C:149:ASP:O	1:C:315:ARG:HB2	2.00	0.62
1:O:109:ALA:HB3	1:O:110:LEU:CB	2.28	0.62
1:O:250:ASN:HB2	1:O:281(A):SER:CA	2.27	0.61
1:C:76:SER:HB2	2:C:1327:C47:H261	1.81	0.61
1:O:108:PRO:HG2	1:O:112:PHE:CD2	2.35	0.61
1:O:47(B):TYR:CE1	1:O:106:GLU:HA	2.35	0.61
1:C:181:TYR:HA	1:C:321:GLY:HA2	1.83	0.61
1:C:250:ASN:ND2	1:C:251:GLU:H	1.96	0.61
1:C:281(B):LYS:O	1:C:281(C):LYS:HG2	2.01	0.61
2:C:1327:C47:O16	2:C:1327:C47:H202	2.00	0.61
1:C:239:LYS:O	1:C:241:LEU:N	2.33	0.60
1:O:223:GLY:O	1:O:289:MET:N	2.31	0.60
1:O:292:PRO:O	1:O:294:PRO:HD2	2.01	0.60
1:C:131:GLY:O	1:C:132:ARG:HB3	1.98	0.60
1:C:148:GLU:HB3	1:C:150:VAL:HG23	1.82	0.60
1:O:173:GLN:CG	1:O:173:GLN:CA	2.75	0.60
1:C:76:SER:OG	1:C:289:MET:HG3	2.01	0.60
1:O:109:ALA:HB3	1:O:110:LEU:HB2	1.82	0.60
1:O:286:ILE:O	1:O:287:HIS:CD2	2.54	0.60
1:C:187:THR:HB	1:C:318:ASN:ND2	2.17	0.60
1:C:2:SER:O	1:C:166:VAL:HA	2.02	0.59
1:O:186:LYS:HD3	1:O:191:GLN:HE22	1.67	0.59
1:C:41:PRO:HB3	1:C:107:MET:CE	2.33	0.59
1:O:202:SER:O	1:O:204:LEU:CD2	2.50	0.59
1:O:226:SER:O	1:O:229:GLU:HB2	2.03	0.59
1:C:186:LYS:CB	1:C:186:LYS:N	2.65	0.59
1:O:27:PHE:CE2	1:O:54:LYS:HG2	2.37	0.59
1:O:46:SER:HG	1:O:47(A):LEU:N	2.01	0.59
1:C:203:THR:HG22	1:C:207:GLU:HB3	1.85	0.59
1:C:224:SER:CB	1:C:224:SER:HG	2.07	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:186:LYS:CB	1:C:186:LYS:C	2.74	0.59
1:O:84:LEU:HD12	1:O:101:PHE:O	2.03	0.59
1:O:281:SER:HB2	1:O:281(C):LYS:CD	2.31	0.59
1:O:28:LYS:CG	1:O:117:PHE:HA	2.32	0.59
1:O:154:TYR:HE2	1:O:161:LEU:HD23	1.66	0.59
1:O:130:ILE:HG22	1:O:130:ILE:O	1.93	0.58
1:O:184:LEU:HB2	1:O:318:ASN:O	2.02	0.58
1:C:-1:ASN:HD22	1:C:0:THR:N	2.02	0.58
1:O:10:MET:C	1:O:12:THR:H	2.12	0.58
1:O:41:PRO:HD3	1:O:118:ASP:O	2.02	0.58
1:O:249:CYS:HB3	1:O:279:SER:O	2.04	0.58
1:O:19:GLY:O	1:O:89:ILE:HA	2.04	0.58
1:C:149:ASP:H	1:C:316:ARG:HD3	1.69	0.57
1:O:294:PRO:HG2	1:O:295:THR:H	1.68	0.57
1:C:89:ILE:HG22	1:C:90:THR:N	2.18	0.57
1:C:111:PRO:HB2	2:C:1327:C47:H10	1.86	0.57
1:C:191:GLN:OE1	1:C:298:THR:OG1	2.22	0.57
1:O:183:ASN:HB3	1:O:319:ARG:CB	2.34	0.57
1:O:216:THR:HG22	1:O:306:ILE:CD1	2.33	0.57
1:O:314:ASP:HB3	1:O:319:ARG:O	2.03	0.57
1:C:293:PRO:HD2	1:C:294:PRO:HD2	1.85	0.57
1:O:80:VAL:HG13	1:O:112:PHE:CE2	2.39	0.57
1:C:202:SER:O	1:C:204:LEU:N	2.36	0.57
1:C:250:ASN:HD22	1:C:251:GLU:CA	2.16	0.57
1:C:228:ILE:HG13	1:C:287:HIS:O	2.05	0.57
1:O:76:SER:OG	2:O:1327:C47:H282	2.05	0.57
1:O:204:LEU:CB	1:O:204:LEU:HG	2.18	0.57
1:O:72:THR:HA	1:O:81:SER:HA	1.87	0.57
2:O:1327:C47:O30	2:O:1327:C47:H24	2.04	0.57
1:C:48:THR:O	1:C:113:MET:HE1	2.05	0.56
1:C:195:LYS:HZ3	1:C:261:HIS:CD2	2.23	0.56
1:O:205:LEU:HB2	1:O:230:LYS:HZ3	1.69	0.56
1:C:39:TRP:HA	1:C:102:GLY:O	2.04	0.56
1:C:52:TYR:CD1	1:C:113:MET:HE1	2.40	0.56
1:C:65:LYS:CB	1:C:86:GLN:HG3	2.35	0.56
1:C:146:LEU:HD22	1:C:168:GLY:CA	2.34	0.56
1:C:207:GLU:O	1:C:208:ASP:HA	2.04	0.56
1:O:0:THR:CG2	1:O:1:THR:N	2.67	0.56
1:O:205:LEU:HD12	1:O:230:LYS:CE	2.36	0.56
1:C:141:ILE:HG12	1:C:149:ASP:OD2	2.06	0.56
1:O:126:ILE:HD13	1:O:132:ARG:CG	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:27:PHE:HZ	1:C:56:PHE:HB2	1.70	0.56
1:O:240:ARG:HH12	1:O:242:PHE:CB	2.14	0.56
1:O:242:PHE:O	1:O:244:ASP:O	2.22	0.56
1:C:293:PRO:HD2	1:C:294:PRO:CD	2.35	0.56
1:C:71:LEU:HD22	1:C:84:LEU:HD21	1.87	0.56
1:C:205:LEU:HD12	1:C:227:SER:CB	2.21	0.56
1:O:185:ILE:HG23	1:O:185:ILE:O	2.05	0.56
1:C:91:VAL:O	1:C:91:VAL:HG23	2.04	0.56
1:C:126:ILE:HG12	1:C:132:ARG:CZ	2.36	0.56
1:O:108:PRO:C	1:O:110:LEU:H	2.11	0.56
1:C:75:TYR:CG	2:C:1327:C47:H201	2.41	0.56
1:O:147:LYS:CD	1:O:147:LYS:HA	2.36	0.56
1:O:220:TYR:O	1:O:302:GLY:HA3	2.06	0.55
1:C:79:THR:O	1:C:108:PRO:HD2	2.06	0.55
1:C:-1:ASN:ND2	1:C:-1:ASN:O	2.38	0.55
1:C:11:ASP:OD2	1:C:307:ARG:NH2	2.39	0.55
1:O:83:PHE:HE1	1:O:105:THR:CG2	2.20	0.55
1:O:94:ILE:HG22	1:O:95:THR:N	2.21	0.55
1:O:217:GLY:O	2:O:1327:C47:H142	2.06	0.55
1:C:9:TYR:O	1:C:12:THR:N	2.37	0.55
1:C:181:TYR:HA	1:C:320:ILE:O	2.07	0.55
2:O:1327:C47:O16	2:O:1327:C47:H11	2.06	0.55
1:C:238:LYS:O	1:C:245:TYR:HA	2.07	0.55
1:O:240:ARG:NH1	1:O:242:PHE:C	2.65	0.55
1:C:206:CYS:O	1:C:206:CYS:SG	2.65	0.55
1:O:0:THR:N	1:O:147:LYS:HE3	2.22	0.54
1:O:219:SER:O	1:O:303:ALA:HB3	2.07	0.54
1:C:144:GLY:N	1:C:145:VAL:HG12	2.22	0.54
1:O:194:MET:HE3	1:O:260:PHE:HD2	1.71	0.54
1:O:317:ASN:O	1:O:318:ASN:C	2.50	0.54
1:C:242:PHE:O	1:C:287:HIS:HE1	1.89	0.54
1:C:184:LEU:HB2	1:C:318:ASN:O	2.08	0.54
1:O:270:THR:H	1:O:273:ASP:HB2	1.72	0.54
1:C:3:SER:CA	1:C:165:ILE:O	2.55	0.54
1:O:108:PRO:HB2	1:O:111:PRO:CD	2.37	0.54
1:O:191:GLN:OE1	1:O:211:LEU:HD13	2.08	0.54
1:C:217:GLY:O	2:C:1327:C47:H142	2.08	0.54
1:O:10:MET:O	1:O:11:ASP:HB2	2.04	0.54
1:O:147:LYS:C	1:O:148:GLU:HG2	2.33	0.54
1:C:35:SER:HB2	3:C:2002:HOH:O	2.08	0.54
1:C:150:VAL:HG12	1:C:313:PHE:O	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:181:TYR:CD2	1:C:321:GLY:CA	2.92	0.53
1:C:187:THR:HB	1:C:318:ASN:HD22	1.71	0.53
1:C:195:LYS:HZ3	1:C:261:HIS:CE1	2.23	0.53
1:O:108:PRO:HB2	1:O:111:PRO:HD2	1.88	0.53
1:O:48:THR:O	1:O:51:VAL:N	2.41	0.53
1:O:186:LYS:CB	1:O:186:LYS:NZ	2.71	0.53
1:O:319:ARG:NH2	3:O:2007:HOH:O	2.33	0.53
1:O:80:VAL:HG12	1:O:108:PRO:HD2	1.88	0.53
1:C:75:TYR:CD1	2:C:1327:C47:H332	2.44	0.53
1:C:221:ILE:HG22	1:C:286:ILE:HG23	1.89	0.53
1:O:186:LYS:HD3	1:O:191:GLN:NE2	2.24	0.53
1:O:204:LEU:HB2	1:O:230:LYS:HZ3	1.71	0.53
1:O:-1:ASN:H2	1:O:147:LYS:HE3	1.71	0.53
1:O:99:GLN:HE21	1:O:139:ASN:ND2	2.06	0.53
1:C:136:ILE:CG2	1:C:137:PHE:N	2.71	0.52
1:C:171:ASP:C	1:C:171:ASP:OD2	2.51	0.52
1:C:207:GLU:O	1:C:208:ASP:CA	2.56	0.52
1:C:292:PRO:C	1:C:294:PRO:CD	2.82	0.52
1:O:36:SER:OG	1:O:128:GLN:HB2	2.08	0.52
1:O:75:TYR:CB	2:O:1327:C47:H201	2.39	0.52
1:O:271:SER:O	1:O:272:ALA:O	2.27	0.52
1:O:274:TYR:CD1	1:O:275:VAL:HG23	2.44	0.52
1:C:186:LYS:CG	1:C:186:LYS:CA	2.81	0.52
1:C:52:TYR:HD1	1:C:113:MET:HE1	1.73	0.52
1:C:172:PRO:CA	1:C:175:TYR:CE1	2.89	0.52
1:O:84:LEU:HD21	1:O:133:VAL:CG2	2.40	0.52
1:C:150:VAL:CG1	1:C:314:ASP:HA	2.39	0.52
1:O:51:VAL:C	1:O:52:TYR:CD2	2.88	0.52
1:O:181:TYR:CD1	1:O:181:TYR:N	2.71	0.52
1:O:193:GLN:HE21	1:O:209:GLY:HA3	1.74	0.52
1:C:292:PRO:CB	1:C:294:PRO:HD2	2.38	0.52
1:O:130:ILE:CD1	2:O:1327:C47:H351	2.39	0.51
1:O:203:THR:CG2	1:O:203:THR:O	2.58	0.51
1:O:203:THR:HG23	1:O:203:THR:O	2.08	0.51
1:C:291:ILE:HG22	1:C:296:GLY:HA3	1.91	0.51
1:C:140:ILE:HA	1:C:143:GLN:HG3	1.93	0.51
1:C:189:VAL:CG1	1:C:191:GLN:HB2	2.40	0.51
1:O:247:VAL:HA	1:O:251:GLU:OE2	2.10	0.51
1:C:64:TYR:CG	1:C:65:LYS:N	2.73	0.51
1:C:205:LEU:CD1	1:C:227:SER:HB3	2.21	0.51
2:O:1327:C47:O16	2:O:1327:C47:H202	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2:SER:O	1:C:166:VAL:HG13	2.10	0.51
1:C:205:LEU:C	1:C:207:GLU:H	2.19	0.51
1:O:320:ILE:O	1:O:320:ILE:HG22	2.10	0.51
1:O:202:SER:O	1:O:204:LEU:N	2.43	0.51
1:O:204:LEU:CB	1:O:230:LYS:NZ	2.73	0.51
1:O:265:LYS:HG2	1:O:267:TYR:CZ	2.46	0.51
1:C:10:MET:O	1:C:11:ASP:HB2	2.09	0.50
1:O:84:LEU:HB3	1:O:100:MET:HE2	1.94	0.50
1:C:4:VAL:O	1:C:5:ILE:HG13	2.12	0.50
1:O:50:CYS:O	1:O:55:LEU:HD11	2.12	0.50
1:O:231:LEU:O	1:O:234:ALA:HB3	2.12	0.50
1:C:89:ILE:CG2	1:C:90:THR:N	2.72	0.50
1:C:237:ALA:HB1	1:C:246:VAL:H	1.74	0.50
1:C:126:ILE:CG1	1:C:132:ARG:NH2	2.72	0.50
1:O:75:TYR:HD1	2:O:1327:C47:H332	1.75	0.50
1:O:99:GLN:HE22	1:O:139:ASN:ND2	2.07	0.50
1:C:251:GLU:O	1:C:254:THR:HB	2.12	0.50
2:C:1327:C47:O16	2:C:1327:C47:H11	2.12	0.50
1:O:28:LYS:O	1:O:118:ASP:N	2.39	0.50
1:C:248:LYS:HE3	1:C:251:GLU:OE1	2.12	0.50
1:C:293:PRO:CA	1:C:296:GLY:O	2.54	0.50
1:O:160(D):SER:N	1:O:160(D):SER:HA	2.05	0.50
1:C:47:ARG:N	1:C:47:ARG:NE	2.19	0.50
1:O:195:LYS:HZ1	1:O:264:GLY:HA2	1.74	0.50
1:O:0:THR:HB	1:O:145:VAL:O	2.12	0.50
1:O:23:PRO:O	1:O:23:PRO:HG2	2.11	0.49
1:O:74:ARG:O	2:O:1327:C47:H352	2.12	0.49
1:O:233:GLU:HA	1:O:233:GLU:OE1	2.12	0.49
1:O:286:ILE:C	1:O:287:HIS:HD2	2.20	0.49
1:C:284:LEU:N	1:C:284:LEU:HD23	2.27	0.49
1:C:292:PRO:HG2	1:C:294:PRO:HG2	1.95	0.49
1:O:71:LEU:O	1:O:82:GLY:N	2.41	0.49
1:O:186:LYS:NZ	1:O:186:LYS:HB2	2.28	0.49
1:O:241:LEU:HB3	1:O:242:PHE:CD1	2.46	0.49
1:C:224:SER:OG	1:C:224:SER:C	2.55	0.49
1:C:150:VAL:HG12	1:C:314:ASP:HA	1.95	0.49
1:C:242:PHE:O	1:C:287:HIS:CE1	2.65	0.49
1:O:205:LEU:HB2	1:O:230:LYS:CE	2.42	0.49
1:O:83:PHE:HE1	1:O:105:THR:HG23	1.77	0.49
1:C:41:PRO:CB	1:C:107:MET:CE	2.90	0.49
1:O:158:ASP:CG	1:O:158:ASP:CA	2.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:194:MET:HE1	1:O:260:PHE:HD2	1.75	0.49
1:O:205:LEU:HD23	1:O:206:CYS:H	1.77	0.49
1:O:5:ILE:HG23	1:O:161:LEU:HD12	1.95	0.49
1:O:63:SER:O	1:O:64:TYR:C	2.53	0.49
1:O:286:ILE:C	1:O:287:HIS:CD2	2.90	0.49
1:O:137:PHE:CE1	1:O:141:ILE:HG12	2.48	0.48
1:O:28:LYS:HG3	1:O:117:PHE:HA	1.94	0.48
1:C:10:MET:C	1:C:12:THR:N	2.69	0.48
1:C:246:VAL:HG23	1:C:283:THR:HA	1.95	0.48
1:C:281(B):LYS:O	1:C:281(B):LYS:HD3	2.13	0.48
1:O:245:TYR:C	1:O:246:VAL:HG13	2.39	0.48
1:O:185:ILE:HG22	1:O:186:LYS:CG	2.36	0.48
1:O:239:LYS:HA	1:O:245:TYR:HA	1.96	0.48
1:O:269:LEU:HD22	1:O:273:ASP:HB3	1.94	0.48
1:C:4:VAL:HG12	1:C:5:ILE:N	2.29	0.48
1:O:48:THR:O	1:O:52:TYR:N	2.38	0.48
1:O:76:SER:HB3	1:O:291:ILE:CG2	2.43	0.48
1:C:164:GLN:HE21	1:C:164:GLN:HB3	1.55	0.48
1:C:198:SER:O	1:C:258:ILE:HA	2.13	0.48
1:C:248:LYS:HB2	1:C:251:GLU:OE1	2.13	0.48
1:O:197:VAL:O	1:O:205:LEU:N	2.44	0.48
1:C:41:PRO:HG3	1:C:107:MET:CE	2.29	0.48
1:O:53:HIS:HD2	1:O:118:ASP:OD1	1.96	0.48
1:O:204:LEU:CB	1:O:204:LEU:CD1	2.88	0.48
1:O:205:LEU:CD1	1:O:230:LYS:HE2	2.44	0.48
1:O:262:LEU:CD2	1:O:267:TYR:CD1	2.94	0.48
1:C:0:THR:CG2	1:C:1:THR:N	2.76	0.48
1:C:270:THR:HG21	1:O:17:GLU:CD	2.39	0.48
1:C:109:ALA:O	1:C:113:MET:CB	2.62	0.47
1:C:175:TYR:O	1:C:326:ARG:HD2	2.14	0.47
1:O:202:SER:O	1:O:204:LEU:HG	2.13	0.47
1:C:28:LYS:C	1:C:29:VAL:HG13	2.38	0.47
1:C:175:TYR:HA	1:C:324:LEU:O	2.14	0.47
1:O:5:ILE:CG2	1:O:161:LEU:HD12	2.44	0.47
1:C:21:GLY:O	1:C:23:PRO:C	2.57	0.47
1:C:315:ARG:NH1	3:C:2014:HOH:O	2.43	0.47
1:O:240:ARG:HD2	1:O:241:LEU:HB2	1.97	0.47
1:C:4:VAL:HG12	1:C:5:ILE:H	1.77	0.47
1:C:326:ARG:NH1	1:O:1:THR:O	2.46	0.47
1:O:132:ARG:HB2	1:O:132:ARG:NH2	2.30	0.47
1:C:291:ILE:HA	1:C:292:PRO:HD2	1.69	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:186:LYS:CB	1:O:186:LYS:HZ3	2.26	0.47
1:C:21:GLY:O	1:C:24:PRO:HA	2.14	0.47
1:O:0:THR:H	1:O:147:LYS:HE3	1.79	0.47
1:O:35:SER:O	1:O:124:GLY:N	2.47	0.47
1:O:51:VAL:CG1	1:O:52:TYR:CE2	2.98	0.47
1:O:156:ASN:OD1	1:O:161:LEU:HB3	2.13	0.47
1:C:0:THR:OG1	1:C:145:VAL:HG23	2.14	0.47
1:C:76:SER:HG	1:C:289:MET:CG	2.27	0.47
1:C:202:SER:O	1:C:204:LEU:HD12	2.14	0.47
1:C:228:ILE:HA	1:C:228:ILE:HD13	1.13	0.47
1:C:241:LEU:HD13	1:C:241:LEU:HA	1.71	0.47
1:C:292:PRO:HB2	1:C:293:PRO:CD	2.43	0.47
1:O:47:ARG:HA	1:O:51:VAL:HG23	1.95	0.47
1:O:104:VAL:HG11	1:O:107:MET:HE2	1.95	0.47
1:O:232:MET:HG3	1:O:245:TYR:CE1	2.50	0.47
1:C:77:THR:HG23	1:C:289:MET:SD	2.55	0.47
1:C:296:GLY:HA2	1:C:298:THR:HB	1.97	0.47
1:O:18:ILE:O	1:O:26:THR:HA	2.15	0.47
1:O:205:LEU:HB2	1:O:230:LYS:HE2	1.97	0.47
1:O:265:LYS:HG3	1:O:266:GLU:N	2.30	0.47
1:C:195:LYS:HZ1	1:C:263:GLY:CA	2.28	0.47
1:O:160(D):SER:N	1:O:160(D):SER:C	2.65	0.47
1:C:143:GLN:HB2	1:C:145:VAL:CG1	2.40	0.47
1:O:251:GLU:CD	1:O:251:GLU:HG2	2.15	0.47
1:O:261:HIS:C	1:O:261:HIS:CD2	2.93	0.47
1:O:233:GLU:OE1	1:O:233:GLU:CA	2.63	0.46
1:O:16:GLY:N	1:O:29:VAL:O	2.45	0.46
1:O:64:TYR:OH	1:O:66:HIS:HA	2.15	0.46
1:O:186:LYS:HG3	1:O:186:LYS:O	2.15	0.46
1:O:292:PRO:C	1:O:294:PRO:HD2	2.41	0.46
1:C:125:PHE:CE1	1:C:315:ARG:NE	2.84	0.46
1:C:205:LEU:HD11	1:C:227:SER:O	2.15	0.46
1:O:58:ALA:HB1	1:O:64:TYR:CG	2.51	0.46
1:O:80:VAL:CG1	1:O:112:PHE:CE2	2.98	0.46
1:C:36:SER:OG	1:C:124:GLY:C	2.58	0.46
1:C:65:LYS:HB3	1:C:86:GLN:CG	2.40	0.46
1:O:43:SER:C	1:O:45:CYS:N	2.63	0.46
1:O:240:ARG:CD	1:O:241:LEU:H	2.28	0.46
1:C:104:VAL:HG13	1:C:106:GLU:O	2.16	0.46
1:C:130:ILE:HG23	1:C:130:ILE:HD13	1.66	0.46
1:C:172:PRO:HA	1:C:175:TYR:CD1	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:51:VAL:HG12	1:O:52:TYR:CE2	2.51	0.46
1:C:292:PRO:CB	1:C:293:PRO:HD3	2.45	0.46
1:O:20:ILE:HG12	1:O:89:ILE:HG12	1.98	0.46
1:O:75:TYR:HD1	2:O:1327:C47:C33	2.29	0.46
1:O:253:PRO:HG2	1:O:280:TYR:CE1	2.51	0.46
1:C:185:ILE:CG2	1:C:191:GLN:O	2.63	0.46
1:C:228:ILE:HD12	1:C:228:ILE:HG23	1.51	0.45
1:C:281(D):LEU:HD23	1:C:281(D):LEU:HA	1.72	0.45
1:O:111:PRO:HB2	2:O:1327:C47:H10	1.98	0.45
1:O:174:HIS:HA	1:O:326:ARG:O	2.16	0.45
1:O:251:GLU:CG	1:O:251:GLU:CA	2.87	0.45
1:C:22:THR:HG1	1:C:63:SER:CB	2.26	0.45
1:C:241:LEU:HD12	1:C:241:LEU:O	2.16	0.45
1:O:251:GLU:CD	1:O:251:GLU:HG3	2.15	0.45
1:C:136:ILE:HG23	1:C:137:PHE:N	2.30	0.45
1:C:195:LYS:HZ1	1:C:263:GLY:N	2.14	0.45
1:O:114:LEU:HA	1:O:114:LEU:HD23	1.44	0.45
1:O:270:THR:N	1:O:273:ASP:HB2	2.32	0.45
1:C:3:SER:HB3	1:C:165:ILE:O	2.17	0.45
1:C:84:LEU:HD23	1:C:84:LEU:HA	1.65	0.45
1:C:141:ILE:O	1:C:141:ILE:CG2	2.58	0.45
1:C:4:VAL:H	1:C:4:VAL:HG23	1.51	0.45
1:C:228:ILE:O	1:C:229:GLU:C	2.59	0.45
1:C:293:PRO:N	1:C:294:PRO:HD2	2.31	0.45
1:O:42:SER:O	1:O:55:LEU:HD22	2.16	0.45
1:O:213:LEU:O	1:O:300:ALA:HA	2.16	0.45
1:O:0:THR:HG23	1:O:1:THR:N	2.30	0.45
1:C:239:LYS:HG2	1:C:245:TYR:CE2	2.52	0.45
1:C:292:PRO:C	1:C:294:PRO:N	2.75	0.45
1:O:96:VAL:HG12	1:O:97:THR:N	2.30	0.45
1:O:262:LEU:N	1:O:265:LYS:O	2.49	0.45
1:C:147:LYS:HG3	1:C:148:GLU:OE1	2.17	0.45
1:C:170:SER:HB2	1:C:310:TYR:HE1	1.80	0.45
1:C:189:VAL:HG11	1:C:191:GLN:HB2	1.99	0.45
1:O:56:PHE:CE1	1:O:58:ALA:HB2	2.52	0.45
1:C:166:VAL:HG12	1:C:167:LEU:N	2.32	0.45
1:C:189:VAL:HG12	1:C:191:GLN:H	1.82	0.45
1:C:202:SER:O	1:C:204:LEU:CD1	2.65	0.45
1:C:268:THR:CG2	1:C:269:LEU:N	2.79	0.45
1:C:132:ARG:HA	1:C:132:ARG:HD2	1.73	0.44
2:C:1327:C47:H142	2:C:1327:C47:H172	1.76	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:195:LYS:NZ	1:O:264:GLY:CA	2.78	0.44
1:O:20:ILE:HG22	1:O:56:PHE:CE2	2.51	0.44
1:O:57:ASP:O	1:O:60:ASP:HB2	2.17	0.44
1:C:248:LYS:CB	1:C:251:GLU:CD	2.89	0.44
1:C:248:LYS:HD2	1:C:281(A):SER:O	2.17	0.44
1:C:252:GLY:C	1:C:254:THR:H	2.25	0.44
1:O:51:VAL:HG12	1:O:52:TYR:CG	2.52	0.44
1:O:209:GLY:O	1:O:210:CYS:HB3	2.16	0.44
1:O:326:ARG:CG	1:O:326:ARG:NH2	2.70	0.44
1:C:292:PRO:CB	1:C:293:PRO:CD	2.96	0.44
1:O:66:HIS:CG	1:O:67:ASN:N	2.85	0.44
1:O:186:LYS:HB2	1:O:186:LYS:HZ2	1.83	0.44
1:O:247:VAL:HG22	1:O:251:GLU:CD	2.43	0.44
2:C:1327:C47:H171	3:C:2015:HOH:O	2.17	0.44
1:O:199:VAL:HG22	1:O:231:LEU:HD12	2.00	0.44
1:O:185:ILE:HD12	1:O:211:LEU:HD22	1.99	0.44
1:C:65:LYS:HE2	1:C:65:LYS:HB2	1.86	0.44
1:O:112:PHE:C	1:O:114:LEU:N	2.75	0.44
1:O:240:ARG:HG3	1:O:241:LEU:N	2.30	0.44
1:O:86:GLN:O	1:O:87:ASP:HB2	2.18	0.44
1:C:195:LYS:NZ	1:C:264:GLY:H	2.16	0.44
1:C:291:ILE:HG22	1:C:296:GLY:CA	2.48	0.44
1:O:176:GLU:HG2	1:O:324:LEU:HB2	2.00	0.44
1:O:326:ARG:HH21	1:O:326:ARG:HD2	1.27	0.44
1:O:65:LYS:O	1:O:86:GLN:HB2	2.18	0.43
1:O:152:SER:HA	1:O:311:THR:O	2.18	0.43
1:C:180:HIS:O	1:C:322:PHE:N	2.44	0.43
1:C:99:GLN:OE1	1:C:139:ASN:ND2	2.36	0.43
1:C:291:ILE:HD13	1:C:298:THR:CG2	2.48	0.43
1:O:20:ILE:CG1	1:O:89:ILE:HG12	2.49	0.43
1:C:13:GLN:CG	2:C:1327:C47:H6C1	2.48	0.43
1:C:291:ILE:HD13	1:C:298:THR:HG22	2.01	0.43
1:O:39:TRP:CE2	1:O:120:VAL:HG12	2.53	0.43
1:O:208:ASP:O	1:O:208:ASP:OD2	2.35	0.43
1:C:293:PRO:CD	1:C:294:PRO:CD	2.95	0.43
1:O:291:ILE:H	1:O:291:ILE:HG12	1.69	0.43
1:C:147:LYS:HG2	1:C:148:GLU:N	2.31	0.43
1:C:303:ALA:O	1:C:307:ARG:HB3	2.18	0.43
1:O:-1:ASN:H1	1:O:147:LYS:HE3	1.77	0.43
1:O:130:ILE:HD11	2:O:1327:C47:H351	2.01	0.43
1:C:10:MET:C	1:C:12:THR:H	2.27	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:28:LYS:CB	1:O:117:PHE:CA	2.91	0.43
1:O:281(C):LYS:HE3	1:O:281(C):LYS:HB3	1.45	0.43
1:C:151:PHE:CE2	1:C:313:PHE:CD1	3.07	0.43
1:O:75:TYR:HB2	2:O:1327:C47:H201	2.00	0.43
1:O:107:MET:HA	1:O:108:PRO:HD2	1.22	0.43
1:O:199:VAL:CG2	1:O:231:LEU:HD12	2.48	0.43
1:O:221:ILE:HG13	1:O:304:THR:HB	2.00	0.43
1:C:161:LEU:HD12	1:C:161:LEU:HA	1.39	0.43
1:C:185:ILE:CG2	1:C:186:LYS:N	2.78	0.43
1:O:109:ALA:HB3	1:O:110:LEU:HB3	2.00	0.43
1:O:141:ILE:HD11	1:O:146:LEU:HD12	2.01	0.43
1:O:326:ARG:CB	1:O:326:ARG:NH2	2.76	0.43
1:C:149:ASP:N	1:C:316:ARG:HD3	2.34	0.43
1:C:189:VAL:HG12	1:C:191:GLN:N	2.34	0.42
1:O:270:THR:HB	1:O:272:ALA:H	1.84	0.42
1:C:135:PRO:O	1:C:136:ILE:C	2.61	0.42
1:C:221:ILE:O	1:C:286:ILE:HG23	2.19	0.42
1:C:228:ILE:O	1:C:232:MET:HG2	2.20	0.42
1:O:326:ARG:HB3	1:O:326:ARG:NH2	2.22	0.42
1:C:158:ASP:CG	1:C:159:SER:N	2.77	0.42
1:C:185:ILE:HG21	1:C:191:GLN:HB3	2.00	0.42
1:O:84:LEU:HG	1:O:100:MET:CE	2.49	0.42
1:O:184:LEU:HD12	1:O:184:LEU:HA	1.47	0.42
1:O:245:TYR:O	1:O:246:VAL:CG1	2.68	0.42
1:C:171:ASP:OD2	1:C:173:GLN:HB2	2.19	0.42
1:C:237:ALA:HB1	1:C:246:VAL:N	2.34	0.42
1:O:232:MET:HA	1:O:235:LEU:HB2	2.00	0.42
1:O:49:ALA:HB1	1:O:107:MET:HG2	2.01	0.42
1:O:185:ILE:HD13	1:O:185:ILE:HG21	1.78	0.42
1:O:232:MET:HG3	1:O:245:TYR:CD1	2.55	0.42
1:O:272:ALA:HB3	1:O:273:ASP:H	1.61	0.42
1:O:317:ASN:HB3	1:O:319:ARG:HD3	2.01	0.42
1:O:205:LEU:CB	1:O:230:LYS:HE2	2.50	0.42
1:O:207:GLU:OE2	1:O:207:GLU:N	2.51	0.42
1:C:8:ASN:HD21	1:C:158:ASP:HB2	1.85	0.42
1:C:140:ILE:HD13	1:C:140:ILE:HG21	1.75	0.42
1:C:205:LEU:N	1:C:205:LEU:CD2	2.82	0.42
1:C:-1:ASN:O	1:C:-1:ASN:CG	2.63	0.42
1:C:237:ALA:HB1	1:C:246:VAL:O	2.20	0.42
1:C:292:PRO:HB2	1:C:293:PRO:HD3	2.02	0.42
1:C:46:SER:OG	1:C:47:ARG:N	2.44	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:88:ILE:HG21	1:C:88:ILE:HD13	1.80	0.42
1:O:178:ASN:HD22	1:O:179:PHE:N	2.16	0.42
1:O:224:SER:O	1:O:225:THR:C	2.62	0.42
1:C:143:GLN:C	1:C:145:VAL:HG12	2.45	0.41
1:C:152:SER:OG	1:C:169:GLY:O	2.26	0.41
1:O:88:ILE:HA	1:O:96:VAL:O	2.19	0.41
1:O:235:LEU:HD12	1:O:284:LEU:HD11	2.01	0.41
1:C:314:ASP:O	1:C:318:ASN:HA	2.20	0.41
1:O:10:MET:C	1:O:12:THR:N	2.72	0.41
1:O:77:THR:O	1:O:77:THR:OG1	2.08	0.41
1:C:35:SER:HB3	2:C:1327:C47:H331	2.03	0.41
1:C:38:VAL:H	1:C:38:VAL:HG23	1.59	0.41
1:O:5:ILE:HG23	1:O:161:LEU:CD1	2.50	0.41
1:C:13:GLN:HE21	1:C:13:GLN:HB3	0.89	0.41
1:C:76:SER:OG	1:C:289:MET:CG	2.69	0.41
1:C:215:ASP:OD1	1:C:218:ALA:HB2	2.21	0.41
1:O:137:PHE:CE1	1:O:141:ILE:CG1	3.03	0.41
1:C:65:LYS:HA	1:C:65:LYS:HD3	1.76	0.41
1:C:125:PHE:HE1	1:C:315:ARG:CD	2.33	0.41
1:O:51:VAL:CG1	1:O:52:TYR:CD2	2.96	0.41
1:C:149:ASP:HB3	1:C:315:ARG:CB	2.50	0.41
1:C:198:SER:HB2	1:C:259:SER:HB2	2.02	0.41
1:C:205:LEU:HA	1:C:207:GLU:OE1	2.21	0.41
1:O:46:SER:C	1:O:47(A):LEU:H	2.27	0.41
1:C:52:TYR:CD1	1:C:113:MET:CE	3.03	0.41
1:O:75:TYR:HA	2:O:1327:C47:H332	2.03	0.41
1:O:126:ILE:CD1	1:O:132:ARG:CG	2.87	0.41
1:O:270:THR:O	1:O:271:SER:C	2.63	0.41
1:C:126:ILE:O	1:C:126:ILE:HG13	2.20	0.41
1:C:147:LYS:NZ	1:C:147:LYS:HB2	2.32	0.41
1:C:204:LEU:O	1:C:230:LYS:NZ	2.40	0.41
1:C:231:LEU:C	1:C:231:LEU:CD1	2.94	0.41
1:C:231:LEU:O	1:C:232:MET:C	2.63	0.41
1:C:234:ALA:C	1:C:236:GLY:N	2.79	0.41
1:C:255:LEU:HB3	1:C:274:TYR:OH	2.20	0.41
1:O:0:THR:N	1:O:147:LYS:CE	2.83	0.41
1:O:4:VAL:O	1:O:164:GLN:HA	2.21	0.41
1:O:76:SER:HB3	1:O:291:ILE:HG21	2.03	0.41
1:O:84:LEU:HG	1:O:100:MET:HG3	2.02	0.41
1:O:132:ARG:CG	1:O:132:ARG:O	2.68	0.41
1:O:142:SER:C	1:O:144:GLY:N	2.79	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:186:LYS:CD	1:C:186:LYS:HG3	2.20	0.41
1:O:186:LYS:CG	1:O:186:LYS:O	2.68	0.41
1:O:292:PRO:HA	1:O:293:PRO:HD3	1.80	0.41
1:C:147:LYS:CG	1:C:148:GLU:HB2	2.51	0.40
1:O:5:ILE:HD13	1:O:5:ILE:HG21	1.69	0.40
1:O:184:LEU:HB3	1:O:318:ASN:ND2	2.37	0.40
1:O:291:ILE:HA	1:O:292:PRO:HD3	1.62	0.40
1:O:130:ILE:HD13	2:O:1327:C47:H351	2.03	0.40
1:O:233:GLU:OE1	1:O:233:GLU:O	2.38	0.40
1:O:240:ARG:NH2	1:O:244:ASP:HB2	2.36	0.40
1:C:147:LYS:HG2	1:C:148:GLU:HB2	2.03	0.40
1:C:253:PRO:HG3	1:C:280:TYR:CE2	2.56	0.40
1:C:267:TYR:OH	1:C:322:PHE:HB2	2.21	0.40
1:O:294:PRO:HG2	1:O:295:THR:N	2.36	0.40
1:C:23:PRO:HA	1:C:24:PRO:HD3	1.71	0.40
1:C:171:ASP:C	1:C:173:GLN:H	2.30	0.40
1:C:292:PRO:O	1:C:294:PRO:CD	2.70	0.40
1:O:88:ILE:HD13	1:O:88:ILE:HG21	1.40	0.40
1:O:262:LEU:HD23	1:O:267:TYR:HD1	1.78	0.40
1:C:197:VAL:O	1:C:203:THR:HA	2.21	0.40
1:C:204:LEU:HB3	1:C:205:LEU:HD22	2.03	0.40
1:C:294:PRO:HB2	1:C:295:THR:HG23	2.04	0.40
1:O:83:PHE:CE1	1:O:105:THR:HG23	2.56	0.40
1:O:126:ILE:HG22	1:O:127:GLU:OE1	2.22	0.40
1:O:134:THR:HG22	1:O:135:PRO:N	2.36	0.40
1:O:192:ILE:HG21	1:O:192:ILE:HD13	1.83	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	C	330/340 (97%)	283 (86%)	34 (10%)	13 (4%)	2 8
1	O	328/340 (96%)	274 (84%)	34 (10%)	20 (6%)	1 3
All	All	658/680 (97%)	557 (85%)	68 (10%)	33 (5%)	1 5

All (33) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	C	185	ILE
1	C	207	GLU
1	C	234	ALA
1	C	235	LEU
1	C	240	ARG
1	O	58	ALA
1	O	77	THR
1	O	186	LYS
1	O	244	ASP
1	O	293	PRO
1	C	145	VAL
1	C	203	THR
1	C	241	LEU
1	C	252	GLY
1	C	293	PRO
1	O	149	ASP
1	O	209	GLY
1	C	144	GLY
1	O	60	ASP
1	O	87	ASP
1	O	203	THR
1	O	272	ALA
1	O	273	ASP
1	O	277	GLN
1	O	278	GLU
1	O	53	HIS
1	O	145	VAL
1	C	281(C)	LYS
1	O	271	SER
1	C	281(A)	SER
1	O	252	GLY
1	O	294	PRO
1	O	256	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	C	283/290 (98%)	200 (71%)	83 (29%)	0 1
1	O	282/290 (97%)	181 (64%)	101 (36%)	0 0
All	All	565/580 (97%)	381 (67%)	184 (33%)	0 1

All (184) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	C	3	SER
1	C	5	ILE
1	C	7	THR
1	C	20	ILE
1	C	22	THR
1	C	26	THR
1	C	37	ASN
1	C	42	SER
1	C	44	LYS
1	C	47	ARG
1	C	47(A)	LEU
1	C	47(B)	TYR
1	C	54	LYS
1	C	60	ASP
1	C	69	THR
1	C	81	SER
1	C	90	THR
1	C	95	THR
1	C	104	VAL
1	C	106	GLU
1	C	110	LEU
1	C	113	MET
1	C	120	VAL
1	C	123	MET
1	C	126	ILE
1	C	130	ILE
1	C	134	THR

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Mol	Chain	Res	Type
1	C	136	ILE
1	C	141	ILE
1	C	143	GLN
1	C	145	VAL
1	C	147	LYS
1	C	150	VAL
1	C	157	ARG
1	C	164	GLN
1	C	182	ILE
1	C	184	LEU
1	C	186	LYS
1	C	187	THR
1	C	189	VAL
1	C	192	ILE
1	C	193	GLN
1	C	195	LYS
1	C	199	VAL
1	C	202	SER
1	C	205	LEU
1	C	207	GLU
1	C	208	ASP
1	C	213	LEU
1	C	219	SER
1	C	226	SER
1	C	228	ILE
1	C	229	GLU
1	C	230	LYS
1	C	231	LEU
1	C	233	GLU
1	C	239	LYS
1	C	240	ARG
1	C	241	LEU
1	C	247	VAL
1	C	249	CYS
1	C	250	ASN
1	C	254	THR
1	C	266	GLU
1	C	278	GLU
1	C	279	SER
1	C	281	SER
1	C	281(A)	SER
1	C	281(B)	LYS

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Mol	Chain	Res	Type
1	C	281(C)	LYS
1	C	281(D)	LEU
1	C	284	LEU
1	C	287	HIS
1	C	294	PRO
1	C	295	THR
1	C	301	LEU
1	C	304	THR
1	C	306	ILE
1	C	307	ARG
1	C	311	THR
1	C	315	ARG
1	C	319	ARG
1	C	324	LEU
1	O	-1	ASN
1	O	0	THR
1	O	1	THR
1	O	2	SER
1	O	3	SER
1	O	13	GLN
1	O	14	TYR
1	O	17	GLU
1	O	22	THR
1	O	23	PRO
1	O	25	GLN
1	O	26	THR
1	O	29	VAL
1	O	32	ASP
1	O	35	SER
1	O	36	SER
1	O	37	ASN
1	O	47	ARG
1	O	47(A)	LEU
1	O	47(B)	TYR
1	O	48	THR
1	O	51	VAL
1	O	62	SER
1	O	63	SER
1	O	65	LYS
1	O	69	THR
1	O	71	LEU
1	O	76	SER

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Mol	Chain	Res	Type
1	O	80	VAL
1	O	84	LEU
1	O	85	SER
1	O	87	ASP
1	O	90	THR
1	O	91	VAL
1	O	97	THR
1	O	106	GLU
1	O	118	ASP
1	O	126	ILE
1	O	128	GLN
1	O	132	ARG
1	O	141	ILE
1	O	143	GLN
1	O	145	VAL
1	O	147	LYS
1	O	148	GLU
1	O	149	ASP
1	O	150	VAL
1	O	152	SER
1	O	158	ASP
1	O	164	GLN
1	O	171	ASP
1	O	178	ASN
1	O	184	LEU
1	O	185	ILE
1	O	186	LYS
1	O	189	VAL
1	O	195	LYS
1	O	198	SER
1	O	199	VAL
1	O	201	SER
1	O	202	SER
1	O	205	LEU
1	O	206	CYS
1	O	207	GLU
1	O	208	ASP
1	O	213	LEU
1	O	219	SER
1	O	227	SER
1	O	230	LYS
1	O	232	MET

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Mol	Chain	Res	Type
1	O	233	GLU
1	O	235	LEU
1	O	238	LYS
1	O	241	LEU
1	O	247	VAL
1	O	248	LYS
1	O	251	GLU
1	O	253	PRO
1	O	254	THR
1	O	258	ILE
1	O	262	LEU
1	O	265	LYS
1	O	268	THR
1	O	270	THR
1	O	271	SER
1	O	278	GLU
1	O	279	SER
1	O	281	SER
1	O	281(A)	SER
1	O	281(B)	LYS
1	O	281(C)	LYS
1	O	281(D)	LEU
1	O	283	THR
1	O	284	LEU
1	O	291	ILE
1	O	293	PRO
1	O	295	THR
1	O	308	LYS
1	O	315	ARG
1	O	324	LEU
1	O	326	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (18) such sidechains are listed below:

Mol	Chain	Res	Type
1	C	-1	ASN
1	C	13	GLN
1	C	37	ASN
1	C	86	GLN
1	C	164	GLN
1	C	250	ASN
1	C	287	HIS

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Mol	Chain	Res	Type
1	C	317	ASN
1	C	318	ASN
1	O	99	GLN
1	O	139	ASN
1	O	143	GLN
1	O	174	HIS
1	O	178	ASN
1	O	191	GLN
1	O	193	GLN
1	O	287	HIS
1	O	318	ASN

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no oligosaccharides in this entry.

5.6 Ligand geometry

2 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
2	C47	O	1327	-	35,36,36	4.08	20 (57%)	39,50,50	3.52	20 (51%)
2	C47	C	1327	-	35,36,36	3.14	18 (51%)	39,50,50	2.98	17 (43%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	C47	O	1327	-	-	7/37/49/49	0/2/2/2
2	C47	C	1327	-	-	6/37/49/49	0/2/2/2

All (38) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	O	1327	C47	O4-C3	11.91	1.51	1.21
2	O	1327	C47	C12-C7	-8.19	1.28	1.40
2	C	1327	C47	C11-C12	7.99	1.52	1.39
2	C	1327	C47	C9-C8	7.82	1.52	1.38
2	O	1327	C47	C12-N13	7.71	1.54	1.41
2	O	1327	C47	O2-C3	7.21	1.51	1.33
2	O	1327	C47	C19-C18	6.83	1.67	1.53
2	C	1327	C47	C12-N13	6.16	1.51	1.41
2	O	1327	C47	O16-C15	5.66	1.35	1.23
2	O	1327	C47	C26-C27	-4.70	1.42	1.54
2	C	1327	C47	C14-C5	-4.65	1.46	1.53
2	O	1327	C47	C6-C7	-4.48	1.43	1.51
2	O	1327	C47	C6-C5	4.37	1.64	1.52
2	C	1327	C47	O2-C3	4.32	1.43	1.33
2	O	1327	C47	C10-C11	4.31	1.46	1.38
2	C	1327	C47	C17-C18	-4.07	1.45	1.54
2	O	1327	C47	C9-C8	4.03	1.45	1.38
2	O	1327	C47	C21-C22	3.90	1.57	1.53
2	C	1327	C47	C26-C24	3.61	1.61	1.53
2	O	1327	C47	C26-C24	-3.56	1.44	1.53
2	C	1327	C47	C15-N13	3.48	1.41	1.36
2	O	1327	C47	C29-N31	3.43	1.41	1.33
2	C	1327	C47	O2-C1	3.33	1.52	1.45
2	C	1327	C47	C8-C7	3.02	1.44	1.39
2	C	1327	C47	C12-C7	3.00	1.44	1.40
2	C	1327	C47	O30-C29	-2.76	1.18	1.23
2	C	1327	C47	O25-C24	2.71	1.49	1.43
2	C	1327	C47	C22-N23	2.71	1.58	1.47
2	C	1327	C47	C19-C18	-2.63	1.48	1.53
2	C	1327	C47	C33-C32	-2.61	1.41	1.51
2	C	1327	C47	C29-N31	-2.57	1.27	1.33
2	O	1327	C47	C11-C12	2.57	1.43	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	O	1327	C47	C17-C15	-2.51	1.48	1.51
2	O	1327	C47	C10-C9	2.43	1.43	1.38
2	C	1327	C47	C14-N13	-2.43	1.41	1.46
2	O	1327	C47	C24-C22	2.25	1.55	1.53
2	O	1327	C47	C32-N31	-2.18	1.41	1.46
2	O	1327	C47	C35-C34	2.12	1.65	1.50

All (37) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	C	1327	C47	O2-C3-C5	9.02	125.25	111.76
2	O	1327	C47	C6-C5-C3	-7.51	86.70	110.40
2	C	1327	C47	O25-C24-C22	-6.95	96.28	109.48
2	O	1327	C47	O2-C3-O4	6.36	136.22	123.85
2	C	1327	C47	C28-C27-C29	6.35	121.30	109.64
2	O	1327	C47	C10-C9-C8	-6.21	112.58	120.24
2	O	1327	C47	O2-C3-C5	5.78	120.41	111.76
2	O	1327	C47	C14-N13-C12	5.55	131.64	115.09
2	O	1327	C47	C14-C5-C3	-5.46	100.72	110.89
2	O	1327	C47	O25-C24-C22	5.46	119.86	109.48
2	C	1327	C47	C14-C5-C3	-5.31	101.00	110.89
2	O	1327	C47	O4-C3-C5	-5.28	103.33	123.07
2	O	1327	C47	O25-C24-C26	5.24	119.64	109.15
2	O	1327	C47	C6-C7-C12	-4.94	111.98	120.17
2	O	1327	C47	C8-C7-C12	4.81	124.62	118.27
2	O	1327	C47	C20-C18-C19	4.80	126.47	109.51
2	C	1327	C47	C6-C5-C3	-4.40	96.53	110.40
2	C	1327	C47	C27-C29-N31	4.06	121.95	116.68
2	O	1327	C47	C19-C18-C17	-3.98	98.98	109.36
2	C	1327	C47	O2-C3-O4	-3.64	116.77	123.85
2	O	1327	C47	C20-C18-C21	-3.44	98.44	109.44
2	C	1327	C47	C7-C12-N13	-3.05	114.26	118.17
2	O	1327	C47	C28-C27-C26	-2.98	105.63	111.52
2	C	1327	C47	O30-C29-N31	-2.96	116.73	122.98
2	O	1327	C47	C27-C29-N31	2.95	120.50	116.68
2	O	1327	C47	O16-C15-C17	-2.81	116.20	121.63
2	C	1327	C47	C10-C9-C8	2.76	123.65	120.24
2	O	1327	C47	O16-C15-N13	2.58	125.29	121.70
2	O	1327	C47	C20-C18-C17	2.53	115.96	109.36
2	C	1327	C47	C1-O2-C3	-2.46	110.34	115.92
2	C	1327	C47	C9-C8-C7	-2.41	117.35	120.88
2	C	1327	C47	C11-C12-N13	2.36	124.69	121.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	C	1327	C47	C33-C32-N31	-2.35	105.61	112.20
2	C	1327	C47	C14-N13-C12	2.28	121.89	115.09
2	O	1327	C47	C11-C12-N13	2.26	124.54	121.37
2	C	1327	C47	C35-C34-C33	-2.06	99.45	113.36
2	C	1327	C47	C32-N31-C29	2.02	126.18	122.55

There are no chirality outliers.

All (13) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	C	1327	C47	C18-C21-C22-N23
2	C	1327	C47	C26-C27-C29-O30
2	O	1327	C47	O2-C3-C5-C14
2	O	1327	C47	O4-C3-C5-C14
2	O	1327	C47	C18-C21-C22-N23
2	O	1327	C47	C5-C3-O2-C1
2	C	1327	C47	C33-C32-N31-C29
2	O	1327	C47	N31-C32-C33-C34
2	O	1327	C47	O4-C3-O2-C1
2	C	1327	C47	N31-C32-C33-C34
2	C	1327	C47	C26-C27-C29-N31
2	O	1327	C47	C33-C32-N31-C29
2	C	1327	C47	O2-C3-C5-C14

There are no ring outliers.

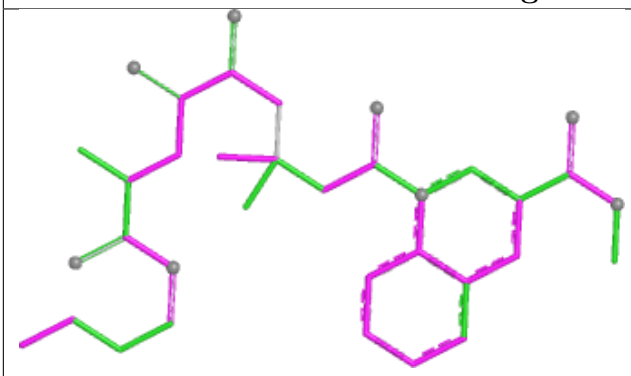
2 monomers are involved in 26 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	O	1327	C47	15	0
2	C	1327	C47	11	0

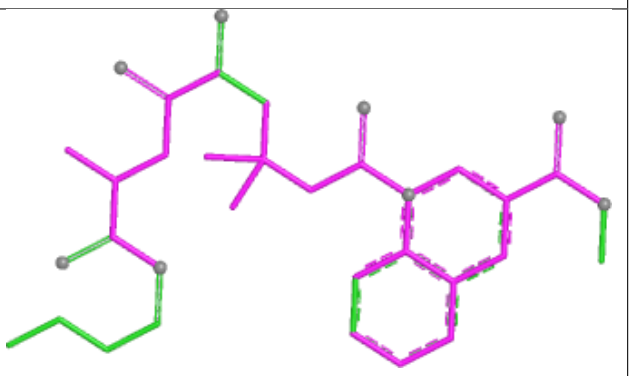
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient

equivalents in the CSD to analyse the geometry.

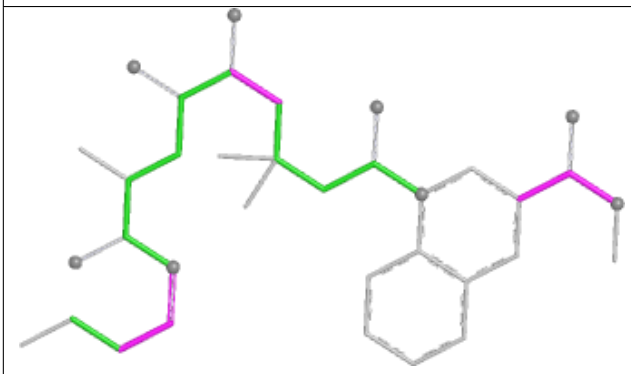
Ligand C47 O 1327



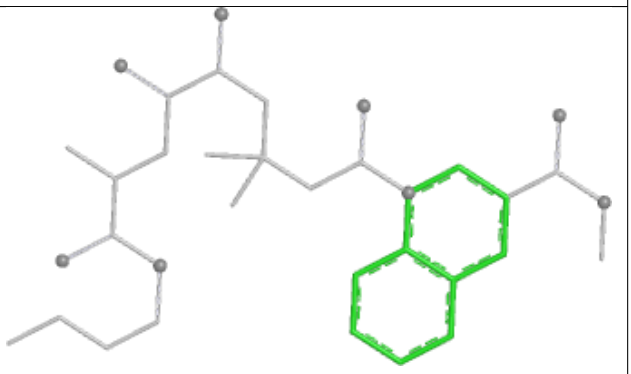
Bond lengths



Bond angles

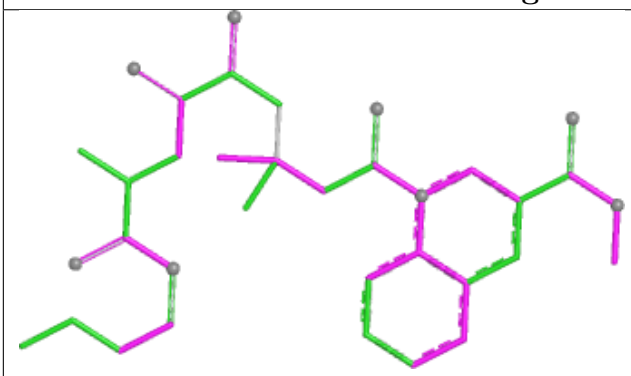


Torsions

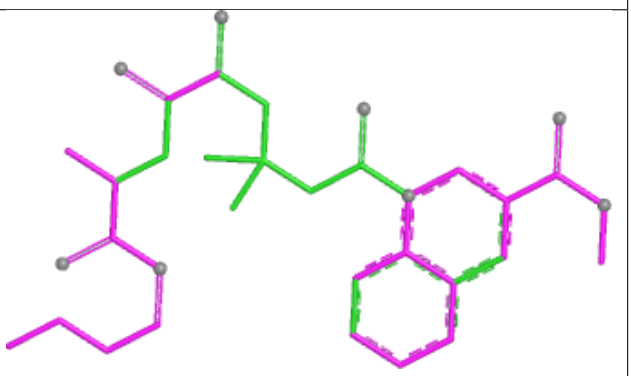


Rings

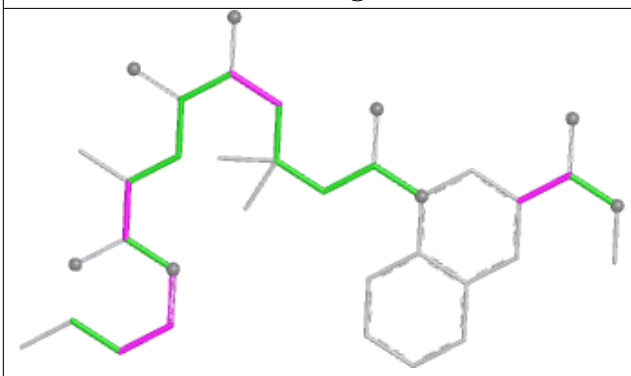
Ligand C47 C 1327



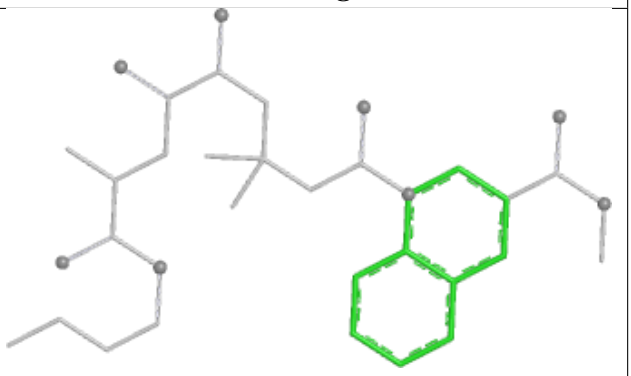
Bond lengths



Bond angles



Torsions



Rings

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	C	9
1	O	5

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	O	194:MET	C	195:LYS	N	1.20
1	O	258:ILE	C	259:SER	N	1.20
1	C	47:ARG	C	47(A):LEU	N	1.19
1	C	111:PRO	C	112:PHE	N	1.19
1	C	268:THR	C	269:LEU	N	1.19
1	C	274:TYR	C	275:VAL	N	1.19
1	O	133:VAL	C	134:THR	N	1.19
1	C	58:ALA	C	59:SER	N	1.18
1	C	318:ASN	C	319:ARG	N	1.18
1	C	200:GLY	C	201:SER	N	1.17
1	O	56:PHE	C	57:ASP	N	1.17
1	O	225:THR	C	226:SER	N	1.15
1	C	42:SER	C	43:SER	N	1.12
1	C	64:TYR	C	65:LYS	N	1.06

6 Fit of model and data

6.1 Protein, DNA and RNA chains

EDS was not executed - this section is therefore empty.

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

EDS was not executed - this section is therefore empty.

6.3 Carbohydrates

EDS was not executed - this section is therefore empty.

6.4 Ligands

EDS was not executed - this section is therefore empty.

6.5 Other polymers

EDS was not executed - this section is therefore empty.