Full wwPDB X-ray Structure Validation Report ⓘ

Aug 26, 2023 – 11:49 PM EDT

PDB ID	:	3FEQ
Title	:	Crystal structure of uncharacterized protein eah89906
Authors	:	Patskovsky, Y.; Bonanno, J.; Romero, R.; Freeman, J.; Lau, C.; Smith, D.; Bain, K.; Wasserman, S.R.; Raushel, F.; Sauder, J.M.; Burley, S.K.; Almo, S.C.; New York SGX Research Center for Structural Genomics (NYSGXRC)
Deposited on	:	2008-11-30
Resolution	:	2.63 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:

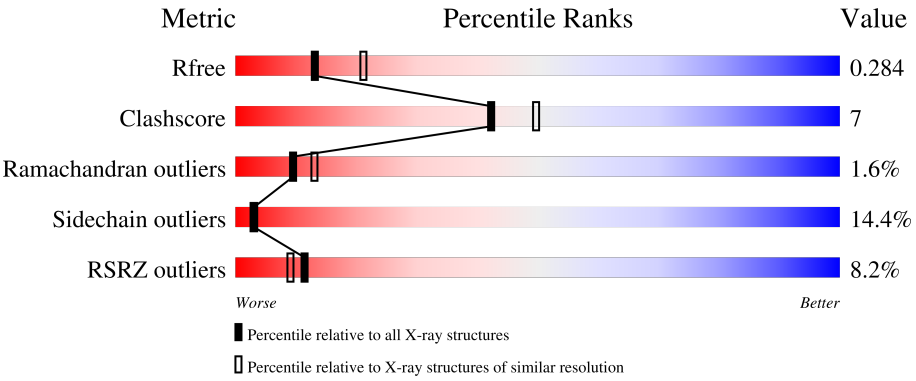
MolProbity	:	4.02b-467
Xtriage (Phenix)	:	1.13
EDS	:	2.35
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.35

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 2.63 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}	130704	1426 (2.66-2.62)
Clashscore	141614	1472 (2.66-2.62)
Ramachandran outliers	138981	1446 (2.66-2.62)
Sidechain outliers	138945	1446 (2.66-2.62)
RSRZ outliers	127900	1408 (2.66-2.62)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% 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	423	2% 70% 22%
1	B	423	2% 72% 20%
1	C	423	4% 71% 22%
1	D	423	% 71% 22%
1	E	423	2% 74% 19%

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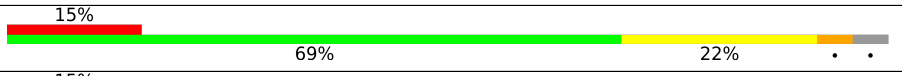
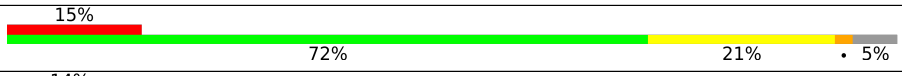
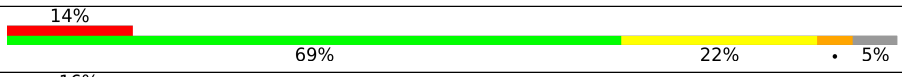
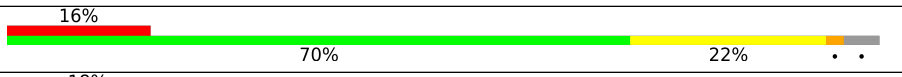
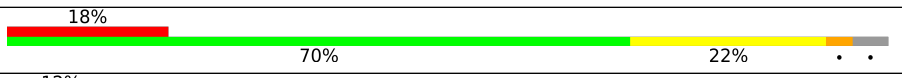
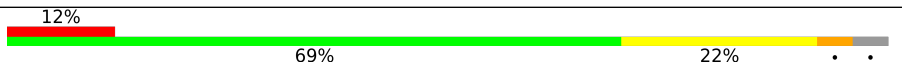
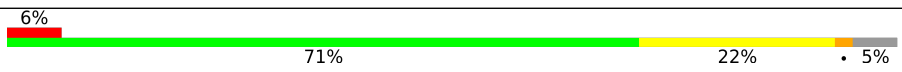
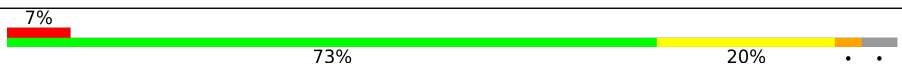
Mol	Chain	Length	Quality of chain
1	F	423	
1	G	423	
1	H	423	
1	I	423	
1	J	423	
1	K	423	
1	L	423	
1	M	423	
1	N	423	
1	O	423	
1	P	423	

2 Entry composition (i)

There are 3 unique types of molecules in this entry. The entry contains 48417 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 PUTATIVE AMIDOHYDROLASE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	405	Total	C	N	O	S	0	4	0
			3028	1886	547	580	15			
1	B	405	Total	C	N	O	S	0	6	0
			3040	1894	552	579	15			
1	C	406	Total	C	N	O	S	0	2	0
			3025	1883	550	577	15			
1	D	405	Total	C	N	O	S	0	4	0
			3035	1890	553	577	15			
1	E	405	Total	C	N	O	S	0	4	0
			3026	1883	550	578	15			
1	F	405	Total	C	N	O	S	0	2	0
			3016	1878	546	577	15			
1	G	405	Total	C	N	O	S	0	2	0
			3021	1881	549	576	15			
1	H	405	Total	C	N	O	S	0	2	0
			3016	1878	546	577	15			
1	I	405	Total	C	N	O	S	0	1	0
			3013	1876	546	576	15			
1	J	402	Total	C	N	O	S	0	1	0
			2994	1866	543	571	14			
1	K	403	Total	C	N	O	S	0	1	0
			3000	1869	544	572	15			
1	L	404	Total	C	N	O	S	0	1	0
			3005	1870	545	575	15			
1	M	406	Total	C	N	O	S	0	1	0
			3017	1878	547	577	15			
1	N	404	Total	C	N	O	S	0	1	0
			3003	1869	545	575	14			
1	O	401	Total	C	N	O	S	0	1	0
			2983	1857	542	570	14			
1	P	405	Total	C	N	O	S	0	2	0
			3018	1879	547	577	15			

- Molecule 2 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
2	A	2	Total Zn 2 2	0	0
2	B	2	Total Zn 2 2	0	0
2	C	2	Total Zn 2 2	0	0
2	D	2	Total Zn 2 2	0	0
2	E	2	Total Zn 2 2	0	0
2	F	2	Total Zn 2 2	0	0
2	G	2	Total Zn 2 2	0	0
2	H	2	Total Zn 2 2	0	0
2	I	2	Total Zn 2 2	0	0
2	J	2	Total Zn 2 2	0	0
2	K	2	Total Zn 2 2	0	0
2	L	2	Total Zn 2 2	0	0
2	M	2	Total Zn 2 2	0	0
2	N	2	Total Zn 2 2	0	0
2	O	2	Total Zn 2 2	0	0
2	P	2	Total Zn 2 2	0	0

- Molecule 3 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	A	24	Total O 24 24	0	0
3	B	27	Total O 27 27	0	0
3	C	13	Total O 13 13	0	0

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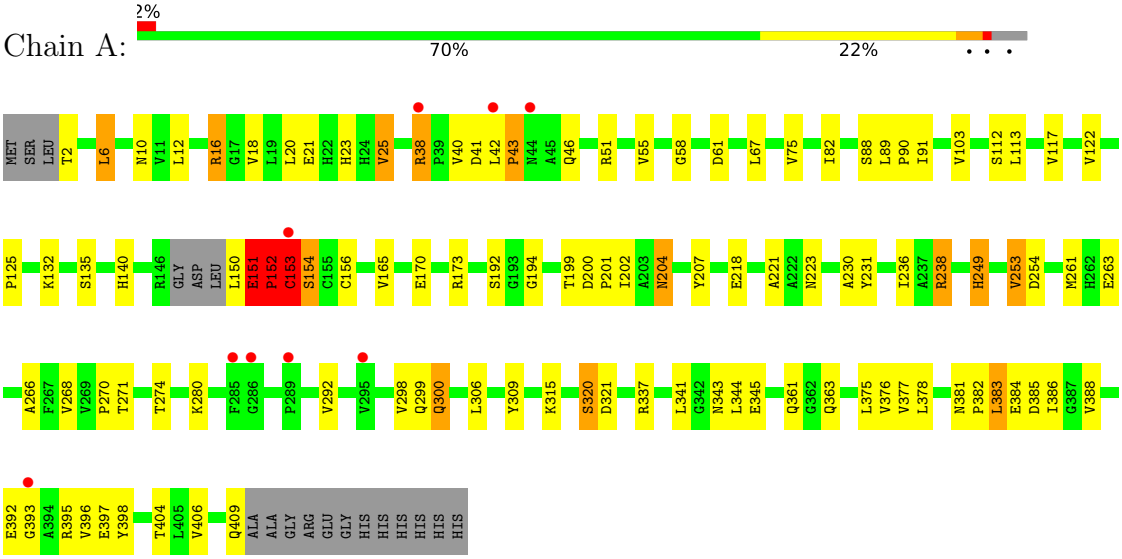
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	D	20	Total O 20 20	0	0
3	E	18	Total O 18 18	0	0
3	F	17	Total O 17 17	0	0
3	G	16	Total O 16 16	0	0
3	H	6	Total O 6 6	0	0
3	O	2	Total O 2 2	0	0
3	P	2	Total O 2 2	0	0

3 Residue-property plots (i)

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

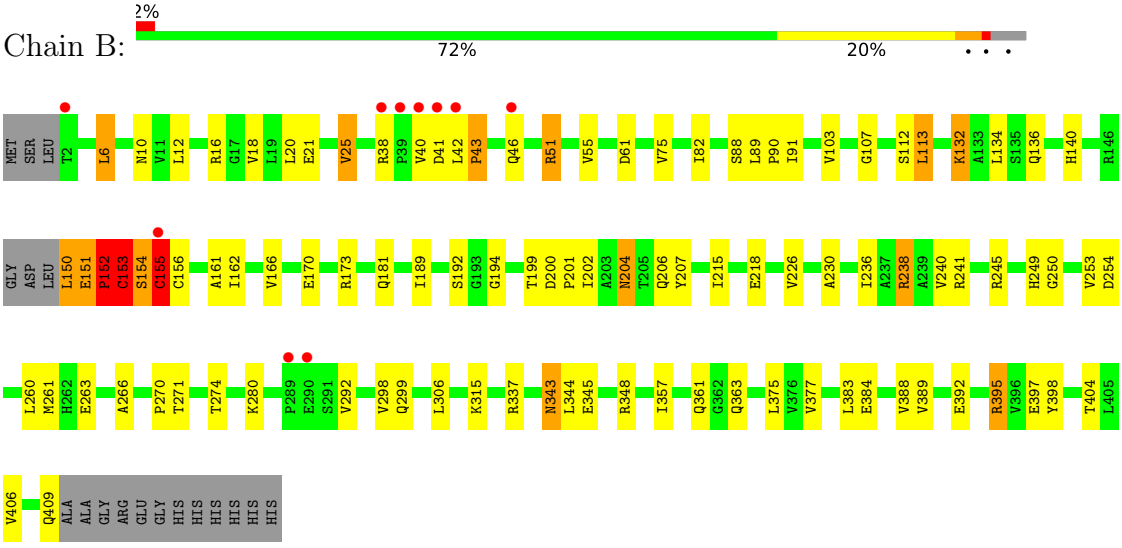
• Molecule 1: PUTATIVE AMIDOHYDROLASE

Chain A:



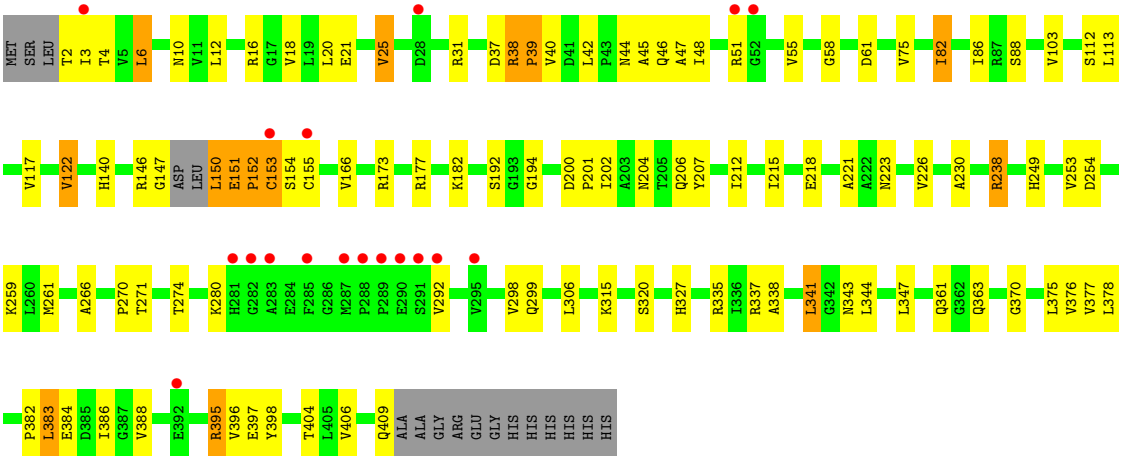
• Molecule 1: PUTATIVE AMIDOHYDROLASE

Chain B:



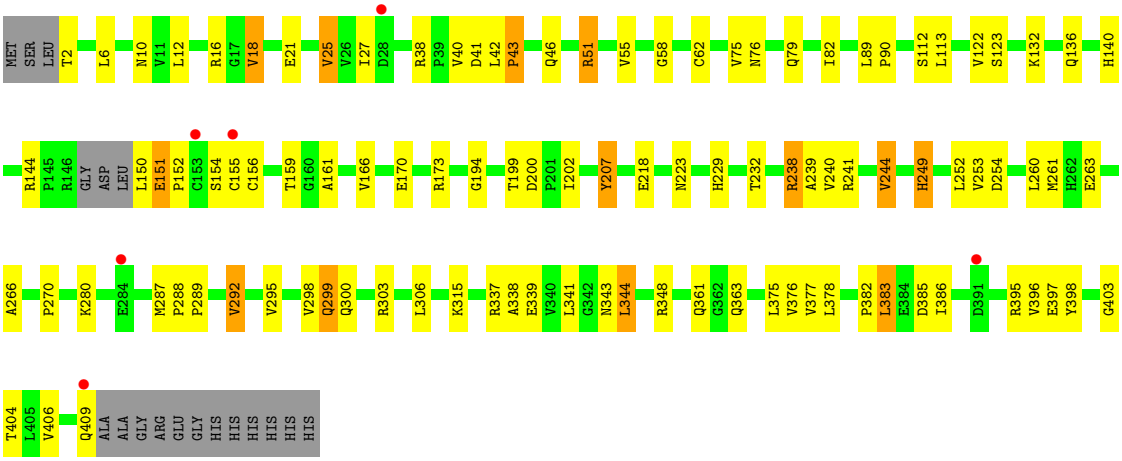
• Molecule 1: PUTATIVE AMIDOHYDROLASE

Chain C:



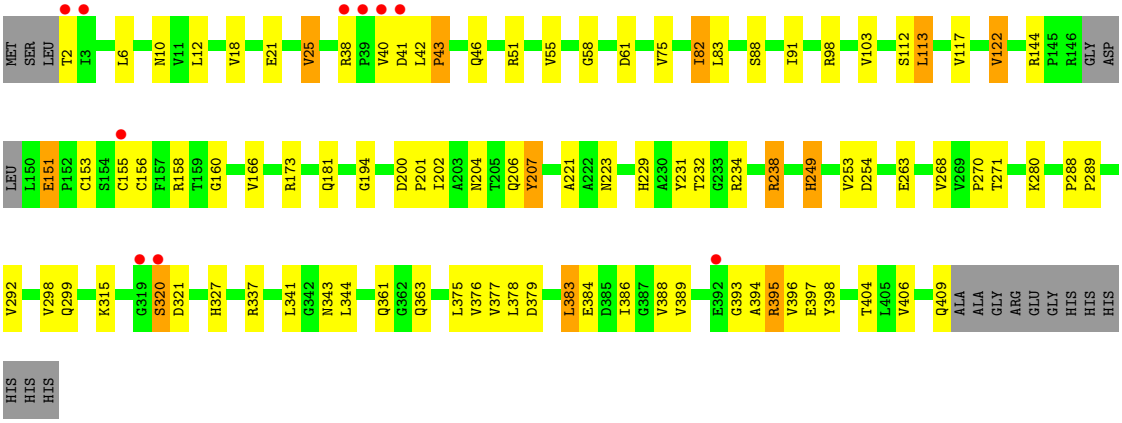
• Molecule 1: PUTATIVE AMIDOHYDROLASE

Chain D:



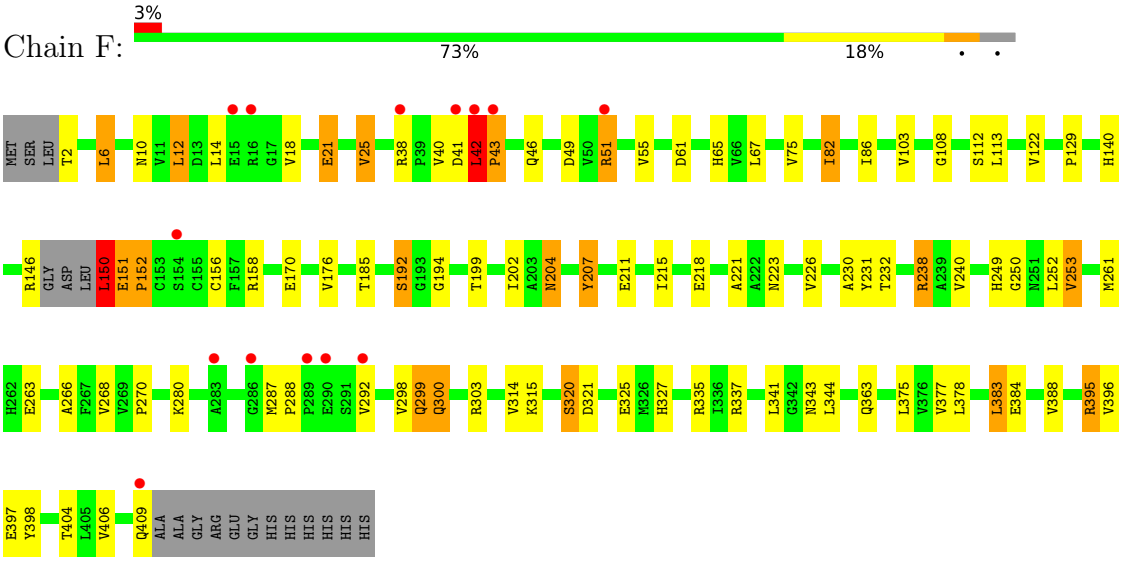
• Molecule 1: PUTATIVE AMIDOHYDROLASE

Chain E:



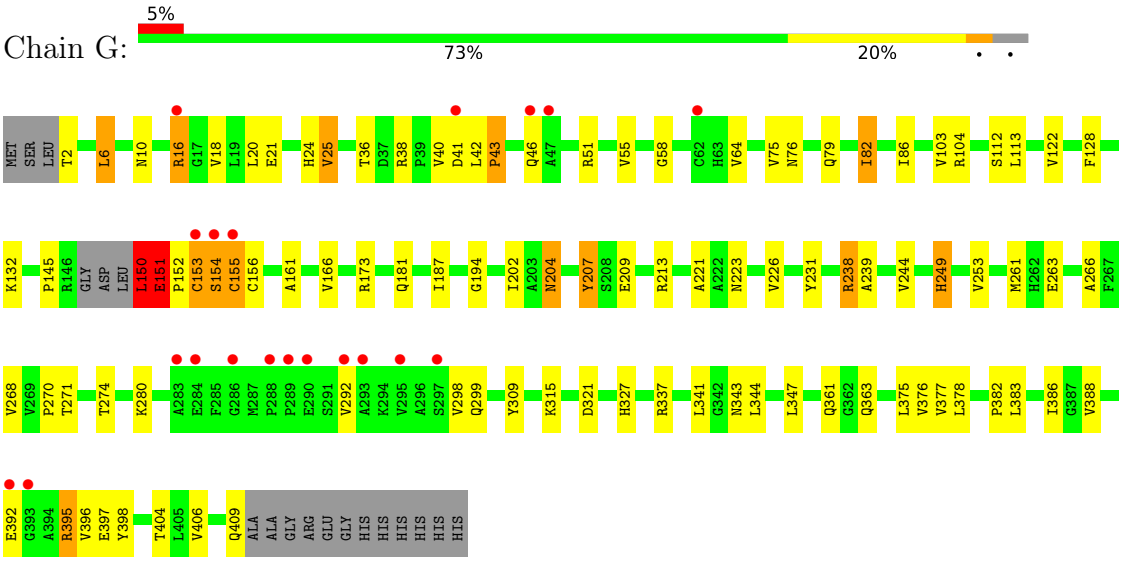
• Molecule 1: PUTATIVE AMIDOHYDROLASE

Chain F:



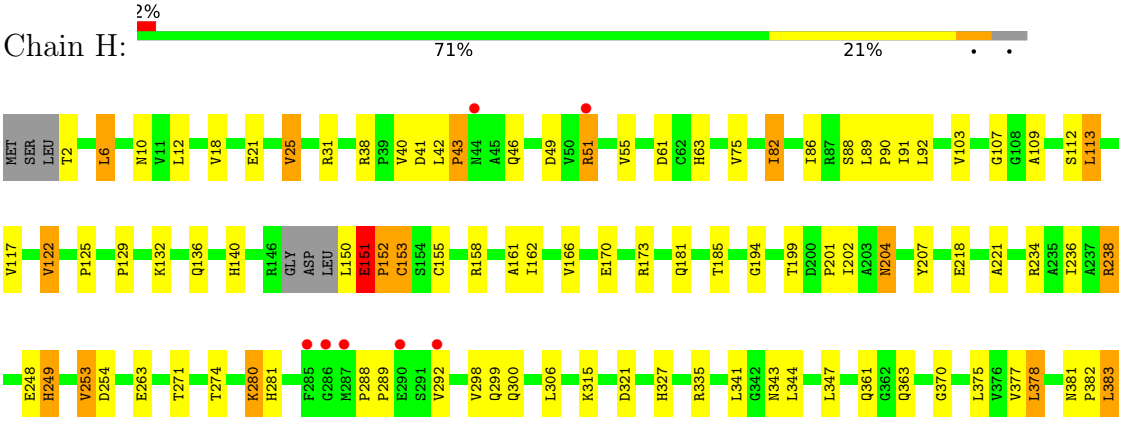
• Molecule 1: PUTATIVE AMIDOHYDROLASE

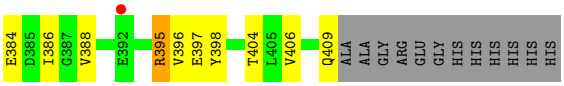
Chain G:



• Molecule 1: PUTATIVE AMIDOHYDROLASE

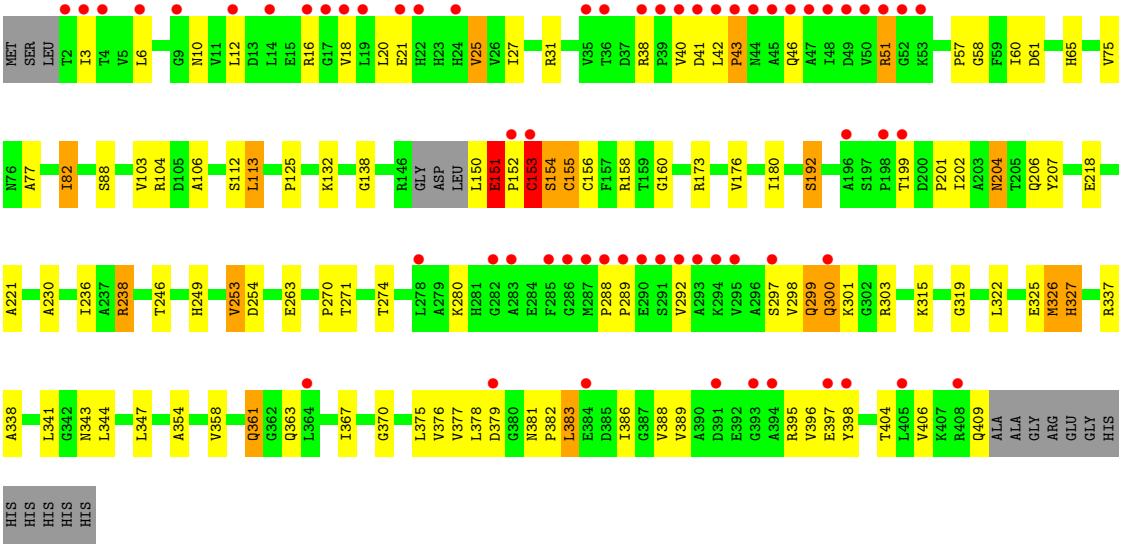
Chain H:





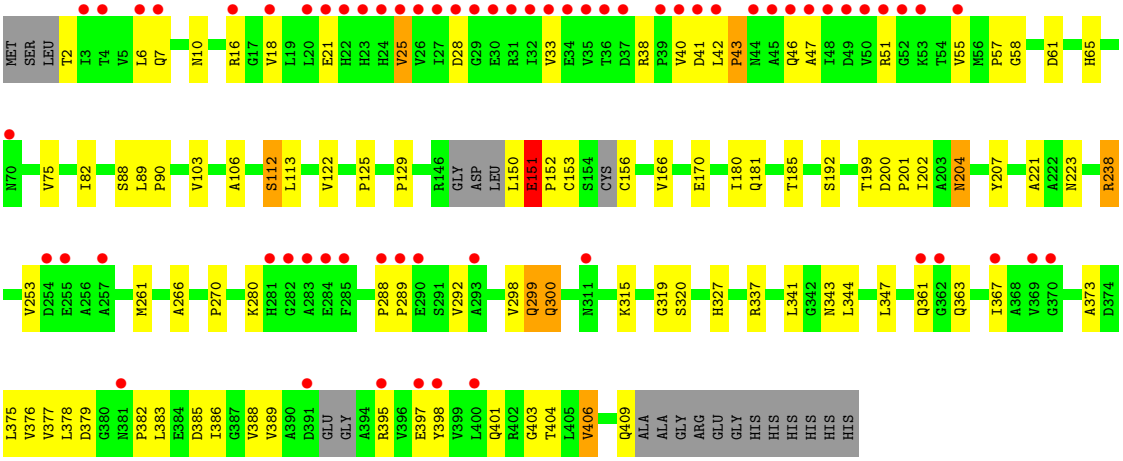
• Molecule 1: PUTATIVE AMIDOHYDROLASE

Chain I:



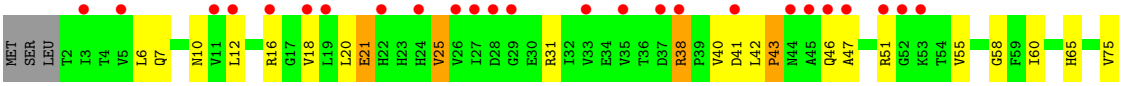
• Molecule 1: PUTATIVE AMIDOHYDROLASE

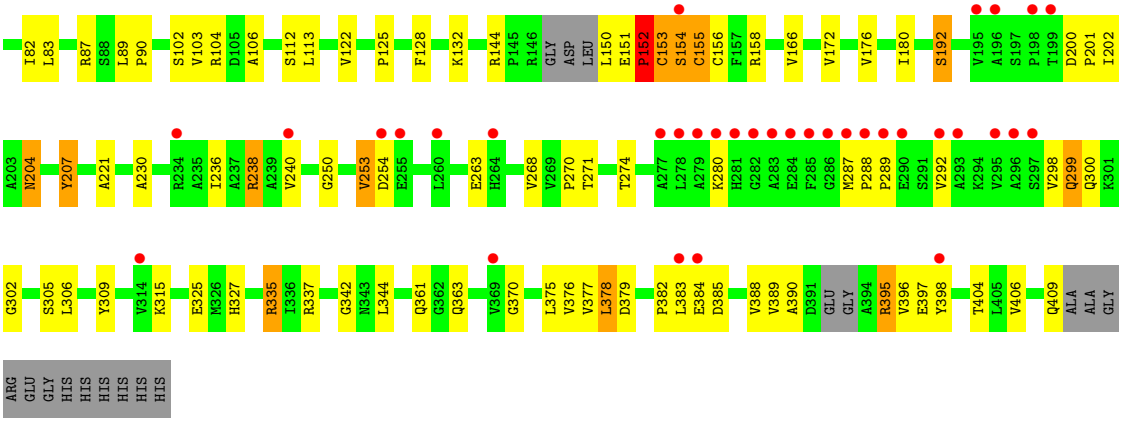
Chain J:



• Molecule 1: PUTATIVE AMIDOHYDROLASE

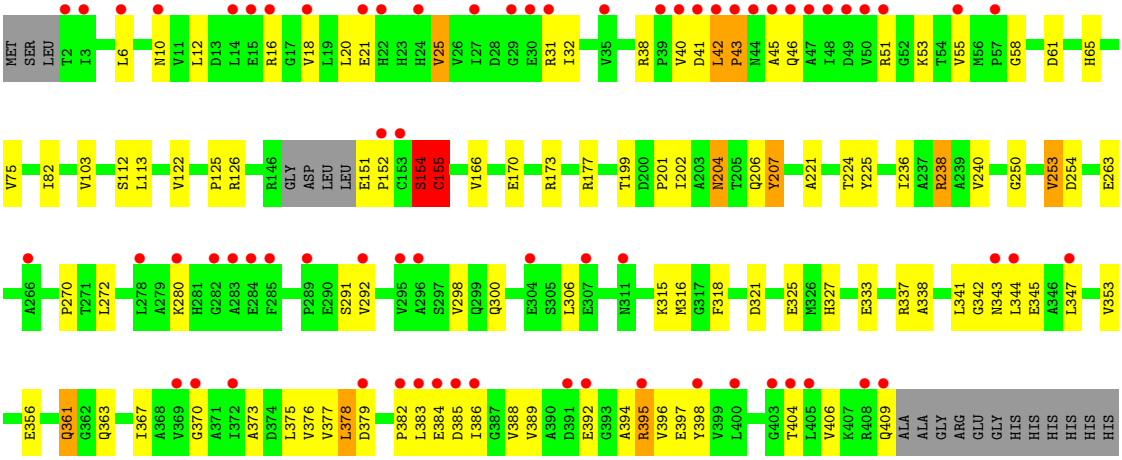
Chain K:





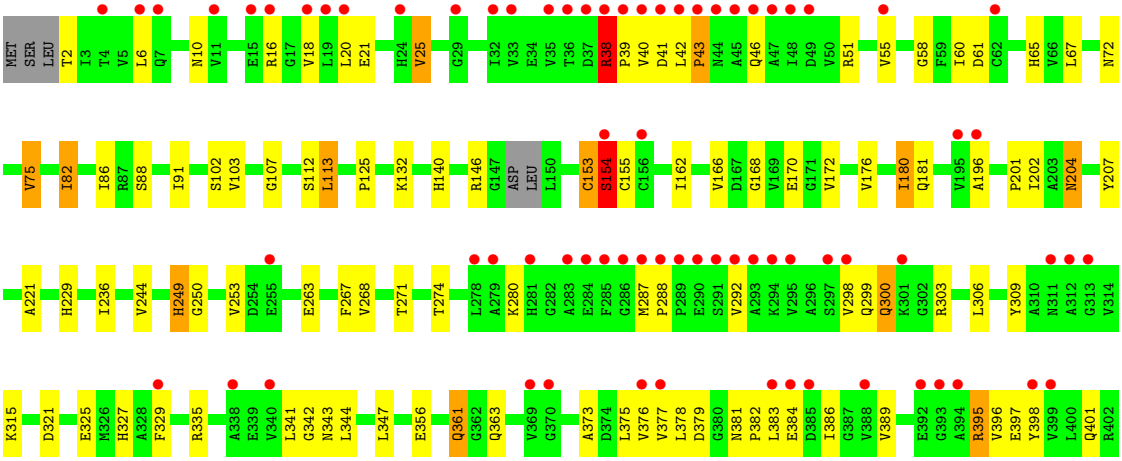
• Molecule 1: PUTATIVE AMIDOHYDROLASE

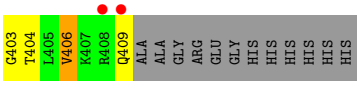
Chain L:



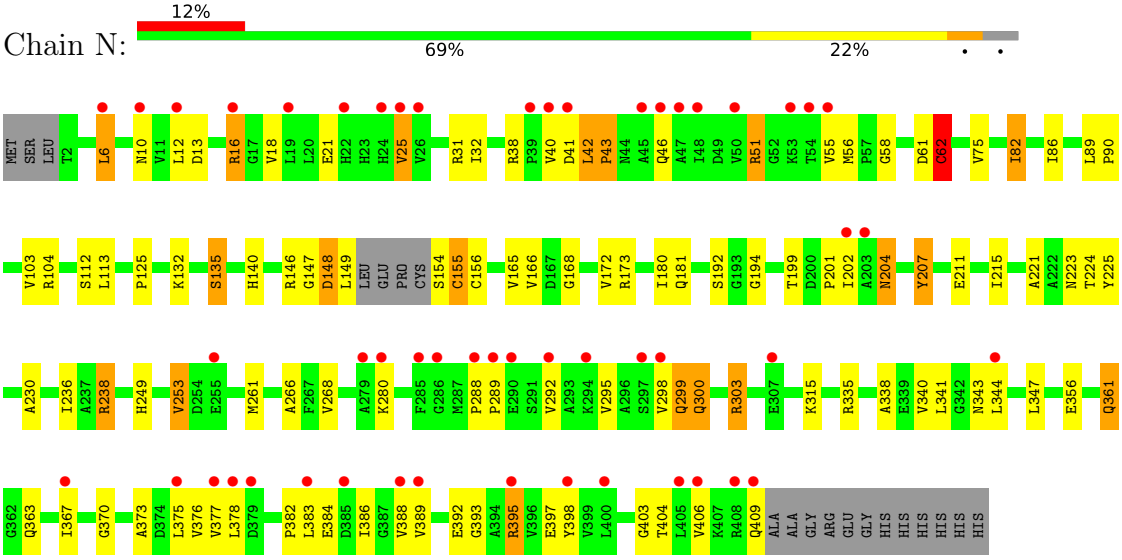
• Molecule 1: PUTATIVE AMIDOHYDROLASE

Chain M:

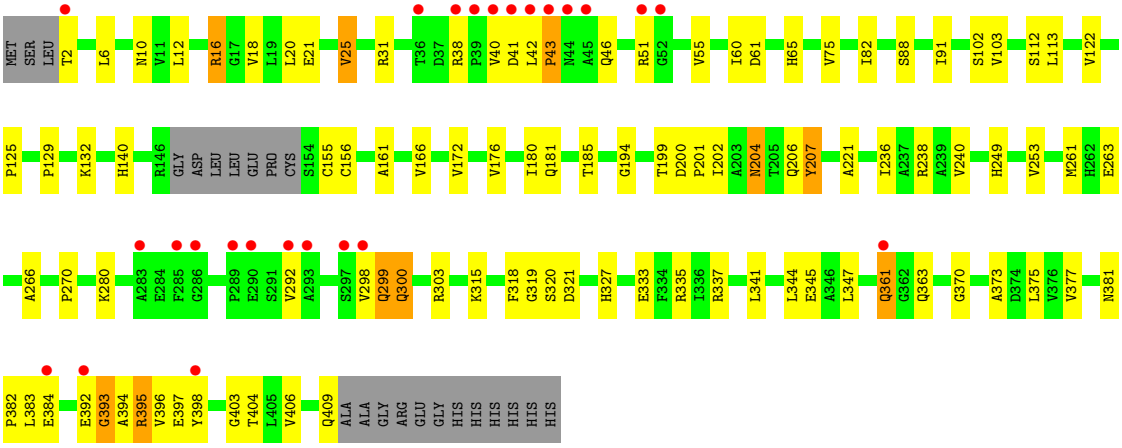




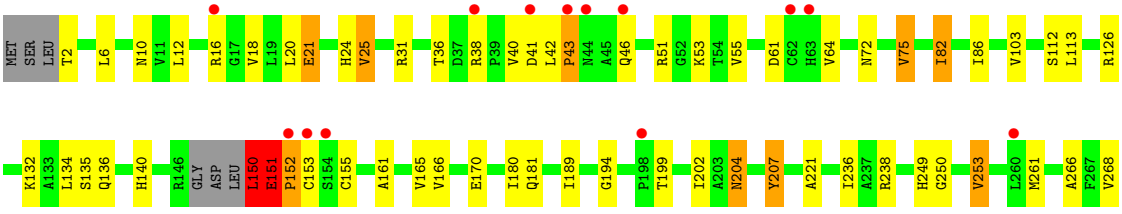
• Molecule 1: PUTATIVE AMIDOHYDROLASE

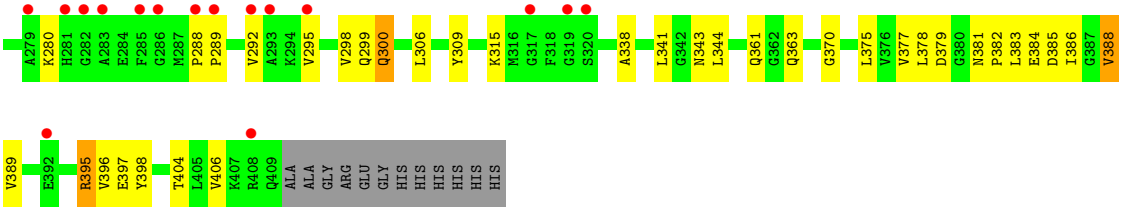


• Molecule 1: PUTATIVE AMIDOHYDROLASE



• Molecule 1: PUTATIVE AMIDOHYDROLASE




A279
K280
H281
G282
A283
E284
F285
G286
M287
P288
P289
V292
A293
K294
V295
V298
Q299
Q300
L306
Y309
K315
M316
G317
F318
G319
S320
A338
L341
G342
N343
L344
Q361
G362
Q363
G370
L375
V376
V377
L378
D379
G380
N381
P382
L383
E384
D385
I386
G387
V388
V389
E392
R395
V396
E397
Y398
T404
L405
V406
K407
R408
Q409
ALA
ALA
GLY
ARG
GLU
GLY
HIS
HIS
HIS
HIS
HIS
HIS

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1	Depositor
Cell constants a, b, c, α, β, γ	113.21Å 108.05Å 171.13Å 81.75° 80.36° 74.40°	Depositor
Resolution (Å)	20.00 – 2.63 35.90 – 2.63	Depositor EDS
% Data completeness (in resolution range)	96.4 (20.00-2.63) 96.4 (35.90-2.63)	Depositor EDS
R_{merge}	0.21	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.42 (at 2.65Å)	Xtriage
Refinement program	REFMAC 5.2.0019	Depositor
R, R_{free}	0.238 , 0.281 0.242 , 0.284	Depositor DCC
R_{free} test set	6591 reflections (3.01%)	wwPDB-VP
Wilson B-factor (Å^2)	41.7	Xtriage
Anisotropy	0.071	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.31 , 56.7	EDS
L-test for twinning[2]	$< \|L\| > = 0.46$, $< L^2 > = 0.29$	Xtriage
Estimated twinning fraction	0.011 for -k,-h,-l	Xtriage
F_o,F_c correlation	0.91	EDS
Total number of atoms	48417	wwPDB-VP
Average B, all atoms (Å^2)	58.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.46% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality (i)

5.1 Standard geometry (i)

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

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	0.41	0/3083	0.58	2/4180 (0.0%)
1	B	0.44	0/3102	0.58	1/4205 (0.0%)
1	C	0.43	0/3074	0.55	0/4167
1	D	0.46	1/3090 (0.0%)	0.57	0/4188
1	E	0.43	0/3081	0.58	1/4177 (0.0%)
1	F	0.41	0/3065	0.59	1/4156 (0.0%)
1	G	0.41	0/3070	0.56	0/4162
1	H	0.44	0/3065	0.56	0/4156
1	I	0.46	0/3059	0.56	0/4148
1	J	0.44	0/3038	0.53	0/4117
1	K	0.44	0/3045	0.55	0/4128
1	L	0.43	0/3051	0.54	0/4137
1	M	0.43	0/3063	0.56	0/4153
1	N	0.44	1/3048 (0.0%)	0.54	0/4132
1	O	0.41	0/3028	0.54	0/4105
1	P	0.42	0/3067	0.57	0/4159
All	All	0.43	2/49029 (0.0%)	0.56	5/66470 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	4
1	B	0	2
1	C	0	3
1	D	0	2
1	E	0	3
1	F	0	2
1	G	0	6

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Mol	Chain	#Chirality outliers	#Planarity outliers
1	H	0	4
1	I	0	2
1	J	0	3
1	K	0	2
1	L	0	2
1	M	0	2
1	N	0	1
1	O	0	3
1	P	0	5
All	All	0	46

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	N	62	CYS	CB-SG	-6.20	1.71	1.82
1	D	62	CYS	CB-SG	-5.68	1.72	1.81

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	B	238	ARG	NE-CZ-NH2	-6.04	117.28	120.30
1	F	42	LEU	CA-CB-CG	5.82	128.69	115.30
1	A	238	ARG	NE-CZ-NH1	5.65	123.13	120.30
1	E	173	ARG	NE-CZ-NH2	-5.35	117.62	120.30
1	A	16	ARG	NE-CZ-NH1	-5.08	117.76	120.30

There are no chirality outliers.

All (46) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	151	GLU	Peptide
1	A	152	PRO	Peptide
1	A	2	THR	Peptide
1	A	38	ARG	Peptide
1	B	155	CYS	Peptide
1	B	38	ARG	Peptide
1	C	152	PRO	Peptide
1	C	153	CYS	Peptide
1	C	2	THR	Peptide
1	D	2	THR	Peptide
1	D	38	ARG	Peptide

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Mol	Chain	Res	Type	Group
1	E	153	CYS	Peptide
1	E	2	THR	Peptide
1	E	38	ARG	Peptide
1	F	150	LEU	Peptide
1	F	2	THR	Peptide
1	G	150	LEU	Peptide
1	G	151	GLU	Peptide
1	G	153	CYS	Peptide
1	G	155	CYS	Peptide
1	G	2	THR	Peptide
1	G	38	ARG	Peptide
1	H	151	GLU	Peptide
1	H	153	CYS	Peptide
1	H	2	THR	Peptide
1	H	38	ARG	Peptide
1	I	151	GLU	Peptide
1	I	38	ARG	Peptide
1	J	151	GLU	Peptide
1	J	2	THR	Peptide
1	J	38	ARG	Peptide
1	K	152	PRO	Peptide
1	K	38	ARG	Peptide
1	L	151	GLU	Peptide
1	L	38	ARG	Peptide
1	M	2	THR	Peptide
1	M	38	ARG	Peptide
1	N	38	ARG	Peptide
1	O	2	THR	Peptide
1	O	361	GLN	Peptide
1	O	38	ARG	Peptide
1	P	150	LEU	Peptide
1	P	151	GLU	Peptide
1	P	152	PRO	Peptide
1	P	2	THR	Peptide
1	P	38	ARG	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3028	0	3044	47	0
1	B	3040	0	3063	45	0
1	C	3025	0	3041	43	1
1	D	3035	0	3059	43	0
1	E	3026	0	3040	39	0
1	F	3016	0	3030	45	0
1	G	3021	0	3038	38	0
1	H	3016	0	3030	51	0
1	I	3013	0	3025	58	1
1	J	2994	0	3009	39	0
1	K	3000	0	3015	43	0
1	L	3005	0	3014	40	0
1	M	3017	0	3028	51	0
1	N	3003	0	3014	55	0
1	O	2983	0	2996	36	0
1	P	3018	0	3031	40	0
2	A	2	0	0	0	0
2	B	2	0	0	0	0
2	C	2	0	0	0	0
2	D	2	0	0	0	0
2	E	2	0	0	0	0
2	F	2	0	0	0	0
2	G	2	0	0	0	0
2	H	2	0	0	0	0
2	I	2	0	0	0	0
2	J	2	0	0	0	0
2	K	2	0	0	0	0
2	L	2	0	0	0	0
2	M	2	0	0	0	0
2	N	2	0	0	0	0
2	O	2	0	0	0	0
2	P	2	0	0	0	0
3	A	24	0	0	0	0
3	B	27	0	0	1	0
3	C	13	0	0	1	0
3	D	20	0	0	1	0
3	E	18	0	0	3	0
3	F	17	0	0	1	0
3	G	16	0	0	1	0
3	H	6	0	0	1	0
3	O	2	0	0	0	0
3	P	2	0	0	0	0
All	All	48417	0	48477	663	1

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 7.

All (663) 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:H:263:GLU:OE2	1:M:38:ARG:HD2	1.55	1.07
1:I:221:ALA:O	1:K:204:ASN:HB2	1.60	1.01
1:A:16:ARG:HH12	1:A:20:LEU:HD21	1.27	0.97
1:C:221:ALA:O	1:F:204:ASN:HB2	1.72	0.88
1:C:3:ILE:HG23	1:C:45:ALA:HA	1.59	0.85
1:M:153:CYS:O	1:M:154:SER:HB3	1.76	0.84
1:M:377:VAL:HB	1:M:398:TYR:HB2	1.60	0.84
1:A:392:GLU:CG	1:A:393:GLY:H	1.89	0.84
1:J:221:ALA:O	1:L:204:ASN:HB2	1.77	0.84
1:D:16:ARG:HG2	1:D:18:VAL:HG22	1.60	0.84
1:G:377:VAL:HB	1:G:398:TYR:HB2	1.61	0.82
1:L:154:SER:O	1:L:155:CYS:HB2	1.77	0.82
1:C:377:VAL:HB	1:C:398:TYR:HB2	1.59	0.82
1:E:221:ALA:O	1:H:204:ASN:HB2	1.79	0.82
1:I:377:VAL:HB	1:I:398:TYR:HB2	1.62	0.81
1:M:221:ALA:O	1:P:204:ASN:HB2	1.81	0.81
1:K:221:ALA:O	1:N:204:ASN:HB2	1.81	0.80
1:C:147:GLY:HA3	1:C:150:LEU:HB2	1.64	0.80
1:B:16:ARG:HD2	1:N:51:ARG:HG3	1.64	0.79
1:H:150:LEU:O	1:H:151:GLU:HB2	1.81	0.79
1:A:204:ASN:HB2	1:G:221:ALA:O	1.83	0.78
1:M:6:LEU:HB2	1:M:25:VAL:HG13	1.66	0.78
1:J:377:VAL:HB	1:J:398:TYR:HB2	1.68	0.76
1:F:377:VAL:HB	1:F:398:TYR:HB2	1.68	0.76
1:N:146:ARG:CG	1:N:147:GLY:H	2.00	0.75
1:D:16:ARG:HG2	1:D:18:VAL:CG2	2.17	0.75
1:D:207:TYR:O	1:D:238:ARG:NH1	2.21	0.74
1:K:153:CYS:SG	1:K:154:SER:N	2.60	0.74
1:I:207:TYR:O	1:I:238:ARG:NH1	2.21	0.73
1:F:207:TYR:O	1:F:238:ARG:NH1	2.20	0.73
1:A:16:ARG:NH1	1:A:20:LEU:HD21	2.03	0.72
1:A:223:ASN:ND2	1:C:204:ASN:HB3	2.04	0.72
1:A:392:GLU:HG3	1:A:393:GLY:H	1.52	0.72
1:B:153:CYS:O	1:B:154:SER:HB3	1.88	0.71
1:B:377:VAL:HB	1:B:398:TYR:HB2	1.73	0.71
1:N:154:SER:O	1:N:155:CYS:HB3	1.91	0.71
1:H:377:VAL:HB	1:H:398:TYR:HB2	1.73	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:377:VAL:HB	1:P:398:TYR:HB2	1.72	0.71
1:O:16:ARG:HH12	1:O:20:LEU:HD21	1.56	0.70
1:F:221:ALA:O	1:G:204:ASN:HB2	1.91	0.70
1:G:207:TYR:O	1:G:238:ARG:NH1	2.23	0.70
1:B:204:ASN:HB2	1:H:221:ALA:O	1.92	0.69
1:E:377:VAL:HB	1:E:398:TYR:HB2	1.73	0.69
1:I:204:ASN:HB2	1:O:221:ALA:O	1.92	0.69
1:A:377:VAL:HB	1:A:398:TYR:HB2	1.72	0.69
1:J:6:LEU:HB2	1:J:25:VAL:HG13	1.73	0.69
1:C:4:THR:HG23	1:C:46:GLN:O	1.92	0.69
1:G:150:LEU:O	1:G:151:GLU:HG2	1.91	0.69
1:N:146:ARG:CG	1:N:147:GLY:N	2.56	0.69
1:O:377:VAL:HB	1:O:398:TYR:HB2	1.73	0.69
1:N:377:VAL:HB	1:N:398:TYR:HB2	1.75	0.69
1:C:207:TYR:O	1:C:238:ARG:NH1	2.25	0.68
1:F:10:ASN:HD22	1:F:21:GLU:HA	1.58	0.68
1:J:150:LEU:O	1:J:151:GLU:HB2	1.93	0.68
1:N:146:ARG:HG3	1:N:147:GLY:H	1.58	0.68
1:B:245:ARG:NH1	1:B:357:ILE:O	2.25	0.68
1:I:151:GLU:HB3	1:I:152:PRO:HD3	1.75	0.68
1:N:192:SER:HB2	1:N:230:ALA:HA	1.76	0.68
1:O:206:GLN:O	1:O:207:TYR:HB2	1.93	0.68
1:B:41:ASP:O	1:B:43:PRO:HD3	1.95	0.67
1:M:343:ASN:HD22	1:M:386:ILE:HB	1.60	0.67
1:E:207:TYR:O	1:E:238:ARG:NH1	2.29	0.66
1:D:343:ASN:HB2	1:D:386:ILE:HD13	1.78	0.66
1:N:356:GLU:HG3	1:N:361:GLN:NE2	2.10	0.66
1:L:221:ALA:O	1:M:204:ASN:HB2	1.96	0.66
1:C:6:LEU:HB2	1:C:25:VAL:HG13	1.77	0.66
1:A:392:GLU:CG	1:A:393:GLY:N	2.59	0.65
1:I:151:GLU:HB3	1:I:152:PRO:CD	2.24	0.65
1:E:41:ASP:O	1:E:43:PRO:HD3	1.97	0.65
1:N:207:TYR:O	1:N:238:ARG:NH1	2.25	0.65
1:A:199:THR:HG21	1:G:181:GLN:NE2	2.11	0.65
1:L:6:LEU:HB2	1:L:25:VAL:HG13	1.78	0.65
1:J:343:ASN:HB2	1:J:386:ILE:HD13	1.79	0.65
1:M:58:GLY:HA2	1:M:376:VAL:HG23	1.79	0.65
1:L:377:VAL:HB	1:L:398:TYR:HB2	1.79	0.64
1:G:41:ASP:O	1:G:43:PRO:HD3	1.98	0.64
1:K:207:TYR:O	1:K:238:ARG:NH1	2.28	0.64
1:K:144:ARG:HH11	1:K:152:PRO:HD2	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:343:ASN:HD22	1:D:386:ILE:HB	1.63	0.63
1:A:150:LEU:O	1:A:151:GLU:HB2	1.98	0.63
1:H:41:ASP:O	1:H:43:PRO:HD3	1.99	0.63
1:I:176:VAL:HG11	1:I:218:GLU:CB	2.29	0.63
1:D:150:LEU:C	1:D:151:GLU:HG3	2.18	0.63
1:L:356:GLU:HA	1:L:361:GLN:HE21	1.63	0.63
1:A:271:THR:O	1:A:274:THR:HG22	1.99	0.62
1:D:377:VAL:HB	1:D:398:TYR:HB2	1.82	0.62
1:D:239:ALA:O	1:D:244:VAL:HG13	1.99	0.62
1:F:6:LEU:HB2	1:F:25:VAL:HG13	1.80	0.62
1:I:192:SER:HB3	1:I:230:ALA:HA	1.82	0.62
1:F:41:ASP:O	1:F:43:PRO:HD3	2.00	0.62
1:J:207:TYR:O	1:J:238:ARG:NH1	2.30	0.62
1:I:176:VAL:HG11	1:I:218:GLU:HB3	1.82	0.61
1:J:204:ASN:HB2	1:P:221:ALA:O	2.00	0.61
1:D:41:ASP:O	1:D:43:PRO:HD3	1.99	0.61
1:K:58:GLY:HA2	1:K:376:VAL:HG23	1.81	0.61
1:O:103:VAL:HG22	1:O:125:PRO:HB2	1.81	0.61
1:L:382:PRO:HA	1:L:385:ASP:O	2.00	0.61
1:A:41:ASP:O	1:A:43:PRO:HD3	2.00	0.61
1:J:10:ASN:HD22	1:J:21:GLU:HA	1.66	0.61
1:B:136:GLN:HG2	3:B:447:HOH:O	2.01	0.61
1:E:181:GLN:NE2	1:H:199:THR:HG21	2.16	0.61
1:N:6:LEU:HB2	1:N:25:VAL:HG13	1.83	0.61
1:O:6:LEU:HB2	1:O:25:VAL:HG13	1.83	0.60
1:C:204:ASN:ND2	3:C:430:HOH:O	2.34	0.60
1:D:6:LEU:HB2	1:D:25:VAL:HG13	1.83	0.60
1:G:6:LEU:HB2	1:G:25:VAL:HG13	1.82	0.60
1:K:378:LEU:HD21	1:K:389:VAL:HG22	1.82	0.60
1:M:347:LEU:HD11	1:M:382:PRO:HB2	1.82	0.60
1:B:6:LEU:HB2	1:B:25:VAL:HG13	1.84	0.59
1:K:41:ASP:O	1:K:43:PRO:HD3	2.02	0.59
1:K:6:LEU:HB2	1:K:25:VAL:HG13	1.85	0.59
1:P:207:TYR:O	1:P:238:ARG:NH1	2.28	0.59
1:A:204:ASN:HB3	1:G:223:ASN:ND2	2.18	0.59
1:C:182:LYS:HD3	1:F:150:LEU:HD23	1.84	0.59
1:I:343:ASN:HB2	1:I:386:ILE:HD13	1.84	0.59
1:F:40:VAL:HG13	1:F:42:LEU:CD2	2.33	0.59
1:F:40:VAL:HG13	1:F:42:LEU:HD23	1.84	0.59
1:N:347:LEU:HD11	1:N:382:PRO:HB2	1.84	0.59
1:H:31:ARG:NH2	1:H:370:GLY:O	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:263:GLU:HB3	1:M:39:PRO:HG3	1.85	0.58
1:J:343:ASN:HD22	1:J:386:ILE:HB	1.68	0.58
1:B:154:SER:OG	1:B:155:CYS:N	2.36	0.58
1:J:57:PRO:HG3	1:J:367:ILE:HG13	1.86	0.58
1:K:10:ASN:HD22	1:K:21:GLU:HA	1.68	0.58
1:J:41:ASP:O	1:J:43:PRO:HD3	2.04	0.58
1:K:377:VAL:HB	1:K:398:TYR:HB2	1.86	0.58
1:F:61:ASP:OD2	1:F:320[A]:SER:OG	2.21	0.58
1:A:299:GLN:HG3	1:A:300:GLN:HE21	1.67	0.57
1:F:140:HIS:CE1	1:F:194:GLY:HA3	2.39	0.57
1:J:199:THR:HG21	1:P:181:GLN:NE2	2.18	0.57
1:O:41:ASP:O	1:O:43:PRO:HD3	2.04	0.57
1:E:6:LEU:HB2	1:E:25:VAL:HG13	1.87	0.57
1:A:153:CYS:SG	1:A:154:SER:N	2.78	0.57
1:B:181:GLN:NE2	1:D:199:THR:HG21	2.19	0.57
1:N:103:VAL:HG22	1:N:125:PRO:HB2	1.86	0.57
1:P:261:MET:HG2	1:P:266:ALA:HB3	1.86	0.57
1:B:215:ILE:HG22	1:B:226:VAL:HG21	1.86	0.56
1:D:303:ARG:NH2	1:D:339:GLU:OE1	2.38	0.56
1:P:64:VAL:HG21	1:P:103:VAL:HB	1.87	0.56
1:J:379:ASP:HB3	1:J:395:ARG:HG2	1.86	0.56
1:A:58:GLY:HA2	1:A:376:VAL:HG23	1.88	0.56
1:A:392:GLU:HG2	1:A:393:GLY:H	1.70	0.56
1:G:388:VAL:HA	1:G:395:ARG:HE	1.71	0.56
1:N:58:GLY:HA2	1:N:376:VAL:HG23	1.87	0.56
1:D:10:ASN:HD22	1:D:21:GLU:HA	1.70	0.56
1:L:207:TYR:O	1:L:238:ARG:NH1	2.35	0.56
1:D:140:HIS:CE1	1:D:194:GLY:HA3	2.41	0.56
1:P:10:ASN:HD22	1:P:21:GLU:HA	1.70	0.56
1:B:16:ARG:HH12	1:B:20:LEU:HD21	1.71	0.56
1:M:41:ASP:O	1:M:43:PRO:HD3	2.05	0.56
1:L:32:ILE:HD13	1:L:367:ILE:HG23	1.88	0.56
1:I:82:ILE:CD1	1:J:112:SER:HB2	2.36	0.55
1:K:16:ARG:HH12	1:K:20:LEU:HD21	1.69	0.55
1:A:388:VAL:HA	1:A:395:ARG:HH11	1.71	0.55
1:C:58:GLY:HA2	1:C:376:VAL:HG23	1.89	0.55
1:D:287:MET:HE3	1:D:292:VAL:HG22	1.87	0.55
1:N:10:ASN:HD22	1:N:21:GLU:HA	1.71	0.55
1:O:347:LEU:HD11	1:O:382:PRO:HB2	1.88	0.55
1:A:10:ASN:HD22	1:A:21:GLU:HA	1.72	0.55
1:F:261:MET:HG2	1:F:266:ALA:HB3	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:61:ASP:HB3	1:H:103:VAL:HG12	1.89	0.55
1:H:263:GLU:HB3	1:M:39:PRO:CG	2.36	0.55
1:L:154:SER:O	1:L:155:CYS:CB	2.50	0.55
1:I:65:HIS:CE1	1:I:106:ALA:HB3	2.42	0.55
1:D:223:ASN:ND2	1:E:204[A]:ASN:OD1	2.37	0.55
1:I:41:ASP:O	1:I:43:PRO:HD3	2.07	0.55
1:P:6:LEU:HB2	1:P:25:VAL:HG13	1.89	0.55
1:P:140:HIS:CE1	1:P:194:GLY:HA3	2.42	0.55
1:H:89:LEU:HB2	1:H:90:PRO:HD3	1.87	0.55
1:E:10:ASN:HD22	1:E:21:GLU:HA	1.71	0.54
1:M:16:ARG:HH12	1:M:20:LEU:HD21	1.73	0.54
1:J:378:LEU:HD21	1:J:389:VAL:HG22	1.88	0.54
1:N:140:HIS:CE1	1:N:194:GLY:HA3	2.43	0.54
1:C:206:GLN:O	1:C:207:TYR:HB2	2.07	0.54
1:H:150:LEU:HD23	1:H:152:PRO:HD2	1.90	0.54
1:N:221:ALA:O	1:O:204:ASN:HB2	2.08	0.54
1:E:144:ARG:HD2	1:E:151:GLU:HB3	1.88	0.54
1:E:234:ARG:O	1:E:238:ARG:HG2	2.08	0.54
1:I:151:GLU:OE2	1:I:151:GLU:HA	2.07	0.54
1:L:325:GLU:CD	1:L:325:GLU:H	2.11	0.54
1:A:6:LEU:HB2	1:A:25:VAL:HG13	1.89	0.54
1:A:199:THR:HG21	1:G:181:GLN:HE21	1.72	0.54
1:P:82:ILE:O	1:P:86:ILE:HG12	2.07	0.54
1:G:173:ARG:NH2	3:G:434:HOH:O	2.41	0.53
1:M:82:ILE:O	1:M:86:ILE:HG12	2.07	0.53
1:A:221:ALA:O	1:C:204:ASN:HB2	2.08	0.53
1:G:82:ILE:O	1:G:86:ILE:HG12	2.09	0.53
1:H:82:ILE:O	1:H:86:ILE:HG12	2.09	0.53
1:I:16:ARG:HH12	1:I:20:LEU:HD21	1.74	0.53
1:J:223:ASN:ND2	1:L:204:ASN:HB3	2.24	0.53
1:N:192:SER:CB	1:N:230:ALA:HA	2.39	0.53
1:C:37:ASP:OD1	1:C:37:ASP:N	2.41	0.53
1:M:201:PRO:O	1:M:204:ASN:ND2	2.42	0.53
1:M:249:HIS:HE1	1:M:321:ASP:OD2	1.92	0.53
1:P:299:GLN:HG3	1:P:300:GLN:HE21	1.74	0.53
1:G:343:ASN:HB2	1:G:386:ILE:HD13	1.89	0.53
1:A:170:GLU:OE2	1:A:170:GLU:HA	2.08	0.52
1:E:201:PRO:HG2	1:E:204[A]:ASN:ND2	2.24	0.52
1:E:98:ARG:NH2	3:E:427:HOH:O	2.41	0.52
1:B:132:LYS:HE3	1:B:161:ALA:O	2.09	0.52
1:H:129:PRO:HD2	1:H:185:THR:HG23	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:65:HIS:CD2	1:O:321:ASP:OD1	2.62	0.52
1:L:103:VAL:HG22	1:L:125:PRO:HB2	1.91	0.52
1:L:224:THR:OG1	1:L:225:TYR:N	2.41	0.52
1:B:16:ARG:HD2	1:N:51:ARG:CG	2.39	0.52
1:O:393:GLY:O	1:O:395:ARG:N	2.43	0.52
1:B:134:LEU:HB2	1:B:189:ILE:HG22	1.92	0.52
1:J:58:GLY:HA2	1:J:376:VAL:HG23	1.91	0.52
1:N:378:LEU:HD21	1:N:389:VAL:HG22	1.92	0.52
1:P:72:ASN:HB3	1:P:75:VAL:HG12	1.92	0.52
1:L:378:LEU:HD21	1:L:389:VAL:HG22	1.92	0.52
1:N:261:MET:HG2	1:N:266:ALA:HB3	1.91	0.52
1:O:61:ASP:OD2	1:O:320:SER:OG	2.27	0.52
1:A:249:HIS:HE1	1:A:321:ASP:OD2	1.93	0.51
1:G:194:GLY:HA2	1:G:231:TYR:HE2	1.75	0.51
1:I:58:GLY:HA2	1:I:376:VAL:HG23	1.91	0.51
1:M:267:PHE:N	1:M:267:PHE:CD2	2.79	0.51
1:F:270:PRO:O	1:F:337:ARG:NH2	2.44	0.51
1:N:13:ASP:OD1	1:N:16:ARG:HD3	2.10	0.51
1:N:338:ALA:HB1	1:N:343:ASN:HB3	1.92	0.51
1:N:146:ARG:HH21	1:N:199:THR:HB	1.75	0.51
1:N:154:SER:O	1:N:155:CYS:CB	2.58	0.51
1:C:82:ILE:O	1:C:86:ILE:HG12	2.10	0.51
1:C:388:VAL:HA	1:C:395:ARG:HH11	1.76	0.51
1:K:60:ILE:HG12	1:K:102:SER:HB2	1.92	0.51
1:P:151:GLU:CB	1:P:152:PRO:HD3	2.39	0.51
1:F:129:PRO:HD2	1:F:185:THR:HG23	1.92	0.51
1:F:223:ASN:ND2	1:G:204:ASN:HB3	2.26	0.51
1:I:379:ASP:HB3	1:I:395:ARG:HG2	1.92	0.51
1:E:88:SER:HA	1:E:91:ILE:HD12	1.92	0.51
1:H:271:THR:O	1:H:274:THR:HG22	2.11	0.51
1:L:41:ASP:O	1:L:43:PRO:HD3	2.10	0.51
1:L:347:LEU:HD11	1:L:382:PRO:HB2	1.93	0.51
1:C:31:ARG:NH2	1:C:370:GLY:O	2.43	0.51
1:K:236:ILE:O	1:K:240:VAL:HG23	2.11	0.51
1:B:181:GLN:HE21	1:D:199:THR:HG21	1.76	0.50
1:C:223:ASN:ND2	1:F:204:ASN:HB3	2.27	0.50
1:K:271:THR:O	1:K:274:THR:HG22	2.12	0.50
1:L:10:ASN:HD22	1:L:21:GLU:HA	1.75	0.50
1:L:236:ILE:O	1:L:240:VAL:HG23	2.12	0.50
1:L:356:GLU:HA	1:L:361:GLN:NE2	2.25	0.50
1:M:60:ILE:HG12	1:M:102:SER:HB2	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:146:ARG:HG2	1:N:147:GLY:N	2.26	0.50
1:M:181:GLN:NE2	1:P:199:THR:HG21	2.26	0.50
1:H:10:ASN:HD22	1:H:21:GLU:HA	1.76	0.50
1:L:206:GLN:O	1:L:207:TYR:HB2	2.11	0.50
1:C:61:ASP:HB3	1:C:103:VAL:HG12	1.94	0.50
1:F:49:ASP:OD1	1:F:51:ARG:NH1	2.45	0.50
1:G:249:HIS:HE1	1:G:321:ASP:OD2	1.94	0.50
1:P:41:ASP:O	1:P:43:PRO:HD3	2.12	0.50
1:E:160:GLY:N	3:E:424:HOH:O	2.44	0.49
1:H:173:ARG:HG2	1:H:218:GLU:HG3	1.93	0.49
1:C:201:PRO:HG2	1:C:204:ASN:OD1	2.13	0.49
1:J:299:GLN:HG3	1:J:300:GLN:HE21	1.76	0.49
1:M:170:GLU:OE2	1:M:170:GLU:HA	2.12	0.49
1:L:173:ARG:O	1:L:177:ARG:HG3	2.13	0.49
1:C:347:LEU:HD11	1:C:382:PRO:HB2	1.95	0.49
1:D:261:MET:HG2	1:D:266:ALA:HB3	1.93	0.49
1:G:270:PRO:O	1:G:337:ARG:NH2	2.45	0.49
1:P:378:LEU:HD21	1:P:389:VAL:HG22	1.93	0.49
1:A:392:GLU:HG3	1:A:393:GLY:N	2.24	0.49
1:C:271:THR:O	1:C:274:THR:HG22	2.12	0.49
1:D:89:LEU:HB2	1:D:90:PRO:HD3	1.94	0.49
1:E:343:ASN:HD22	1:E:386:ILE:HB	1.78	0.49
1:H:88:SER:HA	1:H:91:ILE:HD12	1.93	0.49
1:I:201:PRO:O	1:I:204:ASN:ND2	2.46	0.49
1:M:373:ALA:HB3	1:M:403:GLY:H	1.78	0.49
1:B:240:VAL:HG21	1:B:261:MET:HG3	1.95	0.49
1:E:379:ASP:HB3	1:E:395:ARG:HG2	1.94	0.49
1:I:60:ILE:HB	1:I:354:ALA:HB1	1.95	0.49
1:I:299:GLN:HG3	1:I:300:GLN:HE21	1.78	0.49
1:A:261:MET:HG2	1:A:266:ALA:HB3	1.95	0.49
1:B:261:MET:HG2	1:B:266:ALA:HB3	1.94	0.49
1:D:344:LEU:HD13	1:D:348:ARG:NH1	2.27	0.49
1:F:82:ILE:O	1:F:86:ILE:HG12	2.13	0.49
1:J:170:GLU:OE2	1:J:170:GLU:HA	2.12	0.49
1:A:61:ASP:OD2	1:A:320[A]:SER:OG	2.24	0.49
1:B:199:THR:HG21	1:H:181:GLN:NE2	2.28	0.49
1:F:49:ASP:OD1	1:F:51:ARG:HG3	2.12	0.49
1:I:176:VAL:HG11	1:I:218:GLU:HB2	1.95	0.49
1:N:168:GLY:O	1:N:172:VAL:HG22	2.13	0.49
1:D:144:ARG:HD2	1:D:151:GLU:HB3	1.94	0.48
1:D:344:LEU:HD13	1:D:348:ARG:HH12	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:146:ARG:HH21	1:F:199:THR:HB	1.78	0.48
1:H:347:LEU:HD11	1:H:382:PRO:HB2	1.95	0.48
1:J:347:LEU:HD11	1:J:382:PRO:HB2	1.95	0.48
1:E:206:GLN:O	1:E:207:TYR:HB2	2.12	0.48
1:H:92:LEU:HD22	1:H:125:PRO:HD2	1.95	0.48
1:A:88:SER:HA	1:A:91:ILE:HD12	1.93	0.48
1:B:113:LEU:HA	1:B:113:LEU:HD23	1.69	0.48
1:B:173:ARG:HG2	1:B:218:GLU:HG3	1.95	0.48
1:D:76:ASN:O	1:D:79:GLN:HG2	2.13	0.48
1:O:261:MET:HG2	1:O:266:ALA:HB3	1.96	0.48
1:I:31:ARG:NH2	1:I:370:GLY:O	2.46	0.48
1:K:379:ASP:HB3	1:K:395:ARG:HG2	1.95	0.48
1:P:343:ASN:HB2	1:P:386:ILE:HD13	1.96	0.48
1:M:271:THR:O	1:M:274:THR:HG22	2.13	0.48
1:I:221:ALA:O	1:K:204:ASN:CB	2.48	0.48
1:J:61:ASP:OD1	1:J:319:GLY:HA2	2.12	0.48
1:P:61:ASP:HB3	1:P:103:VAL:HG12	1.96	0.48
1:N:41:ASP:O	1:N:43:PRO:HD3	2.13	0.48
1:P:250:GLY:O	1:P:253:VAL:HG22	2.13	0.48
1:A:140:HIS:CE1	1:A:194:GLY:HA3	2.48	0.48
1:I:10:ASN:HD22	1:I:21:GLU:HA	1.78	0.48
1:O:129:PRO:HD2	1:O:185:THR:HG23	1.96	0.48
1:A:103:VAL:HG22	1:A:125:PRO:HB2	1.96	0.47
1:F:240:VAL:HG21	1:F:261:MET:HG3	1.96	0.47
1:H:280:LYS:HB3	1:H:281:HIS:CE1	2.49	0.47
1:P:204:ASN:C	1:P:204:ASN:HD22	2.17	0.47
1:A:89:LEU:HB2	1:A:90:PRO:HD3	1.95	0.47
1:B:140:HIS:ND1	1:B:194:GLY:HA3	2.29	0.47
1:C:173:ARG:HG2	1:C:218:GLU:HG3	1.96	0.47
1:O:88:SER:HA	1:O:91:ILE:HD12	1.95	0.47
1:C:177:ARG:NH2	1:F:211:GLU:OE2	2.37	0.47
1:M:153:CYS:O	1:M:154:SER:CB	2.57	0.47
1:O:236:ILE:O	1:O:240:VAL:HG23	2.14	0.47
1:O:270:PRO:O	1:O:337:ARG:NH2	2.47	0.47
1:E:271:THR:HG21	1:E:321:ASP:HB2	1.95	0.47
1:I:6:LEU:HB2	1:I:25:VAL:HG13	1.95	0.47
1:I:82:ILE:HD13	1:J:112:SER:HB2	1.97	0.47
1:O:31:ARG:NH2	1:O:370:GLY:O	2.45	0.47
1:C:47:ALA:C	1:C:48:ILE:HG13	2.35	0.47
1:G:261:MET:HG2	1:G:266:ALA:HB3	1.96	0.47
1:M:356:GLU:HG3	1:M:361:GLN:HE21	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:16:ARG:HH12	1:C:20:LEU:HD21	1.80	0.47
1:G:187:ILE:HB	1:G:226:VAL:HG22	1.95	0.47
1:G:239:ALA:O	1:G:244:VAL:HG13	2.15	0.47
1:C:10:ASN:HD22	1:C:21:GLU:HA	1.78	0.47
1:J:373:ALA:HB3	1:J:403:GLY:H	1.80	0.47
1:O:140:HIS:CE1	1:O:194:GLY:HA3	2.50	0.47
1:P:288:PRO:HA	1:P:289:PRO:HD3	1.80	0.47
1:A:151:GLU:HA	1:A:151:GLU:OE1	2.14	0.47
1:A:270:PRO:O	1:A:337:ARG:NH2	2.47	0.47
1:I:271:THR:O	1:I:274:THR:HG22	2.14	0.47
1:O:172:VAL:O	1:O:176:VAL:HG23	2.15	0.47
1:M:379:ASP:HB3	1:M:395:ARG:HG2	1.96	0.47
1:N:303:ARG:HG2	1:N:340:VAL:HG21	1.97	0.47
1:P:53:LYS:HG2	1:P:379:ASP:HA	1.97	0.47
1:A:152:PRO:O	1:A:153:CYS:HB3	2.14	0.47
1:C:338:ALA:O	1:C:341:LEU:O	2.32	0.47
1:E:270:PRO:HD2	1:E:337:ARG:HH22	1.80	0.47
1:L:318:PHE:CZ	1:L:333:GLU:HB3	2.50	0.46
1:D:51:ARG:HD2	1:D:51:ARG:O	2.15	0.46
1:H:170:GLU:OE2	1:H:170:GLU:HA	2.14	0.46
1:J:103:VAL:HG22	1:J:125:PRO:HB2	1.95	0.46
1:K:388:VAL:HA	1:K:395:ARG:HH11	1.81	0.46
1:N:82:ILE:O	1:N:86:ILE:HG12	2.15	0.46
1:I:388:VAL:HA	1:I:395:ARG:HH11	1.79	0.46
1:M:325:GLU:CD	1:M:325:GLU:H	2.18	0.46
1:A:194:GLY:HA2	1:A:231:TYR:HE2	1.80	0.46
1:B:192:SER:HB3	1:B:230:ALA:HA	1.97	0.46
1:G:347:LEU:HD11	1:G:382:PRO:HB2	1.97	0.46
1:B:140:HIS:CE1	1:B:194:GLY:HA3	2.51	0.46
1:E:61:ASP:HB3	1:E:103:VAL:HG12	1.97	0.46
1:C:44:ASN:H	1:C:44:ASN:HD22	1.62	0.46
1:D:173:ARG:NH2	3:D:429:HOH:O	2.30	0.46
1:M:236:ILE:HD11	1:M:250:GLY:HA2	1.97	0.46
1:N:61:ASP:HB3	1:N:103:VAL:HG12	1.98	0.46
1:F:299:GLN:HG3	1:F:300:GLN:HE21	1.81	0.46
1:H:388:VAL:HA	1:H:395:ARG:HH11	1.80	0.46
1:K:104:ARG:HA	1:K:128:PHE:HB2	1.98	0.46
1:D:240:VAL:HG21	1:D:261:MET:HG3	1.98	0.46
1:F:170:GLU:OE2	1:F:170:GLU:HA	2.16	0.46
1:K:7:GLN:NE2	1:K:47:ALA:HB1	2.31	0.46
1:K:65:HIS:CE1	1:K:106:ALA:HB3	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:61:ASP:HB3	1:L:103:VAL:HG12	1.98	0.46
1:M:267:PHE:HD2	1:M:267:PHE:H	1.63	0.46
1:N:236:ILE:HD13	1:N:253:VAL:HG13	1.97	0.46
1:G:153:CYS:SG	1:G:154:SER:N	2.89	0.46
1:E:393:GLY:O	1:E:395:ARG:N	2.48	0.46
1:N:31:ARG:NH2	1:N:370:GLY:O	2.48	0.46
1:O:270:PRO:HD2	1:O:337:ARG:HH22	1.81	0.46
1:C:140:HIS:CE1	1:C:194:GLY:HA3	2.51	0.45
1:G:24:HIS:N	1:G:36:THR:O	2.47	0.45
1:H:63:HIS:ND1	1:H:248:GLU:OE1	2.34	0.45
1:I:206:GLN:O	1:I:207:TYR:HB2	2.14	0.45
1:K:221:ALA:O	1:N:204:ASN:CB	2.60	0.45
1:P:388:VAL:HA	1:P:395:ARG:HE	1.81	0.45
1:C:343:ASN:HD22	1:C:386:ILE:HB	1.80	0.45
1:D:241[A]:ARG:HG3	1:D:260:LEU:HD21	1.98	0.45
1:E:388:VAL:HA	1:E:395:ARG:HE	1.82	0.45
1:K:31:ARG:NH2	1:K:370:GLY:O	2.49	0.45
1:M:72:ASN:HB3	1:M:75:VAL:HG12	1.99	0.45
1:N:135:SER:O	1:N:165:VAL:HA	2.15	0.45
1:N:373:ALA:HB3	1:N:403:GLY:H	1.80	0.45
1:N:393:GLY:C	1:N:395:ARG:H	2.18	0.45
1:O:10:ASN:HD22	1:O:21:GLU:HA	1.82	0.45
1:P:236:ILE:HG21	1:P:261:MET:CE	2.47	0.45
1:B:153:CYS:O	1:B:154:SER:CB	2.59	0.45
1:C:192:SER:HB3	1:C:230:ALA:HA	1.96	0.45
1:D:173:ARG:HG2	1:D:218:GLU:CG	2.47	0.45
1:B:107:GLY:O	1:B:162:ILE:HD12	2.16	0.45
1:H:6:LEU:HB2	1:H:25:VAL:HG13	1.98	0.45
1:L:270:PRO:O	1:L:337:ARG:NH2	2.49	0.45
1:L:388:VAL:HA	1:L:395:ARG:HH11	1.82	0.45
1:A:343:ASN:HB2	1:A:386:ILE:HD13	1.98	0.45
1:O:381:ASN:HA	1:O:382:PRO:HD2	1.85	0.45
1:P:24:HIS:N	1:P:36:THR:O	2.46	0.45
1:A:173:ARG:HG2	1:A:218:GLU:HG3	1.99	0.45
1:H:288:PRO:HA	1:H:289:PRO:HD3	1.83	0.45
1:I:338:ALA:HB1	1:I:343:ASN:HB3	1.99	0.45
1:K:382:PRO:HA	1:K:385:ASP:O	2.16	0.45
1:L:316:MET:O	1:L:353:VAL:HG11	2.16	0.45
1:N:113:LEU:HD23	1:N:113:LEU:HA	1.75	0.45
1:B:151:GLU:N	1:B:152:PRO:CD	2.80	0.45
1:B:241:ARG:HG3	1:B:260:LEU:HD21	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:65:HIS:HE1	1:J:106:ALA:O	2.00	0.45
1:E:288:PRO:HA	1:E:289:PRO:HD3	1.81	0.45
1:P:338:ALA:HB1	1:P:343:ASN:HB3	1.98	0.45
1:F:215:ILE:HG22	1:F:226:VAL:HG21	1.98	0.45
1:I:288:PRO:HA	1:I:289:PRO:HD3	1.84	0.45
1:G:10:ASN:HD22	1:G:21:GLU:HA	1.81	0.45
1:G:209:GLU:HB3	1:G:213[B]:ARG:HH21	1.82	0.45
1:L:338:ALA:HB2	1:L:386:ILE:HG12	1.99	0.45
1:C:270:PRO:O	1:C:337:ARG:NH2	2.50	0.44
1:D:58:GLY:HA2	1:D:376:VAL:HG23	1.98	0.44
1:F:388:VAL:HA	1:F:395:ARG:HH11	1.82	0.44
1:G:151:GLU:OE1	1:G:151:GLU:HA	2.18	0.44
1:I:3:ILE:HG13	1:I:27:ILE:O	2.17	0.44
1:K:151:GLU:OE2	1:K:151:GLU:HA	2.17	0.44
1:M:401:GLN:HB2	1:M:406:VAL:HG21	1.99	0.44
1:D:270:PRO:O	1:D:337:ARG:NH2	2.50	0.44
1:F:270:PRO:HD2	1:F:337:ARG:HH22	1.82	0.44
1:G:16:ARG:HH12	1:G:20:LEU:HD21	1.82	0.44
1:H:335:ARG:NH1	1:H:335:ARG:HB3	2.31	0.44
1:K:299:GLN:HG3	1:K:300:GLN:HE21	1.82	0.44
1:O:373:ALA:HB3	1:O:403:GLY:H	1.81	0.44
1:P:31:ARG:NH2	1:P:370:GLY:O	2.51	0.44
1:I:361:GLN:CD	1:I:361:GLN:H	2.21	0.44
1:B:388:VAL:HA	1:B:395:ARG:HH11	1.82	0.44
1:C:215:ILE:HG22	1:C:226:VAL:HG21	2.00	0.44
1:I:378:LEU:HD21	1:I:389:VAL:HG22	1.99	0.44
1:I:381:ASN:HA	1:I:382:PRO:HD2	1.90	0.44
1:N:56:MET:HA	1:N:367:ILE:HD11	1.98	0.44
1:P:135:SER:O	1:P:165:VAL:HA	2.18	0.44
1:H:383:LEU:HD12	1:H:383:LEU:HA	1.84	0.44
1:I:104:ARG:HD3	1:I:358:VAL:HG12	2.00	0.44
1:N:288:PRO:HA	1:N:289:PRO:HD3	1.82	0.44
1:B:343:ASN:OD1	1:B:343:ASN:N	2.38	0.44
1:E:181:GLN:HE21	1:H:199:THR:HG21	1.81	0.44
1:K:172:VAL:O	1:K:176:VAL:HG23	2.18	0.44
1:M:377:VAL:HG11	1:M:398:TYR:HD2	1.82	0.44
1:N:388:VAL:HA	1:N:395:ARG:HH11	1.82	0.44
1:F:268:VAL:HG23	1:F:314:VAL:HG12	1.99	0.44
1:I:270:PRO:O	1:I:337:ARG:NH2	2.50	0.44
1:I:347:LEU:HD11	1:I:382:PRO:HB2	2.00	0.44
1:L:272:LEU:HD11	1:L:306:LEU:HD13	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:10:ASN:HD22	1:B:21:GLU:HA	1.83	0.44
1:O:60:ILE:HG12	1:O:102:SER:HB2	2.00	0.44
1:B:236:ILE:HD11	1:B:250:GLY:HA2	2.00	0.44
1:E:229:HIS:ND1	1:E:249:HIS:CD2	2.86	0.44
1:F:325:GLU:H	1:F:325:GLU:CD	2.20	0.44
1:I:199:THR:HG21	1:O:181:GLN:NE2	2.33	0.44
1:I:297:SER:O	1:I:300:GLN:HG2	2.17	0.44
1:K:335:ARG:HD2	1:K:390:ALA:HB3	1.99	0.44
1:H:173:ARG:HG2	1:H:218:GLU:CG	2.46	0.43
1:I:103:VAL:HG22	1:I:125:PRO:HB2	2.00	0.43
1:I:236:ILE:HD13	1:I:253:VAL:HG13	2.00	0.43
1:L:250:GLY:O	1:L:253:VAL:HG22	2.18	0.43
1:M:65:HIS:CD2	1:M:321:ASP:OD1	2.71	0.43
1:M:172:VAL:O	1:M:176:VAL:HG23	2.18	0.43
1:N:89:LEU:HB2	1:N:90:PRO:HD3	1.99	0.43
1:O:61:ASP:HB3	1:O:103:VAL:HG12	2.00	0.43
1:P:64:VAL:CG2	1:P:103:VAL:HB	2.48	0.43
1:B:150:LEU:O	1:B:151:GLU:HB2	2.18	0.43
1:D:292:VAL:O	1:D:295:VAL:HG12	2.18	0.43
1:E:61:ASP:OD2	1:E:320:SER:OG	2.31	0.43
1:E:383:LEU:HD12	1:E:383:LEU:HA	1.84	0.43
1:J:7:GLN:NE2	1:J:47:ALA:HB1	2.33	0.43
1:M:88:SER:HA	1:M:91:ILE:HD12	1.99	0.43
1:B:173:ARG:HG2	1:B:218:GLU:CG	2.49	0.43
1:D:89:LEU:HD11	1:G:86:ILE:HD12	1.99	0.43
1:D:299:GLN:HG3	1:D:300:GLN:HE21	1.83	0.43
1:G:268:VAL:HG21	1:G:309:TYR:CE1	2.53	0.43
1:H:107:GLY:O	1:H:162:ILE:HD12	2.18	0.43
1:I:303:ARG:HH11	1:I:303:ARG:HB2	1.83	0.43
1:L:58:GLY:HA2	1:L:376:VAL:HG23	2.00	0.43
1:A:381:ASN:HA	1:A:382:PRO:HD2	1.87	0.43
1:B:88:SER:HA	1:B:91:ILE:HD12	2.00	0.43
1:D:288:PRO:HA	1:D:289:PRO:HD3	1.77	0.43
1:I:138:GLY:HA2	1:O:181:GLN:HG3	1.99	0.43
1:P:132:LYS:HE3	1:P:161:ALA:O	2.17	0.43
1:J:89:LEU:HB2	1:J:90:PRO:HD3	2.00	0.43
1:K:154:SER:O	1:K:155:CYS:CB	2.67	0.43
1:M:168:GLY:O	1:M:172:VAL:HG22	2.19	0.43
1:M:299:GLN:HG3	1:M:300:GLN:HE21	1.84	0.43
1:N:201:PRO:O	1:N:204:ASN:ND2	2.52	0.43
1:G:64:VAL:HG21	1:G:103:VAL:HB	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:271:THR:O	1:G:274:THR:HG22	2.19	0.43
1:I:153:CYS:HB2	1:I:154:SER:H	1.60	0.43
1:J:382:PRO:HA	1:J:385:ASP:O	2.19	0.43
1:M:10:ASN:HD22	1:M:21:GLU:HA	1.84	0.43
1:G:58:GLY:HA2	1:G:376:VAL:HG23	2.01	0.43
1:G:378:LEU:HD12	1:G:378:LEU:HA	1.88	0.43
1:M:61:ASP:HB3	1:M:103:VAL:HG12	1.99	0.43
1:N:211:GLU:O	1:N:215:ILE:HG13	2.17	0.43
1:N:356:GLU:HG3	1:N:361:GLN:HE22	1.83	0.43
1:P:134:LEU:HB2	1:P:189:ILE:HG22	2.00	0.43
1:M:6:LEU:HB2	1:M:25:VAL:CG1	2.43	0.43
1:P:151:GLU:HB3	1:P:152:PRO:HD3	2.00	0.43
1:H:204:ASN:C	1:H:204:ASN:HD22	2.23	0.43
1:I:82:ILE:HD12	1:J:112:SER:HB2	1.99	0.43
1:I:158:ARG:H	1:I:158:ARG:HG2	1.62	0.43
1:L:16:ARG:HH12	1:L:20:LEU:HD21	1.84	0.43
1:C:343:ASN:HB2	1:C:386:ILE:HD13	2.00	0.43
1:D:132:LYS:HE3	1:D:161:ALA:HB3	2.01	0.43
1:E:232:THR:HG23	3:E:434:HOH:O	2.17	0.43
1:H:151:GLU:HB3	1:H:152:PRO:CD	2.48	0.43
1:K:89:LEU:HB2	1:K:90:PRO:HD3	2.01	0.43
1:B:150:LEU:O	1:B:151:GLU:CB	2.67	0.42
1:E:58:GLY:HA2	1:E:376:VAL:HG23	2.01	0.42
1:F:232:THR:HA	1:F:252:LEU:HB2	2.01	0.42
1:J:388:VAL:HA	1:J:395:ARG:HH11	1.84	0.42
1:B:270:PRO:O	1:B:337:ARG:NH2	2.52	0.42
1:L:65:HIS:CD2	1:L:321:ASP:OD1	2.72	0.42
1:N:181:GLN:NE2	1:O:199:THR:HG21	2.33	0.42
1:N:223:ASN:HD22	1:O:204:ASN:HB3	1.83	0.42
1:N:303:ARG:HH11	1:N:303:ARG:HB2	1.84	0.42
1:O:318:PHE:CZ	1:O:333:GLU:HB3	2.54	0.42
1:A:117:VAL:HG12	1:A:122:VAL:HG12	1.99	0.42
1:E:343:ASN:HB2	1:E:386:ILE:HD13	2.02	0.42
1:I:57:PRO:HG3	1:I:367:ILE:HG13	2.00	0.42
1:I:154:SER:O	1:I:155:CYS:HB2	2.19	0.42
1:M:103:VAL:HG22	1:M:125:PRO:HB2	2.00	0.42
1:O:61:ASP:OD1	1:O:319:GLY:HA2	2.20	0.42
1:P:268:VAL:HG21	1:P:309:TYR:CE1	2.54	0.42
1:C:117:VAL:HG12	1:C:122:VAL:HG12	2.02	0.42
1:C:150:LEU:HB3	1:C:151:GLU:H	1.53	0.42
1:E:378:LEU:HD21	1:E:389:VAL:HG22	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:383:LEU:HD12	1:I:383:LEU:HA	1.80	0.42
1:J:261:MET:HG2	1:J:266:ALA:HB3	2.01	0.42
1:K:268:VAL:HG21	1:K:309:TYR:CE1	2.54	0.42
1:B:61:ASP:HB3	1:B:103:VAL:HG12	2.00	0.42
1:J:288:PRO:HA	1:J:289:PRO:HD3	1.86	0.42
1:K:270:PRO:O	1:K:337:ARG:NH2	2.53	0.42
1:B:206:GLN:O	1:B:207:TYR:HB2	2.19	0.42
1:D:382:PRO:HA	1:D:385:ASP:O	2.20	0.42
1:K:287:MET:HA	1:K:288:PRO:HD2	1.83	0.42
1:L:343:ASN:HB2	1:L:386:ILE:HD13	2.01	0.42
1:M:381:ASN:HA	1:M:382:PRO:HD2	1.88	0.42
1:P:170:GLU:OE2	1:P:170:GLU:HA	2.19	0.42
1:B:51:ARG:HD2	1:B:51:ARG:O	2.20	0.42
1:B:170:GLU:HA	1:B:170:GLU:OE2	2.20	0.42
1:C:147:GLY:HA3	1:C:150:LEU:CB	2.44	0.42
1:C:261:MET:HG2	1:C:266:ALA:HB3	2.01	0.42
1:G:145:PRO:HG2	1:G:150:LEU:HD23	2.01	0.42
1:N:62:CYS:HA	1:N:104:ARG:HB3	2.01	0.42
1:N:299:GLN:HG3	1:N:300:GLN:HE21	1.84	0.42
1:A:236:ILE:HD13	1:A:253:VAL:HG13	2.01	0.42
1:C:38:ARG:HA	1:C:39:PRO:HD2	1.51	0.42
1:F:108:GLY:HA3	3:F:427:HOH:O	2.19	0.42
1:F:268:VAL:HG23	1:F:314:VAL:CG1	2.50	0.42
1:J:28:ASP:HB3	1:J:33:VAL:HG21	2.02	0.42
1:L:42:LEU:HB2	1:L:45:ALA:HB3	2.02	0.42
1:P:385:ASP:O	1:P:388:VAL:HG13	2.19	0.42
1:D:170:GLU:HA	1:D:170:GLU:OE2	2.20	0.42
1:H:236:ILE:HD13	1:H:253:VAL:HG13	2.02	0.42
1:J:200:ASP:HA	1:J:201:PRO:HD2	1.90	0.42
1:J:270:PRO:O	1:J:337:ARG:NH2	2.53	0.42
1:M:378:LEU:HD21	1:M:389:VAL:HG22	2.01	0.42
1:O:335:ARG:HB3	1:O:335:ARG:NH1	2.35	0.42
1:D:229:HIS:ND1	1:D:249:HIS:CD2	2.88	0.42
1:D:232:THR:HA	1:D:252:LEU:HB2	2.02	0.42
1:E:117:VAL:HG12	1:E:122:VAL:HG12	2.00	0.42
1:F:65:HIS:CD2	1:F:321:ASP:OD1	2.73	0.42
1:I:325:GLU:C	1:I:327:HIS:H	2.23	0.42
1:D:338:ALA:HB1	1:D:343:ASN:HB3	2.01	0.41
1:H:49:ASP:OD1	1:H:51:ARG:NH1	2.53	0.41
1:H:132:LYS:HE3	1:H:161:ALA:O	2.20	0.41
1:I:176:VAL:CG1	1:I:218:GLU:HB3	2.47	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:401:GLN:HB2	1:J:406:VAL:HG21	2.02	0.41
1:O:132:LYS:HE3	1:O:161:ALA:O	2.20	0.41
1:D:27:ILE:HG21	1:D:403:GLY:HA2	2.02	0.41
1:G:104:ARG:HA	1:G:128:PHE:HB2	2.01	0.41
1:H:234:ARG:O	1:H:238:ARG:HG2	2.20	0.41
1:K:250:GLY:O	1:K:253:VAL:HG22	2.20	0.41
1:M:287:MET:HA	1:M:288:PRO:HD2	1.86	0.41
1:A:268:VAL:HG21	1:A:309:TYR:CD1	2.54	0.41
1:F:151:GLU:OE1	1:F:151:GLU:N	2.51	0.41
1:F:158:ARG:H	1:F:158:ARG:HG2	1.67	0.41
1:L:31:ARG:NH2	1:L:370:GLY:O	2.53	0.41
1:O:299:GLN:HG3	1:O:300:GLN:HE21	1.84	0.41
1:P:16:ARG:HH12	1:P:20:LEU:HD21	1.85	0.41
1:P:379:ASP:HB3	1:P:395:ARG:HG2	2.02	0.41
1:F:250:GLY:O	1:F:253:VAL:HG22	2.20	0.41
1:H:263:GLU:OE2	1:M:39:PRO:HD2	2.20	0.41
1:H:378:LEU:HD12	1:H:378:LEU:HA	1.79	0.41
1:I:113:LEU:HD23	1:I:113:LEU:HA	1.90	0.41
1:A:382:PRO:HA	1:A:385:ASP:O	2.21	0.41
1:F:192:SER:HB3	1:F:230:ALA:HA	2.02	0.41
1:H:201:PRO:HG2	1:H:204:ASN:OD1	2.20	0.41
1:H:343:ASN:HD22	1:H:386:ILE:HB	1.86	0.41
1:I:343:ASN:HD22	1:I:386:ILE:HB	1.85	0.41
1:M:229:HIS:ND1	1:M:249:HIS:CD2	2.88	0.41
1:B:345:GLU:OE1	1:B:348:ARG:NH1	2.52	0.41
1:C:212:ILE:HA	1:C:215:ILE:HD12	2.02	0.41
1:F:287:MET:HA	1:F:288:PRO:HD2	1.85	0.41
1:H:117:VAL:HG12	1:H:122:VAL:HG12	2.02	0.41
1:K:89:LEU:HD23	1:K:89:LEU:HA	1.83	0.41
1:K:192:SER:HB3	1:K:230:ALA:HA	2.03	0.41
1:O:200:ASP:HA	1:O:201:PRO:HD2	1.90	0.41
1:E:194:GLY:HA2	1:E:231:TYR:HE2	1.86	0.41
1:E:223:ASN:ND2	1:H:204:ASN:HB3	2.36	0.41
1:I:77:ALA:HA	1:I:160:GLY:O	2.19	0.41
1:J:65:HIS:CE1	1:J:106:ALA:O	2.74	0.41
1:K:325:GLU:CD	1:K:325:GLU:H	2.24	0.41
1:P:150:LEU:O	1:P:151:GLU:HB2	2.21	0.41
1:E:113:LEU:HD23	1:E:113:LEU:HA	1.82	0.41
1:F:12:LEU:HD22	1:F:14:LEU:HG	2.02	0.41
1:J:181:GLN:NE2	1:L:199:THR:HG21	2.36	0.41
1:L:201:PRO:O	1:L:204:ASN:ND2	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:176:VAL:HG12	1:M:180:ILE:HD12	2.02	0.41
1:N:148:ASP:N	1:N:148:ASP:OD1	2.54	0.41
1:C:383:LEU:HD12	1:C:383:LEU:HA	1.80	0.41
1:E:82:ILE:HG13	1:E:83:LEU:N	2.35	0.41
1:G:76:ASN:O	1:G:79:GLN:HG2	2.20	0.41
1:G:132:LYS:HE3	1:G:161:ALA:HB3	2.02	0.41
1:I:51:ARG:HD2	1:I:51:ARG:O	2.21	0.41
1:I:61:ASP:OD1	1:I:319:GLY:HA2	2.21	0.41
1:N:32:ILE:HD13	1:N:367:ILE:HG23	2.03	0.41
1:A:383:LEU:HD12	1:A:383:LEU:HA	1.83	0.41
1:F:194:GLY:HA2	1:F:231:TYR:HE2	1.86	0.41
1:K:83:LEU:HD13	1:K:87:ARG:NH1	2.36	0.41
1:K:200:ASP:HA	1:K:201:PRO:HD2	1.85	0.41
1:M:140:HIS:HE1	1:M:196:ALA:H	1.69	0.41
1:A:20:LEU:HB3	1:A:23:HIS:CE1	2.56	0.40
1:A:192:SER:HB3	1:A:230:ALA:HA	2.03	0.40
1:A:200:ASP:HA	1:A:201:PRO:HD2	1.94	0.40
1:C:173:ARG:HG2	1:C:218:GLU:CG	2.51	0.40
1:F:151:GLU:HA	1:F:152:PRO:HD3	1.85	0.40
1:H:109:ALA:N	3:H:428:HOH:O	2.53	0.40
1:H:249:HIS:HE1	1:H:321:ASP:OD2	2.05	0.40
1:I:322:LEU:HD22	1:I:326:MET:O	2.21	0.40
1:J:129:PRO:HD2	1:J:185:THR:OG1	2.21	0.40
1:M:107:GLY:O	1:M:162:ILE:HD12	2.21	0.40
1:M:113:LEU:HD23	1:M:113:LEU:HA	1.75	0.40
1:D:383:LEU:HA	1:D:383:LEU:HD12	1.76	0.40
1:E:200:ASP:HA	1:E:201:PRO:HD2	1.95	0.40
1:F:176:VAL:HG11	1:F:218:GLU:CB	2.51	0.40
1:H:113:LEU:HA	1:H:113:LEU:HD23	1.80	0.40
1:H:236:ILE:CD1	1:H:253:VAL:HG13	2.52	0.40
1:L:53:LYS:HG2	1:L:379:ASP:HA	2.03	0.40
1:M:268:VAL:HG21	1:M:309:TYR:CE1	2.57	0.40
1:N:343:ASN:HB2	1:N:386:ILE:HD13	2.02	0.40
1:F:61:ASP:HB3	1:F:103:VAL:HG12	2.02	0.40
1:H:140:HIS:CE1	1:H:194:GLY:HA3	2.56	0.40
1:K:38:ARG:HD3	1:K:38:ARG:HA	1.88	0.40
1:K:302:GLY:O	1:K:305:SER:OG	2.38	0.40
1:N:224:THR:OG1	1:N:225:TYR:N	2.53	0.40
1:A:135:SER:O	1:A:165:VAL:HA	2.21	0.40
1:B:271:THR:O	1:B:274:THR:HG22	2.21	0.40
1:H:381:ASN:HA	1:H:382:PRO:HD2	1.97	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:103:VAL:HG22	1:K:125:PRO:HB2	2.03	0.40
1:P:381:ASN:HA	1:P:382:PRO:HD2	1.90	0.40
1:B:89:LEU:HB2	1:B:90:PRO:HD3	2.03	0.40
1:B:200:ASP:HA	1:B:201:PRO:HD2	1.94	0.40
1:D:173:ARG:HG2	1:D:218:GLU:HG3	2.03	0.40
1:F:383:LEU:HD12	1:F:383:LEU:HA	1.84	0.40
1:K:288:PRO:HA	1:K:289:PRO:HD3	1.86	0.40
1:L:170:GLU:OE2	1:M:168:GLY:HA2	2.21	0.40
1:N:42:LEU:HA	1:N:43:PRO:HD3	1.98	0.40

All (1) 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:C:45:ALA:O	1:I:301:LYS:NZ[1_546]	1.98	0.22

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	A	405/423 (96%)	385 (95%)	13 (3%)	7 (2%)	9 12
1	B	407/423 (96%)	384 (94%)	16 (4%)	7 (2%)	9 12
1	C	404/423 (96%)	380 (94%)	18 (4%)	6 (2%)	10 14
1	D	405/423 (96%)	383 (95%)	17 (4%)	5 (1%)	13 18
1	E	405/423 (96%)	378 (93%)	23 (6%)	4 (1%)	15 22
1	F	403/423 (95%)	379 (94%)	19 (5%)	5 (1%)	13 18
1	G	403/423 (95%)	380 (94%)	18 (4%)	5 (1%)	13 18
1	H	403/423 (95%)	374 (93%)	21 (5%)	8 (2%)	7 10
1	I	402/423 (95%)	374 (93%)	20 (5%)	8 (2%)	7 10

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	J	395/423 (93%)	368 (93%)	22 (6%)	5 (1%)	12 17
1	K	398/423 (94%)	369 (93%)	22 (6%)	7 (2%)	8 11
1	L	401/423 (95%)	371 (92%)	21 (5%)	9 (2%)	6 9
1	M	403/423 (95%)	378 (94%)	17 (4%)	8 (2%)	7 10
1	N	401/423 (95%)	367 (92%)	28 (7%)	6 (2%)	10 14
1	O	398/423 (94%)	373 (94%)	18 (4%)	7 (2%)	8 11
1	P	403/423 (95%)	380 (94%)	17 (4%)	6 (2%)	10 14
All	All	6436/6768 (95%)	6023 (94%)	310 (5%)	103 (2%)	9 13

All (103) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	151	GLU
1	A	152	PRO
1	A	153	CYS
1	B	151	GLU
1	B	152	PRO
1	B	154	SER
1	G	151	GLU
1	H	151	GLU
1	H	155	CYS
1	I	151	GLU
1	J	151	GLU
1	J	152	PRO
1	K	152	PRO
1	K	154	SER
1	L	152	PRO
1	M	154	SER
1	N	155	CYS
1	O	394	ALA
1	P	151	GLU
1	P	153	CYS
1	A	43	PRO
1	B	153	CYS
1	B	155	CYS
1	C	153	CYS
1	D	152	PRO
1	D	154	SER
1	E	43	PRO
1	E	394	ALA

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Mol	Chain	Res	Type
1	F	43	PRO
1	G	43	PRO
1	I	43	PRO
1	I	153	CYS
1	J	153	CYS
1	L	154	SER
1	L	155	CYS
1	M	342	GLY
1	N	43	PRO
1	P	43	PRO
1	B	43	PRO
1	D	43	PRO
1	D	207	TYR
1	D	249	HIS
1	E	207	TYR
1	G	152	PRO
1	H	43	PRO
1	H	153	CYS
1	I	154	SER
1	I	326	MET
1	J	43	PRO
1	K	43	PRO
1	L	43	PRO
1	M	43	PRO
1	O	43	PRO
1	O	392	GLU
1	P	207	TYR
1	A	207	TYR
1	A	249	HIS
1	A	300	GLN
1	B	249	HIS
1	C	146	ARG
1	C	249	HIS
1	E	249	HIS
1	F	249	HIS
1	G	249	HIS
1	H	249	HIS
1	I	155	CYS
1	I	249	HIS
1	I	300	GLN
1	J	300	GLN
1	K	155	CYS

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Mol	Chain	Res	Type
1	K	342	GLY
1	L	373	ALA
1	M	146	ARG
1	M	249	HIS
1	M	300	GLN
1	N	249	HIS
1	N	300	GLN
1	O	249	HIS
1	P	249	HIS
1	C	154	SER
1	F	207	TYR
1	G	207	TYR
1	H	152	PRO
1	H	207	TYR
1	K	207	TYR
1	L	207	TYR
1	L	394	ALA
1	M	207	TYR
1	M	329	PHE
1	N	148	ASP
1	P	300	GLN
1	C	39	PRO
1	F	300	GLN
1	H	300	GLN
1	K	153	CYS
1	L	300	GLN
1	N	207	TYR
1	O	207	TYR
1	O	300	GLN
1	O	393	GLY
1	C	152	PRO
1	L	342	GLY
1	F	152	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	317/326 (97%)	268 (84%)	49 (16%)	2	2
1	B	319/326 (98%)	272 (85%)	47 (15%)	3	3
1	C	315/326 (97%)	267 (85%)	48 (15%)	3	2
1	D	317/326 (97%)	270 (85%)	47 (15%)	3	3
1	E	316/326 (97%)	272 (86%)	44 (14%)	3	3
1	F	315/326 (97%)	266 (84%)	49 (16%)	2	2
1	G	315/326 (97%)	272 (86%)	43 (14%)	3	4
1	H	315/326 (97%)	271 (86%)	44 (14%)	3	3
1	I	314/326 (96%)	270 (86%)	44 (14%)	3	3
1	J	312/326 (96%)	272 (87%)	40 (13%)	4	5
1	K	313/326 (96%)	265 (85%)	48 (15%)	2	2
1	L	313/326 (96%)	268 (86%)	45 (14%)	3	3
1	M	314/326 (96%)	269 (86%)	45 (14%)	3	3
1	N	312/326 (96%)	265 (85%)	47 (15%)	3	3
1	O	310/326 (95%)	266 (86%)	44 (14%)	3	3
1	P	315/326 (97%)	274 (87%)	41 (13%)	4	5
All	All	5032/5216 (96%)	4307 (86%)	725 (14%)	3	3

All (725) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	6	LEU
1	A	12	LEU
1	A	18	VAL
1	A	25	VAL
1	A	38	ARG
1	A	40	VAL
1	A	42	LEU
1	A	46	GLN
1	A	51	ARG
1	A	55	VAL
1	A	67	LEU
1	A	75	VAL
1	A	82	ILE
1	A	112	SER
1	A	113	LEU
1	A	132	LYS

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Mol	Chain	Res	Type
1	A	151	GLU
1	A	153	CYS
1	A	154	SER
1	A	156	CYS
1	A	202	ILE
1	A	204	ASN
1	A	238	ARG
1	A	253	VAL
1	A	254	ASP
1	A	263	GLU
1	A	280	LYS
1	A	292	VAL
1	A	298	VAL
1	A	306	LEU
1	A	315	LYS
1	A	320[A]	SER
1	A	320[B]	SER
1	A	341	LEU
1	A	344	LEU
1	A	345[A]	GLU
1	A	345[B]	GLU
1	A	361[A]	GLN
1	A	361[B]	GLN
1	A	363	GLN
1	A	375	LEU
1	A	378	LEU
1	A	383	LEU
1	A	384	GLU
1	A	396	VAL
1	A	397	GLU
1	A	404	THR
1	A	406	VAL
1	A	409	GLN
1	B	6	LEU
1	B	12	LEU
1	B	18	VAL
1	B	25	VAL
1	B	40	VAL
1	B	42	LEU
1	B	46	GLN
1	B	51	ARG
1	B	55	VAL

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Mol	Chain	Res	Type
1	B	75	VAL
1	B	82	ILE
1	B	112	SER
1	B	113	LEU
1	B	132	LYS
1	B	150	LEU
1	B	152	PRO
1	B	153	CYS
1	B	155	CYS
1	B	156	CYS
1	B	166	VAL
1	B	202	ILE
1	B	204	ASN
1	B	238	ARG
1	B	253	VAL
1	B	254	ASP
1	B	263	GLU
1	B	280	LYS
1	B	292	VAL
1	B	298	VAL
1	B	299	GLN
1	B	306	LEU
1	B	315	LYS
1	B	343	ASN
1	B	344	LEU
1	B	361[A]	GLN
1	B	361[B]	GLN
1	B	363	GLN
1	B	375	LEU
1	B	383	LEU
1	B	384	GLU
1	B	389	VAL
1	B	392	GLU
1	B	395	ARG
1	B	397	GLU
1	B	404	THR
1	B	406	VAL
1	B	409	GLN
1	C	6	LEU
1	C	12	LEU
1	C	18	VAL
1	C	25	VAL

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Mol	Chain	Res	Type
1	C	38	ARG
1	C	40	VAL
1	C	42	LEU
1	C	51	ARG
1	C	55	VAL
1	C	75	VAL
1	C	82	ILE
1	C	88	SER
1	C	112	SER
1	C	113	LEU
1	C	122	VAL
1	C	150	LEU
1	C	151	GLU
1	C	155	CYS
1	C	166	VAL
1	C	200	ASP
1	C	202	ILE
1	C	238	ARG
1	C	253	VAL
1	C	254	ASP
1	C	259	LYS
1	C	280	LYS
1	C	292	VAL
1	C	298	VAL
1	C	299	GLN
1	C	306	LEU
1	C	315	LYS
1	C	320	SER
1	C	327	HIS
1	C	335	ARG
1	C	341	LEU
1	C	344	LEU
1	C	361	GLN
1	C	363	GLN
1	C	375	LEU
1	C	378	LEU
1	C	383	LEU
1	C	384	GLU
1	C	395	ARG
1	C	396	VAL
1	C	397	GLU
1	C	404	THR

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Mol	Chain	Res	Type
1	C	406	VAL
1	C	409	GLN
1	D	12	LEU
1	D	18	VAL
1	D	25	VAL
1	D	40	VAL
1	D	42	LEU
1	D	46	GLN
1	D	51	ARG
1	D	55	VAL
1	D	75	VAL
1	D	82	ILE
1	D	112	SER
1	D	113	LEU
1	D	122	VAL
1	D	123	SER
1	D	136	GLN
1	D	151	GLU
1	D	155	CYS
1	D	156	CYS
1	D	159	THR
1	D	166	VAL
1	D	200	ASP
1	D	202	ILE
1	D	238	ARG
1	D	244	VAL
1	D	253	VAL
1	D	254	ASP
1	D	263	GLU
1	D	280	LYS
1	D	292	VAL
1	D	298	VAL
1	D	299	GLN
1	D	306	LEU
1	D	315	LYS
1	D	341	LEU
1	D	344	LEU
1	D	361[A]	GLN
1	D	361[B]	GLN
1	D	363	GLN
1	D	375	LEU
1	D	378	LEU

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Mol	Chain	Res	Type
1	D	383	LEU
1	D	395	ARG
1	D	396	VAL
1	D	397	GLU
1	D	404	THR
1	D	406	VAL
1	D	409	GLN
1	E	12	LEU
1	E	18	VAL
1	E	25	VAL
1	E	40	VAL
1	E	42	LEU
1	E	46	GLN
1	E	51	ARG
1	E	55	VAL
1	E	75	VAL
1	E	82	ILE
1	E	112	SER
1	E	113	LEU
1	E	122	VAL
1	E	151	GLU
1	E	155	CYS
1	E	156	CYS
1	E	158	ARG
1	E	166	VAL
1	E	202	ILE
1	E	238	ARG
1	E	253	VAL
1	E	254	ASP
1	E	263	GLU
1	E	268	VAL
1	E	280	LYS
1	E	292	VAL
1	E	298	VAL
1	E	299	GLN
1	E	315	LYS
1	E	320	SER
1	E	327	HIS
1	E	341	LEU
1	E	344	LEU
1	E	361	GLN
1	E	363	GLN

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Mol	Chain	Res	Type
1	E	375	LEU
1	E	383	LEU
1	E	384	GLU
1	E	395	ARG
1	E	396	VAL
1	E	397	GLU
1	E	404	THR
1	E	406	VAL
1	E	409	GLN
1	F	6	LEU
1	F	12	LEU
1	F	18	VAL
1	F	21	GLU
1	F	25	VAL
1	F	38	ARG
1	F	42	LEU
1	F	46	GLN
1	F	51	ARG
1	F	55	VAL
1	F	67	LEU
1	F	75	VAL
1	F	82	ILE
1	F	112	SER
1	F	113	LEU
1	F	122	VAL
1	F	150	LEU
1	F	151	GLU
1	F	156	CYS
1	F	192	SER
1	F	202	ILE
1	F	204	ASN
1	F	238	ARG
1	F	253	VAL
1	F	263	GLU
1	F	280	LYS
1	F	292	VAL
1	F	298	VAL
1	F	299	GLN
1	F	303	ARG
1	F	315	LYS
1	F	320[A]	SER
1	F	320[B]	SER

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Mol	Chain	Res	Type
1	F	327	HIS
1	F	335	ARG
1	F	341	LEU
1	F	343	ASN
1	F	344	LEU
1	F	363	GLN
1	F	375	LEU
1	F	378	LEU
1	F	383	LEU
1	F	384	GLU
1	F	395	ARG
1	F	396	VAL
1	F	397	GLU
1	F	404	THR
1	F	406	VAL
1	F	409	GLN
1	G	6	LEU
1	G	16	ARG
1	G	18	VAL
1	G	25	VAL
1	G	40	VAL
1	G	42	LEU
1	G	46	GLN
1	G	51	ARG
1	G	55	VAL
1	G	75	VAL
1	G	82	ILE
1	G	112	SER
1	G	113	LEU
1	G	122	VAL
1	G	150	LEU
1	G	154	SER
1	G	155	CYS
1	G	156	CYS
1	G	166	VAL
1	G	202	ILE
1	G	204	ASN
1	G	238	ARG
1	G	253	VAL
1	G	263	GLU
1	G	280	LYS
1	G	292	VAL

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Mol	Chain	Res	Type
1	G	298	VAL
1	G	299	GLN
1	G	315	LYS
1	G	327	HIS
1	G	341	LEU
1	G	344	LEU
1	G	361	GLN
1	G	363	GLN
1	G	375	LEU
1	G	383	LEU
1	G	392	GLU
1	G	395	ARG
1	G	396	VAL
1	G	397	GLU
1	G	404	THR
1	G	406	VAL
1	G	409	GLN
1	H	6	LEU
1	H	12	LEU
1	H	18	VAL
1	H	25	VAL
1	H	40	VAL
1	H	42	LEU
1	H	46	GLN
1	H	51	ARG
1	H	55	VAL
1	H	75	VAL
1	H	82	ILE
1	H	112	SER
1	H	113	LEU
1	H	122	VAL
1	H	136	GLN
1	H	151	GLU
1	H	158	ARG
1	H	166	VAL
1	H	202	ILE
1	H	204	ASN
1	H	238	ARG
1	H	253	VAL
1	H	254	ASP
1	H	280	LYS
1	H	292	VAL

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Mol	Chain	Res	Type
1	H	298	VAL
1	H	299	GLN
1	H	306	LEU
1	H	315	LYS
1	H	327	HIS
1	H	341	LEU
1	H	344	LEU
1	H	361	GLN
1	H	363	GLN
1	H	375	LEU
1	H	378	LEU
1	H	383	LEU
1	H	384	GLU
1	H	395	ARG
1	H	396	VAL
1	H	397	GLU
1	H	404	THR
1	H	406	VAL
1	H	409	GLN
1	I	12	LEU
1	I	18	VAL
1	I	25	VAL
1	I	40	VAL
1	I	42	LEU
1	I	46	GLN
1	I	51	ARG
1	I	75	VAL
1	I	82	ILE
1	I	88	SER
1	I	112	SER
1	I	113	LEU
1	I	132	LYS
1	I	150	LEU
1	I	151	GLU
1	I	153	CYS
1	I	156	CYS
1	I	173	ARG
1	I	180	ILE
1	I	192	SER
1	I	202	ILE
1	I	204	ASN
1	I	238	ARG

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Mol	Chain	Res	Type
1	I	246	THR
1	I	253	VAL
1	I	254	ASP
1	I	263	GLU
1	I	280	LYS
1	I	292	VAL
1	I	298	VAL
1	I	299	GLN
1	I	315	LYS
1	I	327	HIS
1	I	341	LEU
1	I	344	LEU
1	I	361	GLN
1	I	363	GLN
1	I	375	LEU
1	I	383	LEU
1	I	396	VAL
1	I	397	GLU
1	I	404	THR
1	I	406	VAL
1	I	409	GLN
1	J	16	ARG
1	J	18	VAL
1	J	25	VAL
1	J	40	VAL
1	J	42	LEU
1	J	46	GLN
1	J	51	ARG
1	J	55	VAL
1	J	75	VAL
1	J	82	ILE
1	J	88	SER
1	J	112	SER
1	J	113	LEU
1	J	122	VAL
1	J	151	GLU
1	J	156	CYS
1	J	166	VAL
1	J	180	ILE
1	J	192	SER
1	J	202	ILE
1	J	204	ASN

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Mol	Chain	Res	Type
1	J	238	ARG
1	J	253	VAL
1	J	280	LYS
1	J	292	VAL
1	J	298	VAL
1	J	299	GLN
1	J	315	LYS
1	J	320	SER
1	J	327	HIS
1	J	341	LEU
1	J	344	LEU
1	J	361	GLN
1	J	363	GLN
1	J	375	LEU
1	J	383	LEU
1	J	397	GLU
1	J	404	THR
1	J	406	VAL
1	J	409	GLN
1	K	12	LEU
1	K	18	VAL
1	K	21	GLU
1	K	25	VAL
1	K	40	VAL
1	K	42	LEU
1	K	46	GLN
1	K	51	ARG
1	K	55	VAL
1	K	75	VAL
1	K	82	ILE
1	K	112	SER
1	K	113	LEU
1	K	122	VAL
1	K	132	LYS
1	K	150	LEU
1	K	156	CYS
1	K	158	ARG
1	K	166	VAL
1	K	180	ILE
1	K	192	SER
1	K	202	ILE
1	K	204	ASN

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Mol	Chain	Res	Type
1	K	238	ARG
1	K	253	VAL
1	K	254	ASP
1	K	263	GLU
1	K	280	LYS
1	K	292	VAL
1	K	298	VAL
1	K	299	GLN
1	K	306	LEU
1	K	315	LYS
1	K	327	HIS
1	K	335	ARG
1	K	344	LEU
1	K	361	GLN
1	K	363	GLN
1	K	375	LEU
1	K	378	LEU
1	K	383	LEU
1	K	384	GLU
1	K	395	ARG
1	K	396	VAL
1	K	397	GLU
1	K	404	THR
1	K	406	VAL
1	K	409	GLN
1	L	12	LEU
1	L	18	VAL
1	L	25	VAL
1	L	40	VAL
1	L	42	LEU
1	L	46	GLN
1	L	51	ARG
1	L	55	VAL
1	L	75	VAL
1	L	82	ILE
1	L	112	SER
1	L	113	LEU
1	L	122	VAL
1	L	126	ARG
1	L	154	SER
1	L	155	CYS
1	L	166	VAL

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Mol	Chain	Res	Type
1	L	202	ILE
1	L	204	ASN
1	L	238	ARG
1	L	253	VAL
1	L	254	ASP
1	L	263	GLU
1	L	280	LYS
1	L	291	SER
1	L	292	VAL
1	L	298	VAL
1	L	315	LYS
1	L	327	HIS
1	L	341	LEU
1	L	344	LEU
1	L	345	GLU
1	L	361	GLN
1	L	363	GLN
1	L	375	LEU
1	L	378	LEU
1	L	383	LEU
1	L	384	GLU
1	L	392	GLU
1	L	395	ARG
1	L	396	VAL
1	L	397	GLU
1	L	404	THR
1	L	406	VAL
1	L	409	GLN
1	M	18	VAL
1	M	25	VAL
1	M	38	ARG
1	M	40	VAL
1	M	42	LEU
1	M	46	GLN
1	M	51	ARG
1	M	55	VAL
1	M	67	LEU
1	M	75	VAL
1	M	82	ILE
1	M	112	SER
1	M	113	LEU
1	M	132	LYS

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Mol	Chain	Res	Type
1	M	153	CYS
1	M	154	SER
1	M	155	CYS
1	M	166	VAL
1	M	180	ILE
1	M	202	ILE
1	M	204	ASN
1	M	244	VAL
1	M	253	VAL
1	M	263	GLU
1	M	280	LYS
1	M	292	VAL
1	M	298	VAL
1	M	303	ARG
1	M	306	LEU
1	M	315	LYS
1	M	327	HIS
1	M	335	ARG
1	M	341	LEU
1	M	344	LEU
1	M	361	GLN
1	M	363	GLN
1	M	375	LEU
1	M	383	LEU
1	M	384	GLU
1	M	395	ARG
1	M	396	VAL
1	M	397	GLU
1	M	404	THR
1	M	406	VAL
1	M	409	GLN
1	N	6	LEU
1	N	12	LEU
1	N	16	ARG
1	N	18	VAL
1	N	25	VAL
1	N	40	VAL
1	N	42	LEU
1	N	46	GLN
1	N	51	ARG
1	N	55	VAL
1	N	62	CYS

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Mol	Chain	Res	Type
1	N	75	VAL
1	N	82	ILE
1	N	112	SER
1	N	132	LYS
1	N	135	SER
1	N	149	LEU
1	N	156	CYS
1	N	166	VAL
1	N	173	ARG
1	N	180	ILE
1	N	202	ILE
1	N	204	ASN
1	N	238	ARG
1	N	253	VAL
1	N	268	VAL
1	N	280	LYS
1	N	292	VAL
1	N	295	VAL
1	N	298	VAL
1	N	299	GLN
1	N	303	ARG
1	N	315	LYS
1	N	335	ARG
1	N	341	LEU
1	N	344	LEU
1	N	361	GLN
1	N	363	GLN
1	N	375	LEU
1	N	383	LEU
1	N	384	GLU
1	N	392	GLU
1	N	395	ARG
1	N	397	GLU
1	N	404	THR
1	N	406	VAL
1	N	409	GLN
1	O	12	LEU
1	O	16	ARG
1	O	18	VAL
1	O	25	VAL
1	O	40	VAL
1	O	42	LEU

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Mol	Chain	Res	Type
1	O	46	GLN
1	O	51	ARG
1	O	55	VAL
1	O	75	VAL
1	O	82	ILE
1	O	112	SER
1	O	113	LEU
1	O	122	VAL
1	O	155	CYS
1	O	156	CYS
1	O	166	VAL
1	O	180	ILE
1	O	202	ILE
1	O	204	ASN
1	O	238	ARG
1	O	253	VAL
1	O	263	GLU
1	O	280	LYS
1	O	292	VAL
1	O	298	VAL
1	O	299	GLN
1	O	303	ARG
1	O	315	LYS
1	O	327	HIS
1	O	341	LEU
1	O	344	LEU
1	O	345	GLU
1	O	361	GLN
1	O	363	GLN
1	O	375	LEU
1	O	383	LEU
1	O	384	GLU
1	O	395	ARG
1	O	396	VAL
1	O	397	GLU
1	O	404	THR
1	O	406	VAL
1	O	409	GLN
1	P	12	LEU
1	P	18	VAL
1	P	21	GLU
1	P	25	VAL

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Mol	Chain	Res	Type
1	P	40	VAL
1	P	42	LEU
1	P	46	GLN
1	P	51	ARG
1	P	55	VAL
1	P	75	VAL
1	P	82	ILE
1	P	112	SER
1	P	113	LEU
1	P	126	ARG
1	P	136	GLN
1	P	150	LEU
1	P	155	CYS
1	P	166	VAL
1	P	180	ILE
1	P	202	ILE
1	P	204	ASN
1	P	253	VAL
1	P	280	LYS
1	P	292	VAL
1	P	295	VAL
1	P	298	VAL
1	P	306	LEU
1	P	315	LYS
1	P	341	LEU
1	P	344	LEU
1	P	361	GLN
1	P	363	GLN
1	P	375	LEU
1	P	383	LEU
1	P	384	GLU
1	P	388	VAL
1	P	395	ARG
1	P	396	VAL
1	P	397	GLU
1	P	404	THR
1	P	406	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (71) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	10	ASN

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Mol	Chain	Res	Type
1	A	24	HIS
1	A	299	GLN
1	A	300	GLN
1	B	10	ASN
1	B	46	GLN
1	B	299	GLN
1	B	300	GLN
1	B	401	GLN
1	C	10	ASN
1	C	44	ASN
1	C	299	GLN
1	C	300	GLN
1	C	361	GLN
1	D	10	ASN
1	D	46	GLN
1	D	299	GLN
1	D	300	GLN
1	D	401	GLN
1	E	10	ASN
1	E	299	GLN
1	E	300	GLN
1	E	361	GLN
1	F	10	ASN
1	F	299	GLN
1	F	300	GLN
1	F	401	GLN
1	G	10	ASN
1	G	299	GLN
1	G	300	GLN
1	H	10	ASN
1	H	299	GLN
1	H	300	GLN
1	H	361	GLN
1	I	10	ASN
1	I	204	ASN
1	I	299	GLN
1	I	300	GLN
1	J	10	ASN
1	J	65	HIS
1	J	299	GLN
1	J	300	GLN
1	K	10	ASN

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Mol	Chain	Res	Type
1	K	223	ASN
1	K	299	GLN
1	K	300	GLN
1	K	361	GLN
1	L	10	ASN
1	L	24	HIS
1	L	204	ASN
1	L	299	GLN
1	L	300	GLN
1	L	361	GLN
1	M	10	ASN
1	M	204	ASN
1	M	299	GLN
1	M	300	GLN
1	M	361	GLN
1	N	10	ASN
1	N	204	ASN
1	N	299	GLN
1	N	300	GLN
1	N	361	GLN
1	O	10	ASN
1	O	204	ASN
1	O	299	GLN
1	O	300	GLN
1	P	10	ASN
1	P	204	ASN
1	P	299	GLN
1	P	300	GLN

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no monosaccharides in this entry.

5.6 Ligand geometry

Of 32 ligands modelled in this entry, 32 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

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, 95^{th} 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	405/423 (95%)	-0.12	9 (2%) 62 58	16, 50, 100, 117	0
1	B	405/423 (95%)	-0.04	10 (2%) 57 53	11, 48, 102, 119	0
1	C	406/423 (95%)	0.04	18 (4%) 34 31	14, 49, 104, 118	0
1	D	405/423 (95%)	-0.02	6 (1%) 73 71	14, 44, 98, 116	0
1	E	405/423 (95%)	0.03	10 (2%) 57 53	14, 47, 102, 119	0
1	F	405/423 (95%)	0.02	14 (3%) 44 40	15, 49, 99, 119	0
1	G	405/423 (95%)	0.08	20 (4%) 29 25	18, 50, 103, 136	0
1	H	405/423 (95%)	-0.02	8 (1%) 65 61	12, 46, 100, 119	0
1	I	405/423 (95%)	0.62	63 (15%) 2 1	28, 58, 106, 123	0
1	J	402/423 (95%)	0.59	64 (15%) 1 1	27, 60, 103, 121	0
1	K	403/423 (95%)	0.61	60 (14%) 2 1	25, 59, 103, 119	0
1	L	404/423 (95%)	0.67	69 (17%) 1 1	22, 61, 106, 133	0
1	M	406/423 (95%)	0.80	75 (18%) 1 1	23, 60, 107, 130	0
1	N	404/423 (95%)	0.51	52 (12%) 3 2	21, 58, 106, 121	0
1	O	401/423 (94%)	0.02	25 (6%) 20 17	22, 53, 103, 121	0
1	P	405/423 (95%)	0.19	29 (7%) 15 12	13, 51, 100, 121	0
All	All	6471/6768 (95%)	0.25	532 (8%) 11 9	11, 53, 103, 136	0

All (532) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	C	290	GLU	8.7
1	M	393	GLY	8.0
1	J	18	VAL	7.8
1	M	398	TYR	7.3
1	J	6	LEU	7.2

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Mol	Chain	Res	Type	RSRZ
1	G	392	GLU	6.8
1	I	40	VAL	6.7
1	O	289	PRO	6.7
1	K	18	VAL	6.6
1	M	392	GLU	6.6
1	I	152	PRO	6.4
1	M	297	SER	6.4
1	M	45	ALA	6.3
1	M	39	PRO	6.3
1	J	42	LEU	6.2
1	F	43	PRO	6.2
1	I	12	LEU	6.1
1	O	44	ASN	6.0
1	I	38	ARG	6.0
1	J	283	ALA	5.9
1	M	288	PRO	5.9
1	M	47	ALA	5.9
1	M	40	VAL	5.8
1	M	409	GLN	5.8
1	J	35	VAL	5.8
1	M	285	PHE	5.8
1	I	41	ASP	5.8
1	M	289	PRO	5.7
1	B	40	VAL	5.7
1	K	286	GLY	5.7
1	P	44	ASN	5.7
1	J	285	PHE	5.7
1	J	24	HIS	5.7
1	I	286	GLY	5.6
1	I	48	ILE	5.5
1	P	289	PRO	5.3
1	K	35	VAL	5.3
1	M	196	ALA	5.2
1	L	44	ASN	5.2
1	M	43	PRO	5.1
1	N	16	ARG	5.1
1	I	289	PRO	5.1
1	J	290	GLU	5.1
1	H	285	PHE	5.0
1	J	46	GLN	5.0
1	I	39	PRO	5.0
1	J	27	ILE	5.0

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Mol	Chain	Res	Type	RSRZ
1	J	25	VAL	4.9
1	L	369	VAL	4.9
1	G	283	ALA	4.9
1	L	15	GLU	4.8
1	K	288	PRO	4.8
1	K	281	HIS	4.8
1	M	298	VAL	4.7
1	N	289	PRO	4.7
1	C	288	PRO	4.7
1	M	33	VAL	4.6
1	C	283	ALA	4.6
1	I	288	PRO	4.6
1	J	39	PRO	4.6
1	K	285	PHE	4.6
1	C	292	VAL	4.6
1	I	18	VAL	4.6
1	N	45	ALA	4.6
1	L	386	ILE	4.5
1	M	44	ASN	4.5
1	M	292	VAL	4.5
1	L	18	VAL	4.5
1	L	383	LEU	4.5
1	M	291	SER	4.5
1	M	293	ALA	4.5
1	F	290	GLU	4.5
1	K	24	HIS	4.4
1	J	40	VAL	4.4
1	N	46	GLN	4.4
1	G	393	GLY	4.4
1	M	290	GLU	4.4
1	I	293	ALA	4.4
1	I	2	THR	4.4
1	I	295	VAL	4.4
1	J	52	GLY	4.4
1	M	384	GLU	4.4
1	F	286	GLY	4.3
1	I	285	PHE	4.3
1	P	283	ALA	4.3
1	O	45	ALA	4.3
1	J	41	ASP	4.3
1	M	295	VAL	4.3
1	M	48	ILE	4.3

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Mol	Chain	Res	Type	RSRZ
1	K	198	PRO	4.3
1	E	41	ASP	4.3
1	L	2	THR	4.3
1	A	44	ASN	4.2
1	K	196	ALA	4.2
1	K	282	GLY	4.2
1	L	296	ALA	4.2
1	I	50	VAL	4.1
1	J	45	ALA	4.1
1	K	290	GLU	4.1
1	I	35	VAL	4.1
1	I	364	LEU	4.1
1	J	289	PRO	4.1
1	M	49	ASP	4.1
1	O	286	GLY	4.1
1	L	400	LEU	4.1
1	B	41	ASP	4.1
1	N	383	LEU	4.1
1	C	289	PRO	4.1
1	L	29	GLY	4.0
1	K	295	VAL	4.0
1	L	284	GLU	4.0
1	O	41	ASP	4.0
1	I	408	ARG	4.0
1	K	287	MET	4.0
1	I	22	HIS	4.0
1	N	379	ASP	4.0
1	N	389	VAL	4.0
1	F	283	ALA	3.9
1	O	293	ALA	3.9
1	O	297	SER	3.9
1	K	398	TYR	3.9
1	N	385	ASP	3.9
1	M	370	GLY	3.9
1	N	6	LEU	3.9
1	N	286	GLY	3.9
1	N	395	ARG	3.9
1	I	6	LEU	3.8
1	N	408	ARG	3.8
1	C	153	CYS	3.8
1	M	7	GLN	3.8
1	L	384	GLU	3.8

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Mol	Chain	Res	Type	RSRZ
1	P	154	SER	3.8
1	L	35	VAL	3.8
1	L	16	ARG	3.8
1	J	48	ILE	3.7
1	I	16	ARG	3.7
1	M	55	VAL	3.7
1	N	40	VAL	3.7
1	C	282	GLY	3.7
1	K	46	GLN	3.7
1	L	153	CYS	3.7
1	I	51	ARG	3.7
1	O	392	GLU	3.7
1	J	51	ARG	3.7
1	I	52	GLY	3.7
1	L	403	GLY	3.7
1	C	287	MET	3.6
1	G	295	VAL	3.6
1	K	293	ALA	3.6
1	L	395	ARG	3.6
1	G	155	CYS	3.6
1	P	46	GLN	3.6
1	N	255	GLU	3.6
1	B	39	PRO	3.6
1	I	14	LEU	3.6
1	N	41	ASP	3.5
1	N	54	THR	3.5
1	H	286	GLY	3.5
1	J	22	HIS	3.5
1	P	285	PHE	3.5
1	G	46	GLN	3.5
1	N	405	LEU	3.5
1	I	49	ASP	3.5
1	I	17	GLY	3.5
1	J	44	ASN	3.5
1	J	369	VAL	3.5
1	G	290	GLU	3.5
1	N	307	GLU	3.5
1	N	297	SER	3.5
1	L	43	PRO	3.5
1	L	409	GLN	3.5
1	I	196	ALA	3.4
1	K	45	ALA	3.4

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Mol	Chain	Res	Type	RSRZ
1	N	47	ALA	3.4
1	A	153	CYS	3.4
1	K	297	SER	3.4
1	I	287	MET	3.4
1	L	283	ALA	3.4
1	K	254	ASP	3.4
1	I	294	LYS	3.4
1	L	49	ASP	3.4
1	I	43	PRO	3.4
1	N	39	PRO	3.4
1	L	347	LEU	3.4
1	M	6	LEU	3.4
1	P	295	VAL	3.4
1	K	283	ALA	3.4
1	P	282	GLY	3.4
1	F	41	ASP	3.4
1	J	398	TYR	3.3
1	N	298	VAL	3.3
1	I	42	LEU	3.3
1	M	18	VAL	3.3
1	N	26	VAL	3.3
1	M	338	ALA	3.3
1	M	278	LEU	3.3
1	M	37	ASP	3.3
1	I	4	THR	3.3
1	K	199	THR	3.3
1	N	22	HIS	3.3
1	L	3	ILE	3.3
1	C	28	ASP	3.3
1	D	391	ASP	3.3
1	K	28	ASP	3.3
1	P	41	ASP	3.3
1	M	42	LEU	3.3
1	L	46	GLN	3.3
1	K	195	VAL	3.2
1	G	286	GLY	3.2
1	I	384	GLU	3.2
1	I	47	ALA	3.2
1	J	254	ASP	3.2
1	J	50	VAL	3.2
1	P	286	GLY	3.2
1	M	156	CYS	3.2

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Mol	Chain	Res	Type	RSRZ
1	K	277	ALA	3.2
1	I	290	GLU	3.2
1	N	290	GLU	3.2
1	N	388	VAL	3.2
1	K	279	ALA	3.2
1	I	282	GLY	3.2
1	N	12	LEU	3.2
1	G	297	SER	3.2
1	I	53	LYS	3.2
1	I	394	ALA	3.2
1	L	370	GLY	3.2
1	J	55	VAL	3.2
1	J	7	GLN	3.2
1	N	292	VAL	3.1
1	K	33	VAL	3.1
1	F	38	ARG	3.1
1	F	42	LEU	3.1
1	K	260	LEU	3.1
1	G	292	VAL	3.1
1	I	153	CYS	3.1
1	P	38	ARG	3.1
1	L	282	GLY	3.1
1	K	38	ARG	3.1
1	L	392	GLU	3.1
1	I	3	ILE	3.1
1	K	19	LEU	3.1
1	K	278	LEU	3.1
1	K	289	PRO	3.1
1	M	36	THR	3.1
1	J	381	ASN	3.1
1	K	383	LEU	3.1
1	L	40	VAL	3.0
1	C	51	ARG	3.0
1	L	398	TYR	3.0
1	N	25	VAL	3.0
1	L	382	PRO	3.0
1	M	408	ARG	3.0
1	K	154	SER	3.0
1	K	314	VAL	3.0
1	M	11	VAL	3.0
1	N	203	ALA	3.0
1	N	400	LEU	3.0

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Mol	Chain	Res	Type	RSRZ
1	L	304	GLU	3.0
1	O	290	GLU	3.0
1	E	155	CYS	3.0
1	M	20	LEU	3.0
1	P	293	ALA	3.0
1	L	48	ILE	3.0
1	P	408	ARG	3.0
1	M	195	VAL	3.0
1	A	38	ARG	2.9
1	P	292	VAL	2.9
1	P	279	ALA	2.9
1	I	292	VAL	2.9
1	L	41	ASP	2.9
1	C	3	ILE	2.9
1	L	51	ARG	2.9
1	O	285	PHE	2.9
1	J	28	ASP	2.9
1	H	44	ASN	2.9
1	I	24	HIS	2.9
1	K	47	ALA	2.9
1	P	152	PRO	2.9
1	J	288	PRO	2.9
1	J	361	GLN	2.8
1	L	39	PRO	2.9
1	M	383	LEU	2.8
1	J	391	ASP	2.8
1	L	408	ARG	2.8
1	C	295	VAL	2.8
1	I	283	ALA	2.8
1	J	26	VAL	2.8
1	M	281	HIS	2.8
1	M	41	ASP	2.8
1	M	46	GLN	2.8
1	I	300	GLN	2.8
1	N	378	LEU	2.8
1	O	42	LEU	2.8
1	I	45	ALA	2.8
1	N	398	TYR	2.8
1	L	343	ASN	2.8
1	K	26	VAL	2.8
1	O	40	VAL	2.8
1	I	398	TYR	2.8

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Mol	Chain	Res	Type	RSRZ
1	E	39	PRO	2.8
1	J	370	GLY	2.8
1	K	16	ARG	2.8
1	L	152	PRO	2.7
1	M	376	VAL	2.7
1	M	394	ALA	2.7
1	O	39	PRO	2.7
1	N	344	LEU	2.7
1	G	41	ASP	2.7
1	J	53	LYS	2.7
1	K	37	ASP	2.7
1	N	24	HIS	2.7
1	H	51	ARG	2.7
1	D	284	GLU	2.7
1	A	295	VAL	2.7
1	I	297	SER	2.7
1	L	289	PRO	2.7
1	L	278	LEU	2.7
1	M	283	ALA	2.7
1	J	362	GLY	2.7
1	G	293	ALA	2.7
1	M	279	ALA	2.7
1	M	38	ARG	2.7
1	I	199	THR	2.7
1	I	198	PRO	2.7
1	M	16	ARG	2.7
1	I	46	GLN	2.7
1	N	10	ASN	2.7
1	J	3	ILE	2.7
1	J	284	GLU	2.7
1	K	284	GLU	2.7
1	P	281	HIS	2.7
1	L	14	LEU	2.7
1	J	367	ILE	2.7
1	L	27	ILE	2.7
1	O	283	ALA	2.6
1	L	266	ALA	2.6
1	M	388	VAL	2.6
1	I	21	GLU	2.6
1	P	392	GLU	2.6
1	I	36	THR	2.6
1	J	29	GLY	2.6

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Mol	Chain	Res	Type	RSRZ
1	E	40	VAL	2.6
1	J	281	HIS	2.6
1	M	377	VAL	2.6
1	G	154	SER	2.6
1	K	369	VAL	2.6
1	L	285	PHE	2.6
1	F	154	SER	2.6
1	N	48	ILE	2.6
1	G	289	PRO	2.6
1	J	16	ARG	2.6
1	K	292	VAL	2.6
1	M	399	VAL	2.6
1	L	391	ASP	2.6
1	E	38	ARG	2.6
1	F	51	ARG	2.6
1	L	45	ALA	2.6
1	L	307	GLU	2.6
1	M	284	GLU	2.6
1	I	391	ASP	2.6
1	A	393	GLY	2.6
1	B	2	THR	2.5
1	K	280	LYS	2.5
1	G	284	GLU	2.5
1	J	49	ASP	2.5
1	L	292	VAL	2.5
1	J	47	ALA	2.5
1	A	286	GLY	2.5
1	M	294	LYS	2.5
1	M	255	GLU	2.5
1	I	393	GLY	2.5
1	J	293	ALA	2.5
1	M	35	VAL	2.5
1	M	329	PHE	2.5
1	J	70	ASN	2.5
1	I	379	ASP	2.5
1	O	38	ARG	2.5
1	C	52	GLY	2.5
1	J	4	THR	2.5
1	L	372	ILE	2.5
1	C	291	SER	2.5
1	K	29	GLY	2.5
1	J	400	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
1	L	405	LEU	2.5
1	M	19	LEU	2.5
1	L	295	VAL	2.5
1	P	62	CYS	2.5
1	I	278	LEU	2.4
1	K	44	ASN	2.4
1	H	290	GLU	2.4
1	L	21	GLU	2.4
1	L	6	LEU	2.4
1	L	31	ARG	2.4
1	J	21	GLU	2.4
1	J	20	LEU	2.4
1	P	16	ARG	2.4
1	B	42	LEU	2.4
1	I	405	LEU	2.4
1	K	12	LEU	2.4
1	L	404	THR	2.4
1	N	50	VAL	2.4
1	J	30	GLU	2.4
1	B	46	GLN	2.4
1	K	52	GLY	2.4
1	L	10	ASN	2.4
1	I	291	SER	2.4
1	N	409	GLN	2.4
1	M	62	CYS	2.4
1	P	319	GLY	2.4
1	L	30	GLU	2.4
1	M	301	LYS	2.4
1	J	255	GLU	2.4
1	J	397	GLU	2.4
1	K	51	ARG	2.4
1	N	55	VAL	2.4
1	N	406	VAL	2.4
1	M	286	GLY	2.3
1	G	16	ARG	2.3
1	J	32	ILE	2.3
1	E	319	GLY	2.3
1	E	392	GLU	2.3
1	I	397	GLU	2.3
1	K	53	LYS	2.3
1	K	384	GLU	2.3
1	I	19	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
1	L	42	LEU	2.3
1	P	260	LEU	2.3
1	B	38	ARG	2.3
1	M	385	ASP	2.3
1	J	282	GLY	2.3
1	L	57	PRO	2.3
1	J	257	ALA	2.3
1	M	369	VAL	2.3
1	F	409	GLN	2.3
1	O	292	VAL	2.3
1	M	29	GLY	2.3
1	J	23	HIS	2.3
1	O	398	TYR	2.3
1	N	377	VAL	2.3
1	P	198	PRO	2.2
1	K	255	GLU	2.2
1	L	280	LYS	2.2
1	L	379	ASP	2.2
1	L	50	VAL	2.2
1	I	44	ASN	2.2
1	B	155	CYS	2.2
1	E	3	ILE	2.2
1	K	27	ILE	2.2
1	P	317	GLY	2.2
1	A	42	LEU	2.2
1	A	289	PRO	2.2
1	K	22	HIS	2.2
1	L	22	HIS	2.2
1	O	52	GLY	2.2
1	J	34	GLU	2.2
1	K	3	ILE	2.2
1	M	311	ASN	2.2
1	F	16	ARG	2.2
1	K	264	HIS	2.2
1	P	43	PRO	2.2
1	J	36	THR	2.2
1	F	15	GLU	2.2
1	M	313	GLY	2.2
1	L	55	VAL	2.2
1	M	32	ILE	2.2
1	C	281	HIS	2.2
1	F	289	PRO	2.2

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Mol	Chain	Res	Type	RSRZ
1	P	153	CYS	2.2
1	L	385	ASP	2.2
1	N	279	ALA	2.2
1	M	154	SER	2.2
1	M	340	VAL	2.2
1	N	53	LYS	2.2
1	I	9	GLY	2.2
1	P	288	PRO	2.2
1	K	41	ASP	2.2
1	K	296	ALA	2.2
1	M	4	THR	2.2
1	O	51	ARG	2.2
1	N	280	LYS	2.1
1	K	5	VAL	2.1
1	O	2	THR	2.1
1	N	202	ILE	2.1
1	O	384	GLU	2.1
1	A	285	PHE	2.1
1	M	287	MET	2.1
1	O	36	THR	2.1
1	D	409	GLN	2.1
1	O	361	GLN	2.1
1	E	320	SER	2.1
1	D	28	ASP	2.1
1	J	395	ARG	2.1
1	L	24	HIS	2.1
1	M	24	HIS	2.1
1	N	19	LEU	2.1
1	B	289	PRO	2.1
1	G	288	PRO	2.1
1	J	31	ARG	2.1
1	K	240	VAL	2.1
1	N	375	LEU	2.1
1	O	43	PRO	2.1
1	L	47	ALA	2.1
1	H	292	VAL	2.1
1	K	11	VAL	2.1
1	L	344	LEU	2.1
1	G	62	CYS	2.1
1	G	47	ALA	2.1
1	N	294	LYS	2.1
1	C	285	PHE	2.1

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Mol	Chain	Res	Type	RSRZ
1	H	392	GLU	2.1
1	J	37	ASP	2.1
1	N	285	PHE	2.1
1	O	298	VAL	2.1
1	D	153	CYS	2.1
1	D	155	CYS	2.1
1	B	290	GLU	2.1
1	F	292	VAL	2.0
1	N	288	PRO	2.0
1	N	367	ILE	2.0
1	C	155	CYS	2.0
1	C	392	GLU	2.0
1	G	153	CYS	2.0
1	J	311	ASN	2.0
1	L	311	ASN	2.0
1	J	33	VAL	2.0
1	P	63	HIS	2.0
1	M	312	ALA	2.0
1	E	2	THR	2.0
1	P	320	SER	2.0
1	H	287	MET	2.0
1	K	234	ARG	2.0
1	M	15	GLU	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 monosaccharides in this entry.

6.4 Ligands (i)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
2	ZN	F	426	1/1	0.83	0.32	51,51,51,51	1
2	ZN	O	426	1/1	0.83	0.28	58,58,58,58	1
2	ZN	I	426	1/1	0.85	0.19	58,58,58,58	1
2	ZN	M	425	1/1	0.88	0.20	50,50,50,50	1
2	ZN	N	426	1/1	0.89	0.31	55,55,55,55	1
2	ZN	N	425	1/1	0.89	0.29	41,41,41,41	1
2	ZN	P	425	1/1	0.90	0.30	47,47,47,47	1
2	ZN	K	425	1/1	0.91	0.23	55,55,55,55	1
2	ZN	M	426	1/1	0.92	0.36	63,63,63,63	1
2	ZN	J	425	1/1	0.93	0.23	60,60,60,60	1
2	ZN	E	426	1/1	0.93	0.41	45,45,45,45	1
2	ZN	L	426	1/1	0.93	0.31	63,63,63,63	1
2	ZN	L	425	1/1	0.94	0.28	55,55,55,55	1
2	ZN	D	426	1/1	0.94	0.32	33,33,33,33	1
2	ZN	H	426	1/1	0.95	0.28	39,39,39,39	1
2	ZN	J	426	1/1	0.95	0.31	68,68,68,68	1
2	ZN	F	425	1/1	0.95	0.26	52,52,52,52	1
2	ZN	K	426	1/1	0.95	0.11	68,68,68,68	1
2	ZN	C	426	1/1	0.96	0.27	38,38,38,38	1
2	ZN	D	425	1/1	0.96	0.21	34,34,34,34	1
2	ZN	A	426	1/1	0.96	0.23	52,52,52,52	1
2	ZN	B	425	1/1	0.96	0.25	44,44,44,44	1
2	ZN	P	426	1/1	0.96	0.37	59,59,59,59	1
2	ZN	B	426	1/1	0.97	0.24	44,44,44,44	1
2	ZN	O	425	1/1	0.97	0.30	50,50,50,50	1
2	ZN	I	425	1/1	0.97	0.20	42,42,42,42	1
2	ZN	C	425	1/1	0.97	0.29	42,42,42,42	1
2	ZN	G	425	1/1	0.97	0.27	40,40,40,40	1
2	ZN	G	426	1/1	0.98	0.23	37,37,37,37	1
2	ZN	A	425	1/1	0.98	0.24	51,51,51,51	1
2	ZN	E	425	1/1	0.98	0.27	43,43,43,43	1
2	ZN	H	425	1/1	0.99	0.28	40,40,40,40	1

6.5 Other polymers (i)

There are no such residues in this entry.