



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 6, 2026 – 08:35 AM UTC

PDB ID : 1E2T / pdb_00001e2t
Title : Arylamine N-acetyltransferase (NAT) from Salmonella typhimurium
Authors : Sinclair, J.C.; Sandy, J.; Delgoda, R.; Sim, E.; Noble, M.E.M.
Deposited on : 2000-05-24
Resolution : 2.80 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

MolProbity	:	4-5-2 with Phenix2.0
Xtriage (Phenix)	:	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

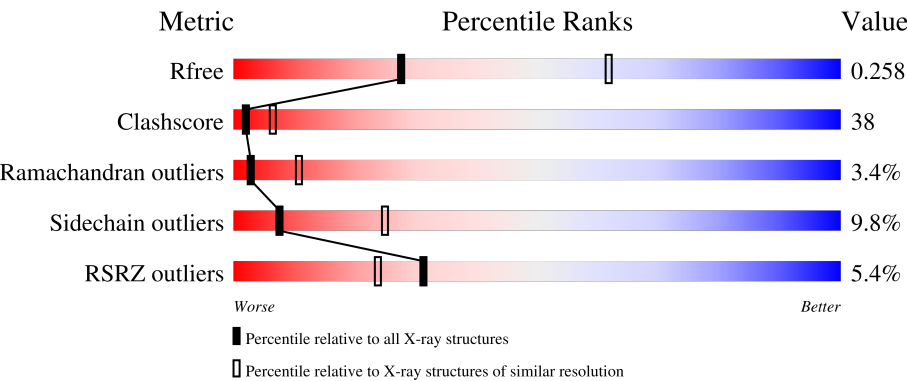
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.80 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R _{free}	180053	3866 (2.80-2.80)
Clashscore	190562	4276 (2.80-2.80)
Ramachandran outliers	187476	4196 (2.80-2.80)
Sidechain outliers	187428	4198 (2.80-2.80)
RSRZ outliers	180081	3869 (2.80-2.80)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. 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	A	284	4% 39% 46% 10% • •
1	B	284	5% 41% 41% 12% • •
1	C	284	7% 39% 45% 11% • •
1	D	284	9% 40% 46% 9% • •
1	E	284	% 42% 40% 13% • •

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Mol	Chain	Length	Quality of chain
1	F	284	6% 43% 42% 10%
1	G	284	3% 42% 42% 11%
1	H	284	6% 39% 46% 10%

2 Entry composition [i](#)

There are 2 unique types of molecules in this entry. The entry contains 18260 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 N-HYDROXYARYLAMINE O-ACETYLTRANSFERASE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	274	Total	C	N	O	S	0	0	0
			2224	1421	403	389	11			
1	B	274	Total	C	N	O	S	0	0	0
			2224	1421	403	389	11			
1	C	274	Total	C	N	O	S	0	0	0
			2224	1421	403	389	11			
1	D	274	Total	C	N	O	S	0	0	0
			2224	1421	403	389	11			
1	E	274	Total	C	N	O	S	0	0	0
			2224	1421	403	389	11			
1	F	274	Total	C	N	O	S	0	0	0
			2224	1421	403	389	11			
1	G	274	Total	C	N	O	S	0	0	0
			2224	1421	403	389	11			
1	H	274	Total	C	N	O	S	0	0	0
			2224	1421	403	389	11			

- Molecule 2 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	A	56	Total	O	0	0
			56	56		
2	B	51	Total	O	0	0
			51	51		
2	C	79	Total	O	0	0
			79	79		
2	D	36	Total	O	0	0
			36	36		
2	E	92	Total	O	0	0
			92	92		
2	F	48	Total	O	0	0
			48	48		

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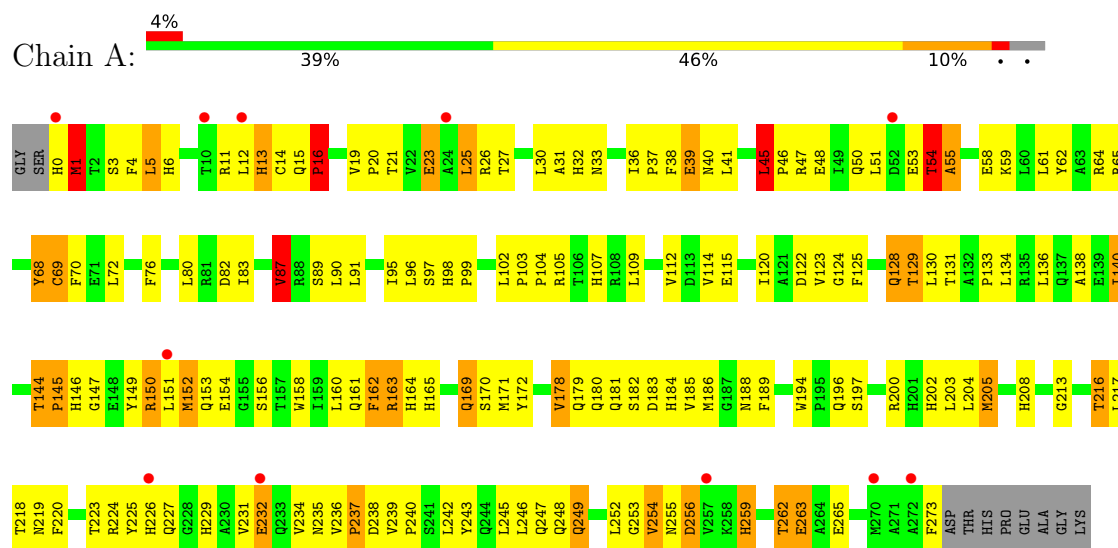
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	G	56	Total	O	0	0
			56	56		
2	H	50	Total	O	0	0
			50	50		

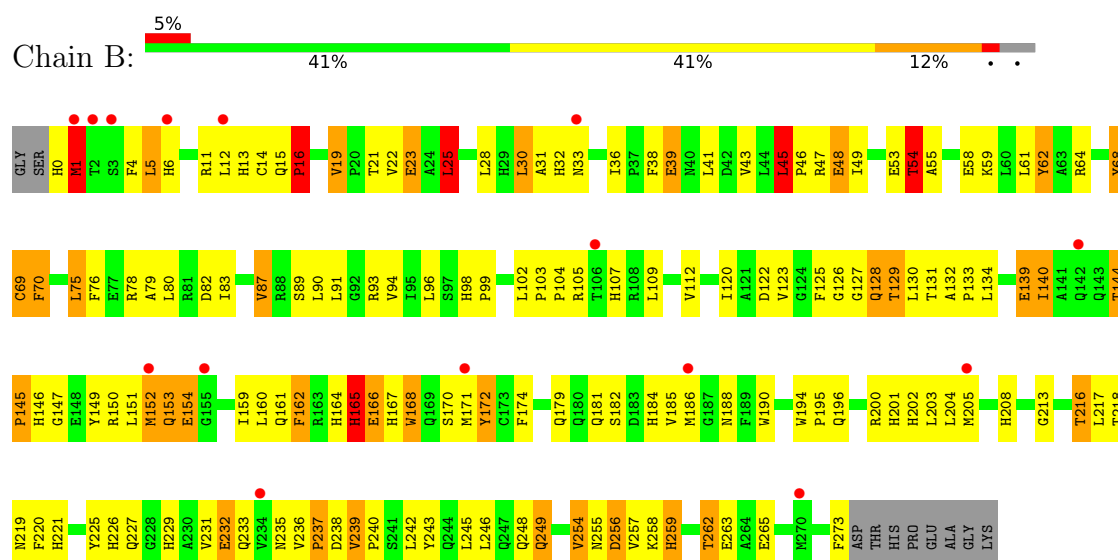
3 Residue-property plots

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: N-HYDROXYARYLAMINE O-ACETYLTRANSFERASE

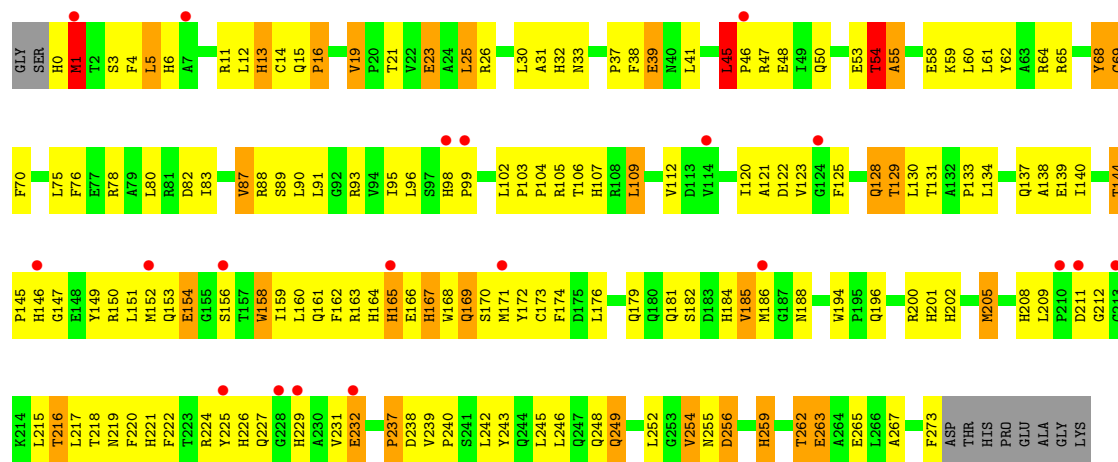


• Molecule 1: N-HYDROXYARYLAMINE O-ACETYLTRANSFERASE

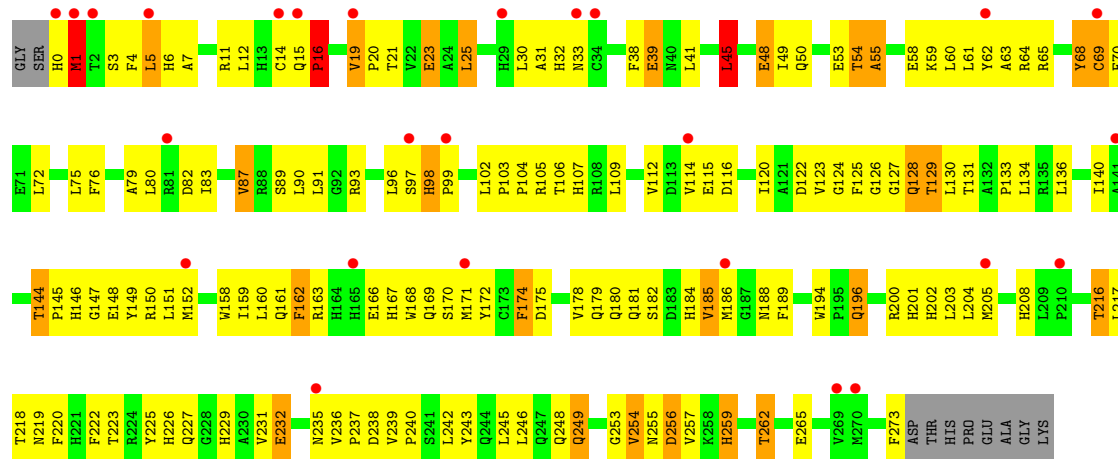


• Molecule 1: N-HYDROXYARYLAMINE O-ACETYLTRANSFERASE

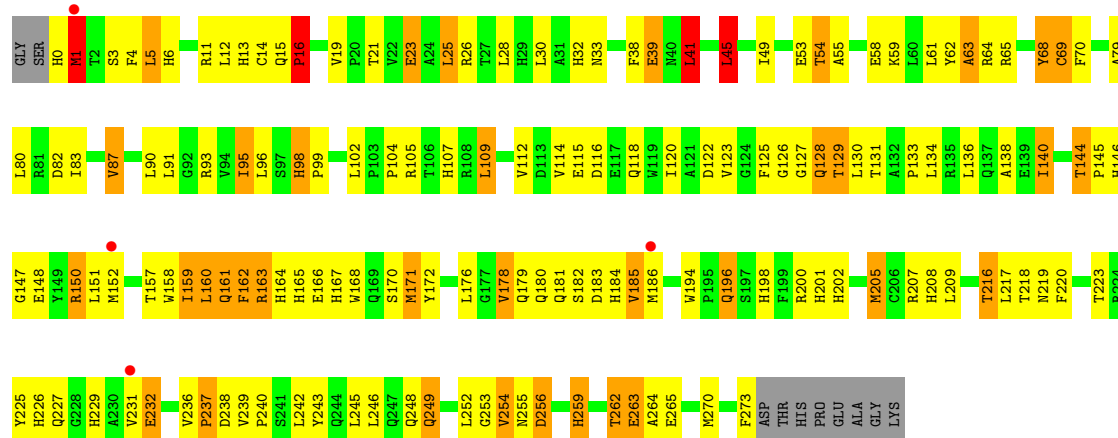




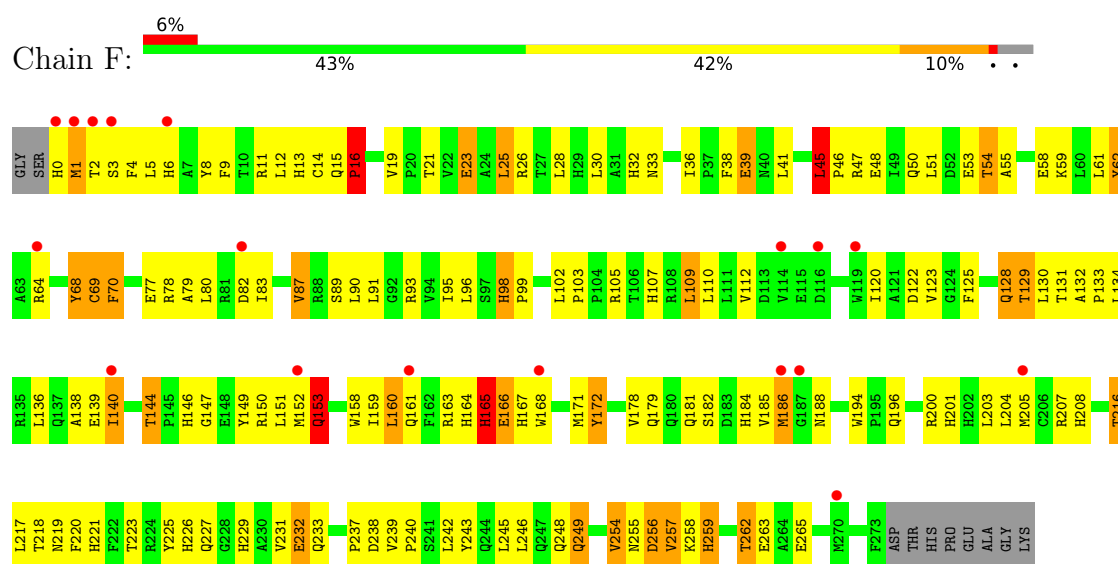
• Molecule 1: N-HYDROXYARYLAMINE O-ACETYLTRANSFERASE



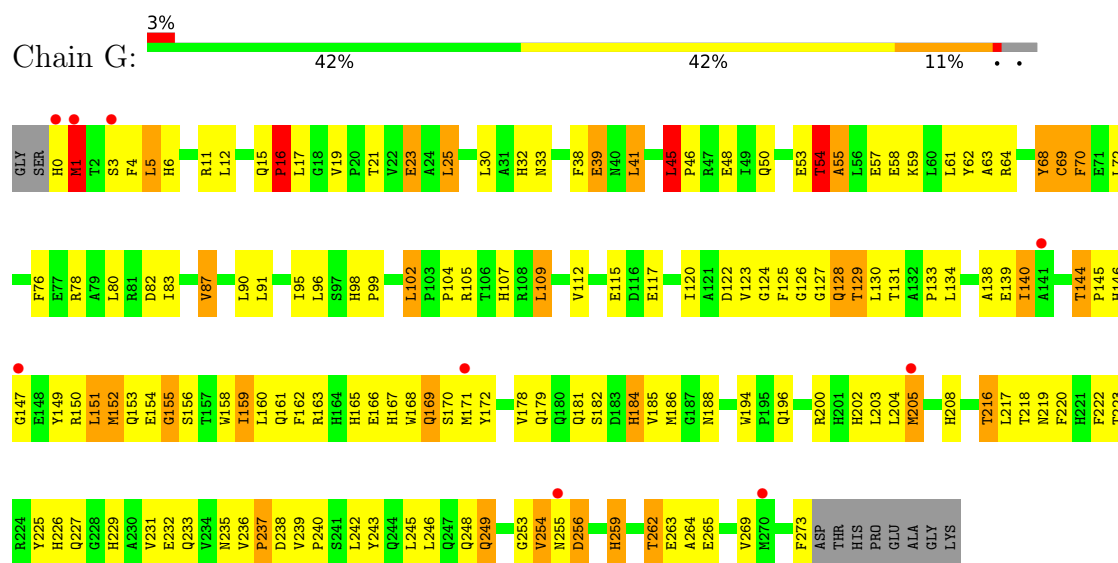
• Molecule 1: N-HYDROXYARYLAMINE O-ACETYLTRANSFERASE



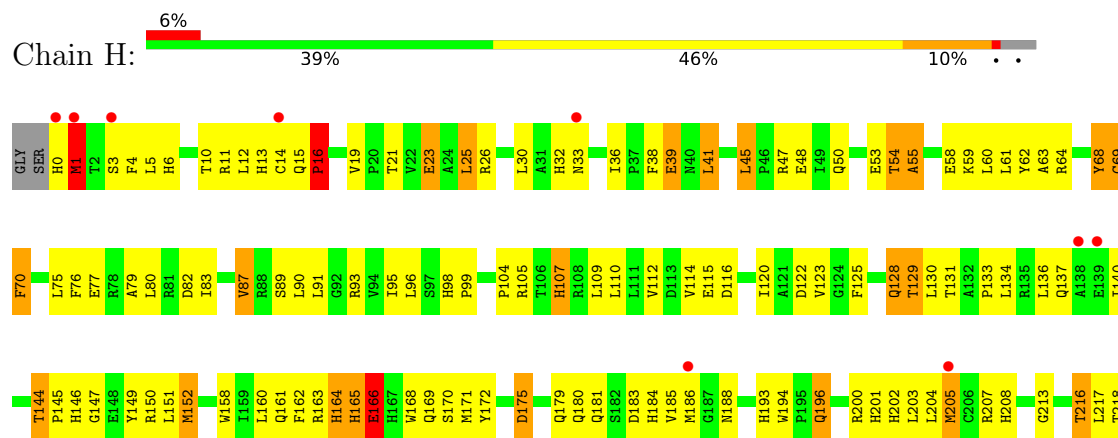
• Molecule 1: N-HYDROXYARYLAMINE O-ACETYLTRANSFERASE

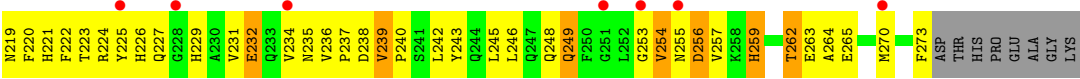


• Molecule 1: N-HYDROXYARYLAMINE O-ACETYLTRANSFERASE



• Molecule 1: N-HYDROXYARYLAMINE O-ACETYLTRANSFERASE





4 Data and refinement statistics

Property	Value	Source
Space group	P 2 ₁ 2 ₁ 2	Depositor
Cell constants a, b, c, α , β , γ	134.53Å 222.42Å 104.66Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	30.00 – 2.80 30.00 – 2.80	Depositor EDS
% Data completeness (in resolution range)	94.7 (30.00-2.80) 84.7 (30.00-2.80)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.06	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.93 (at 2.65Å)	Xtriage
Refinement program	CNS 0.5	Depositor
R, R_{free}	0.264 , 0.302 0.267 , 0.258	Depositor DCC
R_{free} test set	6188 reflections (5.10%)	wwPDB-VP
Wilson B-factor (Å ²)	59.0	Xtriage
Anisotropy	0.642	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.33 , 67.8	EDS
L-test for twinning ²	$\langle L \rangle = 0.50$, $\langle L^2 \rangle = 0.34$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.91	EDS
Total number of atoms	18260	wwPDB-VP
Average B, all atoms (Å ²)	78.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 11.11% 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	A	0.98	4/2290 (0.2%)	1.23	14/3113 (0.4%)
1	B	1.04	4/2290 (0.2%)	1.27	20/3113 (0.6%)
1	C	0.97	1/2290 (0.0%)	1.27	15/3113 (0.5%)
1	D	0.89	1/2290 (0.0%)	1.20	12/3113 (0.4%)
1	E	1.15	7/2290 (0.3%)	1.29	18/3113 (0.6%)
1	F	1.05	2/2290 (0.1%)	1.26	14/3113 (0.4%)
1	G	0.96	2/2290 (0.1%)	1.23	12/3113 (0.4%)
1	H	0.98	3/2290 (0.1%)	1.24	12/3113 (0.4%)
All	All	1.01	24/18320 (0.1%)	1.25	117/24904 (0.5%)

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	B	0	1
1	F	0	1
All	All	0	2

All (24) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	178	VAL	CA-CB	-7.68	1.46	1.54
1	A	152	MET	SD-CE	7.09	1.97	1.79
1	E	185	VAL	CA-CB	-6.99	1.46	1.54
1	B	152	MET	SD-CE	6.88	1.96	1.79
1	F	36	ILE	CA-CB	-6.64	1.45	1.54
1	B	36	ILE	CA-CB	-6.35	1.46	1.54
1	E	171	MET	SD-CE	-6.28	1.63	1.79
1	G	152	MET	SD-CE	6.22	1.95	1.79
1	H	55	ALA	CA-CB	-6.22	1.43	1.53
1	E	159	ILE	CA-CB	-5.95	1.46	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	178	VAL	CA-CB	-5.88	1.48	1.54
1	E	49	ILE	C-O	-5.81	1.18	1.24
1	F	186	MET	SD-CE	5.75	1.94	1.79
1	E	63	ALA	CA-CB	-5.66	1.43	1.53
1	B	1	MET	SD-CE	5.37	1.93	1.79
1	A	123	VAL	CA-CB	-5.32	1.48	1.54
1	H	36	ILE	CA-CB	-5.23	1.47	1.54
1	E	95	ILE	CA-CB	-5.12	1.47	1.54
1	H	270	MET	SD-CE	5.12	1.92	1.79
1	A	36	ILE	CA-CB	-5.09	1.47	1.54
1	B	43	VAL	CA-CB	-5.07	1.47	1.54
1	D	185	VAL	CA-CB	-5.03	1.48	1.54
1	C	185	VAL	CA-CB	-5.02	1.48	1.54
1	G	45	LEU	CA-C	-5.00	1.47	1.52

All (117) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	45	LEU	N-CA-C	-13.74	89.08	109.42
1	A	45	LEU	N-CA-C	-13.65	89.22	109.42
1	B	45	LEU	N-CA-C	-13.02	90.14	109.42
1	C	45	LEU	N-CA-C	-12.84	90.42	109.42
1	G	45	LEU	N-CA-C	-12.80	90.47	109.42
1	H	45	LEU	N-CA-C	-12.79	90.50	109.42
1	F	45	LEU	N-CA-C	-12.71	90.61	109.42
1	D	45	LEU	N-CA-C	-12.62	90.74	109.42
1	F	55	ALA	N-CA-C	-11.04	99.22	111.14
1	C	55	ALA	N-CA-C	-10.33	100.10	111.36
1	A	55	ALA	N-CA-C	-10.11	100.34	111.36
1	E	55	ALA	N-CA-C	-9.56	100.82	111.14
1	B	55	ALA	N-CA-C	-9.29	100.26	111.69
1	D	55	ALA	N-CA-C	-9.11	101.30	111.14
1	G	55	ALA	N-CA-C	-8.87	100.78	111.69
1	B	249	GLN	N-CA-C	8.04	120.04	111.28
1	F	70	PHE	N-CA-C	7.93	120.62	111.11
1	H	70	PHE	N-CA-C	7.81	120.48	111.11
1	H	259	HIS	N-CA-C	7.66	122.27	113.15
1	E	166	GLU	N-CA-C	7.48	121.82	112.24
1	D	259	HIS	N-CA-C	7.46	123.66	113.37
1	F	249	GLN	N-CA-C	7.37	119.31	111.28
1	A	259	HIS	N-CA-C	7.36	123.52	113.37
1	B	259	HIS	N-CA-C	7.22	123.33	113.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	F	259	HIS	N-CA-C	7.22	123.33	113.37
1	H	55	ALA	N-CA-C	-7.20	102.83	111.69
1	C	70	PHE	N-CA-C	7.18	119.72	111.11
1	F	62	TYR	N-CA-C	7.17	119.10	111.28
1	D	62	TYR	N-CA-C	7.10	119.63	111.11
1	G	70	PHE	N-CA-C	7.04	119.56	111.11
1	B	70	PHE	N-CA-C	6.99	119.50	111.11
1	E	259	HIS	N-CA-C	6.99	123.02	113.37
1	E	70	PHE	N-CA-C	6.92	119.42	111.11
1	G	259	HIS	N-CA-C	6.88	122.87	113.37
1	E	1	MET	N-CA-C	6.81	118.60	107.23
1	D	249	GLN	N-CA-C	6.81	118.70	111.28
1	C	249	GLN	N-CA-C	6.77	118.66	111.28
1	B	62	TYR	N-CA-C	6.73	118.62	111.28
1	A	48	GLU	N-CA-C	6.72	119.76	110.35
1	C	62	TYR	N-CA-C	6.71	119.45	111.33
1	A	249	GLN	N-CA-C	6.67	118.55	111.28
1	H	48	GLU	N-CA-C	6.66	119.63	110.24
1	B	107	HIS	N-CA-C	6.53	119.58	109.07
1	G	249	GLN	N-CA-C	6.52	118.38	111.28
1	E	249	GLN	N-CA-C	6.48	118.34	111.28
1	C	48	GLU	N-CA-C	6.46	119.34	110.24
1	E	62	TYR	N-CA-C	6.45	119.14	111.33
1	A	62	TYR	N-CA-C	6.42	118.82	111.11
1	G	62	TYR	N-CA-C	6.41	118.80	111.11
1	A	156	SER	N-CA-C	-6.36	103.61	112.45
1	C	259	HIS	N-CA-C	6.30	122.06	113.37
1	A	107	HIS	N-CA-C	6.29	119.20	109.07
1	A	70	PHE	N-CA-C	6.11	118.44	111.11
1	C	107	HIS	N-CA-C	5.98	118.70	109.07
1	B	152	MET	N-CA-C	5.96	116.11	108.24
1	C	158	TRP	N-CA-C	5.96	119.18	109.59
1	F	165	HIS	N-CA-C	-5.93	98.17	110.80
1	D	107	HIS	N-CA-C	5.92	118.59	109.07
1	G	1	MET	N-CA-C	5.84	117.77	107.61
1	H	62	TYR	N-CA-C	5.83	118.38	111.33
1	D	98	HIS	CA-C-N	5.82	125.73	119.85
1	D	98	HIS	C-N-CA	5.82	125.73	119.85
1	B	75	LEU	N-CA-C	-5.81	104.86	111.14
1	D	1	MET	N-CA-C	5.81	117.72	107.61
1	H	107	HIS	N-CA-C	5.74	118.60	109.24
1	F	48	GLU	N-CA-C	5.73	118.54	110.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	F	201	HIS	N-CA-C	5.72	120.26	112.88
1	G	107	HIS	N-CA-C	5.71	118.27	109.07
1	C	1	MET	N-CA-C	5.68	117.50	107.61
1	F	153	GLN	N-CA-C	5.63	118.12	110.06
1	H	263	GLU	N-CA-C	-5.60	105.94	112.89
1	G	48	GLU	N-CA-C	5.60	118.14	110.24
1	H	249	GLN	N-CA-C	5.58	117.36	111.28
1	A	163	ARG	N-CA-C	5.56	117.92	110.35
1	F	107	HIS	N-CA-C	5.56	118.03	109.07
1	E	263	GLU	N-CA-C	-5.55	106.00	112.89
1	F	98	HIS	CA-C-N	5.53	125.43	119.85
1	F	98	HIS	C-N-CA	5.53	125.43	119.85
1	E	107	HIS	N-CA-C	5.53	117.97	109.07
1	D	48	GLU	N-CA-C	5.51	118.22	110.23
1	B	13	HIS	N-CA-C	-5.50	103.80	111.39
1	H	239	VAL	CB-CA-C	-5.48	108.49	113.70
1	C	19	VAL	N-CA-C	5.47	113.45	107.60
1	F	13	HIS	N-CA-C	-5.46	103.86	111.39
1	G	102	LEU	CA-C-N	5.45	126.00	120.38
1	G	102	LEU	C-N-CA	5.45	126.00	120.38
1	H	193	HIS	N-CA-C	5.44	121.33	114.31
1	A	1	MET	N-CA-C	5.42	117.05	107.61
1	E	237	PRO	N-CA-C	5.40	121.56	114.27
1	C	37	PRO	N-CA-C	5.40	119.70	111.34
1	H	1	MET	N-CA-C	5.39	117.00	107.61
1	D	70	PHE	N-CA-C	5.39	117.58	111.11
1	B	201	HIS	N-CA-C	5.32	119.74	112.88
1	B	48	GLU	N-CA-C	5.31	117.73	110.24
1	E	209	LEU	CA-C-N	5.29	126.46	119.84
1	E	209	LEU	C-N-CA	5.29	126.46	119.84
1	B	239	VAL	CB-CA-C	-5.29	108.67	113.70
1	B	25	LEU	N-CA-C	-5.29	105.21	110.97
1	B	151	LEU	N-CA-C	-5.27	101.69	109.86
1	G	184	HIS	N-CA-C	-5.26	106.01	112.90
1	E	98	HIS	CA-C-N	5.26	125.16	119.85
1	E	98	HIS	C-N-CA	5.26	125.16	119.85
1	C	167	HIS	N-CA-C	5.22	115.44	108.23
1	C	13	HIS	N-CA-C	-5.20	104.21	111.39
1	B	19	VAL	CA-C-N	5.18	126.32	119.84
1	B	19	VAL	C-N-CA	5.18	126.32	119.84
1	A	37	PRO	N-CA-C	5.16	119.34	111.34
1	B	153	GLN	N-CA-C	5.16	115.92	108.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	1	MET	N-CA-C	5.15	116.58	107.61
1	E	236	VAL	CA-C-N	5.15	125.60	120.04
1	E	236	VAL	C-N-CA	5.15	125.60	120.04
1	B	237	PRO	N-CA-C	5.13	121.20	114.27
1	D	19	VAL	N-CA-C	5.11	113.07	107.60
1	C	156	SER	N-CA-C	-5.10	106.75	113.17
1	A	87	VAL	N-CA-C	5.04	117.27	108.95
1	E	41	LEU	N-CA-C	5.04	116.86	111.36
1	A	13	HIS	N-CA-C	-5.04	104.44	111.39

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	B	172	TYR	Sidechain
1	F	172	TYR	Sidechain

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	2224	0	2149	166	0
1	B	2224	0	2149	189	1
1	C	2224	0	2149	187	2
1	D	2224	0	2149	167	0
1	E	2224	0	2149	154	0
1	F	2224	0	2149	163	1
1	G	2224	0	2149	171	0
1	H	2224	0	2149	175	2
2	A	56	0	0	14	0
2	B	51	0	0	26	0
2	C	79	0	0	30	0
2	D	36	0	0	19	0
2	E	92	0	0	19	0
2	F	48	0	0	13	0
2	G	56	0	0	20	0
2	H	50	0	0	13	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
All	All	18260	0	17192	1336	4

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 38.

All (1336) 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:F:186:MET:CE	1:H:186:MET:HE3	1.55	1.37
1:F:46:PRO:HD2	2:F:2011:HOH:O	1.24	1.34
1:B:186:MET:CE	1:C:186:MET:HE3	1.59	1.31
1:F:186:MET:HE3	1:H:186:MET:CE	1.62	1.29
1:B:186:MET:HE3	1:C:186:MET:CE	1.66	1.25
1:E:186:MET:HE3	1:G:186:MET:CE	1.82	1.08
1:E:186:MET:CE	1:G:186:MET:HE3	1.85	1.06
1:B:166:GLU:HG2	1:G:233:GLN:HB2	1.40	1.04
1:B:128:GLN:HE21	1:B:128:GLN:H	1.03	1.01
1:D:128:GLN:H	1:D:128:GLN:HE21	1.03	1.00
1:E:150:ARG:NH1	1:E:152:MET:SD	2.35	0.99
1:A:186:MET:HE3	1:D:186:MET:HE3	1.03	0.99
1:A:128:GLN:H	1:A:128:GLN:HE21	0.99	0.99
1:C:150:ARG:HH21	1:C:152:MET:HE2	1.27	0.98
1:B:152:MET:HG3	1:B:153:GLN:H	1.26	0.98
1:C:128:GLN:H	1:C:128:GLN:HE21	0.97	0.96
1:G:128:GLN:HE21	1:G:128:GLN:H	1.10	0.94
1:F:128:GLN:H	1:F:128:GLN:HE21	1.07	0.94
1:E:128:GLN:H	1:E:128:GLN:HE21	0.95	0.94
1:A:186:MET:CE	1:D:186:MET:HE3	1.96	0.93
1:C:160:LEU:HG	1:C:171:MET:HE2	1.50	0.93
1:A:224:ARG:HD3	2:A:2044:HOH:O	1.66	0.93
1:E:150:ARG:HH21	1:E:168:TRP:CD1	1.88	0.92
1:H:128:GLN:HE21	1:H:128:GLN:N	1.69	0.91
1:E:216:THR:HG22	2:E:2076:HOH:O	1.71	0.91
1:B:25:LEU:HD22	1:B:133:PRO:HG3	1.53	0.90
1:C:104:PRO:HB2	2:C:2032:HOH:O	1.69	0.90
1:F:25:LEU:HD22	1:F:133:PRO:HG3	1.52	0.90
1:H:128:GLN:HE21	1:H:128:GLN:H	0.95	0.89
1:H:150:ARG:NH1	1:H:152:MET:HE2	1.86	0.89
1:E:128:GLN:H	1:E:128:GLN:NE2	1.69	0.88
1:B:166:GLU:CG	1:G:233:GLN:HB2	2.04	0.88
1:C:161:GLN:HG2	1:C:170:SER:HA	1.56	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:25:LEU:HD22	1:H:133:PRO:HG3	1.56	0.88
1:B:161:GLN:HG2	1:B:170:SER:HA	1.56	0.87
1:E:25:LEU:HD22	1:E:133:PRO:HG3	1.57	0.87
1:E:128:GLN:HE21	1:E:128:GLN:N	1.71	0.87
1:A:128:GLN:HE21	1:A:128:GLN:N	1.73	0.86
1:C:128:GLN:HE21	1:C:128:GLN:N	1.73	0.86
1:F:144:THR:HG23	1:F:146:HIS:H	1.40	0.86
1:E:165:HIS:HB2	2:E:2057:HOH:O	1.76	0.85
1:F:58:GLU:HB3	2:F:2014:HOH:O	1.75	0.85
1:A:186:MET:HE3	1:D:186:MET:CE	1.99	0.85
1:E:144:THR:HG23	1:E:146:HIS:H	1.42	0.85
1:H:144:THR:HG23	1:H:146:HIS:H	1.39	0.84
1:G:144:THR:HG23	1:G:146:HIS:H	1.43	0.84
1:B:144:THR:HG23	1:B:146:HIS:H	1.42	0.84
1:C:144:THR:HG23	1:C:146:HIS:H	1.43	0.83
1:H:128:GLN:H	1:H:128:GLN:NE2	1.74	0.83
1:F:255:ASN:O	1:F:256:ASP:HB2	1.77	0.83
1:B:164:HIS:O	1:B:166:GLU:N	2.11	0.82
1:G:273:PHE:HE2	2:G:2044:HOH:O	1.62	0.82
1:A:186:MET:HE2	2:A:2034:HOH:O	1.77	0.82
1:G:239:VAL:HG23	2:G:2049:HOH:O	1.79	0.82
1:D:144:THR:HG23	1:D:146:HIS:H	1.44	0.82
1:C:128:GLN:H	1:C:128:GLN:NE2	1.76	0.81
1:H:161:GLN:HG2	1:H:170:SER:HA	1.62	0.81
1:D:128:GLN:HE21	1:D:128:GLN:N	1.78	0.81
1:C:150:ARG:NH2	1:C:152:MET:HE2	1.95	0.81
1:A:128:GLN:H	1:A:128:GLN:NE2	1.79	0.80
1:C:138:ALA:HA	1:C:151:LEU:O	1.80	0.80
1:B:255:ASN:O	1:B:256:ASP:HB2	1.81	0.80
1:A:252:LEU:HD13	2:A:2008:HOH:O	1.80	0.80
1:E:160:LEU:HG	1:E:171:MET:HE3	1.62	0.80
1:H:144:THR:HG21	2:H:2026:HOH:O	1.82	0.80
1:G:163:ARG:NE	1:G:166:GLU:O	2.14	0.80
1:G:150:ARG:HB2	1:G:168:TRP:CZ2	2.17	0.80
1:A:144:THR:HG23	1:A:146:HIS:H	1.47	0.79
1:E:163:ARG:HG3	2:E:2053:HOH:O	1.80	0.79
1:F:265:GLU:HB3	2:F:2046:HOH:O	1.82	0.79
1:A:25:LEU:HD22	1:A:133:PRO:HG3	1.64	0.79
1:C:16:PRO:HD3	2:C:2004:HOH:O	1.83	0.79
1:B:165:HIS:O	1:B:166:GLU:HB2	1.81	0.79
1:D:180:GLN:HG2	2:D:2022:HOH:O	1.82	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:128:GLN:HE21	1:B:128:GLN:N	1.79	0.79
1:B:221:HIS:HB2	2:B:2040:HOH:O	1.83	0.79
1:B:96:LEU:HD23	1:B:171:MET:HA	1.65	0.78
1:G:255:ASN:O	1:G:256:ASP:HB2	1.82	0.78
1:C:25:LEU:HD22	1:C:133:PRO:HG3	1.64	0.78
1:B:255:ASN:HB3	2:B:2045:HOH:O	1.83	0.78
1:G:25:LEU:HD22	1:G:133:PRO:HG3	1.65	0.78
1:F:186:MET:HE3	1:H:186:MET:HE3	0.82	0.77
1:C:255:ASN:O	1:C:256:ASP:HB2	1.84	0.77
1:G:150:ARG:NE	1:G:152:MET:HG2	1.99	0.77
1:B:128:GLN:H	1:B:128:GLN:NE2	1.81	0.77
1:G:128:GLN:HE21	1:G:128:GLN:N	1.83	0.76
1:A:196:GLN:HG2	2:A:2037:HOH:O	1.85	0.76
1:F:128:GLN:HE21	1:F:128:GLN:N	1.81	0.76
1:A:95:ILE:HG12	1:A:172:TYR:HA	1.65	0.76
1:E:102:LEU:HG	2:E:2037:HOH:O	1.84	0.76
1:C:33:ASN:O	1:C:208:HIS:HB2	1.86	0.76
1:D:128:GLN:H	1:D:128:GLN:NE2	1.80	0.75
1:E:159:ILE:HD12	1:E:159:ILE:N	2.01	0.75
1:E:161:GLN:HB3	1:E:170:SER:HA	1.66	0.75
1:C:95:ILE:HG12	1:C:172:TYR:HA	1.68	0.75
1:D:25:LEU:HD22	1:D:133:PRO:HG3	1.67	0.74
1:G:91:LEU:HD21	1:G:184:HIS:HD2	1.52	0.74
1:F:164:HIS:O	1:F:165:HIS:HB3	1.87	0.74
1:G:226:HIS:CE1	1:G:227:GLN:HE21	2.05	0.74
1:A:255:ASN:O	1:A:256:ASP:HB2	1.88	0.74
1:H:136:LEU:HD23	1:H:151:LEU:HD13	1.70	0.73
1:A:231:VAL:O	1:A:232:GLU:HB3	1.88	0.73
1:F:109:LEU:HD12	1:F:109:LEU:C	2.14	0.73
1:G:115:GLU:HG3	2:G:2029:HOH:O	1.89	0.73
1:C:194:TRP:CZ3	1:C:196:GLN:HB2	2.24	0.73
1:G:231:VAL:O	1:G:232:GLU:HB3	1.88	0.73
1:D:158:TRP:HB2	1:D:174:PHE:CE1	2.23	0.73
1:E:242:LEU:HG	2:E:2083:HOH:O	1.89	0.73
1:C:11:ARG:HD2	1:C:61:LEU:HA	1.70	0.73
1:D:109:LEU:HD21	1:D:174:PHE:CD2	2.23	0.73
1:E:186:MET:HE3	1:G:186:MET:HE3	0.89	0.73
1:F:128:GLN:H	1:F:128:GLN:NE2	1.85	0.73
1:B:33:ASN:O	1:B:208:HIS:HB2	1.89	0.72
1:B:46:PRO:HD2	2:D:2027:HOH:O	1.88	0.72
1:C:152:MET:O	1:C:159:ILE:HG22	1.89	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:94:VAL:HG12	2:B:2015:HOH:O	1.88	0.72
1:E:136:LEU:HD22	1:E:158:TRP:CZ2	2.24	0.72
1:B:194:TRP:CZ3	1:B:196:GLN:HB2	2.25	0.72
1:E:226:HIS:CE1	1:E:227:GLN:HE21	2.07	0.72
1:G:217:LEU:HD11	1:G:219:ASN:O	1.90	0.72
1:C:130:LEU:HD12	2:C:2037:HOH:O	1.89	0.71
1:D:239:VAL:HB	1:D:240:PRO:HD3	1.72	0.71
1:F:194:TRP:CZ3	1:F:196:GLN:HB2	2.25	0.71
1:B:150:ARG:NH1	1:B:152:MET:HE2	2.05	0.71
1:H:63:ALA:HB1	2:H:2045:HOH:O	1.89	0.71
1:A:104:PRO:HD3	1:D:182:SER:HB2	1.71	0.71
1:F:68:TYR:O	1:F:69:CYS:C	2.31	0.71
1:H:255:ASN:O	1:H:256:ASP:HB2	1.90	0.71
1:E:144:THR:HG22	1:E:147:GLY:N	2.06	0.70
1:H:144:THR:HG22	1:H:147:GLY:H	1.55	0.70
1:A:226:HIS:CE1	1:A:227:GLN:HE21	2.10	0.70
1:D:55:ALA:HA	2:D:2008:HOH:O	1.90	0.70
1:D:162:PHE:CE1	1:D:169:GLN:HB2	2.27	0.70
1:B:131:THR:HB	2:B:2027:HOH:O	1.91	0.70
1:G:163:ARG:NH2	1:G:167:HIS:HA	2.05	0.70
1:C:237:PRO:HA	2:C:2068:HOH:O	1.90	0.70
1:C:109:LEU:HD12	1:C:109:LEU:C	2.17	0.69
1:F:133:PRO:O	1:F:134:LEU:HD23	1.91	0.69
1:D:255:ASN:O	1:D:256:ASP:HB2	1.90	0.69
1:F:45:LEU:CA	2:F:2011:HOH:O	2.39	0.69
1:C:122:ASP:N	2:C:2037:HOH:O	2.25	0.69
1:D:11:ARG:HD2	1:D:61:LEU:HA	1.73	0.69
1:E:109:LEU:C	1:E:109:LEU:HD12	2.17	0.69
1:F:11:ARG:HD2	1:F:61:LEU:HA	1.73	0.69
1:H:11:ARG:HD2	1:H:61:LEU:HA	1.75	0.69
1:C:164:HIS:CG	1:C:165:HIS:H	2.09	0.69
1:F:255:ASN:O	1:F:256:ASP:CB	2.40	0.69
2:A:2017:HOH:O	1:C:46:PRO:HG3	1.90	0.69
1:B:109:LEU:C	1:B:109:LEU:HD12	2.17	0.69
1:B:186:MET:HE3	1:C:186:MET:HE3	0.75	0.69
1:G:11:ARG:HD2	1:G:61:LEU:HA	1.74	0.69
1:G:239:VAL:HB	1:G:240:PRO:HD3	1.75	0.69
1:A:152:MET:HG3	1:A:153:GLN:H	1.58	0.69
1:B:152:MET:CG	1:B:153:GLN:H	2.05	0.69
1:F:25:LEU:HD22	1:F:133:PRO:CG	2.22	0.68
1:G:154:GLU:O	1:G:155:GLY:C	2.36	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:91:LEU:HD21	1:D:184:HIS:HD2	1.59	0.68
1:B:150:ARG:HH12	1:B:152:MET:HE2	1.59	0.68
1:E:194:TRP:CZ3	1:E:196:GLN:HB2	2.28	0.68
1:H:39:GLU:OE2	2:H:2007:HOH:O	2.10	0.68
1:D:69:CYS:SG	2:D:2004:HOH:O	2.51	0.68
1:D:150:ARG:HD3	1:D:161:GLN:NE2	2.08	0.68
1:G:217:LEU:HD21	1:G:242:LEU:HD11	1.75	0.68
1:A:109:LEU:HD12	1:A:109:LEU:C	2.18	0.68
1:C:239:VAL:HB	1:C:240:PRO:HD3	1.75	0.68
1:F:144:THR:HG22	1:F:147:GLY:H	1.59	0.68
1:H:217:LEU:HD11	1:H:219:ASN:O	1.94	0.68
1:B:194:TRP:CD2	2:B:2036:HOH:O	2.46	0.68
1:E:144:THR:HG22	1:E:147:GLY:H	1.58	0.68
1:G:128:GLN:H	1:G:128:GLN:NE2	1.86	0.68
1:C:47:ARG:HD2	2:C:2012:HOH:O	1.93	0.67
1:C:217:LEU:HD11	1:C:219:ASN:O	1.94	0.67
1:F:33:ASN:O	1:F:208:HIS:HB2	1.94	0.67
1:F:128:GLN:HB2	1:F:171:MET:CE	2.24	0.67
1:F:216:THR:HG22	1:F:216:THR:O	1.95	0.67
1:A:138:ALA:HA	1:A:151:LEU:O	1.95	0.67
1:H:150:ARG:HB2	1:H:168:TRP:CH2	2.30	0.67
1:G:109:LEU:C	1:G:109:LEU:HD12	2.19	0.67
1:B:144:THR:HG22	1:B:147:GLY:H	1.57	0.67
1:E:223:THR:OG1	2:E:2077:HOH:O	2.13	0.67
1:B:39:GLU:HG2	1:B:41:LEU:H	1.59	0.67
1:G:128:GLN:HB2	1:G:171:MET:HE3	1.76	0.67
1:F:91:LEU:HD21	1:F:184:HIS:HD2	1.58	0.67
1:D:226:HIS:CE1	1:D:227:GLN:HE21	2.13	0.67
1:F:122:ASP:O	1:F:129:THR:HG22	1.94	0.67
1:F:152:MET:HG2	1:F:161:GLN:HE22	1.60	0.67
1:F:159:ILE:HG22	1:F:160:LEU:N	2.10	0.67
1:A:11:ARG:HD2	1:A:61:LEU:HA	1.77	0.67
1:E:181:GLN:O	1:E:185:VAL:HG23	1.95	0.66
1:H:164:HIS:O	1:H:166:GLU:N	2.27	0.66
1:D:33:ASN:O	1:D:208:HIS:HB2	1.95	0.66
1:H:175:ASP:OD1	1:H:175:ASP:N	2.28	0.66
1:H:226:HIS:CE1	1:H:227:GLN:HE21	2.13	0.66
1:H:144:THR:HG22	1:H:147:GLY:N	2.09	0.66
1:A:217:LEU:HD21	1:A:242:LEU:HD11	1.76	0.66
1:F:19:VAL:HG12	1:F:21:THR:HG23	1.78	0.66
1:B:159:ILE:HG22	1:B:160:LEU:H	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:217:LEU:HD21	1:C:242:LEU:HD11	1.77	0.66
1:D:231:VAL:O	1:D:232:GLU:HB3	1.96	0.66
1:E:231:VAL:O	1:E:232:GLU:HB3	1.94	0.66
1:G:138:ALA:HA	1:G:151:LEU:O	1.94	0.66
1:H:162:PHE:HD2	1:H:171:MET:SD	2.18	0.66
1:C:211:ASP:HB3	2:C:2063:HOH:O	1.94	0.66
1:C:249:GLN:HA	2:C:2070:HOH:O	1.95	0.66
1:B:11:ARG:HD2	1:B:61:LEU:HA	1.76	0.66
1:E:138:ALA:HA	1:E:151:LEU:O	1.96	0.66
1:E:217:LEU:HD11	1:E:219:ASN:O	1.96	0.66
1:A:194:TRP:CZ3	1:A:196:GLN:HB2	2.32	0.65
1:C:122:ASP:O	1:C:129:THR:HG22	1.97	0.65
1:D:109:LEU:C	1:D:109:LEU:HD12	2.21	0.65
1:B:96:LEU:CD2	1:B:171:MET:HA	2.26	0.65
1:A:136:LEU:HD22	1:A:158:TRP:CZ2	2.31	0.65
1:C:144:THR:HG22	1:C:147:GLY:H	1.61	0.65
1:E:255:ASN:O	1:E:256:ASP:HB2	1.95	0.65
1:D:162:PHE:HE1	1:D:169:GLN:HB2	1.61	0.65
1:D:216:THR:HG22	2:D:2031:HOH:O	1.96	0.65
1:G:144:THR:HG22	1:G:147:GLY:H	1.61	0.65
1:E:158:TRP:C	1:E:159:ILE:HD12	2.21	0.65
1:G:68:TYR:O	1:G:69:CYS:C	2.39	0.65
1:H:47:ARG:HG2	2:H:2010:HOH:O	1.97	0.65
1:D:144:THR:HG22	1:D:147:GLY:H	1.62	0.65
1:F:186:MET:HE1	2:H:2022:HOH:O	1.96	0.65
1:F:120:ILE:HG13	1:F:120:ILE:O	1.95	0.65
1:F:144:THR:HG22	1:F:147:GLY:N	2.12	0.65
1:B:256:ASP:N	2:B:2045:HOH:O	2.30	0.65
1:F:45:LEU:HA	2:F:2011:HOH:O	1.97	0.65
1:G:151:LEU:HD22	1:G:159:ILE:O	1.96	0.65
1:B:139:GLU:HA	1:B:150:ARG:HH21	1.63	0.64
1:H:239:VAL:HB	1:H:240:PRO:HD3	1.79	0.64
1:A:239:VAL:HB	1:A:240:PRO:HD3	1.78	0.64
1:B:25:LEU:HD22	1:B:133:PRO:CG	2.25	0.64
1:B:217:LEU:HD21	1:B:242:LEU:HD11	1.79	0.64
1:F:231:VAL:O	1:F:232:GLU:HB3	1.95	0.64
1:G:203:LEU:N	2:G:2044:HOH:O	2.29	0.64
1:H:216:THR:HG22	1:H:216:THR:O	1.97	0.64
1:A:91:LEU:HB3	1:A:105:ARG:HB3	1.80	0.64
1:C:226:HIS:CE1	1:C:227:GLN:HE21	2.15	0.64
1:H:130:LEU:HA	2:H:2026:HOH:O	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:152:MET:HG3	1:B:153:GLN:N	2.05	0.64
1:G:150:ARG:CD	1:G:152:MET:HG2	2.28	0.64
1:B:144:THR:HG22	1:B:147:GLY:N	2.13	0.64
1:C:163:ARG:HH11	1:C:167:HIS:HA	1.63	0.64
1:E:198:HIS:HB2	2:E:2067:HOH:O	1.96	0.64
1:B:167:HIS:O	1:B:168:TRP:HB2	1.98	0.64
1:F:128:GLN:HB2	1:F:171:MET:HE3	1.80	0.64
1:H:95:ILE:HG12	1:H:172:TYR:HA	1.80	0.64
1:H:150:ARG:NH2	1:H:168:TRP:NE1	2.45	0.64
1:C:150:ARG:HD2	1:C:168:TRP:CD2	2.33	0.63
1:E:11:ARG:HD2	1:E:61:LEU:HA	1.80	0.63
1:G:194:TRP:CZ3	1:G:196:GLN:HB2	2.33	0.63
1:E:160:LEU:HG	1:E:171:MET:CE	2.29	0.63
1:F:0:HIS:ND1	1:F:1:MET:N	2.47	0.63
1:B:226:HIS:CE1	1:B:227:GLN:HE21	2.17	0.63
1:D:217:LEU:HD21	1:D:242:LEU:HD11	1.79	0.63
1:F:91:LEU:HD21	1:F:184:HIS:CD2	2.33	0.63
1:C:39:GLU:HG2	1:C:41:LEU:H	1.64	0.63
1:C:122:ASP:HB3	2:C:2037:HOH:O	1.98	0.63
1:D:160:LEU:C	1:D:160:LEU:HD23	2.24	0.63
1:G:91:LEU:HD21	1:G:184:HIS:CD2	2.32	0.63
1:G:144:THR:HG22	1:G:147:GLY:N	2.13	0.63
1:H:194:TRP:CZ3	1:H:196:GLN:HB2	2.34	0.63
1:B:54:THR:O	1:B:58:GLU:HG3	1.98	0.63
1:C:91:LEU:HB3	1:C:105:ARG:HB3	1.80	0.63
1:G:39:GLU:HG2	1:G:41:LEU:H	1.63	0.63
1:A:90:LEU:HD12	1:A:109:LEU:HD11	1.80	0.63
1:C:144:THR:HG22	1:C:147:GLY:N	2.14	0.63
1:G:0:HIS:ND1	1:G:1:MET:N	2.47	0.63
1:H:25:LEU:HD22	1:H:133:PRO:CG	2.28	0.63
1:B:122:ASP:O	1:B:129:THR:HG22	1.99	0.63
1:H:149:TYR:CD2	1:H:162:PHE:HB3	2.34	0.63
1:D:181:GLN:O	1:D:185:VAL:HG23	1.99	0.62
1:E:200:ARG:HH12	1:H:200:ARG:HH12	1.45	0.62
1:D:150:ARG:HB2	1:D:168:TRP:CH2	2.35	0.62
1:F:226:HIS:CE1	1:F:227:GLN:HE21	2.17	0.62
1:G:150:ARG:HB2	1:G:168:TRP:CH2	2.34	0.62
1:F:39:GLU:HG2	1:F:41:LEU:H	1.62	0.62
1:E:68:TYR:O	1:E:69:CYS:C	2.41	0.62
1:F:150:ARG:HH21	1:F:168:TRP:CG	2.17	0.62
1:G:33:ASN:O	1:G:208:HIS:HB2	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:231:VAL:O	1:H:232:GLU:HB3	1.98	0.62
1:A:122:ASP:O	1:A:129:THR:HG22	2.00	0.62
1:A:245:LEU:HD12	1:A:249:GLN:HB2	1.81	0.62
1:B:133:PRO:O	1:B:134:LEU:HD23	1.99	0.62
1:H:125:PHE:H	1:H:129:THR:HG23	1.65	0.62
1:C:125:PHE:H	1:C:129:THR:HG23	1.62	0.62
1:C:153:GLN:O	1:C:154:GLU:HG3	2.00	0.62
1:D:144:THR:HG22	1:D:147:GLY:N	2.14	0.62
1:E:120:ILE:HG13	1:E:120:ILE:O	1.98	0.62
1:E:239:VAL:HB	1:E:240:PRO:HD3	1.82	0.62
1:B:68:TYR:O	1:B:69:CYS:C	2.42	0.62
1:G:1:MET:HE1	2:G:2003:HOH:O	1.98	0.62
1:E:182:SER:HB2	1:G:104:PRO:HD3	1.81	0.62
1:A:161:GLN:HA	1:A:169:GLN:O	1.99	0.61
1:B:182:SER:HB2	1:C:104:PRO:HD3	1.81	0.61
1:F:217:LEU:HD11	1:F:219:ASN:O	1.99	0.61
1:F:217:LEU:HD21	1:F:242:LEU:HD11	1.82	0.61
1:G:153:GLN:HB2	1:G:158:TRP:CE3	2.35	0.61
1:B:90:LEU:HD12	1:B:109:LEU:HD11	1.83	0.61
1:A:205:MET:SD	1:A:246:LEU:HD22	2.41	0.61
1:D:87:VAL:CG1	1:D:112:VAL:HG22	2.30	0.61
1:G:165:HIS:O	1:G:166:GLU:HB2	2.00	0.61
1:C:23:GLU:OE1	1:C:23:GLU:HA	2.00	0.61
1:F:152:MET:HG2	1:F:161:GLN:NE2	2.15	0.61
1:G:163:ARG:HH21	1:G:167:HIS:HA	1.63	0.61
1:G:255:ASN:O	1:G:256:ASP:CB	2.48	0.61
1:C:138:ALA:CA	1:C:151:LEU:O	2.49	0.61
1:E:246:LEU:HD11	2:E:2083:HOH:O	2.01	0.61
1:G:122:ASP:O	1:G:129:THR:HG22	2.01	0.61
1:H:120:ILE:O	1:H:120:ILE:HG13	2.00	0.61
1:C:68:TYR:O	1:C:69:CYS:C	2.43	0.61
1:C:91:LEU:HD21	1:C:184:HIS:HD2	1.66	0.61
1:C:128:GLN:N	1:C:128:GLN:NE2	2.44	0.61
1:C:87:VAL:CG1	1:C:112:VAL:HG22	2.31	0.60
1:C:137:GLN:O	1:C:151:LEU:HB2	2.00	0.60
1:H:68:TYR:O	1:H:69:CYS:C	2.44	0.60
1:B:145:PRO:HB2	2:B:2027:HOH:O	2.00	0.60
1:B:161:GLN:HG2	1:B:170:SER:CA	2.30	0.60
1:E:128:GLN:NE2	1:E:128:GLN:N	2.39	0.60
1:A:144:THR:HG22	1:A:147:GLY:N	2.17	0.60
1:D:194:TRP:CZ3	1:D:196:GLN:HB2	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:150:ARG:HE	1:G:161:GLN:NE2	1.99	0.60
1:C:87:VAL:HG12	1:C:112:VAL:HG22	1.82	0.60
1:C:121:ALA:C	2:C:2037:HOH:O	2.44	0.60
1:H:19:VAL:HG12	1:H:21:THR:HG23	1.82	0.60
1:C:176:LEU:HD13	2:C:2043:HOH:O	1.99	0.60
1:D:91:LEU:HD21	1:D:184:HIS:CD2	2.37	0.60
1:B:150:ARG:NH2	1:B:152:MET:SD	2.66	0.60
1:E:262:THR:HG23	1:E:265:GLU:OE1	2.02	0.60
1:G:91:LEU:HB3	1:G:105:ARG:HB3	1.83	0.60
1:G:245:LEU:HD12	1:G:249:GLN:HB2	1.83	0.60
1:H:23:GLU:OE1	1:H:23:GLU:HA	2.01	0.60
1:B:22:VAL:HB	2:B:2022:HOH:O	2.00	0.60
1:B:216:THR:O	1:B:216:THR:HG22	2.00	0.60
1:B:232:GLU:HA	1:F:233:GLN:O	2.02	0.60
1:D:128:GLN:HB2	1:D:171:MET:CE	2.31	0.60
1:G:237:PRO:HG2	1:G:238:ASP:OD1	2.02	0.60
1:A:237:PRO:HG2	1:A:238:ASP:OD1	2.02	0.60
1:D:205:MET:SD	1:D:246:LEU:HD22	2.42	0.60
1:F:125:PHE:H	1:F:129:THR:HG23	1.66	0.60
1:E:39:GLU:HG2	1:E:41:LEU:H	1.66	0.59
1:A:133:PRO:O	1:A:134:LEU:HD23	2.02	0.59
1:B:239:VAL:HB	1:B:240:PRO:HD3	1.84	0.59
1:D:19:VAL:HG12	1:D:21:THR:HG23	1.83	0.59
1:D:217:LEU:HD11	1:D:219:ASN:O	2.02	0.59
1:B:5:LEU:HD22	1:B:82:ASP:HB3	1.84	0.59
1:C:231:VAL:O	1:C:232:GLU:HB3	2.02	0.59
1:D:54:THR:O	1:D:58:GLU:HG3	2.01	0.59
1:D:87:VAL:HG12	1:D:112:VAL:HG22	1.82	0.59
1:F:159:ILE:HG22	1:F:160:LEU:H	1.68	0.59
1:A:216:THR:HG22	1:A:216:THR:O	2.01	0.59
1:A:14:CYS:SG	1:A:15:GLN:N	2.74	0.59
1:B:0:HIS:ND1	1:B:1:MET:N	2.50	0.59
1:H:128:GLN:N	1:H:128:GLN:NE2	2.41	0.59
1:B:91:LEU:HB3	1:B:105:ARG:HB3	1.85	0.59
1:E:91:LEU:HD21	1:E:184:HIS:HD2	1.68	0.59
1:A:144:THR:HG22	1:A:147:GLY:H	1.67	0.59
1:B:91:LEU:HD21	1:B:184:HIS:HD2	1.68	0.59
1:B:120:ILE:HG13	1:B:120:ILE:O	2.02	0.59
1:E:98:HIS:N	1:E:99:PRO:HD3	2.18	0.59
1:H:5:LEU:HD22	1:H:82:ASP:HB3	1.85	0.59
1:A:162:PHE:CE1	1:A:169:GLN:HB3	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:0:HIS:ND1	1:C:1:MET:N	2.51	0.59
1:G:5:LEU:HD22	1:G:82:ASP:HB3	1.84	0.59
1:B:231:VAL:O	1:B:232:GLU:HB3	2.03	0.58
1:F:186:MET:HE2	1:H:186:MET:HE3	1.72	0.58
1:A:217:LEU:HD11	1:A:219:ASN:O	2.01	0.58
1:B:159:ILE:HG22	1:B:160:LEU:N	2.18	0.58
1:C:120:ILE:O	1:C:120:ILE:HG13	2.03	0.58
1:C:160:LEU:HG	1:C:171:MET:CE	2.27	0.58
1:E:136:LEU:HD22	1:E:158:TRP:CE2	2.39	0.58
1:D:5:LEU:HD22	1:D:82:ASP:HB3	1.85	0.58
1:D:39:GLU:HG2	1:D:41:LEU:H	1.68	0.58
1:D:91:LEU:HB3	1:D:105:ARG:HB3	1.86	0.58
1:F:38:PHE:O	1:F:205:MET:HA	2.03	0.58
1:A:5:LEU:HD22	1:A:82:ASP:HB3	1.85	0.58
1:G:130:LEU:CD2	1:G:149:TYR:CD2	2.85	0.58
1:A:23:GLU:HA	1:A:23:GLU:OE1	2.03	0.58
1:D:133:PRO:O	1:D:134:LEU:HD23	2.03	0.58
1:G:133:PRO:O	1:G:134:LEU:HD23	2.03	0.58
1:H:96:LEU:HD23	1:H:171:MET:HA	1.86	0.58
1:D:125:PHE:H	1:D:129:THR:HG23	1.67	0.58
1:F:151:LEU:N	1:F:151:LEU:HD23	2.19	0.58
1:G:128:GLN:HB2	1:G:171:MET:CE	2.34	0.58
1:G:169:GLN:HE21	1:G:169:GLN:HA	1.69	0.58
1:H:90:LEU:HD12	1:H:109:LEU:HD11	1.86	0.58
1:A:68:TYR:O	1:A:69:CYS:C	2.46	0.58
1:G:90:LEU:HD12	1:G:109:LEU:HD11	1.85	0.58
1:H:122:ASP:O	1:H:129:THR:HG22	2.03	0.58
1:A:91:LEU:HD21	1:A:184:HIS:HD2	1.69	0.58
1:F:5:LEU:HD22	1:F:82:ASP:HB3	1.86	0.58
1:D:23:GLU:HA	1:D:23:GLU:OE1	2.04	0.57
1:E:19:VAL:HG12	1:E:21:THR:HG23	1.86	0.57
1:F:45:LEU:HB2	2:F:2011:HOH:O	2.03	0.57
1:C:237:PRO:HG2	1:C:238:ASP:OD1	2.03	0.57
1:F:136:LEU:HD22	1:F:158:TRP:CZ2	2.39	0.57
1:G:19:VAL:HG12	1:G:21:THR:HG23	1.87	0.57
1:H:11:ARG:HE	1:H:64:ARG:HA	1.69	0.57
1:B:87:VAL:CG1	1:B:112:VAL:HG22	2.33	0.57
1:C:255:ASN:O	1:C:256:ASP:CB	2.53	0.57
1:G:150:ARG:NH2	1:G:168:TRP:CD1	2.72	0.57
1:G:216:THR:O	1:G:216:THR:HG22	2.03	0.57
1:A:33:ASN:O	1:A:208:HIS:HB2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:39:GLU:HG2	1:A:41:LEU:H	1.69	0.57
1:A:218:THR:O	1:A:219:ASN:HB2	2.04	0.57
1:B:68:TYR:OH	1:B:188:ASN:ND2	2.36	0.57
1:D:0:HIS:ND1	1:D:1:MET:N	2.52	0.57
1:D:93:ARG:HA	2:D:2015:HOH:O	2.04	0.57
1:D:122:ASP:O	1:D:129:THR:HG22	2.04	0.57
1:G:25:LEU:HD22	1:G:133:PRO:CG	2.33	0.57
1:H:109:LEU:HD12	1:H:109:LEU:C	2.29	0.57
1:A:15:GLN:NE2	1:A:16:PRO:HD2	2.19	0.57
1:A:128:GLN:N	1:A:128:GLN:NE2	2.45	0.57
1:D:150:ARG:O	1:D:161:GLN:HG2	2.05	0.57
1:E:218:THR:O	1:E:219:ASN:HB2	2.05	0.57
1:G:17:LEU:HB3	2:G:2010:HOH:O	2.04	0.57
1:A:130:LEU:HD13	1:A:134:LEU:HG	1.86	0.57
1:E:91:LEU:HD21	1:E:184:HIS:CD2	2.40	0.57
1:B:19:VAL:HG12	1:B:21:THR:HG23	1.87	0.57
1:B:245:LEU:HD12	1:B:249:GLN:HB2	1.87	0.57
1:D:53:GLU:O	1:D:53:GLU:HG3	2.04	0.57
1:D:237:PRO:HG2	1:D:238:ASP:OD1	2.05	0.57
1:E:0:HIS:ND1	1:E:1:MET:N	2.52	0.57
1:E:87:VAL:HG12	1:E:112:VAL:HG22	1.87	0.57
1:H:33:ASN:O	1:H:208:HIS:HB2	2.04	0.57
1:E:226:HIS:HE1	1:E:227:GLN:HE21	1.49	0.57
1:F:96:LEU:HD23	1:F:171:MET:HA	1.87	0.56
1:G:90:LEU:HB2	1:G:109:LEU:CD1	2.35	0.56
1:A:120:ILE:O	1:A:120:ILE:HG13	2.04	0.56
1:C:54:THR:O	1:C:58:GLU:HG3	2.04	0.56
1:G:23:GLU:OE1	1:G:23:GLU:HA	2.04	0.56
1:H:91:LEU:HB3	1:H:105:ARG:HB3	1.86	0.56
1:B:105:ARG:NE	2:B:2019:HOH:O	2.38	0.56
1:B:130:LEU:HD13	1:B:134:LEU:HG	1.87	0.56
1:E:151:LEU:HD23	1:E:160:LEU:HA	1.86	0.56
1:F:91:LEU:HB3	1:F:105:ARG:HB3	1.86	0.56
1:F:160:LEU:C	1:F:161:GLN:HG3	2.30	0.56
1:H:137:GLN:HA	2:H:2027:HOH:O	2.06	0.56
1:C:245:LEU:HD12	1:C:249:GLN:HB2	1.87	0.56
1:F:68:TYR:OH	1:F:188:ASN:ND2	2.37	0.56
1:F:239:VAL:HB	1:F:240:PRO:HD3	1.86	0.56
1:E:136:LEU:HD22	1:E:158:TRP:CH2	2.40	0.56
1:E:205:MET:SD	1:E:246:LEU:HD22	2.45	0.56
1:B:186:MET:SD	2:C:2032:HOH:O	2.58	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:38:PHE:O	1:E:205:MET:HA	2.05	0.56
1:G:15:GLN:NE2	1:G:16:PRO:HD2	2.21	0.56
1:H:218:THR:O	1:H:219:ASN:HB2	2.04	0.56
1:C:47:ARG:CD	2:C:2012:HOH:O	2.53	0.56
1:C:163:ARG:HA	1:C:167:HIS:O	2.05	0.56
1:F:19:VAL:HG12	1:F:21:THR:CG2	2.36	0.56
1:F:164:HIS:O	1:F:165:HIS:CB	2.53	0.56
1:F:220:PHE:CE1	1:F:242:LEU:HD22	2.41	0.56
1:G:159:ILE:HG22	1:G:160:LEU:N	2.21	0.56
1:H:50:GLN:HG2	2:H:2011:HOH:O	2.06	0.56
1:H:98:HIS:N	1:H:99:PRO:HD3	2.19	0.56
1:B:255:ASN:O	1:B:256:ASP:CB	2.48	0.56
1:E:217:LEU:HD21	1:E:242:LEU:HD11	1.87	0.56
1:D:68:TYR:O	1:D:69:CYS:C	2.49	0.56
1:G:158:TRP:H	1:G:158:TRP:CD1	2.23	0.56
1:H:0:HIS:ND1	1:H:1:MET:N	2.54	0.56
1:D:72:LEU:HD12	1:D:124:GLY:HA2	1.88	0.55
1:F:123:VAL:HB	2:F:2025:HOH:O	2.05	0.55
1:F:130:LEU:HD13	1:F:134:LEU:HG	1.88	0.55
1:A:0:HIS:ND1	1:A:1:MET:N	2.54	0.55
1:F:98:HIS:N	1:F:99:PRO:HD3	2.19	0.55
1:G:98:HIS:N	1:G:99:PRO:HD3	2.21	0.55
1:H:161:GLN:HG2	1:H:170:SER:CA	2.34	0.55
1:A:87:VAL:HG12	1:A:112:VAL:HG22	1.88	0.55
1:C:252:LEU:HD13	2:C:2072:HOH:O	2.05	0.55
1:D:6:HIS:CD2	2:D:2001:HOH:O	2.60	0.55
1:H:166:GLU:C	1:H:166:GLU:OE1	2.50	0.55
1:A:11:ARG:HE	1:A:64:ARG:HA	1.71	0.55
1:C:176:LEU:CD1	2:C:2043:HOH:O	2.55	0.55
1:D:48:GLU:N	2:D:2005:HOH:O	2.28	0.55
1:B:153:GLN:O	1:B:154:GLU:HB2	2.07	0.55
1:E:220:PHE:CE1	1:E:242:LEU:HD22	2.41	0.55
1:F:165:HIS:O	1:F:167:HIS:N	2.40	0.55
1:C:98:HIS:N	1:C:99:PRO:HD3	2.22	0.55
1:E:90:LEU:HD12	1:E:109:LEU:HD11	1.88	0.55
1:E:122:ASP:O	1:E:129:THR:HG22	2.07	0.55
1:C:172:TYR:CD1	1:C:172:TYR:C	2.85	0.55
1:C:205:MET:SD	1:C:246:LEU:HD22	2.47	0.55
1:E:91:LEU:HB3	1:E:105:ARG:HB3	1.89	0.55
1:A:151:LEU:HD23	1:A:160:LEU:HA	1.87	0.54
1:B:194:TRP:CG	2:B:2036:HOH:O	2.58	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:258:LYS:HG2	1:B:259:HIS:CD2	2.42	0.54
1:F:139:GLU:HA	2:F:2029:HOH:O	2.08	0.54
1:G:54:THR:O	1:G:58:GLU:HG3	2.07	0.54
1:G:120:ILE:HG13	1:G:120:ILE:O	2.07	0.54
1:A:19:VAL:HG12	1:A:21:THR:HG23	1.88	0.54
1:G:3:SER:O	1:G:6:HIS:HB3	2.07	0.54
1:G:264:ALA:HB3	2:G:2053:HOH:O	2.07	0.54
1:H:150:ARG:HG2	1:H:151:LEU:N	2.21	0.54
1:A:87:VAL:CG1	1:A:112:VAL:HG22	2.37	0.54
1:B:150:ARG:HH22	1:B:152:MET:CE	2.20	0.54
1:F:14:CYS:SG	1:F:15:GLN:N	2.80	0.54
1:F:123:VAL:C	1:F:129:THR:HG21	2.33	0.54
1:G:160:LEU:CD2	1:G:171:MET:SD	2.95	0.54
1:G:226:HIS:HE1	1:G:227:GLN:HE21	1.56	0.54
1:H:15:GLN:NE2	1:H:16:PRO:HD2	2.22	0.54
1:H:83:ILE:HG22	1:H:83:ILE:O	2.05	0.54
1:A:27:THR:HG23	2:A:2006:HOH:O	2.06	0.54
1:A:136:LEU:HD22	1:A:158:TRP:CE2	2.43	0.54
1:A:182:SER:HB2	1:D:104:PRO:HD3	1.89	0.54
1:D:245:LEU:HD12	1:D:249:GLN:HB2	1.89	0.54
1:H:205:MET:SD	1:H:246:LEU:HD22	2.47	0.54
1:C:164:HIS:ND1	1:C:165:HIS:N	2.45	0.54
1:E:23:GLU:OE1	1:E:23:GLU:HA	2.07	0.54
1:A:152:MET:HG3	1:A:153:GLN:N	2.22	0.54
1:B:220:PHE:CE1	1:B:242:LEU:HD22	2.43	0.54
1:C:90:LEU:HD12	1:C:109:LEU:HD11	1.88	0.54
1:C:150:ARG:HD2	1:C:168:TRP:CE2	2.43	0.54
1:G:53:GLU:O	1:G:53:GLU:HG3	2.08	0.54
1:A:255:ASN:O	1:A:256:ASP:CB	2.56	0.54
1:G:4:PHE:C	1:G:6:HIS:N	2.65	0.54
1:G:96:LEU:HD23	1:G:171:MET:HA	1.90	0.54
1:E:245:LEU:HD12	1:E:249:GLN:HB2	1.89	0.54
1:H:245:LEU:HD12	1:H:249:GLN:HB2	1.90	0.54
1:C:19:VAL:HG12	1:C:21:THR:HG23	1.89	0.54
1:C:262:THR:HG23	1:C:265:GLU:OE1	2.07	0.54
1:D:218:THR:O	1:D:219:ASN:HB2	2.06	0.54
1:F:109:LEU:HD23	1:F:172:TYR:CE1	2.43	0.54
1:F:186:MET:CE	1:H:186:MET:CE	2.47	0.54
1:D:15:GLN:NE2	1:D:16:PRO:HD2	2.24	0.53
1:G:4:PHE:O	1:G:6:HIS:N	2.41	0.53
1:G:125:PHE:H	1:G:129:THR:HG23	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:203:LEU:HB2	2:G:2044:HOH:O	2.08	0.53
1:D:7:ALA:HB2	2:D:2001:HOH:O	2.08	0.53
1:D:150:ARG:HG2	1:D:151:LEU:O	2.09	0.53
1:H:237:PRO:HG2	1:H:238:ASP:OD1	2.09	0.53
1:B:23:GLU:HA	1:B:23:GLU:OE1	2.09	0.53
1:D:98:HIS:N	1:D:99:PRO:HD3	2.24	0.53
1:E:15:GLN:NE2	1:E:16:PRO:HD2	2.23	0.53
1:F:54:THR:O	1:F:58:GLU:HG3	2.07	0.53
1:D:11:ARG:HE	1:D:64:ARG:HA	1.72	0.53
1:F:53:GLU:HG3	1:F:53:GLU:O	2.08	0.53
1:A:89:SER:O	1:A:90:LEU:HD23	2.09	0.53
1:A:220:PHE:CE1	1:A:242:LEU:HD22	2.44	0.53
1:B:254:VAL:HG13	1:B:254:VAL:O	2.09	0.53
1:D:120:ILE:HG13	1:D:120:ILE:O	2.08	0.53
1:E:273:PHE:C	2:E:2092:HOH:O	2.51	0.53
1:F:59:LYS:HG3	1:F:259:HIS:ND1	2.24	0.53
1:H:54:THR:O	1:H:58:GLU:HG3	2.08	0.53
1:A:11:ARG:HH21	1:A:64:ARG:CA	2.22	0.53
1:B:87:VAL:HG12	1:B:112:VAL:HG22	1.90	0.53
1:C:25:LEU:HD22	1:C:133:PRO:CG	2.35	0.53
1:C:38:PHE:O	1:C:205:MET:HA	2.09	0.53
1:E:11:ARG:HH21	1:E:64:ARG:CA	2.22	0.53
1:E:11:ARG:HE	1:E:64:ARG:HA	1.74	0.53
1:E:96:LEU:HD23	1:E:171:MET:HA	1.90	0.53
1:E:133:PRO:O	1:E:134:LEU:HD23	2.07	0.53
1:F:262:THR:HG23	1:F:265:GLU:OE1	2.08	0.53
1:A:200:ARG:HH12	1:C:200:ARG:HH12	1.56	0.53
1:B:98:HIS:N	1:B:99:PRO:HD3	2.23	0.53
1:A:91:LEU:HD21	1:A:184:HIS:CD2	2.44	0.53
1:F:128:GLN:N	1:F:128:GLN:NE2	2.52	0.53
1:G:64:ARG:NH2	2:G:2017:HOH:O	2.42	0.53
1:H:162:PHE:CD2	1:H:171:MET:SD	3.01	0.53
1:H:254:VAL:O	1:H:254:VAL:HG13	2.08	0.53
1:B:59:LYS:HG3	1:B:259:HIS:ND1	2.25	0.52
1:B:238:ASP:OD2	1:B:240:PRO:HD2	2.09	0.52
1:E:53:GLU:O	1:E:53:GLU:HG3	2.09	0.52
1:H:39:GLU:HG2	1:H:41:LEU:H	1.74	0.52
1:B:218:THR:O	1:B:219:ASN:HB2	2.09	0.52
1:D:91:LEU:HG	1:D:179:GLN:HG3	1.90	0.52
1:D:128:GLN:N	1:D:128:GLN:NE2	2.48	0.52
1:D:161:GLN:HB2	1:D:169:GLN:O	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:238:ASP:OD2	1:F:240:PRO:HD2	2.09	0.52
1:G:128:GLN:N	1:G:128:GLN:NE2	2.52	0.52
1:C:91:LEU:HD21	1:C:184:HIS:CD2	2.44	0.52
1:F:26:ARG:NH1	2:F:2007:HOH:O	2.43	0.52
1:G:4:PHE:CE2	1:G:78:ARG:HD3	2.44	0.52
1:B:233:GLN:O	1:F:232:GLU:HA	2.10	0.52
1:D:120:ILE:HD11	1:D:151:LEU:HD21	1.90	0.52
1:A:153:GLN:O	1:A:153:GLN:HG3	2.08	0.52
1:A:226:HIS:HE1	1:A:227:GLN:HE21	1.56	0.52
1:A:247:GLN:HB3	2:A:2048:HOH:O	2.09	0.52
1:H:136:LEU:HD23	1:H:151:LEU:CD1	2.40	0.52
1:H:161:GLN:CG	1:H:170:SER:HA	2.36	0.52
1:C:202:HIS:HA	1:C:273:PHE:CE2	2.45	0.52
1:E:5:LEU:HD22	1:E:82:ASP:HB3	1.92	0.52
1:F:218:THR:O	1:F:219:ASN:HB2	2.10	0.52
1:B:0:HIS:HA	2:B:2001:HOH:O	2.10	0.52
1:H:12:LEU:HD21	1:H:32:HIS:HA	1.90	0.52
1:H:91:LEU:HD21	1:H:184:HIS:HD2	1.74	0.52
1:E:33:ASN:O	1:E:208:HIS:HB2	2.10	0.52
1:E:237:PRO:HG2	1:E:238:ASP:OD1	2.08	0.52
1:B:0:HIS:HD1	1:B:1:MET:N	2.07	0.52
1:E:99:PRO:HA	2:E:2034:HOH:O	2.10	0.52
1:F:15:GLN:NE2	1:F:16:PRO:HD2	2.24	0.52
1:B:11:ARG:HE	1:B:64:ARG:HA	1.75	0.52
1:C:11:ARG:HH21	1:C:64:ARG:CA	2.23	0.52
1:C:181:GLN:O	1:C:185:VAL:HG23	2.09	0.52
1:C:226:HIS:HE1	1:C:227:GLN:HE21	1.58	0.52
1:C:159:ILE:HD11	1:C:170:SER:OG	2.10	0.51
1:E:104:PRO:HD3	1:G:182:SER:HB2	1.92	0.51
1:G:262:THR:HG23	1:G:265:GLU:OE1	2.11	0.51
1:H:181:GLN:O	1:H:185:VAL:HG23	2.10	0.51
1:A:98:HIS:N	1:A:99:PRO:HD3	2.24	0.51
1:D:59:LYS:HG3	1:D:259:HIS:ND1	2.26	0.51
1:D:255:ASN:O	1:D:256:ASP:CB	2.56	0.51
1:E:95:ILE:HG12	1:E:172:TYR:HA	1.92	0.51
1:G:144:THR:HG21	1:G:149:TYR:CE2	2.45	0.51
1:C:41:LEU:O	1:C:41:LEU:HD12	2.11	0.51
1:H:150:ARG:CZ	1:H:152:MET:HE2	2.38	0.51
1:A:150:ARG:NH2	1:A:152:MET:SD	2.83	0.51
1:D:38:PHE:O	1:D:205:MET:HA	2.09	0.51
1:G:203:LEU:O	1:G:204:LEU:HD23	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:96:LEU:C	1:A:98:HIS:H	2.18	0.51
1:B:203:LEU:O	1:B:204:LEU:HD23	2.09	0.51
1:D:128:GLN:HB2	1:D:171:MET:HE3	1.92	0.51
1:G:223:THR:HG22	1:G:225:TYR:CE1	2.45	0.51
1:H:83:ILE:O	1:H:83:ILE:CG2	2.58	0.51
1:A:186:MET:CE	2:A:2034:HOH:O	2.48	0.51
1:B:46:PRO:HD2	2:B:2007:HOH:O	2.10	0.51
1:B:194:TRP:C	2:B:2036:HOH:O	2.54	0.51
1:C:130:LEU:HD13	1:C:134:LEU:HG	1.93	0.51
1:C:164:HIS:CG	1:C:165:HIS:N	2.76	0.51
1:D:90:LEU:HD12	1:D:109:LEU:HD11	1.92	0.51
1:D:159:ILE:O	1:D:160:LEU:C	2.53	0.51
1:D:174:PHE:CD1	1:D:174:PHE:N	2.79	0.51
1:E:91:LEU:HG	1:E:179:GLN:HG3	1.93	0.51
1:E:216:THR:HG22	1:E:216:THR:O	2.11	0.51
1:E:263:GLU:OE2	2:E:2089:HOH:O	2.18	0.51
1:F:12:LEU:HD21	1:F:32:HIS:HA	1.93	0.51
1:H:203:LEU:O	1:H:204:LEU:HD23	2.11	0.51
1:B:83:ILE:HG22	1:B:83:ILE:O	2.09	0.51
1:C:93:ARG:NH2	1:C:105:ARG:NH1	2.59	0.51
1:D:239:VAL:HG23	2:D:2033:HOH:O	2.09	0.51
1:E:87:VAL:CG1	1:E:112:VAL:HG22	2.41	0.51
1:E:125:PHE:H	1:E:129:THR:HG23	1.75	0.51
1:F:149:TYR:N	1:F:149:TYR:CD1	2.78	0.51
1:F:150:ARG:HH21	1:F:168:TRP:CB	2.24	0.51
1:A:162:PHE:CD1	1:A:162:PHE:O	2.63	0.51
1:B:128:GLN:N	1:B:128:GLN:NE2	2.50	0.51
1:H:163:ARG:NH2	1:H:166:GLU:O	2.44	0.51
1:H:217:LEU:HD21	1:H:242:LEU:HD11	1.93	0.51
1:G:130:LEU:HD23	1:G:149:TYR:CE2	2.46	0.51
1:G:218:THR:O	1:G:219:ASN:HB2	2.11	0.51
1:H:11:ARG:HH21	1:H:64:ARG:CA	2.24	0.51
1:H:255:ASN:O	1:H:256:ASP:CB	2.56	0.51
1:A:125:PHE:H	1:A:129:THR:HG23	1.75	0.50
1:B:91:LEU:HD21	1:B:184:HIS:CD2	2.45	0.50
1:B:217:LEU:HD11	1:B:219:ASN:O	2.10	0.50
1:F:160:LEU:HD23	1:F:171:MET:SD	2.51	0.50
1:F:245:LEU:HD12	1:F:249:GLN:HB2	1.93	0.50
1:G:95:ILE:HG12	1:G:172:TYR:HA	1.92	0.50
1:A:76:PHE:HE1	1:A:80:LEU:HD21	1.76	0.50
1:F:163:ARG:NH1	2:F:2033:HOH:O	2.43	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:11:ARG:HE	1:G:64:ARG:HA	1.76	0.50
1:B:202:HIS:HA	1:B:273:PHE:CE2	2.47	0.50
1:D:174:PHE:N	1:D:174:PHE:HD1	2.09	0.50
1:G:254:VAL:O	1:G:254:VAL:HG13	2.12	0.50
1:B:195:PRO:N	2:B:2036:HOH:O	2.43	0.50
1:C:216:THR:HG22	1:C:216:THR:O	2.11	0.50
1:H:221:HIS:HD2	2:H:2041:HOH:O	1.93	0.50
1:A:4:PHE:O	1:A:6:HIS:N	2.44	0.50
1:B:166:GLU:HG2	1:G:233:GLN:O	2.11	0.50
1:C:125:PHE:H	1:C:129:THR:CG2	2.23	0.50
1:F:91:LEU:HG	1:F:179:GLN:HG3	1.91	0.50
1:G:90:LEU:HB2	1:G:109:LEU:HD11	1.93	0.50
1:A:53:GLU:HG3	1:A:53:GLU:O	2.12	0.50
1:C:123:VAL:C	1:C:129:THR:HG21	2.37	0.50
1:E:219:ASN:HA	1:E:270:MET:HE1	1.93	0.50
1:B:262:THR:HG23	1:B:265:GLU:OE1	2.11	0.50
1:F:8:TYR:CZ	1:F:12:LEU:HD11	2.47	0.50
1:G:202:HIS:HA	1:G:273:PHE:CE2	2.46	0.50
1:H:90:LEU:HB2	1:H:109:LEU:CD1	2.42	0.50
1:H:133:PRO:O	1:H:134:LEU:HD23	2.12	0.50
1:H:150:ARG:NH1	1:H:152:MET:CE	2.69	0.50
1:C:212:GLY:N	2:C:2057:HOH:O	2.30	0.50
1:D:11:ARG:HH21	1:D:64:ARG:CA	2.25	0.50
1:D:184:HIS:CE1	2:D:2023:HOH:O	2.65	0.50
1:F:23:GLU:HA	1:F:23:GLU:OE1	2.12	0.50
1:A:149:TYR:CD2	1:A:162:PHE:HB3	2.47	0.49
1:G:38:PHE:O	1:G:205:MET:HA	2.11	0.49
1:H:144:THR:CG2	1:H:146:HIS:H	2.20	0.49
1:H:163:ARG:HG2	1:H:168:TRP:CE3	2.47	0.49
1:H:165:HIS:O	1:H:166:GLU:CB	2.60	0.49
1:B:79:ALA:O	1:B:80:LEU:C	2.54	0.49
1:B:150:ARG:HH12	1:B:152:MET:CE	2.24	0.49
1:C:220:PHE:CE1	1:C:242:LEU:HD22	2.47	0.49
1:C:254:VAL:O	1:C:254:VAL:HG13	2.12	0.49
1:C:11:ARG:HE	1:C:64:ARG:HA	1.78	0.49
1:G:130:LEU:HD13	1:G:134:LEU:HG	1.93	0.49
1:H:12:LEU:CD2	1:H:32:HIS:HA	2.43	0.49
1:H:76:PHE:CE1	1:H:80:LEU:HD11	2.48	0.49
1:H:220:PHE:CE1	1:H:242:LEU:HD22	2.47	0.49
1:B:11:ARG:HH21	1:B:64:ARG:CA	2.26	0.49
1:B:243:TYR:CG	1:B:263:GLU:HG3	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:14:CYS:SG	1:C:15:GLN:N	2.84	0.49
1:D:163:ARG:NH1	1:D:167:HIS:HA	2.27	0.49
1:E:54:THR:O	1:E:58:GLU:HG3	2.12	0.49
1:G:202:HIS:HD2	1:G:202:HIS:O	1.95	0.49
1:H:41:LEU:O	1:H:41:LEU:HD12	2.12	0.49
1:A:140:ILE:HD13	2:A:2030:HOH:O	2.12	0.49
1:B:38:PHE:O	1:B:205:MET:HA	2.11	0.49
1:B:125:PHE:H	1:B:129:THR:HG23	1.76	0.49
1:C:15:GLN:NE2	1:C:16:PRO:HD2	2.27	0.49
1:D:96:LEU:C	1:D:98:HIS:H	2.20	0.49
1:D:220:PHE:CE1	1:D:242:LEU:HD22	2.47	0.49
1:F:205:MET:SD	1:F:246:LEU:HD22	2.53	0.49
1:G:68:TYR:OH	1:G:188:ASN:ND2	2.46	0.49
1:G:205:MET:SD	1:G:246:LEU:HD22	2.53	0.49
1:H:53:GLU:HG3	1:H:53:GLU:O	2.10	0.49
1:A:169:GLN:NE2	1:A:170:SER:H	2.10	0.49
1:E:15:GLN:HE21	1:E:16:PRO:HD2	1.77	0.49
1:A:4:PHE:C	1:A:6:HIS:N	2.68	0.49
1:D:225:TYR:HA	1:D:229:HIS:O	2.13	0.49
1:C:59:LYS:HG3	1:C:259:HIS:ND1	2.27	0.49
1:F:87:VAL:HG12	1:F:112:VAL:HG22	1.95	0.49
1:G:46:PRO:HD2	2:G:2013:HOH:O	2.13	0.49
1:A:162:PHE:HE1	1:A:169:GLN:HB3	1.75	0.49
1:C:88:ARG:NH1	2:C:2028:HOH:O	2.46	0.49
1:D:194:TRP:NE1	2:D:2025:HOH:O	2.11	0.49
1:D:216:THR:HG22	1:D:216:THR:O	2.11	0.49
1:G:178:VAL:HG12	1:G:179:GLN:N	2.28	0.49
1:F:182:SER:HB2	1:H:104:PRO:HD3	1.94	0.49
1:G:87:VAL:CG1	1:G:112:VAL:HG22	2.43	0.49
1:H:130:LEU:HD13	1:H:134:LEU:HG	1.95	0.49
1:A:178:VAL:HG12	1:A:179:GLN:N	2.28	0.48
1:D:41:LEU:HD12	1:D:41:LEU:O	2.13	0.48
1:F:90:LEU:HD12	1:F:109:LEU:HD11	1.95	0.48
1:B:83:ILE:O	1:B:83:ILE:CG2	2.61	0.48
1:C:53:GLU:O	1:C:53:GLU:HG3	2.13	0.48
1:D:3:SER:O	1:D:6:HIS:HB3	2.13	0.48
1:D:4:PHE:C	1:D:6:HIS:N	2.69	0.48
1:D:25:LEU:HD22	1:D:133:PRO:CG	2.40	0.48
1:D:96:LEU:HD23	1:D:170:SER:O	2.13	0.48
1:H:19:VAL:HG12	1:H:21:THR:CG2	2.43	0.48
1:H:123:VAL:C	1:H:129:THR:HG21	2.37	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4:PHE:O	1:D:6:HIS:N	2.47	0.48
1:E:11:ARG:HH21	1:E:64:ARG:HA	1.78	0.48
1:F:5:LEU:HD11	1:F:83:ILE:HG13	1.94	0.48
1:A:253:GLY:HA2	2:A:2015:HOH:O	2.13	0.48
1:B:109:LEU:HD23	1:B:172:TYR:CE1	2.48	0.48
1:C:211:ASP:HA	2:C:2057:HOH:O	2.13	0.48
1:E:225:TYR:HA	1:E:229:HIS:O	2.14	0.48
1:H:15:GLN:HE21	1:H:16:PRO:HD2	1.77	0.48
1:D:184:HIS:HE1	2:D:2023:HOH:O	1.96	0.48
1:F:79:ALA:O	1:F:80:LEU:C	2.54	0.48
1:A:15:GLN:HE21	1:A:16:PRO:HD2	1.79	0.48
1:A:68:TYR:OH	1:A:188:ASN:ND2	2.47	0.48
1:B:104:PRO:HD3	1:C:182:SER:HB2	1.95	0.48
1:C:133:PRO:O	1:C:134:LEU:HD23	2.13	0.48
1:D:222:PHE:CZ	1:D:249:GLN:HG2	2.49	0.48
1:E:41:LEU:HB3	1:E:65:ARG:HH22	1.78	0.48
1:B:30:LEU:HG	2:B:2027:HOH:O	2.12	0.48
1:B:150:ARG:NH2	1:B:152:MET:CE	2.77	0.48
1:F:178:VAL:HG12	1:F:179:GLN:N	2.29	0.48
1:H:109:LEU:HD23	1:H:172:TYR:CE1	2.48	0.48
1:B:14:CYS:SG	1:B:15:GLN:N	2.87	0.48
1:C:89:SER:O	1:C:90:LEU:HD23	2.14	0.48
1:F:77:GLU:HB2	1:F:110:LEU:HD21	1.94	0.48
1:A:87:VAL:HG13	1:A:112:VAL:HG13	1.95	0.48
1:B:93:ARG:NH2	1:B:105:ARG:NH1	2.62	0.48
1:C:1:MET:HE3	1:C:6:HIS:HB2	1.96	0.48
1:D:203:LEU:O	1:D:204:LEU:HD23	2.14	0.48
1:E:159:ILE:N	1:E:159:ILE:CD1	2.71	0.48
1:H:38:PHE:O	1:H:205:MET:HA	2.14	0.48
1:H:166:GLU:C	1:H:166:GLU:CD	2.82	0.48
1:A:181:GLN:O	1:A:185:VAL:HG23	2.13	0.48
1:A:186:MET:HE1	2:D:2016:HOH:O	2.14	0.48
2:A:2040:HOH:O	1:C:201:HIS:HE1	1.97	0.48
1:B:150:ARG:HG2	1:B:168:TRP:CE3	2.49	0.48
1:C:4:PHE:C	1:C:6:HIS:N	2.71	0.48
1:H:144:THR:HG21	1:H:149:TYR:HE1	1.79	0.48
1:H:202:HIS:HD2	1:H:202:HIS:O	1.96	0.48
1:H:225:TYR:HA	1:H:229:HIS:O	2.13	0.47
1:B:165:HIS:ND1	1:B:165:HIS:C	2.72	0.47
1:C:202:HIS:HD2	1:C:202:HIS:O	1.97	0.47
1:F:50:GLN:O	1:F:51:LEU:HD23	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:202:HIS:HA	1:H:273:PHE:CE2	2.49	0.47
1:H:226:HIS:HE1	1:H:227:GLN:HE21	1.61	0.47
1:A:3:SER:O	1:A:6:HIS:HB3	2.14	0.47
1:A:180:GLN:O	1:A:181:GLN:C	2.57	0.47
1:B:53:GLU:O	1:B:53:GLU:HG3	2.14	0.47
1:B:225:TYR:HA	1:B:229:HIS:O	2.14	0.47
1:D:262:THR:HG23	1:D:265:GLU:OE1	2.13	0.47
1:A:163:ARG:HG3	1:A:163:ARG:HH11	1.80	0.47
1:B:256:ASP:O	1:B:257:VAL:C	2.56	0.47
1:D:5:LEU:HD11	1:D:83:ILE:HG13	1.95	0.47
1:E:4:PHE:C	1:E:6:HIS:N	2.72	0.47
1:E:255:ASN:O	1:E:256:ASP:CB	2.62	0.47
1:F:159:ILE:CG2	1:F:160:LEU:N	2.76	0.47
1:G:181:GLN:O	1:G:185:VAL:HG23	2.15	0.47
1:H:201:HIS:O	1:H:202:HIS:HB3	2.14	0.47
1:B:89:SER:O	1:B:90:LEU:HD23	2.14	0.47
1:D:223:THR:HG22	1:D:225:TYR:CE1	2.49	0.47
1:D:254:VAL:HG13	1:D:254:VAL:O	2.14	0.47
1:F:256:ASP:O	1:F:257:VAL:C	2.56	0.47
1:H:93:ARG:NH2	1:H:105:ARG:NH1	2.63	0.47
1:A:91:LEU:HG	1:A:179:GLN:HG3	1.97	0.47
1:B:109:LEU:C	1:B:109:LEU:CD1	2.87	0.47
1:B:167:HIS:O	1:B:168:TRP:CB	2.61	0.47
1:B:239:VAL:HG23	2:B:2041:HOH:O	2.15	0.47
1:C:5:LEU:HD22	1:C:82:ASP:HB3	1.97	0.47
1:C:151:LEU:HD23	1:C:160:LEU:HA	1.97	0.47
1:C:162:PHE:CE1	1:C:164:HIS:HB2	2.49	0.47
1:C:273:PHE:CD1	1:C:273:PHE:N	2.80	0.47
1:E:41:LEU:O	1:E:41:LEU:HD12	2.15	0.47
1:E:45:LEU:HD12	1:E:45:LEU:O	2.15	0.47
1:E:262:THR:HG23	1:E:265:GLU:CD	2.40	0.47
1:F:203:LEU:O	1:F:204:LEU:HD23	2.13	0.47
1:G:96:LEU:C	1:G:98:HIS:H	2.22	0.47
1:A:196:GLN:HG3	2:C:2078:HOH:O	2.13	0.47
1:C:83:ILE:HG22	1:C:83:ILE:O	2.15	0.47
1:C:139:GLU:N	1:C:151:LEU:O	2.46	0.47
1:C:176:LEU:HB3	2:C:2028:HOH:O	2.14	0.47
1:F:89:SER:O	1:F:90:LEU:HD23	2.15	0.47
1:G:245:LEU:CD1	1:G:249:GLN:HB2	2.44	0.47
1:D:14:CYS:SG	1:D:15:GLN:N	2.88	0.47
1:D:144:THR:CG2	1:D:149:TYR:HE1	2.27	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:252:LEU:HD13	2:E:2014:HOH:O	2.15	0.47
1:F:87:VAL:CG1	1:F:112:VAL:HG22	2.45	0.47
1:C:91:LEU:HG	1:C:179:GLN:HG3	1.97	0.47
1:B:5:LEU:HD12	1:B:5:LEU:HA	1.73	0.46
1:B:19:VAL:HG12	1:B:21:THR:CG2	2.45	0.46
1:D:200:ARG:HB3	2:D:2029:HOH:O	2.15	0.46
1:E:12:LEU:O	1:E:13:HIS:C	2.57	0.46
1:E:163:ARG:CG	2:E:2053:HOH:O	2.53	0.46
1:B:45:LEU:HB2	2:B:2007:HOH:O	2.13	0.46
1:E:160:LEU:CG	1:E:171:MET:HE3	2.39	0.46
1:F:150:ARG:HH21	1:F:168:TRP:HB2	1.79	0.46
1:H:11:ARG:HG2	1:H:11:ARG:HH11	1.79	0.46
1:H:33:ASN:OD1	1:H:131:THR:HA	2.14	0.46
1:C:216:THR:HG21	2:C:2062:HOH:O	2.15	0.46
1:C:245:LEU:CD1	1:C:249:GLN:HB2	2.45	0.46
1:F:12:LEU:CD2	1:F:32:HIS:HA	2.44	0.46
1:F:150:ARG:O	1:F:151:LEU:HB3	2.14	0.46
1:F:243:TYR:CG	1:F:263:GLU:HG3	2.50	0.46
1:H:163:ARG:HG2	1:H:163:ARG:HH11	1.79	0.46
1:D:19:VAL:HG12	1:D:21:THR:CG2	2.44	0.46
1:D:123:VAL:C	1:D:129:THR:HG21	2.40	0.46
1:D:160:LEU:HD23	1:D:161:GLN:N	2.31	0.46
1:E:109:LEU:HD23	1:E:172:TYR:CE1	2.50	0.46
1:F:151:LEU:HB2	1:F:159:ILE:O	2.15	0.46
1:H:11:ARG:HH21	1:H:64:ARG:C	2.24	0.46
1:A:38:PHE:O	1:A:205:MET:HA	2.16	0.46
1:E:126:GLY:O	1:E:127:GLY:C	2.56	0.46
1:G:59:LYS:HG3	1:G:259:HIS:ND1	2.30	0.46
1:G:220:PHE:CE1	1:G:242:LEU:HD22	2.50	0.46
1:H:91:LEU:HD21	1:H:184:HIS:CD2	2.49	0.46
1:H:91:LEU:HG	1:H:179:GLN:HG3	1.98	0.46
1:A:4:PHE:O	1:A:5:LEU:C	2.58	0.46
1:A:164:HIS:O	1:A:165:HIS:HB2	2.16	0.46
1:B:96:LEU:HD21	1:B:171:MET:CG	2.46	0.46
2:B:2019:HOH:O	1:C:105:ARG:NE	2.48	0.46
1:D:106:THR:HB	2:D:2015:HOH:O	2.15	0.46
1:E:246:LEU:HD21	2:E:2083:HOH:O	2.15	0.46
1:F:254:VAL:O	1:F:254:VAL:HG13	2.16	0.46
1:A:1:MET:HE2	1:A:1:MET:HB3	1.84	0.46
1:A:25:LEU:HD22	1:A:133:PRO:CG	2.38	0.46
1:C:76:PHE:CE1	1:C:80:LEU:HD11	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:130:LEU:HD13	1:E:134:LEU:HG	1.98	0.46
1:F:181:GLN:O	1:F:185:VAL:HG23	2.15	0.46
1:F:221:HIS:HB2	2:F:2016:HOH:O	2.15	0.46
1:G:154:GLU:O	1:G:156:SER:N	2.49	0.46
1:H:76:PHE:HE1	1:H:80:LEU:HD21	1.80	0.46
1:B:144:THR:HG21	1:B:149:TYR:CE1	2.51	0.46
1:C:174:PHE:HA	2:C:2045:HOH:O	2.15	0.46
1:C:218:THR:O	1:C:219:ASN:HB2	2.15	0.46
1:D:178:VAL:HG12	1:D:179:GLN:N	2.30	0.46
1:H:64:ARG:HD2	2:H:2016:HOH:O	2.15	0.46
1:A:96:LEU:C	1:A:98:HIS:N	2.74	0.46
1:B:48:GLU:HA	2:B:2008:HOH:O	2.15	0.46
1:B:153:GLN:O	1:B:154:GLU:CB	2.64	0.46
1:B:205:MET:SD	1:B:246:LEU:HD22	2.55	0.46
1:E:12:LEU:CD2	1:E:32:HIS:HA	2.45	0.46
1:F:93:ARG:NH2	1:F:105:ARG:NH1	2.64	0.46
1:F:96:LEU:CD2	1:F:171:MET:HA	2.46	0.46
1:G:5:LEU:HD11	1:G:83:ILE:HG13	1.98	0.46
1:G:96:LEU:CD2	1:G:171:MET:HA	2.46	0.46
1:H:87:VAL:HG12	1:H:112:VAL:HG22	1.97	0.46
1:H:224:ARG:NH2	2:H:2040:HOH:O	2.24	0.46
1:A:161:GLN:CA	1:A:169:GLN:O	2.64	0.46
1:B:12:LEU:HD21	1:B:32:HIS:HA	1.97	0.46
1:C:194:TRP:NE1	2:C:2051:HOH:O	2.49	0.46
1:D:41:LEU:O	1:D:45:LEU:HG	2.16	0.46
1:G:12:LEU:HD21	1:G:32:HIS:HA	1.97	0.46
1:G:19:VAL:HG12	1:G:21:THR:CG2	2.46	0.46
1:G:87:VAL:HG12	1:G:112:VAL:HG22	1.98	0.46
1:G:130:LEU:HD23	1:G:149:TYR:CD2	2.51	0.46
1:H:89:SER:O	1:H:90:LEU:HD23	2.16	0.46
1:A:136:LEU:HD22	1:A:158:TRP:CH2	2.51	0.45
1:A:172:TYR:CD1	1:A:172:TYR:C	2.93	0.45
1:C:45:LEU:HD12	1:C:45:LEU:O	2.16	0.45
1:C:262:THR:HG23	1:C:265:GLU:CD	2.41	0.45
1:D:89:SER:O	1:D:90:LEU:HD23	2.16	0.45
1:F:225:TYR:HA	1:F:229:HIS:O	2.16	0.45
1:C:11:ARG:HH21	1:C:64:ARG:HA	1.80	0.45
1:D:202:HIS:HA	1:D:273:PHE:CE2	2.52	0.45
1:E:3:SER:O	1:E:6:HIS:HB3	2.16	0.45
1:G:109:LEU:C	1:G:109:LEU:CD1	2.88	0.45
1:H:160:LEU:HD23	1:H:171:MET:CE	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:138:ALA:O	1:A:140:ILE:N	2.46	0.45
1:A:152:MET:HG2	1:A:154:GLU:HG3	1.99	0.45
1:A:245:LEU:CD1	1:A:249:GLN:HB2	2.44	0.45
1:C:12:LEU:HD21	1:C:32:HIS:HA	1.97	0.45
1:D:15:GLN:HE21	1:D:16:PRO:HD2	1.82	0.45
1:E:1:MET:HE2	1:E:1:MET:HB3	1.78	0.45
1:E:138:ALA:O	1:E:140:ILE:N	2.46	0.45
1:E:178:VAL:HA	2:E:2027:HOH:O	2.15	0.45
1:E:178:VAL:HG12	1:E:179:GLN:N	2.30	0.45
1:G:144:THR:HG21	1:G:149:TYR:HE2	1.78	0.45
1:H:60:LEU:HD12	1:H:75:LEU:HD22	1.97	0.45
1:H:243:TYR:CZ	1:H:254:VAL:HG21	2.52	0.45
1:A:96:LEU:HD23	1:A:171:MET:HA	1.98	0.45
1:A:202:HIS:HA	1:A:273:PHE:CE2	2.52	0.45
1:B:237:PRO:HG2	1:B:238:ASP:OD1	2.16	0.45
1:D:205:MET:HE3	1:D:205:MET:HB2	1.85	0.45
1:G:262:THR:HG21	2:G:2021:HOH:O	2.16	0.45
1:B:45:LEU:HD12	1:B:45:LEU:O	2.17	0.45
1:B:200:ARG:HH12	1:D:200:ARG:HH12	1.65	0.45
1:E:96:LEU:CD2	1:E:171:MET:HA	2.47	0.45
1:E:201:HIS:O	1:E:202:HIS:HB3	2.16	0.45
1:G:11:ARG:HH21	1:G:64:ARG:CA	2.29	0.45
1:G:139:GLU:O	1:G:140:ILE:C	2.60	0.45
1:G:222:PHE:CZ	1:G:249:GLN:HG2	2.52	0.45
1:H:68:TYR:OH	1:H:188:ASN:ND2	2.50	0.45
1:B:33:ASN:OD1	1:B:131:THR:HA	2.16	0.45
1:B:46:PRO:HG3	2:D:2011:HOH:O	2.16	0.45
1:B:96:LEU:C	1:B:98:HIS:H	2.25	0.45
1:C:11:ARG:HH21	1:C:64:ARG:C	2.25	0.45
1:C:225:TYR:HA	1:C:229:HIS:O	2.17	0.45
1:D:235:ASN:O	1:D:236:VAL:C	2.58	0.45
1:D:243:TYR:CE1	1:D:254:VAL:HG21	2.51	0.45
1:E:11:ARG:HG2	1:E:11:ARG:HH11	1.80	0.45
1:E:150:ARG:HG2	1:E:168:TRP:CZ3	2.52	0.45
1:F:41:LEU:HD12	1:F:41:LEU:O	2.16	0.45
1:F:144:THR:CG2	1:F:146:HIS:H	2.22	0.45
1:G:123:VAL:C	1:G:129:THR:HG21	2.42	0.45
1:A:12:LEU:HD13	1:A:31:ALA:HB3	1.98	0.45
1:B:15:GLN:NE2	1:B:16:PRO:HD2	2.31	0.45
1:C:139:GLU:HG3	1:C:152:MET:HE1	1.99	0.45
1:F:69:CYS:HB2	1:F:70:PHE:H	1.61	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:163:ARG:HD2	1:F:166:GLU:HA	1.99	0.45
1:F:237:PRO:HG2	1:F:238:ASP:OD1	2.16	0.45
1:G:41:LEU:HD12	1:G:41:LEU:O	2.17	0.45
1:H:107:HIS:CE1	1:H:125:PHE:HD1	2.35	0.45
1:B:46:PRO:O	1:B:47:ARG:HB2	2.17	0.45
1:B:220:PHE:CD1	1:B:242:LEU:HD22	2.52	0.45
1:C:144:THR:HG21	1:C:149:TYR:HE2	1.82	0.45
1:H:161:GLN:HG2	1:H:169:GLN:C	2.42	0.45
1:B:4:PHE:C	1:B:6:HIS:N	2.74	0.45
1:B:91:LEU:HG	1:B:179:GLN:HG3	1.99	0.45
1:B:262:THR:N	1:B:265:GLU:OE1	2.46	0.45
1:C:96:LEU:C	1:C:98:HIS:H	2.23	0.45
1:C:106:THR:HG21	2:C:2018:HOH:O	2.15	0.45
1:D:125:PHE:H	1:D:129:THR:CG2	2.29	0.45
1:F:11:ARG:HE	1:F:64:ARG:HA	1.80	0.45
1:G:152:MET:CG	1:G:161:GLN:NE2	2.80	0.45
1:F:25:LEU:O	1:F:26:ARG:C	2.59	0.45
1:G:45:LEU:HD12	1:G:45:LEU:O	2.17	0.45
1:H:55:ALA:HA	2:H:2013:HOH:O	2.17	0.45
1:C:12:LEU:O	1:C:13:HIS:C	2.60	0.44
1:D:201:HIS:CE1	2:D:2030:HOH:O	2.69	0.44
1:G:15:GLN:HE21	1:G:16:PRO:HD2	1.81	0.44
1:H:222:PHE:CZ	1:H:249:GLN:HG2	2.52	0.44
1:A:223:THR:HG22	1:A:225:TYR:CE1	2.51	0.44
1:C:109:LEU:C	1:C:109:LEU:CD1	2.88	0.44
1:E:11:ARG:HH21	1:E:64:ARG:C	2.25	0.44
1:F:4:PHE:CE2	1:F:78:ARG:HD3	2.53	0.44
1:F:258:LYS:HG2	1:F:259:HIS:CD2	2.52	0.44
1:G:117:GLU:HB2	2:G:2029:HOH:O	2.16	0.44
1:H:96:LEU:CD2	1:H:171:MET:HA	2.46	0.44
1:A:254:VAL:O	1:A:254:VAL:HG13	2.17	0.44
1:B:87:VAL:HG13	1:B:112:VAL:HG13	1.99	0.44
1:D:76:PHE:HE1	1:D:80:LEU:HD21	1.80	0.44
1:D:102:LEU:HA	1:D:103:PRO:HD3	1.72	0.44
1:D:149:TYR:N	1:D:149:TYR:CD1	2.84	0.44
1:D:245:LEU:CD1	1:D:249:GLN:HB2	2.46	0.44
1:E:105:ARG:HG3	2:E:2039:HOH:O	2.17	0.44
1:E:176:LEU:HD12	1:E:176:LEU:N	2.33	0.44
1:H:12:LEU:O	1:H:13:HIS:C	2.60	0.44
1:H:23:GLU:OE1	1:H:26:ARG:HG3	2.17	0.44
1:H:180:GLN:O	1:H:183:ASP:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:223:THR:HG22	1:H:225:TYR:CE1	2.52	0.44
1:B:144:THR:CG2	1:B:149:TYR:HE1	2.30	0.44
1:B:181:GLN:O	1:B:185:VAL:HG23	2.17	0.44
1:D:226:HIS:HE1	1:D:227:GLN:HE21	1.65	0.44
1:F:33:ASN:OD1	1:F:131:THR:HA	2.18	0.44
1:A:11:ARG:HH21	1:A:64:ARG:HA	1.82	0.44
1:B:78:ARG:HD2	2:B:2010:HOH:O	2.16	0.44
1:C:11:ARG:HG2	1:C:11:ARG:HH11	1.83	0.44
1:C:15:GLN:HE21	1:C:16:PRO:HD2	1.81	0.44
1:C:102:LEU:HA	1:C:103:PRO:HD3	1.77	0.44
1:C:205:MET:HE3	1:C:205:MET:HB2	1.91	0.44
1:F:11:ARG:HH21	1:F:64:ARG:CA	2.31	0.44
1:F:163:ARG:HD3	1:F:166:GLU:O	2.18	0.44
1:G:33:ASN:OD1	1:G:131:THR:HA	2.17	0.44
1:H:5:LEU:HD11	1:H:83:ILE:HG13	2.00	0.44
1:A:23:GLU:OE1	1:A:26:ARG:HG3	2.17	0.44
1:A:245:LEU:HD12	1:A:245:LEU:O	2.18	0.44
1:B:41:LEU:HD12	1:B:41:LEU:O	2.17	0.44
1:C:163:ARG:HG3	1:C:167:HIS:C	2.43	0.44
1:D:79:ALA:O	1:D:80:LEU:C	2.61	0.44
1:H:3:SER:O	1:H:6:HIS:HB3	2.18	0.44
1:C:12:LEU:CD2	1:C:32:HIS:HA	2.47	0.44
1:D:262:THR:N	1:D:265:GLU:OE1	2.49	0.44
1:F:140:ILE:O	1:F:140:ILE:HG22	2.17	0.44
1:F:220:PHE:CD1	1:F:242:LEU:HD22	2.53	0.44
1:B:15:GLN:NE2	2:B:2003:HOH:O	2.37	0.44
1:C:5:LEU:HD11	1:C:83:ILE:HG13	2.00	0.44
1:C:60:LEU:HB2	1:C:75:LEU:HD22	2.00	0.44
1:C:150:ARG:NH1	1:C:168:TRP:CG	2.86	0.44
1:D:7:ALA:HB1	2:D:2002:HOH:O	2.17	0.44
1:D:130:LEU:HD13	1:D:134:LEU:HG	1.99	0.44
1:E:12:LEU:HD21	1:E:32:HIS:HA	2.00	0.44
1:G:163:ARG:NH2	1:G:166:GLU:O	2.51	0.44
1:H:0:HIS:CE1	2:H:2004:HOH:O	2.71	0.44
1:H:11:ARG:HH21	1:H:64:ARG:HA	1.82	0.44
1:A:131:THR:CG2	1:A:208:HIS:ND1	2.80	0.44
1:A:197:SER:HA	2:A:2039:HOH:O	2.18	0.44
1:A:243:TYR:CE1	1:A:254:VAL:HG21	2.53	0.44
1:A:273:PHE:N	1:A:273:PHE:CD1	2.82	0.44
1:B:160:LEU:C	1:B:161:GLN:HG3	2.43	0.44
1:D:114:VAL:C	1:D:115:GLU:HG2	2.43	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:126:GLY:O	1:D:127:GLY:C	2.61	0.44
1:D:136:LEU:HD22	1:D:158:TRP:CE2	2.53	0.44
1:E:79:ALA:O	1:E:80:LEU:C	2.59	0.44
1:F:159:ILE:CG2	1:F:160:LEU:H	2.30	0.44
1:G:125:PHE:H	1:G:129:THR:CG2	2.31	0.44
1:A:12:LEU:CD2	1:A:32:HIS:HA	2.48	0.43
1:A:50:GLN:O	1:A:51:LEU:HD23	2.18	0.43
1:B:69:CYS:HB2	1:B:70:PHE:H	1.62	0.43
1:B:164:HIS:N	2:B:2030:HOH:O	2.49	0.43
1:C:4:PHE:O	1:C:6:HIS:N	2.50	0.43
1:D:160:LEU:CD2	1:D:171:MET:SD	3.06	0.43
1:G:50:GLN:HB2	1:G:55:ALA:CB	2.48	0.43
1:G:96:LEU:C	1:G:98:HIS:N	2.76	0.43
1:G:243:TYR:CE1	1:G:254:VAL:HG21	2.53	0.43
1:H:25:LEU:HD13	1:H:133:PRO:CG	2.48	0.43
1:C:3:SER:O	1:C:6:HIS:HB3	2.18	0.43
1:C:83:ILE:O	1:C:83:ILE:CG2	2.67	0.43
1:D:109:LEU:HD21	1:D:174:PHE:CE2	2.54	0.43
1:E:180:GLN:O	1:E:181:GLN:C	2.61	0.43
1:E:223:THR:HG22	1:E:225:TYR:CE1	2.53	0.43
1:G:202:HIS:O	1:G:202:HIS:CD2	2.72	0.43
1:H:4:PHE:C	1:H:6:HIS:N	2.75	0.43
1:B:226:HIS:O	1:B:227:GLN:C	2.61	0.43
1:B:245:LEU:CD1	1:B:249:GLN:HB2	2.47	0.43
1:D:163:ARG:NH1	1:D:166:GLU:C	2.76	0.43
1:E:262:THR:OG1	1:E:264:ALA:N	2.52	0.43
1:G:72:LEU:HD12	1:G:124:GLY:HA2	2.00	0.43
1:G:76:PHE:HE1	1:G:80:LEU:HD21	1.83	0.43
1:G:91:LEU:HG	1:G:179:GLN:HG3	2.00	0.43
1:G:102:LEU:HB2	2:G:2027:HOH:O	2.17	0.43
1:G:131:THR:CG2	1:G:208:HIS:ND1	2.82	0.43
1:A:11:ARG:HH21	1:A:64:ARG:C	2.27	0.43
1:A:262:THR:HG23	1:A:265:GLU:CD	2.43	0.43
1:B:140:ILE:O	1:B:140:ILE:HG22	2.17	0.43
1:C:25:LEU:HD13	1:C:133:PRO:CG	2.49	0.43
1:E:14:CYS:SG	1:E:15:GLN:N	2.92	0.43
1:E:243:TYR:CZ	1:E:254:VAL:HG21	2.53	0.43
1:F:15:GLN:HE21	1:F:16:PRO:HD2	1.82	0.43
1:F:223:THR:HG22	1:F:225:TYR:CE1	2.53	0.43
1:H:238:ASP:OD2	1:H:240:PRO:HD2	2.19	0.43
1:A:103:PRO:HA	2:A:2024:HOH:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:182:SER:HB2	1:C:104:PRO:CD	2.47	0.43
1:C:4:PHE:O	1:C:5:LEU:C	2.61	0.43
1:C:4:PHE:CE2	1:C:78:ARG:HD3	2.54	0.43
1:F:125:PHE:O	1:F:125:PHE:CD2	2.72	0.43
1:H:245:LEU:CD1	1:H:249:GLN:HB2	2.48	0.43
1:A:172:TYR:CD1	1:A:172:TYR:O	2.71	0.43
1:A:243:TYR:CG	1:A:263:GLU:HG3	2.53	0.43
1:B:28:LEU:O	1:B:31:ALA:HB3	2.19	0.43
1:C:19:VAL:HG12	1:C:21:THR:CG2	2.49	0.43
1:C:262:THR:N	1:C:265:GLU:OE1	2.49	0.43
1:E:96:LEU:C	1:E:98:HIS:H	2.26	0.43
1:F:207:ARG:NH1	1:F:249:GLN:O	2.49	0.43
1:F:153:GLN:HE21	1:F:153:GLN:HB3	1.51	0.43
1:H:180:GLN:O	1:H:181:GLN:C	2.62	0.43
1:C:172:TYR:C	1:C:172:TYR:HD1	2.27	0.43
1:C:200:ARG:NH1	2:C:2052:HOH:O	2.49	0.43
1:C:221:HIS:HB2	2:C:2066:HOH:O	2.19	0.43
1:E:5:LEU:HD12	1:E:5:LEU:HA	1.79	0.43
1:E:148:GLU:CD	2:E:2053:HOH:O	2.61	0.43
1:F:109:LEU:C	1:F:109:LEU:CD1	2.85	0.43
1:F:262:THR:HG23	1:F:265:GLU:CD	2.43	0.43
1:H:125:PHE:H	1:H:129:THR:CG2	2.30	0.43
1:A:83:ILE:O	1:A:83:ILE:HG22	2.18	0.43
1:B:160:LEU:HD22	1:B:171:MET:HE2	2.00	0.43
1:B:174:PHE:CD1	1:B:174:PHE:N	2.87	0.43
1:C:139:GLU:OE2	1:C:152:MET:SD	2.76	0.43
1:F:11:ARG:CD	1:F:61:LEU:HA	2.43	0.43
1:G:126:GLY:O	1:G:127:GLY:C	2.62	0.43
1:H:77:GLU:HB2	1:H:110:LEU:HD21	2.01	0.43
1:H:96:LEU:C	1:H:98:HIS:H	2.27	0.43
1:H:162:PHE:CD2	1:H:171:MET:HG3	2.53	0.43
1:A:54:THR:O	1:A:58:GLU:HG3	2.19	0.43
1:A:225:TYR:HA	1:A:229:HIS:O	2.19	0.43
1:B:123:VAL:C	1:B:129:THR:HG21	2.43	0.43
1:C:93:ARG:N	1:C:173:CYS:O	2.48	0.43
1:D:11:ARG:HH21	1:D:64:ARG:HA	1.83	0.43
1:D:68:TYR:OH	1:D:188:ASN:ND2	2.52	0.43
1:D:76:PHE:CE1	1:D:80:LEU:HD21	2.54	0.43
1:D:96:LEU:HD23	1:D:171:MET:HA	2.01	0.43
1:F:46:PRO:O	1:F:47:ARG:HB2	2.18	0.43
1:F:226:HIS:HE1	1:F:227:GLN:HE21	1.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:149:TYR:HD1	1:G:162:PHE:CB	2.32	0.43
1:H:14:CYS:SG	1:H:15:GLN:N	2.92	0.43
1:A:39:GLU:CD	1:A:65:ARG:NH2	2.77	0.42
1:B:130:LEU:HD23	1:B:149:TYR:CE2	2.54	0.42
1:B:205:MET:HE3	1:B:205:MET:HB2	1.73	0.42
1:D:49:ILE:O	1:D:49:ILE:HG22	2.18	0.42
1:E:19:VAL:HG12	1:E:21:THR:CG2	2.48	0.42
1:E:33:ASN:OD1	1:E:131:THR:HA	2.18	0.42
1:F:200:ARG:HH12	1:G:200:ARG:HH12	1.66	0.42
1:A:76:PHE:CE1	1:A:80:LEU:HD21	2.54	0.42
1:A:164:HIS:ND1	1:A:165:HIS:CD2	2.88	0.42
1:B:49:ILE:O	1:B:49:ILE:HG22	2.19	0.42
1:B:190:TRP:CH2	1:B:194:TRP:CE2	3.07	0.42
1:C:68:TYR:OH	1:C:188:ASN:ND2	2.51	0.42
1:E:93:ARG:NH2	1:E:105:ARG:NH1	2.67	0.42
1:E:162:PHE:HD1	1:E:162:PHE:H	1.66	0.42
1:E:207:ARG:NH1	1:E:249:GLN:O	2.51	0.42
1:F:132:ALA:O	1:F:133:PRO:C	2.61	0.42
1:F:150:ARG:C	1:F:151:LEU:HD23	2.44	0.42
1:F:205:MET:HE3	1:F:205:MET:HB2	1.77	0.42
1:F:2:THR:O	1:F:3:SER:C	2.61	0.42
1:F:125:PHE:H	1:F:129:THR:CG2	2.31	0.42
1:G:159:ILE:CG2	1:G:160:LEU:N	2.82	0.42
1:H:87:VAL:CG1	1:H:112:VAL:HG22	2.48	0.42
1:H:150:ARG:HD3	1:H:152:MET:SD	2.59	0.42
1:A:12:LEU:HD21	1:A:32:HIS:HA	2.00	0.42
1:B:1:MET:HE2	1:B:1:MET:HB3	1.77	0.42
1:B:144:THR:HG21	1:B:149:TYR:HE1	1.84	0.42
1:D:96:LEU:C	1:D:98:HIS:N	2.76	0.42
1:D:231:VAL:O	1:D:232:GLU:CB	2.66	0.42
1:E:114:VAL:C	1:E:115:GLU:HG2	2.44	0.42
1:E:200:ARG:NH1	1:H:200:ARG:HH12	2.15	0.42
1:G:4:PHE:O	1:G:5:LEU:C	2.62	0.42
1:G:172:TYR:CD1	1:G:172:TYR:C	2.97	0.42
1:H:207:ARG:NH1	1:H:249:GLN:O	2.50	0.42
1:A:72:LEU:HD12	1:A:124:GLY:HA2	2.01	0.42
1:A:114:VAL:C	1:A:115:GLU:HG2	2.44	0.42
1:A:125:PHE:H	1:A:129:THR:CG2	2.32	0.42
1:B:11:ARG:CD	1:B:61:LEU:HA	2.48	0.42
1:B:202:HIS:HB2	1:B:219:ASN:OD1	2.20	0.42
1:C:150:ARG:NH1	1:C:168:TRP:CB	2.82	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:45:LEU:HD12	1:D:45:LEU:O	2.20	0.42
1:D:87:VAL:HG13	1:D:112:VAL:HG13	2.01	0.42
1:D:160:LEU:HD21	1:D:171:MET:SD	2.60	0.42
1:G:5:LEU:HD12	1:G:5:LEU:HA	1.82	0.42
1:A:46:PRO:O	1:A:47:ARG:HB2	2.20	0.42
1:A:109:LEU:C	1:A:109:LEU:CD1	2.90	0.42
1:B:161:GLN:CG	1:B:170:SER:HA	2.38	0.42
1:B:164:HIS:C	1:B:166:GLU:N	2.77	0.42
1:B:235:ASN:O	1:B:236:VAL:C	2.61	0.42
1:D:60:LEU:HB2	1:D:75:LEU:HD22	2.01	0.42
1:G:12:LEU:CD2	1:G:32:HIS:HA	2.50	0.42
1:G:178:VAL:HA	2:G:2020:HOH:O	2.19	0.42
1:G:225:TYR:HA	1:G:229:HIS:O	2.20	0.42
1:H:136:LEU:HD22	1:H:158:TRP:CZ2	2.54	0.42
1:B:259:HIS:CD2	1:B:259:HIS:N	2.85	0.42
1:C:158:TRP:NE1	2:C:2043:HOH:O	2.32	0.42
1:C:186:MET:HE2	2:C:2048:HOH:O	2.20	0.42
1:E:123:VAL:C	1:E:129:THR:HG21	2.45	0.42
1:G:45:LEU:HB2	2:G:2013:HOH:O	2.20	0.42
1:G:87:VAL:HG13	1:G:112:VAL:HG13	2.01	0.42
1:H:172:TYR:CD1	1:H:172:TYR:C	2.97	0.42
1:H:226:HIS:O	1:H:227:GLN:C	2.63	0.42
1:A:76:PHE:CE1	1:A:80:LEU:HD11	2.54	0.42
1:D:160:LEU:C	1:D:160:LEU:CD2	2.93	0.42
1:E:1:MET:HE3	1:E:6:HIS:HB2	2.02	0.42
1:A:220:PHE:CD1	1:A:242:LEU:HD22	2.55	0.42
1:A:235:ASN:O	1:A:236:VAL:C	2.62	0.42
1:D:33:ASN:OD1	1:D:131:THR:HA	2.20	0.42
1:D:256:ASP:O	1:D:257:VAL:C	2.62	0.42
1:E:4:PHE:O	1:E:6:HIS:N	2.53	0.42
1:E:273:PHE:CD1	1:E:273:PHE:N	2.84	0.42
1:F:5:LEU:HG	1:F:9:PHE:CE2	2.55	0.42
1:F:45:LEU:CB	2:F:2011:HOH:O	2.61	0.42
1:F:46:PRO:CD	2:F:2011:HOH:O	2.11	0.42
1:F:122:ASP:O	1:F:129:THR:CG2	2.66	0.42
1:C:130:LEU:HD23	1:C:149:TYR:CE2	2.55	0.42
1:D:50:GLN:HB2	1:D:55:ALA:CB	2.50	0.42
1:F:1:MET:HE2	1:F:1:MET:HB3	1.82	0.42
1:F:4:PHE:C	1:F:6:HIS:N	2.77	0.42
1:H:1:MET:HE2	1:H:1:MET:HB3	1.72	0.42
1:H:114:VAL:C	1:H:115:GLU:HG2	2.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:163:ARG:NH1	1:H:168:TRP:CG	2.88	0.42
1:A:45:LEU:O	1:A:45:LEU:HD12	2.18	0.41
1:A:59:LYS:HA	1:A:259:HIS:ND1	2.34	0.41
1:E:109:LEU:C	1:E:109:LEU:CD1	2.88	0.41
1:H:262:THR:OG1	1:H:264:ALA:N	2.53	0.41
1:A:33:ASN:OD1	1:A:131:THR:HA	2.20	0.41
1:A:40:ASN:O	1:A:40:ASN:CG	2.63	0.41
1:D:12:LEU:HD21	1:D:32:HIS:HA	2.02	0.41
1:D:150:ARG:NH2	1:D:152:MET:HE1	2.35	0.41
1:F:132:ALA:O	1:F:133:PRO:O	2.38	0.41
1:G:163:ARG:CZ	1:G:166:GLU:O	2.65	0.41
1:G:205:MET:HB2	1:G:205:MET:HE3	1.80	0.41
1:H:163:ARG:NH1	1:H:168:TRP:CD1	2.88	0.41
1:H:235:ASN:O	1:H:236:VAL:C	2.64	0.41
1:A:102:LEU:HA	1:A:103:PRO:HD3	1.74	0.41
1:A:138:ALA:HB2	1:A:153:GLN:HB2	2.03	0.41
1:A:231:VAL:O	1:A:232:GLU:CB	2.60	0.41
1:B:146:HIS:CE1	2:B:2027:HOH:O	2.72	0.41
1:D:12:LEU:CD2	1:D:32:HIS:HA	2.51	0.41
1:D:202:HIS:HD2	1:D:202:HIS:O	2.04	0.41
1:G:53:GLU:HA	2:G:2016:HOH:O	2.21	0.41
1:G:76:PHE:CE1	1:G:80:LEU:HD21	2.56	0.41
1:G:96:LEU:HD23	1:G:170:SER:O	2.20	0.41
1:G:235:ASN:O	1:G:236:VAL:C	2.63	0.41
1:H:243:TYR:CE1	1:H:254:VAL:HG21	2.55	0.41
1:A:5:LEU:HD12	1:A:5:LEU:HA	1.84	0.41
1:A:19:VAL:HA	1:A:20:PRO:HD2	1.89	0.41
1:A:243:TYR:CZ	1:A:254:VAL:HG21	2.55	0.41
1:B:12:LEU:CD2	1:B:32:HIS:HA	2.51	0.41
1:B:53:GLU:HB3	2:B:2010:HOH:O	2.21	0.41
1:B:76:PHE:HE1	1:B:80:LEU:HD21	1.86	0.41
1:B:126:GLY:O	1:B:127:GLY:C	2.63	0.41
1:D:172:TYR:O	1:D:172:TYR:HD1	2.03	0.41
1:H:4:PHE:O	1:H:5:LEU:C	2.63	0.41
1:H:60:LEU:HB2	1:H:75:LEU:HD22	2.02	0.41
1:A:180:GLN:O	1:A:183:ASP:N	2.53	0.41
1:A:205:MET:HE3	1:A:205:MET:HB2	1.80	0.41
1:B:5:LEU:HD11	1:B:83:ILE:HG13	2.02	0.41
1:B:11:ARG:HH21	1:B:64:ARG:HA	1.85	0.41
1:C:50:GLN:HB2	1:C:55:ALA:CB	2.51	0.41
1:C:60:LEU:CB	1:C:75:LEU:HD22	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:96:LEU:C	1:C:98:HIS:N	2.77	0.41
1:D:5:LEU:HD12	1:D:5:LEU:HA	1.87	0.41
1:D:220:PHE:CD1	1:D:242:LEU:HD22	2.55	0.41
1:E:125:PHE:H	1:E:129:THR:CG2	2.34	0.41
1:E:131:THR:CG2	1:E:208:HIS:ND1	2.83	0.41
1:F:226:HIS:O	1:F:227:GLN:C	2.64	0.41
1:G:59:LYS:HA	1:G:259:HIS:ND1	2.36	0.41
1:A:19:VAL:HG12	1:A:21:THR:CG2	2.49	0.41
1:A:213:GLY:HA2	1:A:225:TYR:O	2.21	0.41
1:B:4:PHE:CE2	1:B:78:ARG:HD3	2.55	0.41
1:C:25:LEU:O	1:C:26:ARG:C	2.64	0.41
1:C:93:ARG:NH2	1:C:105:ARG:HH12	2.19	0.41
1:C:144:THR:CG2	1:C:146:HIS:H	2.25	0.41
1:C:243:TYR:CZ	1:C:254:VAL:HG21	2.56	0.41
1:D:1:MET:HE2	1:D:1:MET:HB3	1.83	0.41
1:D:63:ALA:O	1:D:253:GLY:HA3	2.20	0.41
1:E:226:HIS:O	1:E:227:GLN:C	2.64	0.41
1:F:165:HIS:O	1:F:166:GLU:C	2.64	0.41
1:G:223:THR:CG2	1:G:225:TYR:CE1	3.04	0.41
1:A:12:LEU:HD13	1:A:31:ALA:CB	2.51	0.41
1:B:144:THR:CG2	1:B:146:HIS:H	2.22	0.41
1:E:63:ALA:O	1:E:253:GLY:HA3	2.20	0.41
1:E:200:ARG:HH12	1:H:200:ARG:NH1	2.14	0.41
1:E:238:ASP:OD2	1:E:240:PRO:HD2	2.20	0.41
1:F:245:LEU:CD1	1:F:249:GLN:HB2	2.51	0.41
1:H:213:GLY:HA2	1:H:225:TYR:O	2.20	0.41
1:B:162:PHE:CD1	1:B:162:PHE:N	2.88	0.41
1:C:41:LEU:HB3	1:C:65:ARG:HH22	1.86	0.41
1:E:59:LYS:HB2	1:E:259:HIS:CE1	2.55	0.41
1:G:1:MET:HE2	1:G:1:MET:HB3	1.73	0.41
1:G:54:THR:N	2:G:2016:HOH:O	2.53	0.41
1:H:59:LYS:HG3	1:H:259:HIS:ND1	2.35	0.41
1:A:5:LEU:HD11	1:A:83:ILE:HG13	2.02	0.41
1:A:50:GLN:HB2	1:A:55:ALA:CB	2.51	0.41
1:A:234:VAL:HG12	1:A:235:ASN:N	2.34	0.41
1:B:102:LEU:HA	1:B:103:PRO:HD3	1.79	0.41
1:B:122:ASP:O	1:B:129:THR:CG2	2.67	0.41
1:B:200:ARG:NH1	1:D:200:ARG:HH12	2.18	0.41
1:C:12:LEU:HD13	1:C:31:ALA:CB	2.51	0.41
1:C:176:LEU:CB	2:C:2028:HOH:O	2.69	0.41
1:C:215:LEU:CD2	1:C:224:ARG:HG3	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:39:GLU:CD	1:D:65:ARG:NH2	2.79	0.41
1:D:90:LEU:HB2	1:D:109:LEU:CD1	2.51	0.41
1:E:118:GLN:N	2:E:2044:HOH:O	2.52	0.41
1:E:180:GLN:O	1:E:183:ASP:N	2.53	0.41
1:E:202:HIS:HA	1:E:273:PHE:CE2	2.56	0.41
1:F:28:LEU:HD23	1:F:28:LEU:HA	1.94	0.41
1:G:57:GLU:N	2:G:2016:HOH:O	2.53	0.41
1:G:69:CYS:HB2	1:G:70:PHE:H	1.61	0.41
1:G:269:VAL:HG13	2:G:2054:HOH:O	2.20	0.41
1:H:63:ALA:O	1:H:253:GLY:HA3	2.21	0.41
1:H:256:ASP:O	1:H:257:VAL:C	2.63	0.41
1:A:162:PHE:CD1	1:A:162:PHE:N	2.89	0.41
1:B:45:LEU:O	1:B:46:PRO:C	2.64	0.41
1:C:163:ARG:NH1	1:C:167:HIS:HA	2.32	0.41
1:C:222:PHE:CZ	1:C:249:GLN:HG2	2.56	0.41
1:C:243:TYR:CG	1:C:263:GLU:HG3	2.56	0.41
1:D:150:ARG:HB2	1:D:168:TRP:CZ3	2.56	0.41
1:E:163:ARG:NH1	1:E:167:HIS:C	2.78	0.41
1:H:69:CYS:HB2	1:H:70:PHE:H	1.70	0.41
1:H:234:VAL:HG12	1:H:235:ASN:N	2.35	0.41
1:A:41:LEU:HB3	1:A:65:ARG:HH22	1.86	0.40
1:A:55:ALA:HB1	2:A:2052:HOH:O	2.21	0.40
1:B:15:GLN:HB3	2:B:2002:HOH:O	2.20	0.40
1:B:61:LEU:HD21	1:B:75:LEU:HD21	2.02	0.40
1:B:195:PRO:HD2	2:B:2036:HOH:O	2.21	0.40
1:D:148:GLU:HB3	1:D:163:ARG:HB2	2.03	0.40
1:D:262:THR:HG23	1:D:265:GLU:CD	2.46	0.40
1:E:239:VAL:N	1:E:240:PRO:CD	2.84	0.40
1:F:95:ILE:HG12	1:F:172:TYR:HA	2.02	0.40
1:H:144:THR:CG2	1:H:149:TYR:HE1	2.33	0.40
1:H:162:PHE:CE2	1:H:171:MET:HG3	2.56	0.40
1:B:90:LEU:HB2	1:B:109:LEU:CD1	2.51	0.40
1:B:132:ALA:O	1:B:133:PRO:C	2.64	0.40
1:C:239:VAL:HB	1:C:240:PRO:CD	2.49	0.40
1:D:162:PHE:CD1	1:D:169:GLN:HB2	2.55	0.40
1:E:243:TYR:CE1	1:E:254:VAL:HG21	2.57	0.40
1:F:87:VAL:HG13	1:F:112:VAL:HG13	2.02	0.40
1:F:90:LEU:HB2	1:F:109:LEU:CD1	2.52	0.40
1:F:243:TYR:CE1	1:F:254:VAL:HG21	2.56	0.40
1:H:79:ALA:O	1:H:80:LEU:C	2.63	0.40
1:A:12:LEU:O	1:A:13:HIS:C	2.64	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:12:LEU:HD13	1:C:31:ALA:HB3	2.03	0.40
1:C:41:LEU:O	1:C:45:LEU:HG	2.21	0.40
1:C:232:GLU:HB2	2:C:2065:HOH:O	2.22	0.40
1:C:239:VAL:HG11	1:C:267:ALA:HB2	2.04	0.40
1:D:12:LEU:HD13	1:D:31:ALA:HB3	2.03	0.40
1:E:25:LEU:O	1:E:26:ARG:C	2.64	0.40
1:E:83:ILE:O	1:E:83:ILE:HG22	2.20	0.40
1:G:63:ALA:HB1	2:G:2052:HOH:O	2.22	0.40
1:G:259:HIS:CD2	1:G:259:HIS:N	2.89	0.40
1:H:149:TYR:HD2	1:H:162:PHE:HB3	1.83	0.40
1:A:189:PHE:CE2	1:D:189:PHE:CE2	3.10	0.40
1:B:166:GLU:HG2	1:G:233:GLN:CB	2.29	0.40
1:C:125:PHE:CB	1:C:129:THR:HG23	2.52	0.40
1:C:161:GLN:HB3	1:C:169:GLN:O	2.21	0.40
1:F:102:LEU:HA	1:F:103:PRO:HD3	1.72	0.40
1:F:138:ALA:HA	1:F:151:LEU:O	2.22	0.40
1:G:262:THR:HG23	1:G:265:GLU:CD	2.46	0.40
1:H:273:PHE:CD1	1:H:273:PHE:N	2.88	0.40
1:A:161:GLN:HB3	1:A:169:GLN:O	2.22	0.40
1:A:203:LEU:O	1:A:204:LEU:HD23	2.22	0.40
1:B:213:GLY:HA2	1:B:225:TYR:O	2.22	0.40
1:C:1:MET:HE2	1:C:1:MET:HB3	1.80	0.40
1:C:33:ASN:OD1	1:C:131:THR:HA	2.22	0.40
1:C:243:TYR:CE1	1:C:254:VAL:HG21	2.56	0.40
1:D:19:VAL:HA	1:D:20:PRO:HD2	1.92	0.40
1:E:28:LEU:HD23	1:E:28:LEU:HA	1.91	0.40
1:E:59:LYS:HG3	1:E:259:HIS:ND1	2.37	0.40
1:E:205:MET:HG2	2:E:2014:HOH:O	2.20	0.40
1:F:96:LEU:C	1:F:98:HIS:H	2.28	0.40
1:G:63:ALA:O	1:G:253:GLY:HA3	2.21	0.40
1:H:87:VAL:HG13	1:H:112:VAL:HG13	2.02	0.40
1:H:262:THR:HG23	1:H:265:GLU:OE1	2.22	0.40

All (4) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:6:HIS:ND1	1:F:62:TYR:OH[2_665]	1.90	0.30
1:C:211:ASP:OD2	1:H:10:THR:O[4_556]	1.92	0.28
1:B:6:HIS:ND1	1:B:62:TYR:OH[2_665]	1.98	0.22
1:C:209:LEU:CD1	1:H:6:HIS:NE2[4_556]	2.19	0.01

5.3 Torsion angles

5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	272/284 (96%)	225 (83%)	38 (14%)	9 (3%)	3	11
1	B	272/284 (96%)	216 (79%)	44 (16%)	12 (4%)	2	7
1	C	272/284 (96%)	223 (82%)	41 (15%)	8 (3%)	3	13
1	D	272/284 (96%)	217 (80%)	46 (17%)	9 (3%)	3	11
1	E	272/284 (96%)	229 (84%)	35 (13%)	8 (3%)	3	13
1	F	272/284 (96%)	223 (82%)	40 (15%)	9 (3%)	3	11
1	G	272/284 (96%)	221 (81%)	44 (16%)	7 (3%)	4	15
1	H	272/284 (96%)	226 (83%)	35 (13%)	11 (4%)	2	8
All	All	2176/2272 (96%)	1780 (82%)	323 (15%)	73 (3%)	3	11

All (73) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	69	CYS
1	A	256	ASP
1	B	69	CYS
1	B	140	ILE
1	B	165	HIS
1	B	166	GLU
1	B	256	ASP
1	C	54	THR
1	C	69	CYS
1	C	140	ILE
1	C	256	ASP
1	D	54	THR
1	D	69	CYS
1	D	140	ILE
1	D	256	ASP
1	E	54	THR
1	E	256	ASP

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Mol	Chain	Res	Type
1	F	69	CYS
1	F	140	ILE
1	F	166	GLU
1	F	256	ASP
1	G	54	THR
1	G	69	CYS
1	G	140	ILE
1	G	256	ASP
1	H	69	CYS
1	H	140	ILE
1	H	164	HIS
1	H	165	HIS
1	H	256	ASP
1	A	54	THR
1	A	140	ILE
1	B	54	THR
1	E	69	CYS
1	E	140	ILE
1	F	54	THR
1	G	5	LEU
1	G	155	GLY
1	H	54	THR
1	H	166	GLU
1	B	154	GLU
1	B	168	TRP
1	C	165	HIS
1	D	5	LEU
1	F	165	HIS
1	H	152	MET
1	A	5	LEU
1	C	5	LEU
1	C	154	GLU
1	D	97	SER
1	D	116	ASP
1	G	16	PRO
1	H	116	ASP
1	A	97	SER
1	B	139	GLU
1	B	232	GLU
1	E	5	LEU
1	E	116	ASP
1	E	232	GLU

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Mol	Chain	Res	Type
1	F	232	GLU
1	H	232	GLU
1	A	232	GLU
1	B	5	LEU
1	C	232	GLU
1	D	16	PRO
1	D	232	GLU
1	A	16	PRO
1	E	16	PRO
1	B	16	PRO
1	A	145	PRO
1	F	16	PRO
1	H	16	PRO
1	F	257	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	A	236/243 (97%)	212 (90%)	24 (10%)	7	23
1	B	236/243 (97%)	216 (92%)	20 (8%)	10	31
1	C	236/243 (97%)	212 (90%)	24 (10%)	7	23
1	D	236/243 (97%)	215 (91%)	21 (9%)	9	29
1	E	236/243 (97%)	208 (88%)	28 (12%)	5	17
1	F	236/243 (97%)	216 (92%)	20 (8%)	10	31
1	G	236/243 (97%)	210 (89%)	26 (11%)	6	20
1	H	236/243 (97%)	214 (91%)	22 (9%)	8	27
All	All	1888/1944 (97%)	1703 (90%)	185 (10%)	7	25

All (185) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	1	MET

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Mol	Chain	Res	Type
1	A	16	PRO
1	A	23	GLU
1	A	25	LEU
1	A	30	LEU
1	A	39	GLU
1	A	45	LEU
1	A	54	THR
1	A	68	TYR
1	A	87	VAL
1	A	128	GLN
1	A	129	THR
1	A	144	THR
1	A	145	PRO
1	A	150	ARG
1	A	162	PHE
1	A	169	GLN
1	A	205	MET
1	A	216	THR
1	A	237	PRO
1	A	248	GLN
1	A	254	VAL
1	A	262	THR
1	A	263	GLU
1	B	1	MET
1	B	16	PRO
1	B	23	GLU
1	B	25	LEU
1	B	30	LEU
1	B	39	GLU
1	B	45	LEU
1	B	54	THR
1	B	68	TYR
1	B	87	VAL
1	B	128	GLN
1	B	129	THR
1	B	144	THR
1	B	145	PRO
1	B	162	PHE
1	B	165	HIS
1	B	216	THR
1	B	248	GLN
1	B	254	VAL

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Mol	Chain	Res	Type
1	B	262	THR
1	C	1	MET
1	C	16	PRO
1	C	23	GLU
1	C	25	LEU
1	C	30	LEU
1	C	39	GLU
1	C	45	LEU
1	C	54	THR
1	C	68	TYR
1	C	87	VAL
1	C	109	LEU
1	C	128	GLN
1	C	129	THR
1	C	144	THR
1	C	145	PRO
1	C	166	GLU
1	C	169	GLN
1	C	205	MET
1	C	216	THR
1	C	237	PRO
1	C	248	GLN
1	C	254	VAL
1	C	262	THR
1	C	263	GLU
1	D	1	MET
1	D	16	PRO
1	D	23	GLU
1	D	25	LEU
1	D	30	LEU
1	D	39	GLU
1	D	45	LEU
1	D	68	TYR
1	D	87	VAL
1	D	128	GLN
1	D	129	THR
1	D	144	THR
1	D	145	PRO
1	D	162	PHE
1	D	174	PHE
1	D	175	ASP
1	D	196	GLN

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Mol	Chain	Res	Type
1	D	216	THR
1	D	248	GLN
1	D	254	VAL
1	D	262	THR
1	E	1	MET
1	E	16	PRO
1	E	23	GLU
1	E	25	LEU
1	E	30	LEU
1	E	39	GLU
1	E	41	LEU
1	E	45	LEU
1	E	68	TYR
1	E	87	VAL
1	E	109	LEU
1	E	128	GLN
1	E	129	THR
1	E	144	THR
1	E	145	PRO
1	E	150	ARG
1	E	157	THR
1	E	160	LEU
1	E	161	GLN
1	E	162	PHE
1	E	163	ARG
1	E	164	HIS
1	E	196	GLN
1	E	205	MET
1	E	216	THR
1	E	248	GLN
1	E	254	VAL
1	E	262	THR
1	F	1	MET
1	F	16	PRO
1	F	23	GLU
1	F	25	LEU
1	F	30	LEU
1	F	39	GLU
1	F	45	LEU
1	F	68	TYR
1	F	87	VAL
1	F	109	LEU

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Mol	Chain	Res	Type
1	F	128	GLN
1	F	129	THR
1	F	144	THR
1	F	153	GLN
1	F	160	LEU
1	F	165	HIS
1	F	216	THR
1	F	248	GLN
1	F	254	VAL
1	F	262	THR
1	G	1	MET
1	G	16	PRO
1	G	23	GLU
1	G	25	LEU
1	G	30	LEU
1	G	39	GLU
1	G	41	LEU
1	G	45	LEU
1	G	54	THR
1	G	68	TYR
1	G	87	VAL
1	G	109	LEU
1	G	128	GLN
1	G	129	THR
1	G	144	THR
1	G	145	PRO
1	G	151	LEU
1	G	159	ILE
1	G	169	GLN
1	G	205	MET
1	G	216	THR
1	G	237	PRO
1	G	248	GLN
1	G	254	VAL
1	G	262	THR
1	G	263	GLU
1	H	1	MET
1	H	16	PRO
1	H	23	GLU
1	H	25	LEU
1	H	30	LEU
1	H	39	GLU

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Mol	Chain	Res	Type
1	H	41	LEU
1	H	45	LEU
1	H	68	TYR
1	H	87	VAL
1	H	128	GLN
1	H	129	THR
1	H	144	THR
1	H	145	PRO
1	H	166	GLU
1	H	175	ASP
1	H	196	GLN
1	H	205	MET
1	H	216	THR
1	H	248	GLN
1	H	254	VAL
1	H	262	THR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (101) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	15	GLN
1	A	86	ASN
1	A	128	GLN
1	A	143	GLN
1	A	153	GLN
1	A	165	HIS
1	A	169	GLN
1	A	184	HIS
1	A	188	ASN
1	A	198	HIS
1	A	221	HIS
1	A	226	HIS
1	A	227	GLN
1	A	244	GLN
1	B	15	GLN
1	B	86	ASN
1	B	118	GLN
1	B	128	GLN
1	B	153	GLN
1	B	164	HIS
1	B	169	GLN
1	B	184	HIS

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Mol	Chain	Res	Type
1	B	188	ASN
1	B	198	HIS
1	B	221	HIS
1	B	226	HIS
1	B	227	GLN
1	B	244	GLN
1	B	248	GLN
1	C	15	GLN
1	C	86	ASN
1	C	128	GLN
1	C	169	GLN
1	C	184	HIS
1	C	188	ASN
1	C	198	HIS
1	C	202	HIS
1	C	221	HIS
1	C	226	HIS
1	C	227	GLN
1	C	233	GLN
1	C	244	GLN
1	D	15	GLN
1	D	86	ASN
1	D	128	GLN
1	D	161	GLN
1	D	184	HIS
1	D	188	ASN
1	D	198	HIS
1	D	221	HIS
1	D	226	HIS
1	D	227	GLN
1	D	244	GLN
1	E	15	GLN
1	E	86	ASN
1	E	128	GLN
1	E	167	HIS
1	E	184	HIS
1	E	188	ASN
1	E	221	HIS
1	E	226	HIS
1	E	227	GLN
1	E	244	GLN
1	F	15	GLN

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Mol	Chain	Res	Type
1	F	86	ASN
1	F	128	GLN
1	F	153	GLN
1	F	161	GLN
1	F	165	HIS
1	F	184	HIS
1	F	188	ASN
1	F	198	HIS
1	F	221	HIS
1	F	226	HIS
1	F	227	GLN
1	F	244	GLN
1	G	15	GLN
1	G	86	ASN
1	G	128	GLN
1	G	161	GLN
1	G	164	HIS
1	G	167	HIS
1	G	169	GLN
1	G	184	HIS
1	G	188	ASN
1	G	198	HIS
1	G	221	HIS
1	G	226	HIS
1	G	244	GLN
1	H	15	GLN
1	H	86	ASN
1	H	128	GLN
1	H	161	GLN
1	H	165	HIS
1	H	184	HIS
1	H	188	ASN
1	H	198	HIS
1	H	221	HIS
1	H	226	HIS
1	H	227	GLN
1	H	244	GLN

5.3.3 RNA ⓘ

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	A	274/284 (96%)	0.64	11 (4%) 42 33	47, 79, 110, 122	0
1	B	274/284 (96%)	0.67	15 (5%) 30 23	54, 77, 106, 119	0
1	C	274/284 (96%)	0.73	20 (7%) 21 15	54, 79, 113, 121	0
1	D	274/284 (96%)	0.94	26 (9%) 14 10	49, 93, 116, 121	0
1	E	274/284 (96%)	0.14	4 (1%) 72 63	37, 59, 87, 119	0
1	F	274/284 (96%)	0.54	18 (6%) 24 18	45, 70, 104, 119	0
1	G	274/284 (96%)	0.45	9 (3%) 49 39	39, 77, 106, 120	0
1	H	274/284 (96%)	0.59	16 (5%) 29 22	47, 78, 109, 120	0
All	All	2192/2272 (96%)	0.59	119 (5%) 31 24	37, 76, 110, 122	0

All (119) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	3	SER	6.2
1	F	3	SER	5.8
1	F	6	HIS	5.0
1	H	1	MET	4.6
1	F	1	MET	3.6
1	B	6	HIS	3.5
1	E	1	MET	3.5
1	H	0	HIS	3.4
1	B	155	GLY	3.4
1	A	52	ASP	3.4
1	C	211	ASP	3.3
1	C	210	PRO	3.3
1	C	99	PRO	3.3
1	F	0	HIS	3.2
1	C	186	MET	3.2
1	B	1	MET	3.1

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Mol	Chain	Res	Type	RSRZ
1	B	205	MET	3.0
1	B	2	THR	3.0
1	C	1	MET	3.0
1	B	234	VAL	3.0
1	G	1	MET	2.9
1	H	139	GLU	2.9
1	H	138	ALA	2.9
1	D	69	CYS	2.9
1	B	12	LEU	2.9
1	D	270	MET	2.9
1	C	114	VAL	2.9
1	H	228	GLY	2.8
1	F	152	MET	2.8
1	D	5	LEU	2.8
1	D	171	MET	2.8
1	B	171	MET	2.8
1	C	171	MET	2.8
1	F	186	MET	2.8
1	D	14	CYS	2.8
1	B	33	ASN	2.8
1	G	3	SER	2.8
1	C	146	HIS	2.7
1	A	232	GLU	2.7
1	A	12	LEU	2.7
1	E	152	MET	2.7
1	F	140	ILE	2.7
1	A	226	HIS	2.7
1	B	186	MET	2.6
1	D	205	MET	2.6
1	H	270	MET	2.6
1	D	165	HIS	2.6
1	F	82	ASP	2.6
1	F	187	GLY	2.6
1	G	255	ASN	2.6
1	H	33	ASN	2.6
1	G	0	HIS	2.6
1	H	253	GLY	2.5
1	A	0	HIS	2.5
1	D	29	HIS	2.5
1	D	1	MET	2.5
1	B	270	MET	2.5
1	C	156	SER	2.4

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Mol	Chain	Res	Type	RSRZ
1	D	97	SER	2.4
1	G	270	MET	2.4
1	A	257	VAL	2.4
1	H	3	SER	2.4
1	C	229	HIS	2.4
1	D	19	VAL	2.3
1	D	81	ARG	2.3
1	F	205	MET	2.3
1	B	142	GLN	2.3
1	C	165	HIS	2.3
1	C	213	GLY	2.3
1	D	33	ASN	2.3
1	C	98	HIS	2.3
1	F	2	THR	2.3
1	C	124	GLY	2.3
1	F	168	TRP	2.3
1	G	147	GLY	2.3
1	H	186	MET	2.2
1	F	161	GLN	2.2
1	H	14	CYS	2.2
1	C	228	GLY	2.2
1	C	152	MET	2.2
1	H	255	ASN	2.2
1	D	15	GLN	2.2
1	F	116	ASP	2.2
1	H	234	VAL	2.2
1	D	2	THR	2.2
1	B	152	MET	2.2
1	D	210	PRO	2.2
1	D	186	MET	2.2
1	A	151	LEU	2.2
1	C	46	PRO	2.1
1	A	270	MET	2.1
1	E	186	MET	2.1
1	B	106	THR	2.1
1	C	7	ALA	2.1
1	G	141	ALA	2.1
1	D	235	ASN	2.1
1	F	270	MET	2.1
1	H	205	MET	2.1
1	A	10	THR	2.1
1	H	251	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
1	F	119	TRP	2.1
1	D	141	ALA	2.1
1	D	269	VAL	2.1
1	G	171	MET	2.1
1	F	64	ARG	2.1
1	A	272	ALA	2.1
1	C	225	TYR	2.1
1	E	231	VAL	2.1
1	D	99	PRO	2.1
1	A	24	ALA	2.1
1	C	232	GLU	2.1
1	D	34	CYS	2.0
1	D	0	HIS	2.0
1	D	114	VAL	2.0
1	F	114	VAL	2.0
1	D	152	MET	2.0
1	G	205	MET	2.0
1	D	62	TYR	2.0
1	H	225	TYR	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.