



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 8, 2026 – 04:09 PM UTC

PDB ID : 2J4U / pdb_00002j4u
Title : E.coli OmpC - camel Lactoferrin complex
Authors : Baalaji, S.; Acharya, R.K.; Singh, T.P.; Krishnaswamy, S.
Deposited on : 2006-09-06
Resolution : 2.99 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

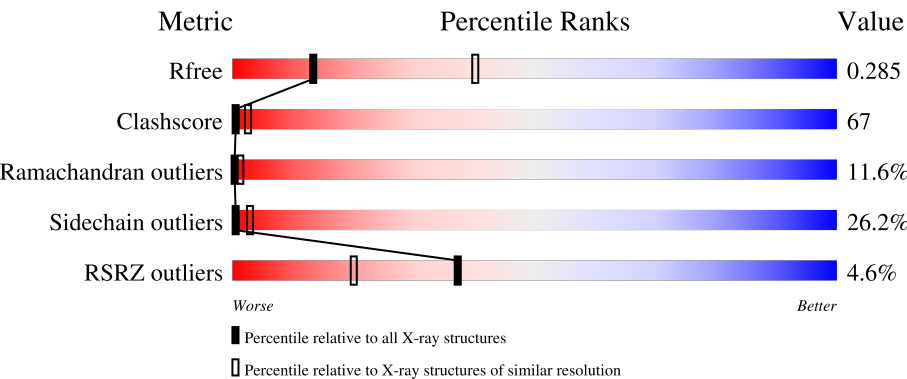
MolProbity	:	4-5-2 with Phenix2.0
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
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 2.99 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))
R_{free}	180053	2672 (3.00-3.00)
Clashscore	190562	2977 (3.00-3.00)
Ramachandran outliers	187476	2877 (3.00-3.00)
Sidechain outliers	187428	2880 (3.00-3.00)
RSRZ outliers	180081	2671 (3.00-3.00)

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

Mol	Chain	Length	Quality of chain
1	P	346	
1	Q	346	
1	R	346	
1	U	346	
1	V	346	

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Mol	Chain	Length	Quality of chain
1	W	346	2%12%39%33%13%
2	S	45	71%7%9%31%53%
2	X	45	76%20%29%49%

2 Entry composition

There are 2 unique types of molecules in this entry. The entry contains 16534 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 OUTER MEMBRANE PROTEIN C PRECURSOR.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	P	337	Total	C	N	O	S	0	0	0
			2636	1653	441	539	3			
1	Q	337	Total	C	N	O	S	0	0	0
			2636	1653	441	539	3			
1	R	337	Total	C	N	O	S	0	0	0
			2636	1653	441	539	3			
1	U	337	Total	C	N	O	S	0	0	0
			2636	1653	441	539	3			
1	V	337	Total	C	N	O	S	0	0	0
			2636	1653	441	539	3			
1	W	337	Total	C	N	O	S	0	0	0
			2636	1653	441	539	3			

- Molecule 2 is a protein called LACTOTRANSFERRIN.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	S	45	Total	C	N	O	S	0	0	0
			359	221	72	61	5			
2	X	45	Total	C	N	O	S	0	0	0
			359	221	72	61	5			

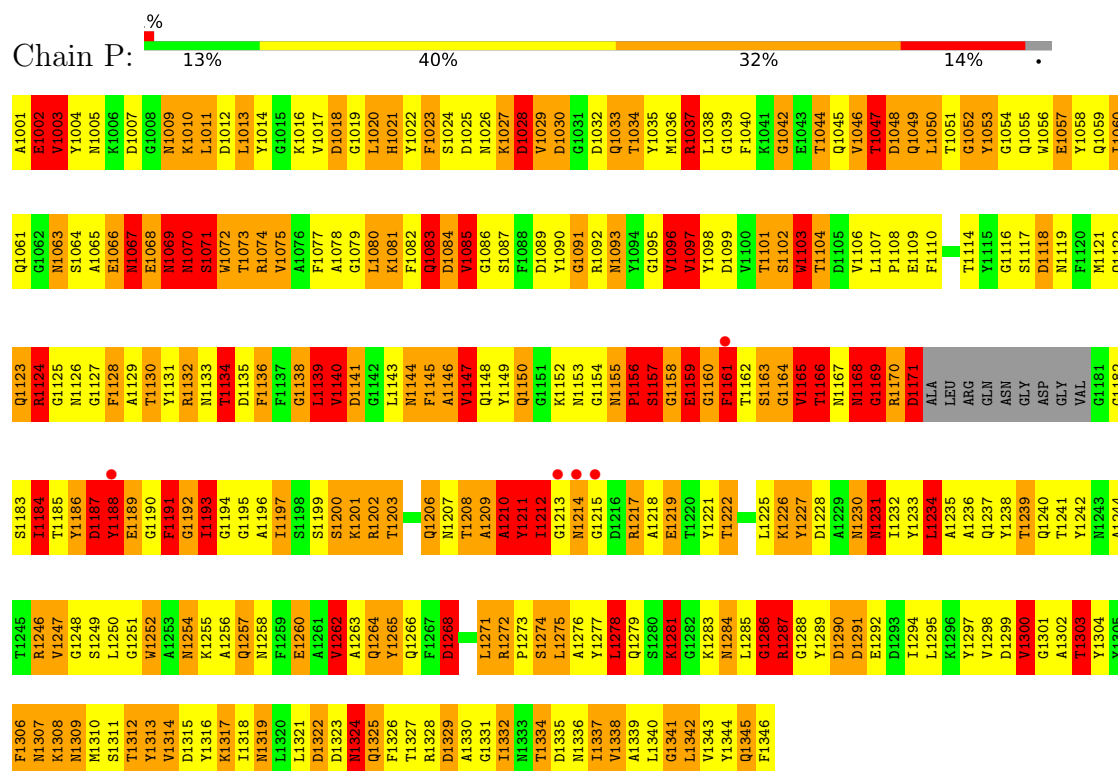
There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
S	1017	LYS	SER	conflict	UNP Q9TUM0
X	1017	LYS	SER	conflict	UNP Q9TUM0

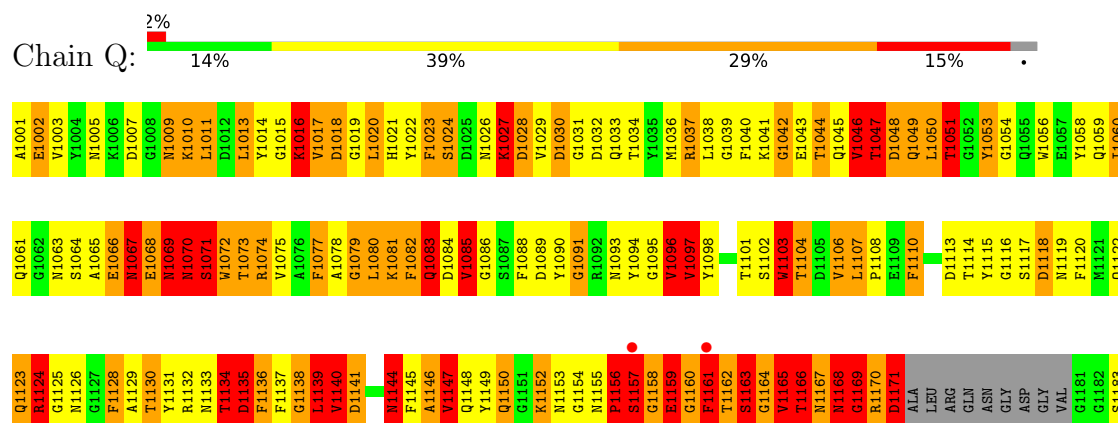
3 Residue-property plots

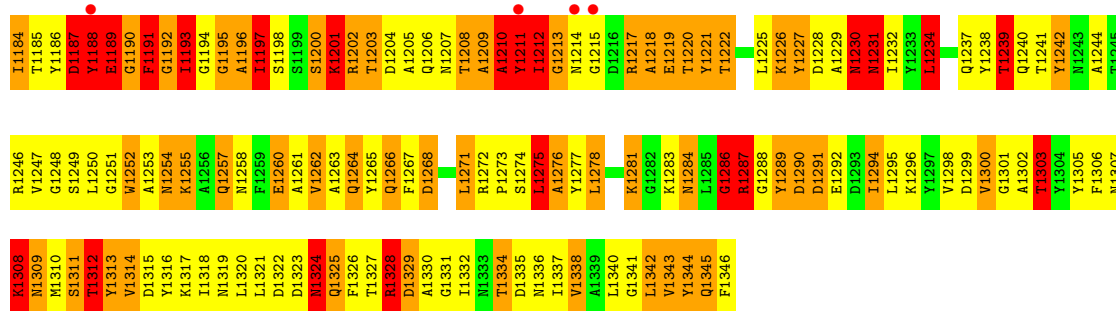
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density.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

• Molecule 1: OUTER MEMBRANE PROTEIN C PRECURSOR

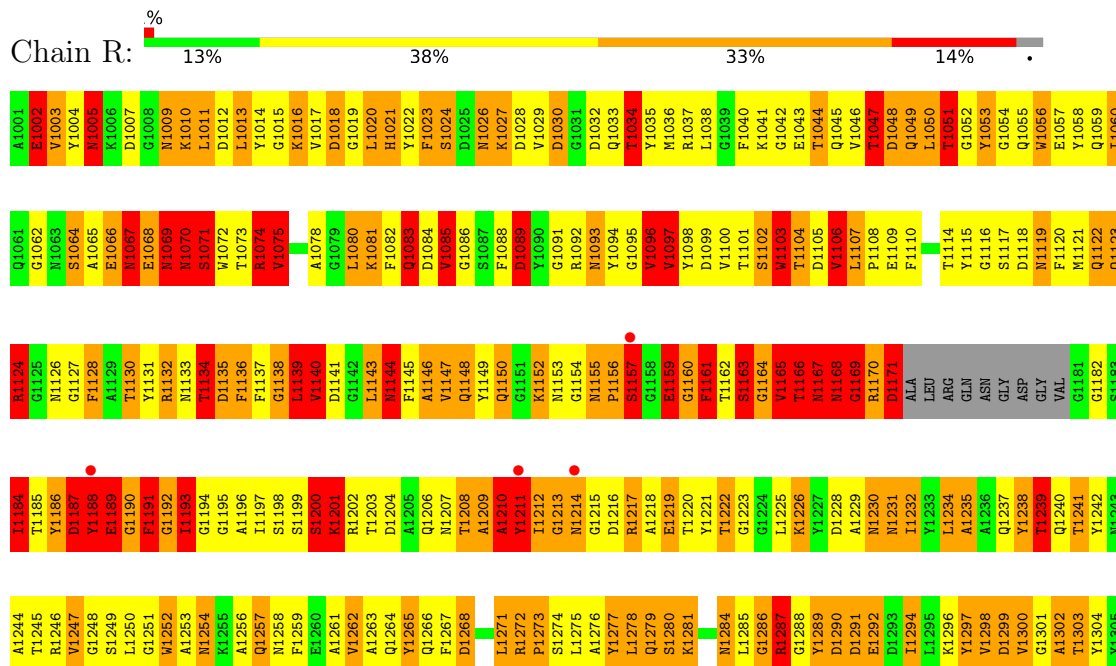


• Molecule 1: OUTER MEMBRANE PROTEIN C PRECURSOR

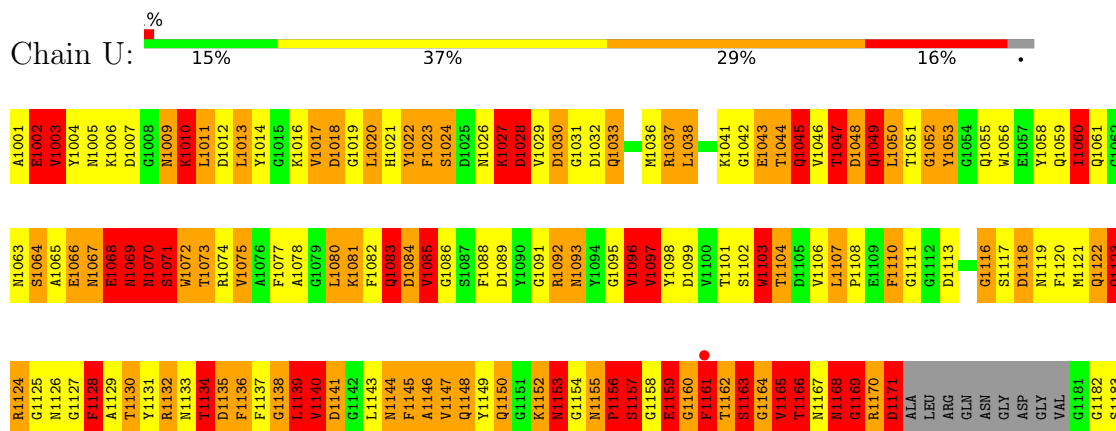


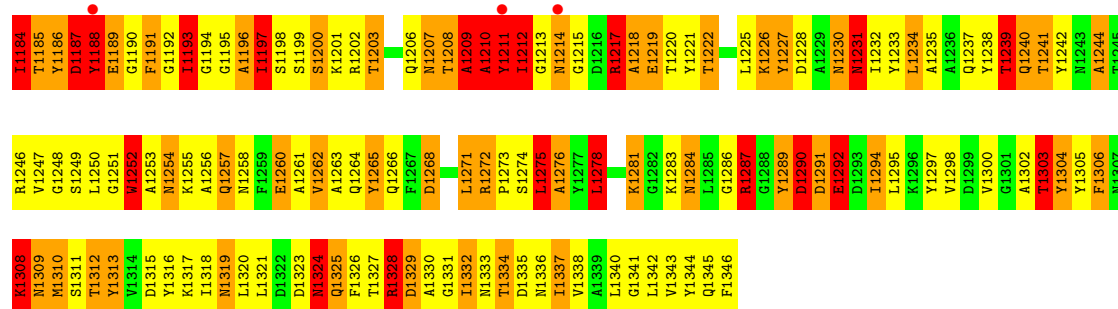


• Molecule 1: OUTER MEMBRANE PROTEIN C PRECURSOR

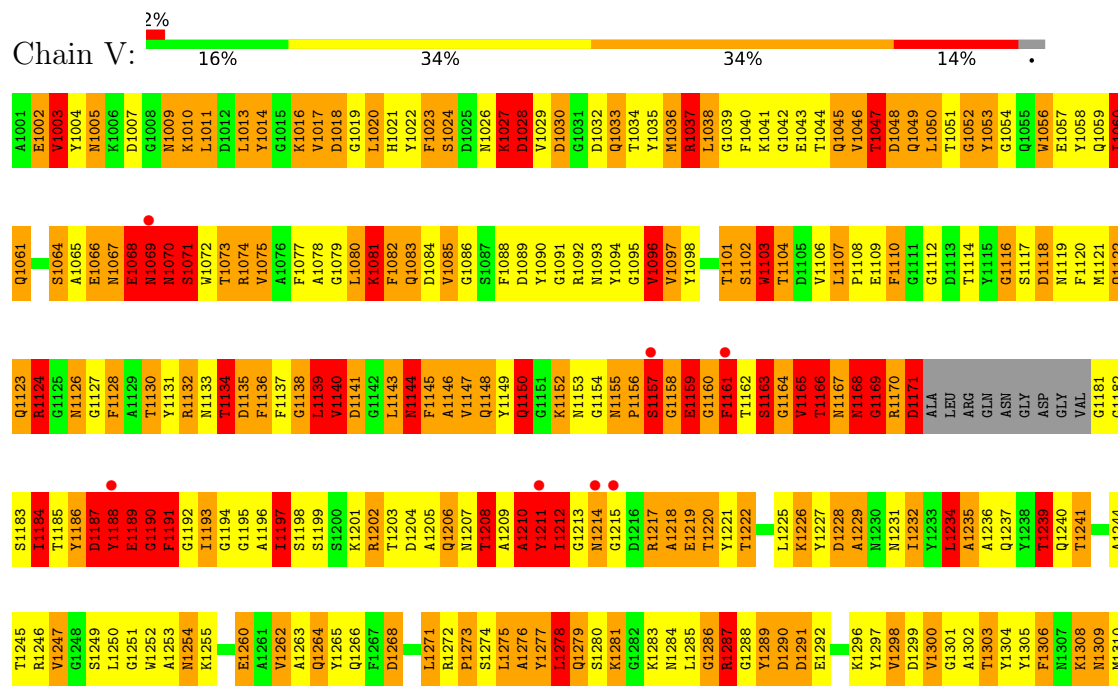


• Molecule 1: OUTER MEMBRANE PROTEIN C PRECURSOR

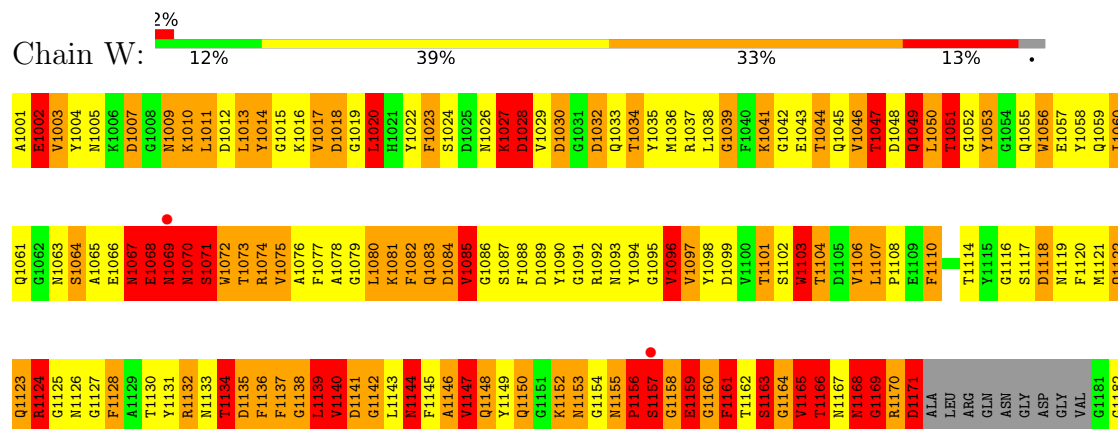


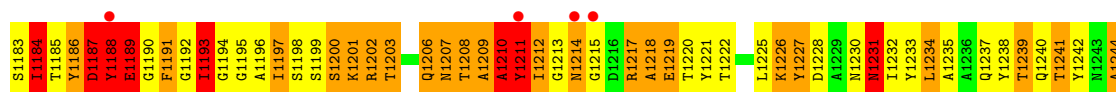


• Molecule 1: OUTER MEMBRANE PROTEIN C PRECURSOR

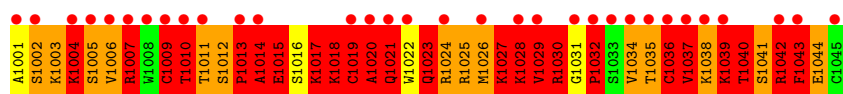


• Molecule 1: OUTER MEMBRANE PROTEIN C PRECURSOR

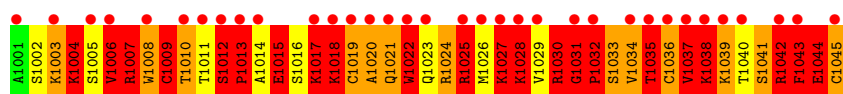
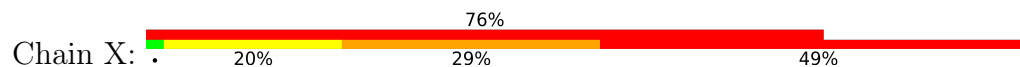




• Molecule 2: LACTOTRANSFERRIN



• Molecule 2: LACTOTRANSFERRIN



4 Data and refinement statistics

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α , β , γ	201.47Å 116.29Å 152.28Å 90.00° 90.03° 90.00°	Depositor
Resolution (Å)	152.50 – 2.99 152.28 – 2.99	Depositor EDS
% Data completeness (in resolution range)	78.8 (152.50-2.99) 78.7 (152.28-2.99)	Depositor EDS
R_{merge}	0.07	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	3.47 (at 2.98Å)	Xtriage
Refinement program	REFMAC 5.2.0005	Depositor
R, R_{free}	0.215 , 0.282 0.216 , 0.285	Depositor DCC
R_{free} test set	2831 reflections (4.00%)	wwPDB-VP
Wilson B-factor (Å ²)	44.2	Xtriage
Anisotropy	0.140	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.38 , 52.6	EDS
L-test for twinning ²	$\langle L \rangle = 0.50$, $\langle L^2 \rangle = 0.33$	Xtriage
Estimated twinning fraction	0.467 for -1/2*h-3/2*k,-1/2*h+1/2*k,-l 0.467 for -1/2*h+3/2*k,1/2*h+1/2*k,-l 0.467 for 1/2*h-3/2*k,-1/2*h-1/2*k,-l 0.459 for 1/2*h+3/2*k,1/2*h-1/2*k,-l 0.468 for -h,-k,l	Xtriage
F_o , F_c correlation	0.90	EDS
Total number of atoms	16534	wwPDB-VP
Average B, all atoms (Å ²)	32.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 11.60% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality

5.1 Standard geometry

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	P	2.70	193/2692 (7.2%)	2.38	179/3641 (4.9%)
1	Q	2.64	175/2692 (6.5%)	2.35	161/3641 (4.4%)
1	R	2.70	178/2692 (6.6%)	2.41	164/3641 (4.5%)
1	U	2.67	173/2692 (6.4%)	2.37	185/3641 (5.1%)
1	V	2.69	171/2692 (6.4%)	2.35	154/3641 (4.2%)
1	W	2.69	165/2692 (6.1%)	2.38	160/3641 (4.4%)
2	S	3.50	53/365 (14.5%)	2.23	24/485 (4.9%)
2	X	3.56	53/365 (14.5%)	2.55	21/485 (4.3%)
All	All	2.73	1161/16882 (6.9%)	2.37	1048/22816 (4.6%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	P	0	12
1	Q	1	9
1	R	1	8
1	U	1	11
1	V	1	8
1	W	0	10
2	S	0	2
2	X	0	5
All	All	4	65

All (1161) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Q	1157	SER	N-CA	21.49	1.74	1.46
1	W	1157	SER	N-CA	21.39	1.73	1.46
1	V	1157	SER	N-CA	20.71	1.73	1.46
1	R	1157	SER	N-CA	20.31	1.72	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	U	1157	SER	N-CA	20.24	1.72	1.46
1	P	1157	SER	N-CA	19.20	1.71	1.46
1	V	1161	PHE	CB-CG	16.07	1.87	1.50
1	U	1165	VAL	CA-CB	-15.95	1.32	1.54
1	W	1161	PHE	CB-CG	15.77	1.86	1.50
1	U	1161	PHE	CB-CG	15.62	1.86	1.50
1	Q	1211	TYR	CA-C	15.60	1.73	1.52
1	P	1161	PHE	CB-CG	15.55	1.86	1.50
1	R	1069	ASN	C-O	14.98	1.42	1.24
1	W	1211	TYR	CA-C	14.95	1.72	1.52
1	Q	1334	THR	CA-CB	14.73	1.75	1.54
1	P	1165	VAL	CA-CB	-14.62	1.34	1.54
1	R	1161	PHE	CB-CG	14.50	1.84	1.50
1	W	1165	VAL	CA-CB	-14.40	1.36	1.54
1	Q	1161	PHE	CB-CG	14.31	1.83	1.50
1	Q	1165	VAL	CA-CB	-14.25	1.35	1.54
1	W	1069	ASN	C-O	13.77	1.41	1.24
1	W	1208	THR	CA-CB	13.33	1.63	1.53
1	V	1069	ASN	C-O	13.20	1.40	1.24
1	V	1211	TYR	CA-C	13.15	1.70	1.52
1	W	1070	ASN	CA-C	13.00	1.70	1.52
1	U	1276	ALA	CA-CB	-12.62	1.32	1.53
1	U	1211	TYR	CA-C	12.56	1.69	1.52
1	P	1211	TYR	CA-C	12.53	1.69	1.52
1	V	1165	VAL	CA-CB	-12.46	1.37	1.54
2	X	1003	LYS	CA-C	12.33	1.67	1.52
1	V	1017	VAL	CA-CB	-12.30	1.38	1.54
1	P	1161	PHE	CA-C	12.23	1.69	1.52
1	Q	1069	ASN	C-O	12.14	1.39	1.24
1	R	1161	PHE	CA-C	12.02	1.68	1.52
2	X	1012	SER	CA-C	11.94	1.67	1.52
2	S	1037	VAL	CA-CB	11.57	1.70	1.54
1	R	1211	TYR	CA-C	11.51	1.68	1.52
2	X	1018	LYS	CA-C	11.35	1.68	1.52
2	S	1014	ALA	N-CA	11.29	1.60	1.46
1	U	1147	VAL	C-O	11.29	1.35	1.23
1	U	1208	THR	CA-CB	11.05	1.61	1.53
1	P	1147	VAL	N-CA	-11.05	1.33	1.46
1	U	1302	ALA	CA-CB	-11.04	1.35	1.53
1	W	1104	THR	CA-CB	-11.02	1.38	1.53
1	W	1247	VAL	CA-C	-10.90	1.42	1.52
1	P	1334	THR	CA-CB	10.86	1.71	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	R	1165	VAL	CA-CB	-10.79	1.39	1.54
1	Q	1161	PHE	CA-C	10.77	1.67	1.52
1	U	1273	PRO	C-O	10.76	1.36	1.23
1	U	1023	PHE	C-O	10.74	1.37	1.24
1	R	1273	PRO	C-O	10.70	1.35	1.23
1	V	1157	SER	CA-C	10.67	1.67	1.52
1	U	1334	THR	CA-CB	10.58	1.69	1.53
2	S	1004	LYS	CA-C	10.58	1.67	1.52
2	S	1010	THR	CA-CB	10.46	1.71	1.53
2	S	1043	PHE	N-CA	10.44	1.59	1.46
1	V	1276	ALA	CA-CB	-10.38	1.35	1.53
1	U	1218	ALA	CA-CB	-10.38	1.38	1.53
1	R	1276	ALA	CA-CB	-10.24	1.36	1.53
1	U	1104	THR	CA-CB	-10.21	1.37	1.53
2	S	1011	THR	CA-C	10.18	1.65	1.52
2	X	1035	THR	CA-CB	10.18	1.70	1.53
1	Q	1208	THR	CA-CB	10.13	1.63	1.53
1	Q	1156	PRO	C-N	10.04	1.47	1.33
1	Q	1157	SER	CA-C	10.01	1.66	1.52
1	V	1169	GLY	CA-C	9.98	1.66	1.51
1	W	1081	LYS	N-CA	9.95	1.58	1.46
1	Q	1273	PRO	C-O	9.94	1.35	1.23
1	U	1150	GLN	CA-C	9.89	1.64	1.52
1	Q	1298	VAL	CA-C	-9.84	1.41	1.52
2	S	1019	CYS	N-CA	9.79	1.58	1.46
2	X	1006	VAL	CA-C	9.75	1.65	1.52
1	R	1081	LYS	CD-CE	9.71	1.81	1.52
1	P	1298	VAL	CA-C	-9.70	1.41	1.52
1	Q	1150	GLN	C-O	-9.67	1.13	1.24
1	U	1199	SER	C-O	-9.67	1.12	1.23
1	P	1017	VAL	CA-CB	-9.67	1.42	1.54
1	W	1319	ASN	N-CA	-9.65	1.34	1.46
1	P	1213	GLY	CA-C	9.65	1.65	1.51
1	V	1221	TYR	N-CA	9.64	1.58	1.46
1	W	1210	ALA	C-O	9.63	1.35	1.23
1	V	1273	PRO	C-O	9.61	1.34	1.23
1	U	1226	LYS	CA-C	-9.61	1.41	1.52
1	V	1150	GLN	C-O	-9.59	1.12	1.24
1	W	1302	ALA	CA-CB	-9.57	1.38	1.53
1	V	1221	TYR	C-O	9.55	1.34	1.23
1	V	1329	ASP	C-O	-9.55	1.13	1.24
2	S	1024	ARG	CA-C	9.54	1.64	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	S	1004	LYS	N-CA	9.50	1.58	1.46
1	U	1241	THR	N-CA	-9.50	1.34	1.45
1	V	1071	SER	N-CA	9.49	1.58	1.46
1	W	1273	PRO	C-O	9.47	1.34	1.23
1	P	1273	PRO	C-O	9.47	1.35	1.23
2	S	1010	THR	N-CA	9.47	1.58	1.46
2	X	1022	TRP	CA-C	9.45	1.65	1.52
1	V	1156	PRO	C-N	9.39	1.46	1.33
1	R	1182	GLY	N-CA	9.38	1.54	1.45
1	U	1046	VAL	CA-CB	9.36	1.66	1.54
1	R	1334	THR	CA-CB	9.27	1.69	1.53
1	P	1156	PRO	C-N	9.25	1.46	1.33
1	P	1166	THR	CA-CB	9.21	1.69	1.53
1	R	1155	ASN	CA-C	-9.18	1.40	1.52
1	P	1161	PHE	CA-CB	9.17	1.69	1.53
1	W	1214	ASN	CA-CB	9.11	1.66	1.52
1	V	1227	TYR	CA-C	-9.09	1.42	1.52
2	S	1032	PRO	N-CA	9.09	1.58	1.47
1	P	1262	VAL	C-O	9.09	1.33	1.24
2	X	1006	VAL	CA-CB	9.07	1.66	1.54
2	X	1042	ARG	CA-C	9.03	1.64	1.52
1	P	1277	TYR	CA-C	-9.02	1.41	1.52
1	V	1161	PHE	CD1-CE1	8.97	1.65	1.38
1	R	1070	ASN	CA-C	8.96	1.64	1.52
1	U	1070	ASN	CA-C	8.94	1.64	1.52
1	U	1122	GLN	N-CA	-8.93	1.35	1.46
1	V	1161	PHE	CA-C	8.91	1.64	1.52
1	P	1070	ASN	CA-C	8.89	1.64	1.52
2	X	1022	TRP	N-CA	8.88	1.57	1.46
1	U	1161	PHE	CA-CB	8.83	1.68	1.53
1	W	1071	SER	CA-C	8.79	1.64	1.52
2	X	1037	VAL	CA-CB	8.78	1.66	1.54
1	Q	1073	THR	C-O	8.77	1.34	1.24
1	V	1070	ASN	C-O	8.75	1.35	1.24
1	R	1169	GLY	CA-C	8.75	1.64	1.51
1	Q	1227	TYR	CA-C	-8.73	1.43	1.52
1	U	1240	GLN	CA-C	-8.72	1.41	1.52
1	V	1011	LEU	CA-C	-8.71	1.42	1.52
1	Q	1214	ASN	CA-CB	8.71	1.66	1.52
1	V	1234	LEU	C-O	8.70	1.35	1.24
1	W	1186	TYR	N-CA	-8.68	1.35	1.45
1	V	1071	SER	CA-C	8.65	1.64	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	P	1139	LEU	CA-C	8.65	1.64	1.52
1	V	1208	THR	CA-CB	8.61	1.62	1.53
1	V	1155	ASN	CA-C	-8.60	1.41	1.52
1	V	1068	GLU	CG-CD	8.60	1.73	1.52
1	V	1298	VAL	CA-C	-8.60	1.42	1.52
1	W	1241	THR	N-CA	-8.59	1.35	1.45
1	W	1187	ASP	CA-C	8.59	1.62	1.52
1	P	1221	TYR	CA-C	-8.58	1.42	1.52
1	P	1212	ILE	C-O	-8.58	1.13	1.24
1	U	1221	TYR	C-O	8.57	1.33	1.23
1	V	1210	ALA	C-O	8.57	1.34	1.23
1	W	1152	LYS	C-O	-8.55	1.13	1.23
1	W	1134	THR	CB-CG2	8.54	1.80	1.52
1	V	1152	LYS	C-O	-8.49	1.13	1.24
1	U	1166	THR	N-CA	-8.45	1.36	1.46
1	U	1187	ASP	CA-C	8.45	1.62	1.52
1	R	1268	ASP	CB-CG	8.43	1.73	1.52
1	P	1208	THR	CA-CB	8.42	1.59	1.53
1	U	1069	ASN	C-O	8.37	1.34	1.24
1	Q	1276	ALA	CA-CB	-8.37	1.39	1.53
1	P	1070	ASN	C-O	8.34	1.34	1.24
1	R	1068	GLU	CG-CD	8.33	1.72	1.52
2	X	1003	LYS	N-CA	8.33	1.55	1.45
1	P	1157	SER	CA-C	8.32	1.64	1.52
1	P	1214	ASN	CA-CB	8.32	1.65	1.52
1	U	1070	ASN	C-O	8.32	1.34	1.24
2	X	1030	ARG	N-CA	8.32	1.58	1.46
1	V	1081	LYS	CD-CE	8.30	1.77	1.52
1	P	1081	LYS	N-CA	8.29	1.56	1.46
1	V	1147	VAL	N-CA	-8.29	1.36	1.46
1	W	1018	ASP	N-CA	-8.28	1.36	1.46
1	W	1155	ASN	CA-C	-8.27	1.42	1.52
1	W	1070	ASN	C-O	8.26	1.34	1.24
1	P	1032	ASP	CA-CB	-8.25	1.41	1.53
1	V	1167	ASN	N-CA	8.25	1.55	1.46
1	W	1147	VAL	N-CA	-8.23	1.36	1.46
1	Q	1324	ASN	N-CA	8.23	1.55	1.46
1	U	1128	PHE	CA-C	-8.23	1.42	1.52
1	U	1161	PHE	CA-C	8.23	1.63	1.52
1	V	1075	VAL	CA-CB	-8.22	1.46	1.55
1	V	1314	VAL	C-O	8.22	1.32	1.24
1	Q	1071	SER	N-CA	8.21	1.56	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	V	1268	ASP	CB-CG	8.21	1.72	1.52
1	U	1156	PRO	C-N	8.20	1.45	1.33
1	R	1032	ASP	N-CA	-8.20	1.36	1.46
1	V	1278	LEU	C-O	8.18	1.33	1.23
1	U	1222	THR	N-CA	-8.18	1.35	1.46
1	V	1046	VAL	CA-CB	8.16	1.64	1.54
1	U	1169	GLY	CA-C	8.12	1.63	1.51
2	S	1013	PRO	CA-C	8.12	1.64	1.52
2	S	1024	ARG	N-CA	8.10	1.55	1.46
1	U	1268	ASP	CB-CG	8.09	1.72	1.52
1	W	1071	SER	N-CA	8.09	1.56	1.46
1	R	1308	LYS	CA-C	-8.08	1.44	1.53
1	Q	1068	GLU	CG-CD	8.08	1.72	1.52
1	R	1147	VAL	N-CA	-8.08	1.36	1.46
1	R	1086	GLY	N-CA	8.08	1.54	1.45
1	V	1168	ASN	CA-C	-8.06	1.41	1.52
2	X	1040	THR	CA-C	8.05	1.62	1.53
1	Q	1301	GLY	C-O	8.04	1.33	1.24
1	R	1239	THR	CA-C	-8.03	1.42	1.52
2	X	1007	ARG	N-CA	8.01	1.56	1.46
1	Q	1219	GLU	CA-C	-8.00	1.43	1.52
1	U	1298	VAL	CA-C	-7.99	1.43	1.52
1	W	1218	ALA	CA-CB	-7.99	1.41	1.53
1	U	1120	PHE	CA-C	-7.98	1.42	1.52
1	W	1308	LYS	CA-C	-7.97	1.44	1.53
2	X	1005	SER	N-CA	7.96	1.56	1.46
1	R	1334	THR	C-O	-7.96	1.14	1.24
1	W	1316	TYR	CA-C	7.95	1.61	1.53
1	P	1032	ASP	N-CA	-7.94	1.36	1.46
1	R	1223	GLY	C-O	7.93	1.33	1.23
1	Q	1161	PHE	CD1-CE1	7.92	1.62	1.38
1	U	1153	ASN	N-CA	7.92	1.56	1.46
1	P	1086	GLY	N-CA	7.92	1.54	1.44
2	S	1023	GLN	CA-C	7.91	1.63	1.52
1	U	1161	PHE	CG-CD2	7.90	1.55	1.38
1	Q	1017	VAL	CA-CB	-7.90	1.44	1.54
1	W	1134	THR	CA-C	7.89	1.63	1.53
1	U	1329	ASP	C-O	-7.89	1.14	1.24
2	X	1037	VAL	CA-C	7.86	1.62	1.52
1	Q	1338	VAL	C-O	7.86	1.32	1.24
1	U	1210	ALA	C-O	7.85	1.34	1.23
1	Q	1161	PHE	CA-CB	7.85	1.66	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	W	1159	GLU	CA-C	7.84	1.63	1.52
1	V	1086	GLY	N-CA	7.83	1.53	1.45
1	R	1157	SER	CA-C	7.83	1.63	1.52
1	V	1323	ASP	CB-CG	-7.82	1.32	1.52
1	R	1170	ARG	CA-C	7.81	1.63	1.52
1	U	1073	THR	C-O	7.81	1.33	1.24
1	P	1241	THR	N-CA	-7.81	1.36	1.45
1	V	1104	THR	CA-CB	-7.80	1.41	1.53
1	R	1161	PHE	CA-CB	7.80	1.66	1.53
1	P	1085	VAL	CA-CB	-7.79	1.43	1.54
1	R	1070	ASN	C-O	7.78	1.33	1.24
1	W	1086	GLY	N-CA	7.78	1.53	1.45
1	U	1161	PHE	CD1-CE1	7.77	1.61	1.38
2	S	1039	LYS	CA-C	7.75	1.63	1.52
1	W	1023	PHE	C-O	7.75	1.33	1.24
1	R	1186	TYR	N-CA	-7.74	1.36	1.45
1	W	1018	ASP	CA-C	7.74	1.61	1.52
1	W	1339	ALA	CA-CB	-7.73	1.40	1.53
2	X	1038	LYS	CA-C	7.73	1.63	1.52
1	Q	1018	ASP	N-CA	-7.71	1.37	1.46
1	V	1219	GLU	N-CA	-7.71	1.36	1.46
1	W	1227	TYR	CA-C	-7.69	1.43	1.52
1	Q	1221	TYR	N-CA	7.68	1.55	1.46
1	V	1188	TYR	N-CA	7.68	1.56	1.46
1	V	1334	THR	CA-CB	7.67	1.67	1.54
1	Q	1218	ALA	C-O	7.67	1.33	1.24
1	Q	1302	ALA	CA-CB	-7.67	1.40	1.53
1	R	1240	GLN	CA-C	-7.67	1.43	1.52
1	U	1188	TYR	CA-C	7.66	1.63	1.52
1	P	1188	TYR	CA-C	7.66	1.63	1.52
1	U	1263	ALA	CA-CB	-7.66	1.41	1.53
1	V	1241	THR	N-CA	-7.66	1.36	1.45
1	P	1329	ASP	C-O	-7.64	1.15	1.24
1	R	1134	THR	CB-CG2	7.63	1.77	1.52
1	W	1226	LYS	CA-C	-7.63	1.43	1.52
1	Q	1201	LYS	C-O	-7.62	1.14	1.23
1	Q	1104	THR	CA-CB	-7.61	1.42	1.53
1	P	1210	ALA	C-O	7.60	1.33	1.23
1	V	1073	THR	C-O	7.59	1.33	1.24
1	W	1081	LYS	CD-CE	7.59	1.75	1.52
1	W	1161	PHE	CA-CB	7.59	1.66	1.53
1	Q	1221	TYR	CA-C	-7.59	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	U	1329	ASP	CA-C	-7.59	1.43	1.52
1	V	1159	GLU	CA-C	7.59	1.62	1.52
1	R	1009	ASN	CA-C	7.57	1.62	1.52
1	R	1265	TYR	C-O	7.55	1.32	1.24
1	W	1156	PRO	C-N	7.53	1.44	1.33
2	S	1014	ALA	CA-CB	7.53	1.66	1.53
1	W	1068	GLU	CG-CD	7.53	1.70	1.52
1	V	1032	ASP	CA-CB	-7.52	1.43	1.53
1	U	1212	ILE	C-O	-7.51	1.15	1.24
1	W	1188	TYR	CA-C	7.51	1.62	1.52
1	Q	1071	SER	CA-C	7.50	1.62	1.52
1	R	1314	VAL	C-O	7.50	1.31	1.24
1	W	1276	ALA	CA-CB	-7.49	1.40	1.53
1	P	1071	SER	CA-C	7.48	1.62	1.52
1	R	1057	GLU	CA-C	-7.48	1.43	1.52
1	Q	1166	THR	N-CA	-7.47	1.37	1.46
1	R	1168	ASN	CB-CG	-7.47	1.33	1.52
1	U	1134	THR	CA-C	7.47	1.62	1.52
1	W	1306	PHE	N-CA	7.46	1.55	1.46
1	U	1161	PHE	CG-CD1	7.46	1.54	1.38
1	U	1252	TRP	CA-CB	7.45	1.64	1.53
1	U	1150	GLN	C-O	-7.44	1.15	1.24
1	R	1321	LEU	C-O	7.43	1.32	1.23
1	U	1032	ASP	CA-CB	-7.43	1.43	1.53
1	P	1324	ASN	N-CA	7.40	1.55	1.46
2	X	1010	THR	CA-CB	7.40	1.66	1.53
1	Q	1254	ASN	CG-ND2	7.39	1.48	1.33
1	P	1167	ASN	N-CA	7.39	1.54	1.46
1	P	1122	GLN	N-CA	-7.38	1.37	1.46
2	X	1042	ARG	N-CA	7.36	1.55	1.45
1	U	1214	ASN	CA-CB	7.36	1.66	1.53
1	Q	1122	GLN	N-CA	-7.35	1.37	1.46
2	S	1032	PRO	CA-C	7.34	1.62	1.52
1	P	1192	GLY	CA-C	-7.33	1.45	1.51
1	R	1015	GLY	N-CA	-7.32	1.38	1.45
1	Q	1089	ASP	CA-C	-7.32	1.43	1.52
1	W	1069	ASN	CA-CB	7.31	1.65	1.53
1	P	1171	ASP	CG-OD1	7.31	1.39	1.25
1	W	1202	ARG	CA-C	7.30	1.61	1.52
1	U	1145	PHE	CA-C	7.30	1.61	1.52
1	Q	1171	ASP	C-O	7.30	1.38	1.23
1	W	1160	GLY	C-N	7.30	1.44	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Q	1241	THR	N-CA	-7.28	1.36	1.45
2	S	1043	PHE	CA-C	7.28	1.62	1.52
1	V	1134	THR	CB-CG2	7.28	1.76	1.52
1	P	1252	TRP	CG-CD1	7.27	1.55	1.36
1	P	1321	LEU	N-CA	7.27	1.54	1.46
1	Q	1169	GLY	CA-C	7.27	1.62	1.51
1	U	1213	GLY	CA-C	7.26	1.62	1.51
2	X	1006	VAL	N-CA	7.26	1.55	1.46
1	Q	1268	ASP	CB-CG	7.26	1.70	1.52
1	W	1161	PHE	CA-C	7.26	1.62	1.52
1	P	1024	SER	CA-C	-7.25	1.43	1.52
1	W	1314	VAL	C-O	7.25	1.31	1.24
2	X	1012	SER	N-CA	7.25	1.56	1.46
1	P	1145	PHE	CA-C	7.22	1.61	1.52
1	W	1306	PHE	C-O	-7.21	1.15	1.24
1	P	1092	ARG	CZ-NH1	7.21	1.42	1.32
1	R	1241	THR	N-CA	-7.21	1.36	1.45
2	X	1013	PRO	CA-C	7.21	1.62	1.52
1	U	1024	SER	CA-C	-7.20	1.43	1.52
1	R	1024	SER	CA-C	-7.19	1.43	1.52
1	P	1161	PHE	CD1-CE1	7.19	1.60	1.38
1	R	1156	PRO	C-N	7.19	1.43	1.33
1	V	1144	ASN	CA-C	-7.19	1.44	1.52
1	P	1029	VAL	CA-C	7.19	1.62	1.52
1	P	1025	ASP	C-O	7.18	1.33	1.24
1	R	1226	LYS	CA-C	-7.18	1.43	1.52
1	V	1081	LYS	C-O	7.18	1.32	1.24
1	R	1298	VAL	CA-C	-7.17	1.44	1.52
1	U	1139	LEU	CA-C	7.17	1.62	1.52
1	U	1003	VAL	CA-C	7.17	1.61	1.52
1	W	1161	PHE	CD1-CE1	7.17	1.60	1.38
1	Q	1029	VAL	CA-C	7.16	1.61	1.52
1	P	1040	PHE	CA-C	-7.16	1.44	1.52
1	V	1301	GLY	C-O	7.16	1.32	1.24
1	V	1312	THR	CA-C	-7.15	1.43	1.52
1	R	1323	ASP	CB-CG	-7.15	1.34	1.52
1	P	1221	TYR	N-CA	7.14	1.54	1.46
1	U	1171	ASP	CG-OD1	7.13	1.39	1.25
1	V	1161	PHE	CA-CB	7.13	1.65	1.53
1	V	1070	ASN	CA-C	7.13	1.62	1.52
1	U	1116	GLY	N-CA	7.12	1.53	1.44
2	X	1005	SER	CA-C	7.12	1.62	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	X	1044	GLU	CA-C	7.12	1.62	1.52
2	S	1040	THR	CA-CB	7.11	1.65	1.53
1	P	1067	ASN	N-CA	-7.11	1.36	1.46
1	R	1017	VAL	CA-CB	-7.10	1.45	1.54
1	U	1168	ASN	CA-CB	-7.10	1.42	1.54
1	Q	1147	VAL	N-CA	-7.10	1.38	1.46
1	Q	1187	ASP	CA-C	7.08	1.60	1.53
1	Q	1167	ASN	N-CA	7.08	1.55	1.46
1	Q	1313	TYR	CA-C	-7.07	1.43	1.52
1	Q	1165	VAL	C-O	7.06	1.32	1.24
1	Q	1161	PHE	N-CA	7.05	1.55	1.46
1	Q	1213	GLY	CA-C	7.05	1.61	1.51
1	R	1188	TYR	N-CA	7.05	1.55	1.46
1	U	1254	ASN	CA-C	7.05	1.62	1.52
1	Q	1081	LYS	C-O	7.04	1.32	1.24
2	S	1034	VAL	CA-CB	7.04	1.62	1.54
1	Q	1147	VAL	C-O	7.04	1.31	1.23
1	V	1109	GLU	CA-C	7.04	1.62	1.52
1	Q	1056	TRP	N-CA	-7.03	1.37	1.46
1	W	1039	GLY	C-O	-7.03	1.16	1.24
1	Q	1047	THR	CA-CB	-7.02	1.41	1.53
1	R	1184	ILE	CA-C	7.02	1.60	1.52
1	R	1313	TYR	CA-C	-7.02	1.44	1.52
1	W	1073	THR	CA-CB	7.02	1.62	1.53
1	R	1053	TYR	N-CA	-7.01	1.37	1.45
1	P	1212	ILE	CA-C	7.01	1.61	1.52
2	S	1019	CYS	CB-SG	7.01	2.04	1.81
1	Q	1322	ASP	N-CA	7.00	1.54	1.46
1	R	1221	TYR	CA-C	-6.99	1.44	1.52
1	W	1276	ALA	CA-C	-6.98	1.43	1.52
1	U	1272	ARG	N-CA	-6.98	1.40	1.46
1	Q	1212	ILE	C-O	-6.97	1.15	1.23
1	V	1240	GLN	CA-C	-6.97	1.44	1.52
2	X	1040	THR	CA-CB	6.97	1.61	1.52
1	R	1018	ASP	N-CA	-6.96	1.38	1.46
1	Q	1009	ASN	CA-C	6.96	1.62	1.52
1	Q	1081	LYS	CD-CE	6.96	1.73	1.52
2	X	1004	LYS	N-CA	6.96	1.55	1.46
2	S	1021	GLN	CA-C	6.95	1.62	1.52
1	R	1106	VAL	CA-C	6.95	1.61	1.52
1	U	1221	TYR	CA-C	-6.94	1.44	1.52
1	R	1074	ARG	C-O	6.92	1.32	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	V	1171	ASP	C-O	6.92	1.37	1.23
1	W	1009	ASN	CA-C	6.92	1.61	1.52
1	V	1023	PHE	C-O	6.92	1.32	1.24
1	V	1047	THR	CA-CB	-6.91	1.41	1.53
1	V	1313	TYR	CA-C	-6.90	1.44	1.52
1	R	1068	GLU	CA-C	-6.89	1.44	1.52
1	W	1252	TRP	CA-C	6.89	1.63	1.53
1	P	1276	ALA	CA-CB	-6.88	1.42	1.53
1	W	1161	PHE	N-CA	6.88	1.55	1.46
1	W	1166	THR	N-CA	-6.88	1.37	1.45
1	R	1021	HIS	CA-C	6.87	1.61	1.52
1	R	1189	GLU	N-CA	6.87	1.55	1.46
1	P	1263	ALA	CA-CB	-6.87	1.40	1.53
1	V	1057	GLU	CA-C	-6.86	1.44	1.52
1	P	1134	THR	C-O	6.86	1.31	1.24
1	U	1017	VAL	CA-CB	-6.85	1.45	1.54
1	Q	1329	ASP	CA-C	-6.85	1.44	1.52
1	Q	1188	TYR	CA-C	6.84	1.61	1.52
1	P	1155	ASN	CA-C	-6.84	1.44	1.52
1	P	1153	ASN	N-CA	6.83	1.54	1.46
1	U	1161	PHE	C-O	6.83	1.32	1.24
1	Q	1135	ASP	C-O	6.82	1.32	1.23
1	U	1212	ILE	N-CA	6.82	1.54	1.46
1	V	1329	ASP	CA-C	-6.82	1.43	1.52
1	U	1188	TYR	N-CA	6.81	1.54	1.46
2	X	1007	ARG	CA-C	6.80	1.61	1.52
1	W	1189	GLU	N-CA	6.79	1.54	1.46
1	R	1323	ASP	CA-C	6.79	1.61	1.52
1	U	1319	ASN	N-CA	-6.79	1.37	1.46
1	R	1161	PHE	N-CA	6.78	1.54	1.46
2	X	1027	LYS	CA-C	6.78	1.61	1.52
1	Q	1070	ASN	C-O	6.78	1.32	1.24
1	R	1286	GLY	CA-C	6.77	1.61	1.51
1	Q	1152	LYS	C-O	-6.77	1.15	1.23
1	P	1035	TYR	CA-CB	-6.77	1.44	1.53
1	U	1171	ASP	C-O	6.77	1.37	1.23
2	X	1043	PHE	CA-C	6.77	1.62	1.52
1	R	1120	PHE	CA-C	-6.76	1.43	1.52
1	Q	1032	ASP	CA-CB	-6.76	1.43	1.53
1	W	1268	ASP	CB-CG	6.76	1.69	1.52
1	U	1069	ASN	N-CA	6.75	1.54	1.46
1	U	1157	SER	CA-C	6.75	1.61	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	P	1257	GLN	C-O	6.74	1.32	1.24
1	Q	1086	GLY	N-CA	6.74	1.52	1.45
1	R	1254	ASN	CA-C	6.74	1.61	1.52
1	V	1161	PHE	N-CA	6.74	1.54	1.46
1	U	1160	GLY	C-N	6.73	1.43	1.33
2	S	1002	SER	CA-C	6.73	1.61	1.52
1	W	1330	ALA	CA-CB	-6.72	1.41	1.53
1	V	1110	PHE	CA-C	6.72	1.61	1.52
2	X	1032	PRO	CA-C	6.71	1.61	1.52
1	P	1167	ASN	CA-C	-6.71	1.46	1.53
1	P	1022	TYR	CA-CB	-6.71	1.43	1.53
1	Q	1053	TYR	N-CA	-6.70	1.37	1.46
1	P	1183	SER	CA-C	-6.70	1.44	1.52
1	U	1081	LYS	N-CA	6.70	1.54	1.46
1	V	1127	GLY	N-CA	6.70	1.54	1.45
1	W	1308	LYS	C-O	-6.69	1.12	1.23
1	U	1009	ASN	CA-C	6.68	1.61	1.52
1	W	1171	ASP	C-O	6.68	1.36	1.23
1	P	1023	PHE	C-O	6.68	1.32	1.24
1	W	1081	LYS	CG-CD	6.67	1.72	1.52
1	P	1087	SER	N-CA	6.67	1.53	1.45
1	R	1302	ALA	CA-CB	-6.67	1.42	1.53
1	U	1146	ALA	C-O	6.67	1.32	1.24
1	P	1159	GLU	CA-C	6.66	1.61	1.52
1	Q	1161	PHE	CG-CD2	6.66	1.52	1.38
1	R	1164	GLY	CA-C	-6.66	1.42	1.51
1	U	1073	THR	N-CA	6.66	1.54	1.46
1	W	1041	LYS	CE-NZ	6.66	1.69	1.49
2	S	1006	VAL	CA-CB	6.66	1.65	1.55
1	V	1018	ASP	N-CA	-6.65	1.38	1.46
2	X	1045	CYS	CB-SG	6.65	2.03	1.81
1	P	1226	LYS	CA-C	-6.65	1.44	1.52
1	V	1234	LEU	CA-C	6.64	1.60	1.52
1	Q	1239	THR	CA-CB	6.64	1.64	1.53
1	V	1161	PHE	CG-CD2	6.64	1.52	1.38
1	V	1326	PHE	CA-C	-6.63	1.46	1.53
1	W	1067	ASN	N-CA	-6.63	1.37	1.46
1	W	1321	LEU	N-CA	6.63	1.54	1.45
1	W	1272	ARG	CA-C	-6.62	1.44	1.52
1	Q	1312	THR	CA-C	-6.62	1.44	1.52
1	Q	1134	THR	CB-CG2	6.61	1.74	1.52
2	S	1011	THR	N-CA	6.61	1.54	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	W	1298	VAL	CA-C	-6.61	1.44	1.52
1	R	1103	TRP	CB-CG	6.61	1.70	1.50
1	P	1126	ASN	CA-C	-6.61	1.44	1.52
1	V	1188	TYR	CA-C	6.61	1.61	1.52
1	P	1268	ASP	CB-CG	6.60	1.68	1.52
1	R	1167	ASN	CA-C	-6.60	1.44	1.52
1	Q	1024	SER	CA-C	-6.59	1.44	1.52
1	P	1263	ALA	C-O	6.59	1.31	1.24
1	U	1075	VAL	C-O	6.59	1.31	1.24
1	Q	1242	TYR	C-O	6.58	1.31	1.24
1	Q	1081	LYS	N-CA	6.58	1.54	1.46
1	V	1089	ASP	CA-C	-6.58	1.44	1.52
1	V	1253	ALA	C-O	-6.57	1.16	1.24
1	P	1227	TYR	CA-C	-6.57	1.45	1.52
1	U	1306	PHE	N-CA	6.56	1.54	1.46
1	V	1160	GLY	C-N	6.56	1.42	1.33
1	R	1161	PHE	CD2-CE2	6.55	1.58	1.38
1	R	1016	LYS	CA-C	-6.55	1.44	1.52
1	R	1011	LEU	CA-C	-6.55	1.44	1.52
1	R	1149	TYR	CB-CG	6.55	1.66	1.51
1	W	1161	PHE	CG-CD1	6.55	1.52	1.38
1	V	1161	PHE	C-O	6.54	1.32	1.24
1	U	1192	GLY	CA-C	-6.54	1.46	1.52
1	P	1017	VAL	CA-C	-6.53	1.44	1.52
1	R	1160	GLY	C-N	6.53	1.42	1.33
2	S	1009	CYS	N-CA	6.53	1.54	1.46
2	S	1005	SER	N-CA	6.52	1.54	1.46
1	P	1186	TYR	N-CA	-6.51	1.37	1.45
1	U	1155	ASN	CA-C	-6.51	1.43	1.52
1	R	1081	LYS	N-CA	6.50	1.54	1.46
1	P	1150	GLN	C-O	-6.50	1.16	1.24
1	V	1139	LEU	CA-C	6.50	1.63	1.52
1	Q	1257	GLN	C-O	6.49	1.31	1.24
2	S	1022	TRP	CA-C	6.49	1.61	1.52
1	P	1165	VAL	CA-C	6.49	1.60	1.52
2	S	1035	THR	CA-CB	6.49	1.64	1.53
1	V	1161	PHE	CG-CD1	6.49	1.52	1.38
1	W	1067	ASN	CB-CG	-6.49	1.35	1.52
2	X	1015	GLU	N-CA	6.49	1.54	1.46
1	V	1263	ALA	CA-CB	-6.49	1.42	1.53
1	P	1160	GLY	CA-C	6.49	1.60	1.51
1	V	1150	GLN	CB-CG	-6.49	1.32	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Q	1263	ALA	C-O	6.47	1.31	1.23
2	S	1027	LYS	CA-C	6.47	1.61	1.52
1	V	1103	TRP	CB-CG	6.47	1.70	1.50
1	R	1204	ASP	C-O	-6.47	1.16	1.24
1	V	1145	PHE	CA-C	6.47	1.60	1.52
1	R	1263	ALA	CA-CB	-6.47	1.41	1.53
1	U	1252	TRP	CA-C	6.47	1.62	1.53
1	W	1147	VAL	C-O	6.47	1.30	1.23
1	W	1233	TYR	CA-C	-6.47	1.45	1.52
1	P	1161	PHE	C-O	6.46	1.32	1.24
1	Q	1018	ASP	CB-CG	-6.46	1.35	1.52
1	W	1132	ARG	CA-C	-6.46	1.44	1.52
1	P	1274	SER	C-O	-6.46	1.15	1.23
1	P	1018	ASP	N-CA	-6.45	1.39	1.46
1	Q	1302	ALA	CA-C	-6.45	1.44	1.52
1	R	1204	ASP	N-CA	6.45	1.54	1.46
1	V	1040	PHE	CA-C	-6.44	1.45	1.52
1	V	1239	THR	CA-CB	6.44	1.66	1.53
1	P	1078	ALA	C-O	6.44	1.31	1.23
1	W	1122	GLN	N-CA	-6.44	1.38	1.46
1	U	1213	GLY	N-CA	6.44	1.54	1.45
1	Q	1046	VAL	CA-CB	6.44	1.62	1.54
1	R	1228	ASP	C-O	-6.43	1.16	1.23
1	V	1164	GLY	CA-C	-6.43	1.42	1.51
2	X	1008	TRP	N-CA	6.42	1.54	1.46
1	V	1214	ASN	CA-CB	6.42	1.62	1.52
1	R	1343	VAL	CA-C	-6.42	1.44	1.52
1	Q	1323	ASP	CB-CG	-6.41	1.36	1.52
1	U	1084	ASP	CA-CB	6.41	1.61	1.53
1	R	1139	LEU	CA-C	6.41	1.61	1.52
1	W	1082	PHE	CB-CG	6.41	1.65	1.50
1	R	1119	ASN	CA-C	6.41	1.62	1.53
2	S	1026	MET	CA-C	6.41	1.60	1.52
1	V	1081	LYS	CG-CD	6.40	1.71	1.52
1	U	1198	SER	N-CA	6.40	1.53	1.45
1	W	1334	THR	CA-CB	6.39	1.63	1.54
1	P	1303	THR	N-CA	6.39	1.54	1.45
1	R	1071	SER	N-CA	6.39	1.54	1.46
1	R	1171	ASP	CG-OD1	6.39	1.37	1.25
1	U	1239	THR	CA-CB	6.39	1.64	1.53
1	W	1228	ASP	CA-C	6.39	1.59	1.53
1	P	1081	LYS	CA-C	-6.39	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Q	1193	ILE	CA-C	-6.38	1.44	1.52
1	R	1165	VAL	CA-C	6.38	1.60	1.52
1	R	1171	ASP	C-O	6.37	1.36	1.23
1	V	1218	ALA	CA-CB	-6.37	1.42	1.53
1	R	1044	THR	CA-C	-6.36	1.44	1.52
1	R	1134	THR	CA-C	6.36	1.60	1.53
1	V	1134	THR	CA-C	6.36	1.60	1.52
1	U	1171	ASP	CB-CG	6.36	1.68	1.52
1	P	1156	PRO	N-CA	-6.36	1.39	1.47
1	U	1018	ASP	N-CA	-6.35	1.39	1.46
1	R	1277	TYR	CA-C	-6.35	1.45	1.52
1	R	1161	PHE	CG-CD1	6.35	1.52	1.38
1	Q	1042	GLY	N-CA	6.34	1.54	1.45
1	R	1210	ALA	C-O	6.34	1.31	1.23
1	U	1086	GLY	N-CA	6.34	1.53	1.44
1	W	1120	PHE	CA-C	-6.33	1.46	1.52
1	V	1335	ASP	CB-CG	-6.33	1.36	1.52
1	R	1040	PHE	CA-C	-6.33	1.45	1.52
1	R	1023	PHE	C-O	6.33	1.31	1.24
1	U	1147	VAL	N-CA	-6.33	1.39	1.46
1	R	1166	THR	N-CA	-6.31	1.38	1.46
1	P	1202	ARG	C-O	-6.30	1.16	1.24
1	Q	1015	GLY	N-CA	-6.30	1.38	1.45
1	W	1322	ASP	N-CA	6.30	1.54	1.46
1	R	1163	SER	C-O	-6.30	1.16	1.24
1	P	1187	ASP	CA-C	6.29	1.60	1.52
1	Q	1210	ALA	C-O	6.29	1.31	1.23
1	Q	1158	GLY	C-O	6.29	1.32	1.23
2	S	1019	CYS	CA-CB	6.29	1.64	1.53
1	U	1291	ASP	CB-CG	6.29	1.67	1.52
1	V	1241	THR	CA-CB	-6.29	1.43	1.53
1	R	1074	ARG	CD-NE	-6.28	1.37	1.46
1	R	1161	PHE	CD1-CE1	6.28	1.57	1.38
1	V	1009	ASN	CA-C	6.28	1.61	1.52
2	S	1039	LYS	N-CA	6.27	1.54	1.46
1	V	1060	ILE	C-O	6.27	1.30	1.24
1	R	1201	LYS	C-O	-6.27	1.16	1.23
1	W	1323	ASP	CB-CG	-6.26	1.36	1.52
2	S	1031	GLY	N-CA	6.26	1.53	1.44
1	U	1158	GLY	N-CA	6.26	1.54	1.45
1	U	1143	LEU	CA-C	-6.26	1.45	1.52
2	S	1009	CYS	CA-C	6.25	1.61	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Q	1188	TYR	N-CA	6.25	1.54	1.46
1	P	1319	ASN	N-CA	-6.24	1.38	1.46
1	Q	1170	ARG	C-N	6.24	1.42	1.33
1	U	1072	TRP	CA-CB	-6.23	1.44	1.53
2	X	1013	PRO	N-CA	6.23	1.55	1.47
1	R	1017	VAL	CA-C	-6.23	1.45	1.52
1	Q	1103	TRP	CB-CG	6.23	1.69	1.50
1	V	1338	VAL	C-O	6.22	1.30	1.24
1	R	1026	ASN	N-CA	-6.22	1.38	1.46
1	W	1029	VAL	CA-C	6.22	1.60	1.52
1	W	1166	THR	CB-CG2	6.22	1.73	1.52
1	P	1279	GLN	CA-C	-6.21	1.45	1.52
1	P	1096	VAL	N-CA	6.21	1.53	1.46
1	U	1244	ALA	N-CA	6.21	1.53	1.46
1	V	1047	THR	CB-CG2	-6.21	1.32	1.52
1	Q	1072	TRP	CA-C	6.20	1.60	1.52
1	W	1252	TRP	CB-CG	6.20	1.69	1.50
1	P	1021	HIS	C-O	6.19	1.31	1.23
1	U	1024	SER	C-O	-6.19	1.15	1.23
1	W	1329	ASP	C-O	-6.19	1.17	1.24
1	W	1312	THR	C-O	6.18	1.31	1.23
1	Q	1328	ARG	CA-C	6.18	1.61	1.52
1	P	1183	SER	N-CA	6.18	1.53	1.45
1	P	1252	TRP	CB-CG	6.18	1.69	1.50
1	W	1072	TRP	C-O	6.18	1.31	1.23
1	P	1009	ASN	CA-C	6.18	1.60	1.52
1	Q	1234	LEU	C-O	6.18	1.31	1.24
1	R	1122	GLN	N-CA	-6.18	1.38	1.46
1	V	1018	ASP	CA-C	6.17	1.59	1.52
1	V	1120	PHE	CD2-CE2	6.17	1.57	1.38
1	P	1069	ASN	CA-CB	6.17	1.63	1.53
1	Q	1161	PHE	CD2-CE2	6.17	1.57	1.38
1	V	1126	ASN	CA-C	-6.17	1.44	1.52
1	W	1086	GLY	C-O	6.16	1.31	1.23
1	Q	1287	ARG	CD-NE	6.16	1.54	1.46
1	V	1193	ILE	C-O	6.16	1.31	1.23
1	Q	1074	ARG	C-O	6.16	1.31	1.24
1	W	1168	ASN	CA-C	-6.16	1.45	1.52
1	Q	1196	ALA	C-O	6.16	1.30	1.23
1	V	1048	ASP	CA-C	-6.16	1.45	1.52
2	S	1010	THR	CA-C	6.15	1.61	1.52
1	U	1287	ARG	CD-NE	6.15	1.54	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	V	1262	VAL	C-O	6.15	1.30	1.24
1	V	1112	GLY	C-O	6.14	1.32	1.24
1	U	1289	TYR	C-O	6.14	1.31	1.24
1	W	1022	TYR	CA-C	-6.14	1.45	1.52
1	R	1197	ILE	CA-CB	6.14	1.63	1.54
1	U	1161	PHE	N-CA	6.13	1.54	1.46
1	P	1278	LEU	C-O	6.13	1.31	1.23
1	V	1277	TYR	C-O	6.13	1.31	1.23
1	U	1165	VAL	CA-C	6.13	1.60	1.52
2	X	1027	LYS	N-CA	6.13	1.53	1.46
1	Q	1311	SER	C-O	6.12	1.31	1.24
1	V	1187	ASP	N-CA	6.12	1.54	1.46
1	P	1047	THR	CA-CB	-6.12	1.43	1.53
1	U	1049	GLN	C-O	6.11	1.31	1.24
1	Q	1067	ASN	N-CA	-6.11	1.38	1.46
1	W	1287	ARG	CG-CD	6.11	1.70	1.52
1	P	1160	GLY	C-N	6.09	1.42	1.33
1	V	1194	GLY	CA-C	-6.08	1.43	1.51
1	R	1147	VAL	C-O	6.08	1.30	1.23
1	R	1056	TRP	N-CA	-6.07	1.39	1.46
1	R	1212	ILE	N-CA	6.07	1.53	1.46
2	S	1040	THR	CA-C	6.07	1.60	1.52
1	V	1199	SER	C-O	-6.06	1.17	1.23
1	W	1254	ASN	CG-ND2	6.06	1.46	1.33
1	P	1187	ASP	CA-CB	-6.06	1.44	1.53
1	V	1285	LEU	CA-C	-6.06	1.45	1.53
1	U	1097	VAL	CA-CB	-6.06	1.46	1.54
1	R	1257	GLN	C-O	6.05	1.31	1.24
1	V	1037	ARG	N-CA	6.05	1.53	1.45
1	W	1221	TYR	CA-C	-6.05	1.45	1.52
1	Q	1291	ASP	N-CA	-6.05	1.38	1.46
1	P	1214	ASN	CA-C	6.05	1.60	1.53
1	P	1149	TYR	CA-C	-6.04	1.45	1.52
1	W	1150	GLN	CD-OE1	6.04	1.35	1.23
1	W	1200	SER	N-CA	6.04	1.53	1.46
1	W	1253	ALA	C-O	-6.04	1.17	1.24
1	R	1071	SER	CA-C	6.04	1.60	1.52
2	X	1034	VAL	CA-C	6.04	1.59	1.52
1	P	1081	LYS	CG-CD	6.03	1.70	1.52
1	Q	1021	HIS	C-O	6.02	1.31	1.23
1	Q	1138	GLY	N-CA	6.02	1.54	1.45
1	R	1310	MET	CA-C	-6.02	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	U	1071	SER	N-CA	6.02	1.53	1.46
1	R	1018	ASP	CA-C	6.01	1.59	1.52
1	P	1150	GLN	N-CA	6.00	1.53	1.46
1	R	1188	TYR	CA-C	6.00	1.60	1.52
1	R	1097	VAL	N-CA	-6.00	1.38	1.46
1	P	1169	GLY	CA-C	5.99	1.60	1.51
1	P	1234	LEU	C-O	5.98	1.31	1.24
1	W	1158	GLY	N-CA	5.98	1.54	1.45
1	Q	1204	ASP	C-O	-5.98	1.16	1.24
1	V	1187	ASP	CA-C	5.98	1.59	1.53
1	P	1104	THR	CA-CB	-5.97	1.44	1.53
2	S	1041	SER	N-CA	5.97	1.53	1.46
1	V	1263	ALA	C-O	5.97	1.30	1.23
1	W	1042	GLY	N-CA	5.97	1.54	1.45
1	Q	1161	PHE	C-O	5.96	1.31	1.24
1	U	1038	LEU	N-CA	-5.96	1.38	1.45
1	U	1310	MET	CA-C	-5.96	1.44	1.52
1	P	1044	THR	CA-C	-5.96	1.45	1.52
1	R	1029	VAL	CA-C	5.95	1.61	1.52
1	V	1127	GLY	C-O	5.95	1.32	1.24
1	V	1149	TYR	CG-CD1	5.95	1.51	1.39
1	W	1312	THR	CA-C	-5.95	1.45	1.52
1	Q	1211	TYR	CB-CG	5.94	1.64	1.51
1	P	1161	PHE	CG-CD2	5.94	1.51	1.38
2	X	1004	LYS	CA-C	5.94	1.60	1.52
1	P	1303	THR	C-O	5.94	1.31	1.23
1	U	1211	TYR	CB-CG	5.94	1.64	1.51
2	X	1031	GLY	N-CA	5.93	1.52	1.44
1	R	1127	GLY	N-CA	5.93	1.53	1.45
1	W	1240	GLN	CA-C	-5.93	1.45	1.52
1	P	1219	GLU	CA-C	-5.92	1.45	1.52
1	Q	1200	SER	N-CA	5.91	1.53	1.46
1	R	1089	ASP	CA-C	-5.91	1.45	1.52
1	R	1316	TYR	CB-CG	-5.91	1.38	1.51
2	S	1023	GLN	N-CA	5.91	1.53	1.46
2	X	1028	LYS	CA-C	5.91	1.60	1.52
1	U	1103	TRP	CB-CG	5.91	1.68	1.50
1	U	1141	ASP	N-CA	-5.91	1.39	1.46
1	U	1184	ILE	CA-C	5.91	1.59	1.52
1	Q	1303	THR	CA-C	5.90	1.59	1.52
2	S	1029	VAL	CA-CB	5.89	1.70	1.54
1	Q	1192	GLY	CA-C	-5.89	1.46	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	U	1060	ILE	CA-C	-5.89	1.45	1.52
1	V	1054	GLY	N-CA	5.89	1.51	1.45
1	P	1027	LYS	N-CA	5.88	1.54	1.46
1	Q	1220	THR	N-CA	5.88	1.53	1.46
1	R	1168	ASN	N-CA	5.88	1.54	1.46
1	U	1257	GLN	CA-C	-5.88	1.45	1.52
2	S	1019	CYS	CA-C	5.88	1.60	1.52
1	U	1011	LEU	CA-C	-5.88	1.45	1.52
1	U	1211	TYR	CA-CB	5.87	1.63	1.53
1	V	1220	THR	CA-CB	-5.87	1.39	1.53
1	Q	1261	ALA	C-O	5.87	1.31	1.23
1	W	1324	ASN	CG-OD1	-5.87	1.12	1.23
1	V	1191	PHE	CD1-CE1	5.87	1.56	1.38
1	R	1051	THR	CA-CB	5.86	1.65	1.53
1	W	1069	ASN	CG-ND2	5.86	1.45	1.33
1	P	1143	LEU	CA-C	-5.86	1.45	1.52
1	W	1141	ASP	N-CA	-5.86	1.39	1.46
1	Q	1032	ASP	N-CA	-5.86	1.39	1.46
1	R	1239	THR	N-CA	-5.86	1.39	1.46
1	U	1254	ASN	CG-ND2	5.85	1.45	1.33
1	R	1022	TYR	C-O	-5.84	1.17	1.24
1	P	1302	ALA	CA-CB	-5.83	1.43	1.53
1	P	1200	SER	N-CA	5.83	1.53	1.46
1	R	1145	PHE	CA-C	5.83	1.59	1.52
2	S	1025	ARG	N-CA	5.82	1.53	1.46
1	U	1308	LYS	C-O	-5.82	1.16	1.24
1	Q	1203	THR	CA-C	5.82	1.60	1.52
1	V	1141	ASP	N-CA	-5.81	1.39	1.46
1	W	1310	MET	CA-C	-5.81	1.45	1.52
1	R	1219	GLU	CA-C	-5.80	1.45	1.52
1	V	1186	TYR	N-CA	-5.80	1.38	1.45
1	R	1078	ALA	N-CA	-5.80	1.38	1.46
1	R	1081	LYS	CG-CD	5.80	1.69	1.52
1	U	1069	ASN	CA-CB	5.79	1.63	1.53
1	R	1280	SER	N-CA	-5.79	1.39	1.46
1	V	1158	GLY	C-O	5.79	1.31	1.23
1	P	1068	GLU	CG-CD	5.79	1.66	1.52
1	P	1335	ASP	CB-CG	-5.77	1.37	1.52
1	P	1083	GLN	N-CA	5.76	1.53	1.46
1	U	1045	GLN	C-O	-5.76	1.17	1.24
1	U	1321	LEU	N-CA	5.76	1.53	1.45
1	P	1302	ALA	CA-C	-5.75	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	U	1261	ALA	C-O	5.75	1.30	1.23
1	W	1047	THR	CA-CB	-5.75	1.43	1.53
1	R	1337	ILE	CG1-CD1	5.75	1.74	1.51
1	V	1160	GLY	CA-C	5.75	1.59	1.51
1	U	1187	ASP	CA-CB	-5.74	1.44	1.53
1	W	1027	LYS	N-CA	5.74	1.53	1.46
1	V	1146	ALA	CA-CB	-5.74	1.44	1.53
1	R	1096	VAL	CA-CB	-5.74	1.46	1.54
1	R	1310	MET	C-O	-5.74	1.16	1.23
1	V	1143	LEU	CA-C	-5.74	1.45	1.52
1	V	1239	THR	CA-C	-5.74	1.45	1.52
1	P	1132	ARG	CA-C	-5.74	1.45	1.52
1	W	1161	PHE	CG-CD2	5.74	1.50	1.38
1	Q	1150	GLN	N-CA	5.73	1.53	1.46
1	P	1051	THR	CA-CB	5.73	1.63	1.53
1	W	1244	ALA	N-CA	5.73	1.54	1.46
1	R	1211	TYR	CB-CG	5.73	1.64	1.51
1	Q	1252	TRP	CA-C	5.73	1.61	1.53
1	Q	1037	ARG	N-CA	5.72	1.53	1.45
1	V	1027	LYS	N-CA	5.71	1.54	1.46
1	Q	1226	LYS	CA-C	-5.71	1.45	1.52
1	R	1005	ASN	CA-C	5.71	1.60	1.52
1	Q	1168	ASN	N-CA	5.70	1.53	1.46
1	U	1043	GLU	N-CA	5.70	1.53	1.46
1	W	1324	ASN	N-CA	5.70	1.52	1.46
2	S	1013	PRO	N-CA	5.69	1.54	1.47
1	V	1120	PHE	CB-CG	-5.69	1.37	1.50
1	U	1069	ASN	CB-CG	5.68	1.66	1.52
1	V	1128	PHE	CA-C	5.68	1.59	1.52
1	Q	1139	LEU	N-CA	-5.68	1.38	1.46
2	S	1003	LYS	CA-C	5.68	1.61	1.53
1	Q	1146	ALA	CA-CB	-5.68	1.44	1.53
2	X	1032	PRO	CB-CG	5.68	1.78	1.49
1	U	1134	THR	CB-CG2	5.67	1.71	1.52
1	P	1149	TYR	CB-CG	5.67	1.64	1.51
1	W	1219	GLU	C-O	-5.67	1.17	1.24
2	S	1020	ALA	CA-CB	5.67	1.63	1.53
1	U	1125	GLY	N-CA	-5.67	1.39	1.45
1	R	1022	TYR	CA-CB	-5.66	1.45	1.53
1	Q	1161	PHE	CG-CD1	5.66	1.50	1.38
1	V	1018	ASP	CA-CB	-5.66	1.44	1.53
1	R	1013	LEU	CA-C	-5.65	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	W	1235	ALA	N-CA	5.65	1.52	1.46
1	R	1102	SER	C-O	-5.65	1.17	1.24
1	P	1069	ASN	N-CA	5.65	1.53	1.46
1	W	1328	ARG	C-O	-5.65	1.16	1.24
1	V	1166	THR	N-CA	-5.65	1.39	1.46
1	V	1168	ASN	CA-CB	-5.65	1.45	1.54
1	P	1301	GLY	C-O	5.64	1.30	1.24
1	U	1171	ASP	CA-C	5.64	1.64	1.52
1	R	1263	ALA	N-CA	5.64	1.53	1.46
1	U	1092	ARG	NE-CZ	5.64	1.39	1.33
1	U	1196	ALA	CA-C	-5.64	1.45	1.52
1	P	1335	ASP	N-CA	5.63	1.53	1.45
1	Q	1164	GLY	CA-C	-5.63	1.44	1.51
1	P	1103	TRP	CB-CG	5.63	1.67	1.50
1	Q	1018	ASP	CA-CB	-5.63	1.44	1.53
2	S	1011	THR	CA-CB	5.63	1.63	1.53
1	W	1127	GLY	N-CA	5.62	1.53	1.45
1	Q	1239	THR	CA-C	-5.62	1.45	1.52
1	R	1069	ASN	N-CA	5.62	1.53	1.46
1	V	1081	LYS	N-CA	5.62	1.53	1.46
1	V	1134	THR	C-O	5.62	1.31	1.23
1	V	1150	GLN	N-CA	5.62	1.52	1.46
1	Q	1211	TYR	CA-CB	5.62	1.62	1.53
1	R	1312	THR	C-O	5.62	1.31	1.23
1	V	1068	GLU	CA-CB	5.62	1.64	1.54
1	W	1212	ILE	C-O	-5.62	1.17	1.24
1	P	1046	VAL	CA-CB	5.62	1.60	1.54
1	P	1018	ASP	CB-CG	-5.62	1.38	1.52
1	R	1199	SER	C-O	-5.62	1.17	1.23
1	P	1236	ALA	CA-CB	-5.61	1.44	1.53
1	V	1279	GLN	CA-CB	-5.61	1.44	1.53
1	Q	1202	ARG	N-CA	5.60	1.52	1.46
1	U	1331	GLY	C-O	-5.60	1.16	1.23
1	P	1323	ASP	CB-CG	-5.60	1.38	1.52
1	Q	1240	GLN	C-O	5.60	1.30	1.23
1	V	1188	TYR	CG-CD2	5.60	1.51	1.39
1	R	1109	GLU	CA-C	5.59	1.60	1.52
1	Q	1051	THR	CA-CB	5.58	1.63	1.53
1	V	1102	SER	CA-C	5.58	1.60	1.52
1	W	1164	GLY	C-O	5.58	1.31	1.23
1	V	1074	ARG	CD-NE	-5.58	1.38	1.46
1	W	1053	TYR	C-O	5.57	1.30	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	U	1127	GLY	C-O	5.57	1.31	1.23
1	W	1188	TYR	CE2-CZ	5.57	1.51	1.38
1	P	1170	ARG	CA-CB	-5.57	1.44	1.53
1	U	1244	ALA	CA-C	5.57	1.59	1.52
1	W	1056	TRP	N-CA	-5.57	1.39	1.46
1	Q	1294	ILE	CA-CB	5.56	1.62	1.54
1	U	1302	ALA	CA-C	-5.56	1.45	1.52
1	W	1020	LEU	CA-C	-5.56	1.45	1.52
1	W	1101	THR	CA-CB	-5.56	1.43	1.53
1	R	1211	TYR	CA-CB	5.55	1.62	1.53
1	V	1197	ILE	N-CA	5.55	1.52	1.46
2	X	1020	ALA	CA-C	5.54	1.60	1.52
1	R	1018	ASP	CB-CG	-5.54	1.38	1.52
1	R	1219	GLU	N-CA	-5.54	1.39	1.46
1	V	1122	GLN	N-CA	-5.54	1.39	1.46
2	X	1009	CYS	N-CA	5.54	1.53	1.46
1	P	1341	GLY	C-O	-5.53	1.17	1.24
1	V	1211	TYR	CA-CB	5.53	1.62	1.53
1	V	1068	GLU	CB-CG	5.52	1.69	1.52
1	P	1184	ILE	CA-C	5.52	1.59	1.52
1	P	1254	ASN	CA-C	5.52	1.60	1.52
1	Q	1141	ASP	N-CA	-5.52	1.39	1.46
1	W	1125	GLY	C-O	5.52	1.30	1.24
1	P	1285	LEU	CA-C	-5.52	1.45	1.53
1	Q	1069	ASN	CA-CB	5.52	1.62	1.53
1	R	1009	ASN	N-CA	5.51	1.53	1.46
1	R	1191	PHE	CD1-CE1	5.51	1.55	1.38
1	W	1336	ASN	N-CA	5.51	1.53	1.45
1	W	1071	SER	C-O	-5.51	1.17	1.24
1	P	1106	VAL	CA-C	5.50	1.59	1.52
1	U	1073	THR	CA-CB	5.50	1.61	1.53
1	P	1134	THR	CA-C	5.49	1.59	1.53
1	R	1013	LEU	CG-CD2	5.49	1.70	1.52
1	P	1079	GLY	C-O	5.49	1.29	1.23
1	U	1194	GLY	CA-C	-5.49	1.44	1.51
1	P	1074	ARG	C-O	5.49	1.30	1.24
1	V	1123	GLN	C-O	5.49	1.30	1.23
1	W	1096	VAL	N-CA	5.48	1.53	1.46
1	Q	1009	ASN	N-CA	5.48	1.53	1.46
1	P	1318	ILE	C-O	5.48	1.29	1.23
1	R	1143	LEU	CA-C	-5.48	1.46	1.52
1	U	1219	GLU	N-CA	-5.48	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	P	1182	GLY	C-O	5.47	1.30	1.23
1	U	1141	ASP	C-O	5.47	1.30	1.24
1	U	1071	SER	CA-C	5.47	1.60	1.52
1	R	1254	ASN	CG-ND2	5.47	1.44	1.33
1	P	1057	GLU	CA-C	-5.46	1.46	1.52
1	U	1308	LYS	CA-C	-5.46	1.45	1.52
1	W	1242	TYR	C-O	5.46	1.30	1.24
1	P	1047	THR	CA-C	-5.46	1.45	1.52
2	S	1043	PHE	CA-CB	5.46	1.62	1.53
1	W	1153	ASN	CA-C	-5.46	1.46	1.53
1	R	1096	VAL	N-CA	5.46	1.53	1.46
2	X	1017	LYS	N-CA	5.46	1.53	1.46
2	X	1018	LYS	N-CA	5.46	1.53	1.46
1	R	1189	GLU	C-O	5.46	1.30	1.24
2	S	1002	SER	N-CA	5.45	1.53	1.46
1	V	1185	THR	C-O	5.45	1.30	1.23
1	R	1213	GLY	N-CA	5.44	1.53	1.45
1	P	1068	GLU	CB-CG	5.44	1.68	1.52
1	V	1116	GLY	N-CA	5.44	1.53	1.45
1	Q	1195	GLY	C-O	5.44	1.31	1.23
1	W	1046	VAL	CA-CB	5.43	1.61	1.54
1	R	1034	THR	C-O	-5.43	1.17	1.24
2	X	1008	TRP	CA-C	5.43	1.60	1.52
1	V	1165	VAL	C-O	5.43	1.30	1.24
1	V	1189	GLU	CA-C	5.43	1.60	1.52
1	P	1337	ILE	CG1-CD1	5.43	1.73	1.51
1	R	1213	GLY	CA-C	5.43	1.59	1.51
1	U	1146	ALA	N-CA	-5.42	1.39	1.46
1	U	1018	ASP	CB-CG	-5.42	1.38	1.52
1	U	1182	GLY	C-O	5.42	1.29	1.23
1	W	1017	VAL	C-O	-5.42	1.18	1.24
1	Q	1252	TRP	CG-CD1	5.42	1.50	1.36
1	R	1214	ASN	CA-CB	5.42	1.61	1.52
1	R	1144	ASN	C-O	5.42	1.30	1.23
1	V	1158	GLY	N-CA	5.42	1.53	1.45
1	Q	1247	VAL	N-CA	5.41	1.53	1.46
1	W	1164	GLY	CA-C	-5.41	1.44	1.51
1	Q	1094	TYR	N-CA	5.41	1.52	1.46
1	V	1279	GLN	CA-C	-5.41	1.46	1.52
1	R	1279	GLN	CB-CG	-5.41	1.36	1.52
1	U	1168	ASN	N-CA	5.41	1.53	1.45
1	W	1007	ASP	CA-C	5.41	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Q	1315	ASP	N-CA	-5.41	1.39	1.46
2	S	1004	LYS	C-O	5.40	1.30	1.24
1	Q	1217	ARG	C-O	-5.39	1.16	1.23
1	U	1305	TYR	CG-CD1	-5.39	1.28	1.39
1	P	1128	PHE	N-CA	5.39	1.52	1.46
1	P	1265	TYR	CA-C	-5.39	1.46	1.52
1	Q	1022	TYR	CA-CB	-5.39	1.45	1.53
1	U	1323	ASP	CB-CG	-5.39	1.38	1.52
1	W	1049	GLN	CA-C	5.39	1.59	1.52
1	P	1158	GLY	N-CA	5.39	1.53	1.45
1	R	1068	GLU	CB-CG	5.38	1.68	1.52
1	R	1252	TRP	CG-CD1	5.38	1.50	1.36
1	P	1191	PHE	CG-CD1	5.38	1.50	1.38
1	Q	1083	GLN	N-CA	5.38	1.53	1.46
1	P	1034	THR	C-O	-5.38	1.17	1.24
1	P	1314	VAL	C-O	5.38	1.29	1.24
1	U	1265	TYR	CZ-OH	-5.37	1.26	1.38
1	U	1053	TYR	N-CA	-5.37	1.39	1.46
1	P	1042	GLY	N-CA	5.37	1.53	1.45
1	W	1161	PHE	CD2-CE2	5.37	1.54	1.38
1	P	1067	ASN	CB-CG	-5.36	1.38	1.52
1	R	1299	ASP	CA-C	5.36	1.59	1.52
1	W	1323	ASP	CA-CB	-5.36	1.45	1.53
1	U	1227	TYR	CA-C	-5.36	1.46	1.52
1	R	1323	ASP	CA-CB	-5.36	1.45	1.53
1	P	1134	THR	CB-CG2	5.36	1.70	1.52
1	P	1102	SER	CA-C	5.36	1.59	1.52
1	U	1193	ILE	N-CA	5.35	1.52	1.46
1	V	1286	GLY	CA-C	5.35	1.59	1.51
1	W	1171	ASP	CG-OD1	5.35	1.35	1.25
1	W	1257	GLN	C-O	5.35	1.30	1.24
1	V	1204	ASP	C-O	-5.34	1.17	1.24
1	V	1219	GLU	CA-C	-5.34	1.46	1.52
1	P	1345	GLN	C-O	-5.34	1.17	1.23
1	W	1150	GLN	CA-C	5.34	1.58	1.52
1	P	1141	ASP	N-CA	-5.33	1.40	1.46
1	P	1170	ARG	C-N	5.33	1.40	1.33
1	Q	1081	LYS	CG-CD	5.33	1.68	1.52
1	R	1329	ASP	C-O	-5.33	1.17	1.24
1	Q	1149	TYR	CB-CG	5.33	1.63	1.51
1	R	1055	GLN	CA-C	5.33	1.59	1.52
1	W	1245	THR	CA-CB	-5.33	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	R	1083	GLN	N-CA	5.33	1.53	1.46
1	U	1160	GLY	CA-C	5.33	1.58	1.51
1	P	1272	ARG	CA-C	-5.33	1.44	1.52
1	Q	1166	THR	C-O	-5.33	1.17	1.23
2	S	1028	LYS	CA-C	5.32	1.59	1.52
1	U	1156	PRO	N-CA	-5.32	1.40	1.47
1	P	1331	GLY	C-O	-5.32	1.16	1.23
1	R	1214	ASN	CB-CG	5.32	1.65	1.52
2	X	1040	THR	N-CA	5.32	1.53	1.46
1	W	1313	TYR	CA-C	-5.32	1.46	1.52
1	W	1335	ASP	N-CA	5.32	1.52	1.45
1	U	1186	TYR	N-CA	-5.32	1.39	1.46
1	U	1226	LYS	CA-CB	-5.32	1.44	1.53
1	U	1232	ILE	CA-C	-5.31	1.46	1.52
2	S	1043	PHE	CB-CG	5.31	1.62	1.50
1	W	1188	TYR	CG-CD2	5.31	1.50	1.39
1	W	1069	ASN	N-CA	5.30	1.53	1.46
1	W	1184	ILE	CA-C	5.30	1.58	1.52
1	Q	1165	VAL	CA-C	5.30	1.59	1.52
1	R	1021	HIS	C-O	5.30	1.30	1.24
2	X	1030	ARG	CA-C	5.29	1.64	1.52
1	P	1170	ARG	CA-C	5.29	1.59	1.52
1	Q	1115	TYR	CZ-OH	5.29	1.49	1.38
1	W	1199	SER	C-O	-5.29	1.17	1.23
1	W	1302	ALA	CA-C	-5.29	1.46	1.52
1	P	1188	TYR	N-CA	5.29	1.53	1.46
1	P	1187	ASP	N-CA	5.29	1.52	1.46
1	P	1127	GLY	C-O	5.28	1.31	1.24
1	P	1242	TYR	C-O	5.28	1.30	1.24
1	Q	1286	GLY	CA-C	5.28	1.59	1.51
2	X	1020	ALA	N-CA	5.28	1.52	1.46
1	W	1103	TRP	CB-CG	5.28	1.66	1.50
1	P	1023	PHE	CA-C	-5.27	1.46	1.52
1	U	1010	LYS	CA-C	5.27	1.58	1.52
1	V	1139	LEU	CB-CG	5.27	1.64	1.53
1	V	1306	PHE	N-CA	5.27	1.52	1.46
1	R	1159	GLU	CA-C	5.27	1.59	1.52
1	Q	1258	ASN	C-O	5.26	1.30	1.24
1	R	1062	GLY	C-O	5.26	1.31	1.23
1	Q	1331	GLY	C-O	-5.26	1.16	1.23
1	R	1238	TYR	C-O	5.25	1.29	1.23
1	U	1276	ALA	CA-C	-5.25	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	P	1287	ARG	CD-NE	5.25	1.53	1.46
1	R	1075	VAL	CA-CB	-5.25	1.50	1.55
1	R	1308	LYS	CD-CE	5.25	1.68	1.52
1	U	1122	GLN	CA-C	5.25	1.59	1.52
1	W	1081	LYS	C-O	5.25	1.30	1.24
1	Q	1287	ARG	CG-CD	5.25	1.68	1.52
1	U	1042	GLY	N-CA	5.25	1.52	1.45
1	W	1034	THR	C-O	-5.24	1.17	1.23
1	Q	1234	LEU	CG-CD1	-5.24	1.35	1.52
1	U	1161	PHE	CD2-CE2	5.24	1.54	1.38
1	W	1345	GLN	N-CA	5.24	1.52	1.46
1	R	1301	GLY	C-O	5.24	1.29	1.24
1	U	1148	GLN	N-CA	-5.24	1.39	1.45
1	W	1279	GLN	CB-CG	-5.24	1.36	1.52
1	U	1027	LYS	CB-CG	5.23	1.68	1.52
1	Q	1067	ASN	C-O	5.23	1.30	1.24
1	Q	1082	PHE	CB-CG	5.23	1.62	1.50
1	V	1168	ASN	CB-CG	-5.23	1.39	1.52
1	U	1167	ASN	N-CA	5.23	1.51	1.45
1	P	1281	LYS	CG-CD	5.22	1.68	1.52
1	P	1071	SER	N-CA	5.21	1.52	1.46
1	Q	1241	THR	CB-CG2	5.21	1.69	1.52
1	Q	1201	LYS	CB-CG	5.21	1.68	1.52
1	Q	1040	PHE	CA-C	-5.21	1.46	1.52
1	Q	1157	SER	C-N	5.21	1.41	1.33
1	U	1217	ARG	N-CA	5.21	1.52	1.45
1	P	1295	LEU	N-CA	-5.21	1.39	1.46
1	R	1259	PHE	C-O	-5.20	1.17	1.24
1	V	1094	TYR	N-CA	5.20	1.52	1.45
1	U	1099	ASP	CB-CG	-5.20	1.39	1.52
1	Q	1160	GLY	C-N	5.20	1.41	1.33
1	Q	1185	THR	C-O	5.20	1.30	1.23
1	U	1160	GLY	N-CA	5.20	1.53	1.45
1	P	1322	ASP	N-CA	5.19	1.52	1.46
1	V	1314	VAL	CA-CB	-5.19	1.48	1.54
1	P	1246	ARG	C-O	5.18	1.30	1.23
1	Q	1314	VAL	CA-CB	-5.18	1.48	1.54
1	Q	1068	GLU	N-CA	5.18	1.50	1.46
1	W	1268	ASP	N-CA	-5.18	1.40	1.46
1	P	1211	TYR	CB-CG	5.18	1.63	1.51
1	P	1072	TRP	CA-CB	-5.17	1.45	1.53
1	Q	1234	LEU	CA-C	5.17	1.58	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	R	1161	PHE	CG-CD2	5.17	1.49	1.38
1	V	1054	GLY	CA-C	5.17	1.57	1.51
1	W	1004	TYR	N-CA	5.17	1.52	1.46
1	P	1042	GLY	CA-C	5.17	1.59	1.51
1	Q	1069	ASN	N-CA	5.17	1.52	1.46
1	U	1252	TRP	CG-CD1	5.17	1.49	1.36
1	Q	1120	PHE	CA-C	-5.16	1.45	1.52
1	P	1300	VAL	CB-CG2	5.16	1.69	1.52
1	P	1247	VAL	CA-C	-5.16	1.46	1.52
1	U	1234	LEU	CA-C	5.16	1.58	1.52
1	U	1328	ARG	C-O	-5.15	1.17	1.24
1	W	1137	PHE	CA-C	5.15	1.60	1.53
1	P	1055	GLN	CA-C	-5.15	1.46	1.52
2	X	1024	ARG	CA-C	5.15	1.59	1.52
2	X	1038	LYS	N-CA	5.15	1.52	1.46
1	P	1069	ASN	CB-CG	5.15	1.65	1.52
1	W	1168	ASN	CA-CB	-5.15	1.44	1.54
1	W	1191	PHE	CD1-CE1	5.15	1.54	1.38
1	W	1197	ILE	CA-CB	5.15	1.63	1.54
1	P	1053	TYR	N-CA	-5.14	1.39	1.46
1	P	1072	TRP	CA-C	5.14	1.60	1.53
1	R	1328	ARG	C-O	-5.14	1.17	1.24
1	V	1032	ASP	CA-C	5.14	1.59	1.52
1	P	1323	ASP	N-CA	5.14	1.52	1.46
1	U	1170	ARG	C-N	5.13	1.40	1.33
1	U	1303	THR	N-CA	5.13	1.52	1.45
1	W	1290	ASP	CA-C	5.13	1.59	1.52
1	R	1093	ASN	CA-C	-5.13	1.45	1.52
1	P	1275	LEU	C-O	5.13	1.29	1.23
1	Q	1275	LEU	CA-C	5.13	1.58	1.52
1	P	1306	PHE	N-CA	5.13	1.52	1.46
1	Q	1043	GLU	N-CA	5.13	1.52	1.46
1	R	1252	TRP	CA-C	5.13	1.60	1.53
1	U	1239	THR	N-CA	-5.13	1.39	1.46
1	Q	1130	THR	CA-CB	-5.12	1.42	1.53
1	R	1067	ASN	N-CA	-5.12	1.39	1.46
1	Q	1189	GLU	N-CA	5.12	1.52	1.46
1	R	1032	ASP	CA-CB	-5.12	1.46	1.53
1	P	1101	THR	CA-CB	-5.11	1.44	1.53
1	Q	1191	PHE	CE1-CZ	5.11	1.53	1.38
1	V	1236	ALA	N-CA	5.11	1.52	1.45
1	Q	1343	VAL	CA-C	-5.11	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	V	1182	GLY	N-CA	5.11	1.50	1.45
1	P	1081	LYS	C-O	5.11	1.29	1.24
1	U	1068	GLU	CG-CD	5.11	1.64	1.52
1	U	1149	TYR	CG-CD1	5.10	1.50	1.39
1	V	1061	GLN	CD-OE1	5.10	1.33	1.23
1	W	1234	LEU	C-O	5.10	1.30	1.24
1	Q	1291	ASP	CA-C	-5.10	1.46	1.52
1	V	1158	GLY	CA-C	5.10	1.59	1.51
1	W	1134	THR	C-O	5.10	1.30	1.23
1	Q	1322	ASP	CA-C	5.10	1.59	1.52
1	W	1305	TYR	CA-CB	5.09	1.59	1.53
1	R	1339	ALA	CA-CB	-5.09	1.42	1.53
2	S	1006	VAL	N-CA	5.09	1.52	1.46
1	Q	1068	GLU	CD-OE2	5.08	1.35	1.25
1	U	1083	GLN	N-CA	5.08	1.52	1.46
1	V	1024	SER	CA-C	-5.08	1.46	1.52
1	P	1258	ASN	CA-C	-5.08	1.46	1.52
1	Q	1041	LYS	CD-CE	5.08	1.67	1.52
1	P	1073	THR	CA-CB	5.07	1.60	1.53
1	R	1105	ASP	CA-C	5.07	1.59	1.53
1	R	1200	SER	N-CA	5.07	1.52	1.46
2	S	1036	CYS	CB-SG	5.06	1.98	1.81
1	P	1090	TYR	N-CA	-5.06	1.40	1.45
1	W	1110	PHE	CE2-CZ	5.06	1.53	1.38
1	V	1092	ARG	CA-CB	5.06	1.59	1.53
2	X	1041	SER	N-CA	5.06	1.52	1.46
1	V	1149	TYR	CB-CG	5.05	1.62	1.51
1	V	1340	LEU	CA-C	-5.05	1.46	1.52
1	P	1018	ASP	CA-CB	-5.05	1.45	1.53
1	Q	1071	SER	CA-CB	5.05	1.62	1.53
1	Q	1197	ILE	CA-CB	5.05	1.61	1.54
1	U	1022	TYR	CA-CB	-5.05	1.44	1.53
1	P	1104	THR	CA-C	-5.05	1.46	1.52
1	V	1155	ASN	C-O	-5.05	1.17	1.23
1	R	1165	VAL	C-O	5.04	1.30	1.24
1	R	1168	ASN	CA-CB	-5.04	1.45	1.54
1	Q	1171	ASP	CG-OD1	5.04	1.34	1.25
1	U	1324	ASN	CB-CG	-5.04	1.39	1.52
1	V	1056	TRP	N-CA	-5.04	1.40	1.46
1	P	1240	GLN	CA-C	-5.04	1.46	1.52
1	V	1312	THR	CB-CG2	-5.04	1.35	1.52
1	P	1125	GLY	N-CA	-5.04	1.38	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	X	1028	LYS	N-CA	5.04	1.52	1.46
1	W	1275	LEU	C-O	5.03	1.29	1.23
1	R	1156	PRO	C-O	-5.03	1.18	1.24
1	V	1053	TYR	N-CA	-5.03	1.39	1.45
1	V	1092	ARG	CZ-NH1	5.03	1.39	1.32
1	W	1014	TYR	CA-C	5.03	1.58	1.52
1	Q	1069	ASN	CB-CG	5.03	1.64	1.52
1	P	1297	TYR	N-CA	5.02	1.51	1.46
2	X	1019	CYS	CB-SG	5.02	1.97	1.81
1	W	1051	THR	CA-CB	5.02	1.62	1.53
1	P	1035	TYR	C-O	5.02	1.29	1.23
1	U	1287	ARG	NE-CZ	5.02	1.38	1.33
1	W	1007	ASP	N-CA	5.02	1.52	1.46
1	P	1109	GLU	CA-C	5.02	1.59	1.52
1	P	1161	PHE	CG-CD1	5.02	1.49	1.38
1	R	1191	PHE	CA-C	-5.02	1.46	1.52
1	R	1344	TYR	C-O	5.02	1.30	1.24
1	V	1069	ASN	N-CA	5.02	1.52	1.46
1	P	1182	GLY	N-CA	5.01	1.50	1.45
1	Q	1023	PHE	C-O	5.01	1.30	1.24
1	Q	1308	LYS	C-O	-5.01	1.15	1.23
1	W	1285	LEU	CA-C	-5.00	1.46	1.53
1	V	1317	LYS	N-CA	5.00	1.52	1.46

All (1048) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	P	1187	ASP	N-CA-C	20.32	139.71	112.68
1	R	1187	ASP	N-CA-C	19.77	138.20	113.88
1	V	1187	ASP	N-CA-C	17.83	137.10	111.96
1	U	1187	ASP	N-CA-C	17.81	136.37	112.68
1	Q	1187	ASP	N-CA-C	17.66	136.85	111.96
1	W	1165	VAL	N-CA-C	17.06	129.34	108.53
1	U	1170	ARG	N-CA-C	16.46	133.91	113.17
1	W	1187	ASP	N-CA-C	16.36	134.05	113.43
1	Q	1170	ARG	N-CA-C	15.40	132.75	112.88
1	R	1170	ARG	N-CA-C	14.73	131.88	112.88
1	W	1170	ARG	N-CA-C	14.68	131.82	112.88
1	P	1170	ARG	N-CA-C	14.55	131.65	112.88
1	W	1325	GLN	N-CA-C	-14.49	95.48	112.87
2	X	1007	ARG	N-CA-C	14.14	129.51	109.15
1	W	1155	ASN	CA-C-N	-13.97	105.45	119.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	W	1155	ASN	C-N-CA	-13.97	105.45	119.56
1	U	1134	THR	N-CA-C	13.51	127.89	111.40
2	X	1030	ARG	N-CA-C	13.00	128.16	113.21
1	Q	1212	ILE	N-CA-C	12.67	124.28	108.06
1	P	1157	SER	N-CA-C	12.28	136.95	110.80
1	U	1325	GLN	N-CA-C	-12.00	98.47	112.87
1	Q	1157	SER	N-CA-C	11.86	136.07	110.80
1	Q	1156	PRO	CA-C-N	11.84	144.16	121.54
1	Q	1156	PRO	C-N-CA	11.84	144.16	121.54
1	R	1325	GLN	N-CA-C	-11.81	97.97	112.38
1	P	1084	ASP	N-CA-C	-11.69	95.48	111.96
1	V	1170	ARG	N-CA-C	11.60	128.84	113.30
1	R	1156	PRO	CA-C-N	11.46	143.44	121.54
1	R	1156	PRO	C-N-CA	11.46	143.44	121.54
1	V	1157	SER	N-CA-C	11.35	134.98	110.80
1	W	1165	VAL	CB-CA-C	-11.22	94.53	110.91
1	U	1157	SER	N-CA-C	11.22	134.69	110.80
1	U	1165	VAL	N-CA-C	11.12	132.46	109.34
1	V	1009	ASN	N-CA-C	11.10	126.49	109.96
1	W	1157	SER	N-CA-C	10.89	134.00	110.80
1	R	1157	SER	N-CA-C	10.81	133.83	110.80
1	V	1156	PRO	CA-C-N	10.79	142.15	121.54
1	V	1156	PRO	C-N-CA	10.79	142.15	121.54
1	P	1156	PRO	CA-C-N	10.77	142.10	121.54
1	P	1156	PRO	C-N-CA	10.77	142.10	121.54
1	W	1140	VAL	CA-C-N	-10.64	107.77	122.77
1	W	1140	VAL	C-N-CA	-10.64	107.77	122.77
1	P	1165	VAL	CB-CA-C	-10.60	93.90	111.29
1	U	1249	SER	N-CA-C	-10.57	99.70	112.59
1	P	1081	LYS	N-CA-C	-10.54	91.23	108.41
1	R	1041	LYS	N-CA-C	-10.50	92.92	109.72
1	R	1009	ASN	N-CA-C	10.41	125.54	110.24
1	W	1156	PRO	CA-C-N	10.39	141.39	121.54
1	W	1156	PRO	C-N-CA	10.39	141.39	121.54
1	Q	1048	ASP	N-CA-C	-10.39	101.16	114.04
1	P	1169	GLY	N-CA-C	-10.29	88.79	113.18
1	U	1009	ASN	N-CA-C	10.25	125.68	110.30
1	W	1009	ASN	N-CA-C	10.21	125.25	110.24
1	R	1249	SER	N-CA-C	-10.20	99.15	112.41
1	R	1107	LEU	CA-C-N	-10.19	107.65	119.47
1	R	1107	LEU	C-N-CA	-10.19	107.65	119.47
1	V	1070	ASN	N-CA-C	10.09	132.28	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	U	1165	VAL	CB-CA-C	-10.03	94.83	111.29
1	R	1081	LYS	N-CA-C	-10.00	92.22	108.52
1	Q	1193	ILE	N-CA-C	-9.98	93.42	108.99
1	Q	1009	ASN	N-CA-C	9.96	125.24	110.30
2	X	1025	ARG	N-CA-C	-9.93	100.57	112.89
1	W	1169	GLY	N-CA-C	-9.86	89.82	113.18
1	W	1071	SER	N-CA-C	9.82	131.72	110.80
1	Q	1029	VAL	N-CA-C	-9.78	103.59	113.47
1	U	1156	PRO	CA-C-N	9.72	140.10	121.54
1	U	1156	PRO	C-N-CA	9.72	140.10	121.54
1	Q	1271	LEU	N-CA-C	-9.70	95.38	110.42
1	P	1165	VAL	N-CA-C	9.70	129.51	109.34
1	W	1134	THR	N-CA-C	9.68	125.97	112.04
2	X	1016	SER	N-CA-C	9.57	124.76	113.18
1	R	1235	ALA	N-CA-C	9.51	123.06	108.42
1	V	1161	PHE	CA-CB-CG	9.49	123.29	113.80
1	W	1138	GLY	N-CA-C	-9.44	102.94	115.21
1	U	1192	GLY	N-CA-C	-9.42	94.71	111.19
1	R	1044	THR	N-CA-C	-9.40	94.08	109.40
1	P	1070	ASN	N-CA-C	9.39	130.80	110.80
1	V	1212	ILE	N-CA-C	9.31	128.71	109.34
2	S	1030	ARG	N-CA-C	9.31	122.59	111.33
1	V	1254	ASN	N-CA-C	9.28	122.25	111.11
1	U	1323	ASP	N-CA-C	9.28	123.97	110.42
1	W	1070	ASN	N-CA-C	9.26	130.53	110.80
1	V	1104	THR	N-CA-C	9.25	125.69	113.30
1	U	1193	ILE	N-CA-C	-9.24	95.83	108.96
1	W	1235	ALA	N-CA-C	9.21	122.88	108.79
1	P	1212	ILE	N-CA-C	9.20	128.48	109.34
1	P	1338	VAL	CA-C-N	-9.01	108.36	122.87
1	P	1338	VAL	C-N-CA	-9.01	108.36	122.87
1	Q	1161	PHE	CA-CB-CG	8.97	122.78	113.80
1	U	1156	PRO	CA-C-O	-8.94	106.48	119.00
1	Q	1081	LYS	N-CA-C	-8.93	93.85	108.41
1	W	1161	PHE	CA-CB-CG	8.93	122.73	113.80
1	P	1071	SER	N-CA-C	8.89	129.75	110.80
1	P	1161	PHE	CA-CB-CG	8.89	122.69	113.80
1	U	1041	LYS	N-CA-C	-8.88	96.38	110.14
1	V	1164	GLY	N-CA-C	-8.86	92.18	113.18
1	R	1165	VAL	N-CA-C	8.86	127.77	109.34
1	P	1009	ASN	N-CA-C	8.84	123.27	110.10
1	R	1155	ASN	N-CA-CB	8.77	122.33	109.88

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	R	1161	PHE	CA-CB-CG	8.75	122.55	113.80
1	U	1169	GLY	N-CA-C	-8.73	92.49	113.18
1	R	1169	GLY	N-CA-C	-8.72	92.50	113.18
1	U	1019	GLY	N-CA-C	-8.70	92.57	113.18
2	X	1028	LYS	CA-C-N	8.70	137.35	121.70
2	X	1028	LYS	C-N-CA	8.70	137.35	121.70
1	U	1070	ASN	N-CA-C	8.68	129.29	110.80
1	R	1064	SER	N-CA-C	8.65	121.06	108.86
1	R	1069	ASN	O-C-N	8.63	134.07	122.59
1	Q	1249	SER	N-CA-C	-8.63	101.19	112.41
1	R	1070	ASN	N-CA-C	8.61	129.14	110.80
2	X	1034	VAL	N-CA-C	8.60	120.20	108.17
1	V	1314	VAL	CB-CA-C	-8.59	97.83	110.62
1	Q	1044	THR	N-CA-C	-8.57	95.79	109.59
1	R	1017	VAL	CB-CA-C	-8.57	97.85	110.62
1	V	1107	LEU	CA-C-N	-8.56	109.56	119.32
1	V	1107	LEU	C-N-CA	-8.56	109.56	119.32
1	U	1161	PHE	CA-CB-CG	8.55	122.35	113.80
1	R	1134	THR	N-CA-C	8.55	124.64	111.56
1	R	1212	ILE	N-CA-C	8.54	127.11	109.34
1	R	1071	SER	N-CA-C	8.54	128.99	110.80
1	V	1222	THR	N-CA-C	8.54	122.82	108.13
1	V	1054	GLY	N-CA-C	8.53	123.95	110.90
1	V	1298	VAL	N-CA-CB	8.49	119.98	110.72
1	W	1041	LYS	N-CA-C	-8.49	96.98	110.14
1	P	1017	VAL	CB-CA-C	-8.48	98.08	110.63
1	V	1032	ASP	N-CA-C	8.47	122.43	108.96
1	V	1217	ARG	CB-CG-CD	-8.46	91.84	111.30
1	P	1192	GLY	N-CA-C	-8.46	96.66	111.46
1	W	1272	ARG	CA-C-N	8.45	128.21	119.76
1	W	1272	ARG	C-N-CA	8.45	128.21	119.76
1	P	1155	ASN	CA-C-N	-8.41	110.03	119.28
1	P	1155	ASN	C-N-CA	-8.41	110.03	119.28
1	Q	1323	ASP	N-CA-C	8.40	122.68	110.42
1	W	1147	VAL	N-CA-C	-8.38	95.23	108.81
1	W	1069	ASN	O-C-N	8.37	133.73	122.59
1	V	1081	LYS	N-CA-C	-8.36	93.40	108.02
1	Q	1019	GLY	N-CA-C	-8.35	93.38	113.18
1	Q	1138	GLY	N-CA-C	-8.33	103.82	115.32
1	Q	1041	LYS	N-CA-C	-8.30	96.44	109.72
1	Q	1193	ILE	CB-CA-C	-8.30	98.95	110.90
1	P	1044	THR	N-CA-C	-8.29	95.40	109.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	P	1134	THR	CA-C-N	-8.27	110.50	123.24
1	P	1134	THR	C-N-CA	-8.27	110.50	123.24
1	Q	1140	VAL	CA-C-N	-8.21	111.19	122.77
1	Q	1140	VAL	C-N-CA	-8.21	111.19	122.77
1	W	1074	ARG	N-CA-C	8.21	120.01	111.14
1	P	1161	PHE	N-CA-C	-8.21	93.32	110.80
1	U	1323	ASP	CB-CA-C	-8.20	98.31	109.71
1	R	1069	ASN	N-CA-C	8.20	128.26	110.80
1	U	1091	GLY	N-CA-C	8.19	121.70	110.56
1	W	1030	ASP	N-CA-C	8.18	120.88	110.24
1	U	1071	SER	N-CA-C	8.18	128.22	110.80
1	Q	1165	VAL	N-CA-C	8.16	126.32	109.34
1	W	1104	THR	N-CA-C	8.16	123.02	112.41
1	W	1193	ILE	N-CA-C	-8.16	97.37	108.96
1	V	1071	SER	N-CA-C	8.14	128.14	110.80
1	Q	1325	GLN	N-CA-C	-8.13	103.11	112.87
2	S	1006	VAL	N-CA-C	8.12	120.04	108.42
1	U	1081	LYS	N-CA-C	-8.11	96.01	109.07
1	W	1291	ASP	CB-CA-C	8.11	122.91	109.53
1	P	1143	LEU	CB-CA-C	-8.11	96.90	110.19
1	R	1201	LYS	N-CA-C	-8.10	98.49	110.23
1	P	1078	ALA	N-CA-C	-8.09	96.72	109.50
1	R	1134	THR	CA-C-N	-8.08	110.79	123.23
1	R	1134	THR	C-N-CA	-8.08	110.79	123.23
1	P	1193	ILE	N-CA-C	-8.06	97.84	109.29
1	Q	1070	ASN	N-CA-C	8.06	127.97	110.80
1	R	1138	GLY	N-CA-C	-8.05	104.74	115.21
1	W	1260	GLU	CB-CA-C	-8.05	100.63	110.94
1	U	1044	THR	N-CA-C	-8.02	96.32	109.40
1	U	1291	ASP	CB-CA-C	8.01	122.74	109.53
1	R	1193	ILE	N-CA-C	-7.98	96.83	109.20
1	P	1249	SER	N-CA-C	-7.95	101.76	112.26
1	W	1193	ILE	CB-CA-C	-7.95	100.30	111.19
1	P	1287	ARG	CG-CD-NE	7.92	129.43	112.00
1	R	1150	GLN	N-CA-C	7.92	121.44	108.52
1	V	1134	THR	CA-C-N	-7.91	111.05	123.23
1	V	1134	THR	C-N-CA	-7.91	111.05	123.23
1	V	1017	VAL	CB-CA-C	-7.89	98.87	110.62
1	Q	1156	PRO	O-C-N	7.88	131.69	122.23
1	R	1164	GLY	N-CA-C	-7.86	94.54	113.18
1	R	1323	ASP	N-CA-C	7.85	121.78	110.24
1	W	1164	GLY	N-CA-C	-7.84	94.60	113.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Q	1165	VAL	CB-CA-C	-7.83	98.46	111.29
1	V	1161	PHE	N-CA-C	-7.82	94.15	110.80
1	Q	1071	SER	N-CA-C	7.81	127.44	110.80
1	V	1069	ASN	N-CA-C	7.81	127.44	110.80
1	W	1134	THR	CA-C-N	-7.81	111.20	123.23
1	W	1134	THR	C-N-CA	-7.81	111.20	123.23
1	U	1096	VAL	CB-CA-C	-7.81	101.44	112.22
1	R	1338	VAL	CA-C-N	-7.81	111.23	122.94
1	R	1338	VAL	C-N-CA	-7.81	111.23	122.94
1	U	1287	ARG	CG-CD-NE	7.80	129.16	112.00
1	Q	1017	VAL	CB-CA-C	-7.80	99.00	110.62
1	W	1096	VAL	CB-CA-C	-7.79	101.47	112.22
1	W	1166	THR	CA-CB-CG2	7.79	123.75	110.50
1	Q	1096	VAL	CB-CA-C	-7.77	101.65	112.14
1	W	1069	ASN	N-CA-C	7.76	127.34	110.80
1	R	1291	ASP	N-CA-C	-7.73	97.72	110.17
1	U	1141	ASP	N-CA-CB	-7.71	98.61	110.65
1	P	1156	PRO	CA-C-O	-7.71	107.83	119.55
1	V	1165	VAL	CB-CA-C	-7.70	98.67	111.29
1	R	1251	GLY	N-CA-C	-7.69	100.69	112.84
1	U	1069	ASN	N-CA-C	7.67	127.14	110.80
1	P	1217	ARG	CB-CG-CD	-7.66	93.68	111.30
1	W	1150	GLN	N-CA-C	7.63	120.86	108.34
1	P	1091	GLY	N-CA-C	7.62	120.92	110.56
1	Q	1170	ARG	CA-C-O	-7.62	110.60	119.59
1	W	1287	ARG	CG-CD-NE	7.62	128.76	112.00
1	Q	1134	THR	CA-C-N	-7.60	111.53	123.23
1	Q	1134	THR	C-N-CA	-7.60	111.53	123.23
1	V	1182	GLY	N-CA-C	7.59	125.55	110.97
1	V	1138	GLY	N-CA-C	-7.58	104.86	115.32
1	P	1207	ASN	N-CA-C	7.58	120.40	109.71
1	U	1170	ARG	CA-C-O	-7.58	110.49	119.35
1	W	1081	LYS	N-CA-C	-7.57	96.18	108.52
1	W	1337	ILE	CA-C-N	-7.57	112.42	122.94
1	W	1337	ILE	C-N-CA	-7.57	112.42	122.94
1	V	1019	GLY	N-CA-C	-7.56	95.25	113.18
1	Q	1291	ASP	CB-CA-C	7.53	122.13	109.48
1	Q	1118	ASP	N-CA-C	-7.51	101.14	111.28
1	Q	1028	ASP	N-CA-C	-7.51	103.23	114.64
1	W	1064	SER	N-CA-C	7.50	120.31	109.14
1	U	1164	GLY	N-CA-C	-7.48	95.44	113.18
1	R	1068	GLU	CA-CB-CG	7.48	129.06	114.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	W	1199	SER	CA-C-O	-7.48	111.01	120.14
1	R	1048	ASP	N-CA-C	-7.48	104.66	114.31
1	U	1093	ASN	CA-C-O	-7.47	113.11	121.40
1	Q	1069	ASN	O-C-N	7.47	132.52	122.59
1	V	1029	VAL	N-CA-C	-7.46	106.22	113.53
1	V	1048	ASP	N-CA-C	-7.46	104.04	113.43
1	V	1338	VAL	CA-C-N	-7.46	111.75	122.94
1	V	1338	VAL	C-N-CA	-7.46	111.75	122.94
1	P	1069	ASN	N-CA-C	7.44	126.64	110.80
1	V	1323	ASP	CB-CA-C	-7.44	99.37	109.71
1	V	1150	GLN	N-CA-C	7.43	121.02	108.90
1	U	1164	GLY	O-C-N	7.43	132.36	122.70
1	W	1044	THR	N-CA-C	-7.41	97.67	109.59
1	U	1161	PHE	N-CA-C	-7.40	95.03	110.80
1	V	1212	ILE	CB-CA-C	-7.40	99.15	111.29
1	W	1029	VAL	N-CA-C	-7.40	106.28	113.53
1	R	1156	PRO	N-CA-C	-7.38	103.52	113.40
1	U	1165	VAL	CA-C-N	-7.38	109.86	122.10
1	U	1165	VAL	C-N-CA	-7.38	109.86	122.10
1	R	1194	GLY	CA-C-N	7.36	127.26	122.18
1	R	1194	GLY	C-N-CA	7.36	127.26	122.18
1	U	1017	VAL	CB-CA-C	-7.35	99.67	110.62
1	R	1168	ASN	N-CA-C	7.34	125.80	114.64
1	U	1152	LYS	CA-C-O	-7.34	113.08	121.15
1	R	1165	VAL	CB-CA-C	-7.33	99.27	111.29
1	W	1134	THR	OG1-CB-CG2	7.33	123.96	109.30
1	Q	1214	ASN	N-CA-C	-7.31	95.27	108.58
2	S	1009	CYS	N-CA-C	7.30	126.36	110.80
1	Q	1068	GLU	CA-CB-CG	7.29	128.68	114.10
1	V	1323	ASP	N-CA-C	7.29	121.06	110.42
1	Q	1203	THR	N-CA-C	7.29	120.26	110.35
1	W	1207	ASN	N-CA-C	7.28	119.44	109.11
1	Q	1069	ASN	N-CA-C	7.25	126.25	110.80
1	P	1052	GLY	N-CA-C	7.25	122.82	112.82
1	U	1193	ILE	CB-CA-C	-7.24	101.27	111.19
1	U	1212	ILE	N-CA-C	7.22	124.37	109.34
1	W	1203	THR	N-CA-C	7.22	119.89	110.43
1	R	1078	ALA	N-CA-C	-7.22	97.18	109.24
1	P	1011	LEU	CB-CA-C	-7.22	97.36	109.48
1	U	1272	ARG	CA-C-N	7.21	127.13	119.85
1	U	1272	ARG	C-N-CA	7.21	127.13	119.85
1	P	1156	PRO	O-C-N	7.19	131.50	122.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	P	1263	ALA	CA-C-N	-7.19	110.56	122.21
1	P	1263	ALA	C-N-CA	-7.19	110.56	122.21
1	Q	1164	GLY	O-C-N	7.18	132.03	122.70
1	V	1271	LEU	N-CA-C	-7.18	98.53	109.95
1	W	1323	ASP	N-CA-C	7.18	120.80	110.24
1	Q	1212	ILE	CB-CA-C	-7.16	100.77	111.80
1	W	1212	ILE	N-CA-C	7.16	124.23	109.34
1	W	1019	GLY	N-CA-C	-7.16	96.22	113.18
1	V	1078	ALA	N-CA-C	-7.15	98.20	109.50
1	R	1103	TRP	CA-C-N	-7.14	111.37	122.37
1	R	1103	TRP	C-N-CA	-7.14	111.37	122.37
1	R	1318	ILE	CA-C-N	-7.14	112.92	122.85
1	R	1318	ILE	C-N-CA	-7.14	112.92	122.85
1	U	1230	ASN	CB-CA-C	-7.14	99.16	112.30
1	Q	1217	ARG	CB-CG-CD	-7.14	94.88	111.30
1	W	1201	LYS	N-CA-C	-7.13	100.44	110.50
1	V	1044	THR	N-CA-C	-7.13	97.78	109.40
1	V	1134	THR	N-CA-C	7.12	122.16	112.68
1	P	1118	ASP	N-CA-C	-7.12	101.67	111.28
1	V	1068	GLU	CA-CB-CG	7.12	128.33	114.10
1	R	1268	ASP	N-CA-C	-7.11	103.53	111.28
1	U	1235	ALA	N-CA-C	7.10	119.35	108.42
1	W	1128	PHE	CA-C-N	-7.09	113.12	123.05
1	W	1128	PHE	C-N-CA	-7.09	113.12	123.05
1	U	1068	GLU	CA-CB-CG	7.09	128.28	114.10
1	V	1141	ASP	N-CA-CB	-7.08	99.66	110.77
1	U	1157	SER	CB-CA-C	-7.07	96.35	110.42
1	P	1138	GLY	N-CA-C	-7.07	106.03	115.21
1	W	1161	PHE	N-CA-C	-7.06	95.77	110.80
1	Q	1103	TRP	CA-C-N	-7.05	111.42	122.49
1	Q	1103	TRP	C-N-CA	-7.05	111.42	122.49
1	R	1134	THR	OG1-CB-CG2	7.05	123.40	109.30
1	U	1221	TYR	N-CA-C	-7.04	96.57	108.26
1	W	1164	GLY	O-C-N	7.04	131.85	122.70
1	V	1155	ASN	CA-C-N	-7.03	111.25	119.05
1	V	1155	ASN	C-N-CA	-7.03	111.25	119.05
1	U	1167	ASN	CA-C-N	-7.03	111.03	121.99
1	U	1167	ASN	C-N-CA	-7.03	111.03	121.99
1	R	1019	GLY	N-CA-C	-7.01	96.56	113.18
1	W	1107	LEU	CA-C-N	-7.01	111.33	119.32
1	W	1107	LEU	C-N-CA	-7.01	111.33	119.32
1	V	1152	LYS	CA-C-O	-7.00	114.30	120.88

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Q	1091	GLY	N-CA-C	7.00	120.91	110.97
1	P	1194	GLY	N-CA-C	-6.98	96.64	113.18
1	Q	1322	ASP	N-CA-C	6.98	120.42	109.96
1	U	1010	LYS	N-CA-C	6.97	121.02	108.48
1	V	1014	TYR	N-CA-C	6.96	119.65	109.07
1	Q	1152	LYS	CA-C-O	-6.96	113.37	120.96
1	U	1166	THR	N-CA-CB	-6.96	100.24	111.24
2	X	1006	VAL	CA-C-N	6.95	132.51	121.66
2	X	1006	VAL	C-N-CA	6.95	132.51	121.66
1	Q	1201	LYS	N-CA-C	-6.95	100.15	110.23
1	V	1168	ASN	N-CA-C	6.95	124.46	114.39
1	U	1048	ASP	N-CA-C	-6.94	105.44	114.04
1	R	1164	GLY	O-C-N	6.94	131.72	122.70
1	P	1335	ASP	N-CA-C	6.93	119.51	110.43
1	P	1123	GLN	N-CA-C	-6.93	98.11	108.99
1	R	1018	ASP	N-CA-CB	-6.93	100.31	110.84
1	P	1275	LEU	N-CA-C	-6.92	96.02	108.48
1	P	1199	SER	CA-C-O	-6.92	111.69	120.14
1	W	1298	VAL	CA-C-N	-6.92	113.17	122.72
1	W	1298	VAL	C-N-CA	-6.92	113.17	122.72
1	P	1054	GLY	CA-C-N	-6.91	111.83	122.62
1	P	1054	GLY	C-N-CA	-6.91	111.83	122.62
1	Q	1125	GLY	N-CA-C	-6.90	100.67	110.75
1	W	1321	LEU	N-CA-C	6.90	121.29	110.32
1	Q	1010	LYS	N-CA-C	6.90	120.79	109.06
2	X	1015	GLU	N-CA-C	6.87	125.44	110.80
1	U	1033	GLN	CB-CA-C	-6.87	99.96	111.02
1	P	1164	GLY	O-C-N	6.87	131.63	122.70
1	P	1291	ASP	CB-CA-C	6.86	121.10	109.50
1	P	1221	TYR	N-CA-C	-6.86	96.33	108.13
1	V	1241	THR	N-CA-CB	-6.86	100.29	110.85
1	P	1063	ASN	N-CA-C	6.85	120.95	112.59
1	U	1297	TYR	CA-C-N	-6.83	114.32	122.93
1	U	1297	TYR	C-N-CA	-6.83	114.32	122.93
1	R	1010	LYS	N-CA-C	6.83	120.78	108.69
1	Q	1141	ASP	N-CA-CB	-6.83	100.05	110.77
1	V	1165	VAL	N-CA-C	6.81	123.51	109.34
1	R	1155	ASN	CB-CA-C	-6.80	98.81	109.09
1	V	1140	VAL	N-CA-C	-6.80	95.20	109.34
2	X	1038	LYS	N-CA-C	6.79	125.27	110.80
1	V	1167	ASN	CA-C-N	-6.78	111.61	121.98
1	V	1167	ASN	C-N-CA	-6.78	111.61	121.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	P	1141	ASP	N-CA-CB	-6.77	100.14	110.77
1	R	1104	THR	N-CA-C	6.77	122.48	112.94
1	P	1166	THR	CA-CB-CG2	6.76	122.00	110.50
1	W	1081	LYS	CG-CD-CE	6.76	126.85	111.30
1	Q	1134	THR	N-CA-C	6.76	121.39	112.13
1	Q	1211	TYR	CB-CA-C	6.76	123.87	110.42
1	R	1123	GLN	N-CA-C	-6.76	97.60	108.55
2	S	1028	LYS	CA-C-N	6.75	133.84	121.70
2	S	1028	LYS	C-N-CA	6.75	133.84	121.70
1	U	1147	VAL	N-CA-C	-6.75	97.88	108.81
1	R	1294	ILE	N-CA-C	-6.74	103.11	113.16
1	P	1165	VAL	CA-C-N	-6.74	109.28	121.62
1	P	1165	VAL	C-N-CA	-6.74	109.28	121.62
1	Q	1166	THR	N-CA-CB	-6.73	101.09	111.46
1	R	1212	ILE	CB-CA-C	-6.73	100.25	111.29
1	P	1134	THR	N-CA-C	6.73	121.85	111.56
1	W	1182	GLY	N-CA-C	6.72	123.67	110.83
1	W	1168	ASN	N-CA-C	6.72	124.51	114.09
1	Q	1167	ASN	CA-C-N	-6.71	110.77	121.44
1	Q	1167	ASN	C-N-CA	-6.71	110.77	121.44
1	R	1155	ASN	O-C-N	6.71	129.33	121.21
1	Q	1222	THR	N-CA-C	6.70	120.55	108.69
1	U	1275	LEU	N-CA-C	-6.70	97.67	109.06
1	R	1199	SER	CA-C-O	-6.69	112.05	120.28
1	P	1140	VAL	CA-C-N	-6.68	113.35	122.77
1	P	1140	VAL	C-N-CA	-6.68	113.35	122.77
1	Q	1030	ASP	N-CA-C	6.68	119.92	110.23
1	Q	1157	SER	CB-CA-C	-6.68	97.13	110.42
1	Q	1115	TYR	N-CA-C	-6.68	100.04	108.45
1	R	1291	ASP	CB-CA-C	6.67	120.78	109.50
1	V	1287	ARG	CG-CD-NE	6.67	126.67	112.00
1	R	1323	ASP	N-CA-CB	-6.65	99.17	109.48
1	R	1132	ARG	NE-CZ-NH1	-6.65	114.85	121.50
1	W	1084	ASP	N-CA-C	-6.65	97.66	110.56
1	Q	1218	ALA	CA-C-N	-6.65	113.62	122.99
1	Q	1218	ALA	C-N-CA	-6.65	113.62	122.99
1	U	1336	ASN	CA-C-N	-6.65	113.80	122.51
1	U	1336	ASN	C-N-CA	-6.65	113.80	122.51
1	R	1267	PHE	CA-C-N	6.64	129.18	120.28
1	R	1267	PHE	C-N-CA	6.64	129.18	120.28
1	P	1201	LYS	N-CA-C	-6.64	101.14	110.50
1	Q	1078	ALA	N-CA-C	-6.63	99.02	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	S	1022	TRP	CA-C-N	6.63	134.20	121.54
2	S	1022	TRP	C-N-CA	6.63	134.20	121.54
1	Q	1156	PRO	CA-C-O	-6.62	109.53	119.86
1	U	1152	LYS	CD-CE-NZ	-6.62	90.70	111.90
1	V	1235	ALA	N-CA-C	6.62	118.59	108.52
1	U	1011	LEU	CA-C-N	-6.62	112.55	122.47
1	U	1011	LEU	C-N-CA	-6.62	112.55	122.47
1	W	1318	ILE	CA-C-N	-6.60	113.64	122.42
1	W	1318	ILE	C-N-CA	-6.60	113.64	122.42
1	U	1143	LEU	CB-CA-C	-6.60	98.30	109.72
1	Q	1168	ASN	CA-CB-CG	-6.60	106.00	112.60
1	V	1275	LEU	N-CA-C	-6.59	97.86	109.06
1	P	1324	ASN	N-CA-C	6.58	118.55	108.42
1	U	1113	ASP	CA-C-N	-6.58	112.12	122.65
1	U	1113	ASP	C-N-CA	-6.58	112.12	122.65
1	Q	1147	VAL	N-CA-C	-6.57	98.16	108.81
1	P	1325	GLN	CB-CA-C	6.56	123.48	110.42
1	Q	1169	GLY	N-CA-C	-6.56	97.64	113.18
2	S	1004	LYS	N-CA-C	6.55	124.75	110.80
1	P	1072	TRP	N-CA-CB	-6.55	100.65	110.60
1	R	1272	ARG	CA-C-N	6.55	126.46	119.85
1	R	1272	ARG	C-N-CA	6.55	126.46	119.85
1	R	1147	VAL	N-CA-C	-6.54	98.21	108.81
1	R	1011	LEU	CB-CA-C	-6.54	98.44	109.50
1	Q	1164	GLY	N-CA-C	-6.54	97.68	113.18
1	U	1107	LEU	CA-C-N	-6.54	111.86	119.32
1	U	1107	LEU	C-N-CA	-6.54	111.86	119.32
1	R	1337	ILE	CA-C-N	-6.54	114.04	123.06
1	R	1337	ILE	C-N-CA	-6.54	114.04	123.06
1	U	1318	ILE	CA-C-N	-6.54	114.34	122.84
1	U	1318	ILE	C-N-CA	-6.54	114.34	122.84
1	R	1285	LEU	CA-C-N	-6.52	108.63	121.41
1	R	1285	LEU	C-N-CA	-6.52	108.63	121.41
1	U	1212	ILE	CB-CA-C	-6.52	100.60	111.29
1	V	1149	TYR	OH-CZ-CE2	-6.52	100.35	119.90
1	P	1096	VAL	CB-CA-C	-6.52	103.23	112.22
1	Q	1014	TYR	N-CA-C	6.50	118.74	108.79
1	R	1287	ARG	CG-CD-NE	6.50	126.31	112.00
1	U	1128	PHE	CA-C-N	-6.50	113.95	123.05
1	U	1128	PHE	C-N-CA	-6.50	113.95	123.05
1	R	1217	ARG	CB-CG-CD	-6.50	96.36	111.30
1	Q	1123	GLN	N-CA-C	-6.49	98.03	108.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	P	1318	ILE	CA-C-N	-6.48	113.85	122.85
1	P	1318	ILE	C-N-CA	-6.48	113.85	122.85
1	R	1241	THR	N-CA-CB	-6.47	100.73	111.20
1	P	1285	LEU	CA-C-N	-6.45	112.75	122.04
1	P	1285	LEU	C-N-CA	-6.45	112.75	122.04
1	P	1166	THR	N-CA-CB	-6.44	101.58	111.56
1	W	1338	VAL	CA-C-N	-6.44	113.60	122.93
1	W	1338	VAL	C-N-CA	-6.44	113.60	122.93
1	Q	1161	PHE	N-CA-C	-6.43	97.10	110.80
1	Q	1114	THR	N-CA-C	-6.43	104.59	112.88
1	V	1114	THR	N-CA-C	-6.42	104.59	112.88
1	U	1325	GLN	N-CA-CB	6.41	121.99	110.32
2	X	1006	VAL	N-CA-C	6.41	122.68	109.34
1	R	1143	LEU	CB-CA-C	-6.40	99.54	110.16
1	Q	1150	GLN	N-CA-C	6.39	118.83	108.41
1	Q	1077	PHE	N-CA-C	6.39	118.56	108.79
1	W	1291	ASP	N-CA-C	-6.39	99.23	109.96
2	X	1013	PRO	N-CA-C	6.39	125.63	112.47
1	R	1325	GLN	N-CA-CB	6.38	121.16	110.32
1	W	1137	PHE	N-CA-C	6.38	120.36	112.58
1	P	1193	ILE	CB-CA-C	-6.37	103.03	111.70
1	P	1271	LEU	N-CA-C	-6.37	99.91	110.17
1	P	1297	TYR	CA-C-N	-6.37	114.90	122.93
1	P	1297	TYR	C-N-CA	-6.37	114.90	122.93
1	U	1104	THR	N-CA-C	6.37	122.51	113.02
1	R	1096	VAL	CB-CA-C	-6.37	101.95	112.26
1	R	1297	TYR	CA-C-N	-6.36	114.92	122.93
1	R	1297	TYR	C-N-CA	-6.36	114.92	122.93
1	Q	1287	ARG	CG-CD-NE	6.36	125.98	112.00
1	V	1194	GLY	N-CA-C	-6.35	98.12	113.18
1	U	1251	GLY	CA-C-N	-6.34	111.42	122.64
1	U	1251	GLY	C-N-CA	-6.34	111.42	122.64
1	R	1128	PHE	CA-C-N	-6.33	114.27	123.00
1	R	1128	PHE	C-N-CA	-6.33	114.27	123.00
1	V	1193	ILE	N-CA-C	-6.33	99.43	109.17
1	V	1156	PRO	O-C-N	6.33	129.82	122.23
1	R	1166	THR	CA-C-O	-6.32	114.46	121.23
1	Q	1104	THR	N-CA-C	6.32	120.63	112.41
1	Q	1185	THR	CA-C-N	-6.32	113.46	122.94
1	Q	1185	THR	C-N-CA	-6.32	113.46	122.94
1	P	1166	THR	CB-CA-C	6.32	122.37	110.62
1	P	1325	GLN	N-CA-CB	6.32	121.16	110.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	R	1091	GLY	N-CA-C	6.32	119.49	110.46
1	Q	1291	ASP	N-CA-C	-6.31	99.41	109.76
1	W	1017	VAL	CB-CA-C	-6.31	101.22	110.62
1	V	1185	THR	CA-C-N	-6.31	112.91	122.81
1	V	1185	THR	C-N-CA	-6.31	112.91	122.81
2	X	1040	THR	N-CA-C	6.30	119.43	110.68
1	U	1168	ASN	N-CA-C	6.29	123.84	113.89
1	U	1310	MET	CB-CA-C	-6.27	99.89	109.99
1	V	1096	VAL	CB-CA-C	-6.27	103.56	112.22
1	P	1146	ALA	N-CA-C	-6.27	99.15	108.99
1	P	1235	ALA	N-CA-C	6.26	118.06	108.42
1	P	1052	GLY	CA-C-N	-6.25	110.18	121.62
1	P	1052	GLY	C-N-CA	-6.25	110.18	121.62
1	P	1231	ASN	N-CA-C	6.25	124.11	110.80
1	Q	1144	ASN	N-CA-C	6.25	117.73	108.60
1	P	1039	GLY	O-C-N	-6.24	117.75	123.56
1	U	1231	ASN	CA-C-N	-6.24	115.07	122.93
1	U	1231	ASN	C-N-CA	-6.24	115.07	122.93
2	S	1011	THR	N-CA-C	6.24	118.43	109.14
1	V	1201	LYS	N-CA-C	-6.23	101.88	110.35
1	Q	1338	VAL	CA-C-N	-6.23	112.84	122.87
1	Q	1338	VAL	C-N-CA	-6.23	112.84	122.87
1	P	1011	LEU	CA-C-N	-6.23	113.13	122.47
1	P	1011	LEU	C-N-CA	-6.23	113.13	122.47
1	P	1217	ARG	CG-CD-NE	6.21	125.67	112.00
1	R	1165	VAL	CA-C-N	-6.21	110.26	121.62
1	R	1165	VAL	C-N-CA	-6.21	110.26	121.62
1	P	1147	VAL	N-CA-C	-6.21	98.75	108.81
1	U	1320	LEU	N-CA-C	6.20	120.53	113.15
1	P	1157	SER	CB-CA-C	-6.19	98.10	110.42
1	V	1028	ASP	N-CA-C	-6.19	105.23	114.64
1	V	1298	VAL	CA-C-N	-6.17	113.49	122.19
1	V	1298	VAL	C-N-CA	-6.17	113.49	122.19
1	Q	1032	ASP	N-CA-C	6.16	118.67	109.25
1	R	1166	THR	CA-CB-CG2	6.15	120.95	110.50
1	R	1041	LYS	CA-C-O	-6.14	114.17	121.11
1	P	1103	TRP	CA-C-N	-6.14	111.89	122.14
1	P	1103	TRP	C-N-CA	-6.14	111.89	122.14
1	W	1063	ASN	N-CA-CB	-6.13	101.11	111.17
1	W	1015	GLY	CA-C-O	-6.13	115.50	121.75
1	R	1146	ALA	N-CA-C	-6.13	98.27	108.75
1	U	1011	LEU	CB-CA-C	-6.11	99.17	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	U	1193	ILE	N-CA-CB	6.11	120.48	112.60
1	W	1228	ASP	N-CA-C	6.11	119.23	107.44
2	S	1010	THR	N-CA-C	6.11	123.81	110.80
1	Q	1314	VAL	CB-CA-C	-6.10	101.53	110.62
2	X	1004	LYS	N-CA-C	6.10	123.78	110.80
1	W	1293	ASP	N-CA-C	6.09	118.57	109.25
1	V	1249	SER	N-CA-C	-6.09	103.28	111.87
1	P	1161	PHE	CB-CA-C	6.09	122.54	110.42
1	V	1169	GLY	N-CA-C	-6.09	98.75	113.18
1	P	1254	ASN	N-CA-C	6.08	118.41	111.11
1	Q	1168	ASN	CA-C-N	-6.08	109.49	121.41
1	Q	1168	ASN	C-N-CA	-6.08	109.49	121.41
1	U	1084	ASP	N-CA-C	-6.08	98.76	110.56
1	U	1140	VAL	N-CA-CB	6.08	121.27	111.23
1	Q	1132	ARG	N-CA-C	6.08	119.39	109.24
1	V	1161	PHE	CD1-CG-CD2	-6.08	109.48	118.60
1	W	1028	ASP	N-CA-CB	-6.08	102.96	110.98
1	P	1291	ASP	N-CA-C	-6.08	100.39	110.17
1	P	1314	VAL	CB-CA-C	-6.07	101.15	110.50
1	W	1285	LEU	CA-C-N	-6.07	113.30	122.04
1	W	1285	LEU	C-N-CA	-6.07	113.30	122.04
1	U	1156	PRO	N-CA-C	-6.07	106.28	113.86
1	R	1140	VAL	N-CA-C	-6.06	96.73	109.34
1	R	1014	TYR	N-CA-C	6.05	118.27	109.07
1	R	1071	SER	CB-CA-C	-6.04	98.39	110.42
1	Q	1260	GLU	CB-CA-C	-6.04	101.88	110.34
1	V	1123	GLN	N-CA-C	-6.04	98.42	108.75
1	W	1067	ASN	CA-C-O	-6.04	112.18	119.49
1	Q	1323	ASP	CB-CA-C	-6.04	101.31	109.71
1	W	1085	VAL	N-CA-C	6.04	121.90	109.34
1	V	1189	GLU	N-CA-C	6.04	123.66	110.80
1	R	1119	ASN	N-CA-CB	-6.03	102.41	111.64
1	U	1156	PRO	O-C-N	6.03	130.51	122.30
1	Q	1041	LYS	CA-C-O	-6.03	114.30	121.11
1	R	1214	ASN	N-CA-C	-6.03	97.61	108.58
2	X	1031	GLY	N-CA-C	6.03	124.64	112.34
1	Q	1289	TYR	N-CA-CB	6.02	120.67	110.49
1	W	1297	TYR	CA-C-N	-6.01	112.88	122.50
1	W	1297	TYR	C-N-CA	-6.01	112.88	122.50
1	P	1211	TYR	CB-CA-C	6.01	122.38	110.42
1	Q	1146	ALA	N-CA-C	-6.01	98.82	108.55
1	U	1103	TRP	CA-C-N	-6.01	112.53	122.08

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	U	1103	TRP	C-N-CA	-6.01	112.53	122.08
1	W	1068	GLU	CA-C-N	-6.00	110.09	121.54
1	W	1068	GLU	C-N-CA	-6.00	110.09	121.54
1	P	1164	GLY	CA-C-N	5.99	132.76	121.97
1	P	1164	GLY	C-N-CA	5.99	132.76	121.97
1	W	1127	GLY	N-CA-C	5.99	125.31	114.46
1	U	1251	GLY	N-CA-C	-5.99	102.00	112.53
1	V	1127	GLY	N-CA-C	5.99	125.30	114.46
1	P	1182	GLY	N-CA-C	5.98	122.45	110.97
1	P	1029	VAL	N-CA-C	-5.97	106.92	113.43
1	Q	1039	GLY	O-C-N	-5.97	118.01	123.56
1	V	1069	ASN	O-C-N	5.97	130.53	122.59
1	W	1194	GLY	CA-C-N	5.97	126.30	122.18
1	W	1194	GLY	C-N-CA	5.97	126.30	122.18
1	R	1114	THR	N-CA-C	-5.96	105.19	112.88
1	V	1159	GLU	CB-CG-CD	-5.96	102.47	112.60
1	V	1167	ASN	CB-CA-C	-5.95	99.87	113.33
1	W	1320	LEU	N-CA-C	5.95	120.23	113.15
1	U	1064	SER	N-CA-C	5.95	118.00	109.14
1	P	1167	ASN	CA-C-N	-5.94	110.54	121.41
1	P	1167	ASN	C-N-CA	-5.94	110.54	121.41
1	V	1166	THR	N-CA-CB	-5.94	101.59	111.57
1	R	1211	TYR	CB-CA-C	5.94	122.23	110.42
1	R	1103	TRP	CA-CB-CG	5.93	124.88	113.60
1	U	1258	ASN	N-CA-C	5.93	118.62	109.07
1	W	1153	ASN	N-CA-CB	5.93	120.55	110.87
1	W	1241	THR	N-CA-CB	-5.93	101.59	111.20
1	U	1030	ASP	N-CA-C	5.93	117.95	110.24
1	Q	1201	LYS	CA-C-O	-5.93	114.67	121.19
1	R	1258	ASN	N-CA-C	5.92	118.61	109.07
1	W	1078	ALA	N-CA-C	-5.92	100.14	109.50
1	U	1241	THR	N-CA-CB	-5.92	101.74	110.85
1	U	1287	ARG	CD-NE-CZ	5.90	132.65	124.40
1	V	1152	LYS	CD-CE-NZ	-5.89	93.04	111.90
1	U	1150	GLN	N-CA-C	5.89	118.56	109.07
1	W	1018	ASP	N-CA-CB	-5.89	101.89	110.84
1	P	1153	ASN	N-CA-CB	5.89	120.47	110.87
1	W	1018	ASP	CB-CA-C	5.89	119.52	110.62
1	P	1241	THR	N-CA-CB	-5.89	101.02	111.08
1	R	1127	GLY	N-CA-C	5.89	127.13	113.18
1	W	1132	ARG	NE-CZ-NH1	-5.88	115.61	121.50
1	W	1189	GLU	N-CA-C	5.88	123.33	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	R	1152	LYS	CA-C-O	-5.88	115.07	120.95
1	P	1189	GLU	N-CA-C	5.88	123.32	110.80
1	R	1144	ASN	O-C-N	5.88	129.86	123.10
1	P	1128	PHE	CA-C-N	-5.87	114.83	123.05
1	P	1128	PHE	C-N-CA	-5.87	114.83	123.05
1	Q	1166	THR	N-CA-C	5.87	117.17	108.60
1	U	1228	ASP	N-CA-C	5.87	117.03	107.23
1	Q	1018	ASP	N-CA-CB	-5.86	101.56	110.77
1	V	1103	TRP	CA-CB-CG	5.86	124.74	113.60
1	V	1211	TYR	CA-C-O	-5.86	112.13	120.51
1	P	1186	TYR	N-CA-C	5.86	119.09	109.72
2	S	1002	SER	N-CA-C	5.86	123.28	110.80
1	W	1072	TRP	N-CA-CB	-5.86	102.26	111.05
1	V	1064	SER	N-CA-C	5.86	116.82	108.74
1	P	1140	VAL	N-CA-C	-5.86	97.16	109.34
1	V	1054	GLY	O-C-N	-5.84	118.16	123.36
1	W	1010	LYS	N-CA-C	5.84	118.74	108.75
1	W	1240	GLN	CB-CG-CD	-5.84	102.67	112.60
1	V	1149	TYR	CE1-CZ-OH	5.84	137.41	119.90
1	U	1072	TRP	N-CA-C	5.83	118.35	109.95
1	U	1118	ASP	CA-C-N	5.83	131.27	122.87
1	U	1118	ASP	C-N-CA	5.83	131.27	122.87
1	W	1314	VAL	CB-CA-C	-5.83	101.52	110.50
1	R	1140	VAL	CA-C-N	-5.82	114.56	122.77
1	R	1140	VAL	C-N-CA	-5.82	114.56	122.77
1	V	1228	ASP	N-CA-C	5.82	117.74	107.61
1	W	1217	ARG	CB-CG-CD	-5.82	97.91	111.30
1	P	1251	GLY	CA-C-N	-5.82	111.56	122.73
1	P	1251	GLY	C-N-CA	-5.82	111.56	122.73
1	Q	1298	VAL	CA-C-N	-5.82	113.98	122.65
1	Q	1298	VAL	C-N-CA	-5.82	113.98	122.65
2	S	1036	CYS	N-CA-C	-5.82	98.41	110.80
1	W	1139	LEU	CA-CB-CG	5.82	136.66	116.30
1	V	1030	ASP	N-CA-C	5.81	117.80	110.24
1	V	1211	TYR	CB-CA-C	5.81	121.99	110.42
1	V	1232	ILE	N-CA-C	-5.81	100.05	108.36
1	Q	1323	ASP	N-CA-CB	-5.80	100.46	109.34
1	Q	1140	VAL	N-CA-CB	5.80	120.81	111.23
1	U	1199	SER	N-CA-CB	-5.80	101.01	110.59
1	P	1145	PHE	N-CA-CB	-5.80	102.39	111.56
1	V	1184	ILE	CA-CB-CG1	-5.79	100.55	110.40
1	V	1260	GLU	CB-CA-C	-5.78	103.54	110.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	P	1139	LEU	CA-CB-CG	5.78	136.52	116.30
1	W	1167	ASN	CA-C-N	-5.78	112.25	121.44
1	W	1167	ASN	C-N-CA	-5.78	112.25	121.44
1	U	1153	ASN	N-CA-CB	5.78	120.28	110.87
1	P	1325	GLN	N-CA-C	-5.77	98.51	110.80
1	R	1185	THR	CA-C-N	-5.77	113.76	122.81
1	R	1185	THR	C-N-CA	-5.77	113.76	122.81
1	R	1047	THR	N-CA-C	-5.77	98.52	110.80
1	P	1252	TRP	N-CA-C	5.76	118.99	109.94
1	W	1160	GLY	CA-C-O	-5.76	112.44	119.06
1	Q	1054	GLY	N-CA-C	5.75	121.79	111.03
1	P	1068	GLU	CA-CB-CG	5.75	125.59	114.10
1	R	1157	SER	CB-CA-C	-5.75	98.98	110.42
1	U	1028	ASP	N-CA-C	-5.75	107.26	114.56
1	W	1170	ARG	CA-C-O	-5.74	112.81	119.59
1	V	1110	PHE	N-CA-C	5.74	123.03	110.80
1	P	1323	ASP	N-CA-C	5.74	123.02	110.80
1	R	1016	LYS	CB-CG-CD	-5.74	98.11	111.30
1	U	1214	ASN	N-CA-C	-5.74	98.58	110.80
1	V	1053	TYR	CA-C-N	5.73	126.90	121.46
1	V	1053	TYR	C-N-CA	5.73	126.90	121.46
1	Q	1321	LEU	N-CA-C	5.73	119.58	109.96
1	U	1271	LEU	N-CA-C	-5.73	101.21	110.32
1	W	1011	LEU	CB-CA-C	-5.73	99.07	109.38
1	R	1018	ASP	CB-CA-C	5.73	119.27	110.62
1	W	1146	ALA	CA-C-N	-5.73	114.11	122.58
1	W	1146	ALA	C-N-CA	-5.73	114.11	122.58
1	W	1140	VAL	N-CA-C	-5.72	97.43	109.34
1	V	1011	LEU	CA-C-N	-5.71	113.45	122.76
1	V	1011	LEU	C-N-CA	-5.71	113.45	122.76
1	Q	1165	VAL	CA-C-N	-5.71	112.04	121.80
1	Q	1165	VAL	C-N-CA	-5.71	112.04	121.80
1	V	1168	ASN	CA-C-N	-5.71	110.23	121.41
1	V	1168	ASN	C-N-CA	-5.71	110.23	121.41
1	Q	1255	LYS	N-CA-C	-5.70	100.49	109.50
2	S	1037	VAL	CB-CA-C	5.70	120.64	111.29
1	V	1317	LYS	N-CA-C	-5.70	99.90	108.96
1	V	1103	TRP	CA-C-N	-5.70	113.66	122.49
1	V	1103	TRP	C-N-CA	-5.70	113.66	122.49
1	R	1115	TYR	N-CA-C	-5.70	100.88	108.74
1	V	1157	SER	CB-CA-C	-5.69	99.09	110.42
1	U	1313	TYR	CA-C-N	5.69	130.90	122.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	U	1313	TYR	C-N-CA	5.69	130.90	122.99
1	U	1324	ASN	CA-C-O	-5.69	115.35	121.38
1	R	1140	VAL	N-CA-CB	5.68	120.60	111.23
1	U	1118	ASP	N-CA-C	-5.67	103.63	111.28
1	V	1164	GLY	O-C-N	5.66	130.06	122.70
1	R	1130	THR	N-CA-C	5.66	118.69	109.24
1	R	1153	ASN	N-CA-CB	5.66	120.03	110.69
1	Q	1011	LEU	CB-CA-C	-5.66	99.01	109.37
1	P	1157	SER	CA-CB-OG	5.66	122.41	111.10
1	U	1149	TYR	CA-C-N	-5.65	115.20	123.00
1	U	1149	TYR	C-N-CA	-5.65	115.20	123.00
1	P	1010	LYS	N-CA-C	5.65	118.69	108.69
1	V	1118	ASP	N-CA-C	-5.65	103.61	111.52
1	R	1030	ASP	N-CA-C	5.64	117.82	110.43
1	U	1231	ASN	N-CA-C	5.64	122.81	110.80
1	R	1100	VAL	CA-C-N	-5.63	110.60	121.58
1	R	1100	VAL	C-N-CA	-5.63	110.60	121.58
1	P	1211	TYR	CA-C-O	-5.63	112.46	120.51
1	R	1022	TYR	CA-C-O	-5.63	114.13	120.32
1	P	1193	ILE	N-CA-CB	5.62	118.75	112.34
1	U	1160	GLY	CA-C-O	-5.62	112.27	119.13
1	U	1141	ASP	N-CA-C	5.62	117.58	108.41
1	Q	1210	ALA	CA-C-N	-5.62	110.81	121.54
1	Q	1210	ALA	C-N-CA	-5.62	110.81	121.54
1	R	1075	VAL	N-CA-CB	-5.62	102.79	111.05
1	U	1184	ILE	O-C-N	-5.62	116.99	123.00
1	U	1140	VAL	CA-C-N	-5.62	115.08	123.00
1	U	1140	VAL	C-N-CA	-5.62	115.08	123.00
1	V	1071	SER	CB-CA-C	-5.62	99.25	110.42
1	P	1124	ARG	N-CA-C	5.61	122.74	110.80
1	P	1161	PHE	CD1-CG-CD2	-5.61	110.19	118.60
1	R	1228	ASP	N-CA-C	5.59	117.23	107.49
1	U	1337	ILE	CA-C-N	-5.59	115.34	123.06
1	U	1337	ILE	C-N-CA	-5.59	115.34	123.06
1	V	1165	VAL	CA-C-N	-5.59	111.69	122.09
1	V	1165	VAL	C-N-CA	-5.59	111.69	122.09
1	P	1278	LEU	CA-CB-CG	5.59	135.86	116.30
1	V	1160	GLY	CA-C-O	-5.59	112.31	119.13
1	P	1134	THR	OG1-CB-CG2	5.59	120.47	109.30
1	Q	1166	THR	CA-CB-CG2	5.58	119.99	110.50
1	W	1142	GLY	N-CA-C	-5.58	105.22	114.48
1	V	1101	THR	CB-CA-C	5.57	121.37	110.67

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Q	1070	ASN	CA-C-O	-5.57	112.54	120.51
1	V	1130	THR	N-CA-C	5.56	118.16	108.76
1	W	1331	GLY	N-CA-C	-5.56	100.00	113.18
1	P	1184	ILE	CA-C-N	-5.56	112.15	121.94
1	P	1184	ILE	C-N-CA	-5.56	112.15	121.94
1	R	1193	ILE	CB-CA-C	-5.55	103.25	111.19
1	P	1149	TYR	OH-CZ-CE2	-5.55	103.25	119.90
1	U	1132	ARG	NE-CZ-NH1	-5.55	115.95	121.50
1	P	1222	THR	N-CA-C	5.54	118.46	108.48
1	Q	1016	LYS	CB-CG-CD	-5.54	98.55	111.30
1	W	1166	THR	N-CA-CB	-5.54	102.80	111.56
1	Q	1044	THR	CA-C-N	-5.54	115.30	123.05
1	Q	1044	THR	C-N-CA	-5.54	115.30	123.05
1	U	1134	THR	OG1-CB-CG2	5.54	120.37	109.30
1	U	1143	LEU	N-CA-C	-5.54	100.16	109.07
1	P	1085	VAL	N-CA-C	5.53	120.84	109.34
2	S	1035	THR	CA-C-N	5.53	132.10	121.54
2	S	1035	THR	C-N-CA	5.53	132.10	121.54
1	W	1156	PRO	N-CA-C	-5.53	106.95	113.86
1	Q	1298	VAL	N-CA-C	-5.53	100.43	108.17
1	P	1028	ASP	N-CA-C	-5.52	107.18	114.31
1	P	1048	ASP	N-CA-C	-5.52	106.59	113.55
1	Q	1202	ARG	O-C-N	-5.52	116.73	123.19
1	R	1306	PHE	N-CA-C	-5.52	105.16	111.07
1	U	1278	LEU	CA-CB-CG	5.52	135.62	116.30
1	P	1170	ARG	CA-C-O	-5.52	113.08	119.59
1	R	1247	VAL	N-CA-C	-5.52	98.75	106.53
1	W	1164	GLY	CA-C-N	5.52	131.02	123.46
1	W	1164	GLY	C-N-CA	5.52	131.02	123.46
1	U	1045	GLN	CA-C-N	5.52	130.06	121.35
1	U	1045	GLN	C-N-CA	5.52	130.06	121.35
1	W	1246	ARG	NE-CZ-NH1	5.52	127.02	121.50
1	R	1143	LEU	N-CA-C	-5.51	99.42	108.41
1	U	1192	GLY	CA-C-O	-5.51	116.15	121.11
1	R	1168	ASN	CA-CB-CG	-5.51	107.09	112.60
1	W	1308	LYS	N-CA-CB	5.51	117.39	110.45
1	P	1203	THR	N-CA-C	5.50	117.84	110.35
1	R	1161	PHE	N-CA-C	-5.50	99.09	110.80
1	U	1207	ASN	N-CA-C	5.49	116.28	108.54
1	P	1047	THR	N-CA-CB	-5.49	101.21	110.49
1	U	1032	ASP	N-CA-C	5.49	117.65	109.25
1	R	1016	LYS	CA-C-O	-5.49	115.40	121.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	R	1051	THR	CB-CA-C	5.49	120.52	109.38
1	W	1202	ARG	O-C-N	-5.49	116.25	123.21
1	R	1221	TYR	N-CA-C	-5.47	99.00	108.69
1	Q	1189	GLU	N-CA-C	5.47	122.45	110.80
1	U	1260	GLU	CB-CA-C	-5.47	102.68	110.34
1	W	1312	THR	O-C-N	5.47	130.26	123.15
1	U	1335	ASP	N-CA-C	5.47	117.75	110.53
1	U	1305	TYR	N-CA-C	5.47	117.21	108.41
1	V	1052	GLY	CA-C-N	-5.46	112.30	121.75
1	V	1052	GLY	C-N-CA	-5.46	112.30	121.75
1	V	1082	PHE	CA-C-O	-5.46	114.18	120.24
1	P	1183	SER	O-C-N	5.45	129.49	123.33
1	Q	1329	ASP	O-C-N	5.45	127.91	122.08
1	P	1213	GLY	O-C-N	-5.45	115.62	122.70
1	R	1222	THR	N-CA-C	5.45	118.28	108.48
1	U	1071	SER	CB-CA-C	-5.44	99.59	110.42
1	R	1182	GLY	N-CA-C	5.44	121.41	110.97
1	W	1165	VAL	CA-C-N	-5.44	112.95	121.87
1	W	1165	VAL	C-N-CA	-5.44	112.95	121.87
1	Q	1079	GLY	CA-C-N	5.43	131.71	122.37
1	Q	1079	GLY	C-N-CA	5.43	131.71	122.37
1	Q	1011	LEU	CA-C-N	-5.43	113.91	122.76
1	Q	1011	LEU	C-N-CA	-5.43	113.91	122.76
1	U	1182	GLY	N-CA-C	5.43	121.19	110.83
1	R	1074	ARG	CG-CD-NE	-5.42	100.06	112.00
1	Q	1325	GLN	N-CA-CB	5.42	120.18	110.32
1	W	1149	TYR	OH-CZ-CE2	-5.42	103.64	119.90
1	U	1123	GLN	N-CA-C	-5.42	99.49	108.75
2	S	1003	LYS	CA-C-N	5.41	131.87	121.54
2	S	1003	LYS	C-N-CA	5.41	131.87	121.54
1	U	1263	ALA	CA-C-O	5.41	126.80	120.20
1	R	1198	SER	CA-CB-OG	-5.41	100.29	111.10
1	V	1304	TYR	CA-C-O	-5.40	114.51	120.24
1	Q	1298	VAL	CB-CA-C	-5.40	102.78	110.83
1	R	1044	THR	CA-C-N	-5.40	115.49	123.05
1	R	1044	THR	C-N-CA	-5.40	115.49	123.05
1	R	1161	PHE	CD1-CG-CD2	-5.39	110.51	118.60
1	P	1307	ASN	CA-C-N	-5.39	113.99	122.08
1	P	1307	ASN	C-N-CA	-5.39	113.99	122.08
1	U	1069	ASN	O-C-N	5.39	129.76	122.59
1	Q	1231	ASN	CA-C-N	-5.39	116.14	122.93
1	Q	1231	ASN	C-N-CA	-5.39	116.14	122.93

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	S	1040	THR	N-CA-C	5.38	122.25	110.80
1	V	1260	GLU	N-CA-C	5.38	116.85	107.49
1	P	1047	THR	N-CA-C	-5.37	99.36	110.80
1	R	1298	VAL	N-CA-CB	5.37	117.43	110.99
1	V	1325	GLN	N-CA-CB	5.37	119.56	110.49
1	P	1164	GLY	N-CA-C	-5.37	100.46	113.18
1	V	1305	TYR	N-CA-C	5.36	117.45	108.23
1	U	1244	ALA	CA-C-N	-5.36	115.64	122.77
1	U	1244	ALA	C-N-CA	-5.36	115.64	122.77
1	P	1114	THR	N-CA-C	-5.36	106.33	112.92
1	U	1029	VAL	N-CA-C	-5.36	107.59	113.43
1	P	1067	ASN	N-CA-CB	-5.36	101.41	110.41
1	P	1272	ARG	CA-C-N	5.35	125.29	119.78
1	P	1272	ARG	C-N-CA	5.35	125.29	119.78
1	R	1252	TRP	CB-CA-C	5.35	122.30	111.60
1	P	1228	ASP	N-CA-C	5.35	116.92	107.61
1	R	1276	ALA	N-CA-C	5.35	117.21	108.76
1	V	1010	LYS	N-CA-C	5.35	118.15	109.06
1	P	1103	TRP	CA-CB-CG	5.34	123.75	113.60
1	V	1170	ARG	CA-C-O	-5.34	112.96	119.32
1	W	1070	ASN	CA-C-N	-5.34	111.34	121.54
1	W	1070	ASN	C-N-CA	-5.34	111.34	121.54
1	R	1254	ASN	N-CA-C	5.33	122.16	110.80
1	U	1081	LYS	CG-CD-CE	5.33	123.57	111.30
1	V	1297	TYR	CA-C-N	-5.33	115.50	122.37
1	V	1297	TYR	C-N-CA	-5.33	115.50	122.37
1	Q	1318	ILE	CA-C-N	-5.33	114.58	122.41
1	Q	1318	ILE	C-N-CA	-5.33	114.58	122.41
2	S	1010	THR	CA-C-N	5.33	130.88	122.36
2	S	1010	THR	C-N-CA	5.33	130.88	122.36
1	R	1313	TYR	O-C-N	5.32	129.32	123.25
1	W	1199	SER	N-CA-CB	-5.32	101.57	110.57
1	U	1252	TRP	CB-CA-C	5.32	122.24	111.60
1	Q	1251	GLY	N-CA-C	-5.32	103.17	112.53
1	R	1288	GLY	N-CA-C	-5.31	103.32	111.24
1	U	1166	THR	N-CA-C	5.31	115.55	108.38
1	U	1294	ILE	N-CA-C	-5.31	104.87	112.35
1	W	1013	LEU	N-CA-C	-5.31	101.32	109.76
1	W	1198	SER	CA-C-N	-5.30	112.63	121.64
1	W	1198	SER	C-N-CA	-5.30	112.63	121.64
1	P	1202	ARG	O-C-N	-5.29	117.04	123.29
1	P	1212	ILE	CB-CA-C	-5.29	102.61	111.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	P	1184	ILE	CA-CB-CG1	-5.29	101.41	110.40
1	V	1140	VAL	CA-C-N	-5.29	115.31	122.77
1	V	1140	VAL	C-N-CA	-5.29	115.31	122.77
1	R	1184	ILE	CB-CA-C	-5.29	102.23	110.69
1	Q	1103	TRP	CA-CB-CG	5.29	123.65	113.60
1	W	1144	ASN	N-CA-C	5.29	116.04	108.74
1	Q	1073	THR	N-CA-CB	5.29	118.14	109.95
1	Q	1134	THR	OG1-CB-CG2	5.29	119.87	109.30
1	Q	1161	PHE	CD1-CG-CD2	-5.28	110.68	118.60
1	P	1069	ASN	O-C-N	5.28	129.61	122.59
1	V	1022	TYR	CA-C-O	-5.28	114.66	120.36
1	V	1145	PHE	N-CA-CB	-5.28	103.38	111.56
1	W	1155	ASN	CB-CA-C	-5.28	100.54	108.61
1	W	1157	SER	CB-CA-C	-5.28	99.92	110.42
1	U	1052	GLY	CA-C-N	-5.27	112.78	121.80
1	U	1052	GLY	C-N-CA	-5.27	112.78	121.80
1	V	1291	ASP	N-CA-C	-5.27	101.10	109.59
1	Q	1266	GLN	CB-CA-C	-5.26	102.36	110.78
1	R	1056	TRP	N-CA-C	-5.26	99.69	108.32
1	R	1081	LYS	CA-CB-CG	5.26	124.63	114.10
1	P	1104	THR	N-CA-C	5.26	119.46	112.30
1	W	1044	THR	CA-C-N	-5.26	115.64	123.11
1	W	1044	THR	C-N-CA	-5.26	115.64	123.11
1	P	1155	ASN	CB-CA-C	-5.26	100.56	108.61
1	U	1292	GLU	N-CA-C	5.26	116.40	108.46
1	W	1185	THR	CA-C-N	-5.26	114.56	122.81
1	W	1185	THR	C-N-CA	-5.26	114.56	122.81
1	R	1271	LEU	N-CA-C	-5.25	101.97	110.32
1	W	1329	ASP	CB-CA-C	-5.25	102.40	110.81
1	U	1194	GLY	O-C-N	5.25	129.53	122.70
1	W	1032	ASP	N-CA-C	5.25	118.10	109.76
1	V	1218	ALA	CA-C-N	-5.25	115.07	122.94
1	V	1218	ALA	C-N-CA	-5.25	115.07	122.94
1	Q	1221	TYR	N-CA-CB	5.24	119.31	110.77
1	W	1184	ILE	CB-CA-C	-5.23	102.32	110.69
1	V	1285	LEU	CA-C-N	-5.23	111.16	121.41
1	V	1285	LEU	C-N-CA	-5.23	111.16	121.41
1	W	1307	ASN	CA-C-N	-5.23	114.23	122.08
1	W	1307	ASN	C-N-CA	-5.23	114.23	122.08
1	R	1192	GLY	N-CA-C	-5.22	102.31	111.46
1	V	1201	LYS	CA-C-O	-5.22	116.01	121.55
1	P	1129	ALA	CA-C-N	-5.22	115.63	122.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	P	1129	ALA	C-N-CA	-5.22	115.63	122.99
1	P	1093	ASN	CA-C-O	-5.22	115.61	121.40
1	W	1194	GLY	N-CA-C	-5.22	100.81	113.18
1	V	1155	ASN	CA-C-O	-5.22	115.25	120.63
1	P	1286	GLY	CA-C-N	5.22	129.82	122.46
1	P	1286	GLY	C-N-CA	5.22	129.82	122.46
1	P	1263	ALA	N-CA-C	5.22	117.58	108.76
1	U	1070	ASN	CA-C-N	-5.21	111.58	121.54
1	U	1070	ASN	C-N-CA	-5.21	111.58	121.54
1	Q	1082	PHE	N-CA-C	5.21	118.10	111.69
1	W	1323	ASP	N-CA-CB	-5.21	101.41	109.48
1	U	1227	TYR	CA-CB-CG	-5.20	104.54	113.90
1	P	1260	GLU	CB-CA-C	-5.20	103.06	110.34
1	W	1161	PHE	CD1-CG-CD2	-5.20	110.81	118.60
1	U	1072	TRP	CB-CA-C	-5.19	101.56	111.48
1	U	1297	TYR	N-CA-C	5.19	116.30	108.46
1	U	1331	GLY	N-CA-C	-5.19	100.87	113.18
1	P	1230	ASN	CB-CA-C	-5.19	100.09	110.42
1	U	1078	ALA	N-CA-C	-5.19	100.57	109.24
1	U	1203	THR	N-CA-C	5.19	117.41	110.35
1	V	1074	ARG	CG-CD-NE	-5.19	100.58	112.00
1	U	1150	GLN	CA-CB-CG	-5.19	103.73	114.10
1	U	1263	ALA	CA-C-N	-5.18	113.74	122.29
1	U	1263	ALA	C-N-CA	-5.18	113.74	122.29
1	W	1103	TRP	CA-CB-CG	5.18	123.45	113.60
1	R	1118	ASP	CA-C-N	5.18	131.28	123.04
1	R	1118	ASP	C-N-CA	5.18	131.28	123.04
1	V	1247	VAL	N-CA-C	-5.18	98.57	109.34
1	Q	1267	PHE	CA-C-N	5.18	128.59	120.82
1	Q	1267	PHE	C-N-CA	5.18	128.59	120.82
1	R	1232	ILE	CA-C-N	-5.18	115.70	123.00
1	R	1232	ILE	C-N-CA	-5.18	115.70	123.00
1	Q	1028	ASP	CA-C-O	5.17	124.90	118.43
1	U	1014	TYR	N-CA-C	5.17	116.93	109.07
1	R	1189	GLU	N-CA-C	5.17	121.81	110.80
1	Q	1289	TYR	OH-CZ-CE2	-5.17	104.39	119.90
2	X	1025	ARG	CA-C-N	5.17	129.41	121.19
2	X	1025	ARG	C-N-CA	5.17	129.41	121.19
1	U	1031	GLY	N-CA-C	5.17	118.94	111.24
1	V	1147	VAL	CB-CA-C	-5.16	102.43	110.69
1	V	1285	LEU	CA-C-O	-5.16	116.00	121.94
1	Q	1194	GLY	N-CA-C	-5.16	100.96	113.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	V	1342	LEU	CA-C-N	-5.15	115.29	122.71
1	V	1342	LEU	C-N-CA	-5.15	115.29	122.71
1	W	1140	VAL	N-CA-CB	5.15	119.73	111.23
1	P	1264	GLN	N-CA-C	5.15	117.02	109.24
1	U	1134	THR	CA-C-N	-5.14	114.37	122.76
1	U	1134	THR	C-N-CA	-5.14	114.37	122.76
1	V	1041	LYS	N-CA-C	-5.14	102.45	110.42
1	P	1033	GLN	CB-CA-C	-5.13	101.81	110.64
1	P	1037	ARG	CA-C-N	-5.13	114.54	122.59
1	P	1037	ARG	C-N-CA	-5.13	114.54	122.59
1	Q	1064	SER	N-CA-C	5.13	116.78	109.14
1	U	1227	TYR	CA-C-N	-5.13	113.82	121.72
1	U	1227	TYR	C-N-CA	-5.13	113.82	121.72
1	Q	1128	PHE	CA-C-N	-5.13	115.87	123.05
1	Q	1128	PHE	C-N-CA	-5.13	115.87	123.05
1	V	1132	ARG	NE-CZ-NH1	-5.13	116.37	121.50
1	V	1143	LEU	CB-CA-C	-5.12	100.86	109.72
1	R	1323	ASP	O-C-N	-5.12	116.91	123.06
1	P	1019	GLY	N-CA-C	-5.12	101.05	113.18
1	Q	1324	ASN	N-CA-C	5.12	116.07	108.60
1	W	1042	GLY	O-C-N	-5.12	116.05	122.70
1	V	1291	ASP	CB-CA-C	5.11	118.58	109.38
1	U	1161	PHE	CD1-CG-CD2	-5.11	110.93	118.60
1	Q	1104	THR	CB-CA-C	-5.11	102.74	111.02
1	R	1323	ASP	CB-CA-C	-5.11	102.18	109.84
2	S	1035	THR	CB-CA-C	5.11	120.58	110.42
1	P	1104	THR	CB-CA-C	-5.10	102.48	110.85
1	U	1185	THR	CA-C-N	-5.10	115.29	122.94
1	U	1185	THR	C-N-CA	-5.10	115.29	122.94
1	Q	1264	GLN	N-CA-C	5.10	117.00	108.99
1	Q	1073	THR	CB-CA-C	-5.10	101.53	109.84
1	U	1138	GLY	CA-C-O	5.10	124.57	119.27
1	Q	1132	ARG	NE-CZ-NH1	-5.09	116.41	121.50
1	W	1152	LYS	CA-C-O	-5.09	115.55	121.15
1	U	1155	ASN	CA-C-N	-5.09	114.42	119.56
1	U	1155	ASN	C-N-CA	-5.09	114.42	119.56
1	W	1051	THR	CB-CA-C	5.09	118.56	109.65
1	Q	1211	TYR	O-C-N	-5.09	115.82	122.59
1	U	1194	GLY	N-CA-C	-5.09	101.11	113.18
1	U	1304	TYR	CA-C-N	-5.09	115.65	122.42
1	U	1304	TYR	C-N-CA	-5.09	115.65	122.42
1	V	1081	LYS	CG-CD-CE	5.09	123.01	111.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	P	1124	ARG	NE-CZ-NH2	-5.09	114.62	119.20
1	W	1066	GLU	CA-C-O	5.09	127.79	120.51
1	R	1054	GLY	N-CA-C	5.09	125.23	113.18
1	Q	1211	TYR	N-CA-C	5.08	121.62	110.80
1	U	1146	ALA	N-CA-C	-5.08	99.98	110.80
1	W	1231	ASN	N-CA-C	5.08	121.61	110.80
1	P	1187	ASP	CA-CB-CG	-5.08	107.53	112.60
1	V	1054	GLY	CA-C-N	-5.07	113.02	121.94
1	V	1054	GLY	C-N-CA	-5.07	113.02	121.94
1	Q	1221	TYR	N-CA-C	-5.07	99.85	108.26
1	R	1339	ALA	CA-C-N	5.07	130.13	122.99
1	R	1339	ALA	C-N-CA	5.07	130.13	122.99
1	P	1300	VAL	CA-C-N	-5.06	114.35	120.92
1	P	1300	VAL	C-N-CA	-5.06	114.35	120.92
1	Q	1071	SER	CB-CA-C	-5.06	100.36	110.42
1	Q	1230	ASN	CB-CA-C	-5.06	100.36	110.42
1	R	1148	GLN	CA-CB-CG	5.06	124.21	114.10
1	V	1190	GLY	N-CA-C	-5.06	101.19	113.18
1	V	1251	GLY	CA-C-N	-5.06	113.92	123.27
1	V	1251	GLY	C-N-CA	-5.06	113.92	123.27
1	W	1310	MET	CB-CA-C	-5.06	100.91	110.16
1	U	1289	TYR	N-CA-CB	5.05	119.03	110.49
1	R	1338	VAL	N-CA-C	5.05	115.75	108.48
2	S	1042	ARG	CA-C-O	-5.05	114.63	120.24
1	W	1068	GLU	CA-CB-CG	5.05	124.20	114.10
1	Q	1018	ASP	CB-CA-C	5.05	118.22	110.14
1	Q	1110	PHE	N-CA-C	5.05	121.56	110.80
2	X	1040	THR	CA-C-N	5.05	131.18	121.54
2	X	1040	THR	C-N-CA	5.05	131.18	121.54
1	P	1149	TYR	N-CA-C	-5.04	99.76	108.69
1	V	1143	LEU	N-CA-C	-5.04	100.95	109.07
1	V	1156	PRO	CA-C-O	-5.04	112.00	119.86
1	W	1123	GLN	N-CA-C	-5.04	100.38	108.55
1	W	1143	LEU	CB-CA-C	-5.04	101.92	110.19
1	R	1034	THR	CA-CB-CG2	5.04	119.06	110.50
1	P	1338	VAL	CA-C-O	5.04	126.31	120.67
1	U	1018	ASP	CB-CA-C	5.04	117.97	110.62
1	W	1118	ASP	N-CA-C	-5.04	104.44	111.39
1	P	1039	GLY	CA-C-N	-5.04	114.91	122.81
1	P	1039	GLY	C-N-CA	-5.04	114.91	122.81
1	U	1162	THR	CB-CA-C	5.04	119.32	109.35
1	U	1211	TYR	CB-CA-C	5.04	120.44	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	U	1053	TYR	O-C-N	5.03	128.54	123.26
1	V	1166	THR	CA-C-O	-5.03	115.89	121.28
2	S	1041	SER	N-CA-C	5.03	114.97	107.88
1	W	1150	GLN	CG-CD-NE2	-5.03	108.86	116.40
1	R	1230	ASN	CB-CA-C	-5.03	103.05	112.30
1	U	1072	TRP	N-CA-CB	-5.03	102.96	110.60
2	S	1022	TRP	CB-CA-C	5.02	120.42	110.42
1	Q	1031	GLY	N-CA-C	5.02	117.63	111.45
1	U	1197	ILE	O-C-N	-5.02	117.84	123.26
1	V	1033	GLN	CB-CA-C	-5.02	102.89	111.02
1	P	1313	TYR	CA-C-N	5.02	129.91	122.94
1	P	1313	TYR	C-N-CA	5.02	129.91	122.94
1	W	1027	LYS	CB-CA-C	5.02	120.40	110.42
1	P	1214	ASN	CA-C-N	-5.01	111.58	121.41
1	P	1214	ASN	C-N-CA	-5.01	111.58	121.41
1	U	1155	ASN	O-C-N	5.01	127.27	121.21
1	P	1306	PHE	N-CA-C	-5.01	105.71	111.07
1	V	1264	GLN	N-CA-C	5.01	116.80	109.24
1	P	1221	TYR	N-CA-CB	5.00	118.85	110.59
2	X	1037	VAL	CB-CA-C	5.00	119.50	111.29
1	U	1130	THR	CA-C-N	-5.00	115.94	122.99
1	U	1130	THR	C-N-CA	-5.00	115.94	122.99
1	Q	1217	ARG	CA-C-N	-5.00	115.94	122.99
1	Q	1217	ARG	C-N-CA	-5.00	115.94	122.99
1	Q	1305	TYR	N-CA-C	5.00	116.46	108.41

All (4) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	Q	1070	ASN	CA
1	R	1070	ASN	CA
1	U	1170	ARG	CA
1	V	1070	ASN	CA

All (65) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	P	1030	ASP	Peptide
1	P	1067	ASN	Peptide
1	P	1068	GLU	Peptide
1	P	1069	ASN	Peptide
1	P	1140	VAL	Peptide

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Mol	Chain	Res	Type	Group
1	P	1156	PRO	Peptide
1	P	1161	PHE	Peptide
1	P	1165	VAL	Peptide
1	P	1168	ASN	Peptide
1	P	1210	ALA	Peptide
1	P	1286	GLY	Peptide
1	P	1322	ASP	Peptide
1	Q	1067	ASN	Peptide
1	Q	1068	GLU	Peptide
1	Q	1069	ASN	Peptide
1	Q	1140	VAL	Peptide
1	Q	1161	PHE	Peptide
1	Q	1165	VAL	Peptide
1	Q	1168	ASN	Peptide
1	Q	1210	ALA	Peptide
1	Q	1286	GLY	Peptide
1	R	1067	ASN	Peptide
1	R	1068	GLU	Peptide
1	R	1069	ASN	Peptide
1	R	1140	VAL	Peptide
1	R	1165	VAL	Peptide
1	R	1168	ASN	Peptide
1	R	1210	ALA	Peptide
1	R	1286	GLY	Peptide
2	S	1007	ARG	Peptide
2	S	1017	LYS	Peptide
1	U	1067	ASN	Peptide
1	U	1068	GLU	Peptide
1	U	1069	ASN	Peptide
1	U	1140	VAL	Peptide
1	U	1156	PRO	Peptide
1	U	1161	PHE	Peptide
1	U	1165	VAL	Peptide
1	U	1168	ASN	Peptide
1	U	1209	ALA	Peptide
1	U	1210	ALA	Peptide
1	U	1286	GLY	Peptide
1	V	1067	ASN	Peptide
1	V	1068	GLU	Peptide
1	V	1069	ASN	Peptide
1	V	1140	VAL	Peptide
1	V	1165	VAL	Peptide

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Mol	Chain	Res	Type	Group
1	V	1168	ASN	Peptide
1	V	1210	ALA	Peptide
1	V	1286	GLY	Peptide
1	W	1067	ASN	Peptide
1	W	1068	GLU	Peptide
1	W	1069	ASN	Peptide
1	W	1140	VAL	Peptide
1	W	1156	PRO	Peptide
1	W	1161	PHE	Peptide
1	W	1165	VAL	Peptide
1	W	1168	ASN	Peptide
1	W	1210	ALA	Peptide
1	W	1286	GLY	Peptide
2	X	1006	VAL	Peptide
2	X	1022	TRP	Peptide
2	X	1032	PRO	Peptide
2	X	1038	LYS	Peptide
2	X	1043	PHE	Peptide

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	P	2636	0	2404	333	0
1	Q	2636	0	2404	339	0
1	R	2636	0	2404	342	0
1	U	2636	0	2404	321	0
1	V	2636	0	2404	340	0
1	W	2636	0	2404	364	0
2	S	359	0	376	80	0
2	X	359	0	376	79	0
All	All	16534	0	15176	2117	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 (2117) 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:V:1081:LYS:CD	1:V:1081:LYS:CE	1.77	1.62
1:R:1161:PHE:CB	1:R:1161:PHE:CG	1.84	1.61
1:R:1134:THR:CB	1:R:1134:THR:CG2	1.77	1.60
1:V:1134:THR:CB	1:V:1134:THR:CG2	1.76	1.60
1:W:1081:LYS:CD	1:W:1081:LYS:CE	1.75	1.59
1:R:1081:LYS:CD	1:R:1081:LYS:CE	1.81	1.59
1:Q:1334:THR:CA	1:Q:1334:THR:CB	1.75	1.58
1:U:1161:PHE:CB	1:U:1161:PHE:CG	1.86	1.57
1:W:1161:PHE:CB	1:W:1161:PHE:CG	1.86	1.55
1:P:1161:PHE:CB	1:P:1161:PHE:CG	1.86	1.55
1:Q:1161:PHE:CB	1:Q:1161:PHE:CG	1.83	1.54
1:W:1134:THR:CB	1:W:1134:THR:CG2	1.80	1.54
1:P:1157:SER:N	1:P:1157:SER:CA	1.71	1.53
1:V:1161:PHE:CG	1:V:1161:PHE:CB	1.87	1.53
1:U:1157:SER:N	1:U:1157:SER:CA	1.72	1.52
1:W:1041:LYS:NZ	1:W:1041:LYS:CE	1.69	1.52
2:X:1032:PRO:CB	2:X:1032:PRO:CG	1.78	1.50
1:Q:1157:SER:N	1:Q:1157:SER:CA	1.73	1.50
1:W:1157:SER:N	1:W:1157:SER:CA	1.73	1.49
1:R:1157:SER:N	1:R:1157:SER:CA	1.72	1.48
2:X:1045:CYS:SG	2:X:1045:CYS:CB	2.03	1.46
1:V:1157:SER:N	1:V:1157:SER:CA	1.72	1.46
2:S:1019:CYS:SG	2:S:1019:CYS:CB	2.04	1.46
2:S:1026:MET:HG3	2:S:1034:VAL:CG1	1.54	1.37
1:R:1184:ILE:HD13	1:R:1184:ILE:O	1.29	1.31
1:U:1184:ILE:O	1:U:1184:ILE:HD13	1.16	1.29
1:U:1237:GLN:OE1	1:U:1239:THR:HG22	1.33	1.26
2:S:1026:MET:CG	2:S:1034:VAL:HG12	1.64	1.26
1:P:1162:THR:O	1:P:1165:VAL:HG21	1.35	1.25
2:S:1016:SER:OG	2:S:1019:CYS:HB3	1.12	1.25
1:Q:1047:THR:CG2	1:Q:1048:ASP:N	1.90	1.21
1:Q:1184:ILE:O	1:Q:1184:ILE:HD13	1.40	1.20
1:U:1211:TYR:HD2	1:U:1250:LEU:HD23	1.03	1.19
1:Q:1162:THR:O	1:Q:1165:VAL:HG21	1.41	1.19
1:W:1237:GLN:OE1	1:W:1239:THR:HG22	1.42	1.19
1:P:1162:THR:O	1:P:1165:VAL:CG2	1.90	1.18
1:Q:1208:THR:O	1:Q:1210:ALA:N	1.76	1.18
1:U:1036:MET:HE1	1:U:1038:LEU:HD22	1.18	1.17
1:V:1184:ILE:O	1:V:1184:ILE:HD13	1.40	1.17
1:U:1162:THR:O	1:U:1165:VAL:HG21	1.43	1.17
1:P:1184:ILE:O	1:P:1184:ILE:HD13	1.44	1.16
1:Q:1237:GLN:OE1	1:Q:1239:THR:HG22	1.43	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:1184:ILE:O	1:W:1184:ILE:HD13	1.47	1.15
1:P:1287:ARG:HD3	1:U:1287:ARG:HD3	1.28	1.15
1:R:1165:VAL:HG12	1:R:1166:THR:H	1.09	1.14
2:S:1027:LYS:O	2:S:1028:LYS:HB2	1.44	1.14
1:W:1069:ASN:OD1	1:W:1070:ASN:CA	1.96	1.14
1:W:1162:THR:O	1:W:1165:VAL:CG2	1.95	1.14
2:X:1004:LYS:HZ3	2:X:1004:LYS:HB2	1.12	1.14
1:V:1184:ILE:CD1	1:V:1184:ILE:H	1.62	1.12
2:X:1007:ARG:NH1	2:X:1007:ARG:HB2	1.64	1.12
1:Q:1047:THR:CG2	1:Q:1048:ASP:H	1.54	1.12
1:U:1165:VAL:HG12	1:U:1166:THR:H	1.13	1.11
1:P:1047:THR:CG2	1:P:1050:LEU:H	1.64	1.10
1:U:1208:THR:O	1:U:1210:ALA:N	1.84	1.10
2:X:1023:GLN:O	2:X:1026:MET:HB3	1.49	1.10
1:R:1237:GLN:OE1	1:R:1239:THR:HG22	1.51	1.10
1:P:1036:MET:HE1	1:P:1038:LEU:HD22	1.30	1.09
1:U:1184:ILE:HD13	1:U:1184:ILE:C	1.75	1.09
1:W:1036:MET:HE1	1:W:1038:LEU:HD22	1.22	1.09
1:W:1211:TYR:HD2	1:W:1250:LEU:HD23	1.01	1.09
1:U:1157:SER:O	1:U:1161:PHE:HD1	1.35	1.09
1:V:1162:THR:O	1:V:1165:VAL:HG21	1.51	1.09
1:V:1324:ASN:ND2	1:V:1326:PHE:HB3	1.69	1.08
1:Q:1324:ASN:ND2	1:Q:1326:PHE:HB3	1.67	1.08
1:Q:1162:THR:O	1:Q:1165:VAL:CG2	2.02	1.07
1:R:1049:GLN:HG3	1:R:1082:PHE:O	1.55	1.07
1:V:1047:THR:CG2	1:V:1048:ASP:N	2.13	1.07
1:Q:1159:GLU:OE1	1:Q:1159:GLU:HA	1.55	1.07
1:V:1162:THR:O	1:V:1165:VAL:CG2	2.00	1.07
1:W:1211:TYR:CD2	1:W:1250:LEU:HD23	1.89	1.07
1:V:1069:ASN:OD1	1:V:1070:ASN:CA	2.00	1.07
1:V:1222:THR:HB	1:V:1239:THR:HB	1.34	1.07
1:V:1237:GLN:OE1	1:V:1239:THR:HG22	1.54	1.06
2:S:1020:ALA:O	2:S:1023:GLN:HG3	1.56	1.06
1:W:1165:VAL:HG12	1:W:1166:THR:H	1.18	1.06
1:R:1184:ILE:CD1	1:R:1184:ILE:H	1.69	1.05
1:R:1069:ASN:OD1	1:R:1070:ASN:CA	2.03	1.05
1:R:1184:ILE:O	1:R:1184:ILE:CD1	2.04	1.05
1:P:1047:THR:HG22	1:P:1050:LEU:H	1.14	1.05
1:U:1237:GLN:OE1	1:U:1239:THR:CG2	2.04	1.05
1:Q:1184:ILE:H	1:Q:1184:ILE:CD1	1.70	1.04
1:V:1159:GLU:HA	1:V:1159:GLU:OE1	1.54	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1047:THR:HG23	1:R:1048:ASP:H	1.16	1.04
2:S:1011:THR:HG22	2:S:1041:SER:HA	1.38	1.04
1:U:1211:TYR:CD2	1:U:1250:LEU:HD23	1.91	1.04
1:W:1047:THR:HG22	1:W:1050:LEU:H	1.23	1.04
1:W:1047:THR:HG23	1:W:1048:ASP:N	1.58	1.04
1:W:1049:GLN:HG3	1:W:1082:PHE:O	1.58	1.04
1:P:1237:GLN:OE1	1:P:1239:THR:HG22	1.58	1.03
1:R:1211:TYR:HD2	1:R:1250:LEU:HD23	1.17	1.03
1:U:1162:THR:O	1:U:1165:VAL:CG2	2.04	1.03
1:R:1168:ASN:C	1:R:1170:ARG:N	2.08	1.03
1:U:1047:THR:HG22	1:U:1050:LEU:H	1.18	1.03
1:R:1324:ASN:ND2	1:R:1326:PHE:HB3	1.73	1.03
1:V:1047:THR:HG23	1:V:1048:ASP:H	0.89	1.03
1:R:1162:THR:O	1:R:1165:VAL:CG2	2.07	1.02
1:U:1184:ILE:O	1:U:1184:ILE:CD1	2.07	1.02
1:V:1184:ILE:HD13	1:V:1184:ILE:H	1.23	1.02
2:X:1025:ARG:HH11	2:X:1025:ARG:CG	1.70	1.02
2:S:1016:SER:OG	2:S:1019:CYS:CB	2.06	1.02
1:P:1184:ILE:O	1:P:1184:ILE:CD1	2.07	1.01
2:X:1025:ARG:HH11	2:X:1025:ARG:HG3	1.22	1.01
1:P:1168:ASN:C	1:P:1170:ARG:N	2.14	1.01
1:Q:1222:THR:HB	1:Q:1239:THR:HB	1.41	1.01
1:V:1047:THR:HG23	1:V:1048:ASP:N	1.49	1.01
1:V:1184:ILE:O	1:V:1184:ILE:CD1	2.09	1.01
1:P:1047:THR:HG23	1:P:1048:ASP:N	1.69	1.01
1:Q:1237:GLN:OE1	1:Q:1239:THR:CG2	2.09	1.00
1:W:1047:THR:HG23	1:W:1048:ASP:H	1.08	1.00
1:Q:1047:THR:HG23	1:Q:1048:ASP:N	1.29	1.00
1:P:1184:ILE:HD13	1:P:1184:ILE:H	1.24	1.00
1:Q:1156:PRO:HD3	1:Q:1166:THR:O	1.62	0.99
1:R:1184:ILE:HD13	1:R:1184:ILE:C	1.85	0.99
1:U:1222:THR:HB	1:U:1239:THR:HB	1.40	0.99
1:P:1211:TYR:HD2	1:P:1250:LEU:HD23	1.22	0.99
1:R:1162:THR:O	1:R:1165:VAL:HG21	1.63	0.99
1:P:1184:ILE:CD1	1:P:1184:ILE:H	1.76	0.99
1:Q:1184:ILE:HD13	1:Q:1184:ILE:H	1.23	0.98
1:V:1211:TYR:HD2	1:V:1250:LEU:HD23	1.25	0.98
1:W:1211:TYR:HD1	1:W:1211:TYR:H	1.04	0.98
1:U:1060:ILE:HG23	1:U:1071:SER:HB3	1.43	0.98
1:R:1184:ILE:HD13	1:R:1184:ILE:H	1.28	0.98
1:P:1208:THR:O	1:P:1210:ALA:N	1.96	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:1324:ASN:ND2	1:U:1326:PHE:HB3	1.78	0.98
1:W:1020:LEU:HD13	1:W:1033:GLN:HB2	1.46	0.98
1:Q:1211:TYR:HD2	1:Q:1250:LEU:HD23	1.25	0.97
1:P:1139:LEU:O	1:P:1140:VAL:HG12	1.64	0.97
1:V:1036:MET:HE1	1:V:1038:LEU:HD22	1.45	0.97
1:Q:1238:TYR:OH	1:Q:1257:GLN:HG2	1.65	0.97
1:R:1211:TYR:CD2	1:R:1250:LEU:HD23	2.00	0.97
1:P:1324:ASN:HD21	1:P:1327:THR:HG23	1.29	0.96
1:V:1159:GLU:C	1:V:1159:GLU:CD	2.33	0.96
2:S:1016:SER:HG	2:S:1019:CYS:HB3	1.21	0.96
1:W:1162:THR:O	1:W:1165:VAL:HG21	1.62	0.96
1:P:1047:THR:HG23	1:P:1048:ASP:H	1.30	0.96
1:R:1047:THR:HG23	1:R:1048:ASP:N	1.66	0.96
1:R:1165:VAL:HG12	1:R:1166:THR:N	1.72	0.96
1:R:1168:ASN:O	1:R:1169:GLY:C	2.09	0.96
1:Q:1211:TYR:HD1	1:Q:1211:TYR:H	1.05	0.96
1:P:1159:GLU:OE1	1:P:1159:GLU:HA	1.66	0.95
2:X:1039:LYS:HB3	2:X:1044:GLU:OE2	1.64	0.95
1:R:1047:THR:HG22	1:R:1050:LEU:H	1.30	0.95
1:U:1049:GLN:HG3	1:U:1082:PHE:O	1.66	0.95
1:V:1011:LEU:HD11	1:W:1346:PHE:CD2	2.02	0.95
1:U:1047:THR:HG23	1:U:1048:ASP:H	1.30	0.94
1:W:1168:ASN:C	1:W:1170:ARG:N	2.13	0.94
1:P:1049:GLN:HG3	1:P:1082:PHE:O	1.66	0.94
1:W:1047:THR:CG2	1:W:1048:ASP:N	2.29	0.94
1:R:1308:LYS:O	1:R:1308:LYS:HD3	1.66	0.94
1:V:1159:GLU:OE1	1:V:1159:GLU:CA	2.14	0.94
1:W:1208:THR:O	1:W:1210:ALA:N	2.00	0.94
1:Q:1136:PHE:O	1:Q:1139:LEU:HD13	1.68	0.94
1:U:1165:VAL:HG12	1:U:1166:THR:N	1.75	0.94
1:U:1184:ILE:CD1	1:U:1184:ILE:H	1.81	0.94
2:X:1021:GLN:O	2:X:1025:ARG:N	2.01	0.94
1:P:1346:PHE:CD2	1:R:1011:LEU:HD11	2.02	0.94
2:S:1021:GLN:HA	2:S:1024:ARG:O	1.67	0.94
1:U:1184:ILE:H	1:U:1184:ILE:HD12	1.31	0.94
1:P:1324:ASN:O	1:P:1326:PHE:N	2.00	0.94
1:W:1184:ILE:CD1	1:W:1184:ILE:H	1.80	0.93
2:S:1007:ARG:HD2	2:S:1037:VAL:HG21	1.47	0.93
1:U:1036:MET:HE1	1:U:1038:LEU:CD2	1.97	0.93
1:Q:1168:ASN:C	1:Q:1170:ARG:N	2.25	0.93
1:Q:1184:ILE:O	1:Q:1184:ILE:CD1	2.16	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:1020:LEU:HD13	1:U:1033:GLN:HB2	1.51	0.92
1:V:1207:ASN:ND2	1:V:1215:GLY:O	2.01	0.92
1:R:1157:SER:O	1:R:1161:PHE:HD1	1.52	0.92
1:V:1047:THR:HG22	1:V:1050:LEU:H	1.33	0.92
1:W:1159:GLU:CD	1:W:1159:GLU:C	2.37	0.92
1:P:1184:ILE:HD13	1:P:1184:ILE:N	1.82	0.92
1:U:1047:THR:HG23	1:U:1048:ASP:N	1.84	0.92
1:Q:1157:SER:O	1:Q:1161:PHE:HD1	1.52	0.92
1:W:1184:ILE:O	1:W:1184:ILE:CD1	2.17	0.91
2:X:1021:GLN:HB3	2:X:1025:ARG:HG3	1.50	0.91
1:V:1083:GLN:OE1	1:V:1084:ASP:N	2.03	0.91
1:P:1165:VAL:HG12	1:P:1166:THR:H	1.32	0.91
1:U:1157:SER:O	1:U:1161:PHE:CD1	2.21	0.91
1:V:1324:ASN:HD22	1:V:1326:PHE:HB3	1.32	0.91
2:X:1026:MET:SD	2:X:1033:SER:HA	2.11	0.91
1:U:1157:SER:N	1:U:1157:SER:HA	1.86	0.91
1:V:1184:ILE:HD13	1:V:1184:ILE:N	1.79	0.91
1:Q:1157:SER:N	1:Q:1157:SER:HA	1.83	0.91
1:W:1184:ILE:HD13	1:W:1184:ILE:H	1.34	0.91
2:X:1004:LYS:HB2	2:X:1004:LYS:NZ	1.79	0.91
1:W:1069:ASN:OD1	1:W:1070:ASN:HA	1.71	0.90
1:W:1165:VAL:HG12	1:W:1166:THR:N	1.84	0.90
1:V:1211:TYR:HD1	1:V:1211:TYR:H	1.20	0.90
1:V:1049:GLN:HG3	1:V:1082:PHE:O	1.71	0.90
1:Q:1037:ARG:HG2	1:Q:1059:GLN:HG3	1.52	0.90
1:U:1117:SER:O	1:U:1246:ARG:NH2	2.05	0.90
1:V:1060:ILE:HG23	1:V:1071:SER:HB3	1.51	0.89
2:X:1021:GLN:HB3	2:X:1025:ARG:NH1	1.88	0.89
1:U:1168:ASN:C	1:U:1170:ARG:N	2.24	0.89
2:S:1026:MET:HG3	2:S:1034:VAL:HG12	0.91	0.89
1:V:1211:TYR:CD2	1:V:1250:LEU:HD23	2.07	0.89
1:W:1324:ASN:ND2	1:W:1326:PHE:HB3	1.88	0.89
1:P:1184:ILE:CD1	1:P:1184:ILE:N	2.35	0.89
1:V:1047:THR:CG2	1:V:1050:LEU:H	1.85	0.89
1:Q:1049:GLN:HG3	1:Q:1082:PHE:O	1.73	0.88
1:R:1211:TYR:H	1:R:1211:TYR:HD1	1.16	0.88
1:R:1237:GLN:OE1	1:R:1239:THR:CG2	2.21	0.88
1:P:1165:VAL:HG12	1:P:1166:THR:N	1.88	0.88
1:Q:1060:ILE:HG23	1:Q:1071:SER:HB3	1.54	0.88
1:R:1159:GLU:C	1:R:1159:GLU:CD	2.41	0.88
1:V:1264:GLN:HG2	1:V:1274:SER:HB2	1.54	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:X:1023:GLN:O	2:X:1026:MET:CB	2.21	0.88
1:W:1037:ARG:HG2	1:W:1059:GLN:HG3	1.54	0.88
1:R:1020:LEU:HD13	1:R:1033:GLN:HB2	1.52	0.88
1:R:1287:ARG:HD3	1:V:1287:ARG:HD3	1.55	0.88
1:Q:1036:MET:HE1	1:Q:1038:LEU:HD22	1.56	0.88
1:W:1222:THR:HB	1:W:1239:THR:HB	1.53	0.88
1:P:1211:TYR:CD2	1:P:1250:LEU:HD23	2.08	0.88
2:S:1037:VAL:HG12	2:S:1039:LYS:NZ	1.87	0.88
1:P:1157:SER:N	1:P:1157:SER:HA	1.84	0.88
1:Q:1159:GLU:OE1	1:Q:1159:GLU:CA	2.22	0.88
1:V:1157:SER:N	1:V:1157:SER:HA	1.89	0.88
1:R:1047:THR:CG2	1:R:1048:ASP:N	2.34	0.87
1:Q:1207:ASN:ND2	1:Q:1215:GLY:O	2.05	0.87
1:Q:1317:LYS:HE3	1:Q:1337:ILE:HD12	1.56	0.87
1:R:1157:SER:N	1:R:1157:SER:HA	1.88	0.87
1:U:1047:THR:CG2	1:U:1050:LEU:H	1.87	0.87
1:W:1036:MET:HE1	1:W:1038:LEU:CD2	2.04	0.87
1:V:1218:ALA:HB1	1:V:1244:ALA:HB2	1.53	0.87
1:U:1159:GLU:C	1:U:1159:GLU:CD	2.43	0.87
1:V:1168:ASN:C	1:V:1170:ARG:N	2.33	0.86
1:W:1069:ASN:OD1	1:W:1070:ASN:N	2.06	0.86
1:W:1157:SER:N	1:W:1157:SER:HA	1.87	0.86
1:V:1324:ASN:O	1:V:1326:PHE:N	2.09	0.86
1:R:1184:ILE:CD1	1:R:1184:ILE:N	2.33	0.86
1:P:1222:THR:HB	1:P:1239:THR:HB	1.58	0.86
1:U:1072:TRP:CD1	1:V:1066:GLU:HG2	2.11	0.86
1:P:1324:ASN:C	1:P:1326:PHE:N	2.31	0.85
2:X:1021:GLN:O	2:X:1024:ARG:N	2.08	0.85
1:U:1011:LEU:HD11	1:V:1346:PHE:CD2	2.11	0.85
1:P:1324:ASN:ND2	1:P:1326:PHE:HB3	1.91	0.85
1:R:1168:ASN:HA	1:R:1170:ARG:H	1.41	0.85
1:R:1208:THR:O	1:R:1210:ALA:N	2.07	0.85
2:X:1007:ARG:HB2	2:X:1007:ARG:CZ	2.04	0.85
1:Q:1287:ARG:HD3	1:W:1287:ARG:HD3	1.58	0.85
1:R:1047:THR:CG2	1:R:1050:LEU:H	1.88	0.85
1:V:1083:GLN:CD	1:V:1084:ASP:H	1.83	0.85
1:W:1159:GLU:OE1	1:W:1159:GLU:HA	1.76	0.85
2:X:1006:VAL:HG22	2:X:1007:ARG:HH12	1.40	0.85
2:X:1041:SER:HB2	2:X:1044:GLU:HB2	1.58	0.85
1:P:1159:GLU:C	1:P:1159:GLU:CD	2.44	0.85
1:V:1184:ILE:CD1	1:V:1184:ILE:N	2.25	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:1011:LEU:HD11	1:R:1346:PHE:CD2	2.12	0.84
1:U:1324:ASN:O	1:U:1326:PHE:N	2.10	0.84
1:W:1324:ASN:HD22	1:W:1326:PHE:HB3	1.40	0.84
1:Q:1047:THR:HG22	1:Q:1048:ASP:N	1.91	0.84
1:Q:1184:ILE:HD13	1:Q:1184:ILE:N	1.88	0.84
1:Q:1222:THR:CB	1:Q:1239:THR:HB	2.07	0.84
1:Q:1211:TYR:CD2	1:Q:1250:LEU:HD23	2.13	0.84
1:V:1160:GLY:O	1:V:1161:PHE:O	1.95	0.84
1:V:1237:GLN:OE1	1:V:1239:THR:CG2	2.26	0.84
1:U:1211:TYR:H	1:U:1211:TYR:HD1	1.23	0.83
1:V:1168:ASN:HA	1:V:1170:ARG:H	1.42	0.83
2:X:1006:VAL:CG2	2:X:1007:ARG:HH12	1.89	0.83
2:S:1014:ALA:CB	2:S:1017:LYS:HD3	2.08	0.83
1:Q:1020:LEU:HD13	1:Q:1033:GLN:HB2	1.58	0.83
1:Q:1184:ILE:CD1	1:Q:1184:ILE:N	2.35	0.83
1:R:1083:GLN:CD	1:R:1084:ASP:N	2.37	0.83
1:V:1184:ILE:H	1:V:1184:ILE:HD12	1.44	0.83
1:R:1324:ASN:HD22	1:R:1326:PHE:HB3	1.39	0.83
1:V:1184:ILE:HD13	1:V:1184:ILE:C	1.92	0.83
1:P:1047:THR:CG2	1:P:1048:ASP:N	2.36	0.82
2:X:1007:ARG:HB2	2:X:1007:ARG:HH11	1.41	0.82
1:U:1222:THR:CB	1:U:1239:THR:HB	2.09	0.82
1:U:1159:GLU:OE1	1:U:1159:GLU:HA	1.79	0.82
1:V:1045:GLN:HG3	1:V:1045:GLN:O	1.79	0.82
1:V:1083:GLN:CD	1:V:1084:ASP:N	2.38	0.82
1:R:1135:ASP:HB3	1:R:1141:ASP:HA	1.62	0.82
2:S:1026:MET:CG	2:S:1034:VAL:CG1	2.41	0.82
1:U:1020:LEU:HD13	1:U:1033:GLN:CB	2.09	0.81
1:V:1155:ASN:HB3	1:V:1157:SER:H	1.45	0.81
1:W:1069:ASN:OD1	1:W:1070:ASN:CB	2.28	0.81
1:P:1165:VAL:HA	1:P:1166:THR:HG22	1.62	0.81
1:P:1184:ILE:HD13	1:P:1184:ILE:C	1.94	0.81
1:R:1207:ASN:ND2	1:R:1215:GLY:O	2.13	0.81
1:U:1047:THR:CG2	1:U:1048:ASP:N	2.43	0.81
1:P:1208:THR:C	1:P:1210:ALA:H	1.86	0.81
1:P:1154:GLY:C	1:P:1165:VAL:CG1	2.54	0.81
1:R:1162:THR:O	1:R:1165:VAL:HG23	1.80	0.81
2:S:1011:THR:HG22	2:S:1041:SER:CA	2.11	0.81
1:R:1083:GLN:OE1	1:R:1084:ASP:N	2.13	0.81
1:W:1155:ASN:HB3	1:W:1157:SER:H	1.45	0.81
2:X:1025:ARG:HG3	2:X:1025:ARG:NH1	1.96	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:1159:GLU:OE1	1:P:1159:GLU:CA	2.22	0.81
1:V:1156:PRO:O	1:V:1161:PHE:CD1	2.34	0.81
1:R:1184:ILE:HD13	1:R:1184:ILE:N	1.88	0.81
1:W:1324:ASN:C	1:W:1326:PHE:N	2.33	0.81
1:P:1211:TYR:H	1:P:1211:TYR:HD1	1.25	0.81
1:P:1237:GLN:OE1	1:P:1239:THR:CG2	2.28	0.81
1:V:1156:PRO:O	1:V:1161:PHE:CG	2.34	0.81
1:P:1047:THR:HG22	1:P:1050:LEU:N	1.94	0.80
1:R:1036:MET:HE1	1:R:1038:LEU:HD22	1.62	0.80
2:S:1014:ALA:HB1	2:S:1017:LYS:HD3	1.63	0.80
1:Q:1154:GLY:O	1:Q:1165:VAL:HG12	1.80	0.80
2:X:1018:LYS:HB3	2:X:1021:GLN:CD	2.06	0.80
1:V:1157:SER:O	1:V:1161:PHE:HD1	1.63	0.80
1:R:1160:GLY:O	1:R:1161:PHE:O	1.99	0.80
1:R:1069:ASN:OD1	1:R:1070:ASN:HA	1.82	0.80
1:W:1117:SER:O	1:W:1246:ARG:NH2	2.13	0.80
1:P:1287:ARG:CD	1:U:1287:ARG:HD3	2.11	0.80
1:Q:1069:ASN:OD1	1:Q:1070:ASN:CA	2.29	0.80
1:Q:1184:ILE:HD13	1:Q:1184:ILE:C	2.00	0.80
1:R:1020:LEU:HD13	1:R:1033:GLN:CB	2.12	0.80
1:V:1036:MET:HG2	1:V:1037:ARG:N	1.96	0.80
1:Q:1157:SER:O	1:Q:1161:PHE:CD1	2.34	0.80
1:U:1324:ASN:C	1:U:1326:PHE:N	2.36	0.80
1:W:1308:LYS:O	1:W:1308:LYS:HD3	1.81	0.80
1:W:1157:SER:O	1:W:1161:PHE:HD1	1.65	0.79
1:P:1168:ASN:O	1:P:1169:GLY:C	2.24	0.79
1:U:1324:ASN:HD22	1:U:1326:PHE:HB3	1.44	0.79
1:Q:1047:THR:HG22	1:Q:1050:LEU:H	1.47	0.79
1:W:1036:MET:CE	1:W:1038:LEU:HB3	2.12	0.79
1:W:1160:GLY:O	1:W:1161:PHE:O	2.01	0.79
2:S:1025:ARG:N	2:S:1027:LYS:O	2.14	0.79
1:V:1069:ASN:OD1	1:V:1070:ASN:CB	2.29	0.79
1:Q:1324:ASN:HD22	1:Q:1326:PHE:HB3	1.42	0.79
1:W:1047:THR:CG2	1:W:1050:LEU:H	1.96	0.79
1:R:1083:GLN:CD	1:R:1084:ASP:H	1.91	0.79
1:P:1128:PHE:CD2	1:P:1150:GLN:HB3	2.18	0.79
1:Q:1164:GLY:C	1:Q:1165:VAL:HG22	2.06	0.79
1:R:1155:ASN:O	1:R:1165:VAL:HG11	1.82	0.79
2:X:1027:LYS:O	2:X:1028:LYS:HG2	1.82	0.79
1:R:1168:ASN:HA	1:R:1170:ARG:N	1.98	0.78
2:X:1026:MET:O	2:X:1030:ARG:HA	1.82	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1190:GLY:O	1:R:1191:PHE:HB2	1.80	0.78
1:Q:1047:THR:CG2	1:Q:1050:LEU:H	1.97	0.78
1:R:1156:PRO:O	1:R:1161:PHE:CG	2.35	0.78
1:U:1030:ASP:O	1:W:1163:SER:HB3	1.83	0.78
1:U:1116:GLY:H	1:U:1119:ASN:HD22	1.30	0.78
1:U:1190:GLY:O	1:U:1191:PHE:HB2	1.81	0.78
1:U:1264:GLN:HG2	1:U:1274:SER:HB2	1.66	0.78
1:V:1163:SER:HB3	1:W:1030:ASP:O	1.83	0.78
1:U:1303:THR:HB	1:U:1313:TYR:HB3	1.66	0.78
1:P:1238:TYR:OH	1:P:1257:GLN:HG2	1.84	0.78
1:R:1218:ALA:HB1	1:R:1244:ALA:HB2	1.66	0.78
1:R:1324:ASN:ND2	1:R:1327:THR:H	1.81	0.78
1:P:1160:GLY:O	1:P:1161:PHE:O	2.01	0.77
1:P:1324:ASN:C	1:P:1326:PHE:H	1.87	0.77
1:V:1317:LYS:HE3	1:V:1337:ILE:HD12	1.66	0.77
1:W:1154:GLY:O	1:W:1165:VAL:HG12	1.85	0.77
1:W:1159:GLU:OE1	1:W:1159:GLU:CA	2.32	0.77
1:P:1020:LEU:HD13	1:P:1033:GLN:CB	2.15	0.77
1:U:1058:TYR:HD1	1:U:1073:THR:HA	1.49	0.77
1:P:1036:MET:HE2	1:P:1038:LEU:HB3	1.65	0.77
1:R:1069:ASN:OD1	1:R:1070:ASN:N	2.16	0.77
1:U:1066:GLU:HG2	1:W:1072:TRP:CD1	2.18	0.77
1:Q:1165:VAL:HA	1:Q:1166:THR:HG22	1.67	0.77
1:R:1264:GLN:HG2	1:R:1274:SER:HB2	1.66	0.77
1:W:1136:PHE:HB3	1:W:1140:VAL:CG1	2.14	0.77
1:R:1154:GLY:C	1:R:1165:VAL:CG1	2.58	0.77
1:R:1168:ASN:C	1:R:1170:ARG:H	1.91	0.77
2:X:1021:GLN:C	2:X:1025:ARG:H	1.93	0.77
1:P:1037:ARG:HG2	1:P:1059:GLN:HG3	1.64	0.77
1:P:1324:ASN:O	1:P:1325:GLN:C	2.26	0.77
1:Q:1117:SER:O	1:Q:1246:ARG:NH2	2.18	0.77
1:R:1184:ILE:H	1:R:1184:ILE:HD12	1.50	0.77
1:W:1184:ILE:CD1	1:W:1184:ILE:N	2.45	0.77
1:P:1036:MET:CE	1:P:1038:LEU:HB3	2.15	0.77
1:V:1156:PRO:HD3	1:V:1166:THR:O	1.85	0.77
1:R:1168:ASN:CA	1:R:1170:ARG:H	1.96	0.77
1:R:1155:ASN:C	1:R:1165:VAL:HG11	2.09	0.77
1:P:1324:ASN:ND2	1:P:1327:THR:HG23	1.98	0.76
1:W:1154:GLY:C	1:W:1165:VAL:CG1	2.58	0.76
1:W:1324:ASN:O	1:W:1326:PHE:N	2.17	0.76
1:R:1317:LYS:HE3	1:R:1337:ILE:HD12	1.66	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:1168:ASN:HA	1:U:1170:ARG:N	2.00	0.76
1:W:1002:GLU:OE1	1:W:1005:ASN:HB2	1.85	0.76
1:W:1168:ASN:O	1:W:1169:GLY:C	2.26	0.76
1:R:1157:SER:O	1:R:1161:PHE:CD1	2.36	0.76
1:U:1126:ASN:OD1	1:V:1064:SER:HA	1.84	0.76
1:P:1116:GLY:H	1:P:1119:ASN:HD22	1.34	0.76
1:P:1154:GLY:O	1:P:1165:VAL:HG12	1.85	0.76
1:R:1134:THR:CG2	1:R:1134:THR:HB	2.10	0.76
1:W:1002:GLU:HG3	1:W:1002:GLU:O	1.84	0.76
1:W:1190:GLY:O	1:W:1191:PHE:HB2	1.86	0.76
1:P:1098:TYR:CE2	1:P:1102:SER:HB3	2.21	0.76
2:S:1037:VAL:HG12	2:S:1039:LYS:HZ2	1.46	0.76
1:U:1060:ILE:HG23	1:U:1071:SER:CB	2.16	0.76
1:W:1187:ASP:O	1:W:1188:TYR:C	2.29	0.76
1:P:1011:LEU:HD11	1:Q:1346:PHE:CD2	2.21	0.76
1:P:1154:GLY:C	1:P:1165:VAL:HG11	2.11	0.76
1:V:1116:GLY:O	1:V:1123:GLN:HB3	1.86	0.76
1:W:1068:GLU:O	1:W:1069:ASN:HB3	1.86	0.76
1:U:1159:GLU:OE1	1:U:1159:GLU:CA	2.33	0.76
1:Q:1159:GLU:CD	1:Q:1159:GLU:C	2.53	0.75
1:W:1154:GLY:O	1:W:1165:VAL:CG1	2.34	0.75
1:W:1184:ILE:HD13	1:W:1184:ILE:C	2.04	0.75
1:W:1324:ASN:C	1:W:1326:PHE:H	1.90	0.75
1:W:1020:LEU:HD13	1:W:1033:GLN:CB	2.16	0.75
1:Q:1060:ILE:HG23	1:Q:1071:SER:CB	2.15	0.75
2:X:1036:CYS:O	2:X:1037:VAL:HG12	1.86	0.75
1:W:1101:THR:HA	1:W:1237:GLN:HG3	1.68	0.75
1:P:1133:ASN:HD22	1:P:1145:PHE:HE1	1.32	0.75
1:W:1255:LYS:HB3	1:W:1283:LYS:HB2	1.69	0.75
2:X:1025:ARG:CG	2:X:1025:ARG:NH1	2.42	0.75
1:U:1324:ASN:ND2	1:U:1327:THR:H	1.84	0.75
1:P:1045:GLN:HG3	1:P:1045:GLN:O	1.86	0.74
1:Q:1208:THR:C	1:Q:1210:ALA:H	1.94	0.74
1:V:1260:GLU:HG2	1:V:1278:LEU:HD13	1.69	0.74
1:W:1303:THR:HB	1:W:1313:TYR:HB3	1.69	0.74
1:Q:1020:LEU:HD13	1:Q:1033:GLN:CB	2.16	0.74
1:R:1156:PRO:O	1:R:1161:PHE:CD1	2.40	0.74
2:S:1027:LYS:O	2:S:1028:LYS:CB	2.27	0.74
1:W:1156:PRO:O	1:W:1161:PHE:CG	2.40	0.74
1:Q:1058:TYR:HD1	1:Q:1073:THR:HA	1.51	0.74
1:U:1324:ASN:O	1:U:1325:GLN:C	2.31	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:1218:ALA:HB1	1:U:1244:ALA:HB2	1.69	0.74
1:V:1135:ASP:HB3	1:V:1141:ASP:HA	1.70	0.74
1:Q:1154:GLY:C	1:Q:1165:VAL:CG1	2.61	0.74
1:R:1136:PHE:HB3	1:R:1140:VAL:CG1	2.17	0.74
1:U:1045:GLN:O	1:U:1045:GLN:HG3	1.86	0.74
1:U:1312:THR:HG22	1:U:1341:GLY:O	1.87	0.74
1:V:1069:ASN:OD1	1:V:1070:ASN:N	2.20	0.74
1:Q:1083:GLN:CD	1:Q:1084:ASP:N	2.46	0.74
1:R:1002:GLU:HG3	1:R:1002:GLU:O	1.88	0.74
1:W:1045:GLN:HG3	1:W:1045:GLN:O	1.88	0.74
1:V:1324:ASN:ND2	1:V:1327:THR:H	1.85	0.74
1:V:1344:TYR:C	1:V:1344:TYR:CD2	2.66	0.74
1:W:1060:ILE:HA	1:W:1071:SER:HB2	1.70	0.74
1:P:1184:ILE:CD1	1:P:1184:ILE:C	2.55	0.73
1:P:1317:LYS:HE3	1:P:1337:ILE:HD12	1.67	0.73
1:Q:1163:SER:HB3	1:R:1030:ASP:O	1.87	0.73
1:Q:1060:ILE:HA	1:Q:1071:SER:HB2	1.71	0.73
1:R:1212:ILE:O	1:R:1252:TRP:N	2.21	0.73
1:R:1266:GLN:HG3	1:R:1266:GLN:O	1.86	0.73
1:Q:1024:SER:HB2	1:Q:1337:ILE:HG23	1.69	0.73
1:P:1096:VAL:HG22	1:P:1148:GLN:HG2	1.70	0.73
1:P:1156:PRO:HD3	1:P:1166:THR:O	1.88	0.73
1:Q:1002:GLU:OE1	1:Q:1005:ASN:HB2	1.87	0.73
2:S:1039:LYS:O	2:S:1041:SER:N	2.20	0.73
1:V:1164:GLY:C	1:V:1165:VAL:HG22	2.11	0.73
1:W:1168:ASN:CA	1:W:1170:ARG:H	2.01	0.73
1:W:1237:GLN:OE1	1:W:1239:THR:CG2	2.30	0.73
2:S:1007:ARG:HA	2:S:1035:THR:OG1	1.89	0.73
1:W:1134:THR:CG2	1:W:1134:THR:CA	2.66	0.73
1:Q:1308:LYS:O	1:Q:1308:LYS:HD3	1.88	0.73
1:R:1188:TYR:CD1	1:R:1188:TYR:N	2.57	0.73
1:U:1184:ILE:HD12	1:U:1184:ILE:N	2.02	0.73
1:V:1135:ASP:O	1:V:1136:PHE:C	2.31	0.73
1:P:1160:GLY:C	1:P:1161:PHE:O	2.29	0.73
1:V:1160:GLY:C	1:V:1161:PHE:O	2.29	0.73
1:W:1156:PRO:O	1:W:1161:PHE:CD1	2.42	0.73
1:W:1036:MET:HE2	1:W:1038:LEU:HB3	1.69	0.73
1:W:1154:GLY:C	1:W:1165:VAL:HG11	2.14	0.73
1:V:1222:THR:CB	1:V:1239:THR:HB	2.16	0.72
1:P:1324:ASN:ND2	1:P:1327:THR:H	1.87	0.72
1:Q:1202:ARG:NE	1:Q:1215:GLY:HA3	2.04	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:1155:ASN:O	1:U:1165:VAL:HG11	1.88	0.72
1:W:1168:ASN:HA	1:W:1170:ARG:H	1.54	0.72
1:R:1069:ASN:OD1	1:R:1070:ASN:CB	2.37	0.72
1:U:1024:SER:HB2	1:U:1337:ILE:HG23	1.71	0.72
1:Q:1168:ASN:CA	1:Q:1170:ARG:H	2.03	0.72
1:U:1135:ASP:HB3	1:U:1141:ASP:HA	1.69	0.72
1:V:1154:GLY:C	1:V:1165:VAL:HG11	2.13	0.72
1:V:1164:GLY:C	1:V:1165:VAL:CG2	2.59	0.72
1:U:1118:ASP:OD1	1:V:1065:ALA:HB1	1.90	0.72
1:V:1289:TYR:O	1:V:1290:ASP:HB2	1.88	0.72
1:R:1037:ARG:HG2	1:R:1059:GLN:HG3	1.70	0.72
1:R:1222:THR:HB	1:R:1239:THR:HB	1.72	0.72
1:V:1058:TYR:HD1	1:V:1073:THR:HA	1.55	0.72
1:Q:1208:THR:O	1:Q:1209:ALA:C	2.33	0.72
1:Q:1289:TYR:O	1:Q:1290:ASP:HB2	1.89	0.72
1:R:1117:SER:O	1:R:1246:ARG:NH2	2.22	0.72
1:P:1202:ARG:NE	1:P:1215:GLY:HA3	2.05	0.71
1:P:1289:TYR:O	1:P:1290:ASP:HB2	1.90	0.71
1:P:1308:LYS:O	1:P:1308:LYS:HD3	1.90	0.71
1:R:1037:ARG:NH1	1:R:1074:ARG:CZ	2.54	0.71
1:W:1281:LYS:HD2	1:W:1283:LYS:HE3	1.71	0.71
1:P:1069:ASN:OD1	1:P:1070:ASN:CA	2.38	0.71
1:Q:1156:PRO:O	1:Q:1161:PHE:CD1	2.43	0.71
1:R:1155:ASN:N	1:R:1165:VAL:HG11	2.05	0.71
1:R:1184:ILE:CD1	1:R:1184:ILE:C	2.49	0.71
1:U:1017:VAL:HG12	1:U:1018:ASP:N	2.03	0.71
1:V:1168:ASN:CA	1:V:1170:ARG:H	2.03	0.71
1:W:1157:SER:O	1:W:1161:PHE:CD1	2.43	0.71
1:P:1154:GLY:O	1:P:1165:VAL:CG1	2.38	0.71
2:X:1021:GLN:CB	2:X:1025:ARG:HG3	2.20	0.71
1:R:1136:PHE:O	1:R:1139:LEU:HD13	1.90	0.71
1:U:1128:PHE:CD2	1:U:1150:GLN:HB3	2.25	0.71
1:W:1184:ILE:HD13	1:W:1184:ILE:N	1.98	0.71
1:V:1047:THR:CG2	1:V:1048:ASP:H	1.79	0.71
1:R:1188:TYR:N	1:R:1188:TYR:HD1	1.89	0.71
2:S:1028:LYS:N	2:S:1029:VAL:O	2.23	0.71
1:R:1165:VAL:HA	1:R:1166:THR:HG22	1.73	0.71
1:U:1308:LYS:O	1:U:1308:LYS:HD3	1.90	0.71
1:V:1165:VAL:HA	1:V:1166:THR:HG22	1.72	0.71
1:R:1210:ALA:O	1:R:1211:TYR:C	2.34	0.70
1:U:1026:ASN:ND2	1:U:1333:ASN:OD1	2.21	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:1128:PHE:CD2	1:Q:1150:GLN:HB3	2.26	0.70
1:U:1069:ASN:OD1	1:U:1070:ASN:CA	2.39	0.70
1:W:1207:ASN:ND2	1:W:1215:GLY:O	2.21	0.70
1:W:1096:VAL:HG22	1:W:1148:GLN:HG2	1.73	0.70
1:W:1156:PRO:HD3	1:W:1166:THR:O	1.91	0.70
1:R:1139:LEU:O	1:R:1139:LEU:HD22	1.91	0.70
1:U:1098:TYR:CE2	1:U:1102:SER:HB3	2.25	0.70
1:W:1202:ARG:NE	1:W:1215:GLY:HA3	2.06	0.70
1:U:1346:PHE:CD2	1:W:1011:LEU:HD11	2.26	0.70
1:V:1020:LEU:HD13	1:V:1033:GLN:CB	2.22	0.70
1:W:1222:THR:CB	1:W:1239:THR:HB	2.22	0.70
1:Q:1155:ASN:HB3	1:Q:1157:SER:H	1.55	0.70
1:Q:1264:GLN:HG2	1:Q:1274:SER:HB2	1.72	0.70
1:R:1058:TYR:HD1	1:R:1073:THR:HA	1.56	0.70
1:U:1047:THR:HG22	1:U:1050:LEU:N	2.00	0.70
1:R:1289:TYR:O	1:R:1290:ASP:HB2	1.90	0.70
1:U:1190:GLY:O	1:U:1191:PHE:CB	2.39	0.70
2:X:1023:GLN:HB2	2:X:1035:THR:HA	1.73	0.70
1:U:1324:ASN:C	1:U:1326:PHE:H	1.96	0.70
1:Q:1217:ARG:HD3	1:Q:1219:GLU:OE2	1.91	0.70
1:R:1161:PHE:O	1:R:1162:THR:HG23	1.92	0.70
1:U:1156:PRO:HD3	1:U:1166:THR:O	1.92	0.70
1:U:1309:ASN:ND2	1:W:1009:ASN:HB2	2.06	0.70
1:R:1154:GLY:O	1:R:1165:VAL:CG1	2.39	0.70
1:U:1155:ASN:C	1:U:1165:VAL:HG11	2.16	0.70
1:V:1324:ASN:C	1:V:1326:PHE:N	2.46	0.70
1:W:1083:GLN:CD	1:W:1084:ASP:N	2.50	0.70
1:Q:1324:ASN:ND2	1:Q:1327:THR:H	1.89	0.69
1:R:1116:GLY:H	1:R:1119:ASN:HD22	1.37	0.69
1:V:1208:THR:O	1:V:1210:ALA:N	2.25	0.69
1:W:1190:GLY:O	1:W:1191:PHE:CB	2.40	0.69
1:R:1202:ARG:NE	1:R:1215:GLY:HA3	2.07	0.69
1:V:1168:ASN:HA	1:V:1170:ARG:N	2.05	0.69
1:P:1157:SER:O	1:P:1161:PHE:HD1	1.75	0.69
1:R:1168:ASN:CA	1:R:1170:ARG:N	2.55	0.69
1:U:1136:PHE:HB3	1:U:1140:VAL:CG1	2.21	0.69
1:V:1303:THR:HB	1:V:1313:TYR:HB3	1.73	0.69
1:W:1168:ASN:C	1:W:1170:ARG:H	1.95	0.69
1:Q:1098:TYR:CE2	1:Q:1102:SER:HB3	2.27	0.69
1:V:1324:ASN:C	1:V:1326:PHE:H	2.00	0.69
1:W:1134:THR:CG2	1:W:1134:THR:HB	2.16	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:1168:ASN:HA	1:Q:1170:ARG:N	2.08	0.69
1:V:1098:TYR:CE2	1:V:1102:SER:HB3	2.27	0.69
1:V:1202:ARG:HE	1:V:1215:GLY:HA3	1.57	0.69
1:W:1211:TYR:N	1:W:1211:TYR:CD1	2.59	0.69
1:P:1135:ASP:O	1:P:1136:PHE:C	2.36	0.69
1:P:1303:THR:HB	1:P:1313:TYR:HB3	1.74	0.69
1:R:1159:GLU:OE1	1:R:1159:GLU:HA	1.92	0.69
2:S:1029:VAL:HG21	1:W:1288:GLY:H	1.58	0.69
1:V:1002:GLU:O	1:V:1002:GLU:HG3	1.91	0.69
1:V:1136:PHE:HB3	1:V:1140:VAL:CG1	2.22	0.69
1:W:1344:TYR:C	1:W:1344:TYR:CD2	2.71	0.69
1:P:1344:TYR:C	1:P:1344:TYR:CD2	2.71	0.69
1:Q:1069:ASN:OD1	1:Q:1070:ASN:CB	2.40	0.69
1:R:1002:GLU:OE1	1:R:1005:ASN:CB	2.41	0.69
1:R:1190:GLY:O	1:R:1191:PHE:CB	2.37	0.69
1:U:1096:VAL:C	1:U:1098:TYR:H	2.00	0.69
1:V:1002:GLU:OE1	1:V:1005:ASN:HB3	1.92	0.69
2:S:1021:GLN:O	2:S:1026:MET:HB2	1.92	0.69
1:P:1184:ILE:HD11	1:P:1195:GLY:H	1.58	0.69
1:V:1264:GLN:HG2	1:V:1274:SER:CB	2.23	0.69
1:W:1168:ASN:HA	1:W:1170:ARG:N	2.07	0.68
1:P:1058:TYR:HD1	1:P:1073:THR:HA	1.56	0.68
1:U:1096:VAL:O	1:U:1098:TYR:N	2.26	0.68
1:U:1207:ASN:ND2	1:U:1215:GLY:O	2.19	0.68
1:Q:1286:GLY:O	1:Q:1288:GLY:O	2.10	0.68
1:R:1324:ASN:O	1:R:1325:GLN:C	2.34	0.68
1:W:1128:PHE:CD2	1:W:1150:GLN:HB3	2.29	0.68
1:P:1136:PHE:HB3	1:P:1140:VAL:CG1	2.22	0.68
1:U:1154:GLY:C	1:U:1165:VAL:CG1	2.66	0.68
1:P:1155:ASN:HB3	1:P:1157:SER:H	1.58	0.68
1:P:1196:ALA:O	1:P:1222:THR:HG22	1.94	0.68
1:U:1154:GLY:C	1:U:1165:VAL:HG11	2.19	0.68
1:W:1065:ALA:C	1:W:1067:ASN:H	2.01	0.68
2:X:1021:GLN:HB3	2:X:1025:ARG:HH11	1.57	0.68
1:Q:1168:ASN:HA	1:Q:1170:ARG:H	1.59	0.68
1:U:1002:GLU:HG3	1:U:1002:GLU:O	1.93	0.68
1:P:1020:LEU:HD13	1:P:1033:GLN:HB2	1.75	0.68
1:R:1324:ASN:HD21	1:R:1327:THR:HG23	1.58	0.68
1:U:1202:ARG:NE	1:U:1215:GLY:HA3	2.08	0.68
1:V:1117:SER:O	1:V:1246:ARG:NH2	2.25	0.68
1:V:1165:VAL:HG12	1:V:1166:THR:H	1.59	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:1160:GLY:C	1:W:1161:PHE:O	2.32	0.68
1:W:1264:GLN:HG2	1:W:1274:SER:HB2	1.73	0.68
2:X:1013:PRO:O	2:X:1015:GLU:N	2.26	0.68
1:P:1065:ALA:C	1:P:1067:ASN:H	1.98	0.68
1:V:1202:ARG:NE	1:V:1215:GLY:HA3	2.09	0.68
1:W:1133:ASN:O	1:W:1144:ASN:HB2	1.92	0.68
1:Q:1047:THR:HG23	1:Q:1048:ASP:H	0.63	0.68
1:U:1116:GLY:N	1:U:1119:ASN:HD22	1.91	0.68
1:W:1133:ASN:HD21	1:W:1137:PHE:H	1.40	0.68
1:Q:1085:VAL:O	1:Q:1131:TYR:OH	2.12	0.67
1:U:1168:ASN:CA	1:U:1170:ARG:N	2.57	0.67
1:R:1264:GLN:HG2	1:R:1274:SER:CB	2.23	0.67
1:Q:1135:ASP:O	1:Q:1138:GLY:N	2.19	0.67
1:V:1096:VAL:HG22	1:V:1148:GLN:HG2	1.74	0.67
1:W:1116:GLY:O	1:W:1123:GLN:HB3	1.95	0.67
1:P:1002:GLU:HG3	1:P:1002:GLU:O	1.93	0.67
1:U:1135:ASP:O	1:U:1136:PHE:C	2.37	0.67
1:U:1210:ALA:O	1:U:1211:TYR:C	2.36	0.67
1:V:1069:ASN:OD1	1:V:1070:ASN:HA	1.94	0.67
1:V:1133:ASN:O	1:V:1144:ASN:HB2	1.95	0.67
1:Q:1002:GLU:OE1	1:Q:1005:ASN:CB	2.43	0.67
1:R:1187:ASP:O	1:R:1188:TYR:C	2.37	0.67
1:U:1096:VAL:C	1:U:1098:TYR:N	2.50	0.67
1:V:1020:LEU:HD13	1:V:1033:GLN:HB2	1.76	0.67
1:R:1116:GLY:O	1:R:1123:GLN:HB3	1.94	0.67
1:R:1238:TYR:OH	1:R:1257:GLN:HG2	1.94	0.67
1:U:1136:PHE:O	1:U:1139:LEU:HD13	1.94	0.67
1:Q:1184:ILE:CD1	1:Q:1184:ILE:C	2.62	0.67
1:U:1238:TYR:OH	1:U:1257:GLN:HG2	1.94	0.67
1:V:1154:GLY:C	1:V:1165:VAL:CG1	2.68	0.67
1:U:1163:SER:HB3	1:V:1030:ASP:O	1.93	0.67
1:P:1117:SER:O	1:P:1246:ARG:NH2	2.28	0.66
1:R:1154:GLY:C	1:R:1165:VAL:HG11	2.19	0.66
1:R:1310:MET:HG3	1:R:1311:SER:N	2.10	0.66
2:S:1018:LYS:HB2	2:S:1018:LYS:HZ2	1.59	0.66
1:V:1324:ASN:HD22	1:V:1326:PHE:CB	2.06	0.66
1:Q:1047:THR:CG2	1:Q:1049:GLN:N	2.59	0.66
1:Q:1083:GLN:OE1	1:Q:1084:ASP:N	2.28	0.66
1:U:1068:GLU:O	1:U:1069:ASN:HB3	1.95	0.66
1:U:1208:THR:C	1:U:1210:ALA:H	2.02	0.66
1:W:1128:PHE:HD2	1:W:1150:GLN:HB3	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:1190:GLY:O	1:Q:1191:PHE:CD1	2.48	0.66
1:U:1168:ASN:HA	1:U:1170:ARG:H	1.60	0.66
1:V:1036:MET:HE2	1:V:1038:LEU:HB3	1.77	0.66
1:W:1049:GLN:OE1	1:W:1083:GLN:HG2	1.94	0.66
1:Q:1324:ASN:HD21	1:Q:1327:THR:HG23	1.61	0.66
1:U:1139:LEU:O	1:U:1139:LEU:HD22	1.94	0.66
1:V:1232:ILE:CG2	1:V:1234:LEU:HD22	2.25	0.66
1:R:1134:THR:HG23	1:R:1135:ASP:OD2	1.95	0.66
1:U:1264:GLN:HG2	1:U:1274:SER:CB	2.26	0.66
1:V:1191:PHE:HA	1:V:1226:LYS:O	1.95	0.66
1:Q:1133:ASN:O	1:Q:1144:ASN:HB2	1.96	0.66
1:P:1101:THR:HA	1:P:1237:GLN:HG3	1.78	0.66
1:P:1306:PHE:CD2	1:P:1311:SER:HA	2.31	0.66
1:Q:1153:ASN:O	1:Q:1171:ASP:HB3	1.96	0.66
1:W:1060:ILE:HA	1:W:1071:SER:CB	2.26	0.66
2:X:1025:ARG:HH11	2:X:1025:ARG:HG2	1.59	0.66
1:Q:1168:ASN:CA	1:Q:1170:ARG:N	2.59	0.66
1:P:1130:THR:HG23	1:P:1148:GLN:HB3	1.76	0.65
1:R:1101:THR:HA	1:R:1237:GLN:HG3	1.78	0.65
2:S:1007:ARG:HB2	2:S:1007:ARG:HH11	1.62	0.65
1:U:1289:TYR:O	1:U:1290:ASP:HB2	1.94	0.65
1:Q:1133:ASN:HD21	1:Q:1136:PHE:HA	1.60	0.65
1:R:1047:THR:HG23	1:R:1049:GLN:H	1.61	0.65
1:W:1168:ASN:CA	1:W:1170:ARG:N	2.58	0.65
1:W:1208:THR:C	1:W:1210:ALA:H	2.03	0.65
2:X:1027:LYS:HA	2:X:1030:ARG:HA	1.77	0.65
1:Q:1165:VAL:HG12	1:Q:1166:THR:H	1.61	0.65
1:Q:1324:ASN:O	1:Q:1325:GLN:C	2.38	0.65
1:W:1136:PHE:O	1:W:1139:LEU:HD13	1.95	0.65
1:W:1184:ILE:HD11	1:W:1195:GLY:H	1.60	0.65
1:Q:1211:TYR:CD1	1:Q:1211:TYR:N	2.63	0.65
1:P:1096:VAL:C	1:P:1098:TYR:N	2.54	0.65
1:U:1155:ASN:CB	1:U:1157:SER:H	2.09	0.65
1:U:1155:ASN:HB3	1:U:1157:SER:H	1.60	0.65
1:V:1068:GLU:O	1:V:1069:ASN:HB3	1.95	0.65
1:U:1165:VAL:CG1	1:U:1166:THR:H	1.99	0.65
1:W:1211:TYR:HD1	1:W:1211:TYR:N	1.85	0.65
1:P:1217:ARG:HD3	1:P:1219:GLU:OE2	1.96	0.65
1:U:1168:ASN:CA	1:U:1170:ARG:H	2.09	0.65
1:R:1065:ALA:C	1:R:1067:ASN:H	2.05	0.65
1:U:1133:ASN:O	1:U:1144:ASN:HB2	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:1168:ASN:C	1:P:1170:ARG:H	2.04	0.65
1:Q:1009:ASN:HB2	1:R:1309:ASN:ND2	2.12	0.65
1:R:1324:ASN:C	1:R:1326:PHE:N	2.50	0.65
2:S:1037:VAL:O	2:S:1038:LYS:O	2.14	0.65
1:W:1324:ASN:O	1:W:1325:GLN:C	2.38	0.65
2:X:1026:MET:O	2:X:1030:ARG:C	2.40	0.65
1:P:1133:ASN:O	1:P:1144:ASN:HB2	1.98	0.64
1:R:1045:GLN:O	1:R:1045:GLN:HG3	1.97	0.64
1:U:1154:GLY:O	1:U:1165:VAL:CG1	2.46	0.64
1:W:1184:ILE:CD1	1:W:1184:ILE:C	2.63	0.64
2:X:1021:GLN:N	2:X:1021:GLN:HE21	1.94	0.64
2:S:1038:LYS:O	2:S:1039:LYS:HB2	1.96	0.64
1:W:1238:TYR:OH	1:W:1257:GLN:HG2	1.97	0.64
1:W:1248:GLY:HA3	1:W:1330:ALA:HB1	1.79	0.64
1:P:1136:PHE:O	1:P:1139:LEU:HD13	1.97	0.64
1:Q:1264:GLN:HG2	1:Q:1274:SER:CB	2.27	0.64
1:R:1134:THR:CG2	1:R:1134:THR:CA	2.73	0.64
2:S:1017:LYS:NZ	2:S:1017:LYS:CB	2.60	0.64
1:V:1157:SER:O	1:V:1161:PHE:CD1	2.50	0.64
1:V:1217:ARG:HD3	1:V:1219:GLU:OE2	1.97	0.64
1:V:1168:ASN:O	1:V:1169:GLY:C	2.40	0.64
1:W:1202:ARG:CZ	1:W:1215:GLY:HA3	2.27	0.64
1:P:1047:THR:CG2	1:P:1050:LEU:N	2.49	0.64
1:U:1247:VAL:O	1:U:1250:LEU:HB2	1.98	0.64
1:V:1165:VAL:HG12	1:V:1166:THR:N	2.11	0.64
2:S:1037:VAL:HG12	2:S:1039:LYS:HZ3	1.62	0.64
1:U:1060:ILE:HA	1:U:1071:SER:CB	2.27	0.64
1:U:1344:TYR:C	1:U:1344:TYR:CD2	2.75	0.64
1:W:1162:THR:O	1:W:1165:VAL:HG23	1.92	0.64
1:Q:1210:ALA:O	1:Q:1211:TYR:C	2.40	0.64
1:R:1303:THR:HB	1:R:1313:TYR:HB3	1.79	0.64
1:P:1187:ASP:O	1:P:1188:TYR:C	2.40	0.64
1:R:1202:ARG:CZ	1:R:1215:GLY:HA3	2.26	0.64
1:Q:1324:ASN:C	1:Q:1326:PHE:N	2.55	0.64
1:R:1162:THR:C	1:R:1165:VAL:CG2	2.71	0.64
1:V:1134:THR:CG2	1:V:1134:THR:CA	2.71	0.64
1:V:1134:THR:CG2	1:V:1134:THR:HB	2.14	0.64
1:W:1060:ILE:HG23	1:W:1071:SER:HB3	1.79	0.64
1:W:1230:ASN:C	1:W:1231:ASN:ND2	2.56	0.64
1:P:1136:PHE:HB3	1:P:1140:VAL:HG13	1.79	0.64
1:Q:1154:GLY:C	1:Q:1165:VAL:HG11	2.21	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:1168:ASN:C	1:Q:1170:ARG:H	2.06	0.64
1:R:1060:ILE:HG23	1:R:1071:SER:HB3	1.80	0.64
1:R:1107:LEU:O	1:R:1108:PRO:C	2.32	0.64
1:R:1247:VAL:O	1:R:1250:LEU:HB2	1.96	0.64
1:Q:1312:THR:HG22	1:Q:1341:GLY:O	1.98	0.63
1:V:1161:PHE:O	1:V:1162:THR:HG23	1.98	0.63
1:R:1164:GLY:C	1:R:1165:VAL:CG2	2.71	0.63
1:U:1058:TYR:CD1	1:U:1073:THR:HA	2.33	0.63
1:U:1069:ASN:OD1	1:U:1070:ASN:HA	1.98	0.63
1:V:1102:SER:O	1:V:1103:TRP:C	2.41	0.63
1:V:1116:GLY:H	1:V:1119:ASN:HD22	1.46	0.63
1:P:1069:ASN:OD1	1:P:1070:ASN:CB	2.46	0.63
1:P:1123:GLN:OE1	1:P:1124:ARG:HB2	1.98	0.63
1:P:1294:ILE:O	1:P:1332:ILE:HD13	1.98	0.63
1:R:1049:GLN:OE1	1:R:1083:GLN:HG2	1.97	0.63
1:U:1147:VAL:O	1:U:1147:VAL:CG1	2.43	0.63
1:V:1187:ASP:O	1:V:1188:TYR:C	2.40	0.63
2:X:1042:ARG:NH1	2:X:1043:PHE:N	2.47	0.63
1:P:1202:ARG:CZ	1:P:1215:GLY:HA3	2.29	0.63
1:Q:1294:ILE:O	1:Q:1332:ILE:HD13	1.98	0.63
1:R:1208:THR:C	1:R:1210:ALA:H	2.06	0.63
1:R:1279:GLN:HG3	1:R:1280:SER:N	2.13	0.63
1:P:1020:LEU:HD13	1:P:1033:GLN:HB3	1.79	0.63
1:P:1139:LEU:C	1:P:1140:VAL:HG12	2.24	0.63
1:P:1222:THR:CB	1:P:1239:THR:HB	2.28	0.63
1:V:1190:GLY:O	1:V:1191:PHE:CD1	2.50	0.63
1:V:1190:GLY:O	1:V:1191:PHE:HB2	1.99	0.63
1:P:1196:ALA:O	1:P:1222:THR:CG2	2.46	0.63
1:P:1310:MET:HG3	1:P:1311:SER:N	2.12	0.63
1:V:1060:ILE:HG23	1:V:1071:SER:CB	2.24	0.63
1:W:1155:ASN:N	1:W:1165:VAL:HG11	2.12	0.63
1:P:1036:MET:HE1	1:P:1038:LEU:CD2	2.20	0.63
1:P:1260:GLU:HG2	1:P:1278:LEU:HB3	1.79	0.63
2:S:1012:SER:HA	2:S:1038:LYS:NZ	2.14	0.63
1:Q:1046:VAL:HG11	1:R:1306:PHE:HB3	1.81	0.63
1:Q:1303:THR:HB	1:Q:1313:TYR:HB3	1.81	0.63
1:U:1009:ASN:HB2	1:V:1309:ASN:ND2	2.14	0.63
1:P:1186:TYR:O	1:P:1192:GLY:HA2	1.99	0.62
1:Q:1083:GLN:CD	1:Q:1084:ASP:H	2.06	0.62
1:R:1002:GLU:OE1	1:R:1005:ASN:HB3	1.99	0.62
1:Q:1118:ASP:OD1	1:R:1065:ALA:HB1	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:1156:PRO:O	1:Q:1161:PHE:CG	2.52	0.62
1:U:1101:THR:HA	1:U:1237:GLN:HG3	1.81	0.62
1:V:1024:SER:HB2	1:V:1337:ILE:HG23	1.82	0.62
1:P:1135:ASP:HB3	1:P:1141:ASP:HA	1.80	0.62
1:Q:1096:VAL:C	1:Q:1098:TYR:N	2.56	0.62
1:Q:1139:LEU:O	1:Q:1139:LEU:HD22	1.99	0.62
1:Q:1191:PHE:HA	1:Q:1226:LYS:O	1.99	0.62
1:W:1202:ARG:NH2	1:W:1215:GLY:HA3	2.13	0.62
1:P:1264:GLN:HG2	1:P:1274:SER:HB2	1.81	0.62
1:Q:1344:TYR:C	1:Q:1344:TYR:CD2	2.76	0.62
2:S:1028:LYS:H	2:S:1029:VAL:C	2.08	0.62
1:Q:1184:ILE:H	1:Q:1184:ILE:HD12	1.59	0.62
1:Q:1196:ALA:O	1:Q:1222:THR:HG22	1.99	0.62
1:R:1071:SER:O	1:R:1071:SER:OG	2.11	0.62
1:R:1102:SER:O	1:R:1104:THR:N	2.32	0.62
1:U:1164:GLY:C	1:U:1165:VAL:HG22	2.24	0.62
1:V:1324:ASN:O	1:V:1325:GLN:C	2.42	0.62
1:Q:1218:ALA:HB1	1:Q:1244:ALA:HB2	1.81	0.62
1:R:1211:TYR:HD1	1:R:1211:TYR:N	1.95	0.62
1:P:1134:THR:HG23	1:P:1135:ASP:OD2	1.99	0.62
1:P:1155:ASN:N	1:P:1165:VAL:HG11	2.13	0.62
1:Q:1101:THR:HA	1:Q:1237:GLN:HG3	1.82	0.62
1:V:1128:PHE:CD2	1:V:1150:GLN:HB3	2.35	0.62
1:V:1168:ASN:C	1:V:1170:ARG:H	2.07	0.62
1:W:1218:ALA:HB1	1:W:1244:ALA:HB2	1.81	0.62
2:X:1006:VAL:HG22	2:X:1007:ARG:NH1	2.14	0.62
1:R:1136:PHE:HB3	1:R:1140:VAL:HG13	1.80	0.62
1:R:1306:PHE:CD2	1:R:1311:SER:HA	2.35	0.62
1:U:1107:LEU:HD21	1:U:1262:VAL:CG2	2.30	0.62
1:W:1135:ASP:HB3	1:W:1141:ASP:HA	1.81	0.62
1:Q:1135:ASP:HB3	1:Q:1141:ASP:HA	1.82	0.62
1:R:1135:ASP:O	1:R:1138:GLY:N	2.29	0.62
1:U:1184:ILE:HD11	1:U:1195:GLY:H	1.63	0.62
1:W:1294:ILE:O	1:W:1332:ILE:HD13	1.99	0.62
1:P:1324:ASN:HD22	1:P:1326:PHE:HB3	1.64	0.61
1:Q:1002:GLU:HG3	1:Q:1002:GLU:O	2.00	0.61
1:V:1083:GLN:CG	1:V:1084:ASP:H	2.12	0.61
1:P:1160:GLY:O	1:P:1161:PHE:C	2.41	0.61
1:Q:1162:THR:O	1:Q:1163:SER:C	2.43	0.61
1:Q:1047:THR:CG2	1:Q:1049:GLN:H	2.14	0.61
1:R:1133:ASN:HD21	1:R:1136:PHE:HA	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:1136:PHE:HB3	1:U:1140:VAL:HG13	1.82	0.61
1:P:1139:LEU:O	1:P:1140:VAL:CG1	2.44	0.61
1:P:1309:ASN:ND2	1:R:1009:ASN:HB2	2.14	0.61
1:R:1159:GLU:OE1	1:R:1159:GLU:CA	2.48	0.61
1:U:1128:PHE:HD2	1:U:1150:GLN:HB3	1.64	0.61
1:U:1208:THR:O	1:U:1209:ALA:C	2.39	0.61
1:V:1144:ASN:C	1:V:1144:ASN:HD22	2.08	0.61
1:W:1299:ASP:OD1	1:W:1300:VAL:N	2.33	0.61
1:W:1313:TYR:CZ	1:W:1341:GLY:HA3	2.35	0.61
1:P:1036:MET:HG2	1:P:1037:ARG:N	2.15	0.61
1:R:1050:LEU:HD21	1:R:1080:LEU:HG	1.82	0.61
1:U:1168:ASN:O	1:U:1169:GLY:C	2.39	0.61
1:W:1135:ASP:O	1:W:1136:PHE:C	2.42	0.61
1:P:1083:GLN:CD	1:P:1084:ASP:N	2.59	0.61
1:R:1324:ASN:HD22	1:R:1326:PHE:CB	2.13	0.61
1:V:1131:TYR:HB3	1:V:1147:VAL:HG12	1.83	0.61
1:V:1255:LYS:HB3	1:V:1283:LYS:HB2	1.82	0.61
1:W:1152:LYS:HE3	1:W:1203:THR:HG22	1.81	0.61
2:X:1010:THR:OG1	2:X:1015:GLU:OE1	2.11	0.61
1:P:1064:SER:HA	1:R:1126:ASN:OD1	2.01	0.61
1:U:1135:ASP:O	1:U:1138:GLY:N	2.30	0.61
1:W:1247:VAL:O	1:W:1250:LEU:HB2	2.00	0.61
1:P:1289:TYR:CD1	1:P:1326:PHE:HD1	2.17	0.61
1:R:1102:SER:C	1:R:1104:THR:N	2.58	0.61
1:R:1162:THR:C	1:R:1165:VAL:HG21	2.25	0.61
1:U:1134:THR:HG23	1:U:1135:ASP:OD2	2.00	0.61
1:V:1051:THR:HG23	1:V:1081:LYS:HB3	1.81	0.61
1:V:1097:VAL:CG1	1:V:1097:VAL:O	2.45	0.61
1:W:1051:THR:HG23	1:W:1081:LYS:HB3	1.83	0.61
1:P:1272:ARG:HG2	1:P:1272:ARG:O	2.01	0.61
1:R:1049:GLN:OE1	1:R:1083:GLN:CG	2.49	0.61
1:U:1160:GLY:C	1:U:1161:PHE:O	2.44	0.61
1:U:1309:ASN:ND2	1:W:1009:ASN:CB	2.64	0.61
1:Q:1133:ASN:ND2	1:Q:1136:PHE:HA	2.16	0.61
1:U:1126:ASN:OD1	1:V:1064:SER:CA	2.49	0.61
1:W:1208:THR:O	1:W:1209:ALA:C	2.40	0.61
1:P:1072:TRP:CD1	1:Q:1066:GLU:HG2	2.36	0.60
1:P:1128:PHE:HD2	1:P:1150:GLN:HB3	1.64	0.60
1:R:1095:GLY:HA2	1:R:1148:GLN:OE1	2.01	0.60
1:V:1231:ASN:O	1:V:1265:TYR:HA	2.02	0.60
1:P:1030:ASP:O	1:R:1163:SER:HB3	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:1294:ILE:O	1:U:1332:ILE:HD13	2.01	0.60
1:V:1195:GLY:HA2	1:V:1222:THR:O	2.01	0.60
1:W:1257:GLN:OE1	1:W:1283:LYS:NZ	2.33	0.60
1:Q:1334:THR:CA	1:Q:1334:THR:CG2	2.76	0.60
1:R:1211:TYR:N	1:R:1211:TYR:CD1	2.66	0.60
1:U:1036:MET:HG2	1:U:1037:ARG:N	2.15	0.60
1:W:1068:GLU:O	1:W:1069:ASN:CB	2.47	0.60
1:W:1165:VAL:HA	1:W:1166:THR:HG22	1.83	0.60
1:W:1230:ASN:C	1:W:1231:ASN:HD22	2.09	0.60
1:P:1060:ILE:HA	1:P:1071:SER:HB2	1.83	0.60
1:V:1049:GLN:OE1	1:V:1083:GLN:HG2	2.02	0.60
1:W:1264:GLN:HG2	1:W:1274:SER:CB	2.31	0.60
1:Q:1324:ASN:O	1:Q:1326:PHE:N	2.34	0.60
1:U:1147:VAL:O	1:U:1147:VAL:HG12	2.00	0.60
1:U:1154:GLY:O	1:U:1165:VAL:HG12	2.02	0.60
1:V:1126:ASN:OD1	1:W:1064:SER:HA	2.01	0.60
1:P:1060:ILE:HG23	1:P:1071:SER:HB3	1.84	0.60
1:Q:1079:GLY:HA3	1:Q:1088:PHE:O	2.01	0.60
1:R:1083:GLN:CG	1:R:1084:ASP:H	2.14	0.60
1:U:1060:ILE:CG2	1:U:1071:SER:HB3	2.27	0.60
1:V:1190:GLY:O	1:V:1191:PHE:CB	2.48	0.60
1:W:1184:ILE:H	1:W:1184:ILE:HD12	1.66	0.60
1:P:1264:GLN:HG2	1:P:1274:SER:CB	2.32	0.60
1:R:1160:GLY:C	1:R:1161:PHE:O	2.43	0.60
1:W:1083:GLN:CD	1:W:1084:ASP:H	2.08	0.60
1:Q:1324:ASN:HD22	1:Q:1327:THR:H	1.48	0.60
1:R:1128:PHE:CD2	1:R:1150:GLN:HB3	2.37	0.60
1:U:1248:GLY:HA3	1:U:1330:ALA:HB1	1.83	0.60
1:W:1065:ALA:C	1:W:1067:ASN:N	2.60	0.60
1:Q:1047:THR:HG23	1:Q:1049:GLN:H	1.66	0.60
1:Q:1289:TYR:O	1:Q:1290:ASP:CB	2.48	0.60
1:R:1196:ALA:HB3	1:R:1222:THR:HG23	1.84	0.60
1:U:1023:PHE:O	1:U:1338:VAL:N	2.32	0.60
1:P:1168:ASN:CA	1:P:1170:ARG:N	2.65	0.60
1:Q:1139:LEU:O	1:Q:1140:VAL:HG12	2.02	0.60
1:R:1155:ASN:HB3	1:R:1157:SER:H	1.67	0.60
1:Q:1144:ASN:C	1:Q:1144:ASN:HD22	2.10	0.59
1:R:1133:ASN:O	1:R:1144:ASN:CB	2.50	0.59
1:U:1187:ASP:O	1:U:1188:TYR:C	2.45	0.59
1:Q:1045:GLN:HG3	1:Q:1045:GLN:O	2.02	0.59
1:Q:1187:ASP:O	1:Q:1188:TYR:C	2.46	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:1202:ARG:CZ	1:Q:1215:GLY:HA3	2.32	0.59
1:V:1036:MET:CE	1:V:1038:LEU:HB3	2.33	0.59
1:V:1050:LEU:HD21	1:V:1080:LEU:HG	1.83	0.59
1:V:1277:TYR:C	1:V:1278:LEU:HD22	2.28	0.59
1:P:1005:ASN:C	1:P:1005:ASN:OD1	2.45	0.59
1:R:1043:GLU:HA	1:R:1052:GLY:O	2.03	0.59
1:U:1196:ALA:HB3	1:U:1222:THR:HG23	1.83	0.59
1:P:1324:ASN:HD22	1:P:1327:THR:H	1.49	0.59
1:U:1097:VAL:O	1:U:1097:VAL:CG1	2.47	0.59
1:U:1160:GLY:O	1:U:1161:PHE:O	2.21	0.59
1:Q:1107:LEU:N	1:Q:1107:LEU:HD23	2.18	0.59
1:U:1102:SER:O	1:U:1103:TRP:C	2.46	0.59
1:P:1020:LEU:HD22	1:P:1021:HIS:N	2.17	0.59
1:U:1053:TYR:OH	1:U:1089:ASP:OD2	2.19	0.59
1:V:1260:GLU:CG	1:V:1278:LEU:HD13	2.33	0.59
1:Q:1060:ILE:HA	1:Q:1071:SER:CB	2.32	0.59
1:U:1266:GLN:O	1:U:1266:GLN:HG3	2.01	0.59
1:W:1002:GLU:OE1	1:W:1005:ASN:CB	2.50	0.59
1:Q:1145:PHE:HA	1:Q:1183:SER:O	2.03	0.59
1:V:1272:ARG:O	1:V:1272:ARG:HG2	2.01	0.59
2:X:1012:SER:HB2	2:X:1013:PRO:HD3	1.85	0.59
1:Q:1017:VAL:HG12	1:Q:1018:ASP:N	2.16	0.59
1:Q:1154:GLY:O	1:Q:1165:VAL:CG1	2.51	0.59
1:V:1211:TYR:HB3	1:V:1287:ARG:NH1	2.18	0.59
1:W:1324:ASN:ND2	1:W:1327:THR:H	2.01	0.59
2:S:1007:ARG:HG3	2:S:1037:VAL:HB	1.85	0.59
1:P:1168:ASN:CA	1:P:1170:ARG:H	2.16	0.58
1:P:1168:ASN:HA	1:P:1170:ARG:N	2.18	0.58
1:Q:1083:GLN:OE1	1:Q:1083:GLN:C	2.46	0.58
1:R:1299:ASP:OD1	1:R:1300:VAL:N	2.36	0.58
2:S:1018:LYS:O	2:S:1020:ALA:N	2.28	0.58
1:U:1292:GLU:HG2	1:U:1326:PHE:CD2	2.38	0.58
1:U:1324:ASN:HD22	1:U:1326:PHE:CB	2.16	0.58
1:V:1162:THR:O	1:V:1163:SER:C	2.46	0.58
1:P:1283:LYS:O	1:P:1284:ASN:C	2.45	0.58
1:R:1116:GLY:N	1:R:1119:ASN:HD22	2.01	0.58
2:S:1018:LYS:HB2	2:S:1018:LYS:NZ	2.17	0.58
1:W:1134:THR:HG23	1:W:1135:ASP:OD2	2.03	0.58
1:W:1136:PHE:HB3	1:W:1140:VAL:HG13	1.85	0.58
2:X:1023:GLN:C	2:X:1026:MET:CB	2.76	0.58
1:V:1002:GLU:OE1	1:V:1005:ASN:CB	2.51	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:1155:ASN:N	1:V:1165:VAL:HG11	2.18	0.58
1:W:1272:ARG:HG2	1:W:1272:ARG:O	2.04	0.58
1:U:1023:PHE:CD2	1:U:1023:PHE:N	2.72	0.58
1:W:1096:VAL:O	1:W:1098:TYR:N	2.36	0.58
1:P:1155:ASN:CB	1:P:1157:SER:H	2.16	0.58
2:S:1012:SER:H	2:S:1040:THR:HA	1.68	0.58
1:U:1096:VAL:O	1:U:1097:VAL:C	2.43	0.58
1:W:1107:LEU:O	1:W:1108:PRO:C	2.39	0.58
1:W:1324:ASN:HA	1:W:1328:ARG:NH2	2.19	0.58
2:X:1042:ARG:NH1	2:X:1043:PHE:H	2.01	0.58
1:P:1211:TYR:N	1:P:1211:TYR:CD1	2.72	0.58
1:P:1116:GLY:O	1:P:1123:GLN:HB3	2.03	0.58
1:P:1315:ASP:O	1:P:1339:ALA:N	2.35	0.58
1:Q:1072:TRP:CD1	1:R:1066:GLU:HG2	2.39	0.58
1:Q:1164:GLY:C	1:Q:1165:VAL:CG2	2.62	0.58
1:U:1036:MET:CE	1:U:1038:LEU:HD22	2.12	0.58
1:W:1135:ASP:HB3	1:W:1142:GLY:H	1.69	0.58
1:W:1202:ARG:HE	1:W:1215:GLY:HA3	1.67	0.58
1:P:1049:GLN:OE1	1:P:1083:GLN:CG	2.52	0.58
1:Q:1336:ASN:ND2	1:Q:1336:ASN:H	2.00	0.58
1:W:1312:THR:HG23	1:W:1342:LEU:HD13	1.85	0.58
2:X:1026:MET:SD	2:X:1033:SER:CA	2.91	0.58
1:R:1222:THR:CB	1:R:1239:THR:HB	2.33	0.58
1:R:1324:ASN:O	1:R:1326:PHE:N	2.36	0.58
1:V:1247:VAL:O	1:V:1250:LEU:HB2	2.04	0.58
1:U:1230:ASN:C	1:U:1231:ASN:ND2	2.61	0.57
1:U:1306:PHE:CD2	1:U:1311:SER:HA	2.39	0.57
1:U:1310:MET:HG3	1:U:1311:SER:N	2.16	0.57
1:V:1017:VAL:HG12	1:V:1018:ASP:N	2.18	0.57
2:X:1018:LYS:HD3	2:X:1021:GLN:OE1	2.04	0.57
1:P:1077:PHE:CE2	1:P:1093:ASN:OD1	2.57	0.57
1:Q:1156:PRO:O	1:Q:1161:PHE:CE1	2.57	0.57
1:R:1160:GLY:O	1:R:1161:PHE:C	2.46	0.57
2:S:1007:ARG:HA	2:S:1035:THR:HG1	1.69	0.57
1:U:1017:VAL:CG1	1:U:1018:ASP:N	2.67	0.57
1:U:1157:SER:C	1:U:1161:PHE:HD1	2.10	0.57
1:V:1090:TYR:OH	1:W:1032:ASP:OD1	2.19	0.57
1:V:1162:THR:O	1:V:1165:VAL:HG23	1.99	0.57
1:R:1168:ASN:O	1:R:1170:ARG:N	2.30	0.57
1:V:1107:LEU:N	1:V:1107:LEU:HD23	2.19	0.57
1:V:1107:LEU:O	1:V:1108:PRO:C	2.43	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:1156:PRO:O	1:W:1161:PHE:CD2	2.57	0.57
1:Q:1018:ASP:CG	1:Q:1343:VAL:HG22	2.30	0.57
1:Q:1027:LYS:HA	1:Q:1030:ASP:HB2	1.86	0.57
1:Q:1037:ARG:NH1	1:Q:1074:ARG:NH2	2.53	0.57
1:R:1162:THR:H	1:R:1165:VAL:HG21	1.70	0.57
1:R:1294:ILE:O	1:R:1332:ILE:HD13	2.04	0.57
1:V:1136:PHE:O	1:V:1139:LEU:HD13	2.03	0.57
1:P:1287:ARG:HD3	1:U:1287:ARG:CD	2.18	0.57
1:Q:1319:ASN:ND2	1:Q:1334:THR:C	2.63	0.57
1:R:1005:ASN:C	1:R:1005:ASN:OD1	2.47	0.57
1:U:1083:GLN:CD	1:U:1084:ASP:N	2.63	0.57
1:V:1047:THR:HG22	1:V:1048:ASP:N	2.13	0.57
1:V:1097:VAL:O	1:V:1097:VAL:HG13	2.05	0.57
1:P:1163:SER:OG	1:P:1164:GLY:N	2.36	0.57
1:W:1208:THR:C	1:W:1210:ALA:N	2.63	0.57
1:Q:1334:THR:CB	1:Q:1334:THR:C	2.71	0.57
1:U:1164:GLY:C	1:U:1165:VAL:CG2	2.71	0.57
1:W:1144:ASN:HD22	1:W:1144:ASN:C	2.11	0.57
1:P:1164:GLY:C	1:P:1165:VAL:HG22	2.29	0.57
1:V:1047:THR:HG22	1:V:1050:LEU:N	2.12	0.57
1:V:1083:GLN:OE1	1:V:1083:GLN:C	2.47	0.57
1:W:1092:ARG:HH11	1:W:1126:ASN:ND2	2.02	0.57
1:P:1144:ASN:O	1:P:1185:THR:N	2.37	0.57
1:P:1211:TYR:HD1	1:P:1211:TYR:N	2.00	0.57
1:Q:1168:ASN:O	1:Q:1169:GLY:C	2.42	0.57
1:R:1154:GLY:O	1:R:1165:VAL:HG12	2.05	0.57
1:V:1208:THR:O	1:V:1209:ALA:C	2.46	0.57
1:U:1309:ASN:HD21	1:W:1009:ASN:CB	2.18	0.57
1:V:1144:ASN:N	1:V:1144:ASN:ND2	2.51	0.57
1:V:1279:GLN:HG3	1:V:1280:SER:N	2.19	0.57
1:Q:1165:VAL:HG12	1:Q:1166:THR:N	2.19	0.56
1:R:1037:ARG:NE	1:R:1059:GLN:HE21	2.02	0.56
1:R:1058:TYR:CD1	1:R:1073:THR:HA	2.39	0.56
1:R:1196:ALA:O	1:R:1222:THR:HG22	2.05	0.56
1:U:1144:ASN:C	1:U:1144:ASN:HD22	2.12	0.56
1:U:1202:ARG:HE	1:U:1215:GLY:HA3	1.68	0.56
1:P:1171:ASP:N	1:P:1171:ASP:OD2	2.38	0.56
1:U:1211:TYR:HB2	1:U:1250:LEU:O	2.04	0.56
1:P:1097:VAL:O	1:P:1101:THR:HG23	2.05	0.56
1:P:1134:THR:HG23	1:P:1135:ASP:N	2.21	0.56
1:R:1088:PHE:HA	1:R:1130:THR:O	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1344:TYR:C	1:R:1344:TYR:CD2	2.83	0.56
1:V:1145:PHE:HA	1:V:1183:SER:O	2.05	0.56
1:V:1211:TYR:CD1	1:V:1211:TYR:N	2.73	0.56
1:W:1058:TYR:HD1	1:W:1073:THR:HA	1.70	0.56
1:W:1071:SER:O	1:W:1071:SER:OG	2.19	0.56
1:W:1083:GLN:CG	1:W:1084:ASP:H	2.18	0.56
1:W:1147:VAL:O	1:W:1147:VAL:HG12	2.05	0.56
1:P:1139:LEU:O	1:P:1139:LEU:HD22	2.06	0.56
1:U:1313:TYR:CZ	1:U:1341:GLY:HA3	2.40	0.56
1:V:1026:ASN:HB2	1:V:1335:ASP:OD2	2.05	0.56
1:P:1080:LEU:CD1	1:Q:1310:MET:HE2	2.35	0.56
1:P:1202:ARG:HE	1:P:1215:GLY:HA3	1.71	0.56
1:P:1232:ILE:CG2	1:P:1234:LEU:HD22	2.35	0.56
1:Q:1096:VAL:C	1:Q:1098:TYR:H	2.12	0.56
1:Q:1107:LEU:HD21	1:Q:1262:VAL:CG2	2.36	0.56
1:P:1191:PHE:HA	1:P:1226:LYS:O	2.05	0.56
1:Q:1037:ARG:CG	1:Q:1059:GLN:HG3	2.32	0.56
1:R:1096:VAL:C	1:R:1098:TYR:N	2.62	0.56
1:R:1155:ASN:C	1:R:1165:VAL:CG1	2.79	0.56
1:R:1208:THR:O	1:R:1208:THR:OG1	2.14	0.56
1:R:1208:THR:O	1:R:1209:ALA:C	2.47	0.56
1:V:1260:GLU:HG2	1:V:1278:LEU:CD1	2.36	0.56
1:W:1049:GLN:OE1	1:W:1083:GLN:CG	2.54	0.56
1:W:1168:ASN:OD1	1:W:1168:ASN:N	2.38	0.56
1:P:1316:TYR:CD1	1:P:1338:VAL:HG22	2.41	0.56
1:Q:1118:ASP:CG	1:R:1065:ALA:HB1	2.31	0.56
1:P:1324:ASN:HA	1:P:1328:ARG:NH2	2.21	0.56
1:R:1002:GLU:OE1	1:R:1005:ASN:HB2	2.06	0.56
1:U:1085:VAL:O	1:U:1131:TYR:OH	2.22	0.56
1:U:1168:ASN:C	1:U:1170:ARG:H	2.14	0.56
1:U:1168:ASN:N	1:U:1168:ASN:OD1	2.37	0.56
2:X:1023:GLN:CB	2:X:1035:THR:HA	2.35	0.56
1:R:1287:ARG:HD3	1:V:1287:ARG:CD	2.33	0.56
2:S:1010:THR:HG23	2:S:1036:CYS:SG	2.46	0.56
1:V:1154:GLY:O	1:V:1165:VAL:HG12	2.05	0.56
1:P:1082:PHE:O	1:P:1083:GLN:HB3	2.06	0.56
1:P:1208:THR:C	1:P:1210:ALA:N	2.49	0.56
1:U:1184:ILE:HD13	1:U:1184:ILE:N	2.21	0.56
1:W:1083:GLN:OE1	1:W:1084:ASP:N	2.39	0.56
2:X:1028:LYS:H	2:X:1029:VAL:C	2.14	0.56
1:R:1230:ASN:O	1:R:1232:ILE:N	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S:1032:PRO:HD3	1:W:1291:ASP:OD2	2.05	0.55
1:V:1045:GLN:O	1:V:1045:GLN:CG	2.53	0.55
1:W:1133:ASN:HD21	1:W:1137:PHE:N	2.04	0.55
1:W:1210:ALA:O	1:W:1211:TYR:C	2.48	0.55
1:P:1184:ILE:H	1:P:1184:ILE:HD12	1.65	0.55
1:P:1325:GLN:O	1:P:1329:ASP:CG	2.49	0.55
1:R:1033:GLN:O	1:R:1034:THR:C	2.47	0.55
1:R:1135:ASP:HA	1:R:1143:LEU:O	2.06	0.55
1:R:1162:THR:O	1:R:1163:SER:C	2.48	0.55
1:R:1308:LYS:O	1:R:1308:LYS:CD	2.48	0.55
1:U:1036:MET:HE2	1:U:1038:LEU:HB3	1.87	0.55
1:U:1162:THR:C	1:U:1165:VAL:HG21	2.28	0.55
1:P:1037:ARG:NE	1:P:1059:GLN:HE21	2.03	0.55
1:U:1272:ARG:HG2	1:U:1272:ARG:O	2.07	0.55
1:W:1161:PHE:O	1:W:1162:THR:HG23	2.06	0.55
1:P:1255:LYS:HB3	1:P:1283:LYS:HB2	1.89	0.55
1:U:1190:GLY:O	1:U:1191:PHE:CD1	2.60	0.55
1:V:1009:ASN:HB2	1:W:1309:ASN:ND2	2.21	0.55
1:V:1190:GLY:O	1:V:1191:PHE:HD1	1.90	0.55
1:W:1099:ASP:OD1	1:W:1132:ARG:NH2	2.39	0.55
1:Q:1093:ASN:O	1:Q:1124:ARG:HA	2.06	0.55
1:R:1036:MET:HE2	1:R:1037:ARG:C	2.31	0.55
1:U:1102:SER:C	1:U:1104:THR:N	2.63	0.55
1:V:1289:TYR:CD1	1:V:1326:PHE:HD1	2.25	0.55
2:X:1019:CYS:O	2:X:1023:GLN:HG2	2.07	0.55
1:Q:1255:LYS:NZ	1:Q:1257:GLN:HE21	2.05	0.55
2:S:1010:THR:OG1	2:S:1038:LYS:HA	2.07	0.55
1:V:1096:VAL:C	1:V:1098:TYR:N	2.64	0.55
1:V:1160:GLY:O	1:V:1161:PHE:C	2.49	0.55
1:P:1116:GLY:N	1:P:1119:ASN:HD22	2.01	0.55
1:P:1157:SER:C	1:P:1161:PHE:HD1	2.15	0.55
1:Q:1065:ALA:C	1:Q:1067:ASN:H	2.14	0.55
1:Q:1082:PHE:O	1:Q:1083:GLN:HB3	2.07	0.55
1:R:1135:ASP:O	1:R:1136:PHE:C	2.49	0.55
1:V:1133:ASN:HD22	1:V:1145:PHE:HE1	1.53	0.55
1:W:1096:VAL:C	1:W:1098:TYR:N	2.63	0.55
1:Q:1155:ASN:N	1:Q:1165:VAL:HG11	2.22	0.55
1:Q:1313:TYR:CZ	1:Q:1341:GLY:HA3	2.41	0.55
1:R:1060:ILE:HA	1:R:1071:SER:HB2	1.88	0.55
1:R:1083:GLN:OE1	1:R:1083:GLN:C	2.49	0.55
1:R:1196:ALA:HB3	1:R:1222:THR:CG2	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:1324:ASN:HA	1:W:1328:ARG:HH22	1.72	0.55
1:Q:1310:MET:HG3	1:Q:1311:SER:N	2.22	0.55
1:Q:1324:ASN:HD22	1:Q:1326:PHE:CB	2.15	0.55
1:V:1005:ASN:OD1	1:V:1005:ASN:O	2.25	0.55
1:V:1296:LYS:HG2	1:V:1320:LEU:HB2	1.89	0.55
1:W:1133:ASN:ND2	1:W:1136:PHE:HA	2.22	0.55
1:P:1118:ASP:OD1	1:Q:1065:ALA:HB1	2.07	0.55
1:R:1235:ALA:O	1:R:1261:ALA:HA	2.07	0.55
1:W:1327:THR:O	1:W:1328:ARG:C	2.50	0.55
2:X:1023:GLN:C	2:X:1026:MET:HB3	2.31	0.55
1:U:1155:ASN:N	1:U:1165:VAL:HG11	2.21	0.54
1:P:1157:SER:O	1:P:1161:PHE:CD1	2.57	0.54
1:P:1208:THR:O	1:P:1209:ALA:C	2.50	0.54
1:Q:1026:ASN:O	1:Q:1028:ASP:N	2.33	0.54
1:Q:1202:ARG:HE	1:Q:1215:GLY:HA3	1.69	0.54
1:R:1083:GLN:CG	1:R:1084:ASP:N	2.69	0.54
1:U:1169:GLY:C	1:U:1170:ARG:HG3	2.32	0.54
1:U:1255:LYS:HB3	1:U:1283:LYS:HB2	1.88	0.54
1:W:1165:VAL:CG1	1:W:1166:THR:H	2.03	0.54
1:Q:1107:LEU:O	1:Q:1108:PRO:C	2.45	0.54
1:Q:1160:GLY:C	1:Q:1161:PHE:O	2.51	0.54
1:Q:1190:GLY:O	1:Q:1191:PHE:CB	2.54	0.54
1:Q:1275:LEU:HD22	1:Q:1276:ALA:N	2.22	0.54
1:Q:1296:LYS:HG2	1:Q:1320:LEU:HB2	1.89	0.54
1:Q:1334:THR:CB	1:Q:1334:THR:HA	2.18	0.54
1:R:1065:ALA:C	1:R:1067:ASN:N	2.65	0.54
1:R:1119:ASN:HB2	1:R:1246:ARG:NH2	2.23	0.54
1:W:1069:ASN:CG	1:W:1070:ASN:N	2.65	0.54
2:X:1018:LYS:HA	2:X:1018:LYS:HE3	1.90	0.54
1:P:1049:GLN:OE1	1:P:1083:GLN:HG3	2.07	0.54
1:P:1066:GLU:HG2	1:R:1072:TRP:CD1	2.42	0.54
1:Q:1135:ASP:O	1:Q:1136:PHE:C	2.50	0.54
1:Q:1190:GLY:O	1:Q:1191:PHE:HB2	2.07	0.54
1:W:1005:ASN:C	1:W:1005:ASN:OD1	2.50	0.54
1:P:1107:LEU:HD21	1:P:1262:VAL:CG2	2.37	0.54
1:P:1134:THR:CG2	1:P:1135:ASP:N	2.70	0.54
1:Q:1255:LYS:HB3	1:Q:1283:LYS:HB2	1.90	0.54
1:R:1009:ASN:HA	1:R:1044:THR:HA	1.89	0.54
1:U:1153:ASN:O	1:U:1171:ASP:HB3	2.08	0.54
1:V:1168:ASN:CA	1:V:1170:ARG:N	2.67	0.54
1:W:1047:THR:HG22	1:W:1050:LEU:N	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1147:VAL:O	1:R:1147:VAL:CG1	2.48	0.54
1:W:1310:MET:HG3	1:W:1311:SER:N	2.23	0.54
1:U:1144:ASN:N	1:U:1144:ASN:ND2	2.54	0.54
1:V:1133:ASN:O	1:V:1144:ASN:CB	2.55	0.54
1:W:1012:ASP:C	1:W:1012:ASP:OD2	2.47	0.54
1:Q:1058:TYR:CD1	1:Q:1073:THR:HA	2.37	0.54
1:Q:1069:ASN:OD1	1:Q:1070:ASN:HB3	2.07	0.54
1:Q:1163:SER:OG	1:Q:1164:GLY:N	2.38	0.54
1:Q:1306:PHE:CD2	1:Q:1311:SER:HA	2.43	0.54
1:U:1012:ASP:OD2	1:U:1012:ASP:C	2.51	0.54
2:X:1006:VAL:HG23	2:X:1007:ARG:HH12	1.73	0.54
2:S:1038:LYS:O	2:S:1039:LYS:CB	2.56	0.54
1:U:1310:MET:HE2	1:W:1080:LEU:CD1	2.37	0.54
1:V:1005:ASN:OD1	1:V:1005:ASN:C	2.51	0.54
1:W:1098:TYR:CE2	1:W:1102:SER:HB3	2.42	0.54
1:P:1058:TYR:CD1	1:P:1073:THR:HA	2.40	0.54
1:P:1184:ILE:O	1:P:1184:ILE:CG1	2.49	0.54
1:Q:1102:SER:O	1:Q:1103:TRP:C	2.51	0.54
1:V:1058:TYR:CD1	1:V:1073:THR:HA	2.38	0.54
1:V:1184:ILE:HD11	1:V:1195:GLY:H	1.72	0.54
1:W:1045:GLN:O	1:W:1045:GLN:CG	2.56	0.54
1:P:1131:TYR:O	1:P:1146:ALA:HA	2.08	0.53
1:P:1147:VAL:O	1:P:1147:VAL:CG1	2.53	0.53
1:R:1210:ALA:O	1:R:1212:ILE:N	2.41	0.53
2:S:1009:CYS:SG	2:S:1044:GLU:HB2	2.47	0.53
1:U:1107:LEU:O	1:U:1108:PRO:C	2.45	0.53
1:V:1288:GLY:O	1:V:1290:ASP:N	2.41	0.53
2:X:1026:MET:O	2:X:1030:ARG:CA	2.56	0.53
1:U:1107:LEU:CD2	1:U:1262:VAL:CG2	2.86	0.53
1:Q:1096:VAL:O	1:Q:1098:TYR:N	2.41	0.53
2:S:1011:THR:CG2	2:S:1041:SER:HA	2.27	0.53
1:U:1060:ILE:HA	1:U:1071:SER:HB2	1.89	0.53
1:U:1289:TYR:CD1	1:U:1326:PHE:HD1	2.26	0.53
1:U:1303:THR:HA	1:U:1313:TYR:HA	1.90	0.53
1:V:1171:ASP:OD2	1:V:1171:ASP:N	2.41	0.53
1:W:1196:ALA:O	1:W:1222:THR:HG22	2.08	0.53
1:P:1060:ILE:HG23	1:P:1071:SER:CB	2.38	0.53
1:P:1184:ILE:N	1:P:1184:ILE:HD12	2.23	0.53
1:Q:1128:PHE:HD2	1:Q:1150:GLN:HB3	1.73	0.53
2:S:1015:GLU:OE2	2:S:1016:SER:N	2.41	0.53
1:W:1336:ASN:H	1:W:1336:ASN:ND2	2.06	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:1312:THR:HG23	1:Q:1342:LEU:HD13	1.90	0.53
1:R:1299:ASP:OD1	1:R:1299:ASP:C	2.51	0.53
1:U:1202:ARG:CZ	1:U:1215:GLY:HA3	2.39	0.53
1:U:1289:TYR:O	1:U:1290:ASP:CB	2.57	0.53
1:V:1306:PHE:CD2	1:V:1311:SER:HA	2.44	0.53
1:P:1037:ARG:CG	1:P:1059:GLN:HG3	2.36	0.53
1:P:1096:VAL:C	1:P:1098:TYR:H	2.15	0.53
1:P:1299:ASP:OD1	1:P:1300:VAL:N	2.41	0.53
1:Q:1168:ASN:OD1	1:Q:1168:ASN:N	2.41	0.53
1:U:1284:ASN:N	1:U:1291:ASP:OD1	2.41	0.53
1:W:1056:TRP:HA	1:W:1075:VAL:O	2.09	0.53
1:W:1135:ASP:O	1:W:1138:GLY:N	2.38	0.53
1:W:1325:GLN:O	1:W:1329:ASP:CG	2.51	0.53
1:P:1096:VAL:O	1:P:1097:VAL:C	2.52	0.53
2:S:1007:ARG:CD	2:S:1037:VAL:HG21	2.31	0.53
1:U:1065:ALA:HB1	1:W:1118:ASP:OD1	2.08	0.53
1:V:1134:THR:HG23	1:V:1135:ASP:OD2	2.08	0.53
1:W:1093:ASN:O	1:W:1124:ARG:HA	2.09	0.53
1:W:1096:VAL:O	1:W:1097:VAL:C	2.50	0.53
1:P:1096:VAL:O	1:P:1098:TYR:N	2.42	0.53
1:Q:1097:VAL:O	1:Q:1097:VAL:CG1	2.57	0.53
1:R:1133:ASN:O	1:R:1144:ASN:HB3	2.09	0.53
1:R:1289:TYR:CD1	1:R:1326:PHE:HD1	2.26	0.53
2:S:1017:LYS:NZ	2:S:1017:LYS:HB3	2.22	0.53
1:U:1133:ASN:O	1:U:1144:ASN:CB	2.57	0.53
1:W:1035:TYR:HE2	1:W:1037:ARG:HE	1.57	0.53
1:R:1047:THR:HG22	1:R:1050:LEU:N	2.12	0.53
1:R:1130:THR:HG23	1:R:1148:GLN:HB3	1.91	0.53
1:R:1287:ARG:HH11	1:R:1287:ARG:HG3	1.72	0.53
1:V:1159:GLU:CD	1:V:1160:GLY:N	2.67	0.53
2:X:1041:SER:CB	2:X:1044:GLU:HB2	2.36	0.53
1:Q:1001:ALA:N	1:Q:1346:PHE:OXT	2.41	0.53
1:U:1036:MET:CE	1:U:1038:LEU:HB3	2.39	0.53
1:V:1211:TYR:HD1	1:V:1211:TYR:N	1.99	0.53
1:W:1102:SER:O	1:W:1103:TRP:C	2.51	0.53
2:S:1029:VAL:HG21	1:W:1288:GLY:N	2.24	0.52
1:U:1319:ASN:ND2	1:U:1334:THR:C	2.67	0.52
1:V:1135:ASP:HA	1:V:1143:LEU:O	2.10	0.52
1:W:1043:GLU:HA	1:W:1052:GLY:O	2.08	0.52
1:Q:1065:ALA:C	1:Q:1067:ASN:N	2.65	0.52
1:U:1088:PHE:HA	1:U:1130:THR:O	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:1133:ASN:HD22	1:U:1145:PHE:HE1	1.58	0.52
1:V:1135:ASP:HB3	1:V:1140:VAL:O	2.09	0.52
1:P:1162:THR:O	1:P:1163:SER:C	2.52	0.52
1:P:1266:GLN:HB2	1:P:1272:ARG:NH1	2.25	0.52
1:R:1184:ILE:HD11	1:R:1195:GLY:H	1.73	0.52
1:R:1190:GLY:O	1:R:1191:PHE:CD1	2.62	0.52
1:U:1162:THR:C	1:U:1165:VAL:CG2	2.82	0.52
1:V:1135:ASP:O	1:V:1138:GLY:N	2.38	0.52
1:P:1046:VAL:HG11	1:Q:1306:PHE:HB3	1.92	0.52
1:P:1065:ALA:C	1:P:1067:ASN:N	2.67	0.52
1:P:1203:THR:OG1	1:P:1206:GLN:HG2	2.09	0.52
1:R:1133:ASN:O	1:R:1144:ASN:HB2	2.09	0.52
1:V:1027:LYS:HA	1:V:1030:ASP:HB2	1.90	0.52
1:V:1324:ASN:HD21	1:V:1327:THR:HG23	1.74	0.52
1:W:1299:ASP:OD1	1:W:1299:ASP:C	2.51	0.52
1:P:1309:ASN:ND2	1:R:1009:ASN:CB	2.72	0.52
1:Q:1069:ASN:OD1	1:Q:1070:ASN:N	2.41	0.52
1:Q:1144:ASN:O	1:Q:1184:ILE:HA	2.09	0.52
2:S:1029:VAL:HG12	2:S:1030:ARG:H	1.74	0.52
2:S:1038:LYS:O	2:S:1039:LYS:HD3	2.10	0.52
1:V:1155:ASN:HB3	1:V:1157:SER:N	2.21	0.52
1:V:1210:ALA:O	1:V:1211:TYR:C	2.52	0.52
1:V:1312:THR:HG23	1:V:1342:LEU:HD13	1.90	0.52
1:W:1289:TYR:O	1:W:1290:ASP:HB2	2.08	0.52
1:P:1045:GLN:O	1:P:1045:GLN:CG	2.55	0.52
1:P:1286:GLY:O	1:P:1288:GLY:O	2.28	0.52
1:Q:1136:PHE:HB3	1:Q:1140:VAL:CG1	2.40	0.52
1:U:1037:ARG:HG2	1:U:1059:GLN:HG3	1.91	0.52
1:V:1210:ALA:O	1:V:1212:ILE:N	2.43	0.52
1:W:1098:TYR:O	1:W:1102:SER:OG	2.20	0.52
1:W:1231:ASN:O	1:W:1265:TYR:HA	2.10	0.52
1:P:1202:ARG:NH2	1:P:1215:GLY:HA3	2.25	0.52
1:Q:1047:THR:HG23	1:Q:1049:GLN:N	2.25	0.52
1:R:1248:GLY:HA3	1:R:1330:ALA:HB1	1.92	0.52
2:S:1014:ALA:O	2:S:1017:LYS:HG3	2.09	0.52
1:W:1017:VAL:HG12	1:W:1018:ASP:N	2.24	0.52
1:Q:1196:ALA:O	1:Q:1222:THR:CG2	2.57	0.52
1:Q:1212:ILE:HG12	1:Q:1250:LEU:O	2.10	0.52
1:Q:1230:ASN:O	1:Q:1232:ILE:N	2.43	0.52
1:U:1020:LEU:HD22	1:U:1021:HIS:N	2.25	0.52
1:V:1060:ILE:HA	1:V:1071:SER:CB	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:X:1023:GLN:C	2:X:1026:MET:HB2	2.34	0.52
1:P:1096:VAL:CG2	1:P:1148:GLN:HG2	2.39	0.52
1:P:1210:ALA:O	1:P:1211:TYR:C	2.52	0.52
1:Q:1051:THR:HG23	1:Q:1081:LYS:HB3	1.90	0.52
1:V:1162:THR:C	1:V:1165:VAL:CG2	2.79	0.52
1:V:1313:TYR:CZ	1:V:1341:GLY:HA3	2.45	0.52
1:W:1308:LYS:O	1:W:1308:LYS:CD	2.54	0.52
1:Q:1042:GLY:O	1:Q:1053:TYR:HA	2.09	0.52
1:Q:1082:PHE:O	1:Q:1083:GLN:CB	2.58	0.52
1:Q:1289:TYR:CD1	1:Q:1326:PHE:HD1	2.28	0.52
1:R:1186:TYR:O	1:R:1192:GLY:HA2	2.09	0.52
1:R:1316:TYR:CD1	1:R:1338:VAL:HG22	2.44	0.52
1:V:1065:ALA:C	1:V:1067:ASN:N	2.67	0.52
1:V:1167:ASN:HD21	1:V:1170:ARG:HH11	1.58	0.52
1:W:1033:GLN:O	1:W:1034:THR:C	2.53	0.52
1:W:1060:ILE:HG23	1:W:1071:SER:CB	2.40	0.52
1:W:1144:ASN:O	1:W:1184:ILE:HA	2.10	0.52
1:Q:1036:MET:HG2	1:Q:1037:ARG:N	2.25	0.51
1:U:1231:ASN:O	1:U:1265:TYR:HA	2.10	0.51
1:W:1317:LYS:HE3	1:W:1337:ILE:HD12	1.91	0.51
1:Q:1157:SER:C	1:Q:1161:PHE:HD1	2.15	0.51
1:Q:1299:ASP:OD1	1:Q:1300:VAL:N	2.43	0.51
1:R:1102:SER:O	1:R:1103:TRP:C	2.52	0.51
2:S:1012:SER:HA	2:S:1038:LYS:HZ2	1.72	0.51
1:U:1102:SER:O	1:U:1104:THR:N	2.44	0.51
1:Q:1058:TYR:CE1	1:Q:1072:TRP:C	2.88	0.51
1:Q:1211:TYR:HB3	1:Q:1287:ARG:NH1	2.26	0.51
1:Q:1271:LEU:HG	1:Q:1272:ARG:N	2.24	0.51
1:R:1133:ASN:ND2	1:R:1136:PHE:HA	2.25	0.51
1:R:1191:PHE:HA	1:R:1226:LYS:O	2.10	0.51
1:R:1324:ASN:HD22	1:R:1327:THR:H	1.55	0.51
1:U:1097:VAL:O	1:U:1097:VAL:HG13	2.09	0.51
1:V:1095:GLY:HA2	1:V:1148:GLN:OE1	2.10	0.51
1:W:1082:PHE:O	1:W:1083:GLN:HB3	2.09	0.51
1:W:1083:GLN:CG	1:W:1084:ASP:N	2.72	0.51
1:P:1156:PRO:O	1:P:1161:PHE:CG	2.64	0.51
1:Q:1095:GLY:HA2	1:Q:1148:GLN:OE1	2.10	0.51
1:R:1140:VAL:HG22	1:R:1141:ASP:N	2.26	0.51
1:R:1147:VAL:O	1:R:1147:VAL:HG12	2.09	0.51
1:R:1214:ASN:H	1:R:1254:ASN:HD21	1.58	0.51
1:U:1156:PRO:O	1:U:1161:PHE:CG	2.64	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:1159:GLU:C	1:U:1159:GLU:OE1	2.54	0.51
1:V:1184:ILE:O	1:V:1184:ILE:CG1	2.54	0.51
1:V:1208:THR:C	1:V:1210:ALA:H	2.17	0.51
1:W:1102:SER:C	1:W:1104:THR:N	2.66	0.51
1:W:1214:ASN:H	1:W:1254:ASN:HD21	1.58	0.51
1:P:1147:VAL:O	1:P:1147:VAL:HG12	2.10	0.51
1:Q:1152:LYS:HE3	1:Q:1203:THR:HG22	1.93	0.51
1:R:1060:ILE:HA	1:R:1071:SER:CB	2.40	0.51
1:V:1147:VAL:O	1:V:1147:VAL:CG1	2.50	0.51
1:V:1159:GLU:OE1	1:V:1159:GLU:C	2.51	0.51
1:Q:1190:GLY:O	1:Q:1191:PHE:HD1	1.92	0.51
2:S:1012:SER:O	2:S:1013:PRO:O	2.28	0.51
2:S:1023:GLN:NE2	2:S:1024:ARG:HG2	2.26	0.51
1:W:1196:ALA:HB3	1:W:1222:THR:HG23	1.93	0.51
2:X:1021:GLN:HE21	2:X:1021:GLN:H	1.56	0.51
2:X:1038:LYS:HE2	2:X:1038:LYS:N	2.25	0.51
1:P:1133:ASN:O	1:P:1144:ASN:CB	2.58	0.51
1:Q:1137:PHE:HB2	1:Q:1139:LEU:HD12	1.92	0.51
1:R:1171:ASP:OD2	1:R:1171:ASP:N	2.44	0.51
1:V:1046:VAL:HG11	1:W:1306:PHE:HB3	1.93	0.51
1:W:1085:VAL:O	1:W:1131:TYR:OH	2.26	0.51
1:W:1260:GLU:HG2	1:W:1278:LEU:HD13	1.92	0.51
2:X:1018:LYS:O	2:X:1021:GLN:NE2	2.43	0.51
1:P:1121:MET:HE2	1:P:1148:GLN:HG3	1.93	0.51
1:U:1116:GLY:O	1:U:1123:GLN:HB3	2.11	0.51
1:W:1260:GLU:HG2	1:W:1278:LEU:CD1	2.41	0.51
1:P:1306:PHE:HB3	1:R:1046:VAL:HG11	1.93	0.51
1:U:1191:PHE:HA	1:U:1226:LYS:O	2.11	0.51
1:V:1101:THR:HA	1:V:1237:GLN:HG3	1.92	0.51
1:V:1102:SER:C	1:V:1104:THR:N	2.69	0.51
1:V:1165:VAL:CA	1:V:1166:THR:HG22	2.37	0.51
1:V:1189:GLU:C	1:V:1190:GLY:O	2.52	0.51
1:W:1095:GLY:HA2	1:W:1148:GLN:OE1	2.11	0.51
1:W:1102:SER:O	1:W:1104:THR:N	2.44	0.51
1:P:1026:ASN:C	1:P:1028:ASP:H	2.19	0.51
1:Q:1083:GLN:CG	1:Q:1084:ASP:H	2.23	0.51
1:Q:1165:VAL:CA	1:Q:1166:THR:HG22	2.40	0.51
1:R:1164:GLY:C	1:R:1165:VAL:HG23	2.33	0.51
1:U:1049:GLN:HB2	1:U:1083:GLN:HG2	1.93	0.51
1:U:1065:ALA:C	1:U:1067:ASN:N	2.69	0.51
1:W:1286:GLY:O	1:W:1288:GLY:O	2.28	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:1020:LEU:HD22	1:V:1021:HIS:N	2.26	0.50
1:V:1292:GLU:HG2	1:V:1326:PHE:CD2	2.46	0.50
1:W:1079:GLY:HA3	1:W:1088:PHE:O	2.12	0.50
1:P:1074:ARG:HG2	1:P:1124:ARG:NH2	2.26	0.50
1:P:1162:THR:C	1:P:1165:VAL:CG2	2.79	0.50
1:Q:1009:ASN:CB	1:R:1309:ASN:ND2	2.74	0.50
1:Q:1162:THR:C	1:Q:1165:VAL:HG21	2.29	0.50
1:R:1023:PHE:N	1:R:1023:PHE:CD2	2.78	0.50
1:R:1271:LEU:HG	1:R:1272:ARG:N	2.25	0.50
1:U:1043:GLU:HA	1:U:1052:GLY:O	2.12	0.50
1:U:1256:ALA:HA	1:U:1281:LYS:O	2.10	0.50
1:U:1309:ASN:HD21	1:W:1009:ASN:CG	2.19	0.50
1:W:1133:ASN:HD21	1:W:1136:PHE:HA	1.77	0.50
1:W:1292:GLU:HG2	1:W:1326:PHE:CD2	2.47	0.50
1:U:1098:TYR:CZ	1:U:1102:SER:HB3	2.46	0.50
1:U:1152:LYS:HE3	1:U:1203:THR:HG22	1.93	0.50
1:U:1219:GLU:O	1:U:1242:TYR:N	2.33	0.50
1:V:1197:ILE:HD12	1:V:1197:ILE:N	2.26	0.50
1:W:1191:PHE:H	1:W:1227:TYR:HA	1.76	0.50
1:P:1255:LYS:NZ	1:P:1257:GLN:HE21	2.09	0.50
1:Q:1009:ASN:HA	1:Q:1044:THR:HA	1.94	0.50
1:U:1068:GLU:O	1:U:1069:ASN:CB	2.57	0.50
1:U:1212:ILE:O	1:U:1252:TRP:N	2.44	0.50
1:U:1337:ILE:HG22	1:U:1338:VAL:N	2.26	0.50
1:V:1198:SER:HG	1:V:1220:THR:HG1	1.52	0.50
1:W:1134:THR:HG23	1:W:1135:ASP:N	2.25	0.50
1:W:1171:ASP:OD2	1:W:1171:ASP:N	2.44	0.50
1:P:1002:GLU:OE1	1:P:1005:ASN:CB	2.60	0.50
1:Q:1005:ASN:C	1:Q:1005:ASN:OD1	2.54	0.50
1:Q:1184:ILE:HD11	1:Q:1195:GLY:H	1.77	0.50
1:Q:1296:LYS:HG2	1:Q:1320:LEU:CB	2.42	0.50
1:U:1049:GLN:CG	1:U:1082:PHE:O	2.49	0.50
1:W:1070:ASN:C	1:W:1070:ASN:HD22	2.20	0.50
1:P:1001:ALA:N	1:P:1346:PHE:OXT	2.44	0.50
1:P:1289:TYR:O	1:P:1290:ASP:CB	2.57	0.50
1:R:1047:THR:HG23	1:R:1049:GLN:N	2.26	0.50
1:R:1097:VAL:O	1:R:1097:VAL:CG1	2.60	0.50
2:S:1021:GLN:CA	2:S:1024:ARG:O	2.50	0.50
1:V:1042:GLY:O	1:V:1053:TYR:HA	2.11	0.50
1:P:1049:GLN:OE1	1:P:1083:GLN:HG2	2.12	0.50
1:P:1211:TYR:O	1:P:1212:ILE:HG23	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:X:1042:ARG:HH11	2:X:1043:PHE:N	2.08	0.50
1:Q:1133:ASN:HD22	1:Q:1145:PHE:HE1	1.59	0.50
2:S:1007:ARG:HB2	2:S:1007:ARG:NH1	2.25	0.50
1:U:1159:GLU:CD	1:U:1160:GLY:N	2.70	0.50
1:V:1020:LEU:HD13	1:V:1033:GLN:HB3	1.93	0.50
1:P:1005:ASN:OD1	1:P:1005:ASN:O	2.30	0.49
1:Q:1036:MET:CE	1:Q:1038:LEU:HB3	2.42	0.49
1:Q:1230:ASN:C	1:Q:1231:ASN:HD22	2.20	0.49
1:R:1018:ASP:CG	1:R:1343:VAL:HG22	2.37	0.49
1:R:1096:VAL:O	1:R:1097:VAL:C	2.52	0.49
1:U:1197:ILE:HD12	1:U:1197:ILE:N	2.27	0.49
1:U:1325:GLN:O	1:U:1329:ASP:CG	2.55	0.49
1:W:1191:PHE:HA	1:W:1226:LYS:O	2.12	0.49
1:P:1038:LEU:HD23	1:P:1038:LEU:H	1.76	0.49
1:Q:1116:GLY:O	1:Q:1123:GLN:HB3	2.12	0.49
1:Q:1130:THR:HG23	1:Q:1148:GLN:HB3	1.92	0.49
1:Q:1260:GLU:HG2	1:Q:1278:LEU:HB3	1.95	0.49
1:Q:1283:LYS:O	1:Q:1284:ASN:C	2.55	0.49
1:R:1303:THR:HA	1:R:1313:TYR:HA	1.94	0.49
1:V:1082:PHE:O	1:V:1083:GLN:HB3	2.11	0.49
1:V:1191:PHE:CA	1:V:1226:LYS:O	2.60	0.49
1:V:1312:THR:HG22	1:V:1341:GLY:O	2.12	0.49
1:P:1009:ASN:HB2	1:Q:1309:ASN:ND2	2.27	0.49
1:P:1028:ASP:OD2	1:R:1161:PHE:CD2	2.65	0.49
1:Q:1197:ILE:HD12	1:Q:1197:ILE:N	2.27	0.49
1:R:1096:VAL:HG22	1:R:1148:GLN:HG2	1.94	0.49
2:S:1037:VAL:CG1	2:S:1039:LYS:HZ2	2.19	0.49
1:U:1210:ALA:O	1:U:1212:ILE:N	2.45	0.49
1:U:1231:ASN:ND2	1:U:1231:ASN:N	2.61	0.49
1:W:1023:PHE:O	1:W:1338:VAL:N	2.38	0.49
1:W:1210:ALA:O	1:W:1212:ILE:N	2.46	0.49
1:W:1319:ASN:ND2	1:W:1334:THR:C	2.71	0.49
1:Q:1018:ASP:OD2	1:Q:1018:ASP:C	2.53	0.49
1:V:1184:ILE:N	1:V:1184:ILE:HD12	2.12	0.49
1:W:1188:TYR:N	1:W:1188:TYR:CD1	2.81	0.49
1:R:1037:ARG:NH1	1:R:1074:ARG:NH2	2.60	0.49
1:R:1165:VAL:CG1	1:R:1166:THR:H	2.01	0.49
1:V:1211:TYR:O	1:V:1212:ILE:HG23	2.12	0.49
1:W:1306:PHE:CD2	1:W:1311:SER:HA	2.47	0.49
1:P:1018:ASP:C	1:P:1018:ASP:OD2	2.56	0.49
1:P:1065:ALA:HB1	1:R:1170:ARG:HD3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:1310:MET:HE2	1:R:1080:LEU:HD13	1.95	0.49
2:S:1007:ARG:HG3	2:S:1037:VAL:CG2	2.43	0.49
2:S:1018:LYS:C	2:S:1020:ALA:H	2.18	0.49
1:U:1306:PHE:HB3	1:W:1046:VAL:HG11	1.94	0.49
1:U:1037:ARG:NE	1:U:1059:GLN:HE21	2.10	0.49
1:W:1157:SER:C	1:W:1161:PHE:HD1	2.19	0.49
1:U:1324:ASN:HD21	1:U:1327:THR:HG23	1.78	0.49
1:V:1003:VAL:HG23	1:V:1011:LEU:HB3	1.95	0.49
1:U:1159:GLU:OE1	1:U:1160:GLY:N	2.46	0.49
1:V:1325:GLN:O	1:V:1329:ASP:CG	2.56	0.49
1:W:1037:ARG:NH1	1:W:1074:ARG:CZ	2.76	0.49
1:P:1162:THR:O	1:P:1165:VAL:HG23	2.00	0.49
1:Q:1107:LEU:HD21	1:Q:1262:VAL:HG21	1.94	0.49
1:Q:1328:ARG:O	1:Q:1329:ASP:C	2.50	0.49
1:U:1130:THR:HG23	1:U:1148:GLN:HB3	1.95	0.49
1:U:1162:THR:O	1:U:1165:VAL:HG23	2.08	0.49
1:V:1159:GLU:C	1:V:1159:GLU:OE2	2.54	0.49
1:W:1196:ALA:O	1:W:1222:THR:CG2	2.61	0.49
1:P:1144:ASN:C	1:P:1144:ASN:HD22	2.19	0.48
1:Q:1098:TYR:CZ	1:Q:1102:SER:HB3	2.47	0.48
1:Q:1118:ASP:HB3	1:Q:1170:ARG:HB3	1.94	0.48
1:Q:1167:ASN:HD21	1:Q:1170:ARG:HH11	1.62	0.48
1:U:1005:ASN:C	1:U:1005:ASN:OD1	2.56	0.48
1:P:1107:LEU:CD2	1:P:1262:VAL:CG2	2.92	0.48
1:R:1272:ARG:HG2	1:R:1272:ARG:O	2.13	0.48
2:S:1019:CYS:SG	2:S:1019:CYS:O	2.71	0.48
1:V:1093:ASN:O	1:V:1124:ARG:HA	2.13	0.48
1:W:1037:ARG:NE	1:W:1059:GLN:HE21	2.11	0.48
1:W:1131:TYR:O	1:W:1146:ALA:HA	2.13	0.48
1:P:1135:ASP:O	1:P:1138:GLY:N	2.41	0.48
1:P:1255:LYS:HZ3	1:P:1257:GLN:HE21	1.61	0.48
1:R:1277:TYR:C	1:R:1278:LEU:HD22	2.38	0.48
1:V:1300:VAL:O	1:V:1316:TYR:HB3	2.14	0.48
1:P:1190:GLY:O	1:P:1191:PHE:CD1	2.66	0.48
1:Q:1107:LEU:CD2	1:Q:1262:VAL:CG2	2.91	0.48
1:Q:1325:GLN:O	1:Q:1329:ASP:CG	2.56	0.48
1:V:1036:MET:CG	1:V:1037:ARG:N	2.73	0.48
1:W:1155:ASN:C	1:W:1157:SER:H	2.22	0.48
1:W:1324:ASN:CA	1:W:1328:ARG:NH2	2.77	0.48
1:P:1168:ASN:HA	1:P:1170:ARG:H	1.77	0.48
1:Q:1102:SER:C	1:Q:1104:THR:N	2.70	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1036:MET:HG2	1:R:1037:ARG:N	2.28	0.48
1:R:1189:GLU:C	1:R:1190:GLY:O	2.56	0.48
1:U:1009:ASN:CB	1:V:1309:ASN:ND2	2.75	0.48
1:U:1165:VAL:HA	1:U:1166:THR:HG22	1.95	0.48
1:V:1196:ALA:HB3	1:V:1222:THR:HG23	1.94	0.48
1:W:1083:GLN:HG3	1:W:1084:ASP:H	1.78	0.48
1:W:1160:GLY:O	1:W:1161:PHE:C	2.57	0.48
1:Q:1147:VAL:O	1:Q:1147:VAL:HG12	2.13	0.48
1:R:1165:VAL:CG1	1:R:1166:THR:N	2.51	0.48
1:R:1208:THR:C	1:R:1210:ALA:N	2.64	0.48
1:R:1325:GLN:O	1:R:1329:ASP:CG	2.56	0.48
2:S:1026:MET:HE3	2:S:1027:LYS:N	2.27	0.48
1:U:1095:GLY:HA3	1:U:1121:MET:O	2.14	0.48
1:U:1155:ASN:C	1:U:1165:VAL:CG1	2.87	0.48
1:U:1161:PHE:O	1:U:1162:THR:HG23	2.12	0.48
1:V:1162:THR:C	1:V:1165:VAL:HG21	2.32	0.48
1:V:1208:THR:C	1:V:1210:ALA:N	2.71	0.48
1:V:1306:PHE:HD2	1:V:1311:SER:HA	1.78	0.48
2:X:1041:SER:HB3	2:X:1044:GLU:H	1.78	0.48
1:P:1163:SER:O	1:P:1165:VAL:HG23	2.14	0.48
1:P:1304:TYR:HE2	1:P:1306:PHE:CD1	2.31	0.48
1:Q:1156:PRO:O	1:Q:1161:PHE:CD2	2.66	0.48
1:Q:1230:ASN:C	1:Q:1231:ASN:ND2	2.71	0.48
1:W:1145:PHE:HA	1:W:1183:SER:O	2.14	0.48
1:W:1152:LYS:HE3	1:W:1203:THR:CG2	2.44	0.48
2:X:1027:LYS:O	2:X:1028:LYS:CG	2.58	0.48
1:P:1057:GLU:H	1:P:1075:VAL:HG12	1.78	0.48
1:Q:1096:VAL:HG13	1:Q:1148:GLN:HG2	1.94	0.48
1:Q:1222:THR:HB	1:Q:1239:THR:CB	2.29	0.48
1:R:1069:ASN:CG	1:R:1070:ASN:N	2.71	0.48
1:R:1144:ASN:N	1:R:1144:ASN:ND2	2.57	0.48
1:U:1069:ASN:OD1	1:U:1070:ASN:CB	2.61	0.48
1:V:1043:GLU:HA	1:V:1052:GLY:O	2.14	0.48
1:W:1155:ASN:C	1:W:1165:VAL:HG11	2.39	0.48
1:W:1317:LYS:HG2	1:W:1319:ASN:HB2	1.96	0.48
1:P:1082:PHE:O	1:P:1083:GLN:CB	2.62	0.48
1:R:1026:ASN:HD22	1:R:1333:ASN:CG	2.20	0.48
1:R:1036:MET:CE	1:R:1038:LEU:HB3	2.44	0.48
1:U:1161:PHE:HB3	1:V:1027:LYS:O	2.14	0.48
1:W:1024:SER:HB2	1:W:1337:ILE:HG23	1.95	0.48
1:P:1303:THR:HA	1:P:1313:TYR:HA	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:1017:VAL:CG1	1:Q:1018:ASP:N	2.76	0.48
1:R:1324:ASN:C	1:R:1326:PHE:H	2.22	0.48
2:S:1010:THR:CG2	2:S:1036:CYS:SG	3.02	0.48
2:S:1026:MET:HG3	2:S:1034:VAL:HG13	1.76	0.48
1:V:1060:ILE:HA	1:V:1071:SER:HB2	1.96	0.48
1:V:1303:THR:HA	1:V:1313:TYR:HA	1.95	0.48
2:X:1023:GLN:HB2	2:X:1035:THR:CA	2.44	0.48
1:P:1123:GLN:OE1	1:P:1124:ARG:CB	2.62	0.47
1:P:1271:LEU:HG	1:P:1272:ARG:N	2.28	0.47
1:Q:1198:SER:HG	1:Q:1220:THR:HG1	1.62	0.47
1:Q:1272:ARG:O	1:Q:1272:ARG:HG2	2.13	0.47
2:S:1017:LYS:HB3	2:S:1017:LYS:HZ2	1.79	0.47
1:V:1266:GLN:OE1	1:V:1272:ARG:HD2	2.13	0.47
1:W:1212:ILE:CG1	1:W:1250:LEU:O	2.62	0.47
1:U:1230:ASN:C	1:U:1231:ASN:HD22	2.22	0.47
1:U:1260:GLU:HG2	1:U:1278:LEU:HB3	1.96	0.47
1:V:1131:TYR:O	1:V:1146:ALA:HA	2.13	0.47
1:V:1152:LYS:HE3	1:V:1203:THR:HG22	1.96	0.47
1:V:1202:ARG:CZ	1:V:1215:GLY:HA3	2.44	0.47
1:P:1324:ASN:HA	1:P:1328:ARG:HH22	1.79	0.47
1:R:1098:TYR:CE2	1:R:1102:SER:HB3	2.49	0.47
1:R:1256:ALA:HA	1:R:1281:LYS:O	2.14	0.47
1:U:1191:PHE:H	1:U:1227:TYR:HA	1.80	0.47
1:W:1195:GLY:HA2	1:W:1222:THR:O	2.15	0.47
1:P:1023:PHE:CD2	1:P:1023:PHE:N	2.82	0.47
1:P:1095:GLY:HA2	1:P:1148:GLN:OE1	2.14	0.47
1:Q:1202:ARG:NH2	1:Q:1215:GLY:HA3	2.29	0.47
1:R:1140:VAL:CG2	1:R:1141:ASP:N	2.77	0.47
1:U:1026:ASN:C	1:U:1028:ASP:H	2.23	0.47
1:U:1184:ILE:CD1	1:U:1195:GLY:H	2.26	0.47
1:V:1047:THR:HG21	1:V:1050:LEU:H	1.74	0.47
1:V:1065:ALA:C	1:V:1067:ASN:H	2.22	0.47
1:V:1157:SER:HB3	1:V:1158:GLY:H	1.39	0.47
1:V:1310:MET:HG3	1:V:1311:SER:N	2.28	0.47
1:W:1184:ILE:HD11	1:W:1195:GLY:N	2.29	0.47
1:Q:1281:LYS:HD2	1:Q:1283:LYS:HE3	1.96	0.47
1:R:1060:ILE:HG23	1:R:1071:SER:CB	2.44	0.47
1:R:1184:ILE:N	1:R:1184:ILE:HD12	2.17	0.47
1:R:1219:GLU:O	1:R:1241:THR:HA	2.14	0.47
1:V:1011:LEU:HD23	1:V:1011:LEU:HA	1.77	0.47
1:W:1202:ARG:HH21	1:W:1215:GLY:HA3	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:1212:ILE:HG13	1:W:1250:LEU:O	2.13	0.47
1:P:1002:GLU:OE1	1:P:1005:ASN:HB2	2.14	0.47
1:P:1047:THR:HG23	1:P:1049:GLN:N	2.29	0.47
1:Q:1266:GLN:O	1:Q:1266:GLN:HG3	2.07	0.47
1:R:1156:PRO:O	1:R:1161:PHE:CD2	2.68	0.47
1:U:1036:MET:HE2	1:U:1037:ARG:C	2.40	0.47
1:U:1045:GLN:O	1:U:1045:GLN:CG	2.60	0.47
1:V:1154:GLY:O	1:V:1165:VAL:CG1	2.62	0.47
1:V:1302:ALA:N	1:V:1314:VAL:O	2.42	0.47
1:W:1260:GLU:CG	1:W:1278:LEU:HD13	2.44	0.47
1:P:1102:SER:C	1:P:1104:THR:N	2.73	0.47
1:P:1214:ASN:H	1:P:1254:ASN:HD21	1.62	0.47
1:P:1313:TYR:CZ	1:P:1341:GLY:HA3	2.49	0.47
1:Q:1253:ALA:O	1:Q:1254:ASN:C	2.57	0.47
1:R:1065:ALA:O	1:R:1067:ASN:N	2.48	0.47
2:S:1007:ARG:HD2	2:S:1037:VAL:CG2	2.32	0.47
1:U:1096:VAL:HG13	1:U:1148:GLN:HG2	1.95	0.47
1:U:1253:ALA:O	1:U:1254:ASN:C	2.58	0.47
1:V:1137:PHE:HB2	1:V:1139:LEU:CD1	2.44	0.47
1:V:1308:LYS:O	1:V:1308:LYS:HD3	2.15	0.47
1:W:1097:VAL:O	1:W:1101:THR:HG23	2.15	0.47
1:W:1303:THR:HA	1:W:1313:TYR:HA	1.97	0.47
1:P:1018:ASP:CG	1:P:1343:VAL:HG22	2.39	0.47
1:R:1108:PRO:HB3	1:R:1303:THR:HG22	1.96	0.47
1:R:1284:ASN:N	1:R:1291:ASP:OD1	2.45	0.47
1:U:1103:TRP:O	1:U:1233:TYR:OH	2.26	0.47
1:U:1135:ASP:O	1:U:1137:PHE:N	2.48	0.47
1:U:1171:ASP:OD2	1:U:1171:ASP:N	2.48	0.47
1:U:1275:LEU:HD22	1:U:1276:ALA:H	1.77	0.47
1:W:1130:THR:OG1	1:W:1148:GLN:NE2	2.48	0.47
1:P:1047:THR:HG21	1:P:1050:LEU:H	1.68	0.47
1:Q:1208:THR:O	1:Q:1208:THR:OG1	2.31	0.47
1:R:1099:ASP:OD1	1:R:1099:ASP:N	2.48	0.47
1:U:1064:SER:HB2	1:U:1068:GLU:OE2	2.15	0.47
1:V:1098:TYR:CZ	1:V:1102:SER:HB3	2.50	0.47
1:W:1162:THR:O	1:W:1163:SER:C	2.58	0.47
1:P:1001:ALA:N	1:P:1013:LEU:O	2.48	0.47
1:P:1037:ARG:NH1	1:P:1074:ARG:NH2	2.63	0.47
1:P:1061:GLN:HB3	1:P:1063:ASN:OD1	2.15	0.47
1:R:1024:SER:HB2	1:R:1337:ILE:HG23	1.97	0.47
1:R:1094:TYR:HA	1:R:1124:ARG:H	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:1275:LEU:HD22	1:U:1276:ALA:N	2.30	0.47
1:V:1079:GLY:HA3	1:V:1088:PHE:O	2.15	0.47
1:V:1083:GLN:CG	1:V:1084:ASP:N	2.72	0.47
1:P:1188:TYR:N	1:P:1188:TYR:CD1	2.83	0.46
1:Q:1083:GLN:CG	1:Q:1084:ASP:N	2.77	0.46
1:Q:1212:ILE:O	1:Q:1252:TRP:N	2.46	0.46
1:U:1317:LYS:HE3	1:U:1337:ILE:HD12	1.97	0.46
1:V:1068:GLU:O	1:V:1069:ASN:CB	2.55	0.46
1:W:1231:ASN:ND2	1:W:1231:ASN:N	2.62	0.46
1:Q:1011:LEU:HD23	1:Q:1011:LEU:HA	1.57	0.46
1:Q:1047:THR:HG21	1:Q:1050:LEU:H	1.77	0.46
1:Q:1077:PHE:CE2	1:Q:1093:ASN:OD1	2.68	0.46
1:R:1327:THR:O	1:R:1328:ARG:C	2.58	0.46
1:W:1312:THR:HG22	1:W:1341:GLY:O	2.15	0.46
1:Q:1248:GLY:HA3	1:Q:1330:ALA:HB1	1.97	0.46
1:R:1005:ASN:OD1	1:R:1005:ASN:O	2.32	0.46
1:R:1049:GLN:CG	1:R:1082:PHE:O	2.44	0.46
1:R:1202:ARG:NH2	1:R:1215:GLY:HA3	2.30	0.46
1:V:1220:THR:HA	1:V:1241:THR:HA	1.97	0.46
1:W:1156:PRO:HA	1:W:1165:VAL:HB	1.97	0.46
1:W:1324:ASN:HD21	1:W:1327:THR:HG23	1.81	0.46
1:P:1208:THR:O	1:P:1208:THR:OG1	2.27	0.46
1:Q:1157:SER:HB3	1:Q:1158:GLY:H	1.32	0.46
1:R:1211:TYR:HB2	1:R:1250:LEU:O	2.16	0.46
1:U:1002:GLU:OE1	1:U:1005:ASN:HB2	2.15	0.46
1:U:1083:GLN:CD	1:U:1084:ASP:H	2.23	0.46
1:V:1056:TRP:CZ2	1:V:1058:TYR:HB2	2.50	0.46
1:V:1096:VAL:O	1:V:1098:TYR:N	2.48	0.46
1:V:1343:VAL:HG12	1:V:1344:TYR:N	2.30	0.46
1:W:1011:LEU:HD23	1:W:1011:LEU:HA	1.79	0.46
1:W:1155:ASN:CB	1:W:1157:SER:H	2.23	0.46
1:W:1162:THR:H	1:W:1165:VAL:HG21	1.79	0.46
1:P:1095:GLY:HA3	1:P:1121:MET:O	2.15	0.46
1:P:1103:TRP:CD2	1:P:1226:LYS:HD3	2.51	0.46
1:P:1212:ILE:HG13	1:P:1250:LEU:O	2.16	0.46
1:Q:1079:GLY:CA	1:Q:1088:PHE:O	2.64	0.46
1:Q:1126:ASN:OD1	1:R:1064:SER:HA	2.16	0.46
1:Q:1171:ASP:OD2	1:Q:1171:ASP:N	2.49	0.46
2:S:1038:LYS:CE	2:S:1039:LYS:H	2.28	0.46
1:U:1066:GLU:HG2	1:W:1072:TRP:HD1	1.77	0.46
1:U:1193:ILE:HG23	1:U:1193:ILE:HD12	1.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:1033:GLN:O	1:V:1034:THR:C	2.59	0.46
1:V:1156:PRO:O	1:V:1161:PHE:CD2	2.68	0.46
1:P:1193:ILE:HG23	1:P:1193:ILE:HD12	1.53	0.46
1:R:1292:GLU:HG2	1:R:1326:PHE:CD2	2.49	0.46
1:V:1077:PHE:HB3	1:V:1091:GLY:HA3	1.96	0.46
1:W:1134:THR:CG2	1:W:1135:ASP:N	2.79	0.46
1:W:1157:SER:HB3	1:W:1158:GLY:H	1.33	0.46
1:P:1060:ILE:HA	1:P:1071:SER:CB	2.46	0.46
1:P:1231:ASN:O	1:P:1265:TYR:HA	2.16	0.46
1:R:1093:ASN:O	1:R:1124:ARG:HA	2.16	0.46
1:U:1227:TYR:CD2	1:U:1227:TYR:C	2.94	0.46
1:U:1271:LEU:HG	1:U:1272:ARG:N	2.30	0.46
1:W:1134:THR:CG2	1:W:1134:THR:C	2.88	0.46
1:W:1184:ILE:CD1	1:W:1195:GLY:H	2.28	0.46
1:P:1319:ASN:ND2	1:P:1334:THR:C	2.74	0.46
1:Q:1107:LEU:CD2	1:Q:1262:VAL:HG21	2.45	0.46
1:Q:1134:THR:HG23	1:Q:1135:ASP:N	2.31	0.46
1:R:1200:SER:O	1:R:1201:LYS:C	2.57	0.46
1:R:1232:ILE:CG2	1:R:1234:LEU:HD22	2.46	0.46
1:U:1107:LEU:CD2	1:U:1262:VAL:HG21	2.45	0.46
1:U:1281:LYS:HD2	1:U:1283:LYS:HE3	1.97	0.46
1:W:1082:PHE:O	1:W:1083:GLN:CB	2.64	0.46
1:W:1116:GLY:N	1:W:1119:ASN:HD22	2.13	0.46
1:P:1042:GLY:O	1:P:1053:TYR:HA	2.15	0.46
1:P:1085:VAL:O	1:P:1131:TYR:OH	2.31	0.46
1:Q:1299:ASP:OD1	1:Q:1299:ASP:C	2.59	0.46
1:V:1139:LEU:O	1:V:1140:VAL:HG12	2.16	0.46
1:W:1027:LYS:HE3	1:W:1027:LYS:HB3	1.33	0.46
1:W:1147:VAL:O	1:W:1147:VAL:CG1	2.57	0.46
1:W:1324:ASN:HD22	1:W:1326:PHE:CB	2.19	0.46
1:P:1256:ALA:HA	1:P:1281:LYS:O	2.16	0.46
1:R:1053:TYR:OH	1:R:1089:ASP:OD2	2.30	0.46
1:R:1082:PHE:HB2	1:R:1085:VAL:HB	1.97	0.46
1:R:1096:VAL:C	1:R:1098:TYR:H	2.23	0.46
1:W:1058:TYR:CD1	1:W:1073:THR:HA	2.51	0.46
1:W:1096:VAL:C	1:W:1098:TYR:H	2.24	0.46
1:P:1212:ILE:O	1:P:1252:TRP:N	2.49	0.45
1:P:1312:THR:HG23	1:P:1342:LEU:HD13	1.98	0.45
1:Q:1131:TYR:O	1:Q:1146:ALA:HA	2.16	0.45
1:Q:1200:SER:O	1:Q:1201:LYS:C	2.59	0.45
1:Q:1231:ASN:O	1:Q:1265:TYR:HA	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:1281:LYS:HD2	1:Q:1283:LYS:CE	2.46	0.45
1:V:1035:TYR:HE2	1:V:1037:ARG:HE	1.65	0.45
1:V:1168:ASN:OD1	1:V:1168:ASN:N	2.50	0.45
1:W:1057:GLU:O	1:W:1074:ARG:HB2	2.16	0.45
1:P:1310:MET:HG3	1:P:1311:SER:H	1.82	0.45
1:R:1266:GLN:HB2	1:R:1272:ARG:NH1	2.32	0.45
1:R:1324:ASN:HA	1:R:1328:ARG:HH22	1.80	0.45
1:U:1065:ALA:C	1:U:1067:ASN:H	2.25	0.45
1:V:1096:VAL:C	1:V:1098:TYR:H	2.23	0.45
1:V:1147:VAL:HG12	1:V:1147:VAL:O	2.16	0.45
1:W:1116:GLY:H	1:W:1119:ASN:HD22	1.63	0.45
1:P:1083:GLN:OE1	1:P:1083:GLN:C	2.60	0.45
1:P:1337:ILE:HG22	1:P:1338:VAL:N	2.31	0.45
1:Q:1088:PHE:HE1	1:Q:1129:ALA:HB1	1.81	0.45
1:R:1266:GLN:OE1	1:R:1272:ARG:HD2	2.15	0.45
2:S:1027:LYS:HG2	2:S:1030:ARG:HA	1.99	0.45
1:U:1001:ALA:N	1:U:1013:LEU:O	2.50	0.45
1:U:1139:LEU:O	1:U:1140:VAL:HG12	2.17	0.45
1:V:1319:ASN:ND2	1:V:1334:THR:C	2.74	0.45
1:W:1133:ASN:O	1:W:1144:ASN:CB	2.63	0.45
1:W:1212:ILE:HD11	1:W:1250:LEU:HD13	1.98	0.45
2:X:1007:ARG:CZ	2:X:1007:ARG:CB	2.88	0.45
1:Q:1037:ARG:NH1	1:Q:1074:ARG:CZ	2.79	0.45
1:W:1056:TRP:CZ2	1:W:1058:TYR:HB2	2.51	0.45
2:X:1039:LYS:HB3	2:X:1044:GLU:CD	2.39	0.45
1:Q:1097:VAL:O	1:Q:1101:THR:HG23	2.17	0.45
1:Q:1159:GLU:CD	1:Q:1160:GLY:N	2.74	0.45
1:U:1126:ASN:OD1	1:V:1064:SER:C	2.59	0.45
1:V:1082:PHE:O	1:V:1083:GLN:CB	2.65	0.45
1:V:1139:LEU:O	1:V:1139:LEU:HD22	2.16	0.45
1:V:1196:ALA:O	1:V:1222:THR:HG23	2.17	0.45
2:X:1030:ARG:HE	2:X:1030:ARG:HB3	1.50	0.45
1:R:1121:MET:HE2	1:R:1148:GLN:HG3	1.99	0.45
2:S:1010:THR:OG1	2:S:1038:LYS:HB2	2.15	0.45
1:V:1228:ASP:O	1:V:1229:ALA:HB2	2.17	0.45
1:W:1202:ARG:NE	1:W:1215:GLY:CA	2.79	0.45
1:P:1011:LEU:HD23	1:P:1011:LEU:HA	1.79	0.45
1:P:1012:ASP:OD2	1:P:1012:ASP:C	2.57	0.45
1:P:1098:TYR:CD2	1:P:1102:SER:HB3	2.51	0.45
1:Q:1016:LYS:HB3	1:Q:1345:GLN:HB3	1.97	0.45
2:S:1017:LYS:NZ	2:S:1017:LYS:HB2	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:1049:GLN:OE1	1:U:1083:GLN:CG	2.65	0.45
1:V:1148:GLN:O	1:V:1181:GLY:N	2.50	0.45
1:W:1288:GLY:O	1:W:1290:ASP:N	2.49	0.45
2:X:1023:GLN:HA	2:X:1034:VAL:O	2.16	0.45
1:Q:1050:LEU:HD21	1:Q:1080:LEU:HG	1.98	0.45
1:Q:1242:TYR:N	1:Q:1242:TYR:CD1	2.85	0.45
2:S:1001:ALA:HB2	2:S:1037:VAL:HG21	1.99	0.45
1:U:1022:TYR:HA	1:U:1338:VAL:O	2.15	0.45
1:V:1018:ASP:OD2	1:V:1018:ASP:C	2.60	0.45
1:W:1036:MET:HG2	1:W:1037:ARG:N	2.32	0.45
2:X:1024:ARG:O	2:X:1027:LYS:O	2.35	0.45
2:X:1027:LYS:HG3	2:X:1030:ARG:HH11	1.82	0.45
1:P:1292:GLU:HG2	1:P:1326:PHE:CD2	2.51	0.45
1:Q:1080:LEU:CD1	1:R:1310:MET:HE2	2.47	0.45
1:R:1319:ASN:ND2	1:R:1334:THR:C	2.74	0.45
2:S:1011:THR:HG22	2:S:1041:SER:C	2.42	0.45
1:U:1156:PRO:O	1:U:1161:PHE:CD1	2.70	0.45
1:W:1097:VAL:O	1:W:1097:VAL:CG1	2.62	0.45
1:P:1157:SER:HB3	1:P:1158:GLY:H	1.37	0.45
1:P:1168:ASN:OD1	1:P:1168:ASN:N	2.49	0.45
1:Q:1189:GLU:C	1:Q:1190:GLY:O	2.59	0.45
1:R:1137:PHE:HB2	1:R:1139:LEU:HD12	1.99	0.45
1:V:1059:GLN:OE1	1:V:1061:GLN:OE1	2.35	0.45
1:V:1212:ILE:O	1:V:1252:TRP:O	2.35	0.45
1:V:1281:LYS:HD2	1:V:1283:LYS:HE3	1.99	0.45
1:W:1095:GLY:HA3	1:W:1121:MET:O	2.18	0.45
1:W:1114:THR:OG1	1:W:1260:GLU:OE1	2.35	0.45
1:W:1277:TYR:OH	1:W:1296:LYS:HE3	2.17	0.45
1:P:1014:TYR:C	1:P:1014:TYR:CD2	2.95	0.44
1:P:1133:ASN:HD21	1:P:1136:PHE:HA	1.81	0.44
1:V:1014:TYR:C	1:V:1014:TYR:CD2	2.95	0.44
1:V:1192:GLY:N	1:V:1226:LYS:O	2.49	0.44
1:W:1155:ASN:O	1:W:1156:PRO:C	2.57	0.44
2:X:1021:GLN:O	2:X:1024:ARG:CA	2.64	0.44
1:P:1097:VAL:O	1:P:1097:VAL:CG1	2.61	0.44
1:R:1307:ASN:C	1:R:1307:ASN:OD1	2.59	0.44
1:U:1050:LEU:HD21	1:U:1080:LEU:HG	1.98	0.44
1:U:1107:LEU:HD12	1:U:1111:GLY:N	2.32	0.44
1:V:1049:GLN:OE1	1:V:1083:GLN:CG	2.63	0.44
1:W:1219:GLU:O	1:W:1241:THR:HA	2.17	0.44
1:P:1102:SER:O	1:P:1103:TRP:C	2.60	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:1283:LYS:HA	1:Q:1283:LYS:HD3	1.58	0.44
1:R:1035:TYR:HE2	1:R:1037:ARG:HE	1.65	0.44
1:R:1042:GLY:O	1:R:1053:TYR:HA	2.18	0.44
1:R:1144:ASN:ND2	1:R:1144:ASN:H	2.15	0.44
1:U:1027:LYS:HA	1:U:1030:ASP:HB2	1.98	0.44
1:U:1186:TYR:CE2	1:U:1188:TYR:CD1	3.05	0.44
1:V:1170:ARG:HD2	1:W:1067:ASN:ND2	2.32	0.44
1:P:1052:GLY:O	1:P:1053:TYR:HB3	2.16	0.44
1:P:1231:ASN:ND2	1:P:1231:ASN:N	2.65	0.44
1:Q:1134:THR:HG23	1:Q:1135:ASP:OD2	2.17	0.44
1:R:1049:GLN:OE1	1:R:1083:GLN:HG3	2.17	0.44
1:R:1102:SER:C	1:R:1104:THR:H	2.23	0.44
1:R:1192:GLY:N	1:R:1226:LYS:O	2.47	0.44
1:R:1220:THR:HA	1:R:1241:THR:HA	1.99	0.44
1:U:1107:LEU:HD21	1:U:1262:VAL:HG21	1.98	0.44
1:V:1069:ASN:OD1	1:V:1070:ASN:HB3	2.16	0.44
1:V:1165:VAL:CG1	1:V:1166:THR:H	2.29	0.44
1:W:1017:VAL:CG1	1:W:1018:ASP:N	2.80	0.44
1:P:1036:MET:CG	1:P:1037:ARG:N	2.81	0.44
1:P:1195:GLY:HA2	1:P:1222:THR:O	2.17	0.44
1:P:1336:ASN:C	1:P:1337:ILE:HG13	2.42	0.44
1:R:1139:LEU:O	1:R:1139:LEU:CD2	2.65	0.44
1:V:1018:ASP:CG	1:V:1343:VAL:HG22	2.42	0.44
1:V:1272:ARG:O	1:V:1272:ARG:CG	2.66	0.44
1:W:1212:ILE:O	1:W:1252:TRP:N	2.51	0.44
1:P:1077:PHE:HB3	1:P:1091:GLY:HA3	1.99	0.44
1:P:1196:ALA:O	1:P:1222:THR:HG23	2.18	0.44
1:Q:1271:LEU:HG	1:Q:1272:ARG:H	1.82	0.44
1:R:1219:GLU:HB2	1:R:1242:TYR:HB2	1.99	0.44
1:R:1312:THR:HG22	1:R:1341:GLY:O	2.18	0.44
1:U:1072:TRP:HD1	1:V:1066:GLU:HG2	1.77	0.44
1:U:1095:GLY:HA2	1:U:1148:GLN:OE1	2.18	0.44
1:U:1264:GLN:CG	1:U:1274:SER:HB2	2.42	0.44
1:V:1013:LEU:HD22	1:V:1013:LEU:HA	1.74	0.44
1:V:1196:ALA:O	1:V:1222:THR:CG2	2.65	0.44
1:W:1159:GLU:C	1:W:1159:GLU:OE1	2.57	0.44
1:P:1312:THR:HG22	1:P:1342:LEU:HA	2.00	0.44
1:Q:1026:ASN:HB2	1:Q:1335:ASP:OD2	2.18	0.44
1:Q:1303:THR:HA	1:Q:1313:TYR:HA	1.99	0.44
1:Q:1327:THR:O	1:Q:1328:ARG:C	2.60	0.44
1:R:1264:GLN:CG	1:R:1274:SER:HB2	2.42	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S:1030:ARG:HG3	1:W:1290:ASP:OD1	2.18	0.44
1:U:1162:THR:O	1:U:1163:SER:C	2.60	0.44
1:V:1069:ASN:CG	1:V:1070:ASN:N	2.75	0.44
1:V:1108:PRO:HG3	1:V:1303:THR:HG22	2.00	0.44
1:V:1271:LEU:HG	1:V:1272:ARG:N	2.31	0.44
1:W:1156:PRO:O	1:W:1161:PHE:CE1	2.71	0.44
1:P:1009:ASN:HA	1:P:1044:THR:HA	2.00	0.44
1:R:1219:GLU:O	1:R:1242:TYR:N	2.45	0.44
2:S:1038:LYS:HE2	2:S:1039:LYS:H	1.83	0.44
1:U:1220:THR:HA	1:U:1241:THR:HA	2.00	0.44
1:U:1309:ASN:HD22	1:W:1009:ASN:HB2	1.82	0.44
1:V:1023:PHE:CD2	1:V:1023:PHE:N	2.85	0.44
1:W:1213:GLY:O	1:W:1215:GLY:N	2.51	0.44
1:P:1053:TYR:OH	1:P:1089:ASP:OD2	2.31	0.44
1:P:1064:SER:CA	1:R:1126:ASN:OD1	2.66	0.44
1:P:1098:TYR:CZ	1:P:1102:SER:HB3	2.51	0.44
1:P:1155:ASN:C	1:P:1165:VAL:HG11	2.43	0.44
1:P:1309:ASN:HD21	1:R:1009:ASN:CB	2.29	0.44
1:R:1152:LYS:HE3	1:R:1203:THR:HG22	2.00	0.44
1:R:1155:ASN:CA	1:R:1165:VAL:HG11	2.48	0.44
1:U:1156:PRO:O	1:U:1161:PHE:CD2	2.71	0.44
1:W:1328:ARG:O	1:W:1329:ASP:C	2.58	0.44
1:P:1121:MET:CE	1:P:1148:GLN:HG3	2.48	0.43
1:R:1162:THR:N	1:R:1165:VAL:HG21	2.30	0.43
1:U:1160:GLY:O	1:U:1161:PHE:C	2.61	0.43
1:W:1163:SER:OG	1:W:1164:GLY:N	2.51	0.43
1:P:1096:VAL:HG22	1:P:1148:GLN:CG	2.45	0.43
1:R:1312:THR:HG23	1:R:1342:LEU:HD13	2.00	0.43
2:S:1042:ARG:O	2:S:1044:GLU:N	2.32	0.43
1:U:1064:SER:HA	1:W:1126:ASN:OD1	2.18	0.43
1:V:1116:GLY:N	1:V:1119:ASN:HD22	2.13	0.43
1:V:1163:SER:CB	1:W:1030:ASP:O	2.58	0.43
1:V:1298:VAL:CG1	1:V:1299:ASP:N	2.79	0.43
1:W:1192:GLY:N	1:W:1226:LYS:O	2.50	0.43
1:W:1203:THR:OG1	1:W:1206:GLN:HG2	2.18	0.43
1:W:1294:ILE:O	1:W:1332:ILE:CD1	2.64	0.43
2:X:1031:GLY:O	2:X:1032:PRO:C	2.61	0.43
1:P:1099:ASP:OD1	1:P:1132:ARG:NH2	2.51	0.43
1:P:1165:VAL:CA	1:P:1166:THR:HG22	2.39	0.43
1:Q:1033:GLN:O	1:Q:1034:THR:C	2.58	0.43
1:Q:1308:LYS:O	1:Q:1308:LYS:CD	2.63	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:1310:MET:SD	1:Q:1344:TYR:HB2	2.58	0.43
1:U:1049:GLN:OE1	1:U:1083:GLN:HG3	2.17	0.43
1:U:1069:ASN:HD21	1:V:1069:ASN:HD22	1.64	0.43
1:U:1083:GLN:CG	1:U:1084:ASP:H	2.31	0.43
1:V:1165:VAL:C	1:V:1166:THR:HG22	2.44	0.43
1:W:1155:ASN:O	1:W:1165:VAL:HG11	2.18	0.43
1:P:1107:LEU:O	1:P:1108:PRO:C	2.61	0.43
1:P:1290:ASP:HB3	1:P:1291:ASP:H	1.27	0.43
1:Q:1009:ASN:CB	1:R:1309:ASN:HD21	2.32	0.43
1:R:1132:ARG:HH11	1:R:1132:ARG:HD2	1.51	0.43
1:V:1009:ASN:CB	1:W:1309:ASN:ND2	2.80	0.43
1:V:1096:VAL:O	1:V:1097:VAL:C	2.59	0.43
1:W:1139:LEU:O	1:W:1139:LEU:HD22	2.18	0.43
1:W:1190:GLY:O	1:W:1191:PHE:CD1	2.72	0.43
1:W:1310:MET:HG3	1:W:1311:SER:H	1.83	0.43
1:P:1009:ASN:CB	1:Q:1309:ASN:ND2	2.82	0.43
1:P:1058:TYR:CE1	1:P:1072:TRP:C	2.96	0.43
1:Q:1275:LEU:HD22	1:Q:1276:ALA:H	1.83	0.43
1:R:1128:PHE:HD2	1:R:1150:GLN:HB3	1.82	0.43
1:R:1196:ALA:O	1:R:1222:THR:CG2	2.67	0.43
1:V:1130:THR:HG21	1:V:1132:ARG:NH1	2.32	0.43
1:W:1009:ASN:HA	1:W:1044:THR:HA	2.01	0.43
1:P:1156:PRO:O	1:P:1161:PHE:CD2	2.72	0.43
1:P:1233:TYR:CD2	1:P:1233:TYR:C	2.96	0.43
1:P:1306:PHE:CE2	1:P:1311:SER:HA	2.54	0.43
1:Q:1090:TYR:CG	1:Q:1091:GLY:N	2.85	0.43
1:R:1277:TYR:O	1:R:1278:LEU:HD22	2.18	0.43
2:S:1007:ARG:HG3	2:S:1037:VAL:CB	2.48	0.43
1:U:1184:ILE:HD13	1:U:1184:ILE:H	1.70	0.43
1:U:1190:GLY:O	1:U:1191:PHE:HD1	2.02	0.43
1:V:1211:TYR:HA	1:V:1287:ARG:HH12	1.83	0.43
1:W:1238:TYR:CD2	1:W:1238:TYR:C	2.97	0.43
2:X:1026:MET:SD	2:X:1033:SER:C	3.02	0.43
1:P:1050:LEU:HD21	1:P:1080:LEU:HG	1.99	0.43
1:P:1059:GLN:OE1	1:P:1061:GLN:OE1	2.36	0.43
1:P:1156:PRO:O	1:P:1161:PHE:CD1	2.72	0.43
1:P:1197:ILE:HD12	1:P:1197:ILE:N	2.34	0.43
1:Q:1077:PHE:HB2	1:Q:1090:TYR:O	2.19	0.43
1:Q:1324:ASN:C	1:Q:1326:PHE:H	2.24	0.43
1:R:1083:GLN:HG3	1:R:1084:ASP:H	1.83	0.43
1:R:1193:ILE:HD12	1:R:1193:ILE:HG23	1.78	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1231:ASN:O	1:R:1265:TYR:HA	2.18	0.43
2:S:1014:ALA:HB2	2:S:1017:LYS:HD3	1.97	0.43
1:U:1184:ILE:C	1:U:1184:ILE:CD1	2.49	0.43
1:U:1237:GLN:C	1:U:1237:GLN:CD	2.85	0.43
1:U:1281:LYS:HD2	1:U:1283:LYS:CE	2.48	0.43
1:W:1077:PHE:HB3	1:W:1091:GLY:HA3	2.00	0.43
1:Q:1290:ASP:HB3	1:Q:1291:ASP:H	1.39	0.43
1:R:1070:ASN:HD22	1:R:1071:SER:N	2.17	0.43
1:R:1107:LEU:HD21	1:R:1262:VAL:CG2	2.49	0.43
1:U:1088:PHE:HE1	1:U:1129:ALA:HB1	1.83	0.43
1:U:1118:ASP:CG	1:V:1065:ALA:HB1	2.43	0.43
1:U:1131:TYR:HB3	1:U:1147:VAL:HG12	2.01	0.43
1:U:1139:LEU:O	1:U:1139:LEU:CD2	2.66	0.43
1:U:1217:ARG:HD3	1:U:1219:GLU:OE2	2.19	0.43
1:U:1312:THR:HG23	1:U:1342:LEU:HD13	2.00	0.43
1:V:1290:ASP:HB3	1:V:1291:ASP:H	1.16	0.43
1:W:1289:TYR:CD1	1:W:1326:PHE:HD1	2.37	0.43
2:X:1006:VAL:O	2:X:1034:VAL:HG21	2.19	0.43
1:P:1003:VAL:HG23	1:P:1011:LEU:HB3	2.00	0.43
1:P:1102:SER:O	1:P:1104:THR:N	2.52	0.43
1:P:1218:ALA:HB1	1:P:1244:ALA:HB2	2.00	0.43
1:Q:1287:ARG:HD3	1:W:1287:ARG:CD	2.38	0.43
1:R:1213:GLY:C	1:R:1215:GLY:N	2.75	0.43
1:R:1237:GLN:CD	1:R:1237:GLN:C	2.87	0.43
1:R:1310:MET:HG3	1:R:1311:SER:H	1.81	0.43
1:U:1002:GLU:OE1	1:U:1005:ASN:CB	2.67	0.43
1:U:1145:PHE:HA	1:U:1183:SER:O	2.18	0.43
1:U:1290:ASP:HB3	1:U:1291:ASP:H	1.50	0.43
1:U:1313:TYR:HE1	1:U:1343:VAL:HG23	1.84	0.43
1:U:1326:PHE:O	1:U:1327:THR:C	2.62	0.43
1:V:1213:GLY:O	1:V:1215:GLY:N	2.52	0.43
1:W:1037:ARG:NH1	1:W:1074:ARG:NH2	2.66	0.43
1:W:1137:PHE:C	1:W:1139:LEU:H	2.27	0.43
1:W:1277:TYR:C	1:W:1278:LEU:HD22	2.44	0.43
1:W:1280:SER:N	1:W:1295:LEU:O	2.45	0.43
2:X:1023:GLN:HB2	2:X:1035:THR:CB	2.49	0.43
2:X:1025:ARG:NH1	2:X:1025:ARG:HG2	2.27	0.43
1:P:1196:ALA:HB3	1:P:1222:THR:HG23	2.01	0.43
1:P:1230:ASN:C	1:P:1231:ASN:ND2	2.76	0.43
1:Q:1108:PRO:HG3	1:Q:1303:THR:HG22	2.01	0.43
1:Q:1238:TYR:HH	1:Q:1257:GLN:HG2	1.79	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1036:MET:HE1	1:R:1038:LEU:CD2	2.41	0.43
1:U:1003:VAL:HG22	1:U:1013:LEU:H	1.84	0.43
1:W:1188:TYR:N	1:W:1188:TYR:HD1	2.17	0.43
1:W:1189:GLU:C	1:W:1190:GLY:O	2.60	0.43
1:W:1256:ALA:HA	1:W:1281:LYS:O	2.19	0.43
1:W:1327:THR:O	1:W:1330:ALA:N	2.52	0.43
1:R:1037:ARG:HH11	1:R:1074:ARG:CZ	2.31	0.42
1:U:1055:GLN:HG2	1:U:1056:TRP:N	2.33	0.42
1:U:1061:GLN:HB3	1:U:1063:ASN:OD1	2.19	0.42
1:V:1014:TYR:CD1	1:V:1039:GLY:O	2.72	0.42
1:V:1170:ARG:HD3	1:W:1065:ALA:HB1	2.01	0.42
1:V:1324:ASN:HA	1:V:1328:ARG:HH22	1.84	0.42
1:W:1267:PHE:O	1:W:1268:ASP:C	2.62	0.42
1:Q:1036:MET:HE2	1:Q:1038:LEU:HB3	2.00	0.42
1:Q:1197:ILE:HG23	1:Q:1221:TYR:CD2	2.55	0.42
1:R:1018:ASP:C	1:R:1018:ASP:OD2	2.62	0.42
1:R:1021:HIS:O	1:R:1339:ALA:HA	2.19	0.42
1:R:1327:THR:O	1:R:1330:ALA:N	2.52	0.42
2:S:1016:SER:HG	2:S:1019:CYS:CB	2.10	0.42
1:U:1283:LYS:O	1:U:1284:ASN:C	2.61	0.42
1:V:1126:ASN:OD1	1:W:1064:SER:CA	2.66	0.42
1:Q:1316:TYR:CD1	1:Q:1338:VAL:HG22	2.54	0.42
1:R:1011:LEU:HD23	1:R:1011:LEU:HA	1.83	0.42
1:R:1051:THR:HG23	1:R:1081:LYS:HB3	2.01	0.42
1:R:1324:ASN:HA	1:R:1328:ARG:NH2	2.34	0.42
1:V:1319:ASN:ND2	1:V:1334:THR:O	2.53	0.42
1:W:1135:ASP:CB	1:W:1140:VAL:O	2.67	0.42
1:W:1186:TYR:CE2	1:W:1188:TYR:CD1	3.07	0.42
1:P:1266:GLN:O	1:P:1266:GLN:HG3	2.09	0.42
1:Q:1193:ILE:HG23	1:Q:1193:ILE:HD12	1.76	0.42
1:Q:1213:GLY:C	1:Q:1215:GLY:N	2.77	0.42
1:Q:1307:ASN:OD1	1:Q:1309:ASN:HB2	2.20	0.42
1:R:1092:ARG:HH11	1:R:1126:ASN:ND2	2.16	0.42
1:R:1121:MET:CE	1:R:1148:GLN:HG3	2.49	0.42
1:W:1003:VAL:HG23	1:W:1011:LEU:HB3	2.00	0.42
1:W:1083:GLN:OE1	1:W:1083:GLN:C	2.63	0.42
1:P:1036:MET:HE2	1:P:1037:ARG:C	2.44	0.42
1:P:1191:PHE:H	1:P:1227:TYR:HA	1.85	0.42
1:R:1296:LYS:O	1:R:1297:TYR:HB3	2.19	0.42
1:U:1324:ASN:HA	1:U:1328:ARG:NH2	2.34	0.42
1:V:1058:TYR:CE1	1:V:1072:TRP:C	2.97	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:1121:MET:HE2	1:V:1148:GLN:HG3	2.01	0.42
1:W:1090:TYR:CG	1:W:1091:GLY:N	2.87	0.42
1:Q:1102:SER:O	1:Q:1104:THR:N	2.52	0.42
1:Q:1191:PHE:CA	1:Q:1226:LYS:O	2.66	0.42
1:Q:1196:ALA:HB3	1:Q:1222:THR:HG23	2.01	0.42
1:R:1131:TYR:O	1:R:1146:ALA:HA	2.20	0.42
1:U:1189:GLU:C	1:U:1190:GLY:O	2.61	0.42
1:U:1304:TYR:HE2	1:U:1306:PHE:CD1	2.37	0.42
1:V:1017:VAL:CG1	1:V:1018:ASP:N	2.79	0.42
1:V:1027:LYS:HB2	1:V:1027:LYS:HE3	1.94	0.42
1:P:1227:TYR:N	1:P:1234:LEU:O	2.52	0.42
1:P:1248:GLY:HA3	1:P:1330:ALA:HB1	2.00	0.42
1:V:1265:TYR:O	1:V:1273:PRO:HD2	2.19	0.42
1:W:1162:THR:O	1:W:1165:VAL:HG22	2.06	0.42
2:X:1008:TRP:O	2:X:1009:CYS:O	2.37	0.42
1:P:1310:MET:HE3	1:P:1342:LEU:CD1	2.50	0.42
1:Q:1162:THR:C	1:Q:1165:VAL:CG2	2.85	0.42
1:Q:1186:TYR:CE2	1:Q:1188:TYR:CD1	3.08	0.42
1:Q:1289:TYR:CE1	1:Q:1329:ASP:OD2	2.73	0.42
1:R:1298:VAL:CG1	1:R:1299:ASP:N	2.82	0.42
1:U:1240:GLN:HG3	1:U:1240:GLN:O	2.20	0.42
1:V:1037:ARG:CD	1:V:1059:GLN:HG3	2.49	0.42
1:V:1136:PHE:HB3	1:V:1140:VAL:HG13	2.01	0.42
1:V:1193:ILE:HG23	1:V:1193:ILE:HD12	1.79	0.42
1:V:1289:TYR:O	1:V:1290:ASP:CB	2.58	0.42
1:W:1193:ILE:HG23	1:W:1193:ILE:HD12	1.76	0.42
1:P:1190:GLY:O	1:P:1191:PHE:HB2	2.20	0.42
1:Q:1047:THR:HG22	1:Q:1050:LEU:N	2.25	0.42
1:Q:1113:ASP:O	1:Q:1295:LEU:HD22	2.20	0.42
1:Q:1134:THR:O	1:Q:1144:ASN:HB3	2.19	0.42
1:R:1156:PRO:HD3	1:R:1166:THR:O	2.20	0.42
1:R:1162:THR:CA	1:R:1165:VAL:HG21	2.50	0.42
1:V:1206:GLN:HE21	1:V:1206:GLN:HB3	1.76	0.42
1:P:1161:PHE:CD2	1:Q:1028:ASP:OD2	2.73	0.42
1:P:1307:ASN:OD1	1:P:1309:ASN:HB2	2.20	0.42
1:Q:1002:GLU:OE1	1:Q:1005:ASN:HB3	2.18	0.42
1:Q:1160:GLY:O	1:Q:1161:PHE:O	2.38	0.42
1:Q:1192:GLY:N	1:Q:1226:LYS:O	2.50	0.42
1:Q:1292:GLU:HG2	1:Q:1326:PHE:CD2	2.55	0.42
1:R:1012:ASP:OD2	1:R:1012:ASP:C	2.62	0.42
1:R:1238:TYR:HH	1:R:1257:GLN:HG2	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:1344:TYR:CD2	1:V:1344:TYR:O	2.73	0.42
1:W:1097:VAL:HG21	1:W:1220:THR:OG1	2.20	0.42
1:P:1135:ASP:HB3	1:P:1140:VAL:O	2.20	0.41
1:P:1190:GLY:O	1:P:1191:PHE:HD1	2.03	0.41
1:Q:1096:VAL:O	1:Q:1097:VAL:C	2.61	0.41
1:Q:1161:PHE:HB3	1:R:1027:LYS:O	2.20	0.41
1:Q:1205:ALA:C	1:Q:1207:ASN:H	2.27	0.41
1:Q:1213:GLY:O	1:Q:1215:GLY:N	2.53	0.41
1:R:1130:THR:OG1	1:R:1148:GLN:NE2	2.51	0.41
1:R:1144:ASN:HD22	1:R:1144:ASN:C	2.27	0.41
1:R:1168:ASN:OD1	1:R:1168:ASN:N	2.49	0.41
2:X:1023:GLN:HA	2:X:1035:THR:HA	2.02	0.41
1:P:1056:TRP:HA	1:P:1075:VAL:O	2.20	0.41
1:P:1155:ASN:O	1:P:1165:VAL:HG11	2.20	0.41
1:Q:1001:ALA:N	1:Q:1013:LEU:O	2.53	0.41
1:Q:1211:TYR:HD1	1:Q:1211:TYR:N	1.89	0.41
1:Q:1232:ILE:CG2	1:Q:1234:LEU:HD22	2.50	0.41
1:Q:1237:GLN:OE1	1:Q:1239:THR:HG23	2.11	0.41
1:Q:1324:ASN:HD22	1:Q:1327:THR:N	2.17	0.41
1:R:1195:GLY:HA2	1:R:1222:THR:O	2.20	0.41
1:V:1118:ASP:OD1	1:W:1065:ALA:HB1	2.19	0.41
1:W:1137:PHE:HB2	1:W:1139:LEU:CD1	2.50	0.41
1:W:1230:ASN:O	1:W:1232:ILE:N	2.53	0.41
1:R:1302:ALA:N	1:R:1314:VAL:O	2.54	0.41
1:U:1070:ASN:O	1:U:1071:SER:C	2.63	0.41
1:U:1200:SER:O	1:U:1201:LYS:C	2.62	0.41
1:W:1001:ALA:N	1:W:1346:PHE:OXT	2.53	0.41
1:W:1053:TYR:OH	1:W:1089:ASP:OD2	2.32	0.41
1:W:1087:SER:O	1:W:1131:TYR:HA	2.21	0.41
1:W:1088:PHE:HA	1:W:1130:THR:O	2.20	0.41
1:W:1283:LYS:O	1:W:1284:ASN:C	2.63	0.41
2:X:1011:THR:HB	2:X:1012:SER:H	1.49	0.41
1:P:1152:LYS:HE3	1:P:1203:THR:HG22	2.03	0.41
1:P:1165:VAL:CG1	1:P:1166:THR:H	2.13	0.41
1:P:1190:GLY:O	1:P:1191:PHE:CB	2.66	0.41
1:Q:1061:GLN:HB3	1:Q:1063:ASN:OD1	2.19	0.41
1:Q:1195:GLY:HA2	1:Q:1222:THR:O	2.21	0.41
1:R:1058:TYR:CE1	1:R:1072:TRP:C	2.98	0.41
1:R:1096:VAL:O	1:R:1098:TYR:N	2.53	0.41
1:U:1077:PHE:CE2	1:U:1093:ASN:OD1	2.73	0.41
1:U:1131:TYR:O	1:U:1146:ALA:HA	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:1202:ARG:NH2	1:U:1215:GLY:HA3	2.34	0.41
1:V:1203:THR:OG1	1:V:1206:GLN:HG2	2.19	0.41
1:V:1276:ALA:HB3	1:V:1299:ASP:HB3	2.03	0.41
1:V:1277:TYR:O	1:V:1278:LEU:HD22	2.20	0.41
1:W:1184:ILE:CD1	1:W:1195:GLY:O	2.69	0.41
2:X:1018:LYS:O	2:X:1021:GLN:HG2	2.19	0.41
1:P:1020:LEU:CD2	1:P:1021:HIS:N	2.82	0.41
1:P:1232:ILE:HG22	1:P:1234:LEU:HD22	2.02	0.41
1:Q:1168:ASN:HB3	1:Q:1171:ASP:OD2	2.20	0.41
1:Q:1228:ASP:O	1:Q:1229:ALA:HB2	2.20	0.41
1:U:1316:TYR:CD1	1:U:1338:VAL:HG22	2.54	0.41
1:V:1135:ASP:O	1:V:1137:PHE:N	2.53	0.41
1:V:1211:TYR:HB3	1:V:1287:ARG:HH12	1.85	0.41
1:V:1245:THR:O	1:V:1246:ARG:C	2.64	0.41
1:P:1144:ASN:O	1:P:1184:ILE:HA	2.20	0.41
1:Q:1023:PHE:CD2	1:Q:1023:PHE:N	2.88	0.41
1:Q:1147:VAL:O	1:Q:1147:VAL:CG1	2.60	0.41
1:R:1164:GLY:C	1:R:1165:VAL:HG22	2.44	0.41
1:R:1167:ASN:OD1	1:R:1167:ASN:N	2.51	0.41
1:V:1026:ASN:C	1:V:1028:ASP:H	2.28	0.41
1:V:1139:LEU:C	1:V:1140:VAL:HG12	2.45	0.41
1:V:1205:ALA:O	1:V:1208:THR:HG23	2.21	0.41
1:V:1266:GLN:HB2	1:V:1272:ARG:NH1	2.35	0.41
1:W:1070:ASN:O	1:W:1071:SER:C	2.63	0.41
1:W:1094:TYR:HA	1:W:1124:ARG:H	1.86	0.41
1:W:1130:THR:HG21	1:W:1132:ARG:NH1	2.35	0.41
1:P:1026:ASN:O	1:P:1029:VAL:HG22	2.21	0.41
1:P:1186:TYR:CE2	1:P:1188:TYR:CD1	3.09	0.41
1:Q:1119:ASN:HB2	1:Q:1246:ARG:NH2	2.34	0.41
2:S:1012:SER:N	2:S:1040:THR:HA	2.32	0.41
1:U:1009:ASN:HA	1:U:1044:THR:HA	2.03	0.41
1:U:1083:GLN:CG	1:U:1084:ASP:N	2.84	0.41
1:U:1110:PHE:CE2	1:U:1315:ASP:HB3	2.56	0.41
1:U:1144:ASN:O	1:U:1185:THR:N	2.54	0.41
1:V:1071:SER:O	1:V:1071:SER:OG	2.39	0.41
1:V:1102:SER:O	1:V:1104:THR:N	2.54	0.41
1:V:1196:ALA:N	1:V:1222:THR:O	2.51	0.41
1:V:1344:TYR:O	1:V:1344:TYR:HD2	2.03	0.41
1:W:1026:ASN:HB2	1:W:1335:ASP:OD2	2.20	0.41
1:W:1070:ASN:HD22	1:W:1071:SER:N	2.18	0.41
1:P:1159:GLU:OE1	1:P:1159:GLU:C	2.60	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:1247:VAL:O	1:P:1250:LEU:HB2	2.21	0.41
1:P:1336:ASN:O	1:P:1337:ILE:HG13	2.20	0.41
1:Q:1227:TYR:CD2	1:Q:1227:TYR:C	2.95	0.41
1:Q:1310:MET:HG3	1:Q:1311:SER:H	1.84	0.41
1:R:1245:THR:O	1:R:1246:ARG:C	2.64	0.41
1:W:1036:MET:HE2	1:W:1037:ARG:C	2.45	0.41
1:W:1055:GLN:O	1:W:1076:ALA:HA	2.20	0.41
2:X:1012:SER:CB	2:X:1013:PRO:HD3	2.48	0.41
1:Q:1049:GLN:O	1:Q:1083:GLN:HB3	2.20	0.41
1:Q:1137:PHE:HB2	1:Q:1139:LEU:CD1	2.51	0.41
1:Q:1250:LEU:HD21	1:Q:1329:ASP:HB3	2.03	0.41
1:R:1319:ASN:ND2	1:R:1334:THR:O	2.54	0.41
2:S:1004:LYS:HB2	2:S:1004:LYS:NZ	2.36	0.41
1:U:1010:LYS:HE3	1:U:1010:LYS:HB2	1.81	0.41
1:U:1018:ASP:C	1:U:1018:ASP:OD2	2.64	0.41
1:U:1118:ASP:HB3	1:U:1170:ARG:HB3	2.01	0.41
1:U:1219:GLU:O	1:U:1241:THR:HA	2.20	0.41
1:V:1208:THR:O	1:V:1208:THR:OG1	2.34	0.41
1:V:1214:ASN:H	1:V:1254:ASN:HD21	1.69	0.41
1:Q:1191:PHE:H	1:Q:1227:TYR:HA	1.86	0.41
1:R:1049:GLN:HB2	1:R:1083:GLN:HG2	2.03	0.41
1:R:1056:TRP:HA	1:R:1075:VAL:O	2.21	0.41
2:S:1023:GLN:C	2:S:1026:MET:HB3	2.46	0.41
1:U:1037:ARG:NH1	1:U:1074:ARG:CZ	2.84	0.41
1:U:1133:ASN:HD21	1:U:1136:PHE:HA	1.85	0.41
1:U:1214:ASN:H	1:U:1254:ASN:HD21	1.69	0.41
1:W:1159:GLU:C	1:W:1159:GLU:OE2	2.62	0.41
1:W:1211:TYR:O	1:W:1212:ILE:HG23	2.21	0.41
1:W:1222:THR:HB	1:W:1239:THR:CB	2.39	0.41
1:P:1046:VAL:HB	1:P:1050:LEU:HD13	2.04	0.40
1:Q:1134:THR:CG2	1:Q:1135:ASP:N	2.84	0.40
1:R:1253:ALA:O	1:R:1254:ASN:C	2.64	0.40
1:W:1026:ASN:C	1:W:1028:ASP:H	2.28	0.40
1:W:1290:ASP:HB3	1:W:1291:ASP:H	1.43	0.40
1:Q:1156:PRO:O	1:Q:1161:PHE:CE2	2.74	0.40
1:R:1304:TYR:O	1:R:1311:SER:HB2	2.21	0.40
1:V:1064:SER:HB2	1:V:1068:GLU:OE2	2.21	0.40
1:W:1059:GLN:OE1	1:W:1061:GLN:OE1	2.39	0.40
1:W:1312:THR:CG2	1:W:1342:LEU:HD13	2.51	0.40
2:X:1012:SER:CB	2:X:1013:PRO:CD	2.99	0.40
1:P:1139:LEU:O	1:P:1140:VAL:CB	2.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:1161:PHE:O	1:P:1162:THR:HG23	2.21	0.40
1:Q:1097:VAL:O	1:Q:1097:VAL:HG13	2.19	0.40
1:Q:1277:TYR:C	1:Q:1278:LEU:HD22	2.46	0.40
1:U:1056:TRP:CZ2	1:U:1058:TYR:HB2	2.57	0.40
1:V:1104:THR:HG22	1:V:1235:ALA:HB3	2.03	0.40
1:W:1119:ASN:HB2	1:W:1246:ARG:NH2	2.35	0.40
1:W:1296:LYS:HG2	1:W:1320:LEU:CB	2.51	0.40
1:P:1139:LEU:C	1:P:1140:VAL:CG1	2.94	0.40
1:R:1265:TYR:O	1:R:1273:PRO:HD2	2.21	0.40
1:U:1092:ARG:HH11	1:U:1126:ASN:ND2	2.19	0.40
1:V:1003:VAL:HG22	1:V:1013:LEU:H	1.85	0.40
1:V:1162:THR:H	1:V:1165:VAL:HG21	1.87	0.40
1:V:1186:TYR:O	1:V:1192:GLY:HA2	2.21	0.40
1:W:1014:TYR:O	1:W:1039:GLY:N	2.44	0.40
1:P:1037:ARG:CD	1:P:1059:GLN:HG3	2.52	0.40
1:P:1155:ASN:O	1:P:1156:PRO:C	2.62	0.40
1:P:1162:THR:C	1:P:1165:VAL:HG21	2.30	0.40
1:R:1117:SER:HA	1:R:1123:GLN:OE1	2.21	0.40
1:R:1324:ASN:C	1:R:1328:ARG:NH2	2.79	0.40
1:V:1016:LYS:HB3	1:V:1345:GLN:HB3	2.03	0.40
1:V:1213:GLY:C	1:V:1215:GLY:N	2.79	0.40
1:W:1144:ASN:N	1:W:1144:ASN:ND2	2.62	0.40
1:W:1326:PHE:O	1:W:1327:THR:C	2.63	0.40
2:X:1017:LYS:NZ	2:X:1017:LYS:HB2	2.36	0.40
2:X:1026:MET:HG3	2:X:1034:VAL:O	2.21	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	P	333/346 (96%)	256 (77%)	45 (14%)	32 (10%)	0 2

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	Q	333/346 (96%)	257 (77%)	43 (13%)	33 (10%)	0	2
1	R	333/346 (96%)	262 (79%)	33 (10%)	38 (11%)	0	1
1	U	333/346 (96%)	259 (78%)	42 (13%)	32 (10%)	0	2
1	V	333/346 (96%)	259 (78%)	41 (12%)	33 (10%)	0	2
1	W	333/346 (96%)	261 (78%)	42 (13%)	30 (9%)	0	3
2	S	43/45 (96%)	8 (19%)	11 (26%)	24 (56%)	0	0
2	X	43/45 (96%)	13 (30%)	10 (23%)	20 (46%)	0	0
All	All	2084/2166 (96%)	1575 (76%)	267 (13%)	242 (12%)	0	1

All (242) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	P	1002	GLU
1	P	1003	VAL
1	P	1007	ASP
1	P	1071	SER
1	P	1083	GLN
1	P	1124	ARG
1	P	1140	VAL
1	P	1157	SER
1	P	1163	SER
1	P	1189	GLU
1	P	1211	TYR
1	P	1284	ASN
1	Q	1003	VAL
1	Q	1007	ASP
1	Q	1070	ASN
1	Q	1071	SER
1	Q	1083	GLN
1	Q	1085	VAL
1	Q	1124	ARG
1	Q	1140	VAL
1	Q	1157	SER
1	Q	1189	GLU
1	Q	1209	ALA
1	R	1003	VAL
1	R	1070	ASN
1	R	1071	SER
1	R	1083	GLN
1	R	1085	VAL

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Mol	Chain	Res	Type
1	R	1110	PHE
1	R	1124	ARG
1	R	1136	PHE
1	R	1140	VAL
1	R	1157	SER
1	R	1161	PHE
1	R	1163	SER
1	R	1188	TYR
1	R	1189	GLU
1	R	1309	ASN
2	S	1002	SER
2	S	1005	SER
2	S	1009	CYS
2	S	1010	THR
2	S	1012	SER
2	S	1013	PRO
2	S	1014	ALA
2	S	1019	CYS
2	S	1021	GLN
2	S	1028	LYS
2	S	1029	VAL
2	S	1036	CYS
2	S	1038	LYS
2	S	1039	LYS
2	S	1040	THR
2	S	1043	PHE
2	S	1044	GLU
1	U	1003	VAL
1	U	1007	ASP
1	U	1071	SER
1	U	1083	GLN
1	U	1124	ARG
1	U	1136	PHE
1	U	1140	VAL
1	U	1163	SER
1	U	1189	GLU
1	U	1209	ALA
1	U	1290	ASP
1	V	1003	VAL
1	V	1007	ASP
1	V	1066	GLU
1	V	1071	SER

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Mol	Chain	Res	Type
1	V	1083	GLN
1	V	1085	VAL
1	V	1110	PHE
1	V	1124	ARG
1	V	1140	VAL
1	V	1157	SER
1	V	1163	SER
1	V	1189	GLU
1	W	1002	GLU
1	W	1003	VAL
1	W	1007	ASP
1	W	1069	ASN
1	W	1071	SER
1	W	1083	GLN
1	W	1085	VAL
1	W	1124	ARG
1	W	1136	PHE
1	W	1140	VAL
1	W	1157	SER
1	W	1189	GLU
1	W	1209	ALA
1	W	1211	TYR
2	X	1004	LYS
2	X	1009	CYS
2	X	1012	SER
2	X	1013	PRO
2	X	1014	ALA
2	X	1028	LYS
2	X	1032	PRO
2	X	1033	SER
1	P	1066	GLU
1	P	1069	ASN
1	P	1085	VAL
1	P	1103	TRP
1	P	1136	PHE
1	P	1161	PHE
1	P	1188	TYR
1	P	1209	ALA
1	P	1231	ASN
1	Q	1047	THR
1	Q	1066	GLU
1	Q	1110	PHE

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Mol	Chain	Res	Type
1	Q	1136	PHE
1	Q	1159	GLU
1	Q	1163	SER
1	Q	1169	GLY
1	Q	1188	TYR
1	Q	1190	GLY
1	Q	1284	ASN
1	Q	1290	ASP
1	R	1002	GLU
1	R	1005	ASN
1	R	1007	ASP
1	R	1066	GLU
1	R	1169	GLY
1	R	1190	GLY
1	R	1209	ALA
1	R	1211	TYR
1	R	1290	ASP
1	R	1328	ARG
2	S	1004	LYS
2	S	1015	GLU
2	S	1018	LYS
2	S	1020	ALA
1	U	1047	THR
1	U	1066	GLU
1	U	1085	VAL
1	U	1097	VAL
1	U	1157	SER
1	U	1188	TYR
1	V	1069	ASN
1	V	1136	PHE
1	V	1161	PHE
1	V	1169	GLY
1	V	1188	TYR
1	V	1211	TYR
1	V	1328	ARG
1	W	1097	VAL
1	W	1106	VAL
1	W	1110	PHE
1	W	1159	GLU
1	W	1161	PHE
1	W	1188	TYR
1	W	1231	ASN

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Mol	Chain	Res	Type
1	W	1328	ARG
2	X	1006	VAL
2	X	1018	LYS
2	X	1031	GLY
2	X	1037	VAL
1	P	1110	PHE
1	P	1290	ASP
1	P	1309	ASN
1	Q	1211	TYR
1	Q	1231	ASN
1	Q	1309	ASN
1	R	1047	THR
1	R	1103	TRP
1	R	1191	PHE
1	R	1229	ALA
1	R	1289	TYR
2	S	1023	GLN
2	S	1032	PRO
2	S	1037	VAL
1	U	1002	GLU
1	U	1004	TYR
1	U	1070	ASN
1	U	1161	PHE
1	U	1211	TYR
1	U	1284	ASN
1	U	1328	ARG
1	V	1191	PHE
1	V	1229	ALA
1	V	1290	ASP
1	W	1169	GLY
1	W	1284	ASN
1	W	1309	ASN
1	W	1327	THR
2	X	1015	GLU
2	X	1020	ALA
2	X	1044	GLU
1	P	1004	TYR
1	P	1047	THR
1	P	1070	ASN
1	P	1169	GLY
1	Q	1069	ASN
1	Q	1328	ARG

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Mol	Chain	Res	Type
1	R	1284	ASN
1	U	1110	PHE
1	U	1169	GLY
1	U	1231	ASN
1	U	1309	ASN
1	V	1004	TYR
1	V	1047	THR
1	V	1159	GLU
1	V	1165	VAL
1	V	1190	GLY
1	V	1284	ASN
1	W	1027	LYS
1	W	1163	SER
1	W	1290	ASP
2	X	1022	TRP
2	X	1039	LYS
1	P	1034	THR
1	P	1097	VAL
1	Q	1161	PHE
1	Q	1191	PHE
1	Q	1230	ASN
1	R	1004	TYR
1	R	1034	THR
1	R	1069	ASN
1	R	1167	ASN
1	R	1216	ASP
1	U	1106	VAL
1	U	1159	GLU
1	U	1191	PHE
1	V	1070	ASN
1	V	1289	TYR
1	V	1325	GLN
1	W	1047	THR
2	X	1036	CYS
2	X	1038	LYS
1	P	1191	PHE
1	P	1268	ASP
1	Q	1027	LYS
1	Q	1106	VAL
1	R	1231	ASN
1	U	1069	ASN
1	V	1212	ILE

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Mol	Chain	Res	Type
1	V	1309	ASN
2	X	1035	THR
1	Q	1097	VAL
1	R	1106	VAL

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	P	266/275 (97%)	201 (76%)	65 (24%)	1	4
1	Q	266/275 (97%)	200 (75%)	66 (25%)	1	3
1	R	266/275 (97%)	199 (75%)	67 (25%)	0	3
1	U	266/275 (97%)	194 (73%)	72 (27%)	0	2
1	V	266/275 (97%)	194 (73%)	72 (27%)	0	2
1	W	266/275 (97%)	200 (75%)	66 (25%)	1	3
2	S	41/41 (100%)	25 (61%)	16 (39%)	0	1
2	X	41/41 (100%)	26 (63%)	15 (37%)	0	1
All	All	1678/1732 (97%)	1239 (74%)	439 (26%)	0	3

All (439) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	P	1002	GLU
1	P	1003	VAL
1	P	1010	LYS
1	P	1013	LEU
1	P	1016	LYS
1	P	1020	LEU
1	P	1027	LYS
1	P	1028	ASP
1	P	1037	ARG
1	P	1047	THR
1	P	1049	GLN

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Mol	Chain	Res	Type
1	P	1050	LEU
1	P	1060	ILE
1	P	1069	ASN
1	P	1070	ASN
1	P	1071	SER
1	P	1075	VAL
1	P	1080	LEU
1	P	1081	LYS
1	P	1085	VAL
1	P	1096	VAL
1	P	1097	VAL
1	P	1103	TRP
1	P	1124	ARG
1	P	1130	THR
1	P	1134	THR
1	P	1139	LEU
1	P	1140	VAL
1	P	1144	ASN
1	P	1147	VAL
1	P	1159	GLU
1	P	1165	VAL
1	P	1166	THR
1	P	1168	ASN
1	P	1171	ASP
1	P	1184	ILE
1	P	1187	ASP
1	P	1188	TYR
1	P	1193	ILE
1	P	1197	ILE
1	P	1200	SER
1	P	1201	LYS
1	P	1206	GLN
1	P	1211	TYR
1	P	1212	ILE
1	P	1225	LEU
1	P	1234	LEU
1	P	1239	THR
1	P	1262	VAL
1	P	1268	ASP
1	P	1275	LEU
1	P	1278	LEU
1	P	1281	LYS

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Mol	Chain	Res	Type
1	P	1287	ARG
1	P	1300	VAL
1	P	1303	THR
1	P	1308	LYS
1	P	1312	THR
1	P	1314	VAL
1	P	1317	LYS
1	P	1324	ASN
1	P	1332	ILE
1	P	1340	LEU
1	P	1342	LEU
1	P	1345	GLN
1	Q	1002	GLU
1	Q	1010	LYS
1	Q	1013	LEU
1	Q	1016	LYS
1	Q	1020	LEU
1	Q	1027	LYS
1	Q	1046	VAL
1	Q	1047	THR
1	Q	1049	GLN
1	Q	1050	LEU
1	Q	1051	THR
1	Q	1060	ILE
1	Q	1069	ASN
1	Q	1070	ASN
1	Q	1071	SER
1	Q	1075	VAL
1	Q	1080	LEU
1	Q	1085	VAL
1	Q	1096	VAL
1	Q	1097	VAL
1	Q	1103	TRP
1	Q	1106	VAL
1	Q	1107	LEU
1	Q	1124	ARG
1	Q	1134	THR
1	Q	1135	ASP
1	Q	1139	LEU
1	Q	1140	VAL
1	Q	1144	ASN
1	Q	1147	VAL

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Mol	Chain	Res	Type
1	Q	1156	PRO
1	Q	1159	GLU
1	Q	1162	THR
1	Q	1163	SER
1	Q	1165	VAL
1	Q	1166	THR
1	Q	1168	ASN
1	Q	1171	ASP
1	Q	1184	ILE
1	Q	1187	ASP
1	Q	1193	ILE
1	Q	1197	ILE
1	Q	1201	LYS
1	Q	1206	GLN
1	Q	1211	TYR
1	Q	1212	ILE
1	Q	1225	LEU
1	Q	1231	ASN
1	Q	1234	LEU
1	Q	1239	THR
1	Q	1262	VAL
1	Q	1268	ASP
1	Q	1275	LEU
1	Q	1278	LEU
1	Q	1281	LYS
1	Q	1287	ARG
1	Q	1300	VAL
1	Q	1303	THR
1	Q	1308	LYS
1	Q	1312	THR
1	Q	1314	VAL
1	Q	1324	ASN
1	Q	1340	LEU
1	Q	1342	LEU
1	Q	1344	TYR
1	Q	1345	GLN
1	R	1002	GLU
1	R	1003	VAL
1	R	1010	LYS
1	R	1013	LEU
1	R	1016	LYS
1	R	1020	LEU

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Mol	Chain	Res	Type
1	R	1027	LYS
1	R	1028	ASP
1	R	1047	THR
1	R	1049	GLN
1	R	1050	LEU
1	R	1051	THR
1	R	1060	ILE
1	R	1069	ASN
1	R	1070	ASN
1	R	1074	ARG
1	R	1075	VAL
1	R	1080	LEU
1	R	1085	VAL
1	R	1089	ASP
1	R	1096	VAL
1	R	1097	VAL
1	R	1103	TRP
1	R	1106	VAL
1	R	1122	GLN
1	R	1124	ARG
1	R	1134	THR
1	R	1135	ASP
1	R	1139	LEU
1	R	1140	VAL
1	R	1144	ASN
1	R	1159	GLU
1	R	1163	SER
1	R	1165	VAL
1	R	1166	THR
1	R	1168	ASN
1	R	1171	ASP
1	R	1184	ILE
1	R	1187	ASP
1	R	1188	TYR
1	R	1193	ILE
1	R	1200	SER
1	R	1201	LYS
1	R	1206	GLN
1	R	1208	THR
1	R	1211	TYR
1	R	1217	ARG
1	R	1225	LEU

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Mol	Chain	Res	Type
1	R	1234	LEU
1	R	1239	THR
1	R	1262	VAL
1	R	1268	ASP
1	R	1275	LEU
1	R	1278	LEU
1	R	1281	LYS
1	R	1287	ARG
1	R	1292	GLU
1	R	1300	VAL
1	R	1303	THR
1	R	1308	LYS
1	R	1312	THR
1	R	1314	VAL
1	R	1317	LYS
1	R	1323	ASP
1	R	1324	ASN
1	R	1340	LEU
1	R	1345	GLN
2	S	1003	LYS
2	S	1004	LYS
2	S	1006	VAL
2	S	1007	ARG
2	S	1009	CYS
2	S	1013	PRO
2	S	1015	GLU
2	S	1017	LYS
2	S	1018	LYS
2	S	1019	CYS
2	S	1021	GLN
2	S	1027	LYS
2	S	1028	LYS
2	S	1030	ARG
2	S	1042	ARG
2	S	1043	PHE
1	U	1002	GLU
1	U	1006	LYS
1	U	1010	LYS
1	U	1013	LEU
1	U	1016	LYS
1	U	1020	LEU
1	U	1027	LYS

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Mol	Chain	Res	Type
1	U	1028	ASP
1	U	1037	ARG
1	U	1045	GLN
1	U	1047	THR
1	U	1049	GLN
1	U	1050	LEU
1	U	1051	THR
1	U	1060	ILE
1	U	1069	ASN
1	U	1070	ASN
1	U	1075	VAL
1	U	1080	LEU
1	U	1081	LYS
1	U	1085	VAL
1	U	1096	VAL
1	U	1097	VAL
1	U	1103	TRP
1	U	1122	GLN
1	U	1123	GLN
1	U	1124	ARG
1	U	1128	PHE
1	U	1132	ARG
1	U	1134	THR
1	U	1135	ASP
1	U	1139	LEU
1	U	1140	VAL
1	U	1144	ASN
1	U	1153	ASN
1	U	1159	GLU
1	U	1163	SER
1	U	1165	VAL
1	U	1166	THR
1	U	1168	ASN
1	U	1171	ASP
1	U	1184	ILE
1	U	1187	ASP
1	U	1193	ILE
1	U	1197	ILE
1	U	1200	SER
1	U	1206	GLN
1	U	1211	TYR
1	U	1212	ILE

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Mol	Chain	Res	Type
1	U	1217	ARG
1	U	1225	LEU
1	U	1231	ASN
1	U	1234	LEU
1	U	1239	THR
1	U	1252	TRP
1	U	1262	VAL
1	U	1268	ASP
1	U	1275	LEU
1	U	1278	LEU
1	U	1281	LYS
1	U	1287	ARG
1	U	1290	ASP
1	U	1292	GLU
1	U	1295	LEU
1	U	1300	VAL
1	U	1303	THR
1	U	1308	LYS
1	U	1312	THR
1	U	1324	ASN
1	U	1332	ILE
1	U	1340	LEU
1	U	1345	GLN
1	V	1002	GLU
1	V	1003	VAL
1	V	1005	ASN
1	V	1010	LYS
1	V	1013	LEU
1	V	1016	LYS
1	V	1020	LEU
1	V	1027	LYS
1	V	1028	ASP
1	V	1036	MET
1	V	1037	ARG
1	V	1038	LEU
1	V	1045	GLN
1	V	1047	THR
1	V	1049	GLN
1	V	1050	LEU
1	V	1060	ILE
1	V	1069	ASN
1	V	1070	ASN

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Mol	Chain	Res	Type
1	V	1074	ARG
1	V	1075	VAL
1	V	1080	LEU
1	V	1081	LYS
1	V	1085	VAL
1	V	1096	VAL
1	V	1097	VAL
1	V	1103	TRP
1	V	1106	VAL
1	V	1122	GLN
1	V	1124	ARG
1	V	1134	THR
1	V	1135	ASP
1	V	1139	LEU
1	V	1140	VAL
1	V	1144	ASN
1	V	1148	GLN
1	V	1150	GLN
1	V	1153	ASN
1	V	1159	GLU
1	V	1163	SER
1	V	1165	VAL
1	V	1166	THR
1	V	1168	ASN
1	V	1171	ASP
1	V	1184	ILE
1	V	1187	ASP
1	V	1188	TYR
1	V	1197	ILE
1	V	1202	ARG
1	V	1206	GLN
1	V	1208	THR
1	V	1211	TYR
1	V	1212	ILE
1	V	1225	LEU
1	V	1226	LYS
1	V	1234	LEU
1	V	1239	THR
1	V	1262	VAL
1	V	1268	ASP
1	V	1275	LEU
1	V	1278	LEU

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Mol	Chain	Res	Type
1	V	1281	LYS
1	V	1287	ARG
1	V	1300	VAL
1	V	1303	THR
1	V	1308	LYS
1	V	1312	THR
1	V	1314	VAL
1	V	1317	LYS
1	V	1324	ASN
1	V	1340	LEU
1	V	1345	GLN
1	W	1002	GLU
1	W	1010	LYS
1	W	1013	LEU
1	W	1016	LYS
1	W	1020	LEU
1	W	1027	LYS
1	W	1028	ASP
1	W	1047	THR
1	W	1049	GLN
1	W	1050	LEU
1	W	1051	THR
1	W	1060	ILE
1	W	1069	ASN
1	W	1070	ASN
1	W	1075	VAL
1	W	1080	LEU
1	W	1096	VAL
1	W	1103	TRP
1	W	1106	VAL
1	W	1122	GLN
1	W	1124	ARG
1	W	1134	THR
1	W	1135	ASP
1	W	1139	LEU
1	W	1140	VAL
1	W	1144	ASN
1	W	1147	VAL
1	W	1148	GLN
1	W	1153	ASN
1	W	1159	GLU
1	W	1163	SER

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Mol	Chain	Res	Type
1	W	1165	VAL
1	W	1166	THR
1	W	1168	ASN
1	W	1171	ASP
1	W	1184	ILE
1	W	1187	ASP
1	W	1188	TYR
1	W	1193	ILE
1	W	1197	ILE
1	W	1200	SER
1	W	1201	LYS
1	W	1206	GLN
1	W	1211	TYR
1	W	1217	ARG
1	W	1225	LEU
1	W	1231	ASN
1	W	1234	LEU
1	W	1239	THR
1	W	1262	VAL
1	W	1268	ASP
1	W	1275	LEU
1	W	1278	LEU
1	W	1281	LYS
1	W	1287	ARG
1	W	1300	VAL
1	W	1303	THR
1	W	1308	LYS
1	W	1312	THR
1	W	1317	LYS
1	W	1323	ASP
1	W	1324	ASN
1	W	1332	ILE
1	W	1340	LEU
1	W	1342	LEU
1	W	1345	GLN
2	X	1002	SER
2	X	1003	LYS
2	X	1004	LYS
2	X	1006	VAL
2	X	1007	ARG
2	X	1015	GLU
2	X	1017	LYS

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Mol	Chain	Res	Type
2	X	1018	LYS
2	X	1021	GLN
2	X	1025	ARG
2	X	1027	LYS
2	X	1030	ARG
2	X	1038	LYS
2	X	1042	ARG
2	X	1044	GLU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (78) such sidechains are listed below:

Mol	Chain	Res	Type
1	P	1055	GLN
1	P	1059	GLN
1	P	1119	ASN
1	P	1122	GLN
1	P	1133	ASN
1	P	1144	ASN
1	P	1150	GLN
1	P	1231	ASN
1	P	1243	ASN
1	P	1254	ASN
1	P	1257	GLN
1	P	1279	GLN
1	P	1309	ASN
1	P	1324	ASN
1	Q	1055	GLN
1	Q	1067	ASN
1	Q	1070	ASN
1	Q	1122	GLN
1	Q	1133	ASN
1	Q	1144	ASN
1	Q	1231	ASN
1	Q	1243	ASN
1	Q	1254	ASN
1	Q	1257	GLN
1	Q	1309	ASN
1	Q	1324	ASN
1	R	1055	GLN
1	R	1059	GLN
1	R	1070	ASN
1	R	1119	ASN

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Mol	Chain	Res	Type
1	R	1122	GLN
1	R	1133	ASN
1	R	1144	ASN
1	R	1231	ASN
1	R	1254	ASN
1	R	1279	GLN
1	R	1309	ASN
1	R	1324	ASN
2	S	1021	GLN
2	S	1023	GLN
1	U	1033	GLN
1	U	1055	GLN
1	U	1059	GLN
1	U	1070	ASN
1	U	1119	ASN
1	U	1122	GLN
1	U	1133	ASN
1	U	1144	ASN
1	U	1230	ASN
1	U	1231	ASN
1	U	1254	ASN
1	U	1309	ASN
1	U	1324	ASN
1	V	1055	GLN
1	V	1070	ASN
1	V	1119	ASN
1	V	1122	GLN
1	V	1133	ASN
1	V	1144	ASN
1	V	1231	ASN
1	V	1254	ASN
1	V	1309	ASN
1	V	1324	ASN
1	W	1055	GLN
1	W	1059	GLN
1	W	1070	ASN
1	W	1119	ASN
1	W	1133	ASN
1	W	1144	ASN
1	W	1150	GLN
1	W	1230	ASN
1	W	1231	ASN

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Mol	Chain	Res	Type
1	W	1243	ASN
1	W	1254	ASN
1	W	1309	ASN
1	W	1324	ASN
2	X	1021	GLN
2	X	1023	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ > 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q < 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ > 2	OWAB(Å ²)	Q < 0.9
1	P	337/346 (97%)	-0.44	5 (1%) 72 49	17, 29, 47, 60	0
1	Q	337/346 (97%)	-0.44	6 (1%) 67 44	17, 29, 47, 59	0
1	R	337/346 (97%)	-0.40	4 (1%) 76 55	17, 29, 47, 59	0
1	U	337/346 (97%)	-0.44	4 (1%) 76 55	17, 29, 47, 59	0
1	V	337/346 (97%)	-0.42	7 (2%) 63 40	17, 29, 47, 59	0
1	W	337/346 (97%)	-0.46	6 (1%) 67 44	17, 29, 47, 59	0
2	S	45/45 (100%)	2.76	32 (71%) 0 0	71, 80, 80, 80	0
2	X	45/45 (100%)	2.91	34 (75%) 0 0	77, 80, 80, 80	0
All	All	2112/2166 (97%)	-0.29	98 (4%) 37 20	17, 30, 56, 80	0

All (98) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	X	1005	SER	6.6
2	X	1019	CYS	6.2
2	S	1014	ALA	6.2
2	X	1006	VAL	6.1
2	S	1043	PHE	6.1
2	S	1001	ALA	5.4
1	V	1214	ASN	5.0
2	X	1029	VAL	4.7
2	X	1037	VAL	4.6
2	S	1013	PRO	4.5
2	X	1010	THR	4.2
2	S	1006	VAL	4.2
2	X	1018	LYS	4.1
2	X	1011	THR	4.1
2	S	1010	THR	4.0
2	S	1020	ALA	3.9

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Mol	Chain	Res	Type	RSRZ
2	X	1020	ALA	3.9
2	S	1045	CYS	3.9
1	V	1215	GLY	3.9
1	V	1211	TYR	3.9
1	Q	1214	ASN	3.7
1	V	1188	TYR	3.7
2	S	1028	LYS	3.6
1	R	1157	SER	3.6
2	S	1029	VAL	3.6
1	P	1214	ASN	3.6
2	X	1040	THR	3.6
2	X	1034	VAL	3.6
2	X	1013	PRO	3.5
1	V	1157	SER	3.5
2	X	1022	TRP	3.5
2	X	1025	ARG	3.4
1	W	1214	ASN	3.4
2	S	1009	CYS	3.3
2	X	1028	LYS	3.2
2	X	1014	ALA	3.2
2	X	1036	CYS	3.2
2	S	1034	VAL	3.2
2	S	1004	LYS	3.2
2	S	1011	THR	3.2
2	S	1037	VAL	3.2
2	S	1035	THR	3.2
2	X	1026	MET	3.2
2	S	1032	PRO	3.1
2	X	1045	CYS	3.1
1	R	1211	TYR	3.1
2	S	1008	TRP	3.1
2	S	1022	TRP	3.1
2	S	1026	MET	3.1
2	X	1023	GLN	3.1
1	U	1211	TYR	3.0
1	U	1214	ASN	3.0
1	Q	1215	GLY	2.9
1	U	1188	TYR	2.9
1	W	1157	SER	2.9
1	P	1188	TYR	2.9
1	W	1211	TYR	2.9
1	P	1161	PHE	2.9

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Mol	Chain	Res	Type	RSRZ
2	X	1032	PRO	2.8
1	R	1188	TYR	2.8
2	S	1042	ARG	2.8
1	Q	1211	TYR	2.8
1	W	1188	TYR	2.8
1	V	1161	PHE	2.7
2	X	1031	GLY	2.7
2	S	1021	GLN	2.7
1	Q	1188	TYR	2.7
1	W	1069	ASN	2.7
2	X	1042	ARG	2.7
2	S	1005	SER	2.7
2	S	1007	ARG	2.6
2	S	1036	CYS	2.6
2	X	1008	TRP	2.6
1	V	1069	ASN	2.5
2	S	1002	SER	2.5
2	S	1024	ARG	2.5
2	X	1003	LYS	2.5
2	X	1039	LYS	2.5
2	X	1038	LYS	2.5
2	X	1021	GLN	2.4
2	X	1043	PHE	2.4
2	X	1035	THR	2.4
1	U	1161	PHE	2.3
2	X	1001	ALA	2.3
1	W	1215	GLY	2.3
1	Q	1161	PHE	2.3
1	Q	1157	SER	2.2
2	S	1019	CYS	2.2
1	R	1214	ASN	2.2
2	S	1033	SER	2.1
2	S	1031	GLY	2.1
2	X	1027	LYS	2.1
1	P	1215	GLY	2.1
2	S	1039	LYS	2.1
1	P	1213	GLY	2.1
2	X	1017	LYS	2.0
2	S	1038	LYS	2.0
2	X	1012	SER	2.0

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

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

6.3 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

6.4 Ligands [i](#)

There are no ligands in this entry.

6.5 Other polymers [i](#)

There are no such residues in this entry.